

Anna Jean Cummings Water Line Replacement Project

PROJECT # 2026-RP0038

GENERAL AND SUPPLEMENTAL CONDITIONS

Volume I of III

COUNTY OF SANTA CRUZ, CALIFORNIA

GENERAL SERVICES DEPARTMENT

Board Approval Date: 9/15/2026

PROPOSALS DUE:	October 15, 2026 – 2:00pm
PROJECT #:	2026-RP0038
VOLUME I:	General and Supplemental Conditions
VOLUME II:	Plans & Technical Specifications
VOLUME III:	Bid Proposal



COUNTY of SANTA CRUZ

GENERAL SERVICES DEPARTMENT

701 Ocean Street, Room 330, Santa Cruz, Ca 95060-4073

(831) 454-2210 FAX: (831) 454-2710 TDD/TTY: 711

GSD_INFODESK@SANTACRUZCOUNTY.US

KIMBERLY FINLEY- DIRECTOR

September 15, 2026

Engineer's Estimate: \$277,000

NOTICE TO CONTRACTORS

Anna Jean Cummings Water Line Replacement Project

PROJECT # 2026-RP0038

Proposals will **only** be received electronically by the Santa Cruz County General Services Department (GSD). **No in-person bids will be accepted.**

Electronic Submittals to OpenGov Procurement:

- Submit proposals up to, but no later than **2:00 p.m. PDT on October 15, 2026**, at <https://procurement.opengov.com/portal/santacruzcounty>

Site Visit

Mandatory pre-bid site visit on September 22, 9am at 461 Soquel San Jose Rd, Soquel, CA 95073.

Questions:

Any pre-bid questions concerning the scope of work, bid process, required submittals, evaluation criteria, bid schedule, and selection process should be sent through the online procurement portal at <https://procurement.opengov.com/portal/santacruzcounty>. DO NOT email inquiries. All pre-bid questions must be received no later than October 5, 2026 at 5:00pm.

Bid Opening:

- GSD will conduct bid openings through the videoconferencing platform, Microsoft Teams, instead of in-

person attendance. Bid results will be posted to the online procurement portal after bid opening.

- Bids will be opened by GSD staff and tabulated after said date and time.
- To view the live bid opening please go to:
Topic: Bid Opening for Anna Jean Cummings Water Line Replacement Project
Project
Date and Time: October 15, 2026 at 2:00pm

Microsoft Teams meeting

Join on your computer or mobile app

Teams Link

<https://teams.microsoft.com/meet/236552560670786?p=YpHqEHoDlYPqPqSblQ>

Meeting ID: 236 552 560 670 786

Passcode: 3Qj2Jy9h

Teams Audio Call-In # [+1 831-454-2222](tel:+18314542222)

Phone Conference ID: 494 110 087#

This Project is for licensed contractors with a Class A license and associated sub-contractor classifications as relevant to project scope. The scope of work consists of installation of a new 925 lineal foot water line, including connection to existing water lines, demolition, concrete replacement, and associated site preparation.

The Contractor shall complete all or any designated portions of the work called for under the contract in all parts and requirements within 60 calendar days (except as modified in the technical specifications). The County of Santa Cruz and its Board of Supervisors reserves the right to reject any or all bids received as the public good may require.

Plans and specifications, dated 3/27/2026, have been prepared by Bowman & Williams, 3949 Research Park Court, Suite 100, Soquel California 95073.

Each contractor shall include in their bid all labor, tools, and materials for a complete and working Project for each trade component in conformance with the intent shown on the plans and specifications and specified herein.

Plans, Specifications, and Proposal forms to be used for bidding on this project can be obtained online by visiting the Santa Cruz County General Services Department home page at [Construction Projects - Out to Bid \(santacruzcountycalifornia.gov\)](http://santacruzcountycalifornia.gov) or can also be downloaded in PDF format, online at <https://procurement.opengov.com/portal/santacruzcounty>. There is no fee for bid documents obtained online. Alternatively, bidders may request to pick up one hard copy set at the County of Santa Cruz, General Services Department, 701 Ocean Street, Room 330, Santa Cruz, California, 95060-4073. A non-refundable fee of the actual cost of reproduction (approximately \$4.50 per 30x42 sheet) is required per set of bid documents. Mailing costs will be charged an extra \$10.00 per set. Any request for bid documents must be accompanied by a check for the correct charges. A returned check will be subject to an additional fee of \$40.00.

Prospective bidders must be fully qualified, licensed, certified, and insured to perform all the work requested. All work performed must meet all current applicable laws and regulations.

In accordance with SB854:

- 1) No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) 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)).
- 2) No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations

pursuant to Labor Code section 1725.5.

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

INTERPRETATION OF DOCUMENTS: If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the specifications or omissions from the drawings or specifications, he/she may submit to the Owner's Representative a written request through the online procurement portal for an interpretation or correction thereof. Any interpretation or correction of the proposed documents will be made only by addendum duly issued through the online procurement portal. In the case of an inconsistency between or among any Drawings or Specifications, or within any such document, where such inconsistency is not clarified by an addendum, the Architect's interpretation of those documents shall control, so as to provide what the Architect considers to be the better quality, and/or the higher quantity of the Work provided for in the Drawings or Specifications. The Owner will not be responsible for any other explanations or interpretations of the proposed documents.

Each bidder must submit a bid proposal for the Project for which they intend to bid to the General Services Department on the standard forms enclosed. Said proposal shall be accompanied by a cashier's check, a certified check, or bidder's bond of ten percent (10%) of the amount of the bid submitted, to be made payable to the County of Santa Cruz. Bid bonds shall be issued by a corporate surety duly admitted and authorized to issue bonds and undertakings by the State of California.

Bid guarantee must be received before the bid opening date. Mail bid guarantee to:

County of Santa Cruz
General Services Department
Attn: Luna Harter
Bid Bond for Anna Jean Cummings Water Line Replacement Project
701 Ocean Street, Room 330
Santa Cruz, CA 95060

Pursuant to Section 1700, and following, of the California Labor Code, the Contractor shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. Copies of such prevailing rate of per diem wages are available at the following web site: <https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Those copies shall be made available to any interested party upon request. The Contractor shall forfeit, as penalty, to the County of Santa Cruz, fifty dollars (\$50.00) for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for any work done under the contract by it or by any subcontractor under it, in violation of the provisions of such Labor Code.

Pursuant to Santa Cruz County Code Chapter 2.33, Contractors and Subcontractors must make good faith efforts to hire Monterey Bay area residents in sufficient numbers so that no less than 50 percent (50%) of the Contractor's total construction work force, including any subcontractor's workforce, measured in labor work hours is comprised of Monterey Bay area residents. This public works construction project is covered by Chapter 2.33 of the Santa Cruz County Code, and the entire chapter, as amended, is incorporated by reference into the Project's specifications and conditions.

Any bid proposal, or other response to a solicitation for bid or proposal which proposes or calls for the use of any tropical hardwood or tropical wood products in performance of the contract shall be deemed nonresponsive pursuant to County Code Section 2.37.107.

Each Bidder shall submit the certification required by the Iran Contracting Act of 2010, Public Contract Code section 2200 et seq. with its bid.

PROJECT DIRECTORY

OWNER:

County of Santa Cruz
General Services Department
701 Ocean Street, Room 330
Santa Cruz, CA 95060
T (831) 454-2210
Contact: Michael Hettenhausen
Michael.Hettenhausen@santacruzcountyca.gov

ENGINEER:

Bowman & Williams
3949 Research Park Court, Suite 100
Soquel California 95073
T (831) 462-3560
Contact: Kerri Brennan P.E.
kerri@bowmanandwilliams.com

INSTRUCTIONS TO BIDDERS

1) All portions of the Bid Proposal must be completed before the bid is submitted. Failure to do so may result in the bid being rejected as nonresponsive. Attached to and submitted with this Bid Proposal, bidder must provide:

- 1) Bid Form
- 2) Bid Schedule
- 3) Bidders Bond;
- 4) Names and Titles Form;
- 5) Completed Noncollusion Affidavit signed by bidder;
- 6) Statement of Compliance;
- 7) Designation of Subcontractors;
- 8) Bidder's Qualifications;
- 9) the Guaranty;
- 10) Iran Contracting Act Certification;
- 11) Contractor's Certification of Good-Faith Effort to Employ Monterey Bay Area Residents;
- 12) Detailed preliminary work schedule if the bidder plans to complete the Project before the completion date specified in the contract documents; and
- 13) Acknowledgment of Addenda, if any.
- 14) (optional) Contractor Qualifications Questionnaire

Failure to submit all required documents may result in the bid being rejected as nonresponsive.

2) An original of the Bid Proposal is not required. All bids shall be submitted through the online procurement system currently utilized by the County of Santa Cruz, as outlined in Volume III of the bid documents.

3) The County of Santa Cruz has constructed other public works projects throughout the County of Santa Cruz and obtained reports and other information in the course of the design and construction of those other public works construction projects, all of which may contain facts that may materially affect bidders' bids. Bidders are strongly encouraged to inspect applicable County of Santa Cruz reports, records, and documents. Said reports and documents will be made available upon written request at the County of Santa Cruz, Community Development and Infrastructure Department, 701 Ocean Street, Room 410, Santa Cruz, California, 95060 for inspection and copying at bidders' sole cost and expense, during normal working hours.

4) If a pre-bid conference has been scheduled at the site of the work, all bidders, subcontractors, material suppliers, and others who may be working on the Project are strongly encouraged to attend this pre-bid conference. Due to the facts and circumstances of this particular Project, the on-site pre-bid conference may be the only opportunity to conduct the pre-bid investigation of the site and satisfy the pre-bid obligations set forth in these Contract Documents. **If a bidder (or others) attend the entirety of a scheduled pre-bid on-site conference and need additional time to complete their investigation of the site or other pre-bid obligations set forth in these Contract Documents, bidder must notify the County of Santa Cruz in writing, via the online procurement portal, within three days of the on-site pre-bid conference, to request additional time to complete its investigation of the site.** The request must include an estimate of the amount of additional time required by the bidder at the site. The County of Santa Cruz retains discretion to determine additional time requirements, if any.

5) Investigations of subsurface conditions or otherwise, are made for the purpose of design, and the County General and Supplemental Conditions

of Santa Cruz assumes no responsibility whatsoever with respect to the sufficiency or accuracy of borings, the log of test borings, or other preliminary investigations, or of the interpretation thereof, and there is no guaranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the work, or any part of it, or that unanticipated conditions may not occur. When a log of test borings or other report is made available to Contractor or included in the Contract Documents, it is expressly understood and agreed that said log of test borings or other reports does not constitute a part of the Contract, and represents only an opinion of the County of Santa Cruz as to the character of the materials to be encountered, and is made available or included in the Contract Documents only for the convenience of the bidders. Bidders must satisfy themselves, through their own investigation, as to conditions to be encountered.

6) The bidder and subcontractors must meet the following requirements:

- a) No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) 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)).
- b) No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- c) This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

7) In addition to other minimum qualifications, the County of Santa Cruz has determined that the successful low bidder must demonstrate to the satisfaction of the County of Santa Cruz, the following minimum experience to be qualified to perform the work described in the Contract Documents:

- a. Have possessed a valid, active and in good standing, State of California Department of Consumer Affairs, Contractor's License Board license, appropriate for trade being bid, for a minimum of five (5) continuous years prior to the date of bid opening.
- b. Not have any pending disciplinary proceedings or investigations by the Contractor's State License Board.
- c. Currently (as of the date of bid opening) or within the past year, not have any suspensions, disbarments, or similar proceedings (including stipulated agreements), restricting, limiting or prohibiting Bidder from bidding or performing other public works projects for any other public agency.

8) Following the opening of bids, the County of Santa Cruz may request in writing that the apparent low bidder complete the Contractor Qualifications Questionnaire included in these Contract Documents and furnish all required supporting documentation to enable the County of Santa Cruz to determine whether the apparent low bidder is qualified to perform the work described in the Contract Documents. By submission of a bid, Bidder agrees to complete the Contractor Qualifications Questionnaire, furnish all required attachments, sign the Contractor Qualifications Questionnaire, all in strict conformance with the requirements of the Contract Documents and Contractor Qualifications Questionnaire, and return to the County of Santa Cruz within seven (7) working days of County of Santa Cruz's written request. If bidder fails or refuses to complete the Contractor Qualifications Questionnaire, furnish all required attachments, sign the Contractor Qualifications Questionnaire, or return it to the County of Santa Cruz within seven (7) working days of date of dispatch of County of Santa Cruz's written request, bidder may not be considered for award of the contract, and further, bidder agrees that the County of Santa Cruz may either award the work to another bidder or call for new bids. In such event, the bidder shall be liable to the County of Santa Cruz for the difference between the amount of the

disqualified bid and the larger amount for which the County of Santa Cruz procures the work plus all of the County of Santa Cruz's costs, damages, expenses, and liabilities arising from bidder's failure to sign the Contract and/or furnish the required documents.

9) If for any reason the County of Santa Cruz elects to not award the contract to the apparent low bidder, the County of Santa Cruz may request in writing that the apparent second lowest bidder complete the Contractor Qualifications Questionnaire and furnish all required supporting documentation to enable the County of Santa Cruz to determine whether the second low bidder is qualified to perform the work described in the Contract Documents. If for any reason the County of Santa Cruz elects to not award the contract to the apparent second lowest bidder, the County of Santa Cruz may request the third lowest bidder complete the Contractor Qualifications Questionnaire and furnish all required supporting documentation, and so on.

10) If the County of Santa Cruz receives from a bidder within the time set forth in these Contract Documents, a complete Contractor Qualifications Questionnaire and all required supporting documentation as required by the Contract Documents, and if the County of Santa Cruz determines that a bidder is not qualified to perform the work required by the Contract Documents, and if the County of Santa Cruz elects to not award the Contract to that bidder, the County of Santa Cruz will promptly return that bidder's bid security.

11) Bid protests shall be filed before 5:00 p.m. in writing with the Director of the General Services Department, County of Santa Cruz, 701 Ocean St., Room 330, Santa Cruz, California, 95060, by certified or registered mail, not later than three (3) working days after posting of the Notice of Intent to Award. The protest shall specify the reasons and facts upon which the protest is based. The protest shall include the name, address, and telephone number of the person representing the protesting party. The party filing the protest shall concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest which may be adversely affected by the outcome of the protest. The procedure and time limits set forth in this paragraph are mandatory and are the Bidder's sole and exclusive remedy in the event of bid protest and failure to comply with these procedures shall constitute a waiver of any right to further pursue the bid protest, including filing a Government Code claim or any legal proceedings.

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GENERAL CONDITIONS

1) BASIC DEFINITIONS:

- A. The term "Change Order" shall refer to a written agreement in the form included in these Contract Documents, signed by the County, Owner's Representative, and Contractor, modifying the Contract.
- B. The term "Claim" (see Paragraph 39).
- C. The term "Construction Change Directive" (C.C.D.) shall refer to a written directive, signed by County, directing Contractor to perform and/or omit certain work as specified within the Construction Change Directive. The Contractor shall promptly comply with the Construction Change Directive and promptly perform and/or omit the work specified in the Construction Change Directive.
- D. The term "Contract" means the Contract Documents.
- E. The term "Contract Documents" consists of all documents listed in Paragraph 2, Contract Documents, of these General and Supplemental Conditions.
- F. The term "Contract Sum" means the total compensation specified in the Contract. The Contract Sum may be adjusted by Change Order.
- G. The term "Contract Time" means the number of days set forth in the Bid Proposal within which the full completion of the Contractor's work must be achieved. The Contract Time may be adjusted by Change Order.
- H. The term "Contractor" means the person or firm identified as such in the Contract, or its authorized representative.
- I. The term "County" means the County of Santa Cruz, its trustees, officers, and employees.
- J. The term "Owner's Representative" means the County of Santa Cruz, its officers, employees, and designees. The County may, at any time, without prior notice to or approval by Contractor, replace Owner's Representative with a new Owner's Representative. Upon Contractor's receipt of notice from County of such replacement, Contractor shall recognize such person or firm as Owner's Representative for all purposes under the Contract Documents.
- K. The term "Project" means the total of the Work and obligations agreed to be performed by Contractor under the Contract.
- L. The term "day" means a calendar day unless otherwise specifically noted.
- M. "Substantial Completion" is defined as the stage of completion of the Work such that the Work is sufficiently complete to allow the Project to be used for its intended purpose. The County shall have sole discretion to determine whether the Work has achieved Substantial Completion.
- N. "Final Completion" is defined as completion of the Work in strict accordance with this Contract and the Contract Documents. The County shall have sole discretion to determine whether the Work has achieved Final Completion.
- O. "Work" is a component task or tasks of the Project necessary for the Project's completion.

2) CONTRACT DOCUMENTS: The Contract Documents consist of the Notice To Contractors, Project Directory, Instructions To Bidders, Bid Form, List of Subcontractors, Noncollusion Declaration, Index to General Conditions, General Conditions, Supplemental Conditions, Sample Payment Bond, Sample Faithful Performance Bond, Designation of Subcontractors, Sample Contractor Qualifications Questionnaire, Guaranty Form, Verification of Certified Payroll Records Submittal to Labor Commissioner, Iran Contracting Act Certification, Contractor's Certification of Good-Faith Effort to employ Monterey Bay Area Residents; Plans and Specifications for the Project; any addenda issued; Change Orders; and any other documents described as such within these

Contract Documents.

3) EXAMINATION OF CONTRACT DOCUMENTS AND SITE OF WORK: Each bidder shall examine carefully the site of the Work and the Contract Documents, and shall satisfy itself as to the character, quality, and quantity of the surface and subsurface materials or obstacles to be encountered.

The submission of a bid proposal shall be conclusive evidence that the Contractor has satisfied itself through Contractor's own investigation as to the conditions to be encountered; the character, quality, and scope of work to be performed; the materials and equipment to be furnished; and all requirements of the Contract Documents.

Where investigations of subsurface conditions have been made with respect to foundation or other structural design, and that information is made available to Contractor or shown in the Contract Documents, said information represents only the statement as to the character of materials which have been actually encountered by it in its investigation, and is only made available or included for the convenience of bidders.

Investigations of subsurface conditions are made for the purpose of design, and the County assumes no responsibility whatsoever with respect to the sufficiency or accuracy of borings, the log of test borings, or other preliminary investigations, or of the interpretation thereof, and there is no guaranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the Work, or any part of it, or that unanticipated conditions may not occur. When a log of test borings is made available to Contractor or included in the Contract Documents, it is expressly understood and agreed that said log of test borings does not constitute a part of the Contract, and represents only an opinion of the County as to the character of the materials to be encountered, and is made available or included in the Contract Documents only for the convenience of the bidders. Making such information available to bidders is not to be construed in any way as a waiver of the provisions of the first two paragraphs of this section, and bidders must satisfy themselves, through their own investigations, as to conditions to be encountered.

The Contractor shall promptly, and before the following conditions are disturbed, notify the County and Owner's Representative, in writing, of any:

- A. Material that the Contractor believes may be material that is hazardous waste, as defined in Section 25117 of the Health and Safety Code, that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law, including but not limited to PCB's, lead or asbestos.
- B. Subsurface or latent physical conditions at the site differing from those indicated.
- C. Unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract.

The County shall promptly cause an investigation of the conditions, and if it finds that the conditions do materially so differ, or do involve hazardous waste, and cause a decrease or increase in the Contractor's cost of, or the time required for, performance of any part of the work, shall issue a Change Order or Construction Change Directive.

In the event that a dispute arises between the County and the Contractor whether the conditions materially differ, or involve hazardous waste, or cause a decrease or increase in the Contractor's cost of, or time required for, performance of any part of the Work, the Contractor shall not be excused from any scheduled completion date required by the Contract, but shall proceed with all Work to be performed under the Contract.

Nothing contained within this Section or the Contract Documents relieves the Contractor of its obligations set forth in the first two paragraphs of this Section.

4) ADDENDA: If discrepancies or apparent errors are found in the Contract Documents prior to the date of bid opening, bidders shall submit a written request for clarification, which response to said request will be given in the form of addenda to all bidders, if time permits. Otherwise, in figuring the Work, bidders shall consider that any discrepancies or conflict between Contract Documents shall be governed by Paragraph 21, Intent of Plans and Specifications, and Paragraph 26, Conformance with Codes and Standards, of the General Conditions.

The correction of any discrepancies in, or omissions from the drawings, specifications, or other Contract Documents, or any interpretation thereof, during the bidding period will be made only by an addendum issued by the Owner's Representative. Each such addendum issued by the Owner's Representative shall be made a part of the Contract. Any other interpretation or explanation of such documents will not be considered binding.

5) PROPOSAL: The Contractor's shall be submitted through the online procurement system currently utilized by the County of Santa Cruz, as outlined in Volume III of the bid documents.

6) LIST OF SUBCONTRACTORS: In accordance with California Public Contract Code, Chapter 4 (commencing with Section 4100), Part 1, Division 2 of the Public Contract Code of the State of California (Subletting and Subcontracting Fair Practices Act), each proposal shall have listed on the form provided with the proposal: (a) the name and location of the place of business and the California contractor license number 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 (0.5%) of the prime contractor's total bid, and (b) the portion of the Work which will be done by each subcontractor. The Contractor shall list only one subcontractor for each such portion as defined by the Contractor in Contractor's bid.

An inadvertent error in listing the California contractor license number provided pursuant to the paragraph above shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the County by the prime contractor in writing within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.

In accordance with SB854:

- a. No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) 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).
- b. No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- c. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

If Contractor fails to specify a subcontractor for any portion of the Work to be performed under this Contract in excess of one-half of one percent (0.5%) of the total bid, Contractor agrees to perform that portion itself.

7) WITHDRAWAL OF PROPOSAL: A proposal may be withdrawn at any time prior to the hour fixed in the Notice to Contractors for the opening of bids by a written request of the bidder, filed with the County. The withdrawal of a bid will not prejudice the right of a bidder to file a new proposal within the time prescribed.

8) OPENING OF PROPOSALS: Proposals will be opened and then read publicly at the time and place indicated in the Notice to Contractors, or as soon thereafter as is reasonable. Bidders or their representatives and others interested are invited to be present.

9) BIDDER'S BOND: The proposal must be accompanied by a bidder's bond, certified check, or cashier's check in an amount not less than ten percent (10%) of the amount bid. The bidder's bond must be signed in favor of the County, and the certified check or cashier's check must be made payable to the County of Santa Cruz. The Contractor shall pay to the County such sums from said bond, certified check, or cashier's check as necessary to reimburse the County for costs incurred for failure of the successful bidder to complete, sign and return in strict compliance with these Contract Documents, if requested to do so, Contractor Qualifications Questionnaire, or enter into a contract. The amount of said bond, certified check, or cashier's check shall not be deemed to constitute a penalty or liquidated damages. The County shall not be precluded by such bond, certified check, or cashier's check from recovering from the defaulting bidder damages in excess of the amount of said bond, certified check, or cashier's check incurred as a result of the failure of the successful bidder to complete, sign and return in strict compliance with these Contract Documents, if requested to do so, Contractor Qualifications Questionnaire, or enter into a contract.

10) CONSIDERATION OF PROPOSALS: After the proposals have been opened and read, they will be checked for accuracy and compliance with these Contract Documents.

Bid prices shall include everything necessary for the completion of fulfillment of the Contract, including, but not limited to, furnishing all materials, equipment, tools, labor and services, except as may be provided otherwise in the Contract Documents. When a price is quoted in both words and figures, the words shall prevail in case of a discrepancy.

Bid prices shall include allowance for all taxes, including, but not limited to, all Federal, State, and local taxes.

The County reserves the right to reject any and all proposals; to waive any minor irregularity in a bid; and to accept one schedule of a proposal and reject another.

11) COMPETENCY OF BIDDER: The bidder shall be licensed under the provisions of Chapter 9, Division 3, of the Business and Professions Code of the State of California to do the type of Work contemplated in the Project and shall be skilled and regularly engaged in the general class or type of Work called for under this contract.

12) DISQUALIFICATION OF BIDDERS: More than one proposal from Prime Contractors, under the same or different names, will not be considered. Reasonable grounds for believing that any bidder is interested in more than one proposal for the Work will cause the rejection of all proposals in which such bidder is interested. If there is reason to believe that collusion exists among the bidders, none of the participants in such collusion will be considered. Any proposal in which the prices obviously are unbalanced may be rejected.

13) RELIEF OF BIDDERS: Attention is directed to the provisions of Public Contract Code section 5100, and following, concerning relief of bidders, and in particular to the requirement therein that if the bidder claims a mistake was made in Contractor's bid, the bidder shall give the County written notice within five (5) working days after opening of the bids of the alleged mistake, specifying in the notice in detail how the mistake occurred.

14) AWARD OF CONTRACT: Award of the Contract, if awarded at all, will be to the lowest responsible bidder whose proposal complies with the specified requirements. The award, if it is awarded, will be made by the County within sixty (60) days after opening of the proposals. If the bid includes prices for items that may be added to, or deducted from, the scope of work in the contract for which the bid is being submitted, the County shall determine the lowest bid in a manner that prevents any information that would identify any of the bidders or proposed subcontractors or suppliers from being revealed to

the County before the ranking of all bidders from lowest to highest has been determined. For this Project: The lowest bid shall be the lowest total of the bid prices on the base contract.

See bid form for details regarding selection of the lowest responsive bidder.

15) RETURN OF PROPOSAL GUARANTEES: When the award of the contract has been made, the proposal guarantees accompanying the three lowest bids shall be retained. All other guarantees for bids not to be further considered in making the award will be returned. The retained guarantees will be returned when the Contract has been fully signed.

16) SIGNING OF CONTRACT: A Contract shall be signed by the successful bidder in duplicate on the form provided and returned to the County, within ten (10) working days from the date the Contract forms are dispatched by the County with the Notice of Award. After signing by the County, one copy shall be returned to the Contractor.

If the bidder to whom the award is made fails or refuses to enter into the Contract within ten (10) working days from the date the Contract forms are dispatched by the County with the Notice of Award, Paragraph 9, Bidder's Bond, of these General Conditions shall apply. The County may then award the Contract to the next lowest responsible bidder. This will be done after the failure or refusal of the low bidder to enter into the Contract, as is convenient for the County. If the next lowest responsible bidder fails or refuses to enter into the Contract, then Paragraph 9, Bidder's Bond, of these General Conditions shall apply. The County may then award the Contract to the next lowest responsible bidder.

17) CONTRACT BONDS: Within ten (10) working days of County's dispatch of Notice of Award, the Contractor shall furnish corporate surety bonds to the benefit of the County, issued by a surety company acceptable to the County and authorized and admitted to do business in the State of California, as follows:

A. Faithful Performance Bond -- In a sum not less than one hundred percent (100%) of the total contract price as set forth in the Contract to guarantee the Contractor's faithful performance of all covenants and stipulations of the Contract, including the designated guarantee period. The bond shall contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California. If there is an extension to the project schedule, the bond shall be extended to cover the schedule extension and associated extension of the guarantee period.

B. Payment Bond -- In a sum not less than one hundred percent (100%) of the total contract price as set forth in the Contract to guarantee the payment of wage, and bills contracted for materials, supplies, or equipment used in the performance of the Contract. The bond shall be in accordance with the provisions of Sections 3225, 3226, and 3247 to 3252, inclusive, of the Civil Code of the State of California, and Section 13020 of the Unemployment Insurance Code of the State of California. Said bond shall also contain a provision that the surety thereon waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

Faithful Performance Bond and Payment Bond samples are contained within these Contract Documents.

18) NOTIFICATION OF SURETY COMPANIES: The surety companies shall familiarize themselves with all provisions and conditions of the Contract. It is understood and agreed that the surety or sureties waive the right of special notification of any modifications or alterations, omissions or reductions, extra or additional work, extensions of time, or any other act or acts by the County or its authorized agents under the terms of the Contract; and failure to so notify the surety companies of such changes shall in no way relieve the surety or sureties of their obligations under this Contract. The surety expressly waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

19) INSURANCE: Within ten (10) days of County's dispatch of Notice of Award, the Contractor shall furnish a Certificate of Insurance substantiating the fact that Contractor has taken out the insurance

hereinafter set forth for the period covered by the Contract with an insurance carrier acceptable to the County and under terms satisfactory to the County. Insurance industry's standard Accord Certificate of Insurance or binder forms shall bear an endorsement precluding the cancellation or reduction of coverage of any policy covered by such Certificate or binder before the expiration of thirty (30) days after the County shall have received notification of such cancellation, suspension, reduction, or voided coverage. Contractor shall immediately furnish copies of its insurance policies required under this Contract to the County upon request. In the event Contractor does not have a Certificate of Insurance or binder evidencing the proper insurance coverages, the Contractor shall not be allowed on the work site.

All insurance policies shall by endorsement include the County of Santa Cruz, its trustees, officers, employees, agents, inspectors, construction managers, project managers, consultants, subconsultants, their employees, and each of them, as additional insureds to protect, as well as to provide the defense of, from all suits, actions, damages, liability, or claims of every type and description to which they may be subjected or put by reason of, or resulting from, the Contractor's performance of the Contract. Contractor's insurance shall apply as primary insurance, and any other insurance carried by the additional insureds identified above shall apply as excess and will not contribute with this insurance.

Each insurance policy shall include the following provisions: (1) The standard severability of interest clause in the policy and when applicable the cross liability insurance coverage provision which specifies that the inclusion of more than one insured shall not operate to impair the rights of one insured against another insured, and the coverages afforded shall apply as though separate policies had been issued to each insured; (2) It acts as primary insurance, and that no insurance held or owned by the County shall be called upon to cover, either in full or in part, any loss covered under the policy acquired by Contractor; and (3) The stated limits of liability coverage for Commercial/Comprehensive General Liability, and Business Automobile Liability, assumes that the standard "supplementary payments" clause will pay in addition to the applicable limits of liability and that these supplementary payments "are not included as part of the insurance policies limits of liability." If any of the policies indicate that defense costs are included in the general aggregate limit, then the required general aggregate limits shall be a minimum of \$2,000,000 or more at the County's discretion.

If any insurance policy of Contractor required by these Contract Documents includes language conditioning the insurer's legal obligation to defend or indemnify the County of Santa Cruz on the performance of any act(s) by the named insured, then said insurance policy, by endorsement, shall also name the County of Santa Cruz as a named insured. Notwithstanding the forgoing, both the Contractor and its insurers agree that by naming the County of Santa Cruz as a named insured, the County of Santa Cruz may at its sole discretion, but is not obligated to, perform any act required by the named insured under said policies.

Contractor shall do all things required to be performed by it pursuant to its insurance policies including but not limited to paying within five (5) workdays, all deductibles and self-insured retentions (SIR) required to be paid under any insurance policy that may provide defense or indemnity coverage to County or any additional insured.

If the Contractor fails to maintain such insurance, the County may take out insurance to cover damages of the below-mentioned classes for which the County might be held liable on account of the Contractor failing to pay such damages and deduct and retain the amount of the premium for such insurance from any sums due the Contractor under the Contract. Failure of the County to obtain such insurance shall in no way relieve the Contractor from any of its responsibilities under the Contract.

The minimum insurance coverages to be obtained by the Contractor as hereinabove referred to are as follows:

A. Commercial/Comprehensive General Liability Insurance (Insurance Services Organization, Inc. form GL-00-02, Ed. 01-73); Bodily Injury and Property Damage Liability Insurance for

Premises and Operations; Personal Injury for Premises and Operations; Independent Contractors; Incidental Contracts; Contractual Liability; Broad Form Comprehensive General Liability Endorsement (Insurance Services Organization, Inc. form GL-04-04, Ed. 5-81); and Products and Completed Operations which shall be in the amount of not less than a combined single limit of \$1,000,000 per occurrence for one or more persons injured and property damaged on an occurrence form insurance policy. The aggregate limit of liability for products and completed operations may be \$2,000,000.

B. Business Automobile Liability Policy Insurance: Protection against loss as a result of liability to others caused by an accident and resulting in bodily injury and/or property damage, arising out of the ownership or use of any automobile. The limits of liability shall not be less than \$1,000,000 combined single limit each accident for bodily injury and property damage combined.

C. Workers' Compensation and Employers' Liability Insurance: The Contractor shall be a qualified self-insurer or shall carry full Workers' Compensation and Employers' Liability insurance coverage, either through the State Compensation Insurance Fund or a standard approved policy obtained from a licensed insurance carrier for all persons employed, either directly or through subcontractors, in carrying out the Work under this Contract in accordance with the "Workers' Compensation and Insurance Act," Division IV thereof. Employers' limits of liability shall be the prevailing statutory limits of liability.

Any exceptions to the provisions of this section must be delineated in the Contract Documents. In addition, it is understood and agreed that an excess insurance policy or an umbrella policy (following form) may be utilized to meet the above-required limits of liability for Commercial/Comprehensive General Liability, Business Automobile Liability policy, and the Workers' Compensation Employers' Liability.

20) PRE-CONSTRUCTION CONFERENCE: Prior to the start of construction, a conference will be called by the County or Owner's Representative for the purpose of reviewing the construction program with the Contractor. At this conference, the sequence of Work, methods of access to the construction site and temporary facilities shall be reviewed by the Contractor and County. Coordination of utilities within the Project limits, including relocations and maintenance of existing facilities and additions thereto, shall be confirmed in writing by utility representatives and the Contractor at this conference, or within five (5) working days thereafter.

21) INTENT OF PLANS AND SPECIFICATIONS: It is the intent of these Contract Documents that the Work performed under the Contract shall result in a complete operating system in satisfactory working condition with respect to the functional purposes of the installation, and no extra compensation will be allowed for anything omitted but fairly implied. The prices paid for the various items in the proposal shall include full compensation for furnishing all labor, materials, tools, equipment, overhead, profit, incidentals, and doing all Work necessary to complete the finished product as provided in the Contract Documents.

The specifications and drawings are intended to be explanatory of each other. Any Work shown on the drawings, and not in the specifications, or vice versa, is to be treated as if indicated in both. In the case of conflict or inconsistency, the Supplementary Conditions (if any) shall control over the General Conditions, the General Conditions shall control over the Technical Specifications, and the Technical Specifications shall control over the drawings. Figured dimensions shall control over scaled measurements. In all cases, the more costly or expensive interpretation is deemed to control and be the interpretation incorporated into the Contract Documents and Contract Sum.

Organization of the specifications into various subdivisions and the arrangement of the drawings shall not control Contractor in dividing the Work among subcontractors or in establishing the extent of Work to be performed by any trade.

Unless otherwise stated in the Contract Documents, technical words and abbreviations contained in the Contract Documents are used in accordance with commonly understood construction

industry meanings, and nontechnical words and abbreviations are used in accordance with their commonly understood meanings.

The Contract Documents may omit modifying words such as "all" and "any", and articles such as "the" and "an", but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement. The use of the word "including," when following any general statement, shall not be construed to limit such statement to specific items or matters set forth immediately following such word or to similar items or matters, whether or not nonlimiting language (such as "without limitation," "but not limited to," or words of similar import) is used with reference thereto, but rather shall be deemed to refer to all other items or matters that could reasonably be deemed to fall within the broadest possible scope of such general statement.

Whenever the context so requires, the use of the singular number shall be deemed to include the plural and vice versa. Each gender shall be deemed to include any other gender, and each shall include corporation, partnership, trust, or other legal entity whenever the context so requires. The captions and headings of the various subdivisions of the Contract Documents are intended only as a matter of reference and convenience, and in no way define, limit, or prescribe the scope or intent of the Contract Documents or any subdivision thereof.

Contractor shall assume responsibility for design of systems and fabrications needed to meet performance criterion described in the Contract Documents. Design by Contractor shall include, but is not limited to, concrete form work, casework joinery, fire sprinkler systems, mechanical and electrical systems represented diagrammatically on Contract Drawings. Design shall be governed by descriptive criterion specified for each item. Contractor shall also assume responsibility for temporary structures used to implement construction such as shoring and scaffolding.

22) CLARIFICATION OF CONTRACT DOCUMENTS: Should it appear that the Work to be done, or any of the matters relative thereto, are not sufficiently detailed or explained in the Contract Documents, or in the event of any doubt or question arising respecting the true meaning of the Contract Documents, the Contractor shall apply to the Owner's Representative for such further explanations as may be necessary. The Contractor shall thoroughly review all Requests for Information (RFI's) submitted by subcontractors prior to submission to the Owner's Representative to determine whether such RFI's are already answered in the Contract Documents. Contractor represents to County and Owner's Representative, that by submission of an RFI, Contractor has thoroughly reviewed the RFI and thoroughly reviewed the Contract Documents, and determined that the RFI is not answered or reasonably inferable in the Contract Documents, and that the RFI pertains to an unforeseen condition or circumstance that is not described in the Contract Documents, that there is a conflict or discrepancy in the Contract Documents, or there is an omission in the Contract Documents. In the event any RFI is answered or reasonably inferable from the Contract Documents, Contractor agrees to pay the Owner's Representative and County and the County's consultants the reasonable cost for their time and expenses associated with reviewing and responding to RFI's which are already answered or reasonably inferable from the Contract Documents. In the event of a disagreement over such compensation, the judgment of the Owner's Representative shall control.

23) PLANS AND SPECIFICATIONS TO BE FURNISHED: The Contractor will be furnished, free of charge, *one (1)* copy of the Contract Documents. The Contractor shall retain an approved complete set of Contract Documents on the job at all times during the progress of the Work.

24) SUPPLEMENTAL DRAWINGS AND INSTRUCTIONS: In addition to the drawings incorporated in the Contract at the time of signing, the architect or engineer may furnish such working drawings and supplemental drawings from time to time as may be necessary to make clear, or to define in greater detail, the intent of the Contract drawings and specifications. In furnishing such additional drawings and/or instructions, the architect or engineer shall have authority to make minor changes in the Work, not involving extra cost, and not inconsistent with the nature of the Work. These working drawings and supplemental drawings shall become a part of the Contract Documents, and the Contractor shall make its Work conform to them.

25) Reserved

26) CONFORMANCE WITH CODES AND STANDARDS: All Work and materials shall be in full accordance with the latest adopted standards and regulations of the State Fire Marshal; the California Building Code, the Uniform Building Code; the National Electrical Code; the Uniform Plumbing Code; Americans with Disabilities Act; Cal OSHA; and all other applicable codes, laws, or regulations. Nothing in these Contract Documents is to be construed to permit Work not conforming to these requirements. Contractor agrees that immediately upon signing of the Contract, Contractor will diligently review the Contract Documents and determine if any Work described or inferred within the Contract Documents is not in conformance with these requirements. Should Contractor discover Work within the Contract Documents not in conformance with these requirements, Contractor agrees to immediately notify Owner's Representative in writing of said nonconformance, and to not proceed with nonconforming Work. When the Work detailed in the Contract Documents differs from governing codes, it is understood and agreed that the Contract Sum is based upon the more costly or expensive standard.

27) PERSONAL ATTENTION AND SUPERINTENDENCE: The Contractor shall give Contractor's personal attention to and shall supervise the Work to the end that it shall be faithfully prosecuted. Contractor shall keep on the Work at all times throughout its progress, a competent superintendent who shall represent the Contractor in Contractor's absence and shall have complete authority to represent and act for the Contractor. Whenever the Contractor or Contractor's superintendent is not present on a particular part of the Work, the Owner's Representative or County may stop the Work until the Contractor or Contractor's superintendent arrives.

The Contractor shall be liable for the faithful observation of any instructions delivered to Contractor or to Contractor's authorized representatives. Any order given by the Construction Manager or Owner's Representative not otherwise required by the specifications to be in writing will, on request of the Contractor, be given or confirmed by the Construction Manager or Owner's Representative in writing.

CONTRACTOR'S SUPERINTENDENT

A. The Contractor shall employ a competent superintendent, experienced in similar type & scale projects and necessary assistants who shall be in attendance at the Project site during the progress of the Work. The Superintendent shall be satisfactory to both the County and the Owner's Representative and shall not be changed except with the consent of the County and the Owner's Representative. The Superintendent shall represent the Contractor and all communications given by or to the Superintendent shall be binding as if given to the Contractor. Important communications will be confirmed in writing. For the purposes of this section the term Superintendent means the person at the site that is in charge of the construction project and who represents the contractor at project meetings.

If, in the County and Owner's Representative's opinion, the superintendent fails to provide the specified level of competency the Owner's Representative will inform the Contractor, in writing, that they must replace the superintendent. The Owner's Representative decision in matters relating to this will be final if consistent with the intent of the Contract Documents.

The Contractor's superintendent is required to be on site any day during which Work occurs, whether it is by the Contractor's own forces or those of their sub-contractors. The parties agree that in the event Contractor fails to comply with this section, it would be difficult for the County to determine its actual damages; therefore, Contractor agrees to pay County, as liquidated damages, the sum of five hundred dollars (\$500.00), which Contractor agrees is reasonable under the circumstances, for each and every calendar day which Contractor fails to have such superintendent on the site for a portion of the day during the progress of the Work. Such penalty shall not apply to temporary, short-term absences approved in advance by the County or Owner's Representative.

28) BEGINNING OF WORK: The Notice to Proceed shall constitute authority for the Contractor to enter upon the site of the work and to begin operations, upon condition that the Contractor has strictly

complied with all requirements of these Contract Documents, including but not limited to, furnishing all required documentation and certificates of insurance. If Contractor has not provided County with all documents required by these Contract Documents as of the date of the Notice to Proceed, Contractor shall not be allowed on the site of the work or allowed to start Work on the Project, notwithstanding the issuance of a Notice to Proceed.

When the Contractor has started Work on the Project, the Contractor shall diligently prosecute the Work to completion within the time limit provided in the Contract Documents.

The Contractor shall give the County and Owner's Representative at least two (2) working days' notice of Contractor's intention to start work, specifying the time, date, and location at which the Contractor intends to begin.

Contract time shall begin on the date stipulated in the Notice to Proceed, whether or not Contractor is allowed on the work site due to Contractor's failure to furnish County with all documentation required by these Contract Documents. In no event shall there be a period of time greater than forty (40) days, from the time the Contract is dispatched by the County to the Contractor and the commencement of the Contract Time, regardless of the receipt or lack thereof by County of all documents required by these Contract Documents.

29) PROGRESS SCHEDULE: The County's receipt of a proposed progress schedule and monthly updated progress schedules, all in strict compliance with these Contract Documents shall be conditions precedent to the Owner's Representative's or County's approval of the Contractor's periodic pay requests and/or the County's obligation to request payment be issued to Contractor.

Contractor shall submit a detailed Baseline Schedule in a format acceptable to the County within ten (10) working days of the Notice of Award.

Schedule submittals must be provided as both electronic copies in native schedule format (software designed for preparing a critical path schedule such as Microsoft Project, Primavera, etc.) and as a formatted Adobe PDF file.

No schedule submittals that show a completion date past the approved project completion date (as amended by approved change orders) will be accepted by the Owner's Representative.

Contractor shall maintain a current working critical path schedule posted in the construction office updated weekly showing progress, activities planned, impacts, etc.

The Contractor shall, to every reasonable extent, carry on the work of construction of the various elements of the Project concurrently, and shall not defer construction of any portion of the Work in favor of any other portion without the express written approval of the Owner's Representative or County.

30) RESPONSIBILITY FOR ACCURACY: The Contractor shall obtain all necessary measurements for and from the Work, and shall check dimensions, elevations, and grades for all layout and construction work and shall supervise such work, the accuracy for all of which Contractor shall be responsible. Each subcontractor shall adjust, correct, and coordinate Contractor's Work with the Work of others so that no discrepancies will result in the whole Work.

Contractor shall be responsible for verifying that all information and data contained and set forth in all of Contractor's submittals that may be required by the Contract Documents, comply in all respects with the Contract Documents.

31) EFFECT OF INSPECTION OR USE: Neither the inspection by an inspector, County, Owner's Representative, construction manager, architect, engineer, or anyone acting in their behalf, nor any measurement, approved modification, submittal, shop drawing, order, or certificate, nor acceptance of any part or whole of the Work, or payment of money, nor any possession or use by the County or its agents, shall operate as a waiver of any provisions of the Contract or of any power or authority

reserved therein, or of any right to damages thereunder; nor shall the waiver of any breach of this Contract be held to be a waiver of any subsequent or other breach.

32) INSPECTION: All Work done and all materials and equipment furnished under this Contract shall be subject to the inspection and approval of the Owner's Representative, Construction Manager and/or County. They shall at all times have access to the Work during its construction, and shall be furnished with every reasonable facility and assistance for ascertaining that the materials and workmanship are in accordance with the requirements and intent of the Contract Documents. Any Work constructed without inspection as provided above, except with the specific written consent or approval of the Owner's Representative and Construction Manager, or constructed contrary to the instructions or orders of the Owner's Representative, Construction Manager, or his or her authorized representative, must, if requested by the Owner's Representative or County, be uncovered for examination and properly restored at the Contractor's expense.

The inspection of the Work by County, the County's inspector(s), Construction Manager, architect, engineer, consultants or anyone acting in their behalf, does not relieve the Contractor of any of Contractor's obligation to fulfill the Contract as prescribed. Any Work, materials, or equipment not meeting the requirements and intent of the Contract Documents shall be rejected, and unsuitable Work or materials shall be made good, notwithstanding the fact that such Work or materials may have previously been inspected or approved and payment therefor may have been made. If nonconforming Work, materials, or equipment not meeting the requirements and intent of the Contract Documents is discovered, and the Contractor fails to remedy the nonconforming Work, materials, or equipment, or the County agrees in writing to accept the nonconforming Work, materials, or equipment, Contractor agrees to sign a Change Order or otherwise reimburse County in a sum equal to the cost to remedy the nonconforming Work, materials, or equipment. It is expressly understood and agreed that the County will be entitled to recover from Contractor the full cost of remedying nonconforming Work, materials, or equipment, and that diminution in value will not be considered as a method for valuing the County's damages for nonconforming Work, materials, or equipment, and further that the doctrine of economic waste will not be a defense to the County's recovery from Contractor of the full and complete cost and expense of remedying nonconforming Work, materials, or equipment.

Re-examination of any Work may be ordered by the County, Construction Manager and/or the Owner's Representative, and such Work must be uncovered by the Contractor. The Contractor shall pay the entire cost of such uncovering, re-examination, and replacement if the Work does not conform to the Contract Documents.

33) REMOVAL OF REJECTED MATERIALS OR WORK: The Contractor shall, upon request and without delay, remove from the site of the Work, all rejected or condemned materials of any kind brought to, or incorporated in, the Work. No such rejected or condemned materials shall again be offered for use in any Work under the Contract. All Work which has been rejected shall be remedied, or removed and replaced, by the Contractor in a manner acceptable to the County at Contractor's expense.

Upon failure of the Contractor to comply within forty-eight (48) hours with any written order of the County or Owner's Representative made under this section, or to make satisfactory progress in so doing, the County may cause such rejected materials to be removed, or such rejected Work to be remedied, or removed and replaced, and deduct and retain the costs from any sums due or to become due to the Contractor.

34) USE OF COMPLETED PORTIONS: The County shall have the right at any time during the progress of this Work to take over and place in service any completed or partially completed portion of the Work, notwithstanding the time for completion of the entire Work or such portions which may not have expired; but such taking possession thereof shall not be deemed an acceptance of any of the Work, nor Work on those portions not completed in accordance with the Contract Documents.

35) MEANS AND METHODS: Neither Owner's Representative nor County will have control over, be in charge of, nor be responsible for construction means, methods, techniques, sequences, or procedures, or for the safety precautions and programs in connection with the Work, since these are solely Contractor's responsibility, unless otherwise required by the Contract Documents.

36) DELAYS: The Contractor agrees to complete all of its Work required in the Contract Documents, or any subsequent revisions or modifications thereto, within the time specified in the Bid Proposal, subject to Change Orders increasing or decreasing the time specified. It is agreed by the parties to this Contract that time is of the essence to the performance of this Contract by Contractor, and that in case all Work called for under the Contract is not completed in all respects and requirements within the time called for in the Contract Documents, plus any agreed upon extensions of time, damage will be sustained by the County.

37) Reserved

38) EFFECT OF EXTENSION OF TIME: The granting of an extension of time for the completion of the Work on account of delays which, in the judgment of the County, are unavoidable delays, or granted for the performance of extra or additional Work, shall in no way operate as a waiver on the part of the County of any of its rights under this Contract.

39) CLAIMS: A Claim is any request by Contractor to adjust, alter, modify, or otherwise change the Contract Sum or the Contract Time, or both. A Claim must be stated with specificity, including identification of the event or occurrence giving rise to the Claim, the date of the event, and the asserted effect on the Contract Sum and the Contract Time, if any. The Claim shall include adequate supporting data. Adequate supporting data for a Claim for an adjustment of the Contract Time shall include scheduling data demonstrating the impact of the event on the critical path and completion of the Project. Adequate supporting data for a Claim for an adjustment in the Contract Sum shall include a detailed cost breakdown of items included within the Claim and documentation supporting each item of cost.

Contractor shall submit all Claims to the County before proceeding to perform the Work, or portions of the Work, giving rise to such Claim. Contractor hereby expressly waives any Claims of which Contractor was aware, whether or not the exact amounts of such Claims were ascertainable, and that are not submitted to the County prior to Contractor proceeding to perform the Work, or portions of the Work, giving rise to such Claims.

All Claims shall be submitted to County and Owner's Representative for decision within fifteen (15) days after the event or occurrence giving rise to the Claim. Contractor hereby expressly waives all Claims not made within the aforesaid time limit.

EARLY COMPLETION: Regardless of the cause therefore, the Contractor may not maintain any Claim or cause of action against the Owner for damages incurred as a result of Contractor's failure or inability to Complete its Work on the Project in a shorter period than established in the Contract Documents, the parties stipulating that the period set forth in the Contract Documents is a reasonable time within which to perform the Work on the Project.

Claims must be submitted to County before the date of final payment. Contractor hereby expressly waives all Claims not submitted, in complete and proper form, on or before the date of final payment.

Contractor expressly waives any Claims for delay or adjustment to the Contract Time if the Contractor fails to provide written notice to County within three (3) days of the event or occurrences giving rise to the delay. Said written notice shall include the event or occurrence giving rise to the delay, the estimated duration of the delay, and the impact of the event or occurrence upon the critical path and completion of the Project. Contractor will not be entitled to adjustments to the Contract Time for delays attributable to weather, unless such delays are attributable to weather which is abnormal and

delays the completion of the Project. Abnormal is to be based upon locally recognized annual weather patterns for the month in which the abnormal weather occurs.

As used herein, the following terms shall have the following meanings:

"Excusable Delay" means any delay of the completion of the Project beyond the expiration of the Contract Time caused by conditions beyond the control and without the fault or negligence of the Contractor such as strikes, embargoes, fire, unavoidable casualties, unusual delays in transportation, national emergency, and stormy and inclement weather conditions in which the Work cannot continue. The financial inability of the Contractor or any subcontractor and default of any subcontractor, without limitation, shall not be deemed conditions beyond the Contractor's control. An Excusable Delay may entitle the Contractor to an adjustment in the Contract Time.

"Compensable Delay" means any delay of the completion of the Work beyond the expiration date of the Contract Time caused by the gross negligence or willful acts of the County or Owner's Representative, and which delay is unreasonable under the circumstances involved, and not within the contemplation of the parties. A Compensable Delay may entitle the Contractor to an extension of the Contract Time and/or Contract Sum. Except as provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hinderance, or disruption.

"Inexcusable Delay" means any delay of the completion of the Project beyond the expiration of the Contract Time resulting from causes other than those listed above. An Inexcusable Delay shall not entitle the Contractor to an extension of the Contract Time or an adjustment of the Contract Sum.

The Contractor may make a Claim for an extension of the Contract Time, for an Excusable Delay or a Compensable Delay, subject to the following:

- A. If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first delay to the cessation of the delay which ends last.
- B. If an Inexcusable Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days, if any, by which the Excusable Delay or the Compensable Delay exceeds the Inexcusable Delay.
- C. If an Inexcusable Delay occurs concurrently with both an Excusable Delay and a Compensable Delay, the maximum extension in the Contract Time shall be the number of days, if any, by which the number of days determined pursuant to Subparagraph (A) exceeds the number of days of the Inexcusable Delay.
- D. For a Compensable Delay, the Contractor shall only be entitled to an adjustment in the Contract Sum in an amount equal to the actual additional labor costs, material costs, and unavoidable equipment costs incurred by the Contractor as a result of the Compensable Delay, plus the actual additional wages or salaries and fringe benefits and payroll taxes of supervisory and administrative personnel necessary and directly employed at the Project site for the supervision of the Work during the period of Compensable Delay. Except as provided herein, the Contractor shall have no claim for damage or compensation for any delay, interruption, hindrance, or disruption. There shall be no Compensable Delay unless the event or occurrence giving rise to the Compensable Delay extends the actual completion of the Project past the Contract Time.

The parties agree that the County's exercise of its rights to order changes in the Work, regardless of the extent and number of changes, or to suspend the Work, is within the contemplation of the parties and shall not be the basis for any Claim for Compensable Delay. The rights of the Contractor to adjustments of the Contract Time and the Contract Sum, based on changes ordered in the Work or suspension of the Work, shall be solely governed by this provision.

40) FALSE CLAIMS: California Penal Code section 72, provides that any person who presents for payment with intent to defraud any County board or officer, any false or fraudulent claim, bill, account,

voucher, or writing, is punishable by fines not exceeding ten thousand dollars (\$10,000.00) and/or imprisonment in the state prison.

Government Code sections 12650, et seq., pertains to civil penalties that may be recovered from persons (including corporations, etc.) for presenting a false claim for payment or approval, presents a false record or statement to get a false claim paid or approved, or other acts, to any officer or employee of any political subdivision of the State of California. Any person or corporation violating the provisions of Government Code sections 12650, et seq., shall be liable for three times the amount of the damages of the political subdivision, plus a civil penalty, plus costs.

All Claims by Contractor, shall include the following certification, properly completed and executed by Contractor or an officer of Contractor:

I, _____, BEING THE _____ (MUST BE AN OFFICER) OF _____ (CONTRACTOR), DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, AND DO PERSONALLY CERTIFY AND ATTEST THAT: I HAVE THOROUGHLY REVIEWED THE ATTACHED CLAIM FOR ADDITIONAL COMPENSATION AND/OR EXTENSION OF TIME, AND KNOW ITS CONTENTS, AND SAID CLAIM IS TRUTHFUL AND ACCURATE; THAT THE AMOUNT REQUESTED ACCURATELY REFLECTS THE CONTRACT ADJUSTMENT FOR WHICH THE OWNER IS LIABLE; AND, FURTHER, THAT I AM FAMILIAR WITH CALIFORNIA PENAL CODE SECTION 72 AND CALIFORNIA GOVERNMENT CODE SECTION 12650, ET SEQ, PERTAINING TO FALSE CLAIMS, AND FURTHER KNOW AND UNDERSTAND THAT SUBMISSION OR CERTIFICATION OF A FALSE CLAIM MAY LEAD TO FINES, IMPRISONMENT AND/OR OTHER SEVERE LEGAL CONSEQUENCES.

Submission of a Claim, in conformance with all of these requirements of this Contract, and rejection of all or part of said Claim by County, is a condition precedent to any action by Contractor against County, including but not limited to, the filing of a lawsuit or making demand for arbitration, if arbitration is expressly provided for in this Contract.

41) CHANGES: The County may request that Contractor provide County with estimated costs for proposed changes to the Work. Contractor agrees to promptly provide County with detailed, itemized costs for proposed changes to the Work and scheduling data demonstrating the impact, if any, of the proposed changes to the Work on the Contract Time. Adjustments, if any, in the amount to be paid the Contractor by reason of any modifications of the Work as set forth in a Contract Change Order, Construction Change Directive, or arising from Claims shall be determined by one or more of the following methods as elected by the County:

- A. Lump Sum Price - By an acceptable lump proposal from the Contractor.
- B. Unit Prices - By unit prices fixed by agreement between the County and the Contractor.
- C. Force Account - By ordering the Contractor to proceed with the Work and to keep and present in such form as the County may issue a Construction Change Directive through the Owner's Representative to the contractor to proceed with the Work, tracking actual costs and submitting daily time and material tickets for approval.

Change Order costs will be calculated as follows, and shall be presented by the contractor in a format acceptable to the Owner and Owner's Representative:

- 1) Labor. The costs of labor will be the actual cost for wages not to exceed prevailing wage for each craft or type of worker at the time the extra Work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the cost of extra Work will not be permitted unless the contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

- 2) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery. Materials cost shall be based upon supplier or manufacturer's invoice. If invoices or other satisfactory evidence of cost are not furnished within fifteen (15) Days of delivery, then the County shall determine the materials cost, at its sole discretion.
- 3) Tool and Equipment Use. Costs for the use of small tools, which are tools that have a replacement value of \$1,000 or less, shall be considered included in the markups described below and no additional payment will be made for small tools. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, or Caltrans Equipment Rental Rates (without surcharge) at the time the Work is performed.

If the equipment is moved on to the Work and used exclusively for extra Work, the Contractor will be paid for the cost of transporting it to the job and returning it to its original location. The rental period shall begin when the equipment is unloaded at the site of the extra Work, and shall include each day that the equipment is at the site of, and performing or utilized for, such extra Work, excluding Saturdays, Sundays, and legal holidays, unless extra Work is performed on such days, and shall terminate at the end of the day on which such extra Work is completed or the Owner's Representative directs the Contractor to discontinue the use of such equipment.

The rental time to be paid for equipment already on the Work, or which is used for other than such extra Work, shall be the actual time the equipment is in operation on the extra Work, plus the time required to move the equipment to the site of the extra Work and return it to its original location.

- 4) Overhead, Profit and Other Charges. The mark-up for overhead (including supervision) and profit on Work added to the Contract shall be determined in accordance with the following: a. "Net Cost" is defined as the actual costs of labor, materials and tools and equipment only excluding overhead and profit. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up.

All of the following costs are included in the markups for overhead and profit and Contractor shall not receive any additional compensation for: Submittals, drawings: field drawings, Shop Drawings, including submissions of drawings; field inspection; general superintendence; general administration and preparation of cost proposals, schedule analysis, Change Orders, and other supporting documentation; computer services; reproduction services; Salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries; Janitorial services; small tools, incidentals and consumables; temporary on site facilities (offices, telephones, internet access, plumbing, electrical power, lighting; platforms, fencing, water), jobsite and home office overhead or other expenses; vehicles and fuel used for Work otherwise included in the Contract Documents; surveying; estimating; protection of Work; handling and disposal fees; final cleanup; other incidental Work; related warranties.

For Work performed by the Contractor's forces the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost of the Work.

For Work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost of the Work to which the Contractor may add five percent (5%) of the subcontractor's Net Cost.

For Work performed by a sub-subcontractor the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost for Work to which the subcontractor and general contractor may each add an additional five percent (5%) of the Net Cost of the lower tier subcontractor.

No additional mark-up will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by the County exceed twenty-five percent (25%) of the Net Cost as defined herein.

Contractor may also add actual cost of subcontractor's bond (if any) and a markup on such bond not to exceed one percent (1%).

For added or deducted Work by subcontractors, the Contractor shall furnish to the County the subcontractor's signed detailed records of the cost of labor, material and equipment, including the subcontractor markup for overhead and profit in a format acceptable to the County. The same requirement shall apply to sub-subcontractors.

For added or deducted Work furnished by a vendor or supplier, the Contractor shall furnish to the County a detailed record of the cost to the Contractor, signed by such vendor or supplier.

Any change in the Work involving both additions and deletions shall indicate a net total cost, including subcontracts and materials. Allowance for overhead and profit, as specified herein, shall be applied consistently throughout the course of the Project and shall apply if the net total cost is an increase or decrease in the Contract Price.

Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the change order for Work. No claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. Contractor may not change or modify The County's change order form in an attempt to reserve additional rights.

No dispute, disagreement or failure of the parties to reach agreement on the terms of the change order shall relieve the Contractor from the obligation to proceed with performance of the changed Work, including extra Work, promptly and expeditiously.

Unilateral Change Orders. If The County disagrees with the proposal submitted by Contractor, it will notify the Contractor and The County will provide its opinion of the appropriate price and/or time extension. If the Contractor agrees with the County, a change order will be issued by the County. If no agreement can be reached, the County shall have the right to issue a unilateral change order setting forth its determination of the reasonable additions or savings in costs and time attributable to the extra or deleted Work. Such determination shall become final and binding if the Contractor fails to submit a claim in writing to the County within fifteen (15) Days of the issuance of the unilateral change order, disputing the terms of the unilateral change order and providing sufficient supporting documentation for its position as the County may reasonably require.

If the Contractor fails to submit a complete cost proposal within seven (7) Days (or as requested) of the request for a change order by the County, the County has the right to order the Contractor in writing to commence the Work immediately on a force account basis and/or issue a lump sum change to the contract price in accordance with The County's estimate of cost. If the change is issued based on the County's estimate, the Contractor will waive its right to dispute the amount of compensation of time extension unless within fifteen (15) Days following completion of the added/deleted Work, the Contractor presents written proof that the County's estimate was in error.

The amount of payment agreed upon or, in the absence of agreement, selected by the County shall be set forth in the Change Order or Construction Change Directive.

42) PAYMENTS: Within ten (10) working days of the Notice of Award, but in any event prior to the first application for payment, Contractor shall submit to Owner's Representative and County a cost breakdown of the Contract Sum (e.g., Schedule of Values) in a format acceptable to the County. The cost breakdown shall itemize, as separate line items, the cost of each Work activity and all other costs, including warranties, record documents, insurance, bonds, overhead expenses, and the total allowance for profit, the total of which shall equal the Contract Sum. The cost breakdown shall include a separate line-item cost for each activity listed on Contractor's initial (as-planned) schedule. The cost breakdown, when

accepted by the County and Owner's Representative, shall become the basis for determining the cost of Work performed for the Contractor's applications for payment.

On or before the first (1st) day of the month, Contractor shall submit to Owner's Representative an itemized application for payment for the cost of the Work in permanent place, as approved by the Owner's Representative, which has been completed in accordance with the Contract Documents as of the twentieth (20th) day of the preceding month, less amounts previously paid. The application for payment may include itemized amounts of purchases, or deposits placed, for materials and products that will be used on the Project, provided that documentation of purchase or deposit is included with the application for payment. The application for payment shall be prepared in a form acceptable to County and Owner's Representative and shall contain itemized amounts in accordance with the cost breakdown. The applications for payment shall not include requests for payment on account of changes which have not been authorized by Change Orders, or for amounts Contractor does not intend to pay a subcontractor because of a dispute or other reason. By submission of an application for payment, Contractor represents to County that all Work for which Contractor is seeking compensation, has been performed in strict compliance with these Contract Documents.

If requested by the County, an application for payment shall be accompanied by a summary showing payment that will be made to subcontractors covered by such application, and copies of unconditional waivers and releases of claims and stop notices, from each subcontractor listed in the preceding application for payment covering sums disbursed pursuant to that preceding application for payment. In addition, the Contractor shall provide a summary showing payment copies of conditional waivers and releases of claims and stop notices, from each subcontractor listed in the current application for payment covering sums to be disbursed pursuant to the current application for payment.

Contractor warrants that upon submittal of an application for payment, all Work and materials for which certificates of payment have been previously issued and payment has been received from County, shall be free and clear of all claims, stop notices, security interests, and encumbrances in favor of Contractor, subcontractors or other persons or firms entitled to make claims by reason of having provided labor, materials, or equipment related to the Work.

Approval of all, or any part, of an application for payment may be withheld, a certificate of payment may be withheld, and all or part of a previous certificate for payment may be nullified and that amount withheld from a current certificate for payment, on account of any of the following:

- (a) Defective Work not remedied;
- (b) Third-party claims against Contractor or County arising from the acts or omissions of Contractor or subcontractors;
- (c) Stop notices;
- (d) Failure of Contractor to make timely payments due to subcontractors for material or labor;
- (e) A reasonable doubt that the Work can be completed for the balance of the Contract Sum then unpaid;
- (f) Damage to the County or others for which Contractor is responsible;
- (g) Reasonable evidence that the Work cannot be completed within the Contract Time, and the unpaid balance of the Contract Sum would not be adequate to complete the Work and cover County's damages for the anticipated delay;
- (h) Failure of Contractor to maintain, update, and submit record documents;
- (i) Failure of Contractor to submit schedules or their updates as required by the Contract Documents;
- (j) Performance of the Work by Contractor without properly processed shop drawings;
- (k) Liquidated damages assessed;

- (l) Any other failure of Contractor to perform its obligations under the Contract Documents.

By action of the County's Board of Supervisors, a fund has been established, money encumbered in the current budget, and assigned to the account which is the sole source of funds available for payment of the Contract Sum. Contractor understands and agrees that Contractor will be paid only from this special fund and if for any reason this fund is not sufficient to pay Contractor, Contractor will not be entitled to payment. The availability of money in this fund, and County's ability to draw from this fund, are conditions precedent to County's obligation to make payments to Contractor.

Within thirty (30) days of receipt of an approved certificate for payment, properly executed by the Contractor, Owner's Representative, County's inspector of record for the Project (if any) and County's Director of Community Development and Infrastructure, County agrees to pay Contractor, subject to all of the terms and conditions of these Contract Documents, an amount equal to ninety-five percent (95%) of the sum of the following (less any amounts withheld as permitted by the Contract Documents):

- (a) Cost of the Work in permanent place as of the end of the preceding month as set forth and approved on the certificate for payment;
- (b) Less amounts previously paid;
- (c) Less amounts withheld by County as allowed in the Contract Documents.

Within forty (40) days of recordation of a Notice of Completion, County agrees to, subject to all of the terms and conditions of these Contract Documents, pay the remaining contract balance, after all offsets and subject to the withholding of amounts due from Contractor.

43) COST AND PRICING DATA: All cost and pricing data submitted by the Contractor to the County with respect to any change, prospective or completed, or any claim for extra compensation shall be a true, complete, accurate, and current representation of actual cost and pricing of the Work. The Owner's Representative or his or her authorized representative may require a formal certification as to cost and pricing data submitted by the Contractor. Certification shall be in the form acceptable to County.

44) PROCEED WITH WORK: Notwithstanding the making of any Claim or the existence of any dispute regarding any Claim, Contractor shall not cause any delay, cessation, or termination in or of Contractor's performance of the Work, but shall diligently proceed with performance of the Work in accordance with the Contract Documents.

45) ACCESS TO RECORDS: The Owner's Representative and/or County, or their authorized representatives, shall have access, upon reasonable notice, during normal business hours, to Contractor and subcontractors' books, documents and accounting records, including but not limited to, bid worksheets, bids, subcontractor bids and proposals, estimates, cost accounting data, accounting records, payroll records, time sheets, cancelled checks, profit and loss statements, balance sheets, project correspondence including but not limited to all correspondence between Contractor and its sureties and subcontractors/vendors, project files, scheduling information, and other records of the Contractor and all subcontractors directly or indirectly pertinent to the Work, original as well as change and claimed extra Work, to verify and evaluate the accuracy of cost and pricing data submitted with any Change Order, prospective or completed, or any Claim for which additional compensation has been requested or notice of potential Claim has been tendered.

Such access shall include the right to examine and audit such records, and make excerpts, transcriptions, and photocopies at County's cost.

The parties agree that in the event Contractor or any subcontractor fails to comply with this section, it would be difficult for the County to determine its actual damages; therefore, Contractor agrees to pay County, as liquidated damages, the sum of two hundred dollars (\$200.00), which Contractor agrees is reasonable under the circumstances, for each and every calendar day which Contractor or a subcontractor fails or refuses to provide the County, Owner's Representative, and/or their authorized representatives, access to the materials specified in this section.

Contractor agrees to impose upon its subcontractors by appropriate subcontract provision, the obligations of this section of the General Conditions.

46) DISMISSAL OF UNSATISFACTORY EMPLOYEES: If any person employed by the Contractor, or any subcontractor, shall fail or refuse to carry out the directions of the Owner's Representative or County; or, in the opinion of the Owner's Representative or County, is incompetent, unfaithful, intemperate, or disorderly; uses threatening or abusive language to any person representing the Owner's Representative or County on the Work; or is otherwise unsatisfactory, he or she shall be removed from the Work immediately, and shall not again be employed on the Work.

47) TERMINATION OF UNSATISFACTORY SUBCONTRACTS: When any portion of the Work which has been subcontracted by the Contractor is not being prosecuted in a satisfactory manner, the subcontract for such Work shall be terminated immediately by the Contractor upon written notice from the Owner's Representative or County, and the subcontractor shall not again be employed on the type of Work in which his or her performance was unsatisfactory.

Termination of unsatisfactory subcontracts shall not be the basis for any claim by the contractor for additional cost or extension of the approved contract completion date.

48) TEMPORARY SUSPENSION OF WORK: The County shall have the authority to suspend the Work wholly or in part for such period as it may deem necessary, due to unsuitable weather, lack of adherence to safety regulations, or to any other conditions it considers unfavorable for the suitable prosecution of the Work, or for such time as it may deem necessary, due to the failure on the part of the Contractor to carry out orders given or to perform any provisions of the Contract, or for any other reason. The Contractor shall immediately comply with such written order of the County to suspend the Work wholly or in part. The suspended Work shall be resumed only when conditions are favorable or methods are corrected, as ordered or approved in writing by the County.

If a suspension of the Work is ordered by the County due to the failure on the part of the Contractor to carry out orders or to perform any provisions of the Contract, the days on which the suspension order is in effect shall count against the Contract time, and shall not in any way modify or invalidate any of the provisions of this Contract, and the Contractor shall not be entitled to any damages or compensation on account of such suspension or delay.

49) TERMINATION OF CONTRACTOR'S CONTROL OVER THE WORK: Whenever, in the opinion of the County, the Contractor has failed to supply an adequate force of labor, equipment, or materials of proper quality, or has failed in any other respect to prosecute the Work with the diligence specified in the Contract; or if Contractor should refuse or fail to comply with laws, ordinances, or directions of the Owner's Representative; or if Contractor should fail to make prompt payments to subcontractors or for labor or materials; or otherwise be in breach of this Contract; the County may give written notice of at least five (5) calendar days to the Contractor and Contractor's sureties that if the defaults are not remedied within a time specified in such notice, the Contractor's control over the Work will be terminated.

If the Contractor should be adjudged bankrupt, or make an assignment for the benefit of Contractor's creditors, or if a receiver should be appointed on account of Contractor's insolvency, the County may declare the Contractor's control over the Work terminated, and so notify the Contractor and Contractor's sureties.

Upon such termination, the County may take possession, and use all or any part, of the Contractor's materials, tools, equipment, and appliances upon the premises to complete the Work; the County assuming responsibility for the final relinquishment of such equipment at the conclusion of the Work, or sooner, at its option, in as good condition as when it was taken over, reasonable wear and tear excepted; and the County agrees to pay for such materials and the use of said equipment at a reasonable compensation.

Upon such termination or the County's declaration that the Contractor is in default, the County may direct the surety to complete, or cause to be completed, the Contract Work, or the County may direct

that all or any part of the Work be completed by day labor, or by employment of other contractors on informal contracts, or both. If the County directs the surety to complete or cause to be completed, the Contract Work, Contractor's performance bond surety agrees to immediately undertake to complete or cause to be completed, all Contract Work.

If the Contractor's control over the Work is terminated as provided above, the Contractor is not entitled to receive any portion of the amount to be paid under the Contract until it is fully completed. After completion, if the unpaid balance exceeds the sum of the amount expended by the County in finishing the Work, plus all damages sustained, or to be sustained, by the County, plus any unpaid claims on account of labor, materials, tools, equipment, or supplies contracted for by the Contractor for the Work herein contemplated, the excess not otherwise required by these Contract Documents to be retained shall be paid the Contractor. If the sum so expended exceeds the unpaid balance, the Contractor and Contractor's surety are liable to the County for the amount of such excess. If the surety completes the Contract Work as provided above, such surety shall be subrogated to money due under the Contract, and to money which shall become due in the course of completion by the surety. However, Contractor and Surety agree that any subrogation rights of surety are subordinate to and inferior to rights of County.

The County reserves the right to terminate the Work for its convenience upon written notice to Contractor. In such event, the Contractor shall be paid its reasonable costs for that portion of the Work performed to the date of termination, reasonable costs associated with demobilization, plus fifteen percent (15%) of all such costs for overhead and profit.

50) FINAL INSPECTION, FIELD ACCEPTANCE, AND ACCEPTANCE: The Contractor shall notify the Owner's Representative in writing of the completion of the Work, and the architect, engineer or Construction Manager/designated County Inspector of record shall inspect the Work. The Contractor, or Contractor's representatives, may be present at the inspection. The Contractor will be notified in writing of any defects or deficiencies to be remedied prior to final acceptance. Within ten (10) calendar days of such notification, the Contractor shall proceed to correct such defects or deficiencies. When notified that this Work has been completed, the architect or engineer will again inspect the Work to satisfy itself that all Work has been done in accordance with the Contract Documents, and will issue a final acceptance letter, and will recommend to the County that they formally accept the Work. Upon receipt of final acceptance letter, Owner's Representative will appear before the County Board of Supervisors to request Final Acceptance. Final Acceptance by the County will be by approval of the Board of Supervisors, and shall cause the commencement of warranty/guarantee periods. Within ten (10) days of Final Acceptance of all Work required by these Contract Documents, a Notice of Completion will be filed with the County Recorder of Santa Cruz County.

51) CLEANING UP: Throughout the construction period, the Contractor shall keep the site of the Work in a presentable and safe condition, dispose of any surplus materials, clean out all drainage ditches and structures, and repair any fences or other property damaged during the progress of the Work, to the satisfaction of the Owner's Representative and/or County.

Upon completion of the Work, and prior to requesting final inspection, the Contractor shall thoroughly clean the site of the Work of all rubbish, excess material, and equipment, and all portions of the Work shall be left in a neat and orderly condition. The final inspection will not be made until this has been accomplished.

If Contractor fails or refuses to fulfill these obligations to the County's satisfaction, County may, at its option, undertake these obligations, and withhold the cost of performing these obligations, plus an additional fee of twenty-five percent (25%) for administrative costs, from payments to Contractor.

52) COMPLIANCE WITH LAWS AND REGULATIONS: The Contractor shall keep itself fully informed of, and shall observe and comply with, and shall cause any and all persons, firms, or corporations employed by Contractor or under him, to observe and comply with all State and national laws, and County and municipal ordinances, regulations, orders, and decrees which in any manner affect those engaged

or employed in the Work, or the materials used in the Work, or which in any way affect the conduct of the Work. Particular attention is called to the following:

A. **HOURS OF LABOR** - Eight hours of labor shall constitute a legal days' work, and the Contractor or any subcontractor under him, in the performance of the Contract, shall not require more than eight hours of labor in any calendar day, and forty hours of labor in any calendar week, from any person employed by Contractor in the performance of the Work under this Contract, except as permitted under the provisions of Section 1815 of the Labor Code of the State of California. The Contractor shall forfeit, as penalty to the County, fifty dollars (\$50.00) for each workman employed by Contractor or any subcontractor under Contractor in the performance of the Contract for each calendar day during which any workman is required or permitted to labor more than eight hours and for each calendar week during which any workman is required or permitted to labor more than forty hours, in violation of the provisions of such Labor Code.

No Work other than overtime and shift work shall be done between the hours of 7:00PM and 7:00AM, except such Work as is necessary for the proper care and protection of the Work already performed or except in case of an emergency; excepting that overtime and/or shift work may be established by the Contractor with reasonable notice and the written permission of the Owner's Representative.

B. **PREVAILING WAGE** - Pursuant to Section 1770, and following, of the California Labor Code, the Contractor shall pay not less than the prevailing rate of per diem wages as determined by the Director of the California Department of Industrial Relations. A copy of the Prevailing Wage Scale is available at the following web site: <https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>

The Contractor shall forfeit, as penalty to the County, fifty dollars (\$50.00) for each calendar day or portion thereof, for each workman paid less than the stipulated prevailing rates for any Work done under the Contract by Contractor or by any subcontractor under him, in violation of the provisions of such Labor Code.

C. **LABOR DISCRIMINATION** - Contractor shall comply with Section 1735 of the Labor Code of the State of California, which prohibits discrimination in the employment of persons upon public works because of the race, religious creed, color, national origin, ancestry, physical handicap, medical condition, marital status, or sex of such persons.

D. **APPRENTICES** - Attention is directed to Section 1777.5 of the Labor Code of the State of California concerning employment of apprentices, and the Contractor is required to comply with the provisions of said Section.

E. **TRAVEL AND SUBSISTENCE PAYMENTS** - Attention is directed to the requirements of Section 1773.8 of the Labor Code of the State of California. The Contractor shall make travel and subsistence payments to each workman needed to complete the Work in accordance with the requirements in said Section 1773.8.

F. **WORKERS' COMPENSATION** - Pursuant to the requirements of Section 1860 of the Labor Code, the Contractor is required to secure the payment of Workers' Compensation to Contractor's employees in accordance with the provisions of Section 3700 of the Labor Code.

Prior to the commencement of Work, the Contractor shall sign and file with the Owner's Representative a certification in the following form:

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

Said certification is included in the Contract, and signature and return of the Contract as provided in Paragraph 16 of these General Conditions, "Signing of Contract," shall constitute signing and filing of the said certificate.

G. USE OF PESTICIDES - The Contractor shall comply with all rules and regulations of the Department of Food and Agriculture, the Department of Health, the Department of Industrial Relations, the County Integrated Pest Management (IPM) program, and all other agencies which govern the use of pesticides required in the performance of the Work on the Contract.

Pesticides shall include, but shall not be limited to, herbicides, insecticides, fungicides, rodenticides, germicides, nematocides, bactericides, inhibitors, fumigants, defoliants, desiccants, soil sterilant, and repellents.

Any substance or mixture of substances intended for preventing, repelling, mitigating, or destroying weeds, insects, diseases, rodents, or nematodes, and any substance or mixture of substances intended for use as a plant regulator, defoliant, or desiccant shall be considered a pesticide.

H. PAYROLL RECORDS - Attention is directed to Section 1776 of the California Labor Code, a portion of which is quoted below. Regulations implementing said Section 1776 are located in Section 16000, and Sections 16401 through 16403 of Title 8, California Administrative Code. The Contractor shall be responsible for compliance by Contractor's subcontractors.

(1) Each contractor and subcontractor shall keep an accurate payroll record showing the name, address, Social Security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker or other employee employed by him or her in conjunction with the public work.

(2) The payroll records enumerated under subdivision (a) shall be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor on the following basis:

(a) A certified copy of an employee's payroll record shall be made available for inspection or furnished to the employee or his or her authorized representative on request.

(b) A certified copy of all payroll records enumerated in subdivision (a) shall be made available for inspection or furnished upon request to a representative of the body awarding the contract, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards of the Department of Industrial Relations. This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

(c) A certified copy of all payroll records enumerated in subdivision (a) shall be made available upon request by the public for inspection and copies thereof made; provided, however, that a request by the public shall be made through either the body awarding the contract, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been provided pursuant to paragraph (2), the requesting party shall, prior to being provided the records, reimburse the costs of preparation by the contractor, subcontractors, and the entity through which the request was made. The public shall not be given access to the records at the principal office of the contractor.

(3) Each contractor shall file a certified copy of the records enumerated in subdivision (a) with the entity that requested the records within ten (10) days after receipt of a written request.

(4) Any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the awarding body, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name,

address, and Social Security number. The name and address of the contractor awarded the contract or performing the contract shall not be marked or obliterated.

(5) The contractor shall inform the body awarding the contract of the location of the records enumerated under subdivision (a), including the street address, city, and county, and shall, within five (5) working days provide a notice of a change of location and address.

(6) In the event of noncompliance with the requirements of this section, the contractor shall have ten (10) days in which to comply subsequent to receipt of written notice specifying in what respects the contractor must comply with this section. Should noncompliance still be evident after the ten-day period, 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 calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due.

The penalties specified in subdivision (f) of Labor Code Section 1776 for noncompliance with the provisions of said Section 1776 may be deducted from any moneys due or which may become due to the Contractor.

With each payment application, the contractor shall provide an executed copy of the VERIFICATION OF CERTIFIED PAYROLL RECORDS SUBMITTAL TO LABOR COMMISSIONER (included at the end of this document) and a complete set of certified payroll records for the period for all contractor employees and each tier subcontractor employee.

I. REPORTING REQUIREMENTS AND SANCTIONS - Failure to deliver to County specific information, records, reports, certifications, or any other documents required for compliance with these Contract Documents shall be considered noncompliance.

Contractors found by the County to be in noncompliance are to be advised of the specific deficiencies and urged to make immediate corrections. They should also be advised that monetary deductions may be made for failure to effect corrections or delinquencies.

If the Contractor fails to correct a deficiency within fifteen (15) days after notification, a deduction may be made. In such cases, the deduction shall be ten percent (10%) of the estimated value of the Work done during the month, except that the deduction will not exceed ten thousand dollars (\$10,000.00), nor be less than one thousand dollars (\$1,000.00), and shall be deducted from the next progress payment.

Deductions for noncompliance will be in addition to all other deductions provided for in this Contract, and will apply irrespective of the number of instances of noncompliance. Deductions may be made separately and additively for each estimate period in which a new deficiency appears. When all deficiencies for a period have been corrected, the deduction covering that period will be released on the next progress payment. Otherwise, the deduction will be retained.

J. LOCAL HIRE ORDINANCE - Pursuant to Santa Cruz County Code Chapter 2.33, Contractors and Subcontractors must make good faith efforts to hire Monterey Bay area residents in sufficient numbers so that no less than 50 per cent (50%) of the Contractor's total construction work force, including any subcontractor's workforce, measured in labor work hours is comprised of Monterey Bay area residents. This public works construction project is covered by Chapter 2.33 of the Santa Cruz County Code, and the entire chapter, as amended, is incorporated by reference into the Project's specifications and conditions.

53) RESPONSIBILITY OF THE CONTRACTOR: The Contractor shall do all of the Work and furnish all labor, materials, tools, equipment, and appliances, except as otherwise herein expressly stipulated, necessary, or proper for performing and completing the Work herein required, including any Change

Order Work, disputed Work or extra Work directed by the County or Owner's Representative, within the time specified.

If the Contractor discovers any discrepancies during the course of the Work between the Contract Documents and conditions in the field, or any errors or omissions in the Contract Documents and conditions in the field, or any errors or omissions in the Contract drawings, specifications, or layout given by stakes, points, or instructions, it shall be the Contractor's duty to inform the Owner's Representative in writing immediately, and the Owner's Representative shall promptly verify the same. Any Work done after such discovery until authorized in writing by the Owner's Representative will be done at the Contractor's risk.

In no case shall the use of subcontractors in any way alter the position of the Contractor or Contractor's sureties with relation to this Contract. When a subcontractor is used, the responsibility for every portion of the Work shall still remain with the Contractor.

The Contractor shall pay, when due, all valid claims of subcontractors, suppliers, and workmen with respect to the Project.

The mention herein of any specific duty or responsibility imposed upon the Contractor shall not be construed as a limitation or restriction of any other responsibility or duty imposed upon the Contractor by the Contract, said reference being made herein merely for the purpose of explaining the specific duty or responsibility.

54) INDEMNIFICATION:

A. **CONTRACTOR'S PERFORMANCE:** Contractor shall defend, indemnify, and save harmless County and Owner's Representative (including their inspectors, construction managers, project managers, trustees, officers, agents, members, employees, affiliates, consultants, subconsultants, and representatives), and each of them, of and from any and all claims, demands, suits, causes of action, damages, costs, expenses, attorneys' fees, losses, or liability, in law or in equity, of every kind and nature whatsoever arising out of, or in connection with, Contractor's operations to be performed under this Contract, including, but not limited to:

- (1) Personal injury (including, but not limited to, bodily injury, emotional injury or distress, sickness, or disease) or death to persons, including, but not limited to, any employees or agents of Contractor, County, Owner's Representative, Construction Manager, or any subcontractor, or damage to property of anyone including the Work itself (including loss of use thereof), caused or alleged to be caused in whole or in part by any negligent act or omission of Contractor, County, or Owner's Representative, Construction Manager or anyone directly or indirectly employed by them, or anyone for whose acts they may be liable;
- (2) Penalties threatened, sought, or imposed on account of the violation of any law, order, citation, rule, regulation, standard, ordinance, or statute, caused by the action or inaction of Contractor;
- (3) Alleged infringement of any patent rights which may be brought arising out of Contractor's Work;
- (4) Claims and liens for labor performed or materials used or furnished to be used on the job, including all incidental or consequential damages from such claims or liens;
- (5) Contractor's failure to fulfill any of the covenants set forth in these Contract Documents;
- (6) Failure of Contractor to comply with the provisions of the Contract Documents relating to insurance; and,

(7) Any violation or infraction by Contractor of any law, order, citation, rule, regulation, standard, ordinance, or statute in any way relating to the occupational, health, or safety of employees.

The indemnities set forth in this section shall not be limited by the insurance requirements set forth in these Contract Documents.

Contractor's indemnification of County will not include indemnification for claims which arise as the result of the active negligence of County, or the sole negligence or willful misconduct of County, its agents, servants or independent contractors who are directly responsible to County, or for defects in design furnished by such persons.

55) PERMITS AND LICENSES: The Contractor shall procure all permits and licenses necessary for the normal conduct of its business and construction operations, and all costs associated therewith shall be paid by Contractor. The County shall pay for building permits and other permits that authorize the Work under this Contract, and the Contractor shall pull the permits, comply with the requirements of the permit(s), and keep the permits in its possession during the length of the Project. No markup on permit fees will be permitted. Contractor's (or subcontractor's) labor and management costs incurred to obtain permits will not be reimbursed by the County.

The Environmental Quality Act of 1970 may be applicable to permits, licenses, and other authorizations which the Contractor must obtain from local agencies in connection with performing the Work of the Contract. The Contractor shall comply with the provisions of said statutes in obtaining such permits, licenses, and other authorizations, and they shall be obtained in sufficient time to prevent delays to the Work.

In the event that the County has obtained permits, licenses, or other authorizations applicable to the Work in conformance with the requirements in said Environmental Quality Act of 1970, the Contractor shall comply with the provisions of said permits, licenses, and other authorizations.

56) PROTECTION OF COUNTY AGAINST PATENT CLAIMS: The Contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work.

57) PROTECTION OF WORKERS: The Contractor shall conform to the rules and regulations pertaining to safety established by the California Division of Industrial Safety and any other governing body having jurisdiction over the Work. The Contractor shall immediately replace or repair any unsafe ladder, scaffolding, shoring, or bracing, or correct any other dangerous or hazardous situation that may exist or that the Owner's Representative may indicate. Failure of the Owner's Representative to suspend the Work or notify the Contractor of the inadequacy of the safety precautions or noncompliance with the law shall not relieve the Contractor of this responsibility.

Contractor shall submit a copy of the Contractor's Safety Plan as an "information submittal" to the County within ten (10) working days of the Notice to Proceed. Discussion of how the contractor is meeting the requirements of its Contractor's Safety Plan shall be a regular agenda item during OAC meetings.

The Contractor is warned that when the Work involves existing sewers and appurtenances that have been exposed to sewage and industrial wastes, these facilities shall be considered contaminated with disease-causing organisms. Personnel in contact with contaminated facilities, debris, wastewater, or similar items shall be advised by the Contractor of the necessary precautions that must be taken to avoid becoming diseased. It is the Contractor's responsibility to urge his/her personnel to observe a strict regimen of proper hygienic precautions, including any inoculations recommended by the local public health officer.

Because of the potential danger of solvents, gasoline, and other hazardous material in the existing sewers and storm drainpipes, these areas shall be considered hazardous. The Contractor shall be aware

of these dangers and shall comply with Article 108, "Confined Spaces," of the General Industrial Safety Orders contained in Title 8 of the California Administrative Code.

In the event that this Contract requires the excavation of any trench or trenches in excess of five feet in depth, Contractor shall prepare a detailed design plan showing the design of shoring, bracing, sloping, or other provisions to be made for worker protection from the hazard of caving ground during the excavation of such trenches. Said detailed design plan and subsequent excavating operations shall fully comply with all local, state and federal regulations including, but not limited to, the Construction Safety Orders, Section 1539, Permits and Section 1540 et seq., Excavation.

A. Safety Program. When requested by County, Contractor shall submit a proposed safety program which outlines the precautions to be taken by contractor to insure the safety of County employees and the public.

B. Material Safety Data Sheets.

(1) Contractor shall provide the County with copies of current Material Safety Data Sheets (MSDS) on all products subject to the requirements of California Code Section 5144. The MSDS submittals will be required prior to the issue of a Notice to Proceed.

(2) Contractor shall conduct operations in such a way as to comply with manufacturers' recommendations contained in Material Safety Data Sheets.

58) PROTECTION OF MATERIALS AND EQUIPMENT: The Contractor shall protect the Work, materials, and equipment from damage due to the nature of the Work, the action of the elements, trespassers, or other causes. The Contractor shall properly store materials and equipment, and erect such temporary structures as are required to protect them from damage, including, but not limited to, construction fencing.

59) SANITARY PROVISIONS: The necessary sanitary conveniences for the use of the workers on the Project, properly obscured from public observance, shall be constructed and maintained by the Contractor.

60) EXISTING UTILITIES: It is recognized by the Contractor that the location of existing utility facilities as shown on Contract drawings and specifications are approximate; their exact location is unknown.

Recognition is given to the fact that there may be additional utilities existing on the property unknown to either party to the Contract. Location of utilities as shown on drawings and specifications represent the best information obtainable from utility maps and other information furnished by the various agencies involved. The County warrants neither the accuracy nor the extent of actual installations as shown on the drawings and specifications.

Because of this uncertainty, it may become necessary for the Owner's Representative and/or Architect/Engineer to make adjustments in the line or grade of sewers or storm drains. Installation of such adjusted lines shall be made at the regular unit price bid for the Work, and no additional compensation will be paid therefor, unless the scope and character of the Work has been changed.

The Contractor agrees and is required to coordinate and fully cooperate with the County and utility owners for the location, relocation, and protection of services and utilities. The Contractor's attention is directed to the existence of services and utilities, underground and overhead, necessary for normal house and commercial service for all buildings along the line of Work. The Contractor shall make arrangements with utility owners and Underground Service Alert (USA) for the location of all service or utility lines in advance of the actual construction and for the relocation of such facilities, if necessary, by the utility owner or the Contractor.

In accordance with Section 4215 of the Government Code of the State of California, the County shall make provisions to compensate the Contractor for the costs of locating, repairing damage not due to the failure of the Contractor to exercise reasonable care, and removing or relocating such main and trunk line utility facilities not indicated in the plans and specifications with reasonable accuracy, and for

equipment on the Project necessarily idled during such Work. Compensation will be in accordance with Paragraph 41, Changes, and subject to all of the requirements of Paragraph 39, Claims, of the General Conditions. In the event the Contractor discovers utilities not identified in the Contract Documents, the Contractor shall immediately notify the Owner's Representative and the utility owner by the most expeditious means available and later confirm in writing.

It is understood and agreed that the failure of the Contractor or its subcontractor to comply fully with these provisions constitutes failure of the Contractor to exercise reasonable care and precludes Contractor's recovery from County for any related costs or damages.

61) COOPERATION WITH OTHERS: The County or adjacent property owner may perform other work adjacent to or within the Project area, concurrent with the Contractor's operations. The Contractor shall cooperate fully with County in all operations which coincide with other work being performed, and provide County with such scheduling and other information as may be required by County to perform such other work. The Contractor shall conduct operations to minimize interference with the work of other forces or contractors performing such work. This work performed by a other contractor(s) may include work which is incomplete or in dispute with the Contractor.

Any disputes or conflicts which may arise between the Contractor and any other forces or contractors retained by the County, causing delays or hindrance to each other, shall be referred to the Owner's Representative for resolution.

If the Work of the Contractor is delayed because of any acts or omissions of any other forces or contractor, the Contractor shall on that account have no claim against the County other than for an extension of time.

62) AIR POLLUTION CONTROL: The Contractor shall comply with all air pollution control rules, regulations, ordinances, and statutes which apply to any Work performed pursuant to the Contract, including any air pollution control rules, regulations, ordinances, and statutes specified in Section 11017 of the Government Code.

Unless otherwise provided in the Contract Documents, material to be disposed of shall not be burned.

63) WATER POLLUTION: The Contractor shall comply with all rules, regulations, ordinances, and statutes which apply to water pollution, including but not limited to, erosion control and Section 7-1.G of the State specifications, as well as Chapters 7.79 and 16.24 of the Santa Cruz County Code.

64) SOUND CONTROL REQUIREMENTS: The Contractor shall comply with all sound control and noise level rules, regulations, and ordinances which apply to any Work performed pursuant to the Contract.

Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the Project without said muffler.

65) UNFAVORABLE WEATHER AND OTHER CONDITIONS: During unfavorable weather and other conditions, the Contractor shall pursue only such portions of the Work as will not be damaged thereby. No portions of the Work the satisfactory quality or efficiency of which will be affected by any unfavorable conditions shall be constructed while these conditions remain, unless, by special means or precautions acceptable to the Owner's Representative, the Contractor shall be able to overcome these conditions.

66) WEEKEND, HOLIDAY, AND NIGHT WORK: No Work shall be done between the hours of 5:00PM and 8:00AM, or on Saturdays, Sundays or legal holidays unless a temporary exception to this time restriction is authorized in advance by the Owner's Representative on a case by case basis.

67) OVERLOADING: The Contractor shall determine safe loading capacities and shall not overload any structure beyond its safe capacity during construction. In addition to assuming full responsibility for bodily injury resulting from any such overloading, the Contractor shall repair to the Owner's Representative's satisfaction or reimburse the County for the costs of repairing damage resulting therefrom.

68) SUBCONTRACTING AND ASSIGNMENT: The performance of the Contract may not be assigned except upon written consent of the County, and no assignment shall be permitted which would relieve the original Contractor or Contractor's surety of their responsibilities under the Contract.

69) NON-RECOGNITION OF SUBCONTRACTORS: No subcontractor will be recognized as such, and all persons engaged in the Work under this Contract will be considered as employees of the Contractor, and their Work shall be subject to all the provisions of the Contract. The County and its representatives will deal only with the Contractor, who shall be responsible for the proper performance of the entire Work. Except as otherwise provided in the Contract Documents, or when direct communications have been specifically authorized, the County and Contractor shall communicate through Owner's Representative. Communications by Contractor with the County's consultants and architect or engineer's consultants shall be through the Owner's Representative. Communications by the Owner's Representative with subcontractors shall be through the Contractor.

70) LANDS AND RIGHTS OF WAY: The County shall provide the lands, rights of way, and easements upon which the Work under this Contract is to be done, and such other lands as may be designated on the Contract drawings for the use of the Contractor, and the Contractor shall confine Contractor's operations to within these limits.

The Contractor shall provide, at Contractor's own expense, any additional land and access thereto that may be required for temporary construction facilities or storage of materials.

71) LIABILITY OF COUNTY OFFICIALS: Neither the Construction Manager, Owner's Representative, nor officers, employees, agents, or representatives of the County, nor any of them, shall be responsible for any liability arising under this Contract, except such obligations as are specifically set forth herein.

72) CONTRACTOR NOT AN AGENT OF THE COUNTY: The right of general supervision shall not make the Contractor an agent of the County, and the liability of the Contractor for all damages to persons or to public or private property arising from the performance of the Work shall not be lessened because of such general supervision.

73) THIRD-PARTY CLAIMS: The Contractor shall be responsible for all third-party claims, and for costs or injuries incurred by a third party which result from the operations of the Contractor, or its performance under the Contract.

74) GUARANTEE: Should any failure of the Work occur within a period of one (1) year after recordation of the notice of completion of the Project or portions thereof or within any designated warranty period, which can be attributed to faulty materials, poor workmanship, or defective equipment, the Contractor shall promptly make the needed repairs at Contractor's expense. This is a general guarantee and does not exclude specific elements/products with warranty periods that exceed one (1) year. Should Contractor receive warranties for materials, supplies, products, or any other portion of the Work, Contractor shall assign said warranties to the County upon completion of the one (1) year guarantee period.

The County is hereby authorized to make such repairs if the Contractor fails to make or undertake with due diligence the aforesaid repairs within ten (10) days after Contractor is given written notice of such failure and without notice to the surety provided, however, that in case of emergency where, in the opinion of the County, delay would cause serious loss or damages, or a serious hazard to the public, the repairs may be made or lights, signs, and barricades erected, without prior notice to the Contractor or surety, and the Contractor shall pay the entire costs thereof.

Contractor shall return a signed copy of the attached GUARANTY FORM and submit it to the Owner's Representative within 30 days of the Notice to Proceed.

75) ASSIGNMENT OF ANTITRUST ACTIONS: Pursuant to Section 4552 of the Government Code of the State of California, the following provisions shall be a part of this Contract:

In entering into a public works contract or a subcontract to supply goods, services, or materials pursuant to a public works contract, the contractor or subcontractor offers and agrees to assign to the awarding body all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15), or under Cartwright Act (Chapter 2, commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final payment to the contractor without further acknowledgment by the parties.

76) LEGAL ADDRESS OF THE CONTRACTOR: Both the address given in the proposal and the Contractor's office in the vicinity of the Work are hereby designated as places to either of which drawings, letters, notices, or other articles or communications to the Contractor may be mailed, transmitted electronically or delivered. The mailing, electronic transmission, or delivery to either of these places shall be deemed sufficient notice thereof upon the Contractor. Nothing herein contained shall be deemed to preclude the service of any drawing, letter, notice, article, or communication to, or upon, the Contractor or Contractor's representative personally. The address named in the proposal may be changed at any time by written notice from the Contractor to the Owner's Representative.

77) SURVEYS:

As set forth in the Contract Documents, the Contractor is to provide all staking and engineering services beyond the lines and grades provided by the County at the start of construction, and the Contractor shall be responsible to do all remaining necessary staking and engineering services to lay out and control the Work to the elevations, lines, and dimensions shown on the plans. Any deviations must receive prior written approval of the Owner's Representative. All staking and engineering services affecting the line or elevation of underground drainage, sewers, or utilities, and all other Work within public rights of way or easements shall be performed by or under the direction and supervision of a Registered Civil Engineer or Licensed Land Surveyor, licensed by the State of California.

When it becomes necessary to provide further staking or engineering survey services, the Contractor shall keep the Owner's Representative informed, at least two working days in advance, of the times and places at which Contractor will need lines, elevations, and reference points. Unless authorized by the Engineer, any Work done without line and grade will be done at the Contractor's risk. The Contractor shall be responsible for the accuracy of Contractor's own layout work, and shall be liable for the preservation of all established lines and grades. Stakes damaged or destroyed by the operations of the Contractor will be replaced at Contractor's expense.

78) MATERIALS OR EQUIPMENT SPECIFIED BY NAME: When any materials or equipment is indicated or specified by patent or proprietary name or by the name and catalogue number of the manufacturer, it shall be considered as used for convenience in describing the material or equipment desired. The use of an alternative material or equipment which is of equal quality and of the required characteristics for the purpose intended may be permitted but is based on material or equipment availability. Request for such substitution shall be made in writing by the Contractor within thirty (30) days of the Notice to Proceed. Failure by the Contractor to request substitution within thirty (30) days of the Notice to Proceed constitutes an agreement by Contractor to furnish only the materials or equipment listed in the Contract Documents. Until and unless such substitutions are accepted by the Architect and the Owner's Representative, no deviations from the specifications shall be allowed. The burden of proof as to the quality and suitability of the alternative shall be upon the Contractor. The County shall be the sole judge as to the quality and suitability of alternative materials or equipment, and its decision shall be final.

79) PROPERTY RIGHTS IN MATERIAL: Nothing in this Contract shall be construed as vesting in the Contractor any right of property in the materials used, after they have been installed, attached, or affixed to the Work, but all such materials shall be the property of the Contractor and the County jointly as their interest may appear, and cannot be removed from the Work without the consent of the County.

80) CONTRACTOR'S EQUIPMENT: The Contractor shall provide adequate and suitable equipment and means of construction to meet all the requirements of the Work, including completion within the time allotted. Only equipment suitable to produce the quality of Work required will be permitted to operate on the Project, and specific types of equipment may be requested on component parts of the Work.

In any case where the use of a particular type or piece of equipment has been banned, or in cases where the Owner's Representative has condemned for use on the Work, any piece or pieces of equipment, the Contractor shall promptly remove such equipment from the site of the Work. Failure to do so within a reasonable time may be considered a breach of contract.

81) MISCELLANEOUS PROVISIONS: This Contract shall bind and inure to the heirs, devisees, assignees, and successors in interest of Contractor, and to the successors in interest of County, in the same manner as if such parties had been expressly named herein.

If any claim or dispute arises between the parties, the claim or dispute shall first be submitted to mediation utilizing the services of a neutral mediator. If the parties cannot agree upon the selection of a neutral mediator, the matter shall be submitted to Judicial Arbitration and Mediation Services for the selection of a neutral mediator. The parties shall share equally the costs associated with the mediation.

This Contract shall be governed by the laws of the State of California.

If any one or more of the provisions contained in the Contract should be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

This Contract constitutes the full and complete understanding of the parties, and supersedes any previous agreements or understandings, oral or written, with respect to the subject matter hereof. The Contract may only be modified by a written instrument signed by both parties.

Contractor hereby assigns to County all its first-tier subcontracts now or hereafter entered into by Contractor for performance of any part of the Work. The assignment will be effective upon acceptance by County in writing, and only as to those subcontracts which County designates in writing. Such assignment is part of the consideration to County for entering into the Contract with Contractor, and may not be withdrawn.

82) PUBLIC CONTRACT CODE SECTION 20104, ET SEQ.:

Public Contract Code section 20104, et seq., requires that the following language be set forth the specifications:

§ 20104 Application of article; provisions included in plans and specifications

- (a) (1) This article applies to all public works claims of three hundred seventy-five thousand dollars (\$375,000) or less which arise between a contractor and a local agency.
- (2) This article shall not apply to any claims resulting from a contract between a contractor and a public agency when the public agency has elected to resolve any disputes pursuant to Article 7.1 (commencing with Section 10240) of Chapter 1 of Part 2.
- (b) (1) "Public work" has the same meaning as in Sections 3100 and 3106 of the Civil Code, except that "public work" does not include any work or improvement contracted for by the state or the Regents of the University of California.
- (2) "Claim" means a separate demand by the contractor for (A) a time extension, (B) payment of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public work and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled to, or (C) an amount the payment of which is disputed by the local agency.

- (c) The provisions of this article or a summary thereof shall be set forth in the plans or specifications for any work which may give rise to a claim under this article.
- (d) This article applies only to contracts entered into on or after January 1, 1991.

§ 20104.2. Claims; requirements; tort claims excluded

For any claim subject to this article, the following requirements apply:

- (a) The claim shall be in writing and include the documents necessary to substantiate the claim. Claims must be filed on or before the date of final payment. Nothing in this subdivision is intended to extend the time limit or supersede notice requirements otherwise provided by contract for the filing of claims.
- (b) (1) For claims of less than fifty thousand dollars (\$50,000), the local agency shall respond in writing to any written claim within 45 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.
(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.
(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 15 days after receipt of the further documentation or within a period of time no greater than that taken by the claimant in producing the additional information, whichever is greater.
- (c) (1) For claims of over fifty thousand dollars (\$50,000) and less than or equal to three hundred seventy-five thousand dollars (\$375,000), the local agency shall respond in writing to all written claims within 60 days of receipt of the claim, or may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses to the claim the local agency may have against the claimant.
(2) If additional information is thereafter required, it shall be requested and provided pursuant to this subdivision, upon mutual agreement of the local agency and the claimant.
(3) The local agency's written response to the claim, as further documented, shall be submitted to the claimant within 30 days after receipt of the further documentation, or within a period of time no greater than that taken by the claimant in producing the additional information or requested documentation, whichever is greater.
- (d) If the claimant disputes the local agency's written response, or the local agency fails to respond within the time prescribed, the claimant may so notify the local agency, in writing, either within 15 days of receipt of the local agency's response or within 15 days of the local agency's failure to respond within the time prescribed, respectively, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon a demand, the local agency shall schedule a meet and confer conference within 30 days for settlement of the dispute.
- (e) Following the meet and confer conference, if the claim or any portion remains in dispute, the claimant may file a claim as provided in Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time the claimant submits his or her written claim pursuant to subdivision (a) until the time that claim is denied as a result of the meet and confer process, including any period of time utilized by the meet and confer process.

- (f) This article does not apply to tort claims and nothing in this article is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code.

§ 20104.4. Civil action procedures; mediation and arbitration; trial de novo; witnesses

The following procedures are established for all civil actions filed to resolve claims subject to this article:

- (a) Within 60 days, but no earlier than 30 days, following the filing of responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within 15 days by both parties of a disinterested third person as mediator, shall be commenced within 30 days of the submittal, and shall be concluded within 15 days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court or by stipulation of both parties. If the parties fail to select a mediator within the 15-day period, any party may petition the court to appoint the mediator.
- (b) (1) If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.

(2) Notwithstanding any other provision of law, upon stipulation of the parties, arbitrators appointed for purposes of this article shall be experienced in construction law, and, upon stipulation of the parties, mediators and arbitrators shall be paid necessary and reasonable hourly rates of pay not to exceed their customary rate, and such fees and expenses shall be paid equally by the parties, except in the case of arbitration where the arbitrator, for good cause, determines a different division. In no event shall these fees or expenses be paid by state or county funds.

(3) In addition to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, any party who after receiving an arbitration award requests a trial de novo but does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, pay the attorney's fees of the other party arising out of the trial de novo.

(4) The court may, upon request by any party, order any witnesses to participate in the mediation or arbitration process.

§ 20104.6. Payment on undisputed portion of claim; interest on arbitration awards or judgments

- (a) No local agency shall fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in the contract.
- (b) In any suit filed under Section 20104.4, the local agency shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

SUPPLEMENTAL CONDITIONS

1) TIME OF COMPLETION. It is the intent of the County to minimize disruptions to ongoing County operations during construction projects. The Contractor shall complete all or any designated portions of the Work called for under the contract (including any awarded alternates) in all parts and requirements within 60 calendar days (except as modified in the technical specifications). The contractor shall submit a Baseline Schedule for construction in a format acceptable to the County as both electronic copies in native schedule format (software designed for preparing a critical path schedule such as Microsoft Project, Primavera, etc.) and as a formatted Adobe PDF file within ten (10) working days of the Notice of Award. The contractor shall submit a recovery schedule, if requested. Contract time shall begin the date stipulated in the Notice to Proceed but shall not be sooner than five (5) working days after the date of dispatch of the Notice to Proceed.

For the purpose of computing liquidated damages all days in excess of the allowed number of construction days, that the contract is in the construction phase, shall be considered in excess of the allowed number of calendar days for the overall Project.

2) LIQUIDATED DAMAGES. Time is of the essence in this contract. It is agreed by the parties to the contract that in case all the Work called for under the contract in all parts and requirements is not finished or completed within the number of calendar days as set forth in the Supplemental Conditions, damage will be sustained by the County, and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which the County will sustain in the event of and by reason of such delay; and it is therefore agreed that the Contractor will pay to the County the sum set forth below per day for each and every calendar day's delay in finishing the Work in excess of the number of calendar days prescribed; and the Contractor agrees to pay said liquidated damages herein provided for, and further agrees that the County may deduct the amount thereof from any moneys due or that may become due the Contractor under the contract.

If adverse weather conditions are the basis for a Claim for additional time, such claim shall be documented by data substantiating that weather conditions were abnormal for the period of time and could not have been reasonably anticipated and that weather conditions had an adverse effect on the critical path schedule.

Claims due to adverse weather, when approved, shall be excusable but not compensable.

It is further agreed that in the event the Contractor fails to complete Work and all requirements under this agreement within the number of calendar days specified, the County shall have the right (but not the obligation) to increase the number of calendar days, as the County may in its sole discretion deem best to serve its interests.

The Contractor will be granted an extension of time and will not be assessed with liquidated damages for any portion of the delay in completion of the Work beyond the time named in the Supplemental Conditions for the completion of the Work caused by acts of God or of the public enemy, fire, storms, floods, tidal waves, earthquakes, shortage of materials and freight embargoes, provided that the Contractor shall notify the Owner's Representative in writing of the causes of delay within fifteen (15) days from the beginning of any such delay demonstrating the actual impact on the project critical path schedule. The Owner's Representative shall ascertain the facts and the extent of the delay, and his findings thereon shall be final and conclusive.

The Contractor shall pay to the County of Santa Cruz a sum of \$500 (liquidated damages) per day for each and every calendar day's delay in finishing the Work in excess of the number of calendar days prescribed in the Time of Completion. Completion of the Project includes correction of any punch list items identified by the County and/or Owner's Representative.

3)SAFETY REQUIREMENTS ON ALL COUNTY PROJECTS All General or Prime Contractors will be responsible for their Employees, and subcontractors. It will be up to them to enforce all safety regulations set forth by the County and Cal-OSHA. This will include all safety ware and equipment necessary to provide a safe work environment for all workers and the public in and around the job site. The Contractor is advised that public works construction projects such as this Project are classified as ‘Essential Services’ for the purposes of the State and County Public Health Orders. Contractor shall comply with all State and County Public Health Orders; Contractor shall include costs for implementing applicable Health Orders; and County shall not be liable for loss of productivity as a result of the Health Orders. Any project delays directly related to Health Orders shall not be considered a Compensable Delay.

- A. The use of safety wear and equipment, such as eye protection, ear protection, and other required safety equipment will be strictly enforced.
- B. Work areas will be marked off, and safe, accessible paths provided for county employees and the general public. When part of the facility or building is to remain open during construction, Contractor shall provide, or ensure access to, an accessible entrance/exit and provide signage to clearly indicate public entrances/exits. Construction fencing shall be used to prevent trespass and preserve public safety and provide safe, accessible travel on public sidewalks or other public right-of-ways to the extent possible. Should site conditions necessitate that construction fencing block a public sidewalk or other public right- of-way, the contractor shall provide a safe and accessible alternate path of travel to destinations served by the right-of-way.
- C. Noise and dust will need to be contained and kept to a minimum when working in occupied areas, and may require after hours work.

- D. When Work above the floor or ground is required, proper use of scaffolding, ladders and safety harness or railing will be enforced.
- E. All welding, cutting or brazing will require a fire-watch with a fire extinguisher.
- F. All Contractors are responsible for their equipment and must ensure that it is safe and in good working order. All electrical equipment to be used on site will be checked by the Contractor.
- G. All Contractors are required to clean up their work area daily. Materials not used will be stored neatly or removed from the site.
- H. Material Safety Data Sheets for any materials used on the Project are required per OSHA standards. **No storage or disposal of hazardous materials on site is allowed.**
- I. For any work site/facility that is equipped with a security system, or that has doors that must remain locked, the entering of this site/facility or shutdown of the security system will need to be authorized by the Owner's Representative and/or the Building Maintenance Superintendent.
- J. The Owner's Representative will explain all policies and procedures regarding emergency alarms and exits and will also give a tour of the fire exits.
- K. A dress code is required within the county facilities. Work attire will be neat and clean and will meet OSHA requirements. No T-shirts, shorts, or open-toed shoes will be permitted.
- L. The County of Santa Cruz has all non-smoking facilities. Smoking is permitted only in designated areas outside of work site.

4) ARCHAEOLOGICAL DISCOVERIES If at any time during site preparation, excavation, or other ground disturbance, any artifact or other evidence of historic archaeological resource or a Native American cultural site is discovered, the responsible persons shall immediately cease and desist from all further site excavation and shall notify the Sheriff-Coroner if the discovery contains human remains, or the Owner's Representative if the discovery contains no human remains. The further operation of the Contractor with respect to the find will be decided under the direction of the County.

5) SPECIAL INSPECTIONS AND TESTING Tests and Inspections and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules and regulations or lawful orders of public authorities. A special inspection company will be hired and provided by the Owner. The Contractor shall make arrangements with the testing company for such tests, inspections and approvals with the special inspection company. The Contractor shall give the Owner's Representative timely notice of when and where tests and inspections are to be made so that the Owner's Representative and Architect may be present for such procedures. The County shall bear costs of (1) tests, inspections or approvals that do not become requirements until after bids are received or negotiations concluded, and (2) tests, inspections or approvals where building codes or applicable laws or regulations prohibit the County from delegating their cost to the Contractor.

If the County, Owner's Representative, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection or approval not included, the Owner's Representative will instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the County, and the Contractor shall give timely notice to the Owner's Representative of when and where tests and inspections are to be made so that the Owner's Representative may be present for such procedures. Such costs shall be at the County's expense.

If such procedures for testing, inspection or approval reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure including those of repeated procedures and compensation for the County's services and expenses shall be at the Contractor's expense.

Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Owner's Representative for transmittal to the Architect.

If the Owner's Representative or Architect is to observe tests, inspections or approvals required by the Contract Documents, the Owner's Representative or Architect will do so promptly and, where practicable, at the normal place of testing.

Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

When an inspector, test agency, etc. identifies an issue the Contractor Site Superintendent shall within 24 hours document the issue in an RFI and submit to the Owner's Representative for review. In compiling the RFI the Contractor shall document the issue in detail including drawing references, records of conversation with the inspector, etc. In addition, when possible the Site Superintendent shall arrange a conference call with the inspector and the Owner's Representative while the inspector is onsite.

CONTRACTOR shall assume full responsibility for arranging and obtaining such inspections and shall maintain a log of all tests and inspections onsite with copies of field inspection and test reports. This log will be turned over to the County at the completion of the contract.

6) SITE IMPROVEMENTS AND ADJACENT REQUIREMENTS The park is shall remain open and operational during the project. Any impacts must be coordinated with Owner's Representative with minimum of 2 days' advance notice.

7) ENVIRONMENTAL COMPLIANCE CONDITIONS The following environmental conditions apply to Contractor, all construction personnel and construction Work performed onsite.

Contractor shall comply with all permit conditions, protective measures, and requirements as identified in all permits issued to the County of Santa Cruz, including: 1) the County of Santa Cruz Building Permit. Contractor must be aware of conditions and requirements of these permits and conduct construction operations in compliance with them. Measures must be implemented to avoid and protect resources that have been identified to be present on the site or may be present on the site. It is the responsibility of the contractor to become familiar with all permit conditions noted in these permits.

8) ENVIRONMENTAL PERMITS AND LICENSES The project was reviewed by the County of Santa Cruz Planning Department and received a Notice of Exemption. A winter grading permit may be required for the project. Contractor shall be responsible for obtaining a winter grading permit prior to beginning Work that would be subject to a winter grading permit.

9) PROJECT ACCESS At all times during construction of the Project and after final completion, the Contractor and County shall provide to employees, subcontractors, and consultants of the County reasonable unrestricted access to observe, monitor, and inspect the Project. The County's access to observe, monitor, and inspect shall include the right to review all documents and files relating to the Project, as well as construction on the Site, including all tests and inspections relating to design or construction of the Project. The park shall remain open to the public. The Contractor shall provide a site staging plan showing mobilization areas, path of access, and limits of work for approval by the County prior to mobilization. Site security and safety are a priority during construction.

10) MANDATORY AS BUILT PLANS It shall be the Contractor's responsibility to maintain one set of up-to-date 'As Built Plans' that accurately represent any changes to the original Project or plan set. The 'As Built Plans' shall be in addition to any working or shop drawings required for the Project's completion.

Upon completion of the Project, the Contractor and the Owner's Representative shall review the 'As Built Plans' and make any revisions or changes as necessary and certify them as accurately representing the final Project. A copy of the final 'As Built Plans' shall be delivered to the Owner's Representative before final acceptance of the Project. Contractor to provide in pdf format all 'As Built Plans', closeout documents, product submittals, and inspection reports and sign-offs. Contractor to also include pdf and two tabbed binders of owner

training manuals.

Full compensation for conforming to the requirements of this section shall be considered as included in the prices paid for various contract items of Work and no separate payment will be made therefore.

11) PROGRESS MEETING Regular meetings shall be held at the project site to review the progress of the Work and to discuss any problems which may have occurred.

12) CONTRACTOR RESPONSIBILITY FOR CONTAMINATION If, as a result of working on this Project, any land, waterway, or stream becomes contaminated, including any land, waterway, or stream that contains an endangered or threatened species, the Contractor shall immediately contact the County inspector on the job and immediately act to mitigate and limit the reason for the contamination. The Contractor shall also notify the following agencies as soon as possible of the discharge or spill: The California Office of Emergency Services, National Oceanic and Atmospheric Administration, Department of Fish and Game, and Regional Water Quality Control Board. It will be the responsibility of the Contractor to remedy the situation and monitor all cleanup activities, including all efforts to mitigate the resultant damage. In addition, the contractor shall limit further damage. The Contractor shall develop a response and mitigation plan and coordinate all cleanup and remediation efforts with the appropriate regulatory agencies by acquiring all permits, clearances and consents necessary to facilitate the remediation effort. The Contractor shall supply the equipment and personnel needed to implement the response and mitigation plan.

The Contractor shall assume full responsibility for and immediately undertake the cleanup and mitigation described above even if the Contractor claims the contamination was a result of differing site conditions or any other cause for which the Contractor may dispute its liability.

Full compensation for any costs occasioned by compliance with this section shall be considered included in the contract price and no separate payment shall be made therefor unless the Contractor establishes entitlement for reimbursement pursuant to a Claim made in accordance with the provisions of this Contract.

13) EASEMENTS AND RIGHTS OF WAY The County shall provide the lands, rights of way, and easements upon which the Work under this Contract is to be done, and such other lands as may be designated on the plans for the use of the Contractor.

The Contractor shall provide, at Contractor's own expense, any additional land and access thereto that may be required for temporary construction facilities or storage of materials.

The Contractor shall be required to work within the right of way and easement areas obtained by the County. Any Work or trespass outside of these boundaries shall be done only by mutual consent of the County, Contractor, and the affected property owner and reflected in a written agreement between these parties.

Nonconformance by the Contractor shall be constituted to be at the Contractor's own risk and the Contractor shall hold the County harmless for results of trespass outside of this Agreement. Any changes to the conditions or requirements brought on by further negotiations between the County and the property owner will be submitted to the Contractor in the form of a written notice.

14) GENERAL PROCEDURES AND PROJECT CONDITIONS

- A. Comply with applicable codes and regulations for demolition operations and safety of adjacent structures and the public.
 - 1. Obtain required permits. Including but not limited to an encroachment permit for Work done within the County Right of Way, if required.
 - 2. Use of explosives is not permitted.
 - 3. Take precautions to prevent catastrophic or uncontrolled collapse of structures to be removed; do not allow worker or public access within range of potential collapse of unstable structures.
 - 4. Provide, erect, and maintain temporary barriers and security devices.

5. Use physical barriers to prevent access to areas that could be hazardous to workers or the public.
 6. Conduct operations to minimize effects on and interference with adjacent structures and occupants.
 7. Do not close or obstruct roadways or sidewalks without a permit.
 8. Conduct operations to minimize obstruction of public and private entrances and exits; do not obstruct required exits at any time; protect persons using entrances and exits from removal operations.
 9. Obtain written permission from owners of adjacent properties when demolition equipment will traverse, infringe upon or limit access to their property.
- B. Do not begin removal until receipt of notification to proceed from County.
- C. Do not begin removal until vegetation to be relocated has been removed and specified measures have been taken to protect vegetation to remain.
- D. Protect existing structures and other elements that are not to be removed.
1. Provide bracing and shoring.
 2. Prevent movement or settlement of adjacent structures.
 3. Stop Work immediately if adjacent structures appear to be in danger.
- E. Minimize production of dust due to demolition operations; do not use water if that will result in ice, flooding, sedimentation of public waterways or storm sewers, or other pollution.
- F. If hazardous materials are discovered during removal operations, stop Work and notify Engineer and County; hazardous materials include regulated asbestos containing materials, lead, PCB's, and mercury.
- G. Perform demolition in a manner that maximizes salvage and recycling of materials.
1. Dismantle existing construction and separate materials.
 2. Set aside reusable, recyclable, and salvageable materials; store and deliver to collection point or point of reuse.
- H. Partial Removal of Paving and Curbs: Neatly saw cut at right angle to surface.

15) EXISTING UTILITIES

- A. Coordinate work with utility companies; notify before starting Work and comply with their requirements; obtain required permits.
- B. Protect existing utilities to remain free from damage.
- C. Do not disrupt public utilities without a permit from authority having jurisdiction.

- D. Locate and mark utilities to remain; mark using highly visible tags or flags, with identification of utility type; protect from damage due to subsequent construction, using substantial barricades if necessary.
- E. Unused underground piping may be abandoned in place, provided it is completely drained and capped; remove exposed piping, valves, meters, equipment, supports, and foundations of disconnected and abandoned utilities.

16) ADDITIONAL SUPPLEMENTAL CONDITIONS

- 1. Park to be open during construction. Contractor shall ensure site safety and open travel in non project related areas of the park.

SAMPLE CONTRACT

CONTRACT

This Contract, made and entered into this _____ day of _____, 20____, between the County of Santa Cruz, a political subdivision of the State of California, hereinafter referred to as County, and: _____, hereinafter referred to as Contractor;

WITNESSETH:

WHEREAS, the Board of Supervisors of said County of Santa Cruz heretofore caused plans and specifications for the work hereinafter mentioned to be prepared, and thereafter did approve and adopt said plans and special provisions; and,

WHEREAS, the Board of Supervisors of County of Santa Cruz did cause to be noticed for the time and in the manner required by law a Notice inviting sealed bids for the performance of said work; and,

WHEREAS, Contractor, in response to such Notice, submitted to the Board of Supervisors of said County of Santa Cruz within the time specified in said Notice, and in the manner provided for therein, a sealed bid for the performance of the work specified in said plans and specifications, which said bid and proposal, and the other bids and proposals submitted in response to said Notice, the Board of Supervisors of County of Santa Cruz publicly opened and canvassed in the manner provided by law; and,

WHEREAS, Contractor was the lowest responsible bidder for the performance of said work, and said Board of Supervisors of County of Santa Cruz, as a result of the canvass of said bids, did determine and declare Contractor to be the lowest responsible bidder for the work and award to it a Contract therefor.

NOW, THEREFORE, in consideration of the above, it is mutually agreed between the parties hereto as follows, to wit:

1. SCOPE OF WORK

Contractor will furnish **labor, equipment, tools, and materials** necessary for site work and construction of the Children's Crisis Center. The Contractor shall include in its bid and provide labor, tools, equipment, and materials for a complete and working project in conformance with the intent shown on the drawings and specified herein and as provided for and set forth in said plans, special provisions, and any addendum that may be issued prior to the date of bid, or in either of them, which said plans and special provisions are hereby referred to by such reference, incorporated herein, and made a part of this Contract.

2. TERMS AND CONDITIONS

This Contract, and the Contract Documents, consist of the Contract Documents identified within the plans and special provisions, all of which are incorporated herein by reference as though set forth in full, and all of which are part of this Contract, and Contractor and County of Santa Cruz agree to comply with and fulfill all obligations, promises, covenants and conditions imposed upon each of them in the Contract Documents. All of said work done under this Contract shall be performed to the satisfaction of the Board of Supervisors of County of Santa Cruz, or its representative, who shall have the right to reject any and all materials and supplies furnished by Contractor which do not strictly comply with said plans and special

provisions, together with the right to require Contractor to replace any and all work furnished by Contractor which shall not either in workmanship or material be in strict accordance with said plans and special provisions.

Upon condition the Contractor faithfully performs its obligations herein, County of Santa Cruz agrees to make payment to Contractor (subject to the terms and conditions of the

Contract Documents) the sum of

_____ Dollars (\$ _____.)

IN WITNESS WHEREOF, County of Santa Cruz and Contractor have caused this Contract to be signed as of the day and year first above written.

County of Santa Cruz:

By: _____

Print Name: Matt Machado

Print Title: Deputy CAO, Director of Community Development and Infrastructure

Date: _____

Contractor:

By: _____
(Signature of Authorized Agent)

Print Name: _____

Print Title: _____ Date: _____

Approved as to form:

Assistant County Counsel

Date: _____

Approved as to insurance:

Risk Management

Date: _____

Bond Number: Premium:

SAMPLE PAYMENT BOND

PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS, THAT WHEREAS, the County of Santa

Cruz, State of

California, hereinafter designated as the "Obligee," has on _____ 20__, awarded to

_____, hereinafter designated as "Principal," a Contract for

the

construction

of

(Contract

No.) _____, and

WHEREAS, said Principal is required to furnish a bond, executed by a Surety admitted in the State of California, in connection and with said Contract, providing that if said Principal, or any of its subcontractors, shall fail to pay for any materials, provisions, or other supplies used in, upon, for, or about the performance of the work contracted to be done, or for any work or labor done thereon of any kind, the Surety on this bond will pay the same to the extent hereinafter set forth:

NOW, THEREFORE, We, the Principal, and _____

_____ as Surety, are held and firmly bound unto the Obligee in the penal sum of

_____, Dollars

which sum well and

(\$_____) lawful money of the United States for the payment of truly to be made, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above-bounden said Principal, or any of its subcontractors, shall fail to pay any of the persons named in Section 9100 of the Civil Code of the State of California, or any amounts due under the Unemployment Insurance Code with respect to such work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department of the State of California, from the wages of employees of the Principal and subcontractors pursuant to Section 13020 of the Unemployment Insurance Code of the State of California with respect to such work or labor, as required by the provisions of Section 9550 and following of the Civil Code of the State of California, then said Surety will pay the same in, or to an amount not exceeding the amount hereinabove set forth, and also will pay, in case suit is brought upon this bond, reasonable attorneys' fees to such claimant and to the Obligee as shall be fixed by the Court.

This bond is issued pursuant to Civil Code Sections 9550 through 9566, inclusive, of the State of California, and shall inure to the benefit of any and all persons, companies, and corporations named in Section 9100 of said Civil Code so as to give a right of action to them or their assigns in any suit brought upon this bond.

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract, or to the work to be performed thereunder, or the specifications accompanying the same shall, in any way, affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract, or to the work or to the special provisions. Said Surety hereby waives the provisions of Sections 2819 and 2845 of the Civil Code of the State of California.

IN WITNESS WHEREOF, the above-bounden parties have signed this instrument under

their seals this
of each corporate party being

_____ day of _____, 20 ____, the name and corporate seal
hereto affixed, and these presents duly signed by its undersigned representatives, pursuant to authority of its
governing body.

(SEAL)

(Principal)

(Signature for Principal)

(Title of Signatory)

(SEAL)

(Surety)

(Signature of Surety)

(Title of Signatory)

(This bond must be submitted in sets of four, each bearing original signatures. The signature of the Attorney-In-Fact for the Surety must be acknowledged by a Notary Public. These bonds must be accompanied by a current Power of Attorney appointing such Attorney-In-Fact.)

SAMPLE FAITHFUL PERFORMANCE BOND

Bond Number:

Premium:

FAITHFUL PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS, that WHEREAS the Board of Supervisors of the County of Santa Cruz, State of California, hereinafter designated as

the "Obligee," has on _____,
20____, awarded to _____
hereinafter
designated as the "Principal," a contract for the construction of
_____, (Contract No.
_____), and

WHEREAS said Principal is required, under the terms of the Contract, to furnish a bond, executed by a Surety admitted in the State of California, for the faithful performance of said Contract:

NOW, THEREFORE, We, the Principal, and _____
_____ as Surety, are held and firmly bound unto the Obligee in the
penal sum of _____ Dollars (\$ _____) lawful
well and truly to be made, we bind ourselves,
money of the United States for the payment of which sum
our heirs, executors, administrators, and successors, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that, if the above bounden Principal, its heirs, executors, administrators, successors, or assigns shall in all things stand to and abide by, and well and truly keep and faithfully perform the covenants, conditions, and agreement in the said Contract, and any alterations made as therein provided, on its part to be kept and performed at the time and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Obligee, its officers and agents as therein stipulated, then this obligation shall become null and void; otherwise it shall be and remain in full force and virtue, and Principal and Surety, in the event suit is brought on this bond, will pay to the Obligee such reasonable attorneys' fees as may be fixed by the Court.

As a condition precedent to the satisfactory completion of the said Contract, the above obligation in said amount shall hold good for a period of one (1) year after the completion and acceptance of the said work, during which time if the above bounden Principal, his or its heirs, executors, administrators, successors, or assigns shall fail to make full, complete, and satisfactory repair and replacements or totally protect the said Obligee from loss or damage made evident during said period of one (1) year from the date of acceptance of the work, and resulting from or caused by defective materials or faulty workmanship in the prosecution of the work done, the above obligation in the said sum shall remain in full force and effect. However, anything in this paragraph to the contrary notwithstanding, the obligation of the Surety hereunder shall continue so long as any obligation of the Principal remains.

The said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, or addition to the terms of the Contract, or to the work to be performed thereunder, or the specifications accompanying the same, shall, in any way, affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration, or addition to the terms of the Contract, or to the work or to the special provisions. Said Surety hereby waives the provisions of Section 2819 and 2845 of the Civil Code of the State of California.

IN WITNESS WHEREOF, the above-bounden parties have signed this instrument under

their seals this
of each corporate party being

_____ day of _____, 20____, the name and corporate seal
hereto affixed, and these presents duly signed by its undersigned representative, pursuant to authority of its
governing body.

(SEAL)

(Principal)

(Signature for Principal)

(Title of Signatory)

(SEAL)

(Surety)

(Signature of Surety)

(Title of Signatory)

(The signature of the Attorney-In-Fact for the Surety must be acknowledged by a Notary Public, and this bond must be accompanied by a current Power of Attorney appointing such Attorney-In-Fact. This bond must be submitted in sets of four, each bearing original signatures.)

SAMPLE CERTIFICATE OF INSURANCE

CERTIFICATE OF INSURANCE

Construction Contractor

This certifies to the County of Santa Cruz, California that the following described policies have been issued

to: INSURED _____

ADDRESS _____

LOCATION OF OPERATIONS INSURED _____

DESCRIPTION OF WORK (SHOW PROJECT NAME AND NUMBER) _____

POLICIES AND INSURER S	LIMITS OF COVERAGE		POLIC Y NUMB ER	EXPIRAT ION DATE
	BODILY INJURY	PROPERTY DAMAGE		
COMPREHENS IVE GENERAL LIABILITY (INSURER)	EACH PERSON	EACH OCCURRENCE		
		COMBINED SINGLE UNIT		
COMPREHENS IVE AUTO LIABILITY (INSURER)	EACH PERSON	EACH ACCIDENT		
		COMBINED SINGLE LIMIT		
WORKERS COMPENSATI ON (INSURER)	EMPLOYER'S LIABILITY	\$ _____		

All policies are in effect at this time and will not be canceled, limited, or allowed to expire without renewal until after 30 days written notice has been given to the certificate holder named on the top line. Any coverage afforded the certificate holder as an Additional Insured shall apply as primary and not to excess any insurance issued in the name of the certificate holder.

The following coverages or conditions are in effect:	YES	NO
Blanket Contractual Liability		
Products and Completed Operations		
County of Santa Cruz named as Additional Insured		
Cross Liability Clause		
X,C,U Hazards Included		
Broad Form Property Damage		
Personal Injury		

Check only one of the following:

☐ No insurance policy conditions the defense or indemnity of County of Santa Cruz or any additional insured, on any act of the named insured; or,

☐ One or more insurance policies conditions the defense or indemnify of County of Santa Cruz on an act of the named insured, and by endorsement to each of those policies, County of Santa Cruz has been added as a named insured.

DATE: _____
AT _____ FOR _____
(Authorized Signature)
(Insurance Company)

Note: Authorized signature may be agent's if agent has placed insurance through an agency agreement with the insurer. If insurance is brokered, authorized signature must be that of official of insurer.

SAMPLE FRINGE BENEFIT STATEMENT

FRINGE BENEFIT STATEMENT

CONTRACT NUMBER		FEDERAL NUMBER (IF APPLICABLE)	DATE		
CONTRACTOR/SUBCONTRACTOR		ADDRESS			
In order that the proper Fringe Benefit rates can be used for checking payrolls or applied to Force Account work which may be done on the above Contract, the rates for Fringe Benefits, subsistence and/or travel allowance payment (as required by collective bargaining agreements) made for employees on the various classes of work are tabulated below. Note – this table to be used for change order billing rates where the contractor proposes labor rates differing from Prevailing Wage Rates. If “special rates” are not listed here all change order labor will be the rates established as prevailing rates for the project.					
CLASSIFICATION	PROPOSED BASIC HOURLY RATE	SUBSISTEN CE OR TRAVEL ALLOWAN CE	FRINGE BENEFITS		TOTAL BILLING RATE
			VACATIO N	TOTAL OTHE R FRING ES	
Supplemental statements will be furnished during the progress of the work should a change in rate of any of the classifications be made.					
SUBMITTED: CONTRACTOR/SUBCONTRACTOR			BY:		

*SUBJECT TO VERIFICATION AND/OR JUSTIFICATION AT ENGINEERS REQUEST

SAMPLE WORKERS' COMPENSATION CERTIFICATION FORM

WORKERS' COMPENSATION CERTIFICATION FORM

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

By: _____

For: _____

CONTRACTOR

DATE

DRAFT

SAMPLE BIDDER QUALIFICATIONS

BIDDER QUALIFICATIONS

This form must be completed, signed by bidder, and submitted to the County of Santa Cruz with bidder's bid. Failure to complete, sign and submit with bidder's bid may result in bidder's bid being rejected as non-responsive.

The County of Santa Cruz has determined that bidders must meet the following minimum qualifications to bid the work of improvement contemplated herein:

Have possessed a valid, active and in good standing, State of California Department of Consumer Affairs, Contractor's License Board **Class A** contractor's license for a minimum of five (5) continuous years prior to the date of bid opening and can demonstrate that the firm contracted by this proposal and bid has the necessary experience to satisfactorily construct the County facility documented in these plans and specifications.

Not have any pending disciplinary proceedings or investigations by the Contractor's State License Board.

Have completed to the public owner's satisfaction, no less than three (3) projects in the State of California, each with an original contract price of no less than **\$250,000** within the past ten years prior to the date of bid opening. At least one (1) of said projects must have been projects requiring substantial (greater than 50% of the contract sum) work involving the construction of or improvements to a water supply system.

Currently (as of the date of bid opening) or within the past year, not have any suspensions, disbarments, or similar proceedings (including stipulated agreements), restricting, limiting or prohibiting bidder from bidding or performing other public works for any other public agency.

I, being the _____ (TITLE- i.e., estimator, foreman, owner) of bidder herein, declare that bidder meets all of the minimum criteria set forth above.

(Signature)

(Print Name)

(Date)

SAMPLE CONTRACTOR QUALIFICATIONS QUESTIONNAIRE

CONTRACTOR QUALIFICATIONS QUESTIONNAIRE

The bidder agrees to complete, sign and return this Contractor Qualification Questionnaire, including all required supporting documentation if selected as the apparent low bidder and if requested by the County of Santa Cruz in writing. If bidder fails or refuses to complete the Contractor Qualification Questionnaire, furnish all required attachments, sign the Contractor Qualification Questionnaire, and return it to the County of Santa Cruz within five (5) working days of County of Santa Cruz's written request, bidder will not be considered for award of the contract, and further, bidder agrees that the County of Santa Cruz may award the work to another bidder or call for new bids. In such event, the bidder shall be liable to the County of Santa Cruz for the difference between the amount of the disqualified bid and the larger amount for which the County of Santa Cruz procures the work plus all of the County of Santa Cruz's costs, damages, expenses and liabilities.

Bidder shall fully and completely answer each question set forth below. If necessary, attach additional sheets. Print or type each response. If your response to any question is "no" or "none," you must state "no" or "none." "Not applicable" or other similar response will not be accepted.

1. State the full legal name of the bidder.
2. State the nature of the bidder's business entity. (Sole proprietorship, joint venture, partnership, corporation, or other [describe]).
3. State the name and address of each person or other legal entity, which has a legal or equitable ownership of ten percent (10%) or more of the bidder. For each such person or legal entity, state that person or entity's ownership interest, title and responsibilities, if any.
4. Has any person or legal entity holding a legal or equitable ownership of ten percent (10%) or more of the bidder, ever been accused of a civil violation of California Government Code Section 12650, et seq., (False Claims Act)? If so, describe in detail all facts, circumstances and the outcome.
5. Has any person or legal entity holding a legal or equitable ownership of ten percent (10%) or more of the bidder, ever been determined by a public agency to not be a responsible bidder? If so, state the name, address and telephone number of the public agency, including the name of the agency's contact person.
6. State the bidder's contractor's license number.
7. State the date bidder first began business.
8. State any other names that bidder has used or done business under in the past five (5) years.
9. Describe in general, bidder's experience.
10. Has bidder ever failed to complete a construction contract?
11. Has bidder's control over a work of improvement ever been terminated?
12. For each public works project involving the construction of concrete structures that bidder has furnished labor, services, materials or equipment in the past five years, state: the name of each project; the contract amount for each project; the name, address and telephone number of the owner and owner's representative, for each project; and a general description of the work performed by bidder on each

project.

13. For every public work of improvement upon which bidder has furnished labor, services, materials or equipment in the past five years, whether completed or not, for which the bidder's original contract was greater than **\$250,000** state the name, address and telephone number of the owner and principal designer (architect or engineer).

14. For every lawsuit or arbitration between bidder and the owner of any work of improvement, limited to such lawsuits or arbitrations initiated or completed within the past five (5) years, state the name and address of the tribunal, the matter number, the parties, a general description of the nature of the dispute, and the outcome, if any.

15. Has bidder ever been charged with a felony? If so, describe in detail all facts, circumstances, and the outcome, furnishing the name and address of the court in which the charge(s) were filed, including the matter name and case number.

16. Has bidder ever been accused of a civil violation of California Government Code Section 12650, et seq. (False Claims Act)? If so, describe in detail all facts, circumstances and the outcome.

17. Has bidder ever been accused of presenting false claims to a public agency or public owner, as such claims are defined in California Government Code Section 12650, et seq., or 31 United States Code Section 3729, et seq.? If so, describe in detail all facts, circumstances and the outcome

18. Has any public agency ever determined or ruled that bidder is not a responsible bidder? If so, state the name, address and telephone number of the public agency, including the name of the agency's contact person.

19. Within the past five (5) years, has bidder ever failed to complete a public works construction project, within the time allowed by the contract, plus written agreed upon contract time extensions? If so, state the name, address and telephone number of the owner of such public works construction project including the name of the agencies' contact person, and further, describe in detail the nature of the work of improvement.

20. Has any surety of bidder ever paid or satisfied any claim on behalf of bidder? If so, state all facts and circumstances, including the name, address and telephone number of surety and all claimants.

21. Has any surety of bidder ever been called upon to complete a project of bidder? If so, state all facts and circumstances, including the name, address and telephone number of surety and all claimants.

22. For each project or work of improvement that bidder is either (a) currently furnishing labor, services, materials, or goods, or (b) under contract to furnish labor, services, materials or goods, state: A general description of the project; the current status of the project and bidder's work thereon; the owner's name, address and telephone number; the amount of bidder's contract on such project.

State bidder's annual gross sales for each of the last five fiscal years.

23. Have bidder's accounts receivable or right to payment been assigned to a third party? If so, state the name of the third party and whether the third party has a secured or unsecured interest. Attach a copy of the assignment agreement to this questionnaire.

The following certification must be signed by an owner, general partner, or officer of bidder.

I DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, AND DO PERSONALLY CERTIFY AND ATTEST THAT: I HAVE THOROUGHLY REVIEWED THE

ATTACHED CONTRACTOR QUALIFICATION QUESTIONNAIRE AND ATTACHMENTS, IF ANY, AND KNOW ITS CONTENTS, AND SAID CONTRACTOR QUALIFICATION QUESTIONNAIRE AND ATTACHMENTS, IF ANY, ARE TRUTHFUL, COMPLETE AND ACCURATE; AND THAT COUNTY OF SANTA CRUZ MAY REASONABLY RELY UPON THE CONTENTS AS BEING COMPLETE AND ACCURATE; AND, FURTHER, THAT I AM FAMILIAR WITH CALIFORNIA PENAL CODE SECTION 72 AND CALIFORNIA GOVERNMENT CODE SECTION 12650, ET SEQ, PERTAINING TO FALSE CLAIMS, AND FURTHER KNOW AND UNDERSTAND THAT SUBMISSION OR CERTIFICATION OF A FALSE CLAIM MAY LEAD TO FINES, IMPRISONMENT AND/OR OTHER SEVERE LEGAL CONSEQUENCES.

Executed on the date indicated below, at the location indicated below. Dated:

Location: _____

Bidder: _____

(Company Name)

By: _____
(Signature)

(Printed name of signor)

(Title of signor)

VERIFICATION OF CERTIFIED PAYROLL RECORDS SUBMITTAL TO LABOR COMMISSIONER

PROJECT _____

I am the _____ *for* _____ *in*

(Superintendent/Project Manager)

(Contractor)

connection with the above-referenced Project.

- 1) This Verification is submitted to the County of Santa Cruz ("County") concurrently with the Contractor's submittal of an Application for Progress Payment to the County, identified as Application for Progress Payment No.____ ("the Pay Application").
- 2) The Pay Application requests the County's disbursement of a Progress Payment for the value of Work performed between____, 20__ and____, 20__.
- 3) The Contractor has submitted Certified Payroll Records ("CPR") to the Labor Commissioner for all employees of the Contractor engaged in performance of Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.
- 4) All Subcontractors who are entitled to any portion of payment to be disbursed from the Pay Application have submitted their CPRs to the Labor Commissioner for all of their employees performing Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.
- 5) I have reviewed the Contractor's CPRs submitted to the Labor Commissioner. The CPRs submitted to the Labor Commissioner by the Contractor are complete and accurate for the period of time covered by the Pay Application.
- 6) I have reviewed the Subcontractors' CPRs submitted to the Labor Commissioner. The CPRs submitted to the Labor Commissioner by the Subcontractors are complete and accurate for the period of time covered by the Pay Application.

7) *I declare under penalty of perjury under California law that the foregoing is true and correct. I executed this Verification on the_____day of_____, 20__Contractor DIR Registration*

Number_____at

City and State

By: _____

(Typed or Printed Name)

Anna Jean Cummings Water Line Replacement Project

PROJECT # 2026-RP0038

Plans & Technical Specifications

Volume II of III

COUNTY OF SANTA CRUZ, CALIFORNIA

GENERAL SERVICES DEPARTMENT

Board Approval Date: 9/15/2026

PROPOSALS DUE:	October 15, 2026 – 2:00pm
PROJECT #:	2026-RP0038
VOLUME I:	General and Supplemental Conditions
VOLUME II:	Plans & Technical Specifications
VOLUME III:	Bid Proposal

SPECIFICATIONS
FOR THE CONSTRUCTION
OF
ANNA JEAN CUMMINGS COUNTY PARK
WATERLINE REPLACEMENT PROJECT
FOR
Santa Cruz County Parks Department

Prepared By

BOWMAN & WILLIAMS
3949 RESEARCH PARK COURT, SUITE 100 • SOQUEL, CA 95073-2049
PHONE (831) 426-3560 FAX (831) 426-9182

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SECTION 011000 SUMMARY

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- 1 Section includes:
- 2 Project information.
- 3 Work covered by Contract Documents.
- 4 Access to site.
- 5 Coordination with occupants.
- 6 Work restrictions.
- 7 Specification and drawing conventions.
- 8 Coordination with ongoing work by other Contractors.
- 9 Correspondence.

B Related Section:

- 1 Section 015000 "Temporary Facilities and Controls" for limitations and procedures governing temporary use of Owner's facilities.

1.3 PROJECT INFORMATION

A Project Identification: Anna Jean Cummings Water Line Replacement Project

B Project Location: 461 Soquel San Jose Rd, Soquel, CA 95073

C Owner: County of Santa Cruz

- 1 Owner's Representative: Michael Hettenhausen

D Architect: Bowman & Williams, 3949 Research Park Court, Suite 100, Soquel California 95073

- 1 Representative: Kerri Brennan

1.4 WORK COVERED BY CONTRACT DOCUMENTS

A The Work of the Project is defined by the Contract Documents and consists of the following:

- 1 Installation of a new water service line. Abandonment of existing water line. Connection of new water line to existing water connection and existing park utility infrastructures.

B Type of Contract

- 1 Project will be constructed under a lump sum price, delineated by the bid schedule included in Volume III: Bid Proposal.

1.5 ACCESS TO SITE

A General: Contractor shall have the use of Project site for construction operations during construction period.

B Use of Site: Limit use of Project site to areas within the Contract limits indicated. Do not disturb portions of Project site beyond areas in which the Work is indicated.

C Limits: Confine construction operations to those areas under construction for this project and those areas deemed useable by the owner for staging areas, access, and paths of travel.

1.6 WORK RESTRICTIONS

A Work Restrictions, General: Comply with restrictions on construction operations.

- 1 Comply with limitations on use of public streets and other requirements of authorities having jurisdiction.
- 2 On-Site Work Hours: Limit work to normal business working hours of 8:00 a.m. to 5:00 p.m., Monday through Friday, no work allowed on Saturday and Sunday except as otherwise indicated through consultation with Project Manager.

B Noise, Vibration, and Odors: Coordinate operations that may result in high levels of noise and vibration, odors, or other disruption to the public with Construction Manager. Notify Construction Manager not less than two (2) days in advance of proposed disruptive operations. Obtain Construction Manager's written permission before proceeding with disruptive operations.

C Nonsmoking Property: Smoking is not permitted on the property.

D Controlled Substances: Use of controlled substances within the existing building or on the property is not permitted.

1.7 SPECIFICATION AND DRAWING CONVENTIONS

A Specification Content: The Specifications use certain conventions for the style of language and the intended meaning of certain terms, words, and phrases when used in particular situations. These conventions are as follows:

- 1 Imperative mood and streamlined language are generally used in the Specifications. The words "shall," "shall be," or "shall comply with," depending on the context, are implied where a colon (:) is used within a sentence or phrase.
- 2 Specification requirements are to be performed by Contractor unless specifically stated otherwise.

B Division 01 General Requirements: Requirements of Sections in Division 01 apply to the Work of all Sections in the Specifications.

C Drawing Coordination: Requirements for materials and products identified on the Drawings are described in detail in the Specifications. One or more of the following are used on the Drawings to identify materials and products:

- 1 Terminology: Materials and products are identified by the typical generic terms used in the individual Specifications Sections.
- 2 Abbreviations: Materials and products are identified by abbreviations published as part of the U.S. National CAD Standard and scheduled on Drawings.
- 3 Keynoting: Materials and products are identified by reference keynotes referencing Specification Section numbers found in this Project Manual.

1.8 CORRESPONDENCE

A All contractor correspondence will be directed to the Construction Manager.

END OF SECTION 011000

SECTION 012500 SUBSTITUTION PROCEDURES

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- a Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- a Section includes administrative and procedural requirements for substitutions.
- b Related Sections:
 - 1) Section 016000 "Product Requirements" for requirements for submitting comparable product submittals for products by listed manufacturers.

1.3 DEFINITIONS

- a Substitutions: Changes in products, materials, equipment, and methods of construction from those required by the Contract Documents and proposed by Contractor.
 - 1) Substitutions for Cause: Changes proposed by Contractor that are required due to changed Project conditions, such as unavailability of product, regulatory changes, or unavailability of required warranty terms.
 - 2) Substitutions for Convenience: Changes proposed by Contractor or Owner that are not required in order to meet other Project requirements but may offer advantage to Contractor or Owner.
- b Unless specifically designated in the Contract Documents, whenever any material, process, or article is indicated or specified by grade, patent, or proprietary name or by name of manufacturer, such Specifications shall be deemed to be used for the purpose of facilitating the description of the material, process or article desired and shall be deemed to be followed by the words "or equal." Contractor may, unless otherwise stated, offer for substitution any material, process or article which is substantially equal or better in every respect to what is specified in the Contract Documents.
 - 1) Where contract documents more than one vendor for a product and contractor intends to use a vendor that is not listed a Substitution Request must be submitted refer to SECTION 012500 SUBSTITUTION PROCEDURES
- c Contractor shall submit written requests, together with substantiating data, for substitution of any "or equal" material, process or article no later than thirty (30) days after award of the Contract. To facilitate the construction schedule and sequencing, some requests may need to be submitted before thirty (30) days after award of Contract. Provisions regarding submission of "or equal" requests shall not in any way authorize an extension of time for performance of this Contract. If a proposed "or equal" substitution request is rejected, Contractor shall be responsible for providing the specified material, process or article without adjustment to the Contract Price or Contract Time. The burden of proof as to the equality of any material, process or article shall rest with the Contractor. The Owner has the complete and sole discretion to determine if a material, process or article is an "or equal" material, process or article that may be substituted. If the Owner rejects the proposed substitution, Contractor shall furnish the specified item without change in the Contract Price or Contract Time.

- d Information required to substantiate requests for substitutions of an “or equal” material, process, or article shall include a signed affidavit from the Contractor stating that, and describing how, the substituted “or equal” material, process or article is equivalent to that specified in every way except as listed on the affidavit. Substantiating data shall include any and all illustrations, specifications, and other relevant data including catalog information which describes the requested substituted “or equal” material, process or article, and substantiates that it is an “or equal” to the material, process or article. The substantiating data must also include information regarding the durability and lifecycle cost of the requested substituted “or equal” material, process or article. Failure to submit all the required substantiating data, including the signed affidavit, to the Owner in a timely fashion will result in the rejection of the proposed substitution.
- e The Contractor shall bear all of the Owner’s costs associated with the review of substitution requests, including review by design professionals.
- f The Contractor shall be responsible for all costs related to a substituted “or equal” material, process or article.

1.4 SUBMITTALS

- a Substitution Requests: Submit an electronic file or three copies of each request for consideration. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles.
 - 1) Substitution Request Form: Use facsimile of form the attached Substitution Form.
 - 2) Documentation: Show compliance with requirements for substitutions and the following, as applicable:
 - a. Statement indicating why specified product or fabrication or installation cannot be provided, if applicable.
 - b. Coordination information, including a list of changes or modifications needed to other parts of the Work and to construction performed by Owner and separate contractors, that will be necessary to accommodate proposed substitution.
 - c. Detailed comparison of significant qualities of proposed substitution with those of the Work specified. Include annotated copy of applicable specification section. Significant qualities may include attributes such as performance, weight, size, durability, visual effect, sustainable design characteristics, warranties, and specific features and requirements indicated. Indicate deviations, if any, from the Work specified.
 - d. Product Data, including drawings and descriptions of products and fabrication and installation procedures.
 - e. Samples, where applicable or requested.
 - f. Certificates and qualification data, where applicable or requested.
 - g. List of similar installations for completed projects with project names and addresses and names and addresses of Architects and owners.
 - h. Material test reports from a qualified testing agency indicating and interpreting test results for compliance with requirements indicated.
 - i. Research reports evidencing compliance with building code in effect for Project, from ICC-ES.
 - j. Detailed comparison of Contractor's construction schedule using proposed substitution with products specified for the Work, including effect on the overall Contract Time. If specified product or method of construction cannot be provided within the Contract Time, include letter from manufacturer, on manufacturer's letterhead, stating date of receipt of purchase order, lack of availability, or delays in delivery.

- k. Cost information, including a proposal of change, if any, in the Contract Sum.
 - l. Contractor's certification that proposed substitution complies with requirements in the Contract Documents except as indicated in substitution request, is compatible with related materials, and is appropriate for applications indicated.
 - m. Contractor's waiver of rights to additional payment or time that may subsequently become necessary because of failure of proposed substitution to produce indicated results.
- 3) Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within seven (7) days of receipt of a request for substitution. Architect will notify Contractor through Construction Manager of acceptance or rejection of proposed substitution within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- a. Forms of Acceptance: Change Order, Construction Change Directive, or Clarification Drawing for minor changes in the Work.
 - b. Use product specified if Architect does not issue a decision on use of a proposed substitution within time allocated.

1.5 QUALITY ASSURANCE

- a. Compatibility of Substitutions: Investigate and document compatibility of proposed substitution with related products and materials. Engage qualified testing agency to perform compatibility tests recommended by manufacturers.

1.6 PROCEDURES

- a. Coordination: Modify or adjust affected work as necessary to integrate work of the approved substitutions.

Part 2 - PRODUCTS

2.1 SUBSTITUTIONS

- a. Substitutions for Cause: Submit requests for substitution immediately upon discovery of need for change, but not later than (30) thirty days prior to time required for preparation and review of related submittals.
- 1) Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
- a. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - b. Substitution request is fully documented and properly submitted.
 - c. Requested substitution will not adversely affect Contractor's construction schedule.
 - d. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - e. Requested substitution is compatible with other portions of the Work.
 - f. Requested substitution has been coordinated with other portions of the Work.
 - g. Requested substitution provides specified warranty.
 - h. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

- b Substitutions for Convenience: Architect will consider requests for substitution if received within 30 days after the Notice to Proceed. Requests received after that time may be considered or rejected at discretion of Architect.
- 1) Conditions: Architect will consider Contractor's request for substitution when the following conditions are satisfied. If the following conditions are not satisfied, Architect will return requests without action, except to record noncompliance with these requirements:
 - a. Requested substitution offers Owner a substantial advantage in cost, time, energy conservation, or other considerations, after deducting additional responsibilities
 - b. Owner's additional responsibilities which may include compensation to Architect for redesign and evaluation services, increased cost of other construction by Owner, and similar considerations.
 - c. Requested substitution does not require extensive revisions to the Contract Documents.
 - d. Requested substitution is consistent with the Contract Documents and will produce indicated results.
 - e. Substitution request is fully documented and properly submitted.
 - f. Requested substitution will not adversely affect Contractor's construction schedule.
 - g. Requested substitution has received necessary approvals of authorities having jurisdiction.
 - h. Requested substitution is compatible with other portions of the Work.
 - i. Requested substitution has been coordinated with other portions of the Work.
 - j. Requested substitution provides specified warranty.
 - k. If requested substitution involves more than one contractor, requested substitution has been coordinated with other portions of the Work, is uniform and consistent, is compatible with other products, and is acceptable to all contractors involved.

Part 3 - EXECUTION (Not Used)

END OF SECTION 012500

SECTION 012500
SUBSTITUTION PROCEDURES

Substitution Request Form			
JOB No: _____			
138	Submittal # 0	XXXXXXXX	
Date Received <u> / / </u>		Return By <u> / / </u>	
Substitution Checklist - Provide Supporting Documentation as Required by Specification Section 012500			
☐	a Why Product Cannot be Supplied	☐	g Similar Completed Projects
☐	b Coordination Information - Changes Required	☐	h Material Test Reports
☐	c Annotated Specification with Proposed Changes	☐	i Research Reports (Code Reports)
☐	d Product Data / Shop Drawings	☐	j Detailed Schedule Showing Possible Impacts
☐	c Annotated Specification with Proposed Changes	☐	k Proposed Change in Cost (Credit or Added Cost)
☐	d Product Data / Shop Drawings	☐	l Contractor's Written Certification (Wet Signed)
☐	e Samples	☐	l Contractor's Written Certification (Wet Signed)
☐	f Certification & Qualification Data		
Subcontractor/Supplier XXX			
Spec Section (s) 00000 XXXXX			
ARCHITECT'S/CONSULTANT'S ACTION		Contractor Submittal ID	
Date		Contractor's Signature	
1	No Exception Taken	2	Furnish As Noted
3	SUBMIT SPECIFIC ITEM (As a Separate Submittal)	4	REJECTED / RESUBMIT AS SPECIFIED
5	REVISE AS NOTED AND RESUBMIT	6	NO ACTION REQUIRED REVIEWED
NOTES			
This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or the means, methods, techniques, sequences and procedures of construction; coordination of his or her Work with that of all other trades; and for performing all work in a safe and satisfactory manner.			
Date		Signature	
Architect			
Review Distribution			
2	Architect	7	Civil
3	Electrical	8	Structural
4	Mechanical	9	Landscape
5	Plumbing	10	
6	Geotechnical-Soils engineer	11	
File _____			

SECTION 012600
CONTRACT MODIFICATION
PROCEDURES

SECTION 012600 CONTRACT MODIFICATION PROCEDURES

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- a Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- a Section includes administrative and procedural requirements for handling and processing Contract modifications.
- b Related Sections:
 - 1) Section 012500 "Substitution Procedures" for administrative procedures for handling requests for substitutions made after the Contract award.

1.3 MINOR CHANGES IN THE WORK

- a Project Manager (PM) will issue supplemental instructions authorizing minor changes in the Work, not involving adjustment to the Contract Sum or the Contract Time.

1.4 PROPOSAL REQUESTS

- a Owner-Initiated Proposal Requests: PM will issue a detailed description of proposed changes in the Work that may require adjustment to the Contract Sum or the Contract Time. If necessary, the description will include supplemental or revised Drawings and Specifications.
 - 1) Proposal Requests issued by PM are not instructions either to stop work in progress or to execute the proposed change.
 - 2) Within fifteen (15) days after receipt of Proposal Request, submit a quotation estimating cost adjustments to the Contract Sum and the Contract Time necessary to execute the change.
 - a. Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - b. Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.
 - c. Include labor manhours and costs of labor and supervision directly attributable to the change. Note that maximum allowable billing rates for labor will be limited to the current Prevailing Wage Rate unless otherwise approved by Owner.
 - d. Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time. Submit in a format acceptable to the PM.
- b Contractor-Initiated Proposals: If latent or changed conditions require modifications to the Contract, Contractor may initiate a claim by submitting a request for a change to PM
 - 1) Include a statement outlining reasons for the change and the effect of the change on the Work. Provide a complete description of the proposed change. Indicate the effect of the proposed change on the Contract Sum and the Contract Time.
 - 2) Include a list of quantities of products required or eliminated and unit costs, with total amount of purchases and credits to be made. If requested, furnish survey data to substantiate quantities.
 - 3) Indicate applicable taxes, delivery charges, equipment rental, and amounts of trade discounts.

SECTION 012600
CONTRACT MODIFICATION
PROCEDURES

- 4) Include labor manhours and costs of labor and supervision directly attributable to the change. Note that maximum allowable billing rates for labor will be limited to the current Prevailing Wage Rate unless otherwise approved by Owner.
- 5) Include an updated Contractor's construction schedule that indicates the effect of the change, including, but not limited to, changes in activity duration, start and finish times, and activity relationship. Use available total float before requesting an extension of the Contract Time. Submit in a format acceptable to the PM.
- 6) Comply with requirements in Division 01 Section "Substitution Procedures" if the proposed change requires substitution of one product or system for product or system specified.
- 7) Must be submitted to the PM within fifteen (15) days of discovery, with complete pricing breakdown and a summary of schedule impacts per requirements of the Supplemental General Conditions.

1.5 UNILATERAL CHANGE ORDERS.

- a If the Owner disagrees with the proposal submitted by Contractor, they will notify the Contractor and the Owner will provide its opinion of the appropriate price and/or time extension.
- b If the Contractor agrees with The Owner, a change order will be issued by The Owner.
- c If no agreement can be reached, The Owner shall have the right to issue a unilateral change order setting forth its determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work.
- d Such determination shall become final and binding if the Contractor fails to submit a claim in writing to The Owner within fifteen (15) Days of the issuance of the unilateral change order, disputing the terms of the unilateral change order and providing sufficient supporting documentation for its position as The Owner may reasonably require.

1.6 ADMINISTRATIVE CHANGE ORDERS

- a Allowance Adjustment: Refer to Division 01 Section "Allowances" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect actual costs of allowances.
- b Unit Price Adjustment: Refer to Division 01 Section "Unit Prices" for administrative procedures for preparation of Change Order Proposal for adjusting the Contract Sum to reflect measured scope of unit price work.

1.7 CHANGE ORDER PROCEDURES

- a Owner's approval of a Proposed Change Order (PCO) will provide formal approval for the Contractor to proceed with the work described in that PCO using the Proposed Change Order Summary/Proposed Change Order Subcontractor Worksheet(s) attached.
- b All proposed change orders shall clearly identify the appropriate initiating document (e.g. RFI, Clarification Drawing, Construction Change Directive, etc.)
- c Periodically throughout the project the PM will issue a Formal Change Orders for signatures of Owner, Architect and Contractor on AIA Document G701 or equivalent, incorporating approved PCOs.

1.8 CONSTRUCTION CHANGE DIRECTIVE

- a Construction Change Directive: PM may issue a Construction Change Directive on AIA Document G714 (or a similar form). Construction Change Directive instructs Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- b Documentation: Maintain detailed records on a time and material basis of work required by the Construction Change Directive.

SECTION 012600
CONTRACT MODIFICATION
PROCEDURES

- 1) Daily Reports by Contractor.
- 2) General: At the close of each working day (no later than two (2) working days after the end of each day that work is performed), the Contractor shall submit a daily report to the PM, on forms approved by the Owner, together with applicable delivery tickets, listing all labor, materials, and equipment involved for that day, the location of the Work, and for other services and expenditures when authorized concerning extra work items. An attempt shall be made to reconcile the report daily, and it shall be signed by the PM and the Contractor Superintendent. In the event of disagreement, pertinent notes shall be entered by each party to explain points which cannot be resolved immediately. Each party shall retain a signed copy of the report. Reports by subcontractors or others shall be submitted through the Contractor.
- 3) Labor: Show names of workers, classifications, and hours worked.
- 4) Materials: Describe and list quantities of materials used. Must be followed with priced receipts within seven (7) calendar days.
- 5) Equipment: Show type of equipment, size, identification number, and hours of operation, including, if applicable, loading and transportation. Must be followed with priced receipts within seven (7) calendar days.
- 6) Other Services and Expenditures: Describe in such detail as the Owner may require.
- 7) After completion of change, submit an itemized account and supporting data necessary to substantiate cost and time adjustments to the Contract.

1.9 CALCULATION OF COSTS

- a Cost Proposals. Whenever possible, any changes to the Contract Price shall be in a lump sum mutually agreed to by the Contractor and The Owner. Price quotations from the Contractor shall be accompanied by sufficiently detailed supporting documentation, including but not limited to estimates and quotations from subcontractors or material suppliers, as The Owner may reasonably request.
- b If the Contractor fails to submit a complete cost proposal within the fifteen (15) Day period (or as requested), The Owner has the right to order the Contractor in writing to commence the work immediately on a force account basis and/or issue a lump sum change to the contract price in accordance with The Owner's estimate of cost.
- c If the change is issued based on The Owner's estimate, the Contractor will waive its right to dispute the amount of compensation of time extension unless within fifteen (15) Days following completion of the added/deleted work, the Contractor presents written proof that The Owner's estimate was in error.
- d Estimates for lump sum quotations and accounting for force account work shall be limited to direct expenditures necessitated specifically by the subject extra work, and shall be segregated as follows:
- e All Change Order costs will be calculated as follows, and shall be presented by the contractor in a format acceptable to the Owner and Project Manager:
 - 1) Labor. The costs of labor will be the actual cost for wages not to exceed prevailing wage for each craft or type of worker at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the cost of extra work will not be permitted unless the contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.

SECTION 012600
CONTRACT MODIFICATION
PROCEDURES

- 2) Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery. Materials cost shall be based upon supplier or manufacturer's invoice. If invoices or other satisfactory evidence of cost are not furnished within fifteen (15) Days of delivery, then the County shall determine the materials cost, at its sole discretion.
- 3) Tool and Equipment Use. Costs for the use of small tools, which are tools that have a replacement value of \$1,000 or less, shall be considered included in the markups described below and no additional payment will be made small tools. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, or Caltrans Equipment Rental Rates (without surcharge) at the time the work is performed.
 - a. If the equipment is moved on to the work and used exclusively for extra work, the Contractor will be paid for the cost of transporting it to the job and returning it to its original location. The rental period shall begin when the equipment is unloaded at the site of the extra work, and shall include each day that the equipment is at the site of, and performing or utilized for, such extra work, excluding Saturdays, Sundays, and legal holidays, unless extra work is performed on such days, and shall terminate at the end of the day on which such extra work is completed or the Owner's Representative or Project Manager directs the Contractor to discontinue the use of such equipment.
 - b. The rental time to be paid for equipment already on the work, or which is used for other than such extra work, shall be the actual time the equipment is in operation on the extra work, plus the time required to move the equipment to the site of the extra work and return it to its original location.
- 4) Overhead, Profit and Other Charges. The mark-up for overhead (including supervision) and profit on work added to the Contract shall be determined in accordance with the following:
 - a. "Net Cost" is defined as the actual costs of labor, materials and tools and equipment only excluding overhead and profit. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up.
 - a. All of the following costs are included in the markups for overhead and profit and Contractor shall not receive any additional compensation for: Submittals, drawings: field drawings, Shop Drawings, including submissions of drawings; field inspection; general superintendence; general administration and preparation of cost proposals, schedule analysis, Change Orders, and other supporting documentation; computer services; reproduction services; Salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries; Janitorial services; small tools, incidentals and consumables; temporary on site facilities (offices, telephones, internet access, plumbing, electrical power, lighting; platforms, fencing, water), jobsite and home office overhead or other expenses; vehicles and fuel used for work otherwise included in the Contract Documents; surveying; estimating; protection of work; handling and disposal fees; final cleanup; other incidental work; related warranties.
 - b. For Work performed by the Contractor's forces the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost of the Work.
 - c. For Work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost of the Work to which the Contractor may add five percent (5%) of the subcontractor's Net Cost.
 - d. For Work performed by a sub-subcontractor the added cost for overhead and profit shall not exceed fifteen percent (15%) of the Net Cost for Work to which the subcontractor and general contractor may each add an additional five percent (5%) of the Net Cost of the lower tier subcontractor.

SECTION 012600
CONTRACT MODIFICATION
PROCEDURES

- e. No additional mark-up will be allowed for lower tier subcontractors, and in no case shall the added cost for overhead and profit payable by the County exceed twenty-five percent (25%) of the Net Cost as defined herein.
- f Contractor may also add actual cost of subcontractor's bond (if any) and a markup on such bond not to exceed one percent (1%).
- g For added or deducted Work by subcontractors, the Contractor shall furnish to the County the subcontractor's signed detailed records of the cost of labor, material and equipment, including the subcontractor markup for overhead and profit in a format acceptable to the County. The same requirement shall apply to sub-subcontractors.
- h For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the County a detailed record of the cost to the Contractor, signed by such vendor or supplier.
- i Any change in the Work involving both additions and deletions shall indicate a net total cost, including subcontracts and materials. Allowance for overhead and profit, as specified herein, shall be applied consistently through-out the course of the project and shall apply if the net total cost is an increase or decrease in the Contract Price.
- j Contractor shall not reserve a right to assert impact costs, extended job site costs, extended overhead, constructive acceleration and/or actual acceleration beyond what is stated in the change order for work. No claims shall be allowed for impact, extended overhead costs, constructive acceleration and/or actual acceleration due to a multiplicity of changes and/or clarifications. Contractor may not change or modify The County's change order form in an attempt to reserve additional rights.
- k No dispute, disagreement or failure of the parties to reach agreement on the terms of the change order shall relieve the Contractor from the obligation to proceed with performance of the changed work, including extra work, promptly and expeditiously.
- l Costs shall be presented using the Proposed Change Order Summary / Proposed Change Order Subcontractor Worksheet(s) attached. Provide Proposed Change Order Subcontractor Worksheet(s) for each entity that is party to the proposed change order.

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION (Not Used)

END OF SECTION 012600

Submit separate sheets for each subcontractor (as needed)

J:\20 Jabs\120008 Santa Cruz County - Animal Shelter Construction Management\Change Orders\COR Farm\Standard Change Order Request Form 2020-05-02.xlsx\COR Worksheet

[illegible]

SECTION 012613
REQUEST FOR INTERPRETATION
PROCEDURES

SECTION 012613 REQUEST FOR INTERPRETATION PROCEDURES

Part 1 - GENERAL

1 SUMMARY

- a This section contains Request for Information (RFI) procedures to be used for this project.

2 REQUEST FOR INFORMATION PROCEDURES

- a The following procedures expand on the General Conditions and shall be followed by Contractor upon discovery of any apparent conflicts, omissions, or errors in the Contract Documents or upon having any question concerning interpretation.
- b When an inspector, test agency, etc. identifies an issue or exception the General Contractor shall within 24 hours document the issue in an RFI and submit to the PM for review. In compiling the RFI make sure to document the issue in detail including drawing references, record of conversation with the inspector, etc.
- c Notification by Contractor
 - 1) Submit all requests for clarification or additional information in writing to the Construction Manager, using the attached Request for Information form.
 - 2) Number RFIs sequentially. Follow RFI number with decimal suffix as necessary for each resubmission. For example, the first RFI would be 001. The second RFI would be 002. The first resubmittal of RFI 002 would be 002.1.
 - 3) Limit each RFI to one subject.
 - 4) Submit an RFI if one of the following conditions occurs:
 - a. Contractor discovers an unforeseen condition or circumstance that is not described in the contract documents.
 - b. Contractor discovers an apparent conflict or discrepancy between portions of the contract documents that appears to be inconsistent or is not reasonably inferred from the intent of the contract documents.
 - c. Contractor discovers what appears to be an omission from the contract documents that cannot be reasonably inferred from the intent of the contract documents.
 - 5) Contractor shall not
 - a. Submit an RFI as a request for substitution.
 - b. Submit an RFI as a submittal.
 - c. Submit an RFI under the pretense of a contract documents discrepancy or omission without thorough review of the documents.
 - d. Submit an RFI as an alternative to
 - i. Reading manufacturer's instructions
 - ii. Consulting references or industry standards cited by the contract documents
 - e. Submit an RFI in a manner that suggests that specific portions of the contract documents are assumed to be excluded or by taking an isolated portion of the contract documents in part rather than whole.
 - f. Submit an RFI in an untimely manner without proper coordination and scheduling of work of related trades.
 - g. Use the quantity of RFIs as justification for additional compensation or extensions of time.

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REQUEST FOR INTERPRETATION
PROCEDURES

- 6) Contractor shall submit request for information or clarification immediately upon discovery. Contractor shall submit RFIs within a time frame so as not to delay the contract schedule while allowing the full response time described below.
- 7) RFI's shall clearly indicate the following information:
 - a. Originating party
 - b. Date by which the response is required
 - c. Proposed solution if any
 - d. Cost implication if any
 - e. Response by Contractor or Contractor's Design Consultants, where appropriate
 - f. Contractor's proposed solution
- 8) Generate and submit requests to the PM for information or interpretation of contract documents electronically on RFI form provided by the Construction Manager. Responses will be transmitted electronically. Establish and maintain a RFI Log and number each RFI sequentially.
- 9) The PM encourages electronic submittal of RFIs in text recognizable PDF format. This will expedite RFI processing and simplify record keeping.
 - a. If the contractor chooses to submit RFIs in electronic format, via email, this process must be used for all RFIs throughout the project duration. Identification of RFI pdf files will follow a consistent naming convention:

Project Number	-	Project Name	-	RFI- 001.1	-	2025-01-01
CM Job#		Job Description		RFI #		Date of RFI

- b. All Emails, Faxes and Transmittals shall include the PM job number in the subject.
 - 10) The Contractor shall thoroughly review all Requests for Information (RFI's) submitted by subcontractors prior to submission to the Construction Manager to determine whether such RFI's is already answered in the Contract Documents. Contractor represents to County and Project Manager, that by submission of an RFI, Contractor has thoroughly reviewed the RFI and thoroughly reviewed the Contract Documents, and determined that the RFI is not answered or reasonably inferable in the Contract Documents, and that the RFI pertains to an unforeseen condition or circumstance that is not described in the Contract Documents, that there is a conflict or discrepancy in the Contract Documents, or there is an omission in the Contract Documents. In the event any RFI is answered or reasonably inferable from the Contract Documents, Contractor agrees to pay the Project Manager, the County and the County's consultants the reasonable cost for their time and expenses associated with reviewing and responding to RFI's which are already answered or reasonably inferable from the Contract Documents. In the event of a disagreement over such compensation, the judgment of the Project Manager shall control.
- 3 Response Time
- a. The Architect shall resolve such questions and issue instructions to Contractor within 14 calendar days. In some cases, this time may need to be lengthened for complex issues, or shortened for emergency situations, as mutually agreed in writing.
 - b. Should Contractor proceed with the work affected before receipt of a response from the Architect within the response time described above any portion of the work which is not done in accordance with the Architect's interpretations, clarifications, instructions, or decision is subject to removal or replacement and Contractor shall be responsible for all resultant losses.
- 4 Failure to Agree:

SECTION 012613
REQUEST FOR INTERPRETATION
PROCEDURES

- a In the event of failure to agree as to the scope of the contract requirement, Contractor shall follow procedures set forth in Article 15 Claims and Disputes of the General Conditions.

Contractor Name _____		Request for Information
Contractor Address _____	Phone (831) ____-____	RFI 001
	Fax (831) ____-____	

Brief Description of Question		Arch Job #	
		Owner's Rep Job	
		Contr Job	

Page 1 of ____

SECTION 012900 PAYMENT PROCEDURES

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A This Section specifies administrative and procedural requirements necessary to prepare and process Applications for Payment.

B Related Sections:

- 1 Division 01 Section "Contract Modification Procedures" for administrative procedures for handling changes to the Contract.
- 2 Division 01 Section "Construction Progress Documentation" for administrative requirements governing the preparation and submittal of the Contractor's construction schedule.
- 3 Division 01 Section "Submittal Procedures" for administrative requirements governing the preparation and submittal of the submittal schedule.

1.3 DEFINITIONS

- A Schedule of Values: A statement furnished by Contractor allocating portions of the Contract Sum to various portions of the Work and used as the basis for reviewing Contractor's Applications for Payment.

1.4 SCHEDULE OF VALUES

- A Coordination: Coordinate preparation of the schedule of values with preparation of Contractor's construction schedule.

- 1 Correlate line items in the schedule of values with other required administrative forms and schedules, including the following:
 - a Application for Payment forms with continuation sheets.
 - b Submittal schedule.
- 2 Items required to be indicated as separate activities in Contractor's construction schedule.

- B Format and Content: Use the Project Manual table of contents as a guide to establish line items for the schedule of values. Provide at least one-line item for each Specification Section (where more than 1 subcontractor is associated with a specified CSI Division of work, include separate line items for each subcontractor within the CSI Division in the schedule of value).

- 1 Identification: Include the following Project identification on the schedule of values:
 - a Project name and location.
 - b Name of Engineer.
 - c Engineer's project number.
 - d Contractor's name and address.
 - e Date of submittal.
- 2 Arrange schedule of values consistent with format of AIA Document G703.
- 3 Arrange the schedule of values in tabular form with separate columns to indicate the following for each item listed:
 - a Related Specification Section or Division.

- b Description of the Work.
 - c Name of subcontractor.
 - d Name of manufacturer or fabricator.
 - e Name of supplier.
 - f Change Orders (numbers) that affect value.
 - g Dollar value of the following, as a percentage of the Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
- 4 Provide a breakdown of the Contract Sum in enough detail to facilitate continued evaluation of Applications for Payment and progress reports. Coordinate with the Project Manual table of contents. Provide multiple line items for principal subcontract amounts in excess of five (5%) percent of Contract Sum.
 - 5 Round amounts to nearest whole dollar; total shall equal the Contract Sum.
 - 6 Provide a separate line item in the schedule of values for each part of the Work where Applications for Payment may include materials or equipment purchased or fabricated and stored, but not yet installed.
 - a Differentiate between items stored on-site and items stored off-site. If required, include evidence of insurance.
 - 7 Provide separate line items in the schedule of values for initial cost of materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
 - 8 Allowances: Provide a separate line item in the schedule of values for each allowance. Show line-item value of unit-cost allowances, as a product of the unit cost, multiplied by measured quantity. Use information indicated in the Contract Documents to determine quantities.
 - 9 Purchase Contracts: Provide a separate line item in the schedule of values for each purchase contract. Show line-item value of purchase contract. Indicate owner payments or deposits, if any, and balance to be paid by Contractor.
 - 10 Each item in the schedule of values and Applications for Payment shall be complete. Include total cost and proportionate share of general overhead and profit for each item.
 - a Temporary facilities and other major cost items that are not direct cost of actual work-in-place must be shown as separate line items in the schedule of values Including:
 - 1) General Contractor Home Office Overhead
 - 2) General Contractor Site Overhead
 - 3) General Contractor Profit
 - 4) General Contractor Insurance
 - 5) General Contractor Cleanup
 - 6) General Contractor Mobilization
 - 7) General Contractor Demobilization
 - 11 Schedule Updating: Update and resubmit the schedule of values before the next Application for Payment when Change Orders or Construction Change Directives result in a change in the Contract Sum (NOTE Proposed change orders shall not be included in the schedule of values until a fully executed change order has been approved by all parties).
- C Within 10 days of Contract Execution provide the schedule of values and a forecast cash flow plan, showing forecast monthly payment requests

- D Within 30 days of Notice to Proceed provide a complete list of Subcontractors including the name, address, telephone number, fax number, license number, DIR Registration Number and classification of all Subcontractors and of all other parties furnishing labor, material, or equipment for its Contract, along with the amount of each such subcontract or the price of such labor, material, and equipment needed for its entire portion of the Work.

1.5 APPLICATIONS FOR PAYMENT

- A Each Application for Payment shall be consistent with previous applications and payments as certified by PM and paid for by Owner.
- 1 Initial Application for Payment, Application for Payment at time of Substantial Completion, and final Application for Payment have additional requirements.
- B Payment Application Times: The date for each progress payment is indicated in the Agreement between Owner and Contractor. The period of construction work covered by each Application for Payment is the period indicated in the Agreement.
- C Application for Payment Forms: Use AIA Document G702 and AIA Document G703 or equal as form for Applications for Payment (Alternate formats must be approved in advance by the CM).
- D Application Preparation: Complete every entry on form. PM will return incomplete applications without action.
- 1 Entries shall match data on the schedule of values and Contractor's construction schedule. Use updated schedules if revisions were made.
 - 2 Include amounts for work completed following previous Application for Payment, whether or not payment has been received. Include only amounts for work completed at time of Application for Payment.
 - 3 Include amounts of Change Orders and Construction Change Directives issued before last day of construction period covered by application.
 - 4 Indicate separate amounts for work being carried out under Owner-requested project acceleration.
- E Stored Materials: Include in Application for Payment amounts applied for materials or equipment purchased or fabricated and stored, but not yet installed. Differentiate between items stored on-site and items stored off-site.
- 1 Provide certificate of insurance, evidence of transfer of title to Owner, and consent of surety to payment, for stored materials.
 - 2 Provide supporting documentation that verifies amount requested, such as paid invoices. Match amount requested with amounts indicated on documentation; do not include overhead and profit on stored materials.
 - 3 Provide summary documentation for stored materials indicating the following:
 - a Materials previously stored and included in previous Applications for Payment.
 - b Work completed for this Application utilizing previously stored materials.
 - c Additional materials stored with this Application.
 - d Total materials remaining stored, including materials with this Application.
- F Transmittal: Submit three(3) signed and original copies of each Application for Payment to PM by a method ensuring receipt within 24 hours. One copy shall include waivers of lien, certified payrolls and similar attachments if required.
- 1 Transmit each copy with a transmittal form listing attachments and recording appropriate information about application.

- G Waivers of Mechanic's Lien: With each Application for Payment, submit conditional waivers of mechanic's lien from entities lawfully entitled to file a mechanic's lien arising out of the Contract and related to the Work covered by the payment.
- 1 Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 - 2 When an application shows completion of an item, submit conditional final or full waivers.
 - 3 Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 4 Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- H Waivers of Mechanic's Lien: With each Application for Payment, submit unconditional waivers of mechanic's liens from subcontractors, sub-subcontractors, and suppliers for construction period covered by the previous application.
- 1 Submit partial waivers on each item for amount requested in previous application, after deduction for retainage, on each item.
 - 2 When an application shows completion of an item, submit conditional final or full waivers.
 - 3 Owner reserves the right to designate which entities involved in the Work must submit waivers.
 - 4 Submit final Application for Payment with or preceded by conditional final waivers from every entity involved with performance of the Work covered by the application who is lawfully entitled to a lien.
 - 5 Waiver Forms: Submit waivers of lien on forms, executed in a manner acceptable to Owner.
- I Submit a summary of Mechanics liens in a format acceptable to the PM preferably a spreadsheet including:
- 1 Schedule of Values Line Item
 - 2 Scheduled Amount
 - 3 Subcontractor
 - 4 Value of Subcontract
 - 5 Amount paid from Previous Payment Application
 - a Unconditional Waiver amount from previous payment
 - b Total Unconditional Waivers to date
 - 6 Amount requested Current Payment Application
 - a Conditional Waiver amount for this payment
- J Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of first Application for Payment include the following:
- 1 List of subcontractors with contact information (Microsoft Excel, Word or similar acceptable format), with a cross reference to the associated schedule of values line item(s)
 - a Completed REQUEST FOR DISPATCH OF AN APPRENTICE – DAS 142 FORM for each subcontractor
 - b Completed DAS 140 for each subcontractor
 - 2 Schedule of values.
 - 3 Contractor's construction baseline schedule (reflecting current approved completion dates and reflecting only those schedule extensions that have been approved by a change order) Include a copy in native schedule format (e.g. Primavera P6, Microsoft Project, etc.) and a PDF copy.

- 4 Combined Contractor's construction schedule incorporating Work of multiple contracts, with indication of acceptance of schedule by each Contractor.
 - 5 Products list (preliminary if not final).
 - 6 Schedule of unit prices (if applicable).
 - 7 Submittal schedule listing all submittals (preliminary if not final).
 - 8 List of Contractor's staff assignments.
 - 9 List of Contractor's principal consultants.
 - 10 Copies of building permits.
 - 11 Copies of authorizations and licenses from authorities having jurisdiction for performance of the Work.
 - 12 Initial progress report.
 - 13 Report of preconstruction conference.
 - 14 Certificates of insurance and insurance policies.
 - 15 Performance and payment bonds.
 - 16 Data needed to acquire Owner's insurance.
 - 17 Completed VERIFICATION OF CERTIFIED PAYROLL RECORDS SUBMITTAL TO LABOR COMMISSIONER
- K For each subsequent payment application, provide updated documents submitted with the initial payment application. As a minimum the following documents must accompany each payment Application:
- 1 Updated schedule of values with percent complete for each line item.
 - 2 Current updated construction schedule (reflecting current approved completion dates and reflecting only those schedule extensions that have been approved by a change order). Include a copy in native schedule format (e.g. Primavera P6, Microsoft Project, etc.) and a PDF Copy.
 - 3 Updated submittal schedule, reflecting the current status of submittals.
 - 4 Updated logs (Proposed Change Orders, Change Orders, Clarification Drawings, Request for Information (RFI), etc.)
 - 5 Waste Reduction Progress Reports / Calculations refer to Section 017419 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL
 - 6 A statement showing all payments made by the Contractor for labor and materials and to subcontractors on account of the Work covered in preceding Payment Applications (e.g. Unconditional Release of Liens and Conditional Release of Liens). Such applications shall not include requests for payment of amounts the Contractor does not intend to pay to subcontractors or others because of a dispute or other reason.
 - 7 An updated Certificate of Insurance due prior to expiration of current certificate.
 - 8 Prior to approving each Payment Application, the PM will review the record drawings, record specifications, and submittals being maintained on site by the contractor for compliance with the specifications. Failure to maintain adequate record documents may be a basis for withholding additional retention from contract progress payments.
- L Application for Payment at Substantial Completion: After issuing the Certificate of Substantial Completion, submit an Application for Payment showing 100 percent completion for portion of the Work claimed as substantially complete.
- 1 Include documentation supporting claim that the Work is substantially complete and a statement showing an accounting of changes to the Contract Sum.

- 2 This application shall reflect Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the Work.
- 3 Summary of conditional and unconditional waiver of Mechanics Liens for all subcontractors and suppliers with a copy of the final conditional waiver for each subcontractor
- 4 Waste Reduction Calculations refer to Section 017419 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

MFinal Payment Application: Submit final Application for Payment with releases and supporting documentation not previously submitted and accepted, including, but not limited, to the following:

- 1 Evidence of completion of Project closeout requirements.
- 2 Insurance certificates for products and completed operations where required and proof that taxes, fees, and similar obligations were paid.
- 3 Updated final statement, accounting for final changes to the Contract Sum.
- 4 AIA Document G706, "Contractor's Affidavit of Payment of Debts and Claims."
- 5 AIA Document G706A, "Contractor's Affidavit of Release of Liens."
- 6 AIA Document G707, "Consent of Surety to Final Payment."
- 7 Evidence that claims have been settled.
- 8 Final meter readings for utilities, a measured record of stored fuel, and similar data as of date of Substantial Completion or when Owner took possession of and assumed responsibility for corresponding elements of the Work.
- 9 Final liquidated damages settlement statement.
- 10 Completed copy of Record Drawings
- 11 Required Operations and Maintenance Manuals

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION (Not Used)

VERIFICATION OF CERTIFIED PAYROLL RECORDS SUBMITTAL TO LABOR COMMISSIONER
submit executed form with each payment application

I am the _____ for _____
in _____

(Superintendent/Project Manager) (Contractor)
connection with the above-referenced Project.

- 1) This Verification is submitted to the County of Santa Cruz ("County") concurrently with the Contractor's submittal of an Application for Progress Payment to the County, identified as Application for Progress Payment No. __ ("the Pay Application").
- 2) The Pay Application requests the County's disbursement of a Progress Payment for the value of Work performed between __, 20__ and __, 20__.
- 3) The Contractor has submitted Certified Payroll Records ("CPR") to the Labor Commissioner for all employees of the Contractor engaged in performance of Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.
- 4) All Subcontractors who are entitled to any portion of payment to be disbursed from the Pay Application have submitted their CPRs to the Labor Commissioner for all of their employees performing Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.
- 5) I have reviewed the Contractor's CPRs submitted to the Labor Commissioner. The CPRs submitted to the Labor Commissioner by the Contractor are complete and accurate for the period of time covered by the Pay Application.
- 6) I have reviewed the Subcontractors' CPRs submitted to the Labor Commissioner. The CPRs submitted to the Labor Commissioner by the Subcontractors are complete and accurate for the period of time covered by the Pay Application.
- 7) I declare under penalty of perjury under California law that the foregoing is true and correct. I executed this Verification on the _____ day of _____, 20__
- 8) Contractor DIR Registration Number _____

By: _____

By: _____ (Typed or Printed Name)

END OF SECTION 012900

SECTION 013100 PROJECT MANAGEMENT AND COORDINATION

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A Section includes administrative provisions for coordinating construction operations on Project including but not limited to, the following:

- 1 General project coordination procedures.
- 2 Coordination drawings.
- 3 Requests for Information (RFIs).
- 4 Project meetings.

B Related Sections:

- 1 Division 01 Section "Construction Progress Documentation" for preparing and submitting Contractor's construction schedule.
- 2 Division 01 Section "Execution" for procedures for coordinating general installation and field-engineering services, including establishment of benchmarks and control points.
- 3 Division 01 Section "Closeout Procedures" for coordinating closeout of the Contract.

1.3 DEFINITIONS

A RFI: Request from Owner, Architect, or Contractor seeking information from each other during construction.

1.4 COORDINATION

A Coordination: Coordinate construction operations included in different Sections of the Specifications to ensure efficient and orderly installation of each part of the Work. Coordinate construction operations, included in different Sections that depend on each other for proper installation, connection, and operation.

- 1 Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
- 2 Coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair.
- 3 Make adequate provisions to accommodate items scheduled for later installation.
- 4 Coordinate as required with other construction operations by the owner or tenants. This may involve working with other independent contractors on site.

B Coordination: Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the Work. Each contractor shall coordinate its operations with operations, included in different Sections, that depend on each other for proper installation, connection, and operation.

- 1 Schedule construction operations in sequence required to obtain the best results where installation of one part of the Work depends on installation of other components, before or after its own installation.
- 2 Coordinate installation of different components with other contractors to ensure maximum performance and accessibility for required maintenance, service, and repair.

3 Make adequate provisions to accommodate items scheduled for later installation.

C Prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required notices, reports, and list of attendees at meetings.

1 Prepare similar memoranda for Owner and separate contractors if coordination of their Work is required.

D Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities and activities of other contractors to avoid conflicts and to ensure orderly progress of the Work. Such administrative activities include, but are not limited to, the following:

1 Preparation of Contractor's construction schedule.

2 Preparation of the schedule of values.

3 Installation and removal of temporary facilities and controls.

4 Delivery and processing of submittals.

5 Progress meetings.

6 Preinstallation conferences.

7 Project closeout activities.

8 Startup and adjustment of systems.

9 Project closeout activities.

E Conservation: Coordinate construction activities to ensure that operations are carried out with consideration given to conservation of energy, water, and materials. Coordinate use of temporary utilities to minimize waste.

1 Salvage materials and equipment involved in performance of, but not actually incorporated into, the Work. Refer to other Sections for disposition of salvaged materials that are designated as Owner's property.

1.5 COORDINATION DRAWINGS

A Coordination Drawings, General: Prepare coordination drawings in accordance with requirements in individual Sections, where installation is not completely shown on Shop Drawings, where limited space availability necessitates coordination, or if coordination is required to facilitate integration of products and materials fabricated or installed by more than one entity.

1 Content: Project-specific information, drawn accurately to a scale large enough to indicate and resolve conflicts. Do not base coordination drawings on standard printed data. Include the following information, as applicable:

- a Use applicable Drawings as a basis for preparation of coordination drawings. Prepare sections, elevations, and details as needed to describe relationship of various systems and components.
- b Coordinate the addition of trade-specific information to the coordination drawings by multiple contractors in a sequence that best provides for coordination of the information and resolution of conflicts between installed components before submitting for review.
- c Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
- d Indicate space requirements for routine maintenance and for anticipated replacement of components during the life of the installation.
- e Show location and size of access doors required for access to concealed dampers, valves, and other controls.
- f Indicate required installation sequences.

- g Indicate dimensions shown on the Drawings. Specifically note dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to Architect indicating proposed resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the Contract.
- 2 Review: Architect will review coordination drawings to confirm that the Work is being coordinated, but not for the details of the coordination, which are the Contractor's responsibility. If the Architect determines that the coordination drawings are not being prepared in sufficient scope or detail, or are otherwise deficient, the Architect will so inform the Contractor, who shall make changes as directed and resubmit.
- 3 Coordination Drawing Prints: Prepare coordination drawing prints in accordance with requirements of Division 01 Section "Submittal Procedures."

1.6 KEY PERSONNEL

- A Subcontract List: Prepare a written summary identifying individuals or firms proposed for each portion of the Work, including those who are to furnish products or equipment fabricated to a special design. Use a format acceptable to the PM. Include the following information in tabular form:
 - 1 Name, address, and telephone number of entity performing subcontract or supplying products.
 - 2 Number and title of related Specification Section(s) covered by subcontract.
 - 3 Drawing number and detail references, as appropriate, covered by subcontract.
- B Key Personnel Names: Within five (5) days of starting construction operations, submit a list of key personnel assignments, including superintendent and other personnel in attendance at Project site. Identify individuals and their duties and responsibilities; list addresses and telephone numbers, including home, office, and cellular telephone numbers and email addresses. Provide names, addresses, and telephone numbers of individuals assigned as standbys in the absence of individuals assigned to Project.
 - 1 Post copies of list in project meeting room, and/or temporary field office. Keep list current at all times.
- C CONTRACTOR shall keep on the Work at all Times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER and PM except under extraordinary circumstances. The superintendent will be CONTRACTOR representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications to the superintendent shall be as binding as if given to CONTRACTOR. Important communications will be confirmed in writing. For the purposes of this section the term Superintendent means the person at the site that is in charge of the construction project and who represents the contractor at project meetings.
 - 1 The Contractor's superintendent is required to be on site anytime work occurs, whether it is by the Contractor's own forces or those of their sub-contractors. If Contractor fails to have such superintendent on the site at any time during the progress of the work, a penalty of Five Hundred Dollars (\$500.00) per day shall be deducted from the compensation otherwise due to Contractor, for each day on which such failure occurs. Such penalty shall not apply to temporary, short-term absences approved in advance by the Architect or Project Manager.

1.7 REQUESTS FOR INFORMATION (RFIs)

- A General: Immediately on discovery of the need for additional information or interpretation of the Contract Documents, Contractor shall prepare and submit an RFI in the form specified.
 - 1 CM will return RFIs submitted to PM by other entities controlled by Contractor with no response.
 - 2 Coordinate and submit RFIs in a prompt manner so as to avoid delays in Contractor's work or work of subcontractors.

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B Content of the RFI: Include a detailed, legible description of item needing information or interpretation and the following:

- 1 Project name.
- 2 Project number.
- 3 Date.
- 4 Name of Contractor.
- 5 Name of Architect and Construction Manager.
- 6 RFI number, numbered sequentially.
- 7 RFI subject.
- 8 Specification Section number and title and related paragraphs, as appropriate.
- 9 Drawing number and detail references, as appropriate.
- 10 Field dimensions and conditions, as appropriate.
- 11 Contractor's suggested resolution. If Contractor's solution(s) impacts the Contract Time or the Contract Sum, Contractor shall state impact in the RFI.
- 12 Contractor's signature.
- 13 Attachments: Include sketches, descriptions, measurements, photos, Product Data, Shop Drawings, coordination drawings, and other information necessary to fully describe items needing interpretation.
- 14 Include dimensions, thicknesses, structural grid references, and details of affected materials, assemblies, and attachments on attached sketches.

C RFI Forms: Refer to Section 012613 - Request for Interpretation Procedures

- 1 Architect's and PM's Action: PM will review each RFI, determine action required, and respond. Allow Fourteen (14) working days for Architect's response for each RFI. RFIs received by PM after 1:00 p.m. will be considered as received the following working day.
- 2 The following RFIs will be returned without action:
 - a Requests for approval of submittals.
 - b Requests for approval of substitutions.
 - c Requests for approval of Contractor's means and methods.
 - d Requests for coordination information already indicated in the Contract Documents.
 - e Requests for adjustments in the Contract Time or the Contract Sum.
 - f Requests for interpretation of Architect's actions on submittals.
 - g Incomplete RFIs or inaccurately prepared RFIs.
- 3 Architect's action may include a request for additional information, in which case Architect's time for response will date from time of receipt of additional information.
- 4 Architect's action on RFIs that may result in a change to the Contract Time or the Contract Sum may be eligible for Contractor to submit Change Proposal according to Division 01 Section "Contract Modification Procedures."
 - a If Contractor believes the RFI response warrants change in the Contract Time or the Contract Sum, notify PM in writing within five (5) days of receipt of the RFI response.

NOTE: UNDER NO CIRCUMSTANCES SHALL AN RFI BE CONSTRUED AS APPROVAL OF CHANGES IN PROJECT SCHEDULE OR COST. WHERE THE CONTRACTOR BELIEVES AN RFI RESPONSE WILL IMPACT CONTRACT COST AND/OR SCHEDULE THE CONTRACTOR MUST RECEIVE APPROVAL FROM THE CM IN ACCORDANCE WITH THE SUPPLEMENTAL GENERAL CONDITIONS AND SECTION 012600 OF THIS SPECIFICATION.

- D On receipt of Architect's/CM action, update the RFI log and immediately distribute the RFI response to affected parties. Review response and notify PM within five (5) days if Contractor disagrees with response.
- E RFI Log: Prepare, maintain, and submit a tabular log of RFIs organized by the RFI number. Submit log as requested. Software log with not less than the following:
- 1 Project name.
 - 2 Name and address of Contractor.
 - 3 Name and address of Architect.
 - 4 RFI number including RFIs that were dropped and not submitted.
 - 5 RFI description.
 - 6 Date the RFI was submitted.
 - 7 Date RFI response is needed to support current project schedule (Allow a minimum of 14 calendar days for Architect's review/response).
 - 8 Date Architect's/PM's response was received.
 - 9 Identification of related Minor Change in the Work, Construction Change Directive, and Proposal Request Number, as appropriate.
 - 10 Identification of related Field Order, Work Change Directive, and Proposal Request Number, as appropriate.
 - 11 Reference drawings and / or project technical specification sections.

1.8 PROJECT MEETINGS

- A General: Construction Manager will schedule and conduct meetings and conferences at Project site, unless otherwise indicated.
- 1 Attendees: Inform participants and others involved, and individuals whose presence is required, of date and time of each meeting. Notify Owner and Architect of scheduled meeting dates and times.
 - 2 Agenda: PM will prepare the meeting agenda. Distribute the agenda to all invited attendees.
 - 3 Minutes: PM will be the entity responsible for conducting meeting and will record significant discussions and agreements achieved. Distribute the meeting minutes to everyone concerned, including Owner, Architect, and contractor.
 - 4 No recording devices of any kind will be permitted in project meetings unless written approval is obtained from the Owner prior to the start of the meeting. If approved by the Owner all participants will be made aware that the meeting is being recorded and a copy of the recording will be provided to the Owner and PM within 24 hours of the meeting.
- B Preconstruction Conference: PM will schedule and conduct a preconstruction conference before starting construction, at a time convenient to Owner and Architect, but no later than ten (10) days after execution of the Agreement.

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- 1 Conference will review responsibilities and personnel assignments, the sequence of work, methods of access to the construction site and temporary facilities shall be reviewed by the Contractor and County. Coordination of utilities within the project limits, including relocations and maintenance of existing facilities and additions thereto, shall be confirmed in writing by utility representatives and the Contractor at this conference, or within five (5) working days thereafter
- 2 Attendees: Authorized representatives of Owner, PM, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the conference. Participants at the conference shall be familiar with Project and authorized to conclude matters relating to the Work.
- 3 Agenda: Discuss items of significance that could affect progress, including the following:
 - a Execution of Owner-Contractor Agreement.
 - b Submission of executed bonds and insurance certificates.
 - c Distribution of Contract Documents.
 - d Submission of list of Subcontractors, list of products, schedule of values, and progress schedule.
 - e Designation of personnel representing parties in Contract, and Architect/Engineer.
 - f Emergency contact list for all contractors, Owner and PM
 - g Tentative construction schedule.
 - h Phasing.
 - i Critical work sequencing and long-lead items.
 - j Owner Furnished Equipment
 - k Designation of key personnel and their duties.
 - l Lines of communications.
 - m Procedures for processing field decisions and Change Orders.
 - n Procedures for RFIs.
 - o Procedures for testing and inspecting.
 - p Procedures for processing Applications for Payment.
 - q Distribution of the Contract Documents.
 - r Submittal procedures.
 - s Sustainable design requirements.
 - t Preparation of record documents.
 - u Use of the premises and existing building.
 - v Work restrictions.
 - w Working hours.
 - x Owner's occupancy requirements.
 - y Responsibility for temporary facilities and controls.
 - z Procedures for moisture and mold control.
 - aa Procedures for disruptions and shutdowns.

bb Construction waste management and recycling.

cc Parking availability.

dd Office, work, and storage areas.

ee Equipment deliveries and priorities.

ff Contractor Safety Program

gg First aid.

hh Security.

ii Progress cleaning.

4 Minutes: Entity responsible for conducting meeting will record and distribute meeting minutes.

C Preinstallation Conferences: Conduct a preinstallation conference at Project site before each construction activity that requires coordination with other construction.

1 Attendees: Installer and representatives of manufacturers and fabricators involved in or affected by the installation and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise Architect, PM of scheduled meeting dates.

2 Agenda: Review progress of other construction activities and preparations for the particular activity under consideration, including requirements for the following:

a Contract Documents.

b Options.

c Related RFIs.

d Related Change Orders.

e Purchases.

f Deliveries.

g Submittals.

h Review of Coordination Drawings

i Review of mockups.

j Possible conflicts.

k Compatibility problems.

l Time schedules.

m Weather limitations.

n Manufacturer's written recommendations.

o Warranty requirements.

p Compatibility of materials.

q Acceptability of substrates.

r Temporary facilities and controls.

s Space and access limitations.

t Regulations of authorities having jurisdiction.

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- u Testing and inspecting requirements.
 - v Installation procedures.
 - w Coordination with other work.
 - x Required performance results.
 - y Protection of adjacent work.
 - z Protection of construction and personnel.
- 3 Record significant conference discussions, agreements, and disagreements, including required corrective measures and actions.
- 4 Reporting: Distribute minutes of the meeting to each party present and to other parties requiring information.
- 5 Do not proceed with installation if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of the Work and reconvene the conference at earliest feasible date.
- D Project Closeout Conference: Project Manager will schedule and conduct a Project closeout conference, at a time convenient to Owner and Architect, but no later than ten (10) days prior to the scheduled date of Substantial Completion.
- 1 Conduct the conference to review requirements and responsibilities related to Project closeout.
- 2 Attendees: Authorized representatives of Owner, P Manager, Architect, and their consultants; Contractor and its superintendent; major subcontractors; suppliers; and other concerned parties shall attend the meeting. Participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
- 3 Agenda: Discuss items of significance that could affect or delay Project closeout, including the following:
- a Preparation of record documents.
 - b Procedures required prior to inspection for Substantial Completion and for final inspection for acceptance.
 - c Submittal of written warranties.
 - d Requirements for preparing sustainable design documentation.
 - e Requirements for preparing operations and maintenance data.
 - f Requirements for demonstration and training.
 - g Preparation of Contractor's punch list.
 - h Procedures for processing Applications for Payment at Substantial Completion and for final payment.
 - i Submittal procedures.
 - j Coordination of separate contracts.
 - k Owner's partial occupancy requirements.
 - l Installation of Owner's furniture, fixtures, and equipment.
 - m Responsibility for removing temporary facilities and controls.
- 4 Minutes: Entity conducting meeting will record and distribute meeting minutes.

E Progress Meetings: Construction Manager will conduct progress meetings at weekly intervals (unless otherwise stated in contract documents) NOTE, if and when additional general contractors for simultaneous projects are underway, the contractor will be required to attend weekly coordination meetings to review and update coordination activities, interfaces, issues and concerns.

- 1 Coordinate dates of meetings with preparation of payment requests.
- 2 Attendees: In addition to representatives of Owner, Project Manager, and Architect, each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the meeting shall be familiar with Project and authorized to conclude matters relating to the Work.
- 3 Contractor shall submit an updated “three-week-lookahead” schedule in a format acceptable to the PM at least 2 working days prior to the scheduled construction meeting so that it may be distributed with the meeting agenda.
- 4 Agenda: Review and correct or approve minutes of previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to status of Project.
 - a Contractor's Construction Schedule: Review progress since the last meeting. Determine whether each activity is on time, ahead of schedule, or behind schedule, in relation to Contractor's construction schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Time. (NOTE: Should the contractor's schedule indicate completion dates later than contractually approved dates, the contractor will provide a detailed plan showing what measures will be taken to achieve the contracted completion dates. **UNDER NO CIRCUMSTANCES WILL AN EXTENDED COMPLETION DATE BE APPROVED WITHOUT A FULLY EXECUTED CHANGE ORDER AUTHORIZING THE CHANGE.**)
 - b Review schedule for next period.
 - c Review present and future needs of each entity present, including the following:
 - d Summary of work completed in the preceding week
 - e Summary of work planned in the coming week
 - f Any issues impacting schedule or project progress
 - g Interfaces with other on-site contractors and simultaneous projects.
 - h Interface requirements.
 - i Sequence of operations.
 - j Status of submittals.
 - k Deliveries.
 - l Off-site fabrication.
 - m Access.
 - n Site utilization.
 - o Temporary facilities and controls.
 - p Progress cleaning.
 - q Quality and work standards.
 - r Status of correction of deficient items.

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s Field observations.

t Status of RFIs.

u Status of proposal requests.

v Pending changes.

w Status of Change Orders.

x Pending claims and disputes.

y Project Safety

z Documentation of information for payment requests.

i. Minutes: Entity responsible for conducting the meeting will record and distribute the meeting minutes to each party present and to parties requiring information.

5 Meeting agendas and Meeting Notes will be distributed to attendees and key project team members as PDF documents via email

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION (Not Used)

END OF SECTION 013100

SECTION 013200 CONSTRUCTION PROGRESS DOCUMENTATION

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A Section includes administrative and procedural requirements for documenting the progress of construction during performance of the Work, including the following:

- 1 Contractor's construction schedule.
- 2 Special reports.

B Related Sections:

- 1 Division 01 Section "Submittal Procedures" for submitting schedules and reports.
- 2 Division 01 Section "Quality Requirements" for submitting a schedule of tests and inspections.
- 3 Division 01 Section "Project Management and Coordination" for periodic update.

1.3 DEFINITIONS

A Activity: A discrete part of a project that can be identified for planning, scheduling, monitoring, and controlling the construction project. Activities included in a construction schedule consume time and resources.

- 1 Critical Activity: An activity on the critical path that must start and finish on the planned early start and finish times.
- 2 Predecessor Activity: An activity that precedes another activity in the network.
- 3 Successor Activity: An activity that follows another activity in the network.

1.4 INFORMATIONAL SUBMITTALS

A Format for Submittals: Submit required submittals in the following format:

- 1 PDF electronic file and
- 2 Native Scheduling Program (e.g. Microsoft Project, Primavera P6, Etc.) as approved by the PM.

B Contractor's Construction Schedule: Initial schedule, of size required to display entire schedule for entire construction period.

- 1 Submit a working electronic copy of schedule, using PM approved software indicated, and labeled to comply with requirements for submittals. Include type of schedule (initial or updated) and date on label.

C Special Reports: Submit at time of unusual event.

1.5 QUALITY ASSURANCE

A Scheduling Consultant Qualifications: An experienced specialist in CPM scheduling and reporting, with capability of producing CPM reports and diagrams within 24 hours of PM's request.

B Prescheduling Conference: Conduct conference at Project site to comply with requirements in Division 01 Section "Project Management and Coordination." Review methods and procedures related to the preliminary construction schedule and Contractor's construction schedule, including, but not limited to, the following:

- 1 Review software limitations and content and format for reports.
- 2 Verify availability of qualified personnel needed to develop and update schedule.

- 3 Discuss constraints, including phasing, work stages, area separations, interim milestones, and partial Owner occupancy.
- 4 Review delivery dates for Owner-furnished products (list to be compiled by Contractor and verified by CM).
- 5 Review schedule for work of Owner's separate contracts.
- 6 Review time required for review of submittals and resubmittals.
- 7 Review requirements for tests and inspections by independent testing and inspecting agencies.
- 8 Coordination of Geotechnical inspections
- 9 Review time required for completion and startup procedures.
- 10 Review and finalize list of construction activities to be included in schedule.
- 11 Review submittal requirements and procedures.
- 12 Review procedures for updating schedule.

1.6COORDINATION

- A Coordinate preparation and processing of schedules and reports with performance of construction activities and with scheduling and reporting of separate contractors.
- B Coordinate Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress reports, payment requests, and other required schedules and reports.
 - 1 Secure time commitments for performing critical elements of the Work from entities involved.
 - 2 Coordinate each construction activity in the network with other activities and schedule them in proper sequence.
 - 3 Construction progress documentation shall be available to the Architect and Owner for review and for their documentation as required.

Part 2 - EXECUTION

2.1CONTRACTOR'S CONSTRUCTION SCHEDULE, GENERAL

- A Time Frame: Extend schedule from date established for the Notice of Bid Acceptance to date of Final Completion.
 - 1 Contract completion date shall not be changed by submission of a schedule that shows an early or late completion date, unless specifically authorized by Change Order.
- B Activities: Treat each story or separate area as a separate numbered activity for each principal element of the Work. Comply with the following:
 - 1 Activity Duration: Define activities so no activity is longer than 20 days, unless specifically allowed by PM.
 - 2 Procurement Activities: Include procurement process activities for the following long lead items and major items, requiring a cycle of more than 60 days, as separate activities in schedule. Procurement cycle activities include, but are not limited to, submittals, approvals, purchasing, fabrication, and delivery.
 - 3 Submittal Review Time: Include review and resubmittal times indicated in Division 01 Section "Submittal Procedures" in schedule. Coordinate submittal review times in Contractor's construction schedule with submittal schedule.
 - 4 Substantial Completion: Indicate completion in advance of date established for Substantial Completion, and allow time for Architect's and Project Manager's administrative procedures necessary for certification of Substantial Completion.

- 5 Punch List and Final Completion: Include not more than ten (10) working days for punch list and final completion.
- C Constraints: Include constraints and work restrictions indicated in the Contract Documents and as follows in schedule, and show how the sequence of the Work is affected.
 - 1 Phasing: Arrange list of activities on schedule by phase.
 - 2 Work under More Than One Contract: Include a separate activity for each contract.
 - 3 Work by Owner: Include a separate activity for each portion of the Work performed by Owner.
 - 4 Products Ordered in Advance: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 5 Owner-Furnished Products: Include a separate activity for each product. Include delivery date indicated in Division 01 Section "Summary." Delivery dates indicated stipulate the earliest possible delivery date.
 - 6 Work Restrictions: Show the effect of the following items on the schedule:
 - a Coordination with existing construction.
 - b Limitations of continued occupancies.
 - c Uninterruptible services.
 - d Provisions for future construction.
 - e Environmental control.
 - 7 Work Stages: Indicate important stages of construction for each major portion of the Work, including but not limited to, the following:
 - a Subcontract awards.
 - b Submittals.
 - c Purchases.
 - d Mockups.
 - e Fabrication.
 - f Deliveries.
 - g Installation.
 - h Tests and inspections.
 - i Adjusting.
 - j Curing.
 - k Startup and placement into final use and operation.
 - 8 Construction Areas: Identify each major area of construction for each major portion of the Work. Indicate where each construction activity within a major area must be sequenced or integrated with other construction activities to provide for the following:
 - 1) Mobilization
 - 2) Site Preparation
 - 3) Demolition
 - 4) Trenching.
 - 5) Pipe placement.

- 6) Connection to water line
- 7) Pipe pressure testing.
- 8) Backfilling trenches.
- 9) Flatwork
- 10) Substantial Completion.
- 11) Final Completion.

D Milestones: Include milestones indicated in the Contract Documents in schedule, including, but not limited to, the Notice of Bid Acceptance, Notice to Proceed, Substantial Completion, and final completion.

E Upcoming Work Summary (“Three Week Look-Ahead”): Prepare summary report indicating activities scheduled to occur or commence prior to submittal of next schedule update. Summarize the following issues:

- 1 Unresolved issues.
- 2 Unanswered RFIs.
- 3 Rejected or unreturned submittals.
- 4 Notations on returned submittals.

F Recovery Schedule: When periodic update indicates the Work is (14) fourteen or more calendar days behind the current approved schedule, submit a separate recovery schedule indicating means by which Contractor intends to regain compliance with the schedule. Indicate changes to working hours, working days, crew sizes, and equipment required to achieve compliance, and date by which recovery will be accomplished.

G Computer Scheduling Software: Prepare schedules using current version of a program that has been developed specifically to manage construction schedules and been approved by the PM

2.2 REPORTS

A Weekly project schedule updates as required for the weekly construction meetings to include an updated overall project schedule and a three week look ahead schedule.

B Maintain a current detailed project schedule showing progress to-date posted in the construction office.

C Report Format shall be a comprehensive, fully developed, horizontal, Gantt-chart-type based schedule upon the initial baseline construction schedule and additional information received since the start of Project.

D Daily Construction Reports: Prepare a daily construction report recording events at Project site, including list of subcontractors; high and low temperatures and general weather conditions; accidents; stoppages, delays, shortages, and losses; meter readings; orders and requests of authorities having jurisdiction; and equipment or system tests and startups. Reports shall be available in the contractor’s site office for review by the Owner, Architect or Project Manager upon request.

E Field Condition Reports: Immediately on discovery of a difference between field conditions and the Contract Documents, prepare a detailed report. Submit with a request for information on RFI Form from Section 012613. Include a detailed description of the differing conditions, together with recommendations for changing the Contract Documents. Formally notify the Construction Manager of the condition within 24 hours of the time the condition is initially identified.

2.3 SPECIAL REPORTS

A General: Submit special reports directly to Owner within seven (7) day(s) of an occurrence. Distribute copies of report to parties affected by the occurrence.

B Reporting Unusual Events: When an event of an unusual and significant nature occurs at Project site, whether or not related directly to the Work, prepare and submit a special report. List chain of events, persons participating, response by Contractor's personnel, evaluation of results or effects, and similar pertinent information. Advise Owner in advance when these events are known or predictable.

Part 3 - EXECUTION

3.1 CONTRACTOR'S CONSTRUCTION SCHEDULE

A Contractor's Construction Schedule Updating: Update schedule to reflect actual construction progress and activities. Issue schedule at each regularly scheduled progress meeting.

- 1 Revise schedule immediately after each meeting or other activity where revisions have been recognized or made. Issue updated schedule concurrently with the report of each such meeting.
- 2 Include a report with updated schedule that indicates every change, including, but not limited to, changes in logic, durations, actual starts and finishes, and activity durations.
- 3 As the Work progresses, indicate final completion percentage for each activity.

B Distribution: Distribute copies of approved schedule to PM and Owner, separate contractors, testing and inspecting agencies, and other parties identified by Contractor with a need-to-know schedule responsibility.

- 1 Post copies in Project meeting rooms and temporary field offices.
- 2 When revisions are made, distribute updated schedules to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in performance of construction activities.

C All schedules Contractor submits shall be certified as true and correct, as follows:

I, _____ [*name of declarant*], declare the following: _____ [*Contractor company name*] has contracted with _____ [*Owner*] for the _____ Contract ("Contract"). _____ [*Contractor company name*] authorized me to prepare schedules for _____ [*Owner*] for this Project, and I prepared the attached schedule. I am the most knowledgeable person at _____ [*Contractor company name*] regarding the scheduling of the Work for this Contract. The attached schedule does not breach the Contract between _____ [*Contractor company name*] and _____ [*Owner*] for this Project, does not violate any applicable law, satisfies all provisions of the Contract applicable to submission of schedules, only contains truthful and accurate as-built and as-planned dates of the Work (including supporting data), and is not a false claim.

The attached schedule is submitted in compliance with all laws applicable to submission of a Claim, including but not limited to California Penal Code section 72 (Fraudulent Claims), Government Code sections 12650 et seq. (False Claims Act; for example, Government Code section 12651(a)(7)), and Business and Professions Code sections 17200 et seq. (Unfair Business Practices Act). I am aware that submission or certification of false claims, or other Claims that violate law or the Contract, may lead to fines, imprisonment, and/or other serious legal consequences for myself and/or _____ [*Contractor company name*].

While preparing this declaration and schedule I consulted with others (including attorneys, consultants, or others who work for _____ [*Contractor company name*]) when necessary to ensure that the statements were true and correct.

I declare under the penalty of perjury under the laws of the State of California that the foregoing is true and correct. Executed _____, 20____, at _____, California. _____ [*signature*]
_____ [*name of declarant*]

END OF SECTION 013200

SECTION 013300 SUBMITTAL PROCEDURES

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A Section includes requirements for the submittal schedule and administrative and procedural requirements for submitting Shop Drawings, Product Data, Samples, and other submittals.
- B Where contract documents more than one vendor for a product and contractor intends to use a vendor that is not listed a Substitution Request must be submitted refer to SECTION 012500 SUBSTITUTION PROCEDURES
- C Related Sections:
- 1 Division 01 Section "Payment Procedures" for submitting Applications for Payment and the schedule of values.
 - 2 Division 01 Section "Construction Progress Documentation" for submitting schedules and reports, including Contractor's construction schedule.
 - 3 Division 01 Section "Operation and Maintenance Data" for submitting operation and maintenance manuals.
 - 4 Division 01 Section "Project Record Documents" for submitting record Drawings, record Specifications, and record Product Data.
 - 5 All relevant sections for specific requirements regarding submittals.

1.3 DEFINITIONS

- A Action Submittals: Written and graphic information and physical samples that require PM's responsive action. Action submittals are those submittals indicated in individual Specification Sections as action submittals. Note: Unless otherwise indicated, all submittals will be treated as Action Submittals.
- B Informational Submittals: Written and graphic information and physical samples that do not require PM's responsive action. Submittals may be rejected for not complying with requirements. Informational submittals are those submittals indicated in individual Specification Sections as informational submittals.

- C Shop Drawings. The term "shop drawings" as used herein means drawings, diagrams, schedules, and other data, which are prepared by Contractor, Subcontractors, manufacturers, suppliers, or distributors illustrating some portion of the Work, and includes: illustrations; fabrication, erection, layout and setting drawings; manufacturer's standard drawings; schedules; descriptive literature, instructions, catalogs, and brochures; performance and test data including charts; wiring and control diagrams; and all other drawings and descriptive data pertaining to materials, equipment, piping, duct and conduit systems, and methods of construction as may be required to show that the materials, equipment, or systems and their position conform to the requirements of the Contract Documents. The Contractor shall obtain and submit with the shop drawings all seismic and other calculations and all product data from equipment manufacturers. "Product data" as used herein are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate a material, product, or system for some portion of the Work. As used herein, the term "manufactured" applies to standard units usually mass-produced, and "fabricated" means items specifically assembled or made out of selected materials to meet individual design requirements. Shop drawings shall: establish the actual detail of all manufactured or fabricated items, indicate proper relation to adjoining work, amplify design details of mechanical and electrical systems and equipment in proper relation to physical spaces in the structure, and incorporate minor changes of design or construction to suit actual conditions. Where necessary, shop drawings must include a stamp by a professional engineer and / or an Architect when submitted by the CONTRACTOR.
- D Samples. The term "samples" as used herein are physical examples furnished by Contractor to illustrate materials, equipment, or quality and includes natural materials, fabricated items, equipment, devices, appliances, or parts thereof as called for in the Specifications, and any other samples as may be required by the Architect to determine whether the kind, quality, construction, finish, color, and other characteristics of the materials, etc., proposed by the Contractor conform to the required characteristics of the various parts of the Work. All Work shall be in accordance with the approved samples.
- E Portable Document Format (PDF): An open standard file format licensed by Adobe Systems used for representing documents in a device-independent and display resolution-independent fixed-layout document format.

1.4 ACTION SUBMITTALS

- A General – It is the intent to process submittals electronically (the extent possible) for the entire project. In General, the contractor is encouraged to submit electronic (.PDF) submittals throughout the course of the project. The PM will return a scanned PDF copy of each submittal with electronic signature and disposition to the contractor. The PM may choose (at his discretion) to provide a minimum of two (2) hard copies in lieu of the approved electronic copy.
- B Submittal Schedule: Submit a schedule of submittals, arranged in chronological order by dates required by construction schedule. Include time required for review, ordering, manufacturing, fabrication, and delivery when establishing dates. Include additional time required for making corrections or modifications to submittals noted by the PM and additional time for handling and reviewing submittals required by those corrections.
- 1 Coordinate submittal schedule with list of subcontracts, the schedule of values, and Contractor's construction schedule.
 - 2 Contractor shall submit the initial submittal schedule with the Project Baseline Schedule in a format acceptable to the County within 10 days of the Notice to Proceed
 - 3 Initial Submittal: Submit concurrently with start-up construction schedule. Include submittals required during the first 30 days of construction. List those submittals required to maintain orderly progress of the Work and those required early because of long lead time for manufacture or fabrication.
 - 4 Final Submittal: Submit concurrently with the first complete submittal of Contractor's construction schedule.

- a Submit revised submittal schedule to reflect changes in current status and timing for submittals.
- 5 Format: Arrange the following information in a tabular format (submit as an Excel Spreadsheet or similar format acceptable to the PM):
 - a Contractor's submittal tracking ID (Number)
 - b Scheduled date for first submittal.
 - c Specification Section number and title.
 - d Submittal category: Action, informational.
 - e Name of subcontractor.
 - f Description of the Work covered.
 - g Scheduled date for PM's final release or approval.
 - h Scheduled dates for purchasing.
 - i Scheduled dates for installation.
 - j Activity or event number.

1.5 SUBMITTAL ADMINISTRATIVE REQUIREMENTS

A Coordination: Coordinate preparation and processing of submittals with performance of construction activities.

- 1 Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities that require sequential activity.
- 2 Submit all submittal items required for each Specification Section concurrently unless partial submittals for portions of the Work are indicated on approved submittal schedule.
- 3 Submit action submittals and informational submittals required by the same Specification Section as separate packages under separate transmittals.
- 4 Coordinate transmittal of different types of submittals for related parts of the Work so processing will not be delayed because of need to review submittals concurrently for coordination.
 - a CM reserve the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

B Processing Time: Allow time for submittal review, including time for resubmittals, as follows. Time for review shall commence on Architect/ PM's receipt of submittal. No extension of the Contract Time will be authorized because of failure to transmit submittals enough in advance of the Work to permit processing, including resubmittals.

- 1 Initial Review: Allow **fifteen (15) days** for initial review of each submittal. Allow additional time if coordination with subsequent submittals is required. PM will advise Contractor when a submittal being processed must be delayed for coordination.
- 2 Intermediate Review: If intermediate submittal is necessary, process it in same manner as initial submittal.
- 3 Resubmittal Review: Allow fifteen (15) days for review of each resubmittal.
- 4 Sequential Review: Where sequential review of submittals by Architect's consultants, Owner, or other parties is indicated, allow twenty-one (21) days for initial review of each submittal.

C Identification and Information: Place a permanent label or title block on each paper copy submittal item for identification.

- 1 Indicate name of firm or entity that prepared each submittal on label or title block.

- 2 Provide a space approximately 6 by 8 inches on label or beside title block to record Contractor's review and approval markings and action taken by PM.
- 3 Include the following information for processing and recording action taken:
 - a Project name and number.
 - b Date.
 - c Name of Architect.
 - d Name of Contractor.
 - e Name of subcontractor.
 - f Name of supplier.
 - g Name of manufacturer.
 - h Submittal number or other unique identifier, including revision identifier.
 - i Submittal number shall use Specification Section number followed by a decimal point and then a sequential number (e.g., 061000.01). Resubmittals shall include an alphabetic suffix after another decimal point (e.g., 061000.01.A). NOTE Submittal numbering must match the submittal schedule.
 - j Number and title of appropriate Specification Section.
 - k Drawing number and detail references, as appropriate.
 - l Location(s) where product is to be installed, as appropriate.
 - m Other necessary identification.

D Identification and Information: Identify and incorporate information in each electronic submittal file as follows:

- 1 Assemble complete submittal package into a single indexed file with links enabling navigation to each item.
- 2 Name file with submittal number or other unique identifier, including revision identifier.
 - a File name shall use the following format:

Job#		Job Description	Dash	Text	Sequential Number	Spec #	Sequential #(per Spec #)	Rev #	Date of Submittal
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- 3 Provide means for insertion to permanently record Contractor's review and approval markings and action taken by PM.
- 4 Include the following information on an inserted cover sheet:
 - a Project name.
 - b Date.
 - c Name and address of Architect.
 - d Name of Construction Manager.
 - e Name of Contractor.
 - f Name of firm or entity that prepared submittal.
 - g Name of subcontractor.
 - h Name of supplier.
 - i Name of manufacturer.

- j Number and title of appropriate Specification Section.
- k Drawing number and detail references, as appropriate.
- l Location(s) where product is to be installed, as appropriate.
- m Related physical samples submitted directly.
- n Other necessary identification.

E Options: Identify options requiring selection by the Architect.

F Deviations: Identify deviations from the Contract Documents on submittals. NOTE: In cases where the contractor fails to identify deviations from the contract documents, the contractor assumes full responsibility for the impact of such deviations. Should modification and/or replacement of equipment be necessary to meet the intent of the contract, and general conformance with the design concept, all related costs and project impacts will be the sole responsibility of the contractor.

- 1 RESPONSIBILITY FOR ACCURACY: The Contractor shall obtain all necessary measurements for and from the work, and shall check dimensions, elevations, and grades for all layout and construction work and shall supervise such work, the accuracy for all of which Contractor shall be responsible. Each subcontractor shall adjust, correct, and coordinate Contractor's work with the work of others so that no discrepancies will result in the whole work.
- 2 Contractor shall be responsible for verifying that all information and data contained and set forth in all of Contractor's submittals that may be required by the Contract Documents, comply in all respects with the Contract Documents.

G Transmittal: Assemble each submittal individually and appropriately for transmittal and handling. Transmit each submittal using a transmittal form. PM will return submittals, without review, received from sources other than Contractor.

- 1 Transmittal Form: Provide locations on form for the following information:
 - a Project name.
 - b Date.
 - c Destination (To:).
 - d Source (From:).
 - e Names of subcontractor, manufacturer, and supplier.
 - f Category and type of submittal.
 - g Submittal purpose and description.
 - h Specification Section number and title.
 - i Indication of full or partial submittal.
 - j Drawing number and detail references, as appropriate.
 - k Transmittal number, numbered consecutively.
 - l Submittal and transmittal distribution record.
 - m Remarks.
 - n Signature of transmitter.

H Resubmittals: Make resubmittals in same form and number of copies as initial submittal. Resubmittals must be returned by the contractor in a timely fashion so as not to delay the project. All resubmittals must be returned to the Architect within a maximum of 4 weeks of the date the original submittal was returned to the contractor. No partial re-submittals will be accepted – revised submittals must be submitted as a complete submittal unless the PM formally approve a partial resubmittal.

- 1 Note date and content of previous submittal.
- 2 Note date and content of revision in label or title block and clearly indicate extent of revision.
- 3 Resubmit submittals until they are marked with approval notation from PM's action stamp.
- 4 Resubmittals shall use the same submittal number as the original submittal and shall include an alphabetic suffix after another decimal point (e.g. LNHS-061000.01.A)

I Distribution: Furnish copies of final submittals to manufacturers, subcontractors, suppliers, fabricators, installers, authorities having jurisdiction, and others as necessary for performance of construction activities. Show distribution on transmittal forms.

J Use for Construction: Use only final submittals that are marked with approval notation from CM's action stamp.

Part 2 - PRODUCTS

2.1 SUBMITTAL PROCEDURES

A General Submittal Procedure Requirements: Prepare and submit submittals required by individual Specification Sections. Types of submittals are indicated in individual Specification Sections.

- 1 List of Subcontractors: Provide as Submittal 01. Include contact information (Microsoft Excel, Word or similar acceptable format), with a cross reference to the associated schedule of values line item(s)
- 2 Submit electronic submittals via email as PDF electronic files.
 - a PM will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
- 3 Action Submittals: Submit three (3) paper copies of each submittal, unless otherwise indicated. The PM will return a scanned PDF copy of each submittal with electronic signature and disposition to the contractor. The PM may choose (at his discretion) to provide a minimum of two (2) hard copies in lieu of the approved electronic copy.
- 4 Informational Submittals: Submit two (2) paper copies of each submittal, unless otherwise indicated. PM will not return copies.
- 5 Closeout Submittals and Maintenance Material Submittals: Comply with requirements specified in Division 01 Section "Closeout Procedures."
- 6 Certificates and Certifications Submittals: Provide a statement that includes signature of entity responsible for preparing certification. Certificates and certifications shall be signed by an officer or other individual authorized to sign documents on behalf of that entity.
 - a Provide a digital signature with digital certificate on electronically-submitted certificates and certifications where indicated.
 - b Provide a notarized statement on original paper copy certificates and certifications where indicated.
- 7 Test and Inspection Reports Submittals: Comply with requirements specified in Division 01 Section "Quality Requirements."

B Product Data: Collect information into a single submittal for each element of construction and type of product or equipment.

- 1 If information must be specially prepared for submittal because standard published data are not suitable for use, submit as Shop Drawings, not as Product Data.
 - 2 Mark each copy of each submittal to show which products and options are applicable.
 - 3 Include the following information, as applicable:
 - a Manufacturer's catalog cuts.
 - b Manufacturer's product specifications.
 - c Standard color charts.
 - d Statement of compliance with specified referenced standards.
 - e Testing by recognized testing agency.
 - f Application of testing agency labels and seals.
 - g Notation of coordination requirements.
 - h Availability and delivery time information.
 - i Warranty information (manufacturer's Warranty, etc.)
 - 4 For equipment, include the following in addition to the above, as applicable:
 - a Wiring diagrams showing factory-installed wiring.
 - b Printed performance curves.
 - c Operational range diagrams.
 - d Clearances required to other construction, if not indicated on accompanying Shop Drawings.
 - e Preliminary warranties (complying with any specialty warranty requirements).
 - 5 Submit Product Data before or concurrent with Samples.
 - 6 Submit Product Data in the following format:
 - a Three (3) paper copies of Product Data, unless otherwise indicated. The CM will return a scanned PDF copy of each submittal with electronic signature and disposition to the contractor. The CM may choose (at his discretion) to provide a minimum of two (2) hard copies in lieu of the approved electronic copy.
- C Shop Drawings: Prepare Project-specific information, drawn accurately to scale. Do not base Shop Drawings on reproductions of the Contract Documents or standard printed data.
- 1 Preparation: Fully illustrate requirements in the Contract Documents. Include the following information, as applicable:
 - a Identification of products.
 - b Schedules.
 - c Compliance with specified standards.
 - d Notation of coordination requirements.
 - e Notation of dimensions established by field measurement.
 - f Relationship and attachment to adjoining construction clearly indicated.
 - g Seal and signature of professional engineer if specified.
 - 2 Sheet Size: Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 30 by 42 inches

- 3 The contractor may submit either electronic or hard copy shop drawings for the project (Once one method is selected it will remain in force for the entire project unless a change is approved by the PM). Submit Shop Drawings in the following format:
 - a Submit electronic Shop Drawings via email as PDF electronic files.
 - b PM will return annotated file. Annotate and retain one copy of file as an electronic Project record document file.
 - c Four (4) opaque copies of each submittal. The CM will return a scanned PDF copy of each submittal with electronic signature and disposition to the contractor. The PM may choose (at his discretion) to provide a minimum of two (2) hard copies in lieu of the approved electronic copy..
- D Samples: Submit Samples for review of kind, color, pattern, and texture for a check of these characteristics with other elements and for a comparison of these characteristics between submittal and actual component as delivered and installed.
 - 1 Transmit Samples that contain multiple, related components such as accessories together in one submittal package.
 - 2 Identification: Attach label on unexposed side of Samples that includes the following:
 - a Generic description of Sample.
 - b Product name and name of manufacturer.
 - c Sample source.
 - d Number and title of applicable Specification Section.
 - e Specification paragraph number and generic name of each item.
 - 3 Disposition: Maintain sets of approved Samples at Project site, available for quality-control comparisons throughout the course of construction activity. Sample sets may be used to determine final acceptance of construction associated with each set.
 - a Samples that may be incorporated into the Work are indicated in individual Specification Sections. Such Samples must be in an undamaged condition at time of use.
 - b Samples not incorporated into the Work, or otherwise designated as Owner's property, are the property of Contractor.
 - 4 Samples for Verification: Submit full-size units or Samples of size indicated, prepared from same material to be used for the Work, cured and finished in manner specified, and physically identical with material or product proposed for use, and that show full range of color and texture variations expected. Samples include, but are not limited to, the following: partial sections of manufactured or fabricated components; small cuts or containers of materials; complete units of repetitively used materials; swatches showing color, texture, and pattern; color range sets; and components used for independent testing and inspection.
 - a Number of Samples: Submit three (3) sets of Samples. Architect will retain two (2) Sample sets; remainder will be returned. Mark up and retain one returned Sample set as a Project record sample.
 - b Submit a single Sample where assembly details, workmanship, fabrication techniques, connections, operation, and other similar characteristics are to be demonstrated.
 - c If variation in color, pattern, texture, or other characteristic is inherent in material or product represented by a Sample, submit at least three (3) sets of paired units that show approximate limits of variations.
- E Product Schedule: As required in individual Specification Sections, prepare a written summary indicating types of products required for the Work and their intended location. Include the following information in tabular form:

- 1 Type of product. Include unique identifier for each product
 - 2 Manufacturer and product name, and model number if applicable.
 - 3 Number and name of room or space.
 - 4 Location within room or space.
 - 5 Submit product schedule in the following format:
 - a PDF electronic file.
 - b Three (3) paper copies of product schedule or list, unless otherwise indicated. The CM will return a scanned PDF copy of each submittal with electronic signature and disposition to the contractor. The CM may choose (at his discretion) to provide a minimum of two (2) hard copies in lieu of the approved electronic copy.
- F Contractor's Construction Schedule: Comply with requirements specified in Division 01 Section "Construction Progress Documentation."
- G Application for Payment: Comply with requirements specified in Division 01 Section "Payment Procedures."
- H Schedule of Values: Comply with requirements specified in Division 01 Section "Payment Procedures."
- I Coordination Drawings: Comply with requirements specified in Division 01 Section "Project Management and Coordination."
- J Qualification Data: Prepare written information that demonstrates capabilities and experience of firm or person. Include lists of completed projects with project names and addresses, contact information of Architects and owners, and other information specified.
- K Welding Certificates: Prepare written certification that welding procedures and personnel comply with requirements in the Contract Documents. Submit record of Welding Procedure Specification and Procedure Qualification Record on American Welding Society (AWS) forms. Include names of firms and personnel certified.
- L Installer Certificates: Submit written statements on manufacturer's letterhead certifying that Installer complies with requirements in the Contract Documents and, where required, is authorized by manufacturer for this specific Project.
- M Manufacturer Certificates: Submit written statements on manufacturer's letterhead certifying that manufacturer complies with requirements in the Contract Documents. Include evidence of manufacturing experience where required.
- N Product Certificates: Submit written statements on manufacturer's letterhead certifying that product complies with requirements in the Contract Documents.
- O Material Certificates: Submit written statements on manufacturer's letterhead certifying that material complies with requirements in the Contract Documents.
- P Material Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting test results of material for compliance with requirements in the Contract Documents.
- Q Product Test Reports: Submit written reports indicating current product produced by manufacturer complies with requirements in the Contract Documents. Base reports on evaluation of tests performed by manufacturer and witnessed by a qualified testing agency, or on comprehensive tests performed by a qualified testing agency.

R Research Reports: Submit written evidence, from a model code organization acceptable to authorities having jurisdiction, that product complies with building code in effect for Project. Include the following information:

- 1 Name of evaluation organization.
- 2 Date of evaluation.
- 3 Time period when report is in effect.
- 4 Product and manufacturers' names.
- 5 Description of product.
- 6 Test procedures and results.
- 7 Limitations of use.

S Schedule of Tests and Inspections: Comply with requirements specified in Division 01 Section "Quality Requirements."

T Preconstruction Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of tests performed before installation of product, for compliance with performance requirements in the Contract Documents.

U Compatibility Test Reports: Submit reports written by a qualified testing agency, on testing agency's standard form, indicating and interpreting results of compatibility tests performed before installation of product. Include written recommendations for primers and substrate preparation needed for adhesion.

V Field Test Reports: Submit reports indicating and interpreting results of field tests performed either during installation of product or after product is installed in its final location, for compliance with requirements in the Contract Documents.

W Maintenance Data: Comply with requirements specified in Division 01 Section "Operation and Maintenance Data."

X Design Data: Prepare and submit written and graphic information, including, but not limited to, performance and design criteria, list of applicable codes and regulations, and calculations. Include list of assumptions and other performance and design criteria and a summary of loads. Include load diagrams if applicable. Provide name and version of software, if any, used for calculations. Include page numbers.

Y Copies of all Permits, Permit Inspection Cards, Permit Drawings, and related documents will be provided to the CM for scanning and archive immediately upon receipt from the permitting authority.

2.2 DELEGATED-DESIGN SERVICES FOR DEFERRED SUBMITTALS

A Performance and Design Criteria: Where professional design services or certifications by a design professional are specifically required of Contractor by the Contract Documents, provide products and systems complying with specific performance and design criteria indicated.

- 1 If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information (RFI) to Architect.

B Delegated-Design Services Certification: Submit Shop Drawings signed and sealed by the responsible design professional, for each product and system specifically assigned to Contractor to be designed or certified by a design professional.

- 1 Indicate that products and systems comply with performance and design criteria in the Contract Documents. Include list of codes, loads, and other factors used in performing these services.

- C Where delegated design documents are required for submittal to the permitting agency (e.g. deferred submittals), they shall be submitted to the Architect through the project submittal process for review PRIOR to submittal to the permitting agency. The Contractor shall allow sufficient time for this review process so as not to delay the project or negatively impact the project schedule.

Part 3 - EXECUTION

3.1 CONTRACTOR'S REVIEW

- A Action and Informational Submittals: Review each submittal and check for coordination with other Work of the Contract and for compliance with the Contract Documents. Note corrections and field dimensions. Mark with approval stamp before submitting to PM.
- B Project Closeout and Maintenance/Material Submittals: Refer to requirements in Division 01 Section "Closeout Procedures."
- C Approval Stamp: Stamp each submittal with a uniform, approval stamp. Include Project name and location, submittal number, Specification Section title and number, name of reviewer, date of Contractor's approval, and statement certifying that submittal has been reviewed, checked, and approved for compliance with the Contract Documents.
- a The Contractor shall not be relieved of responsibility for reviewing, checking, and approving submittals for compliance with Contract Documents by using exculpatory language of any kind on an approval stamp or a review stamp. Submittals received by the Architect that do not bear an approval stamp or bears an approval stamp or a review stamp with exculpatory language of any kind shall be considered reviewed, checked, and approved by the Contractor for compliance with the Contract Documents.

3.2 CM ACTION

- A General: PM will not review submittals that do not bear Contractor's approval stamp and will return them without action.
- B Action Submittals: PM will review each submittal, make marks to indicate corrections or modifications required, and return it. PM will stamp each submittal with an action stamp and will mark stamp appropriately to indicate action.
- C Informational Submittals: PM will review each submittal and will not return it, or will return it if it does not comply with requirements. PM will forward each submittal to appropriate party.
- D Incomplete submittals are not acceptable, will be considered nonresponsive, and will be returned without review.
- E Submittals not required by the Contract Documents may not be reviewed and may be discarded.
- F *Extent of Review.* In reviewing shop drawings, the Architect will not verify dimensions and field conditions. The Architect will review and approve shop drawings, product data, and samples for aesthetics and for conformance with the design concept of the Work and the information given in the Contract Documents. The Architect's review shall neither be construed as a complete check nor relieve the Contractor, Subcontractor, manufacturer, fabricator, or supplier from responsibility for any deficiency that may exist or from any departures or deviations from the requirements of the Contract Documents unless the Contractor has, in writing, called the Architect's attention to the deviations at the time of submission and the Architect has given specific written approval. The Architect's review shall not relieve the Contractor or Subcontractors from responsibility for errors of any sort in shop drawings or schedules, for proper fitting of the Work, or from the necessity of furnishing any Work required by the Contract Documents, which may not be indicated on shop drawings when reviewed. Contractor and Subcontractors shall be solely responsible for determining any quantities, whether or not shown on the shop drawings.

Part 4 - END OF SECTION 013300

SECTION 013300
SUBMITTAL PROCEDURES

SUBMITTAL / SHOP DRAWING TRANSMITTAL / APPROVAL FORM					
Construction Manager Job No: 			Date Submitted 		
Contr Submittal #		#		Description	
TYPE OF SUBMITTAL (check one)			Contractor Signature		
☐	Product Data	☐	Schedule	☐	Performance Data
☐	Sample	☐	Warranty	☐	Operations & Maint
☐	Color Selection	☐	Test Document	☐	Print Quantity
☐	Shop Drawing	☐	Record Document	☐	Reproducible Quantity
☐	Spec Section (s)	☐	#	☐	Other
				☐	LEED Submittal Y/N
Description 					
Submittal Schedule Reference Items					
Sch Line Item	Spec Reference	Item	SubContractor	Partial or Complete	Notes
ARCHITECT'S/CONSULTANT'S ACTION					
☐	1 No Exception Taken			☐	2 Furnish As Noted
☐	3 SUBMIT SPECIFIC ITEM (As Separate Submittal)			☐	4 REJECTED - RESUBMIT AS SPECIFIED
☐	5 REVISE AS NOTED AND RESUBMIT			☐	6 NO ACTION REQUIRED REVIEWED
NOTES					
This review is only for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. Corrections or comments made on the shop drawings during this review do not relieve contractor from compliance with the requirements of the plans and specifications. Approval of a specific item shall not include approval of an assembly of which the item is a component. Contractor is responsible for dimensions to be confirmed and correlated at the jobsite; information that pertains solely to the fabrication processes or the means, methods, techniques, sequences and procedures of construction; coordination of his or her Work with that of all other trades; and for performing all work in a safe and satisfactory manner.					
Date Reviewed 			Reviewed By 		
Approved as Complete? (Ref Submittal Log)					
Review Distribution					
1	Architect	☐	6		☐
2	Interior Design	☐	7		☐
3	Owner	☐	8		☐
4	Contractor	☐	9		☐
5		☐	10		☐
File J:\20 Jobs\20008 Santa Cruz County - Animal Shelter\Construction Management\Submittals\Submittal Form\Standard Submittal Form.xlsx Transmittal Rvw & Apprvl					

[illegible]

SECTION 014000 QUALITY REQUIREMENTS

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A Section includes administrative and procedural requirements for quality assurance and quality control.
- B Testing and inspecting services are required to verify compliance with requirements specified or indicated. These services do not relieve Contractor of responsibility for compliance with the Contract Document requirements.
 - 1 Specific quality-assurance and -control requirements for individual construction activities are specified in the Sections that specify those activities. Requirements in those Sections may also cover production of standard products.
 - 2 Specified tests, inspections, and related actions do not limit Contractor's other quality-assurance and -control procedures that facilitate compliance with the Contract Document requirements.
 - 3 Requirements for Contractor to provide quality-assurance and -control services required by Architect, Owner or authorities having jurisdiction are not limited by provisions of this Section.
 - 4 Specific test and inspection requirements are not specified in this Section.

C Related Sections:

- 1 Division 01 Section "Construction Progress Documentation" for developing a schedule of required tests and inspections.
- 2 Divisions 02 through 49 Sections for specific test and inspection requirements.

1.3 DEFINITIONS

- A Quality-Assurance Services: Activities, actions, and procedures performed before and during execution of the Work to guard against defects and deficiencies and substantiate that proposed construction will comply with requirements.
- B Quality-Control Services: Tests, inspections, procedures, and related actions during and after execution of the Work to evaluate that actual products incorporated into the Work and completed construction comply with requirements. Services do not include contract enforcement activities performed by Architect or Construction Manager.
- C Mockups: Full size physical assemblies that are constructed on-site. Mockups are constructed to verify selections made under sample submittals; to demonstrate aesthetic effects and, where indicated, qualities of materials and execution; to review coordination, testing, or operation; to show interface between dissimilar materials; and to demonstrate compliance with specified installation tolerances. Mockups are not Samples. Unless otherwise indicated, approved mockups establish the standard by which the Work will be judged.
- D Preconstruction Testing: Tests and inspections performed specifically for the Project before products and materials are incorporated into the Work to verify performance or compliance with specified criteria.
- E Product Testing: Tests and inspections that are performed by an NRTL, an NVLAP, or a testing agency qualified to conduct product testing and acceptable to authorities having jurisdiction, to establish product performance and compliance with specified requirements.
- F Source Quality-Control Testing: Tests and inspections that are performed at the source, i.e., plant, mill, factory, or shop.

G Field Quality-Control Testing: Tests and inspections that are performed on-site for installation of the Work and for completed Work.

H Testing Agency: An entity engaged to perform specific tests, inspections, or both. Testing laboratory shall mean the same as testing agency.

I Installer/Applicator/Erector: Contractor or another entity engaged by Contractor as an employee, Subcontractor, or Sub-subcontractor, to perform a particular construction operation, including installation, erection, application, and similar operations.

1 Use of trade-specific terminology in referring to a trade or entity does not require that certain construction activities be performed by accredited or unionized individuals, or that requirements specified apply exclusively to specific trade or trades.

J Experienced: When used with an entity or individual, "experienced" means having successfully completed a minimum of five (5) previous projects similar in nature, size, and extent to this Project; being familiar with special requirements indicated; and having complied with requirements of authorities having jurisdiction.

1.4 CONFLICTING REQUIREMENTS

A Referenced Standards: If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Submit an RFI referring conflicting requirements that are different, but apparently equal, to CM before proceeding.

B Minimum Quantity or Quality Levels: The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding.

1.5 ACTION SUBMITTALS

A Shop Drawings: For mockups, provide plans, sections, and elevations, indicating materials and size of mockup construction.

1 Indicate manufacturer and model number of individual components.

2 Provide axonometric drawings for conditions difficult to illustrate in two dimensions.

1.6 INFORMATIONAL SUBMITTALS

A Contractor's Quality-Control Plan: For quality-assurance and quality-control activities and responsibilities.

B Contractor's Quality-Control Manager Qualifications: For supervisory personnel.

C Contractor's Statement of Responsibility: When required by authorities having jurisdiction, submit copy of written statement of responsibility sent to authorities having jurisdiction before starting work on the following systems.

1 Seismic-force resisting system, designated seismic system, or component listed in the designated seismic system quality assurance plan prepared by the Architect.

2 Main wind-force resisting system or a wind-resisting component listed in the wind-force-resisting system quality assurance plan prepared by the Architect.

D Testing Agency Qualifications: For testing agencies specified in "Quality Assurance" Article to demonstrate their capabilities and experience. Include proof of qualifications in the form of a recent report on the inspection of the testing agency by a recognized authority.

E Schedule of Tests and Inspections: Prepare in tabular form and include the following:

1 Specification Section number and title.

- 2 Entity responsible for performing tests and inspections.
- 3 Description of test and inspection.
- 4 Identification of applicable standards.
- 5 Identification of test and inspection methods.
- 6 Number of tests and inspections required.
- 7 Time schedule or time span for tests and inspections.
- 8 Requirements for obtaining samples.
- 9 Unique characteristics of each quality-control service.

1.7 CONTRACTOR'S QUALITY-CONTROL PLAN

- A Quality-Control Plan, General: Submit quality-control plan within ten (10) days of Contract Execution, and not less than five (5) days prior to preconstruction conference. Submit in format acceptable to Architect. Identify personnel, procedures, controls, instructions, tests, records, and forms to be used to carry out Contractor's quality-assurance and quality-control responsibilities. Coordinate with Contractor's construction schedule.
- B Quality-Control Personnel Qualifications: Engage qualified full-time personnel trained and experienced in managing and executing quality-assurance and quality-control procedures similar in nature and extent to those required for Project.
 - 1 Project quality-control manager may also serve as Project superintendent.
- C Submittal Procedure: Describe procedures for ensuring compliance with requirements through review and management of submittal process. Indicate qualifications of personnel responsible for submittal review.
- D Testing and Inspection: Include in quality-control plan a comprehensive schedule of Work requiring testing or inspection, including the following:
 - 1 Contractor-performed tests and inspections including subcontractor-performed tests and inspections. Include required tests and inspections and Contractor-elected tests and inspections.
 - 2 Special inspections required by authorities having jurisdiction and indicated on the "Statement of Special Inspections."
 - 3 Owner-performed tests and inspections indicated in the Contract Documents, including tests and inspections indicated to be performed by the Commissioning Authority.
- E Continuous Inspection of Workmanship: Describe process for continuous inspection during construction to identify and correct deficiencies in workmanship in addition to testing and inspection specified. Indicate types of corrective actions to be required to bring work into compliance with standards of workmanship established by Contract requirements and approved mockups.
- F Monitoring and Documentation: Maintain testing and inspection reports including log of approved and rejected results. Include work Architect has indicated as nonconforming or defective. Indicate corrective actions taken to bring nonconforming work into compliance with requirements. Comply with requirements of authorities having jurisdiction.
- G Contractor shall notify the PM at least 2 working days in advance of any planned inspections by governing authorities, regulatory bodies, or special inspectors (including but not limited to City or County Building Inspectors, the Fire Marshal
 - 1 Provide verbal notification of the results of the inspection to the PM immediately upon completion of the inspection

- 2 Provide a written copy of inspection results, identifying details of any violations or discrepancies identified by the inspector. This will include references to specific code and/or regulations that apply. This report will be provided to the PM within 1 working day of the completion of the inspection.
- 3 Request a written violation report from the inspector for any areas that are found non-compliant and submit an RFI with a copy of the inspector's written report within 2 working days of the completion of the inspection.

1.8 REPORTS AND DOCUMENTS

A Test and Inspection Reports: Prepare and submit certified written reports specified in other Sections. Include the following:

- 1 Date of issue.
- 2 Project title and number.
- 3 Name, address, and telephone number of testing agency.
- 4 Dates and locations of samples and tests or inspections.
- 5 Names of individuals making tests and inspections.
- 6 Description of the Work and test and inspection method.
- 7 Identification of product and Specification Section.
- 8 Complete test or inspection data.
- 9 Test and inspection results and an interpretation of test results.
- 10 Record of temperature and weather conditions at time of sample taking and testing and inspecting.
- 11 Comments or professional opinion on whether tested or inspected Work complies with the Contract Document requirements.
- 12 Name and signature of laboratory inspector.
- 13 Recommendations on retesting and re-inspecting.

B Manufacturer's Technical Representative's Field Reports: Prepare written information documenting manufacturer's technical representative's tests and inspections specified in other Sections. Include the following:

- 1 Name, address, and telephone number of technical representative making report.
- 2 Statement on condition of substrates and their acceptability for installation of product.
- 3 Statement that products at Project site comply with requirements.
- 4 Summary of installation procedures being followed, whether they comply with requirements and, if not, what corrective action was taken.
- 5 Results of operational and other tests and a statement of whether observed performance complies with requirements.
- 6 Statement whether conditions, products, and installation will affect warranty.
- 7 Other required items indicated in individual Specification Sections.

C Factory-Authorized Service Representative's Reports: Prepare written information documenting manufacturer's factory-authorized service representative's tests and inspections specified in other Sections. Include the following:

- 1 Name, address, and telephone number of factory-authorized service representative making report.
- 2 Statement that equipment complies with requirements.

- 3 Results of operational and other tests and a statement of whether observed performance complies with requirements.
 - 4 Statement whether conditions, products, and installation will affect warranty.
 - 5 Other required items indicated in individual Specification Sections.
- D Permits, Licenses, and Certificates: For Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, correspondence, records, and similar documents, established for compliance with standards and regulations bearing on performance of the Work.

1.9 QUALITY ASSURANCE

- A General: Qualifications paragraphs in this article establish the minimum qualification levels required; individual Specification Sections specify additional requirements.
- B Manufacturer Qualifications: A firm experienced in manufacturing products or systems similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- C Fabricator Qualifications: A firm experienced in producing products similar to those indicated for this Project and with a record of successful in-service performance, as well as sufficient production capacity to produce required units.
- D Installer Qualifications: A firm or individual experienced in installing, erecting, or assembling work similar in material, design, and extent to that indicated for this Project, whose work has resulted in construction with a record of successful in-service performance.
- E Professional Engineer Qualifications: A professional engineer who is legally qualified to practice in jurisdiction where Project is located and who is experienced in providing engineering services of the kind indicated. Engineering services are defined as those performed for installations of the system, assembly, or product that are similar to those indicated for this Project in material, design, and extent.
- F Specialists: Certain Specification Sections require that specific construction activities shall be performed by entities who are recognized experts in those operations. Specialists shall satisfy qualification requirements indicated and shall be engaged for the activities indicated.
- 1 Requirements of authorities having jurisdiction shall supersede requirements for specialists.
- G Testing Agency Qualifications: An NRTL, an NVLAP, or an independent agency with the experience and capability to conduct testing and inspecting indicated, as documented according to **ASTM E 329**; and with additional qualifications specified in individual Sections; and where required by authorities having jurisdiction, that is acceptable to authorities.
- 1 NRTL: A nationally recognized testing laboratory according to 29 CFR 1910.7.
 - 2 NVLAP: A testing agency accredited according to NIST's National Voluntary Laboratory Accreditation Program.
- H Manufacturer's Technical Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to observe and inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- I Factory-Authorized Service Representative Qualifications: An authorized representative of manufacturer who is trained and approved by manufacturer to inspect installation of manufacturer's products that are similar in material, design, and extent to those indicated for this Project.
- J Preconstruction Testing: Where testing agency is indicated to perform preconstruction testing for compliance with specified requirements for performance and test methods, comply with the following:
- 1 Contractor responsibilities include the following:

- a Provide test specimens representative of proposed products and construction.
 - b Submit specimens in a timely manner with sufficient time for testing and analyzing results to prevent delaying the Work.
 - c Provide sizes and configurations of test assemblies, mockups, and laboratory mockups to adequately demonstrate capability of products to comply with performance requirements.
 - d Build site-assembled test assemblies and mockups using installers who will perform same tasks for Project.
 - e Build laboratory mockups at testing facility using personnel, products, and methods of construction indicated for the completed Work.
 - f When testing is complete, remove test specimens, assemblies, mockups[, **and laboratory mockups**]; do not reuse products on Project.
- 2 Testing Agency Responsibilities: Submit a certified written report of each test, inspection, and similar quality-assurance service to CM with copy to Contractor. Interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from the Contract Documents.
 - 3 Coordinate geotechnical observation and testing services during construction (Refer to Geotechnical Investigation Report)
- K Mockups: Before installing portions of the Work requiring mockups, build mockups for each form of construction and finish required to comply with the following requirements, using materials indicated for the completed Work:
- 1 Build mockups in location and of size indicated or, if not indicated, as directed by PM.
 - 2 Notify PM seven (7) days in advance of dates and times when mockups will be constructed.
 - 3 Employ supervisory personnel who will oversee mockup construction. Employ workers that will be employed during the construction at the Project.
 - 4 Demonstrate the proposed range of aesthetic effects and workmanship.
 - 5 Obtain Architect's/PM's approval of mockups before starting work, fabrication, or construction.
 - a Allow seven (7) days for initial review and each re-review of each mockup.
 - 6 Maintain mockups during construction in an undisturbed condition as a standard for judging the completed Work.
 - 7 Demolish and remove mockups when directed, unless otherwise indicated.

1.10 QUALITY CONTROL

- A Contractor Responsibilities: Tests and inspections not explicitly assigned to Owner are Contractor's responsibility. Perform additional quality-control activities required to verify that the Work complies with requirements, whether specified or not.
- 1 Unless otherwise indicated, provide quality-control services specified and those required by authorities having jurisdiction. Perform quality-control services required of Contractor by authorities having jurisdiction, whether specified or not.
 - 2 Where services are indicated as Contractor's responsibility, engage a qualified testing agency to perform these quality-control services.
 - a Contractor shall not employ same entity engaged by Owner, unless agreed to in writing by Owner.
 - 3 Notify testing agencies at least seventy two (72) hours in advance of time when Work that requires testing or inspecting will be performed.

- 4 Where quality-control services are indicated as Contractor's responsibility, submit a certified written report, in duplicate, of each quality-control service.
 - 5 Testing and inspecting requested by Contractor and not required by the Contract Documents are Contractor's responsibility.
 - 6 Submit additional copies of each written report directly to authorities having jurisdiction, when they so direct.
- B Manufacturer's Field Services: Where indicated, engage a factory-authorized service representative to inspect field-assembled components and equipment installation, including service connections. Report results in writing as specified in Division 01 Section "Submittal Procedures."
- C Manufacturer's Technical Services: Where indicated, engage a manufacturer's technical representative to observe and inspect the Work. Manufacturer's technical representative's services include participation in preinstallation conferences, examination of substrates and conditions, verification of materials, observation of Installer activities, inspection of completed portions of the Work, and submittal of written reports.
- D Retesting/Reinspecting: Regardless of whether original tests or inspections were Contractor's responsibility, provide quality-control services, including retesting and reinspecting, for construction that replaced Work that failed to comply with the Contract Documents.
- E Testing Agency Responsibilities: Cooperate with PM and Contractor in performance of duties. Provide qualified personnel to perform required tests and inspections.
- 1 Notify PM and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
 - 2 Determine the location from which test samples will be taken and in which in-situ tests are conducted.
 - 3 Conduct and interpret tests and inspections and state in each report whether tested and inspected work complies with or deviates from requirements.
 - 4 Submit a certified written report, in duplicate, of each test, inspection, and similar quality-control service through Contractor.
 - 5 Do not release, revoke, alter, or increase the Contract Document requirements or approve or accept any portion of the Work.
 - 6 Do not perform any duties of Contractor.
- F Associated Services: Cooperate with agencies performing required tests, inspections, and similar quality-control services, and provide reasonable auxiliary services as requested. Notify agency sufficiently in advance of operations to permit assignment of personnel. Provide the following:
- 1 Access to the Work.
 - 2 Incidental labor and facilities necessary to facilitate tests and inspections.
 - 3 Adequate quantities of representative samples of materials that require testing and inspecting. Assist agency in obtaining samples.
 - 4 Facilities for storage and field curing of test samples.
 - 5 Delivery of samples to testing agencies.
 - 6 Preliminary design mix proposed for use for material mixes that require control by testing agency.
 - 7 Security and protection for samples and for testing and inspecting equipment at Project site.
- G Coordination: Coordinate sequence of activities to accommodate required quality-assurance and -control services with a minimum of delay and to avoid necessity of removing and replacing construction to accommodate testing and inspecting.
- 1 Schedule times for tests, inspections, obtaining samples, and similar activities.

H Schedule of Tests and Inspections: Prepare a schedule of tests, inspections, and similar quality-control services required by the Contract Documents as a component of the Contractor's quality-control plan. Coordinate and submit concurrently with Contractor's construction schedule. Update as the Work progresses.

- 1 Distribution: Distribute schedule to Owner, PM, testing agencies, and each party involved in performance of portions of the Work where tests and inspections are required.

1.11 SPECIAL TESTS AND INSPECTIONS

A Special Tests and Inspections: Engage a qualified testing agency or special inspector to conduct special tests and inspections required by authorities having jurisdiction as the responsibility of Owner, and as follows:

- 1 Verifying that manufacturer maintains detailed fabrication and quality-control procedures and reviewing the completeness and adequacy of those procedures to perform the Work.
- 2 Notifying PM and Contractor promptly of irregularities and deficiencies observed in the Work during performance of its services.
- 3 Submitting a certified written report of each test, inspection, and similar quality-control service to PM with copy to Contractor and to authorities having jurisdiction.
- 4 Submitting a final report of special tests and inspections at Substantial Completion, which includes a list of unresolved deficiencies.
- 5 Interpreting tests and inspections and stating in each report whether tested and inspected work complies with or deviates from the Contract Documents.
- 6 Retesting and reinspecting corrected work.

Part 2 - PRODUCTS (Not Used)

Part 3 - EXECUTION

3.1 ACCEPTABLE TESTING AGENCIES

A As approved by local jurisdiction.

3.2 TEST AND INSPECTION LOG

A Prepare a record of tests and inspections. Include the following:

- 1 Date test or inspection was conducted.
- 2 Description of the Work tested or inspected.
- 3 Date test or inspection results were transmitted to Architect.
- 4 Identification of testing agency or special inspector conducting test or inspection.

B Maintain log at Project site. Post changes and modifications as they occur. Provide access to test and inspection log for PM's reference during normal working hours. Final test log will be submitted with the project record documents at project completion.

3.3 REPAIR AND PROTECTION

A General: On completion of testing, inspecting, sample taking, and similar services, repair damaged construction and restore substrates and finishes.

- 1 Provide materials and comply with installation requirements specified in other Specification Sections or matching existing substrates and finishes. Restore patched areas and extend restoration into adjoining areas with durable seams that are as invisible as possible. Comply with the Contract Document requirements for cutting and patching in Division 01 Section "Execution."

B Protect construction exposed by or for quality-control service activities.

C Repair and protection are Contractor's responsibility, regardless of the assignment of responsibility for quality-control services.

END OF SECTION 014000

SECTION 015000 TEMPORARY FACILITIES AND CONTROLS

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A Section includes requirements for temporary utilities, support facilities, security and protection facilities, and temporary stormwater pollution controls.

- B Related Sections:

- 1 Division 01 Section "Summary" for work restrictions and limitations on utility interruptions.

1.3 USE CHARGES

- A General: Installation and removal of and use charges for temporary facilities shall be included in the Contract Sum unless otherwise indicated. Allow other entities to use temporary services and facilities without cost, including, but not limited to, Owner's construction forces, occupants of Project, testing agencies, and authorities having jurisdiction.
- B Sewer Service: Existing utilities may be used by the contractor at no cost provided the (E) system is not overloaded.
- C Water Service: Existing utilities may be used by the contractor at no cost provided the (E) system is not overloaded.
- D Electric Power Service: Existing utilities may be used by the contractor at no cost provided the (E) system is not overloaded.
- E The Stormwater Pollution Prevention Plan (SWPPP) is part of the Contract Documents and is bound into this Project Manual.

1.4 PREINSTALLATION MEETING

- A Preinstallation Conference: Conduct conference at project site.

- 1. Meet with Owner, Engineer, Construction manager, and earthwork subcontractor.
 - 2. Review requirements of the SWPPP, including permitting process, worker training, and inspection and maintenance requirements.

1.5 INFORMATIONAL SUBMITTALS

- A Site Plan: Show construction staging plan tied to construction schedule and all temporary facilities including proposed contractor staging areas, proposed construction barricades, utility hookups, and proposed parking areas for construction personnel. Obtain Owner approval for on-site location and extent prior to proceeding with work.
- B Erosion- and Sedimentation-Control Plan: Show compliance with requirements of EPA Construction General Permit or authorities having jurisdiction, whichever is more stringent.
- C Moisture-Protection Plan: Describe procedures and controls for protecting materials and construction from water absorption and damage; including delivery, handling, and storage provisions for materials subject to water absorption or water damage, discarding water-damaged materials, protocols for mitigating water intrusion into completed Work, and replacing water damaged Work.
 - 1 Indicate sequencing of work that requires water, such as sprayed fire-resistive materials, plastering, and terrazzo grinding, and describe plans for dealing with water from these operations. Show procedures for verifying that wet construction has dried sufficiently to permit installation of finish materials.

SECTION 015000
TEMPORARY FACILITIES
AND CONTROLS

D Stormwater Pollution Prevention Plan (SWPP):

- 1 15 days of date established for commencement of the Work, submit completed SWPPP.
- 2 EPA authorization under the EPA's "2017 Construction General Permit (CGP)."
- 3 Stormwater Pollution Prevention (SWPP) Training Log: For each individual performing Work under the SWPPP.
- 4 Inspection reports.

1.6QUALITY ASSURANCE

- A Electric Service: Comply with NECA, NEMA, and UL standards and regulations for temporary electric service. Install service to comply with NFPA 70.
- B Tests and Inspections: Arrange for authorities having jurisdiction to test and inspect each temporary utility before use. Obtain required certifications and permits.

1.7PROJECT CONDITIONS

- A Park shall remain open to the public during construction.

Part 2 - PRODUCTS

2.1MATERIALS

- A Staging Area Fencing: Minimum 6-foot-high chain link fencing, compliant with local ordinances for construction fencing.
- B Dust Control Adhesive-Surface Walk-off Mats: Provide mats minimum 36 by 60 inches.
- C Provide temporary stormwater pollution controls as required by the SWPPP.

2.2TEMPORARY FACILITIES

- A Field Offices, General: Office space (if required by the contractor) will be provided by the Contractor at no cost to the Owner
- B Site Construction Fence: Fencing and Barricades will be supplied and maintained by the Contractor at no Cost to the Owner
- C Storage and Fabrication Sheds: Provide sheds sized, furnished, and equipped to accommodate materials and equipment for construction operations.
- 1 Store combustible materials apart from building.
- D Construction Staging: Provide fencing (if required) to separate all contractor staging areas from Owner occupied areas. Propose and obtain Owner approval for on-site location and extent for all staging facilities.
- E Parking: Limit parking to areas designated by the Owner.

Part 3 - EXECUTION

3.1INSTALLATION, GENERAL

- A Locate facilities where they will serve Project adequately and result in minimum interference with performance of the Work. Relocate and modify facilities as required by progress of the Work.
- 1 Locate facilities to limit site disturbance as specified in Division 01 Section "Summary."
- B Provide each facility ready for use when needed to avoid delay. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

3.2 TEMPORARY UTILITY INSTALLATION

A General: Install temporary service or connect to existing service.

- 1 Arrange with the Owner, and existing users for time when service can be interrupted, if necessary, to make connections for temporary services.

B Water Service: Contractor to connect to Owner's water system for temporary water service as required. Existing utilities may be used by the contractor at no cost provided the (E) system is not overloaded.

C Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

3.3 SUPPORT FACILITIES INSTALLATION

A Project Signs: Provide Project signs as approved by the Owner. Unauthorized signs are not permitted.

B Waste Disposal Facilities: Comply with requirements specified in Division 01 Section "Construction Waste Management and Disposal."

C Waste Disposal Facilities: Provide waste-collection containers in sizes adequate to handle waste from construction operations. Comply with requirements of authorities having jurisdiction. Comply with Division 01 Section "Execution" for progress cleaning requirements.

D Lifts and Hoists: Provide facilities necessary for hoisting materials and personnel.

- 1 Truck cranes and similar devices used for hoisting materials are considered "tools and equipment" and not temporary facilities.

3.4 SECURITY AND PROTECTION FACILITIES INSTALLATION

A Protection of Existing Facilities: Protect existing vegetation, equipment, structures, utilities, and other improvements at Project site and on adjacent properties, except those indicated to be removed or altered. Repair damage to existing facilities.

B Environmental Protection: Provide protection, operate temporary facilities, and conduct construction as required to comply with environmental regulations and that minimize possible air, waterway, and subsoil contamination or pollution or other undesirable effects.

C Storm water Control: Comply with requirements of authorities having jurisdiction. Provide barriers in and around excavations and subgrade construction to prevent flooding by runoff of stormwater from heavy rains.

D Tree and Plant Protection: Install temporary fencing located as indicated or outside the drip line of trees to protect vegetation from damage from construction operations. Protect tree root systems from damage, flooding, and erosion.

E Staging Area Fence: Before construction operations begin, furnish and install fence in a manner that will prevent people from entering except by gates.

F Pest Control: Engage pest-control service to recommend practices to minimize attraction and harboring of rodents, roaches, and other pests and to perform extermination and control procedures at regular intervals so Project will be free of pests and their residues at Substantial Completion. Perform control operations lawfully, using environmentally safe materials.

G Security Enclosure and Lockup: Install temporary enclosure around partially completed areas of construction. Provide lockable entrances to prevent unauthorized entrance, vandalism, theft, and similar violations of security. Lock entrances at end of each work day.

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1 Maintain security by limiting number of keys and restricting distribution to authorized personnel. Furnish one set of keys to Owner and one set of keys to PM.

a NOTE: No additional Surveillance / Security will be provided by the Owner for this jobsite. It is the Contractor's responsibility to maintain a secure site and to protect the site from vandalism, theft, etc. throughout the construction period.

H Barricades, Warning Signs, and Lights: Comply with requirements of authorities having jurisdiction for erecting structurally adequate barricades, including warning signs and lighting.

I Temporary Egress: Maintain temporary egress from existing occupied facilities as indicated and as required by authorities having jurisdiction.

J Temporary Enclosures: Provide temporary enclosures for protection of construction, in progress and completed, from exposure, foul weather, other construction operations, and similar activities. Provide temporary "Weather Tight" enclosure for building exterior.

1 Where heating or cooling is needed and permanent enclosure is not complete, insulate temporary enclosures.

K Temporary Fire Protection: Install and maintain temporary fire-protection facilities of types needed to protect against reasonably predictable and controllable fire losses. Comply with NFPA 241.

1 Prohibit smoking in construction areas.

3.5 OPERATION, TERMINATION, AND REMOVAL

A Supervision: Enforce strict discipline in use of temporary facilities. To minimize waste and abuse, limit availability of temporary facilities to essential and intended uses.

END OF SECTION 015000

SECTION 016000 PRODUCT REQUIREMENTS

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

- A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A Section includes administrative and procedural requirements for selection of products for use in Project; product delivery, storage, and handling; manufacturers' standard warranties on products; special warranties; and comparable products.

B Related Sections:

- 1 Division 01 Section "Substitution Procedures" for requests for substitutions.

1.3 DEFINITIONS

- A Products: Items obtained for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.

- 1 Named Products: Items identified by manufacturer's product name, including make or model number or other designation shown or listed in manufacturer's published product literature, that is current as of date of the Contract Documents.
- 2 New Products: Items that have not previously been incorporated into another project or facility. Products salvaged or recycled from other projects are not considered new products.
- 3 Comparable Product: Product that is demonstrated and approved through submittal process to have the indicated qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics that equal or exceed those of specified product.

- B Basis-of-Design Product Specification: A specification in which a specific manufacturer's product is named and accompanied by the words "basis-of-design product," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of additional manufacturers named in the specification.

1.4 ACTION SUBMITTALS

- A Comparable Product Requests: Submit request for consideration of each comparable product. Identify product or fabrication or installation method to be replaced. Include Specification Section number and title and Drawing numbers and titles, as allowed in Section 012500.

- 1 Include data to indicate compliance with the requirements specified in "Comparable Products" Article.
- 2 Architect's Action: If necessary, Architect will request additional information or documentation for evaluation within one week of receipt of a comparable product request. Architect will notify Contractor through CM of approval or rejection of proposed comparable product request within fifteen (15) days of receipt of request, or seven (7) days of receipt of additional information or documentation, whichever is later.
- 3 Form of Approval: As specified in Division 01 Section "Submittal Procedures."
- 4 Use product specified if Architect does not issue a decision on use of a comparable product request within time allocated.

- B Basis-of-Design Product Specification Submittal: Comply with requirements in Division 01 Section "Submittal Procedures." Show compliance with requirements.

1.5 QUALITY ASSURANCE

A Compatibility of Options: If Contractor is given option of selecting between two or more products for use on Project, select product compatible with products previously selected, even if previously selected products were also options.

1.6 PRODUCT DELIVERY, STORAGE, AND HANDLING

A Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft and vandalism. Comply with manufacturer's written instructions.

B Delivery and Handling:

- 1 Schedule delivery to minimize long-term storage at Project site and to prevent overcrowding of construction spaces.
- 2 Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other losses.
- 3 Deliver products to Project site in an undamaged condition in manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting, and installing.
- 4 Inspect products on delivery to determine compliance with the Contract Documents and to determine that products are undamaged and properly protected.

C Storage:

- 1 Store products to allow for inspection and measurement of quantity or counting of units.
- 2 Store materials in a manner that will not endanger Project structure.
- 3 Store products that are subject to damage by the elements, under cover in a weathertight enclosure above ground, with ventilation adequate to prevent condensation.
- 4 Store foam plastic from exposure to sunlight, except to extent necessary for period of installation and concealment.
- 5 Comply with product manufacturer's written instructions for temperature, humidity, ventilation, and weather-protection requirements for storage.
- 6 Protect stored products from damage and liquids from freezing.
- 7 Provide a secure location and enclosure at Project site for storage of materials and equipment by Owner's construction forces. Coordinate location with Owner.

1.7 PRODUCT WARRANTIES

A Warranties specified in other Sections shall be in addition to, and run concurrent with, other warranties required by the Contract Documents. Manufacturer's disclaimers and limitations on product warranties do not relieve Contractor of obligations under requirements of the Contract Documents.

- 1 Manufacturer's Warranty: Written warranty furnished by individual manufacturer for a particular product and specifically endorsed by manufacturer to Owner.
- 2 Special Warranty: Written warranty required by the Contract Documents to provide specific rights for Owner.

B Special Warranties: Prepare a written document that contains appropriate terms and identification, ready for execution.

- 1 Manufacturer's Standard Form: Modified to include Project-specific information and properly executed.
- 2 Specified Form: When specified forms are included with the Specifications, prepare a written document using indicated form properly executed.

- 3 Refer to Divisions 02 through 49. Sections for specific content requirements and particular requirements for submitting special warranties.

C Submittal Time: Comply with requirements in Division 01 Sections related to Submittals and Closeout Procedures.

Part 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

A General Product Requirements: Provide products that comply with the Contract Documents, are undamaged and, unless otherwise indicated, are new at time of installation.

- 1 Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
- 2 Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
- 3 Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
- 4 Where products are accompanied by the term "as selected," Architect will make selection.
- 5 Descriptive, performance, and reference standard requirements in the Specifications establish salient characteristics of products.
- 6 Or Equal: For products specified by name and accompanied by the term "or equal," or "or approved equal," or "or approved," comply with requirements in "Comparable Products" Article to obtain approval for use of an unnamed product.

B Product Selection Procedures:

- 1 Product: Where Specifications name a single manufacturer and product, provide the named product that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
- 2 Manufacturer/Source: Where Specifications name a single manufacturer or source, provide a product by the named manufacturer or source that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
- 3 Products:
 - a Restricted List: Where Specifications include a list of names of both manufacturers and products, provide one of the products listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
- 4 Manufacturers:
 - a Restricted List: Where Specifications include a list of manufacturers' names, provide a product by one of the manufacturers listed that complies with requirements. Comparable products or substitutions for Contractor's convenience will not be considered.
- 5 Basis-of-Design Product: Where Specifications name a product, or refer to a product indicated on Drawings, and include a list of manufacturers, provide the specified or indicated product or a comparable product by one of the other named manufacturers. Drawings and Specifications indicate sizes, profiles, dimensions, and other characteristics that are based on the product named. Comply with requirements in "Comparable Products" Article for consideration of an unnamed product by one of the other named manufacturers.

C Visual Matching Specification: Where Specifications require "match Architect's sample", provide a product that complies with requirements and matches Architect's sample. Architect's decision will be final on whether a proposed product matches.

- 1 If no product available within specified category matches and complies with other specified requirements, comply with requirements in Division 01 Section "Substitution Procedures" for proposal of product.

D Visual Selection Specification: Where Specifications include the phrase "as selected by Architect from manufacturer's full range" or similar phrase, select a product that complies with requirements. Architect will select color, gloss, pattern, density, or texture from manufacturer's product line that includes both standard and premium items.

2.2 COMPARABLE PRODUCTS

A Conditions for Consideration: Architect will consider Contractor's request for comparable product when the following conditions are satisfied. If the following conditions are not satisfied, Architect may return requests without action, except to record noncompliance with these requirements:

- 1 Evidence that the proposed product does not require revisions to the Contract Documents, that it is consistent with the Contract Documents and will produce the indicated results, and that it is compatible with other portions of the Work.
- 2 Detailed comparison of significant qualities of proposed product with those named in the Specifications. Significant qualities include attributes such as performance, weight, size, durability, visual effect, and specific features and requirements indicated.
- 3 Evidence that proposed product provides specified warranty.
- 4 List of similar installations for completed projects with project names and addresses and names and addresses of Architects and owners, if requested.
- 5 Samples, if requested.

Part 3 - EXECUTION (Not Used)

END OF SECTION 016000

SECTION 017300 EXECUTION

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A Section includes general administrative and procedural requirements governing execution of the Work including, but not limited to, the following:

- 1 Construction layout.
- 2 Field engineering and surveying.
- 3 Installation of the Work.
- 4 Cutting and patching.
- 5 Coordination of Owner-installed products.
- 6 Progress cleaning.
- 7 Starting and adjusting.
- 8 Protection of installed construction.
- 9 Correction of the Work.

B Related Sections:

- 1 Division 01 Section "Summary" for limits on use of Project site.
- 2 Division 01 Section "Submittal Procedures" for submitting surveys.
- 3 Division 01 Section "Closeout Procedures" for submitting final property survey with Project Record Documents, recording of Owner-accepted deviations from indicated lines and levels, and final cleaning.
- 4 Division 01 Section "Penetration Firestopping" for patching penetrations in fire-rated construction.

1.3 WARRANTY

A Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during installation or cutting and patching operations, by methods and with materials so as not to void existing warranties.

1.4 QUALITY ASSURANCE

Part 2 - PRODUCTS

2.1 MATERIALS

A General: Comply with requirements specified in other Sections.

- 1 For projects requiring compliance with sustainable design and construction practices and procedures, utilize products for patching that comply with requirements of Division 01 Section "Sustainable Design Requirements."

B In-Place Materials: Use materials for patching identical to in-place materials. For exposed surfaces, use materials that visually match in-place adjacent surfaces to the fullest extent possible.

- 1 If identical materials are unavailable or cannot be used, use materials that, when installed, will provide a match acceptable to the Architect for the visual and functional performance of in-place materials.

Part 3 - EXECUTION

3.1 EXAMINATION

- A Existing Conditions: The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning work, investigate and verify the existence and location of underground utilities, mechanical and electrical systems, and other construction affecting the Work.
- 1 Before construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, and water-service piping, underground electrical services, and other utilities.
 - 2 Furnish location data for work related to Project that must be performed by public utilities serving Project site.
- B Examination and Acceptance of Conditions: Before proceeding with each component of the Work, examine substrates, areas, and conditions, with Installer or Applicator present where indicated, for compliance with requirements for installation tolerances and other conditions affecting performance. Record observations. Provide photos of "as-found" conditions to the CM before proceeding with any cutting or demolition activities.
- 1 Written Report: Where a written report listing conditions detrimental to performance of the Work is required by other Sections, include the following:
 - a Description of the Work.
 - b List of detrimental conditions, including substrates.
 - c List of unacceptable installation tolerances.
 - d Recommended corrections.
 - 2 Verify compatibility with and suitability of substrates, including compatibility with existing finishes or primers.
 - 3 Examine roughing-in for mechanical and electrical systems to verify actual locations of connections before equipment and fixture installation.
 - 4 Examine walls, floors, and roofs for suitable conditions where products and systems are to be installed.
 - 5 Proceed with installation only after unsatisfactory conditions have been corrected. Proceeding with the Work indicates acceptance of surfaces and conditions.

3.2 PREPARATION

- A Existing Utility Information: Furnish information to Owner and Architect that is necessary to adjust, move, or relocate existing utility structures, utility poles, lines, services, or other utility appurtenances located in or affected by construction. Coordinate with authorities having jurisdiction.
- B Field Measurements: Take field measurements as required to fit the Work properly. Recheck measurements before installing each product. Where portions of the Work are indicated to fit to other construction, verify dimensions of other construction by field measurements before fabrication. Coordinate fabrication schedule with construction progress to avoid delaying the Work.
- C Space Requirements: Verify space requirements and dimensions of items shown diagrammatically on Drawings.
- D Review of Contract Documents and Field Conditions: Immediately on discovery of the need for clarification of the Contract Documents caused by differing field conditions outside the control of the Contractor, submit a request for information to Architect according to requirements in Division 01 Section "Project Management and Coordination."

3.3 CONSTRUCTION LAYOUT

- A Verification: Before proceeding to lay out the Work, verify layout information shown on Drawings, in relation to the property survey and existing benchmarks. If discrepancies are discovered, issue an RFI to formally notify Architect and Construction Manager promptly.
- B Record Log: Maintain a log of layout control work. Record deviations from required lines and levels. Include beginning and ending dates and times of surveys, weather conditions, name and duty of each survey party member, and types of instruments and tapes used. Make the log available for reference by Architect and Construction Manager. Submit copies of the log information as a project submittal in accordance with Section 013300, capturing the data as a permanent record.

3.4 INSTALLATION

- A General: Locate the Work and components of the Work accurately, in correct alignment and elevation, as indicated.
 - 1 Make vertical work plumb and make horizontal work level.
- B Comply with manufacturer's written instructions and recommendations for installing products in applications indicated.
- C Install products at the time and under conditions that will ensure the best possible results. Maintain conditions required for product performance until Substantial Completion.
- D Tools and Equipment: Do not use tools or equipment that produce harmful noise levels.

3.5 PROGRESS CLEANING

- A General: Clean Project site and work areas daily, including common areas. Enforce requirements strictly. Dispose of materials lawfully.
 - 1 Comply with requirements in NFPA 241 for removal of combustible waste materials and debris.
 - 2 Do not hold waste materials more than seven days during normal weather or three days if the temperature is expected to rise above 80 degrees F.
 - 3 Containerize hazardous and unsanitary waste materials separately from other waste. Mark containers appropriately and dispose of legally, according to regulations.
 - a Utilize containers intended for holding waste materials of type to be stored.
 - 4 Coordinate progress cleaning for joint-use areas where more than one installer has worked.
- B Site: Maintain Project site free of waste materials and debris.
- C Work Areas: Clean areas where work is in progress to the level of cleanliness necessary for proper execution of the Work.
 - 1 Remove liquid spills promptly.
 - 2 Where dust would impair proper execution of the Work, broom-clean or vacuum the entire work area, as appropriate.
- D Installed Work: Keep installed work clean. Clean installed surfaces according to written instructions of manufacturer or fabricator of product installed, using only cleaning materials specifically recommended. If specific cleaning materials are not recommended, use cleaning materials that are not hazardous to health or property and that will not damage exposed surfaces.
- E Exposed Surfaces in Finished Areas: Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- F Waste Disposal: Do not bury or burn waste materials on-site. Do not wash waste materials down sewers or into waterways. Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls."

- G During handling and installation, clean and protect construction in progress and adjoining materials already in place. Apply protective covering where required to ensure protection from damage or deterioration at Substantial Completion.
- H Clean and provide maintenance on completed construction as frequently as necessary through the remainder of the construction period. Adjust and lubricate operable components to ensure operability without damaging effects.
- I Limiting Exposures: Supervise construction operations to assure that no part of the construction, completed or in progress, is subject to harmful, dangerous, damaging, or otherwise deleterious exposure during the construction period.

3.6 STARTING AND ADJUSTING

- A Coordinate startup and adjusting of equipment and operating components with requirements in Division 01 Section "Starting and Adjusting."
- B Start equipment and operating components to confirm proper operation. Remove malfunctioning units, replace with new units, and retest.
- C Adjust equipment for proper operation. Adjust operating components for proper operation without binding.
- D Test each piece of equipment to verify proper operation. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- E Manufacturer's Field Service: Comply with qualification requirements in Division 01 Section "Quality Requirements."

3.7 PROTECTION OF INSTALLED CONSTRUCTION

- A Provide final protection and maintain conditions that ensure installed Work is without damage or deterioration at time of Substantial Completion.
- B Comply with manufacturer's written instructions for temperature and relative humidity.
- C Where appropriate take measures to protect historic feature and finishes from damage during the course of construction. Protection measures will be submitted to the CM prior to the start of work.

3.8 CORRECTION OF THE WORK

- A Repair or remove and replace defective construction. Restore damaged substrates and finishes.
 - 1 Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment.
- B Restore permanent facilities used during construction to their specified condition.
- C Remove and replace damaged surfaces that are exposed to view if surfaces cannot be repaired without visible evidence of repair.
- D Repair components that do not operate properly. Remove and replace operating components that cannot be repaired.
- E Remove and replace chipped, scratched, and broken glass or reflective surfaces.

END OF SECTION 017300

SECTION 017419 CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

Part 4 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.
- B. This Section is intended to supplement, not supersede, General and Supplemental Conditions. In the case of any conflicts, General and Supplemental Conditions requirements shall prevail.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Salvaging non-hazardous demolition and construction waste.
 - 2. Recycling non-hazardous demolition and construction waste.
 - 3. Disposing of non-hazardous demolition and construction waste.
- B. Related Requirements:
 - 1. Section 02 41 19 "Selective Demolition" for disposition of waste resulting from partial demolition of buildings, structures, and site improvements [and for disposition of hazardous waste].

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition and/or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Meet the requirements of the current version of the California Green Building Standards Code (CALGreen) Section 5.408. Develop Waste Management Plan that results in a minimum of 65% recycling rate for salvage/recycling of total non-hazardous solid waste generated by the Work, calculated as a percent by weight or volume of total waste generated by the Work. Use one unit of measurement consistently. Excavated soil and land-clearing debris shall be repurposed and calculated separately. Comply with Section 7.20.010 of the Santa Cruz County Code requiring the use of an entity licensed or franchised by the County of Santa Cruz for collection or transport of solid waste. Comply with Sections 7.20.016 and 7.20.017 that prohibit the mixing of recyclables and solid waste and the disposal of recyclables.
- B. Regulatory: Meet all requirements of the local jurisdiction.

1.5 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within 15 days of date established for commencement of the Work or the Notice of Intent to Award.

Part 5 - PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved Construction and Demolition Waste Management Plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement Waste Management Plan during the entire duration of the Contract.
 - 1. Comply with operation, termination, and removal requirements in Section 01 50 00 "Temporary Facilities and Controls."
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as

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appropriate for the Work.

1. Distribute waste management plan to everyone concerned within three days of submittal return, and review with each trade as they begin work on the site.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, fire prevention access, native habitats, landscaping, and other adjacent occupied and used facilities.
 1. Designate and label specific areas on Project site necessary for collection and/or separation of materials that are to be salvaged, recycled, reused, donated, and sold.
 2. Designate and label specific off-site collection, sorting and separation area or service if sufficient space is not available on-site or additional area is needed.
 3. Comply with Section 015000 "Temporary Facilities and Controls" for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
 1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 3. Store items in a secure area until installation.
 4. Protect items from damage during transport and storage.
 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- A. Salvaged Items for Sale and Donation: Revenues, tax credits and other incentives received for sale or donation of salvaged items shall accrue to Owner.
- C. Salvaged Items for Owner's Use: Salvage items for Owner's use and handle as follows:
 1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers with label indicating elements, date of removal, quantity, and location where removed.
 3. Store items in a secure area until delivery to Owner.
 4. Transport items to Owner's storage area.
 5. Protect items from damage during transport and storage.

D.

3.3 DISPOSAL OF WASTE

- A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.
 1. Except as otherwise specified, do not allow waste materials to accumulate on-site.
 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.

END OF SECTION 017419

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WASTE MANAGEMENT REPORT
COST-/INCOME

Waste Material (Edit to Suit)	Unit	Receiving Facility	Handling	Landfill Cost	Fee	Cost	Income	Cost	Income
Land Clearing Debris	CY								
Soil	CY								
Wood	CY								
Sheet Wood	CY								
Concrete	CY								
Bricks	CY								
Concrete Masonry Units	CY								
Asphalt Concrete	CY								
Paper	CY								
Cement Fiber Products	CY								
Metal (ferrous)	TON								
Metals (non-ferrous)	LBS								
Paint	GAL								
Rigid Foam	CF								
Glass	CF								
Plastics	CF								
Carpet and Pad	SY								
Beverage Containers	LBS								
Insulation	CF								
Gypsum Board	CF								
Porcelain Plumbing Fixtures	EA								
Fluorescent Light Tubes	EA								
TOTALS:									

Work Order No.

Waste Management Report
01575B-2

SECTION 017700 CLOSEOUT PROCEDURES

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A Section includes administrative and procedural requirements for contract closeout, including, but not limited to, the following:

- 1 Substantial Completion procedures.
- 2 Final completion procedures.
- 3 Warranties.
- 4 Final cleaning.
- 5 Repair of the Work

B Related Sections:

- 1 Division 01 Section "Execution" for progress cleaning of Project site.
- 2 Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.
- 3 Division 01 Section "Project Record Documents" for submitting Record Drawings, Record Specifications, and Record Product Data.
- 4 Divisions 02 through 49 Sections for specific closeout and special cleaning requirements for the Work in those Sections.

1.3 ACTION SUBMITTALS

A Contractor's List of Incomplete Items: Initial submittal at Substantial Completion.

B Certified List of Incomplete Items: Final submittal at Final Completion.

1.4 CLOSEOUT SUBMITTALS

A Certificates of Release: From authorities having jurisdiction.

B Certificate of Insurance: For continuing coverage.

1.5 MAINTENANCE MATERIAL SUBMITTALS

A A. Schedule of Maintenance Material Items: For maintenance material submittal items specified in other Sections.

1.6 SUBSTANTIAL COMPLETION

A Preliminary Procedures: Before requesting inspection for determining date of Substantial Completion, complete the following. List items below that are incomplete with request.

- 1 Prepare a list of items to be completed and corrected (punch list), the value of items on the list, and reasons why the Work is not complete.
- 2 Advise Owner of pending insurance changeover requirements.
- 3 Submit specific warranties, workmanship bonds, maintenance service agreements, final certifications, and similar documents.

- 4 Obtain and submit releases permitting Owner unrestricted use of the Work and access to services and utilities. Include occupancy permits, operating certificates, and similar releases.
 - 5 Prepare and submit Project Record Documents, operation and maintenance manuals, final completion construction photographic documentation, damage or settlement surveys, property surveys, and similar final record information.
 - 6 Deliver tools, spare parts, extra materials, and similar items to location designated by Owner. Label with manufacturer's name and model number where applicable.
 - 7 Make final changeover of permanent locks and deliver keys to Owner. Advise Owner's personnel of changeover in security provisions.
 - 8 Complete startup testing of systems.
 - 9 Submit test/adjust/balance records.
 - 10 Terminate and remove temporary facilities from Project site, along with mockups, construction tools, and similar elements.
 - 11 Advise Owner of changeover in heat and other utilities.
 - 12 Submit changeover information related to Owner's occupancy, use, operation, and maintenance.
 - 13 Complete final cleaning requirements, including touchup painting.
 - 14 Touch up and otherwise repair and restore marred exposed finishes to eliminate visual defects.
- B Inspection: Submit a written request for inspection for Substantial Completion. On receipt of request, PM will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare the Certificate of Substantial Completion after inspection or will notify Contractor of items, either on Contractor's list or additional items identified by Architect, that must be completed or corrected before certificate will be issued.
- 1 Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected. The Contractor shall provide a signed-off punchlist to the PM identifying the status of each item on the punchlist prior to requesting a re-inspection. ***Note – a maximum of two re-inspections will be performed by the Owner and PM. If after the second re-inspection, punchlist items remain, the cost of subsequent re-inspections will be back charged to the contractor.***
 - 2 Results of completed inspection will form the basis of requirements for final completion.

1.7 FINAL COMPLETION

- A Preliminary Procedures: Before requesting final inspection for determining final completion, complete the following:
- 1 Submit a final Application for Payment according to Division 01 Section "Payment Procedures."
- B Inspection: Submit a written request for final inspection for acceptance. On receipt of request, PM will either proceed with inspection or notify Contractor of unfulfilled requirements. Architect will prepare a final Certificate for Payment after inspection or will notify Contractor of construction that must be completed or corrected before certificate will be issued.
- 1 Reinspection: Request reinspection when the Work identified in previous inspections as incomplete is completed or corrected.
 - 2 Any additional re-inspections beyond the first re-inspection will be billed back to the contractor at the Architect's and CM's hourly billable rate.

1.8 LIST OF INCOMPLETE ITEMS (PUNCH LIST)

A Organization of List: Include name and identification of each space and area affected by construction operations for incomplete items and items needing correction including, if necessary, areas disturbed by Contractor that are outside the limits of construction.

- 1 Organize list of spaces in sequential order.
- 2 Organize items applying to each space by major element, including categories for ceiling, individual walls, floors, equipment, and building systems.
- 3 Include the following information at the top of each page:
 - a Project name.
 - b Date.
 - c Name of Architect and Construction Manager.
 - d Name of Contractor.
 - e Page number.
- 4 Submit list of incomplete items in the following format:

1.9 WARRANTIES

A Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.

B Partial Occupancy: Submit properly executed warranties within 15 days of completion of designated portions of the Work that are completed and occupied or used by Owner during construction period by separate agreement with Contractor.

C Organize warranty documents into an orderly sequence based on the table of contents of the Project Manual.

- 1 Bind warranties and bonds in heavy-duty, three-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2-by-11-inch paper.
- 2 Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
- 3 Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project name, and name of Contractor.
- 4 Scan warranties and bonds and assemble complete warranty and bond submittal package into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

D Provide additional copies of each warranty to include in operation and maintenance manuals.

Part 2 - PRODUCTS

2.1 MATERIALS

A Cleaning Agents: Use cleaning materials and agents recommended by manufacturer or fabricator of the surface to be cleaned. Do not use cleaning agents that are potentially hazardous to health or property or that might damage finished surfaces.

- 1 Use cleaning products that meet Green Seal GS-37, or if GS-37 is not applicable, use products that comply with the California Code of Regulations maximum allowable VOC levels.

Part 3 - EXECUTION

3.1 FINAL CLEANING

A General: Perform final cleaning. Conduct cleaning and waste-removal operations to comply with local laws and ordinances and Federal and local environmental and antipollution regulations.

B Construction Waste Disposal: Comply with waste disposal requirements in Division 01 Section "Temporary Facilities and Controls".

3.20.2 REPAIR OF THE WORK

A Complete repair and restoration operations before requesting inspection for determination of Substantial Completion.

B Repair or remove and replace defective construction. Repairing includes replacing defective parts, refinishing damaged surfaces, touching up with matching materials, and properly adjusting operating equipment. Where damaged or worn items cannot be repaired or restored, provide replacements. Remove and replace operating components that cannot be repaired.

C Restore damaged construction and permanent facilities used during construction to specified condition.

- 1 Remove and replace chipped, scratched, and broken glass, reflective surfaces, and other damaged transparent materials.
- 2 Touch up and otherwise repair and restore marred or exposed finishes and surfaces. Replace finishes and surfaces that already show evidence of repair or restoration.
 - a Do not paint over "UL" and other required labels and identification, including mechanical and electrical nameplates. Remove paint applied to required labels and identification.
- 3 Replace parts subject to operating conditions during construction that may impede operation or reduce longevity.
- 4 Replace burned-out bulbs, bulbs noticeably dimmed by hours of use, and defective and noisy starters in fluorescent and mercury vapor fixtures to comply with requirements for new fixtures.

END OF SECTION 017700

SECTION 017823 OPERATION AND MAINTENANCE DATA

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A Section includes administrative and procedural requirements for preparing operation and maintenance manuals, including the following:

- 1 Operation and maintenance documentation directory.
- 2 Emergency manuals.
- 3 Operation manuals for systems, subsystems, and equipment.
- 4 Product maintenance manuals.
- 5 Systems and equipment maintenance manuals.

B Related Sections:

- 1 Division 01 Section "Submittal Procedures" for submitting copies of submittals for operation and maintenance manuals.
- 2 Divisions 02 through 49 Sections for specific operation and maintenance manual requirements for the Work in those Sections.

1.3 DEFINITIONS

A System: An organized collection of parts, equipment, or subsystems united by regular interaction.

B Subsystem: A portion of a system with characteristics similar to a system.

1.4 CLOSEOUT SUBMITTALS

A Manual Content: Operations and maintenance manual content is specified in individual specification sections to be reviewed at the time of Section submittals. Submit reviewed manual content formatted and organized as required by this Section.

- 1 Where applicable, clarify and update reviewed manual content to correspond to modifications and field conditions.

B Format: Submit operations and maintenance manuals in the following format:

- 1 Three (3) paper copies. Include a complete operation and maintenance directory. Enclose title pages and directories in clear plastic sleeves. Two (2) copies will be distributed to the owner and one to the PM as a record copy.
- 2 Scan operations and maintenance manuals and assemble into a single indexed electronic PDF file with links enabling navigation to each item. Provide table of contents at beginning of document.

C Final Manual Submittal: Submit each manual in final form prior to requesting inspection for Substantial Completion and at least 15 days before commencing demonstration and training. Architect and Commissioning Agent will return copy with comments.

- 1 Correct or modify each manual to comply with Architect's and Commissioning Agent's comments. Submit copies of each corrected manual within 15 days of receipt of Architect's and Commissioning Agent's comments and prior to commencing demonstration and training.

Part 2 - PRODUCTS

2.1 OPERATION AND MAINTENANCE DOCUMENTATION DIRECTORY

A Organization: Include a section in the directory for each of the following:

- 1 List of documents.
- 2 List of systems.
- 3 List of equipment.
- 4 Table of contents.

B List of Systems and Subsystems: List systems alphabetically. Include references to operation and maintenance manuals that contain information about each system.

C List of Equipment: List equipment for each system, organized alphabetically by system. For pieces of equipment not part of system, list alphabetically in separate list.

D Tables of Contents: Include a table of contents for each emergency, operation, and maintenance manual.

E Identification: In the documentation directory and in each operation and maintenance manual, identify each system, subsystem, and piece of equipment with same designation used in the Contract Documents. If no designation exists, assign a designation according to ASHRAE Guideline 4, "Preparation of Operating and Maintenance Documentation for Building Systems."

2.2 REQUIREMENTS FOR EMERGENCY, OPERATION, AND MAINTENANCE MANUALS

A Organization: Unless otherwise indicated, organize each manual into a separate section for each system and subsystem, and a separate section for each piece of equipment not part of a system. Each manual shall contain the following materials, in the order listed:

- 1 Title page.
- 2 Table of contents.
- 3 Manual contents.

B Title Page: Include the following information:

- 1 Subject matter included in manual.
- 2 Name and address of Project.
- 3 Name and address of Owner.
- 4 Date of submittal.
- 5 Name and contact information for Contractor.
- 6 Name and contact information for each subcontractor.
- 7 Name and contact information for Construction Manager.
- 8 Name and contact information for Architect.
- 9 Name and contact information for Commissioning Agent.
- 10 Names and contact information for major consultants to the Architect that designed the systems contained in the manuals.
- 11 Cross-reference to related systems in other operation and maintenance manuals.

C Table of Contents: List each product included in manual, identified by product name, indexed to the content of the volume, and cross-referenced to Specification Section number in Project Manual.

- 1 If operation or maintenance documentation requires more than one volume to accommodate data, include comprehensive table of contents for all volumes in each volume of the set.
- D Manual Contents: Organize into sets of manageable size. Arrange contents alphabetically by system, subsystem, and equipment. If possible, assemble instructions for subsystems, equipment, and components of one system into a single binder.
- E Manuals, Electronic Files: Submit manuals in the form of a multiple file composite electronic PDF file for each manual type required.
 - 1 Electronic Files: Use electronic files prepared by manufacturer where available. Where scanning of paper documents is required, configure scanned file for minimum readable file size.
 - 2 File Names and Bookmarks: Enable bookmarking of individual documents based upon file names. Name document files to correspond to system, subsystem, and equipment names used in manual directory and table of contents. Group documents for each system and subsystem into individual composite bookmarked files, then create composite manual, so that resulting bookmarks reflect the system, subsystem, and equipment names in a readily navigated file tree. Configure electronic manual to display bookmark panel upon opening file.
- F Manuals, Paper Copy: Submit manuals in the form of hard copy, bound and labeled volumes.
 - 1 Binders: Heavy-duty, three-ring, vinyl-covered, loose-leaf binders, in thickness necessary to accommodate contents, sized to hold 8-1/2-by-11-inch (215-by-280-mm) paper; with clear plastic sleeve on spine to hold label describing contents and with pockets inside covers to hold folded oversize sheets.
 - a If two or more binders are necessary to accommodate data of a system, organize data in each binder into groupings by subsystem and related components. Cross-reference other binders if necessary to provide essential information for proper operation or maintenance of equipment or system.
 - b Identify each binder on front and spine, with printed title "OPERATION AND MAINTENANCE MANUAL," Project title or name, and subject matter of contents, and indicate Specification Section number on bottom of spine. Indicate volume number for multiple-volume sets.
 - 2 Dividers: Heavy-paper dividers with plastic-covered tabs for each section of the manual. Mark each tab to indicate contents. Include typed list of products and major components of equipment included in the section on each divider, cross-referenced to Specification Section number and title of Project Manual.
 - 3 Protective Plastic Sleeves: Transparent plastic sleeves designed to enclose diagnostic software storage media for computerized electronic equipment.
 - 4 Supplemental Text: Prepared on 8-1/2-by-11-inch white bond paper.
 - 5 Drawings: Attach reinforced, punched binder tabs on drawings and bind with text.
 - a If oversize drawings are necessary, fold drawings to same size as text pages and use as foldouts.
 - b If drawings are too large to be used as foldouts, fold and place drawings in labeled envelopes and bind envelopes in rear of manual. At appropriate locations in manual, insert typewritten pages indicating drawing titles, descriptions of contents, and drawing locations.

2.3 EMERGENCY MANUALS

A Content: Organize manual into a separate section for each of the following:

- 1 Type of emergency.
- 2 Emergency instructions.
- 3 Emergency procedures.

B Type of Emergency: Where applicable for each type of emergency indicated below, include instructions and procedures for each system, subsystem, piece of equipment, and component:

- 1 Fire.
- 2 Flood.
- 3 Gas leak.
- 4 Water leak.
- 5 Power failure.
- 6 Water outage.
- 7 System, subsystem, or equipment failure.
- 8 Chemical release or spill.

C Emergency Instructions: Describe and explain warnings, trouble indications, error messages, and similar codes and signals. Include responsibilities of Owner's operating personnel for notification of Installer, supplier, and manufacturer to maintain warranties.

D Emergency Procedures: Include the following, as applicable:

- 1 Instructions on stopping.
- 2 Shutdown instructions for each type of emergency.
- 3 Operating instructions for conditions outside normal operating limits.
- 4 Required sequences for electric or electronic systems.
- 5 Special operating instructions and procedures.

2.4 OPERATION MANUALS

A Content: In addition to requirements in this Section, include operation data required in individual Specification Sections and the following information:

- 1 System, subsystem, and equipment descriptions. Use designations for systems and equipment indicated on Contract Documents.
- 2 Performance and design criteria if Contractor is delegated design responsibility.
- 3 Operating standards.
- 4 Operating procedures.
- 5 Operating logs.
- 6 Wiring diagrams.
- 7 Control diagrams.
- 8 Piped system diagrams.
- 9 Precautions against improper use.
- 10 License requirements including inspection and renewal dates.

B Descriptions: Include the following:

- 1 Product name and model number. Use designations for products indicated on Contract Documents.
- 2 Manufacturer's name.
- 3 Equipment identification with serial number of each component.

- 4 Equipment function.
- 5 Operating characteristics.
- 6 Limiting conditions.
- 7 Performance curves.
- 8 Engineering data and tests.
- 9 Complete nomenclature and number of replacement parts.

C Operating Procedures: Include the following, as applicable:

- 1 Startup procedures.
- 2 Equipment or system break-in procedures.
- 3 Routine and normal operating instructions.
- 4 Regulation and control procedures.
- 5 Instructions on stopping.
- 6 Normal shutdown instructions.
- 7 Seasonal and weekend operating instructions.
- 8 Required sequences for electric or electronic systems.
- 9 Special operating instructions and procedures.

D Systems and Equipment Controls: Describe the sequence of operation, and diagram controls as installed.

E Piped Systems: Diagram piping as installed and identify color-coding where required for identification.

2.5 PRODUCT MAINTENANCE MANUALS

A Content: Organize manual into a separate section for each product, material, and finish. Include source information, product information, maintenance procedures, repair materials and sources, and warranties and bonds, as described below.

B Source Information: List each product included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.

C Product Information: Include the following, as applicable:

- 1 Product name and model number.
- 2 Manufacturer's name.
- 3 Reordering information for specially manufactured products.

D Maintenance Procedures: Include manufacturer's written recommendations and the following:

- 1 Inspection procedures.
- 2 Repair instructions.

E Repair Materials and Sources: Include lists of materials and local sources of materials and related services.

F Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.

- 1 Include procedures to follow and required notifications for warranty claims.

2.6 SYSTEMS AND EQUIPMENT MAINTENANCE MANUALS

- A Content: For each system, subsystem, and piece of equipment not part of a system, include source information, manufacturers' maintenance documentation, maintenance procedures, maintenance and service schedules, spare parts list and source information, maintenance service contracts, and warranty and bond information, as described below.
- B Source Information: List each system, subsystem, and piece of equipment included in manual, identified by product name and arranged to match manual's table of contents. For each product, list name, address, and telephone number of Installer or supplier and maintenance service agent, and cross-reference Specification Section number and title in Project Manual and drawing or schedule designation or identifier where applicable.
- C Manufacturers' Maintenance Documentation: Manufacturers' maintenance documentation including the following information for each component part or piece of equipment:
- 1 Standard maintenance instructions and bulletins.
 - 2 Drawings, diagrams, and instructions required for maintenance, including disassembly and component removal, replacement, and assembly.
 - 3 Identification and nomenclature of parts and components.
 - 4 List of items recommended to be stocked as spare parts.
- D Maintenance Procedures: Include the following information and items that detail essential maintenance procedures:
- 1 Test and inspection instructions.
 - 2 Troubleshooting guide.
 - 3 Precautions against improper maintenance.
 - 4 Disassembly; component removal, repair, and replacement; and reassembly instructions.
 - 5 Aligning, adjusting, and checking instructions.
 - 6 Demonstration and training video recording, if available.
- E Maintenance and Service Schedules: Include service and lubrication requirements, list of required lubricants for equipment, and separate schedules for preventive and routine maintenance and service with standard time allotment.
- 1 Scheduled Maintenance and Service: Tabulate actions for daily, weekly, monthly, quarterly, semiannual, and annual frequencies.
 - 2 Maintenance and Service Record: Include manufacturers' forms for recording maintenance.
- F Spare Parts List and Source Information: Include lists of replacement and repair parts, with parts identified and cross-referenced to manufacturers' maintenance documentation and local sources of maintenance materials and related services.
- G Maintenance Service Contracts: Include copies of maintenance agreements with name and telephone number of service agent.
- H Warranties and Bonds: Include copies of warranties and bonds and lists of circumstances and conditions that would affect validity of warranties or bonds.
- 1 Include procedures to follow and required notifications for warranty claims.

Part 3 - EXECUTION

3.1 MANUAL PREPARATION

SECTION 017823
OPERATION AND
MAINTENANCE DATA

- A Operation and Maintenance Documentation Directory: Prepare a separate manual that provides an organized reference to emergency, operation, and maintenance manuals.
- B Emergency Manual: Assemble a complete set of emergency information indicating procedures for use by emergency personnel and by Owner's operating personnel for types of emergencies indicated.
- C Product Maintenance Manual: Assemble a complete set of maintenance data indicating care and maintenance of each product, material, and finish incorporated into the Work.
- D Operation and Maintenance Manuals: Assemble a complete set of operation and maintenance data indicating operation and maintenance of each system, subsystem, and piece of equipment not part of a system.
- 1 Engage a factory-authorized service representative to assemble and prepare information for each system, subsystem, and piece of equipment not part of a system.
 - 2 Prepare a separate manual for each system and subsystem, in the form of an instructional manual for use by Owner's operating personnel.
- E Manufacturers' Data: Where manuals contain manufacturers' standard printed data, include only sheets pertinent to product or component installed. Mark each sheet to identify each product or component incorporated into the Work. If data include more than one item in a tabular format, identify each item using appropriate references from the Contract Documents. Identify data applicable to the Work and delete references to information not applicable.
- 1 Prepare Supplemental text if manufacturers' standard printed data are not available and where the information is necessary for proper operation and maintenance of equipment or systems.
- F Drawings: Prepare drawings supplementing manufacturers' printed data to illustrate the relationship of component parts of equipment and systems and to illustrate control sequence and flow diagrams. Coordinate these drawings with information contained in record Drawings to ensure correct illustration of completed installation.
- 1 Do not use original project record documents as part of operation and maintenance manuals.
 - 2 Comply with requirements of newly prepared record Drawings in Division 01 Section "Project Record Documents."
- G Comply with Division 01 Section "Closeout Procedures" for schedule for submitting operation and maintenance documentation.

END OF SECTION 017823

SECTION 017839 PROJECT RECORD DOCUMENTS

Part 1 - GENERAL

1.1 RELATED DOCUMENTS

A Drawings and general provisions of the Contract, including General and Supplemental Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A This Section includes administrative and procedural requirements for Project Record Documents, including the following:

- 1 Record Drawings.
- 2 Record Specifications.
- 3 Record Product Data.
- 4 Miscellaneous Records

1.3 Related Requirements:

A Division 01 Section "Execution" for final property survey.

B Division 01 Section "Closeout Procedures" for general closeout procedures.

C Division 01 Section "Operation and Maintenance Data" for operation and maintenance manual requirements.

1.4 SUBMITTALS

A Record Drawings: Submit one (1) set of marked-up Record Drawings and two (2) sets of CDs with scanned copies of the record prints.

B Record Specifications: Submit one (1) copy of Project's Specifications, including addenda and contract modifications and two (2) sets of CDs with scanned copies of the Record Specifications.

C Record Product Data: Submit one (1) copy of each Product Data submittal.

- 1 Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

Part 2 - PRODUCTS

2.1 RECORD DRAWINGS

A Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.

- 1 Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - i. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - ii. Accurately record information in an understandable drawing technique.
 - iii. Record data as soon as possible after obtaining it.
 - iv. Record and check the markup before enclosing concealed installations.
 - v. Cross-reference record prints to corresponding archive photographic documentation.
- 2 Content: Types of items requiring marking include, but are not limited to, the following:
 - i. Dimensional changes to Drawings.
 - ii. Revisions to details shown on Drawings.
 - iii. Depths of foundations below first floor.

- iv. Changes made by Change Order or **Construction** Change Directive.
 - v. Changes made following Architect's written orders.
 - vi. Details not on the original Contract Drawings.
 - vii. Field records for variable and concealed conditions.
 - viii. Record information on the Work that is shown only schematically.
 - ix. Change Orders
 - x. Requests for Information (RFIs)
 - xi. Clarification Drawings
 - xii. Substitutions
- 3 Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 - 4 Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5 Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6 Note Construction Change Directive numbers, alternate numbers, Change Order numbers, RFI numbers and similar identification, where applicable.
 - 7 Accompany submittal with certification that each document as submitted is complete and accurate.
 - 8 For any design build scopes, provide a full set of construction documents (drawings and specifications) as record documents.
 - 9 Include copies of all clarification drawings, and/or sketches issued to the contractor to clarify design during the course of construction.
- B Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
- 1 Record Prints: Organize Record Prints into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2 Identification: As follows:
 - i. Project name.
 - ii. Date.
 - iii. Designation "PROJECT RECORD DRAWINGS."
 - iv. Name of Architect and Construction Manager.
 - v. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A Preparation: Mark Specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications. Also indicate actual materials / products selected where specifications provide options for the contractor to choose from. Information shall be sufficient for Owner's personnel to maintain facility.
- 1 Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2 Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.

- 3 Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
- 4 For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.
- 5 Note related Change Orders, Requests for Information (RFIs) and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

A Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.

- 1 Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
- 2 Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
- 3 Note related Change Orders and Record Drawings where applicable.

B Format: Submit record Product Data as paper copy.

- 1 Include record Product Data directory organized by Specification Section number and title, electronically linked to each item of record Product Data.

2.4 MISCELLANEOUS RECORD SUBMITTALS

A Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

B Format: Submit miscellaneous record submittals as paper copy.

- 1 Include miscellaneous record submittals directory organized by Specification Section number and title, electronically linked to each item of miscellaneous record submittals.

Part 3 - EXECUTION

3.1 RECORDING AND MAINTENANCE

A Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project. Record actual construction data including:

- 1 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- 2 Field changes of dimension and detail.
- 3 Details not on original Contract Drawings.

B Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's reference during normal working hours.

END OF SECTION 017839

SECTION 31 23 17

TRENCHING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Excavating trenches for utilities as shown on the plans.
 - 2. Compacted fill from top of utility bedding to subgrade elevations.
 - 3. Backfilling and compaction.
- B. Related Sections:
 - 1. Section 33 05 00 – Common Work Results for Utilities
 - 2. Section 33 05 16- Utility Structures
 - 3. Section 33 12 13 – Water Service Connections

1.2 REFERENCES

- A. California Building Standards Code (CCR Title 24), Latest Edition
- B. California Code 4216 – Protection of Underground Infrastructure
- C. California Occupational Safety and Health Administrative Code
- D. Standard Specifications (DTSS), State of California, Department of Transportation (Caltrans), Latest Edition
- E. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- F. American Society for Testing and Materials:
 - 1. "Standard Test Methods For In-Place Density And Water Content Of Soil And Soil-Aggregate By Nuclear Methods (Shallow Depth)" (ASTM D 6938-17).
 - 2. "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))" (ASTM D 1557-12).
 - 3. "Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils" (ASTM D4318).

1.3 DEFINITIONS

- A. Department: Santa Cruz County Parks Department.
- B. Utility: Any buried pipe, duct, conduit, or cable.

- C. Relative Compaction, RC, or Percent Compaction: Dry density expressed as a percentage of the maximum dry density at optimum moisture content obtained in accordance with ASTM D1557.
- D. Remove: Remove and dispose of off-site, in a legal manner.

1.4 SUBMITTALS

- A. Excavation Protection Plan: Describe sheeting, shoring, and bracing materials and installation required to protect excavations and adjacent structures and property; include structural calculations to support plan.
- B. Samples: Submit proposed foundation, bedding, and backfill materials to the Geotechnical Engineer at least two (2) weeks prior to planned delivery or use.
- C. Submit manufacturer's cut sheets for all other materials.
- D. Submit samples and test results at least two (2) weeks prior to planned purchase/delivery.
- E. Materials Source: Submit name of imported fill materials suppliers.
- F. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with local and state codes.
- B. Work shall be performed under the observation of the Department's Geotechnical Engineer.

1.6 FIELD MEASUREMENTS

- A. Verify field measurements prior to fabrication.

1.7 COORDINATION

- A. Verify Work associated with lower elevation utilities is complete before placing higher elevation utilities.

PART 2 PRODUCTS

2.1 FILL MATERIALS

- A. Pipe: as specified for the utility being installed.

- B. Foundation, bedding and backfill materials shall be as noted on the Drawings and as specified for the type of facility being installed.
- C. Fill: A select, noncorrosive, granular, easily compacted material should be used as bedding and shading immediately around utility pipes. The site soils may be used for trench backfill above the select material. However, if obtaining compaction is difficult with the site soils, use of a more easily compacted sand may be desirable. The upper foot of backfill in landscaped and unimproved areas should consist of native material to reduce the potential for seepage of water into the backfill.
- D. Concrete encasement: Minor concrete conforming to DTSS Section 90.
- E. Aggregate base: Class 2 aggregate base conforming to DTSS Section 26.
- F. Clean Sand: Natural river or bank sand; free of silt, clay, loam, friable or soluble materials, or organic matter; maximum particle size and volume of 1/2 inch and 18 percent respectively, with minimum Sand Equivalent value of 30 per California Test 217 or ASTM D2419
- G. Select native material may be used for bedding and/or backfill only if approved by the Geotechnical Engineer.

2.2 ACCESSORIES

- A. Detection tape: Polyethylene plastic warning tape, minimum 3.5 mils thick, 6-inches wide, appropriately labeled and color coded.
- B. Tracer wire: Insulated No. 12 copper wire.
- C. Geotextile fabric: in accordance with DTSS Section 88 and as approved by the Geotechnical Engineer.

PART 3 EXECUTION

3.1 GENERAL

- A. All improvements shall be constructed in accordance with the California Building Standards Code, the Drawings, and these Specifications.
- B. Onsite grading and earthwork, site preparation, excavation, trenching, and compaction shall be observed and tested by the Geotechnical Engineer. All grading and earthwork shall be done to the satisfaction of the Geotechnical Engineer.
- C. In the event that any unusual conditions are encountered during grading operations which are not covered by the Geotechnical Report or these Specifications, the Geotechnical Engineer shall be immediately notified such that additional recommendations may be made.

- D. Where work is performed in public streets or rights of way, or on public utilities, perform the work in accordance with the requirements of the authority having jurisdiction and/or utility owner, if such requirements are more stringent than the requirements of this section.

3.2 SAFETY

- A. Work shall comply with all federal, state, and local safety requirements
- B. Except by permission of the County, no trench shall remain open overnight.

3.3 LINES AND GRADES

- A. Use laser-beam instrument with qualified operator to establish lines and grades.

3.4 PREPARATION

- A. Call Local Utility Line Information service at 8-1-1 not less than two working days before performing Work.
 - 1. Request underground utilities to be located and marked within and surrounding construction areas.
- B. Identify required lines, levels, contours, and datum locations.
- C. Protect plant life, lawns, rock outcropping and other features remaining as portion of final landscaping.
- D. Protect bench marks, existing structures, fences, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- E. Maintain and protect above and below grade utilities indicated to remain.
- F. Establish temporary traffic control and detours when trenching is performed in public right-of-way. Relocate controls and reroute traffic as required during progress of Work.

3.5 POTHOLING

- A. Pothole utility lines at crossings in advance of construction to determine if adjustment in horizontal or vertical location of pipe line is required. Submit drawing to the Department's Representative showing located utility locations and elevations.
- B. If potholing indicates a conflict between existing and proposed facilities, notify the Department's Representative immediately. Do not perform work on systems which may be affected by the conflict until a resolution has been reached and you have been notified by the Department's Representative.

- C. Contractor shall locate existing utilities, including water, sewer, storm drain, gas, electric, and telecommunications prior to performing trenching work or any excavation.
- D. Contractor shall notify the Department's Representative a minimum of two (2) weeks prior to planned utility location work. The Department's Representative may identify areas for underground utility location, other than those shown on the Drawings.
- E. The precise locations and elevations of all utility crossings and points of connection must be verified by Contractor prior to construction of systems which may be affected by the existing utility's location. Utilities shall be located by potholing where location and/or grade is critical

3.6 TRENCHING

- A. Excavate to the lines and grades indicated on the Drawings. The Department reserves the right to make changes to lines, grades, and depths when required due to field conditions.
- B. The excavation and the preparation of the trench shall be completed a sufficient distance in advance of pipe laying to prevent dislodged material from entering the pipe.
- C. If the foundation soil is soft, wet, spongy or unstable, the trench shall be excavated to stable soil as determined by the Geotechnical Engineer, and the excavation backfilled with pipe bedding material.
- D. Remove lumped subsoil, boulders, and rock up of 1/6 cubic yard, measured by volume.
- E. Do not advance open trench more than 200 feet ahead of installed pipe.
- F. Cut trenches to width indicated on Drawings. Remove water or materials that interfere with Work.
- G. Excavate bottom of trenches maximum 2 feet wider than outside diameter of pipe.
- H. Excavate trenches to depth indicated on Drawings. Provide uniform and continuous bearing and support for bedding material and utilities.
- I. Do not interfere with 45 degree bearing splay of foundations.
- J. When Project conditions permit, slope side walls of excavation starting 2 feet above top of pipe. When side walls can not be sloped, provide sheeting and shoring to protect excavation as specified in this section.

- K. If the foundation soil is soft, wet, spongy or unstable, the trench shall be excavated to stable soil as determined by the Geotechnical Engineer, and the excavation backfilled with pipe bedding material.
- L. Trim excavation. Hand trim for bell and spigot pipe joints. Remove loose matter.
- M. Stockpile excavated material in area designated on site in accordance with CASQA requirements.

3.7 SHEETING AND SHORING

- A. The sides of all excavations shall be laid back or supported in the manner set forth by Cal/OSHA.
- B. Sheet, shore, and brace excavations to prevent danger to persons, structures and adjacent properties and to prevent caving, erosion, and loss of surrounding subsoil.
- C. Support trenches more than 5 feet deep excavated through unstable, loose, or soft material. Provide sheeting, shoring, bracing, or other protection to maintain stability of excavation.
- D. Whenever timber or other sheeting is driven to a depth below the elevations of the top of the pipe, that portion of the sheeting below the elevation of the top of the pipe shall not be disturbed or removed.
- E. Repair damage caused by failure of the sheeting, shoring, or bracing and for settlement of filled excavations or adjacent soil.
- F. Repair damage to new and existing Work from settlement, water or earth pressure or other causes resulting from inadequate sheeting, shoring, or bracing.

3.8 BEDDING, PIPE PLACEMENT, AND BACKFILLING

- A. Pipe Bedding
 - 1. Bedding shall be placed in such a manner that the pipe may be laid true to line and grade. When the pipe is bedded, it shall be brought into true alignment and secured.
 - 2. Place and compact the initial backfill material to the pipe spring line in maximum 8 inch lifts. Carefully compact this material around and under the pipe.
 - 3. Place and compact the initial backfill material to 12 inches above the top of the pipe in maximum 8 inch lifts. Carefully compact this material around and under the pipe.
 - 4. Place and compact final trench backfill material in maximum 8-inch lifts to the final grade or subgrade elevation.
 - 5. Bedding and backfill shall be compacted to at least 95 percent relative compaction in improved areas, and 90 percent in landscaped or unimproved areas.

6. Where slurry cement is utilized for pipe bedding, the pipe shall be set on precast mortar blocks or similar devices to allow for placement of required thickness of material under and around the pipe. Contractor must take the necessary steps to avoid pipe flotation or misalignment.

B. Pipe Installation

1. Pipe installation shall be in accordance with the manufacturer's instructions.
2. All pipe handling shall be done in a manner that will not damage the materials. Pipe shall be carried into position, not dragged, and shall be carefully lowered into the trench. Under no circumstances shall the pipe or accessories be dropped into the trench.
3. Before lowering into the trench, and while suspended, the pipe shall be inspected for defects. Any defective, damaged or unsound pipe shall be rejected and replaced with sound material. The interior of the pipe shall be clean and free of debris.
4. Joints shall be centered and tight. Cutting of pipe for inserting fittings or for pipe connections shall be done in a neat and skillful manner without damage to the pipe. Each joint shall be inspected to ensure it is properly made before backfilling is done.
5. The pipe shall be laid true to line and grade. When completed, the pipe shall have a smooth and uniform invert. Care shall be taken to prevent any dirt or foreign matter from entering the open end of the pipe.
6. Where piping is installed on curves, the maximum deflection of each joint shall be no more than 80 percent of the maximum deflection recommended by the pipe manufacturer.

C. Trench Backfill and Compaction

1. All backfill shall be placed in a manner to avoid rock pockets, voids, or other conditions that could lead to future settlement of the backfill.

D. Maintain optimum moisture content of fill materials to attain required compaction density.

E. Do not leave more than 50 feet of trench open at end of working day.

F. Protect open trench to prevent danger to Department or the public.

3.9 TOLERANCES

- A. Top Surface of Backfilling: Plus or minus 1 inch from required elevations.

3.10 TEMPORARY PIPE COVER

- A. Provide temporary backfill or other means as necessary to protect underground utilities from heavy construction loads.

3.11 CONCRETE BACKFILL

- A. Place concrete backfill where indicated on the Drawings.
- B. If pipe will be partly or entirely embedded in concrete, support and brace the pipe in a manner that will prevent movement or displacement of the pipe during testing and during placement and consolidation of the concrete. Consolidate concrete under and around the pipe without displacing the pipe.

3.12 WARNING TAPE

- A. Provide warning tape for
 - 1. All exterior gas pipes
 - 2. All other pipes which are 2-inches-diameter and larger
- B. Install 12-inches above the pipe.

3.13 TRACER WIRE

- A. Tape continuous tracer wire on top of and along entire length of pipes and extend to the grade at each end of the utility pipe so locator equipment can be connected.
- B. Install tracer wire on:
 - 1. All exterior gas pipes
 - 2. All exterior nonmetallic pressure pipes (water, recycled water, sewer force mains, and gas)

3.14 SURFACE RESTORATION

- A. Any pavement, curb, walk or any other surface or subsurface improvement removed or damaged during progress of the work, shall, before termination of the contract, be restored to its original condition whether or not such restoration is shown on the Drawings.
- B. The trench patch structural section shall be equivalent to the existing structural section, or 2.5-inch Hot Mix Asphalt (Type A) on 6-inch Class 2 Aggregate Base, and/or 2-sack sand slurry mix backfill, whichever is greater. Trench patch shall extend min 12-inches beyond trench wall ("tee cut").
- C. All street cuts shall be neatly sawcut on true line to 2-inches minimum depth at a minimum of 12-inches beyond edge of trench wall.
- D. All trenching in landscape area shall include 6" of topsoil and Tall Fescue Blend Seed or 80/20 Rye/Blue Blend Seed from Ewing applied at a rate of 8-10 pounds per 1,000 square feet or in accordance with manufacturer's recommendations.

3.15 FIELD QUALITY CONTROL

- A. Perform laboratory material tests in accordance with ASTM D1557.
- B. Perform in place compaction tests in accordance with the Soquel Creek Water District's Specifications.
- C. Compaction shall be measured by California Test No. 216 and/or Test No. 231. Sand equivalent shall be measured by California Test 217.
- D. When tests indicate Work does not meet specified requirements, remove Work, replace, compact, and retest.

3.16 PROTECTION OF FINISHED WORK

- A. Reshape and re-compact fills subjected to vehicular traffic during construction.

END OF SECTION

SECTION 31 25 13

EROSION CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Erosion and sediment control through the use of the following:
 - 1. Dikes
 - 2. Swales
 - 3. Grade stabilization structures
 - 4. Sediment traps
 - 5. Silt fences
 - 6. Straw and bales
 - 7. Planting and ground coverage
 - 8. Maintenance of erosion control improvements
 - 9. Cleanup and removal of silt from roadways on-site and off-site
 - 10. Dust alleviation and control by watering, matting, planting, etc.
 - 11. Provision of all materials, equipment, and apparatus not specifically mentioned herein or noted on the plans, but which are obviously necessary to complete the dust and erosion control.
- B. The Contractor will be responsible for erosion and sediment control within the Project site or anywhere that project construction disturbs the surface vegetation or soil. The Contractor will be responsible for implementing and maintaining all of the erosion control measures shown on the project Storm Water Pollution Control Plan.
- C. The Contractor's erosion and sediment control measures will protect graded areas from erosion during construction and until permanent planting, and permanent drainage and erosion control measures are installed and effectively operational.
- D. Erosion and sediment control measures will prevent any sediment from leaving the Project site, either water-borne, air-borne, on the tires of vehicles, or by spillage from offsite hauling of soils.
- E. The Contractor shall insure that no sediment or pollution is discharged into the adjacent to the site as a result of this project. The Contractor shall be liable for any damage that occurs to the adjacent site as a result of the project.

1.2 Related Sections:

- 1. Section 31 23 17 - Trenching.

1.3 REFERENCES

- A. California Stormwater Quality Association (CASQA) –Best Management Practices (BMP) Handbook Portal: Construction
- B. State of California Department of Transportation Standard Specifications (CSS) Section 21 Erosion Control
- C. American Association of State Highway and Transportation Officials:
 - 1. AASHTO T88 - Standard Specification for Particle Size Analysis of Soils.
 - 2. AASHTO T180 - Standard Specification for Moisture-Density Relations of Soils Using a 4.54-kg (10-lb) Rammer and a 457-mm (18-in.) Drop.
- D. ASTM International:
 - 1. "Standard Test Methods For In-Place Density And Water Content Of Soil And Soil-Aggregate By Nuclear Methods (Shallow Depth)" (ASTM D 6938-17).
 - 2. "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))" (ASTM D 1557-12).
 - 3. "Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils" (ASTM D4318).

1.4 SUBMITTALS

- A. Product Data: Product Data: Submit data on best management practices.
- B. Submit proposed hydroseed mix for review prior to commencement of Work.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with CASQA -BMP Handbook Portal: Construction
- B. If applicable maintain 1 copy of the Stormwater Pollution Prevention Plan (SWPPP) on site.

1.6 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

1.7 ENVIRONMENTAL REQUIREMENTS

- A. Do not place grout when air temperature is below freezing.
- B. Do not place concrete when base surface temperature is less than 40 degrees F, or surface is wet or frozen.

PART 2 PRODUCTS

2.1 BEST MANAGEMENT PRACTICES

- A. Unless otherwise specified on the plans or these specifications all best management practices shall conform to (CASQA) -BMP Handbook Portal: Construction
- B. Seed mix shall be tall fescue blend and a rye/blue blend. Seed mix to be approved by County Parks.

PART 3

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify compacted subgrade is acceptable and ready to support devices and imposed loads.
- B. Verify gradients and elevations of base or foundation for other work are correct.

3.2 INSTALLATION

- A. Unless otherwise specified on the plans all best management practices shall be installed in accordance to (CASQA) -BMP Handbook Portal: Construction

3.3 IMPLEMENTATION

- A. A standby crew for emergency work shall be available at all times during the rainy season, October 15 through April 15. Necessary materials shall be available on the Project site and stockpiled at convenient locations to facilitate rapid construction of temporary devices or to repair any damaged erosion control measures when rain is imminent.
- B. Provide drain inlet protection in the downstream vicinity of the construction area.
- C. Provide perimeter and slope protection in the vegetated area.
- D. Do not move or modify devices without the approval of the Department.
- E. All removable protective devices shown shall be in place at the end of each working day during raining season and when the 2-day rain probability forecast exceeds 50 percent during the non-raining season.
- F. After a rainstorm, remove all silt and debris from check berms and sediment basins. Immediately repair any graded slope surface protection measures damaged during a rainstorm.

- G. Fill slopes at the project perimeter must drain away from the top of the slope at the conclusion of each working day.
- H. Whenever the depth of water in any device exceeds two feet, barricade or guard the project site for public safety until the water has subsided.
- I. Do not pump or otherwise drain unfiltered water from the basins until sediment has settles.

3.4 DUST CONTROL

- A. Dust control shall conform to the requirements of Section 10: Dust Control, of the Caltrans Standard Specifications. Full compensations for dust control will be included in the lump sum price paid for Erosion Control and no further compensation will be allowed.

3.5 USE OF PERMANENT DRAINAGE FACILITIES

- A. Any drainage structures or detention/retention devices which appear in the contract documents may be utilized in the Erosion and Sediment Control Plan on the condition that they are temporarily modified to serve the Contractor's purposes, and cleaned before Project completion.
- B. Such facilities have been designed for use in drainage control upon completion of the Project, and shall not be considered as adequate for control during construction except by the independent determination of the Contractor.

3.6 PLANTED AREAS

- A. Slopes scheduled for seeding shall not be cleared and seeded during the period of October 15 through April 15. Seeding operations shall be scheduled to provide a minimum of four (4) months for seed germination and establishment prior to October 15.
- B. For other disturbed areas, where seeding is recommended for temporary erosion control, the Contractor shall allow a minimum of two (2) months for germination prior to October 15.
- C. Planted areas indicated on the plans are not considered to be installed until one year has elapsed since the time of planting, or until released by the Department as being substantially established. Therefore:
 - 1. Maintain planting, and erosion control measures around the planted area for at least one year.
 - 2. Make repairs to any damaged areas during that time.
 - 3. Where planting is lost due to erosion, replace it and begin the one-year period for that portion at the time of replacement.

3.7 FIELD QUALITY CONTROL

- A. Inspect erosion control devices per SWPPP and after each runoff event. Make necessary repairs to ensure erosion and sediment controls are in good working order.
- B. Compaction Testing: In accordance with ASTM D1557.
- C. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.

3.8 PROTECTION

- A. Immediately after placement, protect paving from premature drying, excessive hot or cold temperatures, and mechanical injury.
- B. Do not permit construction traffic over paving for 7 days minimum after finishing.
- C. Protect paving from elements, flowing water, or other disturbance until curing is completed.

END OF SECTION

SECTION 32 11 23

AGGREGATE BASE COURSES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Aggregate subbase.
 - 2. Aggregate base course.
- B. Related Sections:
 - 1. Section 31 23 17 - Trenching: Compacted fill under base course.
 - 2. Section 32 13 13 - Concrete Paving: Finish concrete surface course.

1.2 REFERENCES

- A. Standards listed below, with their designation in parenthesis, apply where designation is cited in this Section. Where the applicable year of adoption or revision is not listed below, the latest edition applies.
- B. State of California, Department of Transportation's "Standard Specification's" (CSS) latest edition.
 - 1. Interpretation of Standard Specifications:
 - a. Wherever the term Commission of Department occurs, it shall mean the County. Whenever the term Director or Executive Officer occurs, it shall mean the County's Representative.
 - b. All references to statistical testing are deleted.
 - c. Whenever a discrepancy occurs between the Standard Specifications and this specification, this specification governs.
- C. State of California, Department of Transportation's "Testing Manual", "Method of Preparation of Bituminous Mixtures for Testing" (California Test 304).
- D. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M288 - Standard Specification for Geotextile Specification for Highway Applications.
- E. ASTM International:
 - 1. "Standard Test Methods For In-Place Density And Water Content Of Soil And Soil-Aggregate By Nuclear Methods (Shallow Depth)" (ASTM D 6938-17).
 - 2. "Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³))" (ASTM D 1557-12).

3. "Test Method for Liquid Limit, Plastic Limit and Plasticity Index of Soils" (ASTM D4318).

1.3 SUBMITTALS

A. Product Data:

1. Submit the following
 - a. Certificates of compliance with specified standards for natural materials and manufactured items.
 - b. For manufactured items, the manufacturer's technical data of physical properties.
 - c. Samples as requested by the Department's Testing Laboratory.

1.4 QUALITY ASSURANCE

- A. Furnish each aggregate material from single source throughout the Work.
- B. Conform to applicable local jurisdictions and Caltrans Standard Plans and Specifications

PART 2 PRODUCTS

2.1 AGGREGATE MATERIALS

- A. Subbase Aggregate: Class 2, R-value 50 minimum, CSS Section 25.
- B. Base Aggregate: Class 2, R-value 78 minimum, $\frac{3}{4}$ inch maximum size, meeting the requirements of CSS Section 26.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify compacted substrate is dry and ready to support paving and imposed loads.
 1. Proof roll substrate with a minimum two perpendicular passes to identify soft spots.
 2. Remove soft substrate and replace with compacted fill as specified in Section 31 23 16.
- B. Verify substrate has been inspected, gradients and elevations are correct and abutting improvements are set at proper elevations
- C. Do not start Work until unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A. If after initial preparation, the pavement subgrade is allowed to stand or is used by construction equipment, or is otherwise damaged, repair in accordance with CSS 26-1.03 at no additional cost to the Department.
- B. Proof-roll the pavement subgrade for pumping. Where moisture appears on the pavement subgrade surface after rolling, repair as directed by the Department, at no additional cost to the Department.
- C. Protect existing Work from damage. Protect concrete Work from staining with asphalt materials. Shield from overspray.
- D. Sawcut 12" from the edge of existing pavement to obtain a clean vertical edge. Where an existing patch occurs within 24" of pavement edge, sawcut to the edge of pavement.
- E. Damaged asphalt and areas completely saturated by oil and grease should be removed and replaced as required.

3.3 AGGREGATE PLACEMENT

- A. Spread and compact in accordance with CSS Section 26, to thickness, lines and grades noted, with a maximum deviation of plus 0.0 and minus 0.05 feet from plan grade.
- B. Do not incorporate into the completed section any base material used for construction traffic.
- C. Spread aggregate over prepared substrate to total compacted thickness as indicated on Drawings.
- D. Place aggregate equal thickness layers
 - 1. Maximum Layer Compacted Thickness: 6
 - 2. Minimum Layer Compacted Thickness: 3
- E. Compact each layer to at least 95 percent relative compaction under California Test 231.
- F. Level and contour surfaces to elevations, profiles, and gradients indicated.

3.4 FIELD QUALITY CONTROL

- A. Inspection and testing will be performed under the supervision of the Department's Soil Engineer.
- B. The Department's Testing Laboratory will:
 - 1. Inspect and test base and paving in accordance with CSS, including but not limited to

- a. Compaction and thickness of base.
 - b. Compaction and thickness of asphaltic concrete.
 - c. Temperature of asphalt concrete just prior to paving.
 2. Check thickness of surfacing by coring when directed by Strategic Construction Management.
- C. Contractor will:
1. Repair areas cored for testing.
 2. As directed by the Department, remove and replace or repair all paving not meeting Contract Document requirements.

END OF SECTION

SECTION 32 13 13

CONCRETE PAVING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Concrete paving for:
 - a. Concrete sidewalks.
- B. Related Requirements:
 - 1. Section 32 11 23 - Aggregate Base Courses

1.2 REFERENCE STANDARDS

- A. Standards listed below, with their designation in parenthesis, apply where designation is cited in this Section. Where the applicable year of adoption or revision is not listed below, the latest edition applies.
- B. State of California, Department of Transportation's "Standard Specification's" Latest Edition (CSS).
 - 1. Interpretation of Standard Specifications:
 - a. Wherever the term Commission of Department occurs, it shall mean the Department. Whenever the term Director or Executive Officer occurs, it shall mean the Department's Representative.
 - b. Whenever a discrepancy occurs between the Standard Specifications and this specification, this specification governs.
- C. American Association of State Highway and Transportation Officials:
 - 1. AASHTO M324 - Standard Specification for Joint and Crack Sealants, Hot Applied, for Concrete and Asphalt Pavements.
- D. American Concrete Institute:
 - 1. ACI 301 - Specifications for Structural Concrete.
 - 2. ACI 304 - Guide for Measuring, Mixing, Transporting, and Placing Concrete.
- E. ASTM International:
 - 1. ASTM C33 - Standard Specification for Concrete Aggregates.
 - 2. ASTM C94 - Standard Specification for Ready-Mixed Concrete.
 - 3. ASTM C150 - Standard Specification for Portland Cement.
 - 4. ASTM C260 - Standard Specification for Air-Entraining Admixtures for Concrete.
 - 5. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete.

6. ASTM C1017 - Standard Specification for Chemical Admixtures for Use in Producing Flowing Concrete.
7. ASTM D994 - Standard Specification for Preformed Expansion Joint Filler for Concrete (Bituminous Type).
8. ASTM D1190 - Standard Specification for Concrete Joint Sealer, Hot-Applied Elastic Type.
9. ASTM D1751 - Standard Specification for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Nonextruding and Resilient Bituminous Types).
10. ASTM D1752 - Standard Specification for Preformed Sponge Rubber and Cork Expansion Joint Fillers for Concrete Paving and Structural Construction.
11. ASTM E1643 - Standard Practice for Installation of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs.

1.3 SUBMITTALS

- A. Product Data:
 1. Submit data on concrete materials, joint filler, admixtures and curing compounds.
- B. Design Data:
 1. Submit concrete mix design for each concrete strength. Submit separate mix designs when admixtures are required for the following:
 - a. Hot and cold weather concrete work.
 - b. Air entrained concrete work
 2. Identify mix ingredients and proportions, including admixtures.
- C. Source Quality Control Submittals: Indicate results of factory tests and inspections.

1.4 JOB CONDITIONS

- A. Weather Conditions: Construct concrete surface course only when atmospheric temperature is above 40 degrees Fahrenheit, when the underlying base is dry, and when weather is not rainy.
- B. Grade Control: Establish and maintain the required lines and grades, including cross-slope during construction operations.

1.5 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301.
- B. Acquire cement and aggregate from one source for Work.
- C. Conform to ACI 305 when concreting during hot weather.
- D. Conform to applicable local jurisdictions and Caltrans Standard Plans and Specifications

- E. Tolerances: Tolerances for sub-grade, subbase and finished grade shall be as specified by the Standard Specifications except that Contractor shall install the aggregate base and concrete to the minimum thickness shown. No combination of high and low tolerances will be permitted.
- F. Testing and analysis of concrete will be performed under provisions of CSS Section 6-3.
- G. Submit proposed mix design of each class of concrete to Department's Representative for review ten (10) days prior to the commencement of work.
- H. Testing firm will take cylinders and perform slump, compression strength, and air entrainment tests in accordance with ASTM C143, C39 and C173.
- I. All concrete work installed that does not conform to the approved samples shall be removed and replaced by Contractor at Contractor's expense.

1.6 COORDINATION

- A. Coordinate placement of joint devices with erection of concrete formwork and placement of form accessories.

PART 2 PRODUCTS

2.1 AGGREGATE

- A. Aggregate Base Course: As specified in Section 32 11 23

2.2 CONCRETE PAVING MATERIALS

- A. Form Materials:
 - 1. Form Materials: Steel or wood, of size and strength to resist movement during concrete placement and to retain straight, true, and to proper elevation, horizontal and vertical alignment until removed. Use forms that are straight and free of distortion and defects. Use flexible spring steel forms or laminated boards to form radius bends as required.
 - 2. Joint asphalt felt filler at expansion joints: ASTM D 1571.
 - 3. Expansion joints: 3/8-inch thick asphalt impregnated fiberboard.
- B. Reinforcement:
 - 1. Dowels: Deformed steel bars, ASTM A 615, Grade 60, unless otherwise shown.
 - 2. Welded Wire Mesh: Welded wire reinforcement, ASTM A 1064. Furnished in flat sheets, not rolls.
- C. Concrete Materials:
 - 1. Conform to the provisions of CSS Section 73, "Concrete Curbs and Sidewalks," and the Drawings.

2. Cement: Portland cement shall conform to the requirement of ASTM Designation C150, Type II.
3. Water: The water used in the concrete mix shall be clear and free from injurious amounts of oil, salts, acid, alkali, organic matter, or other deleterious substances.

D. Admixtures

1. Air Entrainment: Air entrainment agents shall conform to ASTM C260. Use five percent (5%) air entrainment: Darex, Sika, or approved equal. Air entrainment shall be at Contractor's discretion at the time of the pours.
2. Curing compound: Water borne, mono molecular film forming and non-staining or coloring; manufactured for application to fresh concrete from the following manufacturers:
 - a. Burke by Edeco; BurkeFilm
 - b. ChemMasters: Spray-Film
 - c. Euclid Chemical Co.; Eucobar
3. Other admixtures used shall be submitted to the Project Engineer for approval.

E. Concrete Mix

1. Shall be as specified in the Standard Specifications: Class B.
2. Mix and deliver concrete in accordance with ASTM C94.
3. Portland cement concrete shall be produced from commercial quality aggregates and cement and shall be Class 3, containing not less than 505 lb of cement per cubic yard.
4. Water reducing admixtures may be used in concrete when approved by the Department. Such admixtures shall not interfere with or reduce required air content dosage of air-entrained concrete.
5. Water to cement ratio shall be 0.50 maximum.
6. If required, compressive strength is when concrete is tested in accordance with ASTM C39.

F. Ambient Conditions

1. Cold Weather: Concrete shall not be placed when the atmospheric temperature is below forty degrees Fahrenheit (40F) or when conditions indicate that the temperature will fall below forty degrees Fahrenheit (40F) within seventy two (72) hours. Concrete when deposited shall have a temperature of not less than sixty degrees Fahrenheit (60oF). All reinforcement, forms, and ground which concrete will be in contact with shall be completely free of frost. The concrete and form work must be kept at a temperature of not less than fifty degrees Fahrenheit (50F) for not less than seventy two (72) hours after pouring.
2. Hot Weather: Concrete shall not have a placing temperature higher than eighty five degrees Fahrenheit (85F). All concrete shall be delivered to the forms at the coolest temperature practicable. Crushed ice, in lieu of mixing water, may be used to maintain the temperature. Concrete shall not be placed, when in the opinion of the Engineer, the sun, heat, wind, or humidity will prevent proper placement and consolidation.

PART 3 EXECUTION

3.1 PREPARATION

- A. Moisten substrate to minimize absorption of water from fresh concrete.
- B. Compact aggregate base section beneath concrete to at least 95 percent. If no aggregate is required beneath concrete section, compact upper 8 inches of finish subgrade to at least 95 percent. Verify that subbase is properly compacted and at suitable grade and prepare as required in the Geotechnical Report.
- C. Take all steps necessary not to discolor or damage existing improvements. If damage occurs, repair immediately and if repair cannot be made to the satisfaction of the Department's Representative, remove and replace at no expense to the Department.
- D. Coat surfaces of manhole and catch basin frames with oil to prevent bond with concrete paving.
- E. Notify Architect/Engineer minimum 24 hours prior to commencement of concreting operations.

3.2 INSTALLATION

- A. Base Course:
 - 1. Aggregate Base Course: Install as specified in Section 32 11 23 and on the plans.
- B. Forms:
 - 1. Set forms to the required grades and lines, rigidly braced and secured. Install sufficient quantity of forms to allow continuous progress of work and so that forms can remain in place at least 24 hours after concrete placement.
- C. Reinforcement:
 - 1. Contractor shall inform Department's Representative 24 hours prior to pouring of concrete so reinforcement can be inspected.
- D. Placing Concrete:
 - 1. Saturate subgrade as required by the Geotechnical Report to provide a uniform, dampened condition at the time concrete is placed. Place concrete using methods which prevent segregation of the mix, with as little rehandling as possible. Consolidate concrete along the face of forms and adjacent to transverse assemblies, reinforcement, or side forms. Use care to prevent dislocation of reinforcing, dowels, and joint devices. Deposit and spread concrete in a continuous operation between transverse joints. If interrupted for more than 1/2 hour, place a construction joint.
- E. Joints

1. Construct expansion and construction joints true-to-line with face perpendicular to surface of the concrete, unless otherwise shown. Construct transverse joints at right angles to the centerline, unless otherwise noted.
 - a. All joints shall be set accurately to grade and straight in alignment as shown on the Drawings. Alignment shall not vary more than 1/8-inch in 10-foot length.
 - b. On pavements, construct expansion joints where shown on the Drawings, and between existing and new concrete pours.
 - c. Furnish joint fillers in one-piece lengths for the full width being placed, wherever possible. Where more than one length is required, lace or clip joint filler sections together. Form top edge of filler to conform to top profile of concrete.
 - d. Protect the top edge of the joint filler during concrete placement with a removable plastic or metal cap or other temporary material. Remove protection after all finish work is completed per manufacturer's recommendations.
 - e. Tooled Expansion Control Joints: Minimum halfway between expansion joints or as shown on the Drawings, width 1/2-inch, depth 3/4 – 1-inch - deep joint only.
- F. Where new curb, gutter, and sidewalk adjoins existing, dowel to existing curb, gutter, and sidewalk with two #3 dowels 12-inches long
- G. Concrete Finishes:
 1. After striking-off and consolidating concrete, smooth the surface by screeding and floating. Use hand methods only where mechanical floating is not possible. After floating, test surface for trueness with a 10-foot straight-edge -- maximum 1/8-inch variation from any edge to concrete surface. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous, smooth finish. Work edges of slabs, gutters, back top edge of curb, and formed joints with an edging tool, and round to 1/2-inch radius, unless otherwise shown. Eliminate any tool marks on concrete surface. After completion of floating and when excess moisture or surface sheen has disappeared, complete surface finishing, as follows:
 - a. Concrete Walks and Curbing: Broom Finish: Draw a stiff hair broom across concrete surface, perpendicular to line of traffic. Repeat operation if required to provide a fine line texture. Texture must be true and straight across entire width of concrete slab.
 - 1) Walks on grades less than 6% slope shall be given a medium broom finish.
 - 2) Walks on grades 6% slope or steeper shall be given a heavy broom finish.
- H. Curing and Protection
 1. Protect and cure finished concrete in accordance with CSS Section 73.

- I. Repair:
 - 1. Repair or replace broken or defective concrete immediately as directed by the Department's Representative.
- J. Clean Up:
 - 1. Sweep concrete and wash free of stains, discolorations, dirt and other foreign materials just prior to final inspection.

3.3 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed in accordance with ACI 301
- B. Provide free access to Work and cooperate with appointed firm.
- C. Submit proposed mix design of each class of concrete to testing firm for review prior to commencement of Work.
- D. Tests of cement and aggregates may be performed to ensure conformance with specified requirements.
- E. Three concrete test cylinders will be taken for every 100 or less cu yd of each class of concrete placed.
- F. One additional test cylinder will be taken during cold weather concreting, cured on job site under same conditions as concrete it represents.
- G. One slump test will be taken for each set of test cylinders taken.
- H. One air content test will be made for each set of test cylinders taken.
- I. Maintain records of concrete placement. Record date, location, quantity, air temperature and test samples taken.

END OF SECTION

SECTION 33 05 00

COMMON WORK RESULTS FOR UTILITIES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes piped utilities:
 - 1. Water Services
 - 2. All incidental trenching, excavation, and backfill as specified in Section 31 23 17.

1.2 REFERENCES

- A. General:
 - 1. The following documents form part of the Specifications to the extent stated. Bring conflicts between Specifications, Drawings, and the referenced documents to the attention of the Architect, in writing, for resolution before taking any related action. Where differences exist between codes and standards, the one affording the greatest protection shall apply.
 - 2. If the year of the adoption or latest revision is omitted from the designation, it shall mean the specification, manual or test designation in effect the date the Notice to Proceed with the Work is given.
- B. American Society for Testing and Materials (ASTM): D3034, D2513, D1785, F477 and A74.
- C. State of California, Department of Transportation's "Standard Specifications" (CSS), latest edition:
 - 1. When applying the cited standards, the following shall be understood:
 - a. Terms such as Commission, Department or Agency shall mean the Department.
 - b. Terms such as Director, Executive Officer, or Engineer shall mean the Department's Representative.
 - c. In case of discrepancies between the cited standards and this Section, this Section governs.
 - d. All references to statistical testing are deleted.
- D. The standards and specifications of the Soquel Creek Water District, and the County of Santa Cruz where applicable.

1.3 SUBMITTALS

- A. Submit the following:
 - 1. Product data.
 - 2. Certificates of compliance.
 - 3. Manufacturer's installation requirements.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.
- B. Store plastic pipes protected from direct sunlight. Support to prevent sagging and bending.

1.5 SITE CONDITIONS

- A. Existing Conditions:
 - 1. Verify existing conditions in the field prior to commencing work.
 - 2. Contractor to identify all existing utility lines at points of crossing and/or connection of new system.

PART 2 - PRODUCTS

2.1 PIPING

- A. Sanitary Sewers:
 - 1. Polyvinyl Chloride (PVC), Schedule 40, ASTM D1785
 - 2. Polyvinyl Chloride, SDR 26 or SDR 35, ASTM D3034
- B. Storm Sewer:
 - 1. High-Density Polyethylene (HDPE) drain pipe, ASTM D3034, SDR26
 - 2. Cast Iron storm drain pipe, ASTM A74
 - 3. Corrugated Metal Pipe, ASTM A760, ASTM A760M
- C. Gas: Polyethylene (PE) plastic pipe, ASTM D2513, DR 11 or DR 11.5
- D. Water Systems: Polyvinyl Chloride (PVC), Schedule 80, ASTM D1785
- E. Water Services: Refer to 33 12 13 Water Service Connections.
- F. Sub-Drainage: Type PSM PVC Pipe, ASTM D3034, SDR 26

- G. Electric: Refer to the PG&E Electric and Gas Service Requirements.

2.2 PIPING JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch maximum thickness, unless otherwise indicated.
 - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
 - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
 2. AWWA C110, rubber, flat face, 1/8 inch thick, unless otherwise indicated; and full-face or ring type, unless otherwise indicated.
- B. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- C. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.
- D. Solvent Cements for Joining Plastic Piping:
1. PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.
 2. PVC to ABS Piping Transition: ASTM D 3138.
 3. In accordance with manufacturer's recommendations.
- E. Molded PVC Sleeves: Permanent, with nailing flange for attaching to wooden forms.
- F. PVC Pipe Sleeves: ASTM D 1785, Schedule 40.
- G. Thrust Restraint for AWWA C900 DR14 Pipe:
1. Description - All C900 piping assemblies shall be restrained. Thrust restraint shall be per plan accomplished by the use mechanically restrained joints. Grooved, welded, and flanged fittings shall be considered as thrust restrained fittings. Concrete thrust blocks shall have a minimum cure time of 5 days before pressure is applied.
 2. Mechanically Restrained Joints - All mechanical joint fittings and pipe shall have the follower gland replaced with a thrust restraining follower gland assembly. The restraint mechanism shall consist of multiple, individually activated gripping surfaces or a continuous, split- ring type of gripping surface. The restraining follower gland shall be manufactured of ductile iron conforming with ASTM A536. The follower gland shall be sized in accordance with AWWA C110, C111, and C153 to be compatible with standard mechanical joint fittings. Tee bolts shall be in accordance with said AWWA specifications. Only one type of restraining assembly will be permitted on any project.

3. Restraint mechanisms consisting of multiple gripping surfaces shall activate by a wedging action of the individual gripping surfaces. Each restraining device shall be equipped with a twist-off nut of the same size as the tee bolts. The head of the nut shall be capable of shearing when the applied torque exceeds the specified torque for the particular size fitting. The mechanical restraining follower gland shall be Megalug® Series 2000PV as manufactured by EBAA IRON SALES, INC. or approved substitute.
4. Each fitting shall be restrained in accordance with the recommendations of the publications "Thrust Restraint Design for Ductile Iron Pipe", 2nd Edition-1986 by the Ductile Iron Pipe Association and "PVC Pipe Thrust Restraint Design Handbook" by EBAA IRON, INC.

2.3 IDENTIFICATION DEVICES

- A. General: Products specified are for applications referenced in other Division 33 Sections. If more than single type is specified for listed applications, selection is Installer's option.
- B. Stencils: Standard stencils prepared with letter sizes complying with recommendations in ASME A13.1. Minimum letter height is 1-1/4 inches for ducts, and 3/4 inch for access door signs and similar operational instructions.
- C. Snap-on Plastic Pipe Markers: Manufacturer's standard preprinted, semirigid, snap-on type. Include color-coding according to ASME A13.1, unless otherwise indicated.
- D. Pressure-Sensitive Pipe Markers: Manufacturer's standard preprinted, color-coded, pressure-sensitive-vinyl type with permanent adhesive.
- E. Pipes with OD, Including Insulation, Less Than 6 Inches: Full-band pipe markers, extending 360 degrees around pipe at each location.
- F. Pipes with OD, Including Insulation, 6 Inches and Larger: Either full-band or strip-type pipe markers, at least three times letter height and of length required for label.
- G. Lettering: Use piping system terms indicated and abbreviate only as necessary for each application length.
 1. Arrows: Either integrally with piping system service lettering to accommodate both directions of flow, or as separate unit on each pipe marker to indicate direction of flow.
- H. Plastic Tape: Manufacturer's standard color-coded, pressure-sensitive, self-adhesive vinyl tape, at least 3 mils thick.
 1. Width: 1-1/2 inches on pipes with OD, including insulation, less than 6 inches; 2-1/2 inches for larger pipes.
 2. Color: Comply with ASME A13.1, unless otherwise indicated.

- I. Valve Tags: Stamped or engraved with 1/4-inch letters for piping system abbreviation and 1/2-inch sequenced numbers. Include 5/32-inch hole for fastener.
 - 1. Material: Valve manufacturer's standard solid plastic.
 - 2. Size: 1-1/2 inches in diameter, unless otherwise indicated.
- J. Valve Tag Fasteners: Brass, wire-link or beaded chain; or brass S-hooks.
- K. Engraved Plastic-Laminate Signs: ASTM D 709, Type I, cellulose, paper-base, phenolic-resin-laminate engraving stock; Grade ES-2, black surface, black phenolic core, with white melamine subcore, unless otherwise indicated. Fabricate in sizes required for message. Provide holes for mechanical fastening.
 - 1. Engraving: Engraver's standard letter style, of sizes and with terms to match equipment identification.
 - 2. Thickness: 1/16 inch, for units up to 20 sq. in. or 8 inches in length, and 1/8 inch for larger units.
 - 3. Fasteners: Self-tapping, stainless-steel screws or contact-type permanent adhesive.
- L. Plasticized Tags: Preprinted or partially preprinted, accident-prevention tags, of plasticized card stock with mat finish suitable for writing.
 - 1. Size: 3-1/4 by 5-5/8 inches.
 - 2. Fasteners: Brass grommets and wire.
 - 3. Nomenclature: Large-size primary caption such as DANGER, CAUTION, or DO NOT OPERATE.

2.4 GROUT

- A. Description: ASTM C 1107, Grade B, nonshrink and nonmetallic, dry hydraulic-cement grout.
 - 1. Characteristics: Post hardening, volume adjusting, nonstaining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
 - 2. Design Mix: 5000-psi, 28-day compressive strength.
 - 3. Packaging: Premixed and factory packaged.

2.5 FLOWABLE FILL

- A. Description: Low-strength-concrete, flowable-slurry mix.
 - 1. Cement: ASTM C 150, Type I, portland.
 - 2. Density: 125-lb/cu. Ft.
 - 3. Aggregates: ASTM C 33, natural sand, fine and crushed gravel or stone, coarse.
 - 4. Water: Comply with ASTM C 94/C 94M.
 - 5. Strength: 150 psig at 28 days.

PART 3 - EXECUTION

3.1 PIPED UTILITY DEMOLITION

- A. Disconnect, demolish, and remove piped utility systems, equipment, and components indicated to be removed.
 - 1. Piping to Be Removed: Remove portion of piping indicated to be removed and cap or plug remaining piping with same or compatible piping material.
 - 2. Piping to Be Abandoned in Place: Drain piping. Fill abandoned piping with flowable fill, and cap or plug piping with same or compatible piping material.
 - 3. Equipment to Be Removed: Disconnect and cap services and remove equipment.
 - 4. Equipment to Be Removed and Reinstalled: Disconnect and cap services and remove, clean, and store equipment; when appropriate, reinstall, reconnect, and make operational.
 - 5. Equipment to Be Removed and Salvaged: Disconnect and cap services and remove equipment and deliver to Department.
- B. If pipe, insulation, or equipment to remain is damaged in appearance or is unserviceable, remove damaged or unserviceable portions and replace with new products of equal capacity and quality.

3.2 PIPING INSTALLATION

- A. Install piping according to the following requirements and Division 33 Sections specifying piping systems.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on the Coordination Drawings.
- C. Install piping to permit valve servicing.
- D. Install piping at indicated slopes.
- E. Install piping free of sags and bends.
- F. Install fittings for changes in direction and branch connections.
- G. Select system components with pressure rating equal to or greater than system operating pressure.
- H. Verify final equipment locations for roughing-in.
- I. Refer to equipment specifications in other Sections for roughing-in requirements.

3.3 PIPING JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and Division 33 Sections specifying piping systems.
- B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- D. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.
- E. Plastic Piping Solvent-Cemented Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:
 - 1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements.
 - 2. ABS Piping: Join according to ASTM D 2235 and ASTM D 2661 appendixes.
 - 3. CPVC Piping: Join according to ASTM D 2846/D 2846M Appendix.
 - 4. PVC Pressure Piping: Join schedule number ASTM D 1785, PVC pipe and PVC socket fittings according to ASTM D 2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D 2855.
 - 5. PVC Nonpressure Piping: Join according to ASTM D 2855.
 - 6. PVC to ABS Nonpressure Transition Fittings: Join according to ASTM D 3138 Appendix.
- F. Plastic Pressure Piping Gasketed Joints: Join according to ASTM D 3139.
- G. Plastic Nonpressure Piping Gasketed Joints: Join according to ASTM D 3212.
- H. Plastic Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D 2657.
 - 1. Plain-End PE Pipe and Fittings: Use butt fusion.
 - 2. Plain-End PE Pipe and Socket Fittings: Use socket fusion.
- I. Bonded Joints: Prepare pipe ends and fittings, apply adhesive, and join according to pipe manufacturer's written instructions.

3.4 CORROSION PROTECTION

- A. All buried iron, steel, cast iron, ductile iron, galvanized steel and dielectric coated steel and iron should be protected against corrosion depending on the critical nature of the structure.
- B. For corrosion protection install Polyethylene Encasement (Polywrap) in accordance with manufacturer's installation guide.

END OF SECTION 33 05 00

SECTION 33 12 13

WATER SERVICE CONNECTIONS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Pipe and fittings for domestic water service connections to buildings.
 - 2. Curb stop assembly.
 - 3. Underground pipe markers.
 - 4. Bedding and cover materials.
 - 5. Thrust restraint
- B. Related Requirements:
 - 1. Section 31 23 17 - Trenching.

1.2 REFERENCE STANDARDS

- A. American Water Works Association:
 - 1. AWWA C800 - Underground Service Line Valves and Fittings.
 - 2. AWWA C901 - Polyethylene (PE) Pressure Pipe and Tubing, 1/2 in. through 3 in., for Water Service.

1.3 SUBMITTALS

- A. Product Data: Submit data on pipe materials, pipe fittings, curb stop assemblies, and accessories.
- B. Shop Drawings: Provide shop drawings for precast concrete vaults to include detail drawings showing the vault and accessories.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

1.4 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of piping mains, curb stops, 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. Perform Work in accordance with California Plumbing Code and local water department standards.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. During loading, transporting, and unloading of materials and products, exercise care to prevent any damage.
- B. Store products and materials off ground and under protective coverings and custody, away from walls and in manner to keep these clean and in good condition until used.
- C. Exercise care in handling precast concrete products to avoid chipping, cracking, and breakage.

PART 2 PRODUCTS

2.1 WATER PIPING AND FITTINGS

- A. PVC Pipe: Schedule 40 or Schedule 80 polyvinyl chloride (PVC), ASTM D1784 and D1785. Polyvinyl chloride service piping shall only be used as incidental material in for connection to the existing plumbing.
 - 1. Fittings for PVC service piping shall conform to the following ASTM specifications:
 - a. Solvent Weld, Schedule 40 (Slip x Slip).....ASTM D2466
 - b. Solvent Weld, Schedule 80 (Slip x Slip).....ASTM D2467
 - c. Solvent Weld Iron Pipe Thread (Slip x IPT).....ASTM F437
 - d. Iron Pipe Thread.....ASTM D2464
 - 2. Joints: ASTM D2855, solvent weld.
 - 3. Cement: for solvent weld pipe and fittings shall be in accordance with ASTM D2564. Primers for solvent weld pipe and fittings shall be in accordance with ASTM F656. The method of installation and assembly for solvent weld fittings and pipe shall be in accordance with ASTM D2855. The specific method of assembly, class of pipe, and fittings shall be as provided for in the Contract Documents. If conditions in the field vary from or are not provided for in the Contract Documents, the Contractor shall request direction from the Engineer prior to proceeding with the installation and assembly of PVC service piping.
 - 4. Construction - The Contractor shall assemble solvent weld fittings and pipe in accordance with the provisions of ASTM D2855 and these Standard Specifications. Pipe ends and the interior of fittings shall be cleaned of all loose and deleterious material and primed with solvent primer in accordance with the manufacturer's recommendations. A liberal coating of cement shall then be applied to both surfaces to be mated. The pipe shall be immediately inserted into the fitting or socket and rotated approximately 180 degrees to ensure complete and even coverage of the cement and surfaces. The joint shall be held for at least 30 seconds until the cement has taken its initial set and no movement of the joint

occurs. The pipe shall not be charged before the minimum time recommended by the manufacturer of the cement. Any leaks discovered upon charging the line shall be repaired by removing the joint or fitting in question and replacing the entire assembly.

5. Threaded PVC fittings and pipe nipples shall be Schedule 80. In assembling threaded PVC pipe and fittings, the Contractor shall take care that the pipe is not scored in excess of 1/10th of the wall thickness. Threads of fittings shall receive a liberal coating of pipe thread compound compatible with PVC pipe immediately prior to assembly and the pipe shall then be securely threaded onto the fitting without overtightening and damaging the threads.
6. Any damage to the pipe or fitting including but not limited to, evidence of overtightening, misaligned threads, burring or excessive scarring of pipe and fitting surfaces, or any evidence of leakage shall be cause for rejection. If a leak is found to be caused by debris, the debris shall be cleared and the assembly visually inspected for damage before being charged. If the leak recurs upon charging of the line, the fitting shall be removed and replaced whether or not the cause can be determined.
7. When the total continuous length of PVC service piping is less than 3 feet, the entire length shall be removed and replaced. When the total length of PVC service piping exceeds 3 feet, the damaged fitting shall removed along with the preceding 6-inches (minimum) and replaced with the appropriate type of coupling, PVC service piping, and a replacement fitting.

B. Polyethylene Tubing: virgin polyethylene material conforming with the provisions of AWWA C901 for Pressure Class 200 and Dimension Ratio (DR) 9.

1. Fittings and Joints: All connections to fittings shall include the use of stainless steel inserts to prevent the collapse of the tubing wall and pullout. Each fitting to tubing connection shall of the pack joint or grip joint type with insert, gasket, packing joint nut, and grooved clamp with stainless steel clamp screw.
2. Joints: straight red brass compression type with insert, gasket, packing joint nut, and grooved clamp with stainless steel clamp screw (Ford C44 series or approved substitute.)
3. In laying the service tubing the Contractor shall ensure that the tubing is not subject to point loads due to sharp rocks within the excavation, kinking or crimping, cuts, scratches, or abrasions, or prolonged exposure to sunlight. At the Contractor's option and subject to the approval of the Engineer, service lines may be installed by the directional boring method. The Contractor shall bear full responsibility for the operation of the boring equipment, protection of utilities, and the proper installation of the service piping.
4. All tubing shall be cut using a cutter designed for cutting polyethylene tubing. Pinching or squeezing off of the tubing will not normally be permitted. In the event that pinching off becomes necessary, the Contractor shall use a roller type device designed for the purpose and shall not overtighten the pinch beyond the point necessary to enable working on the service. Upon completion of the work on the service line, the Contractor shall ensure that the pipe or tubing has been restored to a round shape with no evidence of stress cracks, splits, leakage, or

other damage that will impair the serviceability of the material. Evidence of damage shall be cause for total replacement of the damaged material to a minimum of 12-inches on each side of the damaged section. Replacement of the entire service may not be required. Damaged tubing shall be removed and replaced in accordance with the provisions of these Standard Specifications.

5. A wire to be used for future subsurface location shall be installed concurrent with pipe laying operations. The wire shall be a minimum of 12 gauge THW or THWN and shall be continuous for the entire length of service pipe laid. The wire shall be secured to the pipe by either tape, mastic, or looping at a maximum interval of 12 feet. Connections between lengths of wire shall be made either by crimp connectors, or wire nut connectors. Each connection shall be at least double-wrapped with PVC electrical tape with each turn lapping the previous turn by at least 50-percent. The wire shall be brought to the surface in each meter box with at least 2 feet of wire more than that required to reach the surface. The wire shall be protected during backfilling operations to prevent displacement or continuity breaks. Any damage to the locator wire shall be immediately repaired. The locator wire for the service pipe shall not be connected to the locator wire for the main pipeline except as provided for in the Contract Documents or as directed by the Engineer.
6. In approaching and leaving fittings, the tubing shall not be bent in a curve with a radius tighter than 30 times the nominal diameter of the tubing. A straight run of tubing at least 10 times the nominal diameter shall be provided on each side of each fitting.
7. Immediately prior to interrupting the customer's service as part of reconnecting existing services, the Contractor shall notify the customer of the interruption, the anticipated duration, and that the line will be flushed immediately after restoring service. The Contractor shall provide every assistance to the customer during the disruption of service including but not limited to scheduling around the special needs of the customer, prosecuting his work as expeditiously as possible, and restoring and flushing the service line at the earliest opportunity.
8. Upon completion of the installation of the service piping and connection or reconnection to customer plumbing, the Contractor shall flush the service and customer plumbing for a minimum of 5 minutes or until the discharge is clear. Flushing shall be performed at the hose bib nearest the house shutoff valve. The hose bib shall be opened prior to opening the meter stop.

2.2 CURB STOP ASSEMBLY

- A. Manufacturers:
 1. Ford Meter Box Company
 2. Or approved equal
- B. Furnish materials in accordance with local water department standards.
- C. Curb Stops:

1. Brass valves shall conform to AWWA C800 and these specifications. Brass valves shall be certified by an ANSI accredited organization to be in compliance with NSF/ANSI 61. Brass valves shall consist of brass alloy having a lead content not more than 0.25 percent by weight. Brass shall meet the composition, chemical and mechanical requirements of C89520 or C89833 alloys as specified by the Copper Development Association, Inc. Brass valves shall bear a mark from the manufacturer indicating that the fitting is composed of a no-lead or low-lead alloy.
2. Brass valves shall be suitable for use at pressures not less than 150 psi.

D. Meter Boxes and Covers:

1. Furnish materials in accordance with local water department standards.

2.3 UNDERGROUND PIPE MARKERS

- A. Trace Wire: Electronic detection materials for non-conductive piping products.
1. Unshielded 12 AWG insulated copper wire.
 2. Conductive tape.

2.4 BACKFILL AND BEDDING MATERIALS

- A. Backfill: Backfill material shall conform to the requirements of the applicable public works agency. If that agency has no published or readily available standards, backfill material shall conform to the requirements listed in the following sections.
1. Sand: Sand shall be clean, free of clay, debris, and organic or deleterious material. Sand shall conform to the following grading requirements:
 - a. 100% passing the No. 4 sieve.
 - b. 80-95% passing the No. 8 sieve.
 - c. Not more than 5% passing the No. 200 sieve.
 2. Aggregate Base: Aggregate base shall be clean, free of clay, debris, organic and deleterious material. Aggregate base shall be Class 2 Aggregate Base, ¾" maximum conforming to Section 26 of the CalTrans Standard Specifications. Aggregate base shall conform to the following grading requirements:
 - a. 100% passing the 1" sieve.
 - b. 90-100% passing the ¾" sieve.
 - c. 35-60% passing the No. 4 sieve.
 - d. 10-30% passing the No. 30 sieve.
 - e. 2-9% passing the No. 200 sieve.
- B. Bedding: Bedding shall be sand as specified above.

2.5 THRUST RESTRAINT

- A. **Description** - All pipelines and piping assemblies shall be restrained against the hydrostatic and hydrodynamic forces inherent within public potable water supply and distribution systems. Thrust restraint shall be accomplished by the use of mechanically restrained joints,

restraint harness, or cast-in-place portland cement concrete thrust blocks. Grooved, welded, and flanged fittings shall be considered as thrust restrained fittings.

- B. **Mechanically Restrained Joints** - All mechanical joint fittings and pipe shall have the follower gland replaced with a thrust restraining follower gland assembly. The restraint mechanism shall consist of multiple, individually activated gripping surfaces or a continuous, split- ring type of gripping surface. The restraining follower gland shall be manufactured of ductile iron conforming with ASTM A536. The follower gland shall be sized in accordance with AWWA C110, C111, and C153 to be compatible with standard mechanical joint fittings. Tee bolts shall be in accordance with said AWWA specifications. Only one type of restraining assembly will be permitted on any project.
- C. Restraint mechanisms consisting of multiple gripping surfaces shall activate by a wedging action of the individual gripping surfaces. Each restraining device shall be equipped with a twist-off nut of the same size as the tee bolts. The head of the nut shall be capable of shearing when the applied torque exceeds the specified torque for the particular size fitting. The mechanical restraining follower gland shall be Megalug® Series 1100, Series 1100SD, Series 1100PV, or Series 2000PV as manufactured by EBAA IRON SALES, INC. or approved substitute.
- D. Restraint mechanisms consisting of a single, split-ring type restrainer shall activate by a wedging action of the grip ring as a unit. This wedging action shall be initiated by the installation of a mechanical joint follower gland specifically designed for the split-ring restrainer and shall apply a uniform force throughout the length of the split-ring. The split-ring shall be manufactured of ductile iron conforming with ASTM A536. Split-ring type restrainers shall be GripRing™ as manufactured by Romac Industries, Inc. or approved substitute.
- E. Each fitting shall be restrained in accordance with the recommendations of the publications "Thrust Restraint Design for Ductile Iron Pipe", 2nd Edition-1986 by the Ductile Iron Pipe Association and "PVC Pipe Thrust Restraint Design Handbook" by EBAA IRON, INC..
- F. As a minimum, the Contractor shall install 40 linear feet of restrained pipe on each side of a restrained fitting or joint. At the Contractor's option and subject to the approval of the Engineer, thrust restraint at tie-ins to existing pipelines may be restrained by the use of portland cement concrete thrust blocks in accordance with Section 304.04, Portland Cement Concrete Thrust Blocks" of these Standard Specifications. This option shall only be in lieu of removing and replacing 40 linear feet of asbestos cement pipe with restrained pipe on each side of the tie-in.
- G. For PVC pipe, the restraint shall be accomplished by the use of a restraint harness bridging the push-on bell. This harness shall be so designed as to prevent the harness bolts from contacting the outside of the bell. The harness shall be Megalug® Series 1500 by EBAA IRON SALES, INC., UNI-FLANGE Series 1390, or approved substitute.
- H. Concrete for Thrust Restraints: 3000 psi minimum 28 days compressive strength.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Verify building service connection and municipal utility water main size, location, and invert are as indicated on Drawings.

3.2 PREPARATION

- A. Cut pipe ends square, ream pipe and tube ends to full pipe diameter, remove burrs.
- B. Remove scale and dirt on inside and outside before assembly.
- C. Prepare pipe connections to equipment with flanges or unions.

3.3 INSTALLATION - CORPORATION STOP ASSEMBLY

- A. Make connection for each different kind of water main using suitable materials, equipment and methods approved by the Architect/Engineer.
- B. Provide service clamps for mains other than of cast iron or ductile iron mains.
- C. Screw corporation stops directly into tapped and threaded iron main at 10 and 2 o'clock position on main's circumference; locate corporation stops at least 12 inches apart longitudinally and staggered.
- D. For plastic pipe water mains, provide full support for service clamp for full circumference of pipe, with minimum 2 inches width of bearing area; exercise care against crushing or causing other damage to water mains at time of tapping or installing service clamp or corporation stop.
- E. Use proper seals or other devices so no leaks are left in water mains at points of tapping; do not backfill and cover service connection until approved by the Architect/Engineer.

3.4 BEDDING

- A. Excavate pipe trench in accordance with Section 31 23 17 for Work of this Section.
- B. Place bedding material at trench bottom, level fill materials in one continuous layer not exceeding 6 inches compacted depth; compact to 95 percent.
- C. Backfill around sides and to top of pipe with cover fill, tamp in place and compact to 95 percent.
- D. Maintain optimum moisture content of fill material to attain required compaction density.

3.5 INSTALLATION - PIPE AND FITTINGS

- A. Maintain separation of water main from sewer piping in accordance with Section 64572, Title 22, California Administrative Code.
- B. Group piping with other site piping work whenever practical.
- C. Install pipe to indicated elevation to within tolerance of 5/8 inches.
- D. Install pipe to allow for expansion and contraction without stressing pipe or joints.
- E. Install access fittings to permit disinfection of water system performed under Section 33 13 00.
- F. Form and place concrete for thrust restraints at each elbow or change of direction of pipe main.
- G. Establish elevations of buried piping with not less than 3 ft of cover.
- H. Install plastic ribbon tape continuous buried 12 inches above pipe line.
- I. Backfill trench in accordance with Section 31 23 17.
- J. Install Work in accordance with local water department standards.

3.6 SERVICE CONNECTIONS

- A. Service connections may be installed only by duly authorized employees or agents of the water department or by a contractor from the water department's preapproved installer list, to whom a water service installation permit has been issued by the water department.
- B. Install water service in accordance with local water department standards with backflow preventer per water departments standard specifications and details.
- C. Install water service to 5 feet of building. Connect to building water service.

3.7 DISINFECTION OF DOMESTIC WATER PIPING SYSTEM

- A. Flush and disinfect system in accordance with Section 33 13 00.

3.8 FIELD QUALITY CONTROL

- A. Perform pressure test on domestic site water distribution system in accordance with AWWA C600.

***** [OR] *****

- A. Pressure test system in accordance with AWWA C600 and the following:
1. Test Pressure: The test pressure shall be one and a half times the operating pressure at the average elevation, or 155 psi, whichever is greater. Where there are large changes in water main elevations, the test pressure will be determined by the Engineer
 2. Conduct hydrostatic test for at least two-hour duration.
 3. Fill section to be tested with water slowly, expel air from piping at high points. Install corporation cocks at high points. Raise pressure to specified test pressure. Pipe shall be filled with water and pressurized at least 24 hours prior to testing to allow air to escape. Close air vents and corporation cocks after air is expelled.
 4. Observe joints, fittings and valves under test. Remove and renew cracked pipe, joints, fittings, and valves showing visible leakage. Retest.
 5. Correct visible deficiencies and continue testing at same test pressure for additional 2 hours to determine leakage rate. Maintain pressure within plus or minus 5.0 psig of test pressure. Leakage is defined as quantity of water supplied to piping necessary to maintain test pressure during period of test.
 6. Compute maximum allowable leakage by the following formula:

$L = (ND\sqrt{P})/C$
L = testing allowance, in gallons per hour
N = number of joints in the length of pipe tested
D = nominal diameter of pipe, in inches
P = average test pressure during hydrostatic test, in psig
C = 7400 for PVC Pipe or 3700 for DI Pipe
When pipe under test contains sections of various diameters, calculate allowable leakage from sum of computed leakage for each size.

7. When test of pipe indicates leakage greater than allowed, locate source of leakage, make corrections and retest until leakage is within allowable limits. Correct visible leaks regardless of quantity of leakage.
- B. Perform pressure test on domestic site water distribution system in accordance with local water department standards.
- C. Compaction Testing for Bedding: In accordance with ASTM D1557.
- D. When tests indicate Work does not meet specified requirements, remove Work, replace and retest.
- E. Frequency of Compaction Tests: The number of tests required shall be determined by the length of the trench divided by 50 feet. However, the intervals between compaction tests, and the locations of the tests shall be as determined by the Engineer.

END OF SECTION

Anna Jean Cummings Water Line Replacement Project

PROJECT # 2026-RP0038

BID PROPOSAL

Volume III of III

COUNTY OF SANTA CRUZ, CALIFORNIA

GENERAL SERVICES DEPARTMENT

Board Approval Date: 9/15/2026

PROPOSALS DUE:	October 15, 2026 – 2:00pm
PROJECT #:	2026-RP0038
VOLUME I:	General and Supplemental Conditions
VOLUME II:	Plans & Technical Specifications
VOLUME III:	Bid Proposal

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BID PROPOSAL

For: Anna Jean Cumming Water Line Replacement Project

Name of Bidder _____

Business Address _____

Place of Residence _____

Telephone Number: () _____

Fax: () _____

Email: _____

1) All portions of the Bid Proposal must be completed before the bid is submitted. Failure to do so may result in the bid being rejected as nonresponsive. Attached to and submitted with this Bid Proposal and Bid Schedule, bidder must provide:

- a) Acknowledgment of Addenda, if any;
- b) Bidders Bond;
- c) Names and Titles Form;
- d) Completed Noncollusion Affidavit signed by bidder;
- e) Statement of Compliance;
- f) Designation of Subcontractors;
- g) Bidder's Qualifications;
- h) the Guaranty;
- i) Iran Contracting Act Certification;
- j) Contractor's Certification of Good-Faith Effort to Employ Monterey Bay Area Residents; and
- k) Detailed preliminary work schedule if the bidder plans to complete the project before the completion date specified in the contract documents.

Failure to submit all required documents may result in the bid being rejected as nonresponsive.

2) One copy of the Bid Proposal and Bid Schedule shall be filled in and submitted as the bid.

3) The Bidder, having the appropriate active license required by the State of California; and having carefully read and examined the plans, specifications, and all related bidding documents as prepared by Bowman & Williams for the Anna Jean Cummings Water Line Replacement Project having carefully and fully examined the site of the proposed work and all information available to bidder, and being familiar with all the conditions related to the proposed work, including the availability of materials, equipment, and labor, hereby offers to furnish all labor, materials, tools, transportation, services, and equipment necessary to complete the work of the described project in accordance with the Contract Documents, and to complete all requirements of the Contract Documents for the sums quoted in this Bid

Proposal. The bidder agrees that it will not withdraw its bid within sixty (60) days after the bid deadline. Bidder agrees, if requested by County of Santa Cruz, to complete and sign the Contractor Qualification Questionnaire, furnishing all required attachments, and return it to County of Santa Cruz within five (5) working days of date of dispatch by County of Santa Cruz. If the bidder is selected as the apparent lowest responsible bidder, the bidder agrees, within ten (10) working days after date of dispatch of Notice of Award, to sign and deliver the Contract, and to furnish the Performance Bond, the Payment Bond, Certificates of Insurance, and other required items. If awarded the Contract, the bidder agrees to complete the work within the number of calendar days specified by the Contract Documents after the date of the commencement specified in the Notice to Proceed.

4) The bidder and subcontractors must meet the following requirements:

- a) No contractor or subcontractor may be listed on a bid proposal for a public works project (submitted on or after March 1, 2015) 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)).
- b) No contractor or subcontractor may be awarded a contract for public work on a public works project (awarded on or after April 1, 2015) unless registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5.
- c) This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

5) The bidder agrees that if the bidder is selected as the apparent lowest responsible bidder, and the bidder fails to sign the Contract and furnish (1) the **Performance Bond**, (2) the **Payment Bond**, (3) **Certificates of Insurance**, and (4) **other required items** within the time limit specified in the Contract Documents, the County of Santa Cruz may award the work to another bidder or call for new bids. In such event, the bidder shall be liable to the County of Santa Cruz for the difference between the amount of the disqualified bid and the larger amount for which the County of Santa Cruz procures the work plus all of the County of Santa Cruz's costs, damages, expenses and liabilities arising from bidder's failure to sign the Contract and/or furnish the required documents.

6) **Determination of lowest responsible bidder** – Determination of lowest bidder will be based upon the following method:

The lowest bid shall be the lowest total of the bid prices as specified in the Bid Schedule (Section 20103.8b Public Contract Code).

The Contract will be awarded to the Bidder submitting the lowest amount so calculated, or else all bids will be rejected. The County may contract with the successful bidder for all, some, or none of the alternates if applicable at the price quoted on the bid form with no added mark-up. The Contract will be the base bid plus any alternates selected by the County.

7) The undersigned has checked all above figures carefully and understands that the County will not be responsible for any errors and omissions on the part of the undersigned in making this bid.

8) It is understood that the County reserves the right to reject any and all bids or waive any informalities or irregularities in any bids or in the bidding.

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

9) By execution of this bid, the undersigned bidder declares that he or she is a contractor licensed in accordance with the California Contractors' State License Law, as follows:

Classification: _____

License number: _____

Expiration date: _____

10) **A total of 60 calendar days have been allowed for this Project from Contract Start Date until Final Completion.** Contractor acknowledges acceptance of terms of completion and associated Liquidated Damages (\$500 per day) as described in the General Conditions as amended by the Supplemental General Conditions.

11) Pursuant to section 7103.5(b) of the Public Contract Code, in submitting a bid to the County, the bidder offers and agrees that if the bid is accepted, it will assign to the County all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 [commencing with section 16700] of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

BID SCHEDULE

NOTE: Submit pricing information via the Pricing Table at the online E-Procurement Portal, OpenGov Procurement.

Quantities shown are estimates, and unit prices are collected for informational purposes only. Bids will be calculated and the contract awarded as lump sum.

I will perform the work of the Anna Jean Cummings Water Line Replacement Project as set forth in the Contract Documents, prepared by the County of Santa Cruz and Bowman & Williams for the following totaled lump sum price:

	Description	Quantity	Unit Price	Final Pay Amount
1	Mobilization	1 LS		<i>\$ Fill in Electronic Pricing Table</i>
2	Connection to Existing 2" SCH40 PVC with 2" Tee and Connection to Existing 3" SCH40 PVC with Hymax Coupling, 3"	1 LS		
3	PVC, 3" Tee, and (2) 3" X 2" Reducers	1 LS		
4	Connection to Existing 2" SCH40 PVC with 2" Elbow	1 LS		
5	New 2" Ball Valve in Meter Box	6 LS		
6	2" PVC Cap	1 LS		
7	2" Polyethylene Tubing	925 LF		
8	Valve Box Extension and Lid	3 LS		
9	Valve Box Removal	3 LS		
10	Concrete Paving Replacement	350 SF		
11	Hand Trenching	150 LF		
12	Testing and Disinfection	1 LS		
13	Straw Wattles	900 LF		
14	Inlet Protection	3 EA		
15	Seeding	1200 SF		
16	Demobilization	1 LS		
17	Subtotal Base Bid (Items 1-16)			
18	Daily Rate for Compensable Delay (See description, below)			<i>\$ Fill in Electronic Pricing Table</i>
19	Multiplier			10
20	Compensable Delay Total (line 18 x line 19)			<i>\$ Fill in Electronic Pricing Table</i>
21	Total Base Bid (line 17+ line 20) Basis of Determining Apparent Low Bidder			<i>\$ Fill in Electronic Pricing Table</i>

Line 21 Total base bid price will be the Basis for determining Apparent Low Bidder

DAILY RATE OF COMPENSATION FOR COMPENSABLE DELAYS

Bidder shall determine and provide below the daily rate of compensation for any Compensable Delay caused by the County at any time during the performance of the Work.

\$ _____ *Fill in Electronic Pricing Table* _____ x 10 multiplier = \$ _____ *Fill in Electronic Pricing Table* _____
(In Numbers) (In Numbers)

Failure to fill in a dollar figure for the daily rate for Compensable Delay shall be interpreted as a daily rate of “zero.” The County will perform the extension of the daily rate times the multiplier.

The daily rate shown above will be the total amount of Contractor entitlement for each day of Compensable Delay caused by the County at any time during the performance of the Work and shall constitute payment in full for all delay costs, direct or indirect (including, without limitation, compensation for all extended home office overhead and extended general conditions), of the Contractor and all subcontractors, suppliers, persons, and entities under or claiming through Contractor on the Project. The number of days of Compensable Delay shown as a "multiplier" above is not intended as an estimate of the number of days of Compensable Delay anticipated by the County. The County will pay the daily rate of compensation only for the actual number of days of Compensable Delay, as defined in the General Conditions; the actual number of days of Compensable Delay may be greater or lesser than the "multiplier" shown above. Bidder shall not bid less than zero dollars for the daily rate (i.e., the daily rate cannot be a negative number).

THE LOWEST BID SHALL BE THE LOWEST TOTAL OF THE BID PRICES ON THE BASE BID.

ACKNOWLEDGEMENT OF ADDENDA

The bidder acknowledges receipt of the following Addenda:

Addendum # _____, dated _____	_____	_____
	Signature	Date
Addendum # _____, dated _____	_____	_____
	Signature	Date
Addendum # _____, dated _____	_____	_____
	Signature	Date
Addendum # _____, dated _____	_____	_____
	Signature	Date

AUTHORIZED SIGNATURE OF BIDDER: _____

DATE: _____

NOTE:

Where quantities are shown they are engineers estimated quantities. Variations may occur between actual quantities and engineers estimated quantities. Bidder is responsible to calculate quantities when preparing bid. Payment will be based on lump sum bid amount(s) and no allowance will be made for variations between actual quantities and engineers estimated quantities.

BIDDER'S BOND

Know All Persons by These Presents,

That we, _____

_____, As PRINCIPAL, and _____

_____,

as SURETY, are held and firmly bound unto the County of Santa Cruz of the State of California, hereinafter called the County, in the penal sum of TEN PERCENT (10%) OF THE TOTAL AMOUNT OF THE BID of the Principal above named, submitted by said Principal to the County for the work described below for the payment of such sum in lawful money of the United States, well and truly to be made, and we bind ourselves, our heirs, executors, administrators and successors, jointly and severally, firmly by these presents. In no case shall the liability of the surety exceed the sum of _

_____ (\$ _____) Dollars.

THE CONDITION OF THIS OBLIGATION IS SUCH, That whereas the Principal has submitted the above mentioned bid to the County for certain construction specifically described as follows: Anna Jean Cummings Water Line Replacement Project for which bids are to be opened at Santa Cruz, California on October 15, 2026.

NOW, THEREFORE, If the aforesaid Principal is awarded the contract and, within the time and manner required under the specifications, after the prescribed forms are presented to him for signature, enters into a written contract, in the prescribed form, in accordance with the bid, and files two bonds with the Purchasing Agent, one to guarantee faithful performance and the other to guarantee payment for labor and materials, as required by law, then this obligation shall be null and void; or should the aforementioned contract be awarded to other than the herein named Principal, then this obligation shall be null and void; otherwise, it shall be and remain in full force and virtue.

IN WITNESS WHEREOF, We have hereunto set our hands and seals on this _____ day of _____ A.D. 20____.

_____(SEAL) _____(SEAL)

_____(SEAL) _____(SEAL)

_____(SEAL) _____(SEAL)

Surety

Principal

(Note: Signatures of those executing

for the Surety must be properly

Address

acknowledged.)

NAMES AND TITLES FORM

NAMES AND TITLES OF KEY MEMBERS OF FIRM:

(Name of person signing the bid on behalf of the bidder and all general partners, if a partnership, must be included.)

Bidder is a: (circle one)

Corporation Partnership Individual Joint Venture Other _____
(Specify)

NAME OF PRESIDENT IF A CORPORATION: _____

NAME OF SECRETARY IF A CORPORATION: _____

CALIFORNIA CONTRACTORS LICENSE(S):

Name of License(s):

_____	_____	_____
Classification(s)	Number	Expiration Date

_____	_____	_____
Classification(s)	Number	Expiration Date

(For Joint Ventures, list Joint Venture's license or licenses for all Joint Venture partners.)

Are you registered with the Department of Industrial Relations pursuant to Labor Code section 1725.5?

_____ YES _____ NO Date of Registration _____ Registration No. _____

The following documents are submitted with and made a condition of this bid:

Bid security in the form of _____ (fill in type of bid security)

Corporation is organized under the laws of the State of _____.

Corporate Seal:

NAMES AND TITLES FORM continued

NAME OF BIDDERS FIRM: _____

Address: _____

Phone: _____

Fax: _____

Email: _____

By: _____

(Signature)

(Print or Type Name)

(Print or Type Title)

By: _____

(Signature)

(Print or Type Name)

(Print or Type Title)

NOTE: If bidder is a corporation, the full legal name of the corporation shall be set forth together with the signatures of authorized officers or agents and the document shall bear the corporate seal; if bidder is a partnership, the full name of the firm shall be set forth together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, the individual's signature shall be placed above. If signature is by other than the sole proprietor, general partner, or corporate officers, attach an original Power of Attorney.

NONCOLLUSION AFFIDAVIT

TO BE SIGNED BY BIDDER AND SUBMITTED WITH BID

Pursuant to Section 7106 of the Public Contract

Code, _____

(Name)

being first duly sworn, deposes and says that he or she is _____

(Title)

of _____,

(DBA)

the party making the foregoing bid; the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; the bid is genuine and not collusive or sham; the Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; 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; 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 sham bid.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____, (date) at _____ (city), _____ (state).

Signature

STATEMENT OF COMPLIANCE

(Company Name)

(hereinafter referred to as "prospective Contractor") hereby certifies, unless specifically exempted, compliance with Government Code Section 12990 and California Administrative Code, Title II, Division 4, Chapter 5, in matters relating to the development, implementation, and maintenance of a nondiscrimination program. Prospective Contractor agrees not to unlawfully discriminate against any employee or applicants for employment because of race, religion, color, national origin, ancestry, physical handicap, medical condition, marital status, sex, sexual orientation, physical and mental disabilities, or age (over forty).

I, _____
(Name of Official)

hereby swear that I am duly authorized to legally bind the prospective Contractor to the above-described certification. I am fully aware that this certification, signed on

(name)

(date)

in the County of _____, is made under the penalty of perjury
(County)

under the laws of the State of California.

Signature)

(Print or Type Title)

DESIGNATION OF SUBCONTRACTORS

PLEASE REFER TO ITEM #4 ON PAGE 1 OF VOLUME III, BID PROPOSAL FOR CONTRACTOR AND SUBCONTRACTOR REQUIREMENTS

In compliance with the provisions of Section 4100 through 4114, inclusive, of the Public Contract Code, and any amendments thereto, each bidder shall set forth in his or her bid, **the name and location of the place of business** and the California contractor license (CSLB#) 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 (0.5%) one-half of 1 percent of the prime contractor's total bid and the portion of the work which will be done by each subcontractor under this act. The prime contractor shall list only one subcontractor for each portion as is defined by the prime contractor in his or her bid.

An inadvertent error in listing the California contractor license (CSLB#) number provided pursuant to the paragraph above shall not be grounds for filing a bid protest or grounds for considering the bid nonresponsive if the corrected contractor's license number is submitted to the County by the prime contractor in writing within 24 hours after the bid opening and provided the corrected contractor's license number corresponds to the submitted name and location for that subcontractor.

If Contractor fails to specify a subcontractor for any portion of the work to be performed under this Contract in excess of one-half of one percent (0.5%) of the total bid, Contractor agrees to perform that portion itself.

No prime contractor whose bid is accepted shall: (a) substitute any subcontractor, (b) permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid, or (c) sublet or subcontract any portion of the work in excess of (0.5%) one-half of one percent of the prime contractor's total bid as to which his original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act. Subletting or subcontracting of any portion of the work in excess of (0.5%) one-half of one percent of the prime contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the authority awarding this contract setting forth the facts constituting the emergency or necessity

☐ Check this box if no subcontractors are required to be listed for work or labor to be performed or services to be rendered. Otherwise provide all requested information below.

Portion of Work (Type)	Subcontractor Name/ License Number & Expiration Date	Subcontractor's Place of Business Include all: Full Mailing Address/ Telephone Number/& E-mail Address	Subcontractor's DIR Registration Number	(\$) Amount of Bid

Portion of Work (Type)	Subcontractor Name/ License Number & Expiration Date	Subcontractor's Place of Business Include all: Full Mailing Address/ Telephone Number/& E-mail Address	Subcontractor's DIR Registration Number	(\$) Amount of Bid

(This form may be duplicated as necessary)

BIDDER QUALIFICATIONS

This form must be completed, signed by bidder, and submitted to the County of Santa Cruz with bidder's bid. Failure to complete, sign and submit with bidder's bid may result in bidder's bid being rejected as non-responsive.

The County of Santa Cruz has determined that bidders must meet the following minimum qualifications to bid the work of improvement contemplated herein:

Have possessed a valid, active and in good standing State of California Department of Consumer Affairs, Contractor's License Board **Class A** contractor's license for a minimum of five (5) continuous years prior to the date of bid opening and can demonstrate that the firm contracted by this proposal and bid has the necessary experience to satisfactorily construct the County facility documented in these plans and specifications.

Not have any pending disciplinary proceedings or investigations by the Contractor's State License Board.

Have completed to the public owner's satisfaction, no less than **3** projects in the State of California, each with an original contract price of no less than **\$200,000** within the past ten years prior to the date of bid opening. At least **1** of said projects must have been projects requiring substantial (greater than 50% of the contract sum) work occurring in a public park setting.

Currently (as of the date of bid opening) or within the past year, not have any suspensions, disbarments, or similar proceedings (including stipulated agreements), restricting, limiting or prohibiting bidder from bidding or performing other public works for any other public agency.

I, being the _____ (insert title) of bidder herein, declare that bidder meets all of the minimum criteria set forth above.

(Signature)

(Print Name)

(Date)

GUARANTY
TO THE COUNTY OF SANTA CRUZ
Anna Jean Cummings Water Line Replacement Project

The General Conditions cover the Contractor's responsibility to remedy defects due to faulty workmanship and materials which appear within 1 year from the date of final Notice of Completion.

Guarantees for more than 1 year, indicated in various Sections of the Specifications, shall be in the form of a guarantee and noted below.

The undersigned, as prime Contractor, guarantees the construction and installation of the following work included in the Anna Jean Cummings Water Line Replacement Project:

We hereby guarantee that the _____, which has been installed in the Anna Jean Cummings County Park at 461 Soquel San Jose Rd, Soquel, CA 95073, for the Owner, has been done in accordance with the Drawings and Specifications, and that the work as installed, will fulfill the requirements of the guarantee included in the Specifications. We agree to repair or replace any or all of our work, together with any other adjacent work which may be displaced by so doing, that may prove to be defective in its workmanship or materials within a period of 1 year from the Notice of Completion date of the above named structure, without any expenses whatsoever to the Owner; ordinary wear and tear and unusual abuse or neglect excepted.

In the event of our failure to comply with the above mentioned conditions within a reasonable time but in no event longer than 30 days after being notified in writing by the Owner, we, collectively or separately, do hereby authorize the agents of the Owner to proceed to have said defects repaired and made good at our expense, and we will honor and pay the costs and the charges therefor upon demand.

Signed

SUBCONTRACTOR/SUPPLIER

LICENSE NO. _____

Countersigned

CONTRACTOR

LICENSE NO. _____

IRAN CONTRACTING ACT CERTIFICATION

(Public Contract Code Section 2200 et seq.)

As required by California Public Contract Code Section 2204, the Contractor certifies subject to penalty for perjury that the option checked below relating to the Contractor's status in regard to the Iran Contracting Act of 2010 (Public Contract Code Section 2200 et seq.) is true and correct:

☐ The Contractor is not:

(i) identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203; or

(ii) a financial institution that extends, for 45 days or more, credit in the amount of \$20,000,000 or more to any other person or entity identified on the current list of persons and entities engaging in investment activities in Iran prepared by the California Department of General Services in accordance with subdivision (b) of Public Contract Code Section 2203, if that person or entity uses or will use the credit to provide goods or services in the energy sector in Iran.

☐ The County has exempted the Contractor from the requirements of the Iran Contracting Act of 2010 after making a public finding that, absent the exemption, the County will be unable to obtain the goods and/or services to be provided pursuant to the Contract.

☐ The amount of the Contract payable to the Contractor for the Project does not exceed \$1,000,000.

(Contractor Name)

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

(Printed Name and Title)

(Date)

Note: In accordance with Public Contract Code Section 2205, false certification of this form shall be reported to the California Attorney General and may result in civil penalties equal to the greater of \$250,000 or twice the Contract amount, termination of the Contract and/or ineligibility to bid on contracts for three years.

**CONTRACTOR'S CERTIFICATION OF GOOD-FAITH EFFORT TO EMPLOY MONTEREY
BAY AREA RESIDENTS**

I CERTIFY THAT I have made a good-faith effort to employ Monterey Bay area residents as provided below:

General Provisions. All County construction contracts shall contain provisions pursuant to which the contractor shall make a good-faith effort to employ qualified individuals who are, and have been for at least one (1) year out of the past three (3) years prior to the opening of bids, residents of the Monterey Bay Area in sufficient numbers so that no less than fifty percent (50%) of the contractors total construction work force, on that particular contract, including any subcontractor work force (with exception of specialty subcontractor items identified in bid items) measured in labor work hours, is comprised of Monterey Bay Area residents.

Non-responsive Bidder Declaration: Enforcement. If any contractor submitting a bid for a contract for public works of improvement fails to abide by the good-faith local employment provisions of this Section, the contractor may be declared by the Board to be a non-responsive bidder for purposes of this Chapter. If a contractor lists in his or her bid a subcontractor who is currently disqualified under the terms of this Section, the Board may declare said contractor to be a non-responsive bidder for purposes of this Chapter. If the Board finds that a contractor to whom a contract for public works of improvement has been awarded has failed to comply with the good-faith employment provisions of this Section during the performance of the contract, the Board may disqualify the contractor from bidding on any County construction contracts a period of one (1) year from the date of the Board's disqualification. A subsequent violation of this Section by a contractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification.

Binding on Subcontractors. Every contractor entering into a contract for public works of improvement subject to the provisions of this Section shall include in each and every subcontract for work, laborers, or material supplier relating to the project the requirement that the subcontractor shall make a good-faith effort to employ qualified individuals who are, and have been for at least one (1) year out of the past three (3) years prior to the opening of bids, residents of the Monterey Bay Area. If the Board finds that any subcontractor has failed during the performance of the subcontract to comply with this Section, the Board may disqualify said subcontractor from submitting or being listed in any bid for any County construction contract for a period of one (1) year from the date of the Board's disqualification. A subsequent violation by a subcontractor may result in disqualification by the Board for a period of three (3) years from the date of the subsequent disqualification."

I FURTHER CERTIFY AS FOLLOWS (check the box that applies):

☐ I CERTIFY that at least fifty percent (50%) of the total construction work force on the project, including any subcontractor work force, measured in labor work hours, will be comprised of qualified individuals who to the best of my knowledge are, and have been for at least one (1) year out of the past three (3) years prior to the effective date of the opening of bids, residents of the Monterey Bay Area. Evidence that I will comply with this requirement is as follows **(please use additional pages to provide supporting evidence and/or documentation, as necessary):**

☐ I CERTIFY that I shall make a good-faith effort to employ qualified individuals who, to the best of my knowledge, are, and have been for at least one (1) year out of the past three (3) years prior to the effective date of the opening of bids, residents of the Monterey Bay Area in sufficient numbers such that no less than fifty percent (50%) of the total construction work force on the project, including any subcontractor work force (with the exception of specialty subcontractor items identified in the bid items) measured in labor work hours, will be comprised of Monterey Bay Area residents. **Attached is my written plan to recruit Monterey Bay Area residents as part of the construction workforce.**

☐ I CERTIFY that I do not comply with and am unable to make a good-faith effort to comply with the good-faith local employment provisions set forth in Santa Cruz County Code Section 2.33. Explanation to why I am not able to comply is as follows **(please use additional pages to provide supporting evidence and/or documentation, as necessary):**

I declare under penalty of perjury under the laws of the State of California that the foregoing certification is true and correct. Executed on (date) _____
at (city/state) _____.

Bidder's Business Name:

By:

Print Name:

Print Title:
