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**COUNTY of SONOMA**  
**REGIONAL PARKS DEPARTMENT**

**TOLAY LAKE REGIONAL PARK**  
**GATHERING AREA PHASE 2 – SHADE STRUCTURE**

**Bid Date: Monday, October 21, 2025**

**Project No.: 40914100.2**

***REGIONAL PARKS***



**DOCUMENT 00001**

**PROJECT MANUAL (Rev1)**

**(VOLUME 1)**

**FOR**

**TOLAY LAKE REGIONAL PARK  
GATHERING AREA PHASE 2 – SHADE STRUCTURE**

**COUNTY OF SONOMA**

**REGIONAL PARKS DEPARTMENT**

**BID DATE: OCTOBER 21, 2025**

**PROJECT NUMBER: 40914100.2**

**MANDATORY PRE-BID DATE: SEPTEMBER 12, 2025**



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## DOCUMENT 00100

**NOTICE INVITING BIDS**

- 1,1 NOTICE.** The COUNTY OF SONOMA ("County") hereby gives notice that it will accept Bids for construction of the following public work:

COUNTY OF SONOMA  
TOLAY LAKE REGIONAL PARK  
GATHERING AREA PHASE 2 – SHADE STRUCTURE

- 1,2 BID SUBMISSION.** County will receive Electronic Bids via the County's Supplier Portal no later than **2 PM**, on **Monday, October 21, 2025**. The link to the Supplier Portal is: <https://esupplier.sonomacounty.ca.gov/psp/FNPRD/SUPPLIER/ERP/h/?tab=DEFAULT>.

Bidders must be registered to submit electronic proposals. See registration instructions on the Supplier Portal link above

Proposers must submit one (1) electronic copy to the County of Sonoma's Supplier Portal. Hard copy, facsimile, and/or emailed submissions will not be accepted. Bidders shall refer to Document 00200 (Instructions to Bidders) for required documents and items to be submitted electronically.

There will be no in-person public bid opening for this solicitation. The public bid opening will be conducted via a Microsoft Teams meeting. To participate use the following access details:

Join Microsoft Teams Meeting on **Monday, October 21, 2025 at 2 PM.**

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## Microsoft Teams [Need help?](#)

### [Join the meeting now](#)

Meeting ID: 228 360 038 598 8

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### Dial in by phone

[+1 707-582-0058,,330541102#](tel:+17075820058,330541102#) United States, Santa Rosa

[Find a local number](#)

Phone conference ID: 330 541 102#

For organizers: [Meeting options](#) | [Reset dial-in PIN](#)

TO REQUEST ACCOMMODATION FOR THIS MEETING contact the meeting host. Instructions for turning on closed captioning located here: <https://support.microsoft.com/en-us/office/use-live-captions-in-a-teams-meeting-4be2d304-f675-4b57-8347-cbd000a21260>

- 1.3 CONTACT INFORMATION.**

Mailing address:

Sonoma County Regional Parks  
400 Aviation Blvd., Suite 100  
Santa Rosa, CA  
707-565-2041

Project Manager:

Karen DavisBrown  
Phone: (707) 565-2041  
Fax: (707) 579-8247  
Email: karen.davis-brown@sonomacounty.gov

- 1.4 DESCRIPTION AND LOCATION OF THE WORK.** The Work consists of construction of County's **Tolay Lake Regional Park Gathering Area Phase 2 – Shade Structure**, at **5869**

**Cannon Lane, Petaluma, California.** The work includes but is not limited to the construction of a **custom design steel shade structure over existing concrete stage, complete concrete flatwork and interpretive elements from the initial Phase 1 of the project.**

**1.5 CONTRACT TIME.** Substantial Completion shall be within **One hundred twenty (120)** “Working” Days from the date when work is to commence as stated in the Notice to Proceed. Final Completion shall be within **One hundred forty (140)** “Working” Days from the date when work is to commence as stated in the Notice to Proceed.

**1.6 REQUIRED CONTRACTOR’S LICENSE(S).** A California **”A” OR “B”** contractor’s license is required to Bid this Contract and through the completion of the project. All contractors and subcontractors shall be properly licensed by the Contractor’s State Licensing Board and possess the necessary license classifications for the work they perform under this project.

**1.7 REGISTRATION PURSUANT TO LABOR CODE SECTION 1725.5 REQUIRED.** All Contractors submitting a bid proposal and any Subcontractors listed therein must currently be registered and qualified to perform public work pursuant to Labor Code section 1725.5. County requires proof of current registration by contractor and all listed subcontractors as a condition to bid this project, subject only to the allowances of Labor Code section 1771.1. Contractor is required to list their DIR Registration number on the Bid Form.

**1.8 PREVAILING WAGE LAWS.** The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents.

This project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. The successful Bidder must comply with all prevailing wage laws applicable to the Project, and related requirements contained in the Contract Documents.

In accordance with the provisions of section 1720 et seq. of the Labor Code, the Division of Labor Standards and Research has determined the general prevailing rates or wages and employer payments for health and welfare, pension, vacation, travel time, and subsistence pay as provided for in section 1773.8. Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are located at <http://www.dir.ca.gov/DLSR/PWD/index.htm> and are deemed included in the Bidding Documents. Contractor shall post the applicable prevailing wage rates at the Site, in addition to all other job site notices prescribed by regulation.

This is a Public Works Project. Pursuant to CA Labor Code 1771 for contracts over \$1,000.00 prevailing wage requirements are enforced. CA Labor Code requires that all contractors and subcontractors working on this project keep certified payroll records in accordance with Labor Code 1776.

It shall be mandatory upon the Contractor herein and upon any Subcontractor to pay not less than the said specified rates to all laborers, workers and mechanics employed by them in the execution of the Agreement pursuant to CA Labor Code 1774, including owner operators.

Attention is directed to the provisions in section 1777.5 and sections 1777.6 of the Labor Code concerning the requirement to employ apprentices by the Contractor or any Subcontractor under it, please refer to Labor Code 230.1 for requirements.

**1.9 PRE-BID CONFERENCE. MANDATORY SITE CONFERENCE**

County will conduct a **MANDATORY** Pre-Bid Conference at **10 AM on Friday, September 12, at 5869 Cannon Lane Petaluma, California**, to generally discuss project scope, to consider such matters as Bidders may request, and to review site conditions. Bidders must attend Pre-Bid Conference and Site Visit as a condition of bidding. The Pre-Bid Conference and Site Visit will last approximately **one and one-half (1.5)** hours.

**1.10 PROCUREMENT OF BIDDING DOCUMENTS.** Bidders may obtain Bidding Documents by

registering at Sonoma County's Supplier Portal, the County's online procurement system (<https://esupplier.sonomacounty.ca.gov/psp/FNPRD/SUPPLIER/ERP/h/?tab=DEFAULT>). No printed copies will be available. Bidding Documents need not be returned to County.

- 1.11 BID PREPARATION COST.** Bidders are solely responsible for the cost of preparing their Bids.
- 1.12 RESERVATION OF RIGHTS.** County specifically reserves the right, in its sole discretion, to reject any or all Bids, or re-bid, or to waive inconsequential deviations from Bid requirements.
- 1.13 REQUIRED SUBCONTRACTORS LIST.** All Bidders must submit with their Bids the required information in Document 00430 (Subcontractors List) for those Subcontractors who will perform any portion of Work, including labor, rendering of service, or fabricating and installing a portion of the Work, in excess of one half of one percent of total Bid. Violation of this requirement may result in Bid being deemed non-responsive and not being considered.

**ESTIMATED BASE BID CONSTRUCTION COST.** THE ESTIMATED BASE BID CONSTRUCTION COST IS **\$800,000 TO \$850,000.** END OF DOCUMENT



## DOCUMENT 00200

**INSTRUCTIONS TO BIDDERS**

Bids are requested for a construction contract, or work described in general, as follows:

COUNTY OF SONOMA  
TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2  
SHADE STRUCTURE

- 1.1 RECEIPT OF BIDS.** Refer to Document 00100 (Notice Inviting Bids), paragraph 1.2, for location, day time and process for submittal of bids. County will accept Bids only from Bidders duly licensed in accordance with the California Business & Professions Code and in accordance with paragraph 1.6 of Document 00100 (Notice Inviting Bids). County will reject all Bids received after the specified time. Bidders must submit Bids in accordance with this Document 00200.
- 1.2 CONTACT INFORMATION.** Refer to Document 00100 (Notice Inviting Bids), paragraph 1.3.
- 1.3 MANDATORY PRE-BID SITE CONFERENCE.** County will conduct a mandatory Pre-Bid Site Conference at the time and location identified in paragraph 1.9 of Document 00100 (Notice Inviting Bids), to generally discuss project scope. Bidders must attend Pre-Bid Site Conference and sign an attendance roster as a condition to bid. The Pre-Bid Conference and Site Visit will last approximately one and one-half (1.5) hour(s).

The Pre-Bid Site Visit will not provide an opportunity for Bidders to have questions answered but will be merely a showing of the site and existing conditions. Bidders however may, submit written questions in connection with the Pre-Bid Site Visit to County. County will transmit to all parties recorded as having received Bidding Documents such Addenda as County in its discretion considers necessary in response to written questions. Bidders shall not rely on oral statements. Oral statements will not be binding or legally effective.

County, in its sole discretion, may elect to conduct additional Pre-Bid Conference and Site Visits. Notice of any additional Site Visits shall be given through addendum to the Bidders.

Bidders can arrange, subject to Project Manager's advance approval of a written workplan, a date and time to investigate conditions or otherwise conduct invasive investigations, explorations, tests, or studies, subject to delivering an executed Document 00210 (Indemnity and Release Agreement) and providing an insurance certificate as described therein by noon of the day prior to the scheduled site visit. Bidders who intend only to observe Site conditions and not conduct such examinations are not required to provide an executed Document 00210 (Indemnity and Release Agreement) or an insurance certificate for the Pre-Bid Site Visit. **BID SUBMISSION.** Bids shall be submitted electronically. Bidder should mark its Bid as BID FOR THE COUNTY OF SONOMA, TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2 – SHADE STRUCTURE. Bids shall be deemed to include the written responses by the Bidder to any questions or requests for information by County made as part of Bid evaluation process after submission of Bid. Bidder's failure to submit all required documents strictly as required entitles County to reject the Bid as non-responsive.

- 1.5 CONTENTS OF ELECTRONIC SUBMITTAL - BID PRICE.** Bid envelope shall include:
- A. Document 00400 (Bid Form) completed in accordance with paragraph 1.6 of this Document 00200.
  - B. Bid security supplied completed in accordance with paragraph 1.7 of this Document 00200.
  - C. Document 00430 (Subcontractors List) completed in accordance with paragraph 1.8 of this Document 00200.
  - D. Document 00481 (Non-Collusion Declaration)
- 1.6 REQUIRED BID FORMS.** All Bidders must submit Bids using, where applicable, documents supplied in this Project Manual, including without limitation the documents listed above, in

accordance with the instructions contained in those documents. County will reject as non-responsive any Bid not submitted on the required forms. Bids must be full and complete. Bidders must complete all Bid items and supply all information required by Bidding Documents. County reserves the right in its sole discretion to reject any Bid as non-responsive as a result of any error or omission in the Bid. Bidders may not modify the Bid Form or qualify their Bids. Bidders must submit clearly and distinctly written Bids. Bidders must clearly make any changes in their Bids by crossing out original entries, entering new entries, and initialing new entries. County reserves the right to reject any Bid not clearly written.

- 1.7 REQUIRED BID SECURITY.** Bidders must submit with their Bids either cash, a cashier's check or certified check from a responsible bank in the United States, or a bidder's bond executed by an admitted surety insurer. The amount of the security shall be not less than ten percent (10%) of amount of the total Bid Price, indicated on Document 00400 (Bid Form), payable to "County of Sonoma". All Bidders choosing to submit a bidder's bond must submit it on the required form, Document 00411 (Bond Accompanying Bid). County will reject as non-responsive any Bid submitted without the necessary Bid security.

County may retain Bid security of other than the Apparent Low Bidder for a period of 60 Days after award or until full execution of the Contract, whichever first occurs. Upon full execution of the Contract, and upon request by Bidder, County will return to the respective unsuccessful Bidders their Bid securities and Bid bonds.

- 1.8 REQUIRED SUBCONTRACTORS LIST.** All Bidders must submit with their Bids the required information in Document 00430 (Subcontractors List) for those Subcontractors who will perform any portion of Work, including labor, rendering of service, or fabricating and installing a portion of the Work, in excess of one half of one percent of total Bid. Violation of this requirement may result in Bid being deemed non-responsive and not being considered.

- 1.9 OTHER REQUIREMENTS PRIOR TO BIDDING.** Submission of Bid signifies Bidder's careful examination of Bidding Documents and complete understanding of the nature, extent, and location of Work to be performed. As a condition to Bidding, Bidder must complete tasks listed in Document 00520 (Agreement), Article 5. Submission of Bid shall constitute Bidder's express representation to County that Bidder has fully completed these tasks.

- 1.10 EXISTING CONDITIONS INFORMATION.** Bidders may examine any available existing conditions information (e.g., record documents, specifications, studies, drawings of previous work, geotechnical data) by giving County reasonable advance notice. Document 00320 (Existing Conditions Information) applies to all supplied existing conditions information and all other information supplied regarding existing conditions either above ground or below ground.

- 1.11 ADDENDA.** Bidders must direct all questions about the meaning or intent of Bidding Documents to Project Manager: [Karen DavisBrown, karen.davis-brown@sonomacounty.gov](mailto:karen.davis-brown@sonomacounty.gov) (identified in Document 0100, Notice Inviting Bids, paragraph 1.3) in writing no later than [September 22, 2025](#). Interpretations or clarifications considered necessary by County in response to such questions will be issued by Addenda mailed, faxed, or delivered to all parties recorded by County as having received Bidding Documents. Addenda will be written and will be issued to each Bidder to the address or fax number supplied County by Bidder. County may not answer questions received less than seven (7) Days prior to the date for opening Bids. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

- A. Addenda may also be issued to modify the Bidding Documents as deemed advisable by County.
- B. Addenda shall be acknowledged by number with signature in Document 00400 (Bid Form) and shall be part of the Contract Documents. A complete listing of Addenda may be secured from County.

- 1.12 SUBSTITUTIONS.** Bidders must base their Bids on products and systems specified in Contract Documents or listed by name in Addenda.

- A. Except as provided in paragraph 1.12D below, County will consider substitution requests

only for “or equal items.” Bidders wanting to use “or equal” item(s) must submit Document 00660 (Substitution Request Form) no later than 14 Days prior to submitting their Bids. After that date, the County will not accept “or equal” substitution requests. To assess “or equal” acceptability of product or system, submittals of substitutions shall contain the information required in Document 00660 (Substitution Request Form) and set forth in Section 01600 (Product Requirements). Insufficient information will be grounds for rejection of substitution. County shall, within a reasonable period of time after having received a Request for Substitution, issue in writing its decision as to whether the proposed substitute item is an Equal item. County’s decision shall be conclusive on all Bidders.

- B. Approved substitutions shall be listed in Addenda and become part of Contract Documents.
- C. Substitutions may be requested after submitting Bids and Award of Contract only in accordance with requirements specified in Section 01600 (Product Requirements)
- D. As further limitation on Bidder’s privilege to substitute items, County has found that certain items are designated as County standards and certain items are designated to match existing items in use on a particular public improvement, either completed or in the course of completion, or are available from only one source. As to such items, County will not permit substitution. County will not permit substitutions for the following items:

1) **NONE**

- 1.13 WAGE RATES.** Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are on file at County’s Architecture Division and are deemed included in the Bidding Documents. Upon request, County will make copies available to any interested party. Contractor shall post the applicable prevailing wage rates at the Site. This information is also available to Contractor at the Department of Industrial Relations’ website ([www.dir.ca.gov](http://www.dir.ca.gov)).
- 1.14 EQUAL EMPLOYMENT OPPORTUNITY.** Contractor shall comply with all applicable federal, state, and local laws, rules, and regulations in regard to nondiscrimination in employment because of race, color, ancestry, national origin, religion, sex, marital status, age, medical conditions, disability, or any other reason.
- 1.15 WITHDRAWAL OF BIDS.** Bidders may withdraw their Bids at any time prior to the Bid opening time fixed in this Document 00200, only by written request for the withdrawal of Bid filed with the Purchasing Agent. Bidder or its duly authorized representative shall execute request to withdraw Bid. The submission of a Bid does not commit County to award a contract for the Project, to pay costs incurred in the preparation of a Bid, or to procure or contract for any goods or services.
- 1.16 BID OPENING.** County will open all Bidders’ Bid envelopes promptly following the deadline for receiving Bids specified in Document 00100 (Notice Inviting Bids), Paragraph 1.2, initially evaluate them for responsiveness, and determine an Apparent Low Bidder as specified herein.
- 1.17 DETERMINATION OF APPARENT LOW BIDDER.**
  - A. County will determine Apparent Low Bidder in accordance with Public Contract Code Section 20103.8(b), taking into account all alternates (if any) included in the Total Bid Price as calculated in Document 00400 (Bid Form). See Section 01230, Alternates, for a list of all alternates.
  - B. County reserves the right to add to or deduct from the Contract any of the additive or deductive items after the lowest responsible bidder has been determined following the Contract award.
- 1.18 BID EVALUATION.** County may reject any or all Bids and waive any informalities or minor irregularities in the Bids. County also reserves the right, in its discretion, to reject any or all Bids and to re-Bid the Project. County reserves the right to reject any or all nonconforming, non-responsive, unbalanced, or conditional Bids, and to reject the Bid of any Bidder if County believes that it would not be in the best interest of Project to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by County. For

purposes of this paragraph, an “unbalanced Bid” is one having nominal prices for some Bid items and enhanced prices for other Bid items.

- A. In evaluating Bids, County will consider Bidders’ qualifications, whether or not the Bids comply with the prescribed requirements, unit prices, and other data, as may be requested in Document 00400 (Bid Form) or prior to the Notice of Award.
- B. In order to evaluate Bidder’s ability to perform and provide the Work in accordance with the Contract Documents to County’s satisfaction within the prescribed time, County may conduct reasonable investigations and reference checks of Bidder, proposed Subcontractors, suppliers and other persons and organizations as County deems necessary to assist in the evaluation of any Bid and to establish Bidder’s responsibility, qualifications, financial ability, proposed Subcontractors, suppliers, and other persons and organizations. Submission of a Bid constitutes Bidder’s consent to the foregoing. County shall have the right to consider information provided by sources other than Bidder. County shall also have the right to communicate directly with Bidder’s surety regarding Bidder’s bonds.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between written words and figures will be resolved in favor of the words.
- D. Quantities stated in the Bidding Documents are approximate only and are subject to correction upon final measurement of the Work, and are subject further to the rights reserved by County to increase or diminish the amount of work under any classification as advantages to design or construction needs require.
- E. County may determine whether a Bidder is qualified in its sole discretionary judgment.

**1.19 BID PROTEST.** Any Bid protest must be submitted in writing to the Department Head of County Regional Parks 400 Aviation Boulevard, Suite 100, Santa Rosa, California, before 5:00 p.m., (as determined by the date and time stamp clock in the Lobby of Regional Parks) of the seventh (7<sup>th</sup>) calendar day following posting of Document 00505 (Notice of Intent to Award for Construction). Document 00505 (Notice of Intent to Award for Construction) will be posted at the Clerk of the Board of Supervisors, County of Sonoma Administration Building, 575 Administration Drive, Room 100A, Santa Rosa, California. County will use reasonable efforts to deliver by facsimile a copy of Document 00505 (Notice of Intent to Award for Construction) to all Bidders who submitted Bids no later than the Business Day after issuance, although any delay or failure to do so will not extend the Bid protest deadline described above.

- A. The initial protest document must contain a complete statement of the basis for the protest and must demonstrate that the protestor has a direct economic interest in the bid award.
- B. The protest must refer to the specific portion of the document that forms the basis for the protest.
- C. The protest must include the name, address, and telephone number of the person representing the protesting party.
- D. The party filing the protest must concurrently transmit a copy of the initial protest document and any attached documentation to all other parties with a direct financial interest that may be adversely affected by the outcome of the protest. Such parties shall include all Bidders who appear to have a reasonable prospect of receiving an award depending upon the outcome of the protest.
- E. The procedure and time limits set forth in this paragraph are mandatory and are the sole and exclusive remedy in the event of Bid protest. 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 legal proceedings. A Party may not rely on a protest submitted by another Party, but must timely pursue its own protest.

**1.20 AWARD.** If the Contract is to be awarded, it will be awarded to the lowest responsible responsive Bidder. Following completion of all required County procedures and receipt of all County approvals, County will issue Document 00510 (Notice of Award) to successful Bidder.

**1.21 POST-NOTICE OF AWARD REQUIREMENTS.** After Notice of Award, the successful Bidder

must execute and submit the following documents as indicated below.

- A. Submit the following documents to County by 5:00 p.m. of the fourteenth (14<sup>th</sup>) Day following Notice of Award (Document 00510). Execution of Contract by County depends upon approval of these documents:
  - 1) Document 00520 (Agreement): To be executed by successful Bidder. Submit four (4) originals, each bearing an original signature on the signature page and initials on each page.
  - 2) Document 00610 (Construction Performance Bond): To be executed by successful Bidder and surety, in the amount set forth in Document 00610 (Construction Performance Bond). Submit one original.
  - 3) Document 00620 (Construction Labor and Material Payment Bond): To be executed by successful Bidder and surety, in the amount set forth in Document 00620 (Construction Labor and Material Payment Bond). Submit one original.
  - 4) Insurance certificates and endorsements required by Document 00700 (General Conditions) Article 4. Submit one original set.
  - 5) Document 00630 (Guaranty). To be executed by successful Bidder. Submit one original, bearing an original signature.
- B. County shall have the right to communicate directly with Apparent Low Bidder's proposed performance bond surety, to confirm the performance bond. County may elect to extend the time to receive faithful performance and labor and material payment bonds.
- C. Successful Bidder's failure to submit the documents required herein, in a proper and timely manner, entitles County to rescind its award, and to cause Bidder's Bid security to be forfeited as provided herein.

**1.22 FAILURE TO EXECUTE AND DELIVER DOCUMENTS.** If Bidder to whom Contract is awarded shall, within the period described in paragraph 1.21A of this Document 00200, fail or neglect to execute and deliver all required Contract Documents and file all required bonds, insurance certificates, and other documents, County may, in its sole discretion, foreclose on Bidder's surety bond, or deposit Bidder's cashier's check or certified check for collection, and retain the proceeds thereof as liquidated damages for Bidder's failure to enter into the Contract. Bidder agrees that calculating the damages County may suffer as a result of Bidder's failure to execute and deliver all required Contract Documents would be extremely difficult and impractical and that the amount of Bidder's required Bid security shall be the agreed and presumed amount of County's damages. In addition, upon such failure, County may determine the next Apparent Low Bidder and proceed accordingly.

**1.23 MODIFICATION OF COMMENCEMENT OF WORK.** County expressly reserves the right to modify the Commencement Date in the Notice to Proceed under the Contract and to independently perform and complete work related to the Project. To the fullest extent permitted by law, County accepts no responsibility to Contractor for damages attributed to County's need to complete additional work at the site.

**1.24 PUBLIC RECORDS ACT REQUESTS.**

- A. Per the Public Records Act, County will make available to the public all correspondence and written questions submitted during the Bid period, all Bid submissions opened in accordance with the procedures of this Document 00200, and all subsequent Bid evaluation information. Except as otherwise required by law, County will not disclose trade secrets or proprietary financial information submitted that has been designated confidential by Bidder. Any such trade secrets or proprietary financial information that a Bidder believes should be exempted from disclosure shall be specifically identified and marked as such. Blanket-type identification by designating whole pages or sections shall not be permitted and shall be invalid. The specific information must be clearly identified as such.
- B. Upon a request for records regarding this Bid, County will notify Bidder involved within ten (10) days from receipt of the request of a specific time when the records will be made available for inspection. If the Bidder timely identifies any "proprietary, trade secret, or confidential commercial or financial" information that Bidder determines is not subject to public disclosure, and requests County to refuse to comply with the records request, Bidder

shall take all appropriate legal action and defend County's refusal to produce the information in all forums; otherwise, County will make such information available to the extent required by applicable law, without restriction.

- C. Information disclosed in the Bid and attendant submissions are the property of County unless Bidder makes specific reference to data that is considered proprietary. Subject to the requirements in the Public Records Act, reasonable efforts will be made to prevent the disclosure of information except on a need-to-know basis during the evaluation process.

**1.25 CONFORMED PROJECT MANUAL AND CONSTRUCTION DRAWINGS.** Following Award of Contract, County may prepare a conformed Project Manual reflecting Addenda issued during bidding, which will, failing objection, constitute the approved Project Manual.

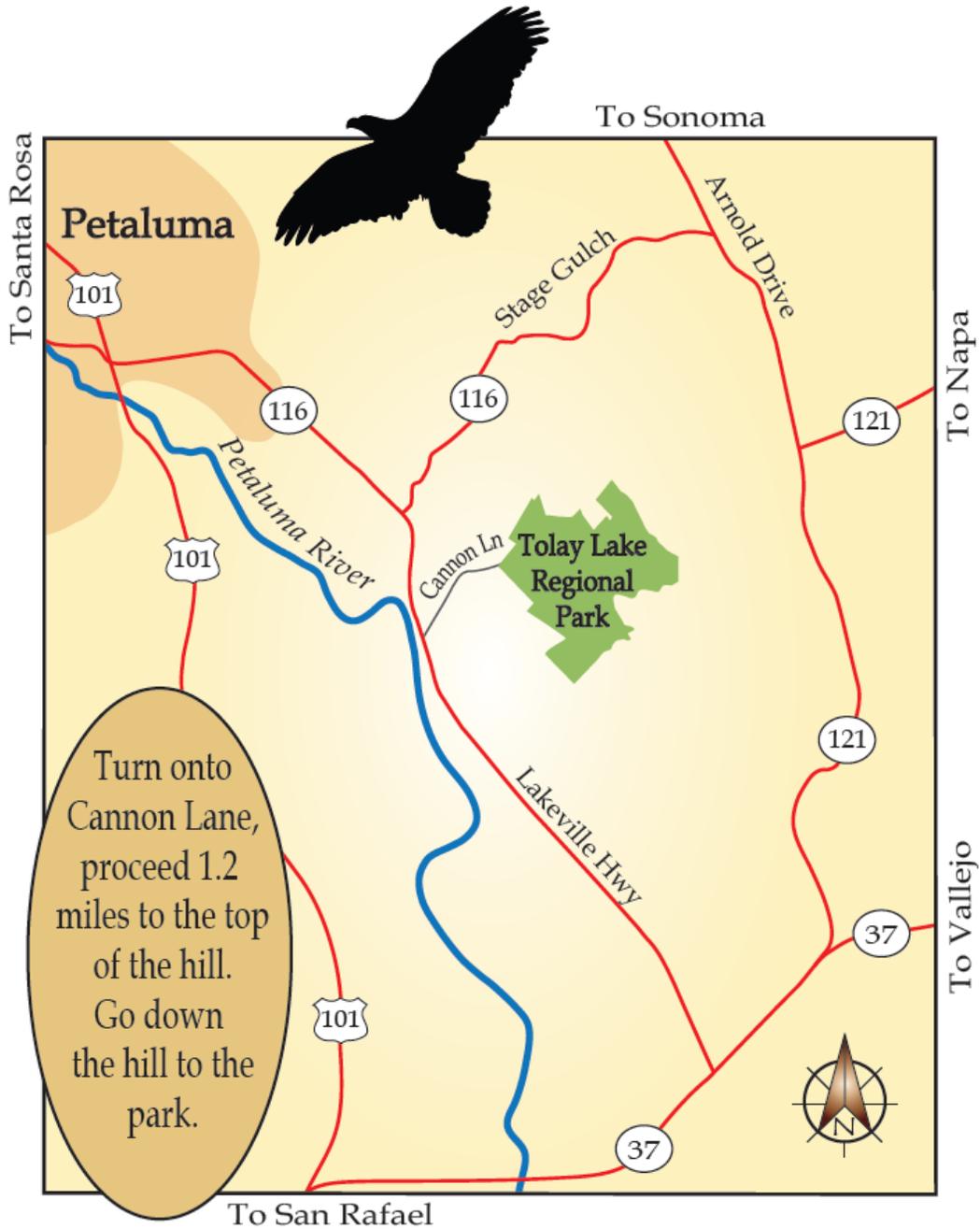
**1.26 DEFINITIONS.** All abbreviations and definitions of terms used in this Document 00200 are set forth in Document 00700 (General Conditions) and Section 01420 (References and Definitions).

END OF DOCUMENT

DOCUMENT 00202

**PRE-BID CONFERENCE VICINITY MAP**

SEPTEMBER 12, 2025 AT 10 AM



**TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2  
SHADE STRUCTURE**

5869 CANNON LANE, PETALUMA, CA



DOCUMENT 00210

**INDEMNITY AND RELEASE AGREEMENT**

Dated \_\_\_\_\_

POTENTIAL BIDDER: \_\_\_\_\_

COUNTY: COUNTY OF SONOMA

SITE: TOLAY LAKE REGIONAL PARK

PROJECT: GATHERING AREA PHASE 2 – SHADE STRUCTURE

In consideration of the above-referenced County's permitting the undersigned potential bidder ("Bidder") to have access to, and to conduct investigations, tests and/or inspections on, the Site, Bidder hereby agrees as follows:

1. To the greatest extent permitted by law, Bidder hereby releases, and shall defend, indemnify and hold harmless County, and its officers, employees, consultants, representatives, and agents, and all other parties having any other interest in the Site, against any claim or liability, including attorney's fees, arising from or relating to any Site-related access, investigation, test, inspection and/or other activity conducted by Bidder or any of Bidder's officers, employees, consultants, representatives, and/or agents, regardless of whether claim or liability is caused in part by the negligence of County or by any released and indemnified party.
2. Bidder hereby waives the provisions of California Civil Code Section 1542 which provides as follows:  
A general release does not extend to claims which the creditor does not know or suspect to exist in his favor at the time of executing the release, which if known by him, must have materially affected his settlement with the debtor.
3. Bidder shall repair any damage to the Site or adjacent property resulting from activities authorized hereunder, and comply with and be subject to all other requirements and obligations described or referenced in Document 00320 (Geotechnical Data and Existing Conditions).
4. Attached hereto (or to be delivered separately before Bidder's visit to the Site) is a certificate for comprehensive general liability insurance satisfying the requirements of Document 00700 (General Conditions).
5. Although this Indemnity and Release Agreement is not a Contract Document (see Document 00520 [Agreement]), it shall be fully effective and binding regardless of whether Bidder submits a Bid for the Project, is awarded a contract for the Project, or otherwise.

\_\_\_\_\_  
Name of Bidder

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

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

Its: \_\_\_\_\_  
Title (If Corporation: Chairman, President or Vice President)

Its: \_\_\_\_\_  
Title (If Corporation: Secretary, Assistant Secretary, Chief Financial Officer or Assistant Treasurer)

END OF DOCUMENT



## DOCUMENT 00320

**EXISTING CONDITIONS INFORMATION****1.1 SUMMARY**

- A. This Document 00320 sets forth the terms and conditions under which Bidder may review, study, use, or rely upon existing conditions information, including geotechnical data if applicable, concerning existing conditions at or contiguous to the Site. This Document 00320, the available geotechnical data, and the supplied existing conditions information are not Contract Documents.

**1.2 REPORTS AND INFORMATION**

- A. Existence of Reports. County, its consultants, and prior contractors may have collected documents providing a general description of the Site and conditions of the Work. These documents may consist of geotechnical reports for and around the Site, contracts, contract specifications, tenant improvement contracts, as-built drawings, utility drawings, and information regarding Underground Facilities. These reports, documents and other information are not part of the Contract Documents.
- B. Inspection of Reports. Bidders may inspect reports and information regarding existing conditions available at the Office of the County Architect and may obtain copies upon Bidder's payment for the costs of reproduction and handling. These reports, documents and other information, are not part of the Contract Documents. Nevertheless, by submitting a Bid, Bidder accepts full responsibility for reviewing, knowing and understanding the contents of all of these materials.
- C. Inclusion in Project Manual. Geotechnical reports and information regarding existing conditions may also be included in the Project Manual, but neither shall be considered part of the Contract Documents.
- D. Existing Conditions Information. The following geotechnical reports and data, and information regarding existing conditions and Underground Facilities at or contiguous to the Site, are available for review through County: N/A

**1.3 USE OF INFORMATION ON EXISTING CONDITIONS**

- A. Aboveground Existing Conditions. Under no circumstances shall County be deemed to make a warranty or representation of existing aboveground conditions, as-built conditions, or other aboveground actual conditions verifiable by reasonable independent investigation. These conditions are verifiable by Bidder by the performance of its own independent investigation that Bidder must perform prior to bidding and Bidder must not rely on the information supplied by County regarding existing conditions. Bidder represents and agrees that in submitting its Bid, it is not relying on any information regarding existing conditions supplied by County.
- B. Underground Facilities. Information supplied regarding existing Underground Facilities at or contiguous to the Site is based on information furnished to County by others (e.g., the builders of such Underground Facilities or others). Except as expressly set forth in this Document 00320, County does not assume responsibility for the accuracy, completeness or thoroughness of this information, and Bidder is solely responsible for any interpretation or conclusion drawn from this information. Except as expressly set forth in this Document 00320, County will be responsible only for the general accuracy of information regarding Underground Facilities, and only for those Underground Facilities that are owned by County. This express assumption of responsibility applies only if Bidder has conducted the independent investigation required of it and discrepancies were not apparent.

**1.4 LIMITED RELIANCE PERMITTED ON CERTAIN INFORMATION**

- A. Geotechnical Data. Except as expressly set forth in this Document 00320, County does not warrant, and makes no representation regarding, the accuracy or thoroughness of any geotechnical data. Bidder represents and agrees that in submitting its Bid, it is not relying on any geotechnical data supplied by County, except as specifically set forth herein.

- B. Technical Data. Bidder may rely upon the general accuracy of the “technical data” contained in the geotechnical reports and existing conditions information identified above, but only insofar as it relates to subsurface conditions, provided Bidder has conducted the independent investigation required of it and discrepancies were not apparent. The term “technical data” in the referenced reports and drawings shall be limited as follows:
- 1) The term “technical data” shall include actual reported depths, reported quantities, reported soil types, reported soil conditions, and reported material, equipment, or structures that were encountered during subsurface exploration.
  - 2) The term “technical data” does not include, and Bidder may not rely upon, any other data, interpretations, opinions or information shown or indicated in such drawings or reports that otherwise relate to subsurface conditions or described structures.
  - 3) The term “technical data” shall not include the location of Underground Facilities.
  - 4) Bidder may not rely on the completeness of reports and drawings for the purposes of bidding or construction. Bidder may rely upon the general accuracy of the “technical data” contained in such reports or drawings.
  - 5) Bidder is solely responsible for any interpretation or conclusion drawn from any “technical data” or any other data, interpretations, opinions, or information contained in supplied existing conditions information.

## 1.5 INVESTIGATIONS

- A. Before submitting a Bid, each Bidder shall be responsible to obtain such additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Bidder and safety precautions and programs incident thereto or which Bidder deems necessary to determine its Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of Contract Documents. Bidders shall advise County in writing as limited by Section 1.11 of Document 00200 (Instructions to Bidders) of any questions, suppositions, inferences or deductions Bidders may have for County’s review and response.
- B. County has provided time in the period prior to bidding for Bidder to perform these investigations.
- C. Notwithstanding the foregoing, hazardous materials investigations shall only be conducted by County as provided in Document 00335 (Hazardous Materials Surveys).

## 1.6 ACCESS TO SITE FOR INVESTIGATIONS

- A. During the Pre-Bid Site Visit(s), County will provide each Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies, as each Bidder deems necessary for submission of a Bid. Bidders must fill all holes and clean up and restore the Site to its former conditions upon completion of such explorations, investigations, tests, and studies. Such investigations may be performed only under the provisions of Document 00200 (Instructions to Bidders) and Document 00700 (General Conditions) including, but not limited to, proof of insurance and obligation to indemnify against claims arising from such investigation work. Each Bidder shall supply all equipment required to perform any investigations as each Bidder deems necessary. County has the right to limit the number of pieces of machinery operating at one time due to safety concerns.

END OF DOCUMENT

## DOCUMENT 00335

**HAZARDOUS MATERIALS SURVEYS****1.1 SUMMARY**

- A. This Document 00335 describes certain hazardous material surveys and use of data therein.

**1.2 REPORTS AND INFORMATION**

- A. County, its consultants, contractors, and tenants have prepared documents providing a general description of the Site and locations of hazardous materials subject to the Work. These documents consist of surveys included in or with this Project Manual or made available for review and copying. The surveys are the following:  
1) **NONE**
- B. Bidders may inspect such surveys at the Office of the County Architect, and copies may be obtained at cost of reproduction and handling upon Bidder's payment for the costs. These surveys are not part of the Contract Documents.

**1.3 USE OF DATA AND INFORMATION**

- A. Data and information regarding the locations of hazardous materials are not part of Contract Documents. Bidders may rely on this data and information for general accuracy regarding the locations of potentially hazardous materials subject of the Work.
- B. County does not warrant and makes no representation regarding the completeness or thoroughness of any data or information regarding existing conditions or hazardous materials, including, but not limited to, quantities, characteristics, volumes, or associated structural features. Bidder represents and agrees that in submitting a Bid it is not relying on any such data, information or deductions.

**1.4 INVESTIGATIONS**

- A. Before submitting a Bid, each Bidder shall be responsible for requesting County to obtain such additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning hazardous materials matters. Bidders must provide County with sufficiently advance notice for County to determine whether the examination, etc. is warranted and, if so, to perform the examination, etc. Such examinations, etc. shall be performed only by County or its consultants; Bidders shall not perform them.
- B. County has provided time in the period prior to bidding to perform these investigations.
- C. Any County decision taken in good faith regarding these matters shall be conclusive and binding.

END OF DOCUMENT



DOCUMENT 00400

**BID FORM**

To be submitted by the time and date specified in Document 00100 (Notice Inviting Bids), paragraph 1.2.

TO THE COUNTY OF SONOMA

THIS BID IS SUBMITTED BY:

---

(Firm/Company Name)

Re: TOLAY LAKE REGIONAL PARK  
GATHERING AREA PHASE 2 – SHADE STRUCTURE

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an agreement with the County of Sonoma, a political subdivision of the State of California (“County”), in the form included in the Contract Documents, Document 00520 (Agreement), to perform and furnish all Work as specified or indicated in the Contract Documents for the Contract Sum and within the Contract Time indicated in this Bid and in accordance with all other terms and conditions of the Contract Documents.
2. Bidder accepts all of the terms and conditions of the Contract Documents, Document 00100 (Notice Inviting Bids), and Document 00200 (Instructions to Bidders), including, without limitation, those dealing with the disposition of Bid Security. This Bid will remain subject to acceptance for 90 Days after the day of Bid opening.
3. In submitting this Bid, Bidder represents:
  - (a) Bidder has examined all of the Contract Documents and the following Addenda (receipt of all of which is hereby acknowledged).

Addendum Number	Addendum Date	Signature of Bidder

- (b) Bidder has visited the Site and performed all tasks, research, investigation, reviews, examinations, and analysis and given notices, regarding the Project and the Site, as set forth in Document 00520 (Agreement), Article 5.
  - (c) Bidder has given County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and as-built drawings and actual conditions and the written resolution thereof through Addenda issued by County is acceptable to Contractor.
4. Based on the foregoing, Bidder proposes and agrees to fully perform the Work within the time

stated and in strict accordance with the Contract Documents for the following sums of money listed in the following Schedules:

**SCHEDULE OF BID PRICES**

All Bid items, including lump sums and unit prices, must be filled in completely. Bid items are described in Section 01100 (Summary of Work). Quote in figures only, unless words are specifically requested.

ITEM	DESCRIPTION	QNTY	UNIT	TOTAL
1.	Mobilization, Demobilization, Bonds, and Insurance	1	LS	\$
2.	General Conditions	1	LS	\$
3.	Comprehensive Construction Staging Plan	1	LS	\$
4.	Demolition – internal concrete circle at SS#6, and existing story stage mockup and all concrete at equestrian staging area	1	LS	\$
5.	Shade Structure – fabrication and installation of steel structure (existing foundation in concrete stage completed in ph1 construction)	1	LS	\$
6.	Shade Structure Interpretive Panel Column Wraps	1	LS	\$
7.	Shade Structure Interpretive Panels Roof	1	LS	\$
8.	Electrical at Shade Structure – complete electrical installation to outlets and lighting to shade structure	1	LS	\$
9.	Concrete Paving Story Stages – color concrete pour internal circles and all remaining flags	1	LS	\$
10.	Interpretive Elements Story Stage 1 – sandblasting inner concrete circle	1	LS	\$
11.	Interpretive Elements Story Stage 6 – coordinate concrete pressings in inner circle with O.R., and sandblasting outer concrete flag	1	LS	\$
12.	Interpretive Signs – materials, fabrication, installation of footings, posts and interpretive signs at Story Stage 1 and 5	1	LS	\$
13.	Fire Pit Metal Plate Cover – fabricate and install custom plate cover	1	LS	\$
14.	Gates Laser Cut Panels – fabricate and install laser cut panels and cane bolts on existing gates	1	LS	\$
15.	Adjustments to Existing Gates	1	LS	\$
16.	Paint Existing Features – niche electrical box and steel posts at electrical panel, concrete stair warning stripes	1	LS	\$
<b>TOTAL BID PRICE*</b>				\$

\*Basis to determine apparent low bid.

Total Bid Price: \_\_\_\_\_  
(Words)

## SCHEDULE OF OTHER LISTED ALTERNATES (OPTIONAL)

ITEM	DESCRIPTION	TOTAL LUMP SUM
BA.1	Add Alternate 1: Shade Sails – materials, fabrication and installation of metal posts and sails at stage seating	\$
BA.2	Add Alternate 2: Metal Restroom Screen – fabricate and install restroom screen with custom laser panels	\$

5. Subcontractors for work included in all Bid items are listed on the attached Document 00430 (Subcontractors List).
6. The undersigned Bidder understands that County reserves the right to reject this Bid.
7. If written notice of the acceptance of this Bid, hereinafter referred to as Notice of Award, is mailed or delivered to the undersigned Bidder within the time described in paragraph 2 of this Document 00400 or at any other time thereafter before it is withdrawn, the undersigned Bidder will execute and deliver the documents required by Document 00200 (Instructions to Bidders) within the times specified therein.
8. Notice of Award or request for additional information may be addressed to the undersigned Bidder at the address set forth below.
9. The undersigned Bidder herewith encloses either a cashier's check, or certified check from a responsible bank in the United States, or a corporate surety bond furnished by a surety authorized to do surety business in the State of California, in form specified in Document 00200 (Instructions to Bidders), in the amount of ten percent (10%) of the Total Bid Price contained above and made payable to "County of Sonoma."
10. The undersigned Bidder agrees to commence Work under the Contract Documents on the date to be established in Document 00550 (Notice to Proceed) and to complete all work within the time specified in Document 00520 (Agreement). The undersigned Bidder acknowledges that County has reserved the right to delay or modify the commencement date after issuance of Document 00550 (Notice to Proceed). The undersigned Bidder further acknowledges County has reserved the right to perform independent work at the Site, the extent of such work may not be determined until after the opening of the Bids, and that the undersigned Bidder will be required to cooperate with such other work in accordance with the requirements of the Contract Documents.
11. The undersigned Bidder agrees that, in accordance with Document 00700 (General Conditions), liquidated damages for failure to complete all Work in the Contract within the time specified in Document 00520 (Agreement) shall be as set forth in Document 00520 (Agreement).
12. **IMPORTANT NOTICE:** If Bidder or other interested person is a corporation, give the legal name of corporation, state where incorporated, and names of president and secretary thereof; if a partnership, give name of the firm and names of all individual co-partners composing the firm; if Bidder or other interested person is an individual, give first and last names in full.

**NAME OF BIDDER:** \_\_\_\_\_  
licensed in accordance with an act for the registration of Contractors, and with license  
number: # \_\_\_\_\_ Expiration: \_\_\_\_\_ . DIR: # \_\_\_\_\_

Where incorporated, if applicable \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
Principals

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

\_\_\_\_\_  
Signature of Bidder

NOTE: If Bidder is a corporation, set forth the legal name of the corporation together with the signature of the officer or officers authorized to sign contracts on behalf of the corporation. If Bidder is a partnership, set forth the name of the firm together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership.

Business Address:

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

Contractor's Authorized Representative(s), (name, title):

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

Officers authorized to sign contracts:

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

Telephone Number(s):

\_\_\_\_\_

Fax Number(s):

\_\_\_\_\_

Date of Bid:

\_\_\_\_\_

END OF DOCUMENT

DOCUMENT 00411

**BOND ACCOMPANYING BID**

KNOW ALL BY THESE PRESENTS:

That the undersigned \_\_\_\_\_ [Name of Contractor] as Principal and the undersigned as Surety are held and firmly bound unto the COUNTY OF SONOMA, a political subdivision of the State of California ("County"), as obligee, in the penal sum of

\_\_\_\_\_ Dollars

(\$ \_\_\_\_\_) lawful money of the United States of America being ten percent (10%) of the aggregate amount of said Principal \_\_\_\_\_'s Total Bid Price (as identified in Principal's Bid), for the payment of which, well and truly to be made, we bind ourselves, our successors, executors, administrators, and assigns, jointly and severally, firmly by these presents.

WHEREAS, the said Principal is submitting a Bid for County of Sonoma, TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2 – SHADE STRUCTURE.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the Bid submitted by the said Principal be accepted and the Contract be awarded to said Principal and said Principal shall within the required periods enter into the Contract so awarded and provide the required Construction Performance Bond, Construction Labor and Material Payment Bond, insurance certificates, and all other endorsements, forms, and documents required under Document 00200 (Instructions to Bidders), then this obligation shall be void, otherwise to remain in full force and effect.

IN WITNESS WHEREOF, the above bound parties have executed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_.

(Corporate Seal)

By

\_\_\_\_\_  
Principal

\_\_\_\_\_  
Surety

(Corporate Seal)

By

\_\_\_\_\_  
Attorney in Fact

END OF DOCUMENT







**NON-COLLUSION DECLARATION**  
Public Contract Code § 7106

NON-COLLUSION DECLARATION TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the \_\_\_\_\_ of \_\_\_\_\_, the party making the foregoing bid. [Office of Declarant] [Name of Bidder]

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 to 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. All statements contained in the bid are true. 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, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

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 of Principal

END OF DOCUMENT



DOCUMENT 00505

**NOTICE OF INTENT TO AWARD FOR CONSTRUCTION**

DATE POSTED: \_\_\_\_\_

PROJECT TITLE: **TOLAY LAKE REGIONAL PARK GATHERING AREA  
PHASE 2 – SHADE STRUCTURE**

COUNTY PROJECT NUMBER: **40914100.2**

The County of Sonoma, Regional Parks Department intends to recommend to the Board of Supervisor of the County of Sonoma the award of the above-referenced Project to [Name of Contractor]. Any bid protest must be submitted in accordance with Document 00200 (Instructions to Bidders).

Regional Parks/Project Manager

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

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

END OF DOCUMENT



DOCUMENT 00510

**NOTICE OF AWARD**

Dated: [Date of Award]

TO: [Name of Contractor]  
 ADDRESS: [Address of Contractor]  
 CONTRACT NO.: **40914100.2**  
 CONTRACT FOR: **TOLAY LAKE REGIONAL PARK  
 GATHERING AREA PHASE 2 – SHADE STRUCTURE**

The Contract Sum of your contract is [Dollar Amount in Words] Dollars (\$[ \$ ]).  
 Work awarded includes: Base bid + alternate numbers as identified in Document 00400 (Bid Form) and described in Section 01100 (summary) of the Contract Documents.

- 1.1 Copies of the proposed Contract Documents listed below accompany this Notice of Award.
- 1.2 You must comply with the following conditions by 5:00 p.m. of the 14<sup>th</sup> Calendar Day following the date of this Notice of Award, that is, by [Date].
  - A. Deliver to County four (4) fully executed originals of Document 00520 (Agreement). Each copy of Document 00520 (Agreement) must bear your original signature on the signature page and your initials on each page.
  - B. Deliver to County one (1) original of Document 00610 (Construction Performance Bond), executed by you and your surety.
  - C. Deliver to County one (1) original of Document 00620 (Construction Labor and Material Payment Bond), executed by you and your surety.
  - D. Deliver to County one (1) original set of the insurance certificates with endorsements required under Document 00700 (General Conditions) and Document 00821 Supplementary Conditions.
  - E. Deliver to County one (1) original copy of Document 00630 (Guaranty), executed by you.
- 1.3 Failure to comply with these conditions within the time specified will entitle County to consider your Bid abandoned, to annul this Notice of Award, and to declare your Bid security forfeited.
- 1.4 After you comply with the conditions in paragraph 1.2 of this Document 00510, County will return to you one (1) fully signed original of Document 00520 (Agreement) with up to three (3) copies of the Project Manual (including Specifications and Drawings).
- 1.5 Before you may start any Work at the Site, you must attend a preconstruction conference. The preconstruction conference will be arranged through County’s representative. Questions regarding bonds and insurance may be directed to the Project Manager at (707) 565-2041. All other inquiries regarding the Project should also be directed to Project Manager.
- 1.6 Upon commencement of the Work, you shall provide and on behalf of your Subcontractors shall certify and provide County copies of payroll records on forms provided by the Division of Labor Standards Enforcement, in accordance with Section 1776 of the California Labor Code.

COUNTY OF SONOMA

BY: \_\_\_\_\_  
 Project Manager  
 Regional Parks Department

END OF DOCUMENT



**AGREEMENT**

THIS AGREEMENT, dated this [Day] day of [Month], [Year], by and between [Name of Contractor], whose place of business is located at [Address of Contractor] ("Contractor"), and the COUNTY OF SONOMA, a political subdivision of the State of California ("County"), acting under and by virtue of the authority vested in the County by the laws of the State of California.

WHEREAS, County, by its Board Resolution No. [#] adopted on the [Day] day of [Month], [Year], awarded to Contractor the following Contract:

**CONTRACT NUMBER # 40914100.2**

**TOLAY LAKE REGIONAL PARK  
GATHERING AREA PHASE 2 – SHADE STRUCTURE**

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, Contractor and County agree as follows:

**Article 1. Work**

- 1.1 Contractor shall complete all Work specified in the Contract Documents, in accordance with the Specifications, Drawings, and all other terms and conditions of the Contract Documents.

**Article 2. Notices to County**

- 2.1 County has designated **Karen DavisBrown**, Project Manager, to act as County's Representative(s), who will represent County in performing County's duties and responsibilities and exercising County's rights and authorities in Contract Documents. County may change the individual(s) acting as County's Representative(s), or delegate one or more specific functions to one or more specific County's Representatives, including without limitation engineering, architectural, inspection and general administrative functions, at any time with written notice and without liability to Contractor. Each County's Representative is the beneficiary of all Contractor obligations to County, including without limitation, all releases and indemnities.
- 2.2 All notices or demands to County under the Contract Documents shall be to County's Representative at:  
**2300 County Center Drive, Suite A120, Santa Rosa, CA 95403**  
or to such other person(s) and address(es) as County shall provide to Contractor.

**Article 3. Contract Time and Liquidated Damages**

- 3.1 Contract Time.  
Contract Time commences on the date established in Document 00550 (Notice to Proceed). County reserves the right to modify or alter the Commencement Date of the Work. County may give a Notice to Proceed at any time within 60 Days after the Notice of Award. Contractor shall not do any Work at the Site prior to the date on which the Contract Time commences to run.  
Contractor shall achieve Substantial Completion of the entire Work within **One hundred twenty (120) Days** from the date when the Contract Time commences to run as provided in Document 00700 (General Conditions). Contractor shall complete the Work so that a Final Inspection Report can be issued in accordance with Section 01770 (Contract Closeout) **One hundred forty (140) Days** from the date when the Contract Time commences to run as

provided in Document 00700 (General Conditions).

3.2 Liquidated Damages.

County and Contractor recognize that time is of the essence of this Agreement and that County will suffer financial loss (see Paragraph 3.3 below), if all or any part of the Work is not completed within the times specified above, plus any extensions thereof allowed in accordance with the Contract Documents. Consistent with Article 14 of Document 00700 (General Conditions), Contractor and County agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of actual damages incurred by County because of a delay in completion of all or any part of the Work. Accordingly, County and Contractor agree that as liquidated damages for delay Contractor shall pay County:

3.2.1 **One hundred fifty (\$150.00)** for each Day that expires after the time specified herein for Contractor to achieve Substantial Completion of the entire Work, until achieved.

3.2.2 **Five hundred (\$500.00)** for each Day that expires after the time specified herein for Contractor to achieve Final Inspection Report of the entire Work, until achieved.

These measures of liquidated damages shall apply cumulatively and except as provided below, shall be presumed to be the damages suffered by County resulting from delay in completion of the Work.

3.3 Liquidated damages for delay shall only cover project administrative (such as Project management and consultant expenses) and cost damages suffered by County as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from County (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof.

**Article 4. Contract Sum**

4.1 County shall pay Contractor the Contract Sum for completion of Work in accordance with Contract Documents as follows:

<b>TOTAL CONTRACT SUM</b>	
---------------------------	--

**Article 5. Contractor's Representations**

In order to induce County to enter into this Agreement, Contractor makes the following representations and warranties:

5.1 Contractor has visited the Site and has examined thoroughly and understood the nature and extent of the Contract Documents, Work, Site, locality, actual conditions, as-built conditions, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.

5.2 Contractor has examined thoroughly and understood all reports of exploration and tests of

subsurface conditions, as-built drawings, drawings, products specifications or reports, available for Bidding purposes, of physical conditions, including Underground Facilities, which are identified in Document 00320 (Existing Conditions Information), or which may appear in the Drawings. Contractor accepts the determination set forth in these Documents and Document 00700 (General Conditions) of the limited extent of the information contained in such materials upon which Contractor may be entitled to rely. Contractor agrees that, except for the information so identified, Contractor does not and shall not rely on any other information contained in such reports and drawings.

- 5.3 Contractor has conducted or obtained and has understood all such examinations, investigations, explorations, tests, reports and studies (in addition to or to supplement those referred to in Section 5.2 of this Document 00520) that pertain to the subsurface conditions, as-built conditions, Underground Facilities and all other physical conditions at or contiguous to the Site or otherwise that may affect the cost, progress, performance or furnishing of Work, as Contractor considers necessary for the performance or furnishing of Work at the Contract Sum, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Document 00700 (General Conditions); and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by Contractor for such purposes.
- 5.4 Contractor has correlated its knowledge and the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 5.5 Contractor has given County prompt written notice of all conflicts, errors, ambiguities, or discrepancies that it has discovered in or among the Contract Documents and as-built drawings and actual conditions and the written resolution thereof through Addenda issued by County is acceptable to Contractor.
- 5.6 Contractor is duly organized, existing and in good standing under applicable state law, and is duly qualified to conduct business in the State of California.
- 5.7 Contractor has duly authorized the execution, delivery and performance of this Agreement, the other Contract Documents and the Work to be performed herein. The Contract Documents do not violate or create a default under any instrument, agreement, order or decree binding on Contractor.
- 5.8 Contractor has listed the following Subcontractors pursuant to the Subcontractor Listing Law, California Public Contract Code §4100 *et seq.*:



Document 00800	Supplementary Conditions
Document 00821	Supplementary Conditions – Insurance
Document 00822	Apprenticeship Program
Document 00910	Addenda
Specifications	Divisions as listed in the Table of Contents
Drawings	Drawings listed in Drawing No. <b>Title Sheet 1</b>

- 6.2 There are no Contract Documents other than those listed in this Document 00520, Article 6. Document 00320 (Existing Conditions Information), Document 00335 (Hazardous Materials Surveys), and the information supplied through these documents, are not Contract Documents. The Contract Documents may only be amended, modified or supplemented as provided in Document 00700 (General Conditions).

**Article 7. Miscellaneous**

- 7.1 Terms and abbreviations used in this Agreement are defined in Document 00700 (General Conditions) and Section 01420 (References and Definitions) and will have the meaning indicated therein.
- 7.2 It is understood and agreed that in no instance are the persons signing this Agreement for or on behalf of County or acting as an employee, agent, or representative of County, liable on this Agreement or any of the Contract Documents, or upon any warranty of authority, or otherwise, and it is further understood and agreed that liability of the County is limited and confined to such liability as authorized or imposed by the Contract Documents or applicable law.
- 7.3 Contractor shall not assign any portion of the Contract Documents, and may subcontract portions of the Contract Documents only in compliance with the Subcontractor Listing Law, California Public Contract Code §4100 *et seq.*
- 7.4 The Contract Sum includes all allowances (if any).
- 7.5 In entering into a public works contract or a subcontract to supply goods, services or materials pursuant to a public works contract, 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. §15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time County tenders final payment to Contractor, without further acknowledgment by the parties.
- 7.6 Copies of the general prevailing rates of per diem wages for each craft, classification, or type of worker needed to execute the Contract, as determined by Director of the State of California Department of Industrial Relations, are deemed included in the Contract Documents and on file at the Office of the County Architect, and shall be made available to any interested party on request. Pursuant to Section 1861 of the Labor Code, Contractor represents that it is aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and Contractor shall comply with such provisions before commencing the performance of the Work of the Contract Documents.
- 7.7 Should any part, term or provision of this Agreement or any of the Contract Documents, or any document required herein or therein to be executed or delivered, be declared invalid, void or unenforceable, all remaining parts, terms and provisions shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby. If the provisions of any law

causing such invalidity, illegality or unenforceability may be waived, they are hereby waived to the end that this Agreement and the Contract Documents may be deemed valid and binding agreements, enforceable in accordance with their terms to the greatest extent permitted by applicable law. In the event any provision not otherwise included in the Contract Documents is required to be included by any applicable law, that provision is deemed included herein by this reference (or, if such provision is required to be included in any particular portion of the Contract Documents, that provision is deemed included in that portion).

- 7.8 This Agreement and the Contract Documents shall be deemed to have been entered into in the County of Sonoma, State of California, and governed in all respects by California law (excluding choice of law rules). The exclusive venue for all disputes or litigation hereunder shall be in Sonoma County. Both parties hereby waive their rights under California Code of Civil Procedure Section 394 to file a motion to transfer any action or proceeding arising out of the Contract Documents to another venue.
- 7.9 Contractor accepts the claims procedure established by Article 12 of Document 00700 (General Conditions), as established under Section 930.2 of the California Government Code.

SIGNATURE PAGE NEXT PAGE

IN WITNESS WHEREOF the parties have executed this Agreement in duplicate the day and year first above written.

**COUNTY:**

Certificates of Insurance and Guaranty are on file with and reviewed as to substance for County by:

\_\_\_\_\_  
Department Head Regional Parks

Reviewed as to form by County Counsel:

\_\_\_\_\_  
County Counsel

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

COUNTY OF SONOMA  
A Political Subdivision of the State of California

\_\_\_\_\_  
Chair, Board of Supervisors

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

Attest:

\_\_\_\_\_  
Clerk of the Board of Supervisors

**CONTRACTOR:**

\_\_\_\_\_  
[Contractor's name]

Federal ID #: \_\_\_\_\_

By: \_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Please print name here]

Title: \_\_\_\_\_  
[If Corporation: Chairman, President, or Vice President]

By: \_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Please print name here]

Title: \_\_\_\_\_  
[If Corporation: Secretary, Assistant Secretary, Chief Financial Officer, or Assistant Treasurer]

END OF DOCUMENT



**DOCUMENT 00550**

**NOTICE TO PROCEED**

Dated: [Month, Day], [Year]

To: [Name of Contractor]

Address: [Street Address]  
[City, State, Zip Code]

**CONTRACT FOR: CONTRACT NUMBER 40914100.2**

**TOLAY LAKE REGIONAL PARK  
GATHERING AREA PHASE 2 – SHADE STRUCTURE**

You are notified that the Contract Time under the above Contract will commence to run on [Date] (Commencement Date). On that date, you are to start performing your obligations with respect to Work at the Site under the Contract Documents. In accordance with Article 3 of Document 00520 (Agreement), the date of Substantial Completion is [Date], and the date of Final Completion is [Date].

**Before you may start any Work at the Site, you must:**

1. Submit certified Safety Program and related information, Section 01540 (Site Security and Safety).
2. Submit copies of applicable permits, Section 01100 (Summary).
3. Submit approved fire protection plan, if applicable, Section 01540 (Site Security and Safety).
4. Submit copy of Storm Water Pollution Prevention Plan (SWPPP), if applicable, Section 01100 (Summary).

COUNTY OF SONOMA,  
A Political Subdivision of the State of California

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

Its: County Project Manager

END OF DOCUMENT



DOCUMENT 00610

**CONSTRUCTION PERFORMANCE BOND**

THIS CONSTRUCTION PERFORMANCE BOND ("Bond") is dated **[Enter Date]**, is in the penal sum of **[Enter Amount]** [which is one hundred percent of the Contract Sum], and is entered into by and between the parties listed below to ensure the faithful performance of the Construction Contract listed below. This Bond consists of this page and the Bond Terms and Conditions, paragraphs 1 through 12, attached to this page. Any singular reference to **[Insert Name of Contractor]**, ("Contractor"), **[Insert Name of Surety]**, ("Surety"), County of Sonoma, a Political Subdivision of the State of California ("County") or other party shall be considered plural where applicable.

CONTRACTOR:

SURETY:

[ENTER CONTRACTOR NAME]  
Name

[ENTER SURETY NAME]  
Name

[Enter Address]  
Address

[Enter Principal Place of Business]  
Principal Place of Business

\_\_\_\_\_  
City/State/Zip

\_\_\_\_\_  
City/State/Zip

CONSTRUCTION CONTRACT:

TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2 – SHADE STRUCTURE  
CONTRACT NUMBER #40914100.2

at [Address of Project Location], California;

DATED \_\_\_\_\_, 20\_\_\_\_, in the Amount of \$\_\_\_\_\_ (the "Penal Sum")

CONTRACTOR AS PRINCIPAL  
Company: (Corp. Seal)

SURETY  
Company: (Corp. Seal)

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Name and Title: \_\_\_\_\_

**BOND TERMS AND CONDITIONS**

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to County for the complete and proper performance of the Construction Contract, which is incorporated herein by reference.
2. If Contractor completely and properly performs all of its obligations under the Construction Contract, Surety and Contractor shall have no obligation under this Bond.
3. If there is no County Default, Surety's obligation under this Bond shall arise after:
  - 3.1 County has declared a Contractor Default under the Construction Contract pursuant to the terms of the Construction Contract; and
  - 3.2 County has agreed to pay the Balance of the Contract Sum:

- 3.2.1 To Surety in accordance with the terms of this Bond and the Construction Contract; or
  - 3.2.2 To a contractor selected to perform the Construction Contract in accordance with the terms of this Bond and the Construction Contract.
4. When County has satisfied the conditions of paragraph 3, Surety shall promptly (within 30 Days) and at Surety's expense elect to take one of the following actions:
  - 4.1 Arrange for Contractor, with consent of County, to perform and complete the Construction Contract (but County may withhold consent, in which case the Surety must elect an option described in paragraphs 4.2, 4.3 or 4.4, below); or
  - 4.2 Undertake to perform and complete the Construction Contract itself, through its agents or through independent contractors; provided, that Surety may not select Contractor as its agent or independent contractor without County's consent; or
  - 4.3 Undertake to perform and complete the Construction Contract by obtaining bids from qualified contractors acceptable to County for a contract for performance and completion of the Construction Contract and, upon determination by County of the lowest responsive and responsible Bidder, arrange for a contract to be prepared for execution by County and the contractor selected with County's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract; and, if Surety's obligations defined in paragraph 6, below, exceed the Balance of the Contract Sum, then Surety shall pay to County the amount of such excess; or
  - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances and, after investigation and consultation with County, determine in good faith its monetary obligation to County under paragraph 6, below, for the performance and completion of the Construction Contract and, as soon as practicable after the amount is determined, tender payment therefore to County with full explanation of the payment's calculation. If County accepts Surety's tender under this paragraph 4.4, County may still hold Surety liable for future damages then unknown or unliquidated resulting from Contractor Default. If County disputes the amount of Surety's tender under this paragraph 4.4, County may exercise all remedies available to it at law to enforce Surety's liability under paragraph 6, below.
5. If Surety does not proceed as provided in paragraph 4, above, then Surety shall be deemed to be in default on this Bond ten Days after receipt of an additional written notice from County to Surety demanding that Surety perform its obligations under this Bond. At all times County shall be entitled to enforce any remedy available to County at law or under the Construction Contract including, without limitation, and by way of example only, rights to perform work, protect Work, mitigate damages, advance critical Work to mitigate schedule delay, or coordinate Work with other consultants or contractors.
6. Surety's monetary obligation under this Bond is limited by the amount of this Bond identified herein as the Penal Sum. This monetary obligation shall augment the Balance of the Contract Sum. Subject to these limits, Surety's obligations under this Bond are commensurate with the obligations of Contractor under the Construction Contract. Surety's obligations shall include, but are not limited to:
  - 6.1 The responsibilities of Contractor under the Construction Contract for completion of the Construction Contract and correction of Defective Work;

- 6.2 The responsibilities of Contractor under the Construction Contract to pay liquidated damages, and for damages for which no liquidated damages are specified in the Construction Contract, actual damages caused by non-performance of the Construction Contract including, but not limited to, all valid and proper back charges, offsets, payments, indemnities, or other damages;
- 6.3 Additional legal, design professional and delay costs resulting from Contractor Default or resulting from the actions or failure to act of the Surety under paragraph 4, above (but excluding attorney's fees incurred to enforce this Bond).
7. No right of action shall accrue on this Bond to any person or entity other than County or its successors or assigns.
8. Surety hereby waives notice of any change, alteration or addition to the Construction Contract or to related subcontracts, purchase orders and other obligations, including changes of time. Surety consents to all terms of the Construction Contract, including provisions on changes to the Contract. No extension of time, change, alteration, Modification, deletion, or addition to the Contract Documents, or of the Work required thereunder, shall release or exonerate Surety on this Bond or in any way affect the obligations of Surety on this Bond, unless such change, alteration, Modification, deletion or addition is a cardinal change.
9. Any proceeding, legal or equitable, under this Bond shall be instituted in any court of competent jurisdiction where a proceeding is pending between County and Contractor regarding the Construction Contract, or in the courts of the County of Sonoma, or in a court of competent jurisdiction in the location in which the Work is located. Communications from County to Surety under paragraph 3.1 of this Bond shall be deemed to include the necessary agreements under paragraph 3.2 of this Bond unless expressly stated otherwise.
10. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page of this Bond), and all notices to County shall be mailed or delivered as provided in Document 00520 (Agreement). Actual receipt of notice by Surety, County or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing addresses.
11. Any provision in this Bond conflicting with any statutory or regulatory requirement shall be deemed deleted herefrom and provisions conforming to such statutory requirement shall be deemed incorporated herein.
12. Definitions.
- 12.1 Balance of the Contract Sum: The total amount payable by County to Contractor pursuant to the terms of the Construction Contract after all proper adjustments have been made under the Construction Contract, for example, deductions for progress payments made, and increases/decreases for approved Modifications to the Construction Contract.
- 12.2 Construction Contract: The agreement between County and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.
- 12.3 Contractor Default: Material failure of Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Construction Contract including, but not limited to, "default" or any other condition allowing a termination for cause as provided in Document 00700 (General Conditions).
- 12.4 County Default: Material failure of County, which has neither been remedied nor waived, to pay Contractor progress payments due under the Construction Contract or

to perform other material terms of the Construction Contract, if such failure is the cause of the asserted Contractor Default and is sufficient to justify Contractor termination of the Construction Contract.

END OF DOCUMENT

**DOCUMENT 00620**

**CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND**

THIS CONSTRUCTION LABOR AND MATERIAL PAYMENT BOND ("Bond") is dated [Insert Date], is in the penal sum of [Insert one hundred percent of Contract Sum] and is entered into by and between the parties listed below to ensure the payment of claimants under the Construction Contract listed below. This Bond consists of this page and the Bond Terms and Conditions, paragraphs 1 through 13, attached to this page. Any singular reference to [Insert Name Of Contractor], ("Contractor"), [Insert Name Of Surety], ("Surety"), the County of Sonoma, a Political Subdivision of the State of California ("County") or other party shall be considered plural where applicable.

CONTRACTOR:

SURETY:

[ENTER CONTRACTOR NAME]  
Name

[ENTER SURETY NAME]  
Name

[Enter Address]  
Address

[Enter Principal Place of Business]  
Principal Place of Business

\_\_\_\_\_  
City/State/Zip

\_\_\_\_\_  
City/State/Zip

CONSTRUCTION CONTRACT:

**TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2 – SHADE STRUCTURE**

**CONTRACT NUMBER # 40914100.2**

at [Address of Project Location], California;

DATED \_\_\_\_\_, 20\_\_\_\_, in the Amount of \$ \_\_\_\_\_(the "Penal Sum")

CONTRACTOR AS PRINCIPAL  
Company: (Corp. Seal)

SURETY  
Company: (Corp. Seal)

Signature: \_\_\_\_\_

Signature: \_\_\_\_\_

Name and Title: \_\_\_\_\_

Name and Title: \_\_\_\_\_

**BOND TERMS AND CONDITIONS**

1. Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to County and to Claimants, to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference.
2. With respect to County, this obligation shall be null and void if Contractor:
  - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants; and
  - 2.2 Defends, indemnifies and holds harmless County from all claims, demands, liens or suits by any person or entity who furnished labor, materials or equipment for use in the performance of the Construction Contract, provided County has promptly notified Contractor and Surety (at the address set forth on the signature page of this Bond) of

any claims, demands, liens or suits and tendered defense of such claims, demands, liens or suits to Contractor and Surety, and provided there is no County Default.

3. With respect to Claimants, this obligation shall be null and void if Contractor promptly makes payment, directly or indirectly through its Subcontractors, for all sums due Claimants. If Contractor or its Subcontractors, however, fail to pay any of the persons named in Section 3181 of the California Civil Code, or amounts due under the Unemployment Insurance Code with respect to Work or labor performed under the Contract, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of Contractor or Subcontractors pursuant to Section 13020 of the Unemployment Insurance Code, with respect to such Work and labor, then Surety shall pay for the same, and also, in case suit is brought upon this Bond, a reasonable attorney's fee, to be fixed by the court.
4. Consistent with the California Mechanic's Lien Law, Civil Code §3082, *et seq.*, Surety shall have no obligation to Claimants under this Bond unless the Claimant has satisfied all applicable notice requirements.
5. Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by Surety under this Bond.
6. Amounts due Contractor under the Construction Contract shall be applied first to satisfy claims, if any, under any Construction Performance Bond and second, to satisfy obligations of Contractor and Surety under this Bond.
7. County shall not be liable for payment of any costs, expenses, or attorney's fees of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
8. Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations. Surety further hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Construction Contract, or to the Work to be performed there under, or materials or equipment to be furnished there under or the Specifications accompanying the same, shall in any way affect its obligations under this Bond, and it does hereby waive any requirement of notice or any such change, extension of time, alteration or addition to the terms of the Construction Contract or to the Work or to the Specifications or any other changes.
9. This Bond shall inure to the benefit of the Claimants. Suit against Surety on this Bond may be brought by any Claimant, or its assigns, at any time after the Claimant has furnished the last of the labor or materials, or both, but, per Civil Code §3249, must be commenced before the expiration of six months after the period in which stop notices may be filed as provided in Civil Code §3184.
10. All notices to Surety or Contractor shall be mailed or delivered (at the address set forth on the signature page of this Bond), and all notices to County shall be mailed or delivered as provided in Document 00520 (Agreement). Actual receipt of notice by Surety, County or Contractor, however accomplished, shall be sufficient compliance as of the date received at the foregoing addresses.
11. This Bond has been furnished to comply with the California Mechanic's Lien Law including, but not limited to, Civil Code §§3247, 3248, *et seq.* Any provision in this Bond conflicting with said statutory requirements shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirements shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Upon request by any person or entity appearing to be a potential beneficiary of this Bond, Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
13. Definitions.
  - 13.1.1 Claimant: An individual or entity having a direct contract with Contractor or with a Subcontractor of Contractor to furnish labor, materials or equipment for use in the performance of the Contract, as further defined in California Civil Code §3181. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the Work of Contractor and Contractor's Subcontractors, and all other items for which a stop notice might be asserted. The term Claimant shall also include the Unemployment Development Department as referred to in Civil Code §3248(b).
  - 13.1.2 Construction Contract: The agreement between County and Contractor identified on the signature page of this Bond, including all Contract Documents and changes thereto.
  - 13.1.3 County Default: Material failure of County, which has neither been remedied nor waived, to pay Contractor as required by the Construction Contract, provided that failure is the cause of the failure of Contractor to pay the Claimants and is sufficient to justify termination of the Construction Contract.

END OF DOCUMENT



DOCUMENT 00630

**GUARANTY**

TO THE COUNTY OF SONOMA, for construction of

TOLAY LAKE REGIONAL PARK GATHERING AREA PHASE 2 – SHADE STRUCTURE

at 5869 Cannon Lane, Petaluma, California.

The undersigned Contractor hereby guarantees all construction performed on this Project and also guarantees all material and equipment incorporated therein.

Contractor hereby grants to County for a period of one (1) year following the date of Substantial Completion of the Work, or such longer period specified in the Contract Documents (“Guaranty Period”), its unconditional warranty of the quality and adequacy of all of the Work including, without limitation, all labor, materials and equipment provided by Contractor and its Subcontractors of all tiers in connection with the Work.

Neither final payment nor use or occupancy of the Work performed by Contractor shall constitute an acceptance of Work not done in accordance with the Contract Documents or relieve Contractor of liability in respect to any express guarantees, warranties or responsibilities for faulty materials or workmanship. Contractor shall remedy any defects in the Work and pay for any damage resulting there from which shall appear within the Guaranty Period.

If at any time during the Guaranty Period any Work is found to be Defective, Contractor shall promptly (preferably within 48 hours of notification by County, but no later than 5 days following notification by County), without cost to County and in accordance with County’s written instructions, correct such Defective Work. Contractor shall remove any Defective Work identified by County and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, County may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, County shall have all rights and remedies granted by law.

Inspection of the Work shall not relieve Contractor of any of its obligations under the Contract Documents. Even though equipment, materials, or Work required to be provided under the Contract Documents have been inspected, accepted, and estimated for payment, Contractor shall, at its own expense, replace or repair any such equipment, material, or Work found to be Defective or otherwise not to comply with the requirements of the Contract Documents up to the end of the Guaranty Period.

This Guaranty is in addition to any other warranties of Contractor contained in the Contract Documents, and not in lieu of, any and all other liability imposed on Contractor under the Contract Documents and at law with respect to Contractor’s duties, obligations, and performance under the Contract Documents. In the event of any conflict or inconsistency between the terms of this Guaranty and any warranty or obligation of Contractor under the Contract Documents or at law, such inconsistency or conflict shall be resolved in favor of the higher level of obligation of Contractor.

All abbreviations and undefined terms used in this Guaranty shall have the meanings set forth in the Contract Documents, including, without limitation, Document 00700 (General Conditions) and Section 01420 (References and Definitions).

SIGNATURE PAGE NEXT PAGE

\_\_\_\_\_  
[Contractor's name]

By: \_\_\_\_\_  
[Signature]

\_\_\_\_\_  
[Please print name here]

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

Business Address: \_\_\_\_\_

\_\_\_\_\_

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

END OF DOCUMENT

DOCUMENT 00650

AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS

THIS AGREEMENT AND RELEASE OF ANY AND ALL CLAIMS ("Agreement and Release"), made and entered into this \_\_\_\_\_ [date] day of \_\_\_\_\_ [month], \_\_\_\_\_ [year], by and between the County of Sonoma, a Political Subdivision of the State of California ("County"), and \_\_\_\_\_ [name of Contractor] ("Contractor"), whose place of business is at \_\_\_\_\_ [address of Contractor].

RECITALS

- A. County and Contractor entered into Contract Number \_\_\_\_\_ (the "Contract") for construction of County's \_\_\_\_\_ project.
B. The Work under the Contract has been completed.

NOW, THEREFORE, it is mutually agreed between County and Contractor as follows:

AGREEMENT

1. Contractor will not be assessed liquidated damages except as detailed below:

Table with 2 columns: Description and Amount. Rows include Original Contract Sum, Modified Contract Sum, Payment to Date, Liquidated Damages, and Payment Due Contractor.

2. Subject to the provisions of this Agreement and Release, County will forthwith pay to Contractor

the sum of \$ \_\_\_\_\_ Dollars and \_\_\_\_\_ Cents (\$ \_\_\_\_\_) under the Contract, less any amounts withheld under the Contract or represented by any Notice to Withhold Funds on file with County as of the date of such payment.

3. Contractor acknowledges and hereby agrees that there are no unresolved or outstanding claims in dispute against County arising from the Contract, except for the claims described in paragraph 4 of this Document 00650.

FINAL

inspectors, representatives, assignees and transferees, except for the Disputed Claims set forth in paragraph 4 of this Document 00650. Nothing in this Agreement and Release shall limit or modify Contractor's continuing obligations described in paragraph 6 of this Document 00650.

4. The following claims submitted under Document 00700 (General Conditions), Article 12, are disputed (hereinafter, the "Disputed Claims") and are specifically excluded from the operation of this Agreement and Release:

Claim No.	Date Submitted	Description of Claim	Amount of Claim
-----------	----------------	----------------------	-----------------

[INSERT INFORMATION, INCLUDING ATTACHMENT IF NECESSARY]

5. Consistent with California Public Contract Code Section 7100, Contractor hereby agrees that, in consideration of the payment set forth in paragraph 2 of this Document 00650, Contractor hereby releases and forever discharges County, and all of its agents, employees, consultants, inspectors, assignees and transferees from any and all liability, claims, demands, actions or causes of action of whatever kind or nature arising out of or in any way concerned with the Work under the Contract
6. Guarantees and warranties for the Work, and any other continuing obligation of Contractor, shall remain in full force and effect as specified in the Contract Documents.
7. Contractor shall immediately defend, indemnify and hold harmless County, any County's Representatives, and all of their agents, employees, consultants, inspectors, assignees and transferees, from any and all claims, demands, actions, causes of action, obligations, costs, expenses, damages, losses and liabilities that may be asserted against them by any of Contractor's suppliers and/or Subcontractors of any tier and/or any suppliers to them for any and all labor, materials, supplies and equipment used, or contemplated to be used in the performance of the Contract, except for the Disputed Claims set forth in paragraph 4 of this Document 00650.
8. Contractor, having had full opportunity to consult with independent counsel regarding this matter, expressly waives all benefits and rights otherwise available under Section 1542 of the California Civil Code, which provides:

A general release does not extend to claims which the creditor does not know or suspect to exist in his or her favor at the time of executing the release, which if known by him or her, must have materially affected his or her settlement with the debtor.

Contractor has read the foregoing waiver and understands that the releases here granted by Contractor apply to and include all known and unknown and unexpected claims. Contractor intends, by signing this Agreement and Release, to release and assume the risk of unknown claims.

By: \_\_\_\_\_  
Contractor initials

9. The provisions of this Agreement and Release are contractual in nature and not mere recitals and shall be considered independent and severable, and if any such provision or any part thereof shall be at any time held invalid in whole or in part under any federal, state, county, municipal or other law, ruling, or regulation, then such provision, or part thereof shall remain in force and effect only to the extent permitted by law, and the remaining provisions of this Agreement and Release shall also remain in full force and effect, and shall be enforceable.
10. Contractor represents and warrants that it is the true and lawful owner of all claims and other matters released pursuant to this Agreement and Release, and that it has full right, title and

FINAL

authority to enter into this instrument. Each party represents and warrants that it has been represented by counsel of its own choosing in connection with this Agreement and Release.

11. All rights of County shall survive completion of the Work or termination of the Contract, and execution of this Agreement and Release.

FINAL

\* \* \* CAUTION: THIS IS A RELEASE - READ BEFORE EXECUTING \* \* \*

**COUNTY OF SONOMA,**  
A Political Subdivision of the State of California

By:  
Director of Regional Parks

**[CONTRACTOR]**

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

Its: \_\_\_\_\_

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

Its: \_\_\_\_\_

REVIEWED AS TO FORM:

\_\_\_\_\_  
County Counsel

\_\_\_\_\_, 20\_\_\_\_

END OF DOCUMENT

DOCUMENT 00660

**SUBSTITUTION REQUEST FORM**

To: **Karen DavisBrown, County of Sonoma**

Email: **karen.davis-brown@sonomacounty.gov**

Project: **Tolay Lake Regional Park Gathering Area Phase 2 – Shade Structure**

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

Subcontractor/Supplier: \_\_\_\_\_

Drawing Sheet Reference/Detail No: \_\_\_\_\_

Specification Section: \_\_\_\_\_

The undersigned Bidder submits for consideration the following equipment instead of the specified item for the above Project:

<u>Section</u>	<u>Paragraph</u>	<u>Specified Item</u>
_____	_____	_____
_____	_____	_____

Proposed Substitution: \_\_\_\_\_  
\_\_\_\_\_

The undersigned encloses the information required herein. If this Document 00660 is being submitted by a Bidder wishing to use "equal" item(s) as provided in Document 00200 (Instructions to Bidders), the undersigned Bidder must also enclose the technical information (other than cost) otherwise required for a post-Award of Contract Request for Substitution ("RFS") under Section 01600 (Product Requirements). However, if this Document 00660 is being submitted under provisions of Contract Documents after Award of Contract, the undersigned Contractor must include all information (including cost) required under Section 01600 (Product Requirements).

The undersigned has (a) attached manufacturer's literature, including complete technical data and laboratory test results, if applicable, (b) attached an explanation of why proposed substitution is a true equivalent to specified item, (c) included complete information on changes to Contract Documents that the proposed substitution will require for its proper installation, and (d) filled in the blanks below:

A. Does the substitution affect dimensions shown on Drawings?  
\_\_\_\_\_

B. Are the manufacturer's guarantees and warranties on the proposed substitution items identical to those on the specified items? If there are differences, please specify each and every difference in detail.  
\_\_\_\_\_

C. What effect does the substitution have on other contractors, trades, or suppliers?

\_\_\_\_\_

D. What are the differences between the proposed substitution and the specified item? If proposed substitution has a color or pattern, provide a color board showing proposed substitution in relation to the other adjacent colors and patterns.

\_\_\_\_\_

E. Will granting the requested substitution cause any schedule delay? (If yes, please explain)

\_\_\_\_\_

The undersigned Bidder certifies that the function, appearance, and quality of the proposed substitution are equivalent or superior to those of the specified item.

Submitted by:

For Use by County:

\_\_\_\_\_  
Bidder/Contractor  
[note applicable]

\_\_\_ Accepted    \_\_\_ Accepted as Noted  
\_\_\_ Not Accepted    \_\_\_ Received Too Late

\_\_\_\_\_  
Signature

By: \_\_\_\_\_  
County's Project Manager

\_\_\_\_\_  
Name

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

\_\_\_\_\_  
Address

Reviewed  
By: \_\_\_\_\_  
Project Manager's Supervisor

\_\_\_\_\_  
City/State/Zip

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

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

Remarks: \_\_\_\_\_

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

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

END OF DOCUMENT

**DOCUMENT 00700**

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## GENERAL CONDITIONS

### ARTICLE 1 - INTERPRETATION OF CONTRACT DOCUMENTS

#### 1.01 Interpretation of Documents

- A. Contract Documents are complementary; what is called for by one is as binding as if called for by all.
- B. Individual Contract Documents subdivide at first level into Articles, and then into Paragraphs.

#### 1.02 Order of Precedence of Documents

- A. In the case of discrepancy or ambiguity in the Contract Documents, the following order of precedence shall prevail:
  - 1. Modifications in inverse chronological order (i.e., most recent first), and in the same order as specific portions they are modifying;
  - 2. Agreement Forms (Document 00520 and other 00500 and 00600 series Documents), and terms and conditions referenced therein;
  - 3. Supplementary General Conditions (Document 00731 and other 00730 series Documents), if included;
  - 4. General Conditions (Document 00700);
  - 5. Division 1 General Requirements, if included;
  - 6. Drawings and Technical Specifications (Division 2 and above);
  - 7. Written words over figures, unless obviously incorrect;
  - 8. Figured dimensions over scaled dimensions;
  - 9. Large-scale Drawings over small-scale Drawings.
- B. Any conflict between Drawings and Technical Specifications (Division 2 and above) will be resolved in favor of the document of the latest date (i.e., the most recent document), and if the dates are the same or not determinable, then in favor of Specifications.
- C. Any conflict between a bill or list of materials shown in the Contract Documents and the actual quantities required to complete Work required by Contract Documents, will be resolved in favor of the actual quantities.
- D. All Technical Specifications included in the Project manual shall be included within the Contract Documents unless identified otherwise.

### ARTICLE 2 - PRE-BID INVESTIGATIONS

#### 2.01 Pre-Bid Investigations Required

- A. Prior to and as a condition of submitting a Bid and executing Document 005200 (Agreement), Contractor shall make reasonable efforts to investigate fully the Work of the Contract. Contractor shall visit the Site, examine thoroughly and understand fully the nature and extent of the Contract Documents, Work, Site, locality, actual conditions and as-built conditions.
- B. Contractor's investigation shall include, without limitation, requesting and thoroughly examining of all reports of exploration and tests of subsurface conditions, as-built drawings, drawings, product specification(s) or reports, made available by County for pre-bidding or contracting purposes or during Contractor's pre-bid investigations, of existing above ground and (to the extent applicable) below ground conditions (together, **Existing Conditions Data**), including, as applicable, Underground Facilities, geotechnical data, as-built data, utility surveys, record documents of all types, hazardous materials surveys, or similar materials which may appear or be referenced in the Project Manual or the in the Contract Documents, and all local conditions, and federal, state and local laws and regulations that in any manner may affect cost, progress, performance or furnishing of Work or which relate to any aspect of the means, methods, techniques, sequences or procedures of construction to be employed by Contractor and safety precautions and programs incident thereto.
- C. Contractor's investigations shall consider fully the fact that Existing Conditions Data is in many cases based on information furnished to County by others (e.g., the prior owner or builders), and that due to their age or their chain of custody since preparation, may not meet current industry standards for accuracy. Contractor shall also: (i.) provide County with prompt written notice of all

conflicts, errors, ambiguities, or discrepancies of any type, that it discovered in or among the Contract Documents and the Existing Conditions Data, and (ii.) subject to County's approval, conduct any such additional or supplementary examinations, investigations, explorations, tests, studies and data compilations, concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site or otherwise, which Contractor may deem necessary in order to perform and furnish the Work in accordance with the terms and conditions of Contract Documents.

- D. During performance of the Contract, Contractor will be charged with knowledge of all information that it should have learned in performing these pre-bid investigations and other obligations, and shall not be entitled to Change Orders (time or compensation) due to any information, error, inconsistency, omission, or conditions that Contractor should have known as a part of this Work. Contractor shall be responsible for the resultant losses, including, without limitation, the cost of correcting Defective Work.

## **2.02 Limited Reliance Permitted on County's Existing Conditions Data**

- A. Regarding aboveground and as-built conditions shown on the Contract Documents or supplied by County, such information has been compiled in good faith, however, County does not expressly or impliedly warrant or represent that such information is correctly shown or indicated, or otherwise complete for construction purposes. Contractor must independently verify such information as part of its pre-bid investigations, and where conditions are not reasonably verifiable or discrepancies are identified, bring such matters to County's attention through written question issued during the bid period. In executing Document 00520 (Agreement), Contractor shall rely on the results of its own independent investigation and shall not rely on County-supplied information regarding aboveground conditions and as-built conditions, and Contractor shall accept full responsibility for its verification work sufficient to complete the Work as intended.
- B. Regarding subsurface conditions other than Underground Facilities shown on the Contract Documents or otherwise supplied by County, Contractor may rely only upon the general accuracy of actual reported depths, actual reported character of materials, actual reported soil types, actual reported water conditions, or actual obstructions shown or indicated in the Contract Documents. County is not responsible for the completeness of any subsurface condition information, Contractor's conclusions or opinions drawn from any subsurface condition information, or subsurface conditions that are not specifically shown. (For example, County is not responsible for soil conditions in areas contiguous to areas where a subsurface condition is shown.)

## **2.03 Pre-Bid Investigation Requirements for Excavation and Utilities Relocation Projects**

- A. As part of its pre-bid investigations for Projects involving excavation and/or relocation of existing utilities, Contractor shall make reasonable efforts to verify information regarding Underground Facilities including, without limitation, requesting additional information or verification of information as necessary.
- B. Because of the nature and location of County and the Project, the existence of Underground Facilities is deemed inherent in the Work of the Contract, as is the fact that Underground Facilities are not always accurately shown or completely shown on as-built records, both as to their depth and location. Contractor shall, therefore, take care to note the existence and potential existence of Underground Facilities, in particular, above and below grade structures, drainage lines, storm drains, sewers, water, gas, electrical, chemical, hot water, and other similar items and utilities. Contractor shall carefully consider all supplied information, request additional information Contractor may deem necessary, and visually inspect the Site for above ground indications of Underground Facilities (such as, for example not by way of limitation, the existence of existing service laterals, appurtenances or other types of utilities, indicated by the presence of an underground transmission main or other visible facilities, such as buildings, manholes, new asphalt, meters and junction boxes, on or adjacent to the Site). Contractor shall also consider local underground conditions and typical practices for Underground Facilities, either through its own direct knowledge or through its subcontractors, and fully consider this knowledge in assessing the existing information and the reasonableness of its reliance.

## ARTICLE 3 - SUBCONTRACTORS

### 3.01 Subcontractor Listing Law

- A. Contractor shall comply with the Subcontractor Listing law, Public Contract Code Sections 4101, et seq. Contractor shall not substitute any other person or firm in place of any Subcontractor listed in the Bid except as may be allowed by law.
- B. Subcontractors shall not assign or transfer their subcontracts or permit them to be performed by any other contractor without County's written approval. At County's request, Contractor shall provide County with a complete copy of all executed subcontracts or final commercial agreements with Subcontractors and/or suppliers.

### 3.02 Subcontracts

- A. Subcontract agreements shall preserve and protect the rights of County under the Contract Documents so that subcontracting will not prejudice such rights. To the extent of the Work to be performed by a Subcontractor, Contractor shall require the Subcontractor's written agreement (i) to be bound to the terms of Contract Documents and (ii) to assume vis-à-vis Contractor all the obligations and responsibilities that Contractor assumes toward County under the Contract Documents. (These agreements include for example, and not by way of limitation, all warranties, claims procedures and rules governing submittals of all types to which Contractor is subject under the Contract Documents.)
- B. Contractor shall provide for the assignment to County of all rights any Subcontractor (of any tier) may have against any manufacturer, supplier, or distributor for breach of warranties and guarantees relating to the Work performed by the Subcontractor under the Contract Documents. Subcontracts shall provide and acknowledge County as an intended third-party beneficiary of each subcontract and supply contract (of any tier).

## ARTICLE 4 - DRAWINGS AND SPECIFICATIONS

### 4.01 Intent of Drawings And Specifications

- A. Contractor shall interpret words or phrases used to describe Work (including services), materials, or equipment that have well-known technical or construction industry or trade meaning in accordance with that meaning. Drawings' intent specifically includes the intent to depict construction that complies with all applicable laws, codes and standards.
- B. As part of the "**Work**," Contractor shall provide all labor, materials, equipment, machinery, tools, facilities, services, employee training and testing, hoisting facilities, Shop Drawings, storage, testing, security, transportation, disposal, the securing of all necessary or required field dimensions, the cutting or patching of existing materials, notices, permits, documents, reports, agreements and any other items required or necessary to timely and fully complete Work described and the results intended by Contract Documents and, in particular, Drawings and Specifications. Divisions and Specification Sections and the identification on any Drawings shall not control Contractor in dividing Work among Subcontractors or suppliers or delineating the Work to be performed by any specific trade.
- C. Contractor shall perform reasonably implied parts of Work as "**incidental work**" although absent from Drawings and Specifications. Incidental work includes any work not shown on Drawings or described in Specifications that is necessary or normally or customarily required as a part of the Work shown on Drawings or described in Specifications. Incidental work includes any work necessary or required to make each installation satisfactory, legally operable, functional, and consistent with the intent of Drawings and Specifications or the requirements of Contract Documents. Contractor shall perform incidental work without extra cost to County. Incidental work shall be treated as if fully described in Specifications and shown on Drawings, and the expense of incidental work shall be included in price Bid and Contract Sum.

### 4.02 Checking of Drawings and Specifications

- A. Before undertaking each part of Work, Contractor shall carefully study and compare Contract Documents and check and verify pertinent figures shown in the Contract Documents and all applicable field measurements. Contractor shall be responsible for any errors that might have been

avoided by such comparison. Figures shown on Drawings shall be followed; Contractor shall not scale measurements. Contractor shall promptly report to County, in writing, any conflict, error, ambiguity or discrepancy that Contractor may discover. Contractor shall obtain a written interpretation or clarification from County before proceeding with any Work affected thereby. Contractor shall provide County with a follow-up correspondence every ten Days until it receives a satisfactory interpretation or clarification.

#### **4.03 Interpretation of Drawings and Specifications**

- A. A typical or representative detail on Drawings shall constitute the standard for workmanship and material throughout corresponding parts of Work. Where necessary, and where reasonably inferable from Drawings, Contractor shall adapt such representative detail for application to such corresponding parts of Work. The details of such adaptation shall be subject to prior approval by County. Repetitive features shown in outline on Drawings shall be in exact accordance with corresponding features completely shown.
- B. Should any discrepancy appear or any misunderstanding arise as to the import of anything contained in Drawings and Specifications, or should Contractor have any questions or requests relating to Drawings or Specifications, Contractor shall refer the matter to County, in writing, with a copy to the Architect/Engineer. County will issue (or cause to be issued) with reasonable promptness written responses, clarifications or interpretations as County may determine necessary. All written responses, clarifications and interpretations under this Paragraph shall be consistent with the intent of and be reasonably inferable from Contract Documents, and binding upon Contractor. If Contractor believes that a written response, clarification or interpretation justifies an adjustment in the Contract Sum or Contract Time, Contractor shall give County prompt written notice. If the parties are unable to agree to the amount or extent of the adjustment, if any, then Contractor shall perform the Work in conformance with County's response, clarification, or interpretation and may make a written claim for the adjustment as provided in Article 12.
- C. The following general specifications shall apply wherever in the Specifications, or in any directions given by County in accordance with or supplementing Specifications, it is provided that Contractor shall furnish materials or manufactured articles or shall do Work for which no detailed specifications are shown. Materials or manufactured articles shall be of the best grade, in quality and workmanship, obtainable in the market from firms of established good reputation. If not ordinarily carried in stock, the materials or manufactured articles shall conform to industry standards for first class materials or articles of the kind required, with due consideration of the use to which they are to be put. Work shall conform to the usual standards or codes, such as those cited herein, for first class work of the kind required. Contractor shall specify in writing to County, at least 10 Business Days prior to furnishing such materials or performing such Work, the materials to be used or Work to be performed under this Paragraph.

#### **4.04 Use of Drawings and Specifications.**

- A. Drawings, Specifications and other Contract Documents were prepared for use for Work of Contract Documents only. No part of Contract Documents shall be used for any other construction or for any other purpose except with the written consent of County. Any unauthorized use of Contract Documents is prohibited and at the sole liability of the user.

### **ARTICLE 5 - COMMENCEMENT OF THE WORK**

#### **5.01 Submission of Required Schedules**

- A. Contractor shall submit to County in draft for review and discussion at the Preconstruction Conference, and in final prior to the first payment application, the following schedules:
  - 1. Schedule of Values
  - 2. Progress Schedule, and
  - 3. Schedule of Submittals.
- B. No progress payment shall be due or owing to Contractor until such schedules are submitted to and acceptable to County and/or Architect/Engineer as meeting the requirements of the Contract

- Documents. In County's sole discretion, County may elect to instead withhold a portion of any progress payment for unacceptable compliance with contract requirements for such schedules.
- C. County's acceptance of Contractor's schedules will not create any duty of care or impose on County any responsibility for the sequencing, scheduling or progress of Work nor will it interfere with or relieve Contractor from Contractor's full responsibility therefore.

#### **5.02 Commencement Date of Contract Time**

- A. County may give a Notice to Proceed at any time within 60 Days after the Notice of Award. The Contract Time will commence to run on the date indicated in the Notice to Proceed. Contract Time will commence to run within 60 Days after the Notice of Award.
- B. County may give a Notice to Proceed at any time within 60 Days after the Notice of Award. Contractor shall not do any Work at the Site prior to the date on which the Contract Time commences to run.

### **ARTICLE 6 - CONTRACTOR'S ORGANIZATION AND EQUIPMENT**

#### **6.01 Contractor's Legal Address**

- A. Address and facsimile number given in Contractor's Bid are hereby designated as Contractor's legal address and facsimile number. Contractor may change its legal address and facsimile number by notice in writing, delivered to County, which in conspicuous language advises County of a change in legal address or facsimile number, and which County accepts in writing. Delivery to Contractor's legal address or depositing in any post office or post office box regularly maintained by the United States Postal Service, in a wrapper with postage affixed, directed to Contractor at Contractor's legal address, or of any drawings, notice, letter or other communication, shall be deemed legal and sufficient service thereof upon Contractor. Facsimile to Contractor's designated facsimile number of any letter, memorandum, or other communication on standard or legal sized paper, with proof of facsimile transmission, shall be deemed legal and sufficient service thereof upon Contractor.

#### **6.02 Contractor's Superintendents or Forepersons**

- A. Contractor shall at all times be represented on Site by one or more superintendents or forepersons authorized and competent to receive and carry out any instructions that County may give, and shall be liable for faithful observance of instructions delivered to Contractor or to authorized representative or representatives on Site.

#### **6.03 Proficiency in English**

- A. Supervisors, security guards, safety personnel and employees who have unescorted access to the Site shall possess proficiency in the English language in order to understand, receive and carry out oral and written communications or instructions relating to their job functions, including safety and security requirements.

#### **6.04 Contractor's and Subcontractors' Employees**

- A. Contractor shall employ, and shall permit its Subcontractors to employ, only competent and skillful personnel to do Work. If County notifies Contractor that any of its employees, or any of its Subcontractors' employees on Work is incompetent, unfaithful, disorderly or profane, or fails to observe customary standards of conduct or refuses to carry out any provision of the Contract Documents, or uses threatening or abusive language to any person on Work representing County, or violates sanitary rules, or is otherwise unsatisfactory, and if County requests that such person be discharged from Work, then Contractor or its Subcontractor shall immediately discharge such person from Work and the discharged person shall not be re-employed on the Work except with consent of County.

#### **6.05 Contractor's Use of the Site**

- A. Contractor shall not make any arrangements with any person to permit occupancy or use of any land, structure or building within the limits of the Work, for any purpose whatsoever, either with or without compensation, in conflict with any agreement between County and any County, former

County or tenant of such land, structure or buildings. Contractor may not occupy County-owned property outside the limit of the Work as indicated on the Drawings unless it obtains prior approval from County.

**6.06 Contractor's Site Office**

- A. Unless expressly provided otherwise in the Contract Documents, Contractor shall provide a site office staffed by a resident project manager or job superintendent.

**ARTICLE 7 - COUNTY'S ADMINISTRATION OF WORK**

**7.01 County's Representative(s)**

- A. County's Representative(s) will have limited authority to act on behalf of County as set forth in the Contract Documents.
- B. Except as otherwise provided in these Contract Documents or subsequently identified in writing by County, County will issue all communications to Contractor through County's Representative, and Contractor shall issue all communications to County through County's Representative in a written document delivered to County.
- C. Should any direct communications between Contractor and County's consultants, architects or engineers not identified in Article 2 of Document 00520 (Agreement) occur during field visits or by telephone, Contractor shall immediately confirm them in a written document copied to County.

**7.02 County's Observation of the Work**

- A. Work shall be performed under County's general observation and administration. Contractor shall comply with County's directions and instructions in accordance with the terms of Contract Documents, but nothing contained in these General Conditions shall be taken to relieve Contractor of any obligations or liabilities under the Contract Documents. County's failure to review or, upon review, failure to object to any aspect of Work reviewed, shall not be deemed a waiver or approval of any non-conforming aspect of Work.
- B. Subject to those rights specifically reserved in the Contract Documents, County will not supervise, or direct, or have control over, or be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, or Contractor's failure to comply with laws and regulations applicable to the furnishing or performance of Work. County will not be responsible for Contractor's failure to perform or furnish the Work in accordance with Contract Documents.

**7.03 Consultant's Observation of the Work**

- A. County may engage one or more of the following to assist in administering the Work: an Architect/Engineer, Project Manager, Construction Manager, or any other independent consultant (collectively for purposes of this Article 7, **Consultant**). If so engaged, Consultant will advise and consult with County, but will have authority to act on behalf of County only to extent provided in the Contract Documents or as set forth in writing by County. Consultant will not be responsible for and will not have control or charge of construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with Work. Consultant will not be responsible for or have control over the acts or omissions of Contractor, Subcontractors or their agents or employees, or any other persons performing Work.
- B. Consultant may review Contractor's Submittals, such as Shop Drawings, Product Data, and Samples, but only for conformance with design concept of Work and with information given in the Contract Documents.
- C. Consultant may visit the Site at intervals appropriate to stage of construction to become familiar generally with the progress and quality of Work and to determine in general if Work is proceeding in accordance with Contract Documents. Based on its observations, Consultant may recommend to County that it disapproves or rejects Work that Consultant believes to be Defective or will not produce a complete Project that conforms to Contract Documents, or will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by Contract Documents. Consultant may also recommend to County special inspection or testing of Work, whether or not the Work is fabricated, installed, or completed.

- D. Consultant may conduct observations or inspections to recommend to County the dates that Contractor has achieved Substantial Completion and Final Completion, and will receive and forward to County for review written warranties and related documents required by Contract Documents.

#### **7.04 County's And Consultant's Exercise of Contract Responsibilities**

- A. County, Consultant, and all County's representatives, in performing their duties and responsibilities under the Contract Documents, accept no duties, responsibilities or duty of care, nor may the same be implied or inferred, towards Contractor, any Subcontractor, sub-Subcontractor or supplier, except those set forth expressly in the Contract Documents.

#### **7.05 County's Right of Access to the Work**

- A. During performance of Work, County, Consultant, and all County's representatives may at any time enter upon Work, shops or studios where any part of the Work may be in preparation, or factories where any materials for use in Work are being or are to be manufactured, and Contractor shall provide proper and safe facilities for this purpose, and shall make arrangements with manufacturers to facilitate inspection of their processes and products to such extent as County's interests may require. Other contractors performing work for County may also enter upon Work for all purposes required by their respective contracts. Subject to the rights reserved in the Contract Documents, Contractor shall have sole care, custody, and control of the Site and its Work areas.

#### **7.06 County's Right of Separate Construction**

- A. County may perform with its own forces, construction or operations related to the Project, or the Site during Contractor's operations. County may also award separate contracts in connection with other portions of the Project or other construction or operations, on the Site or areas contiguous to the Site, under conditions similar to these Contract Documents, or may have utility Countys perform other work.
- B. Contractor shall adjust its schedule and fully coordinate with and shall afford all other contractors, utility districts and County (if County is performing work with its own forces), proper and safe access to the Site, and reasonable opportunity for the installation and storage of their materials. Contractor shall ensure that the execution of its Work properly connects and coordinates with others' work, do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work, and shall cooperate with them to facilitate the progress of the Work.
- C. To the extent that any part of Contractor's Work is to interface with work performed or installed by other contractors or utility owners, Contractor shall inspect and measure the in-place work. Contractor shall promptly report to County in writing any defect in in-place work that will impede or increase the cost of Contractor's interface unless corrected.

### **ARTICLE 8 - CONTRACTOR'S PROSECUTION AND PROGRESS OF THE WORK**

#### **8.01 Contractor to Supervise The Work**

- A. Subject to those rights specifically reserved in the Contract Documents, Contractor shall supervise, direct, have control over, and be responsible for, Contractor's means, methods, techniques, sequences or procedures of construction, safety precautions and programs incident thereto, and compliance with laws and regulations applicable to the furnishing or performance of Work.
- B. Contractor shall keep on the Site at all times during Work progress a competent resident Superintendent, who shall not be replaced without County's express written consent and, if applicable, payment of liquidated damages as required by Document 005200 (Agreement). The Superintendent shall be Contractor's representative at the Site and shall have complete authority to act on behalf of Contractor. All communications to and from the Superintendent shall be as binding as if given to or by Contractor.
- C. Contractor shall supervise, inspect, and direct Work competently and efficiently, devoting the attention and applying such personal skills and expertise as may be required and necessary to perform Work in accordance with Contract Documents. Contractor shall be solely responsible for and have control and charge of construction means, methods, techniques, sequences and

procedures, safety precautions and programs in connection with the Work. Contractor shall be responsible to see that the completed Work complies accurately with Contract Documents.

- D. Contractor is fully responsible for Contractor's own acts and omissions. Contractor is responsible for all acts and omissions of its Subcontractors, suppliers, and other persons and organizations performing or furnishing any of the Work, labor, materials, or equipment under a direct or indirect contract with Contractor.
- E. Contractor shall conduct monthly Contractor Safety Committee meetings, and weekly toolbox safety talks.

#### **8.02 Contractor to Maintain Cost Data**

- A. Contractor shall maintain full and correct information as to the number of workers employed in connection with each subdivision of Work, the classification and rate of pay of each worker in form of certified payrolls, the cost to Contractor of each class of materials, tools and appliances used by Contractor in Work, and the amount of each class of materials used in each subdivision of Work. Contractor shall provide County with monthly summaries of this information. If Contractor maintains or is capable of generating summaries or reports comparing actual Project costs with Bid estimates or budgets, Contractor shall provide County with a copy of such report upon County's request.
- B. Contractor shall maintain daily job reports recording all significant activity on the job, including the number of workers on Site, Work activities, problems encountered and delays. Contractor shall provide County with copies for each Day Contractor works on the Project, to be delivered to County either the same Day or the following morning before starting work at the Site. Contractor shall take pre-construction and monthly progress photographs of all areas of the Work. Contractor shall maintain copies of all correspondence with Subcontractors and records of meetings with Subcontractors.
- C. County shall have the right to audit and copy Contractor's books and records of any type, nature or description relating to the Project (including, without limitation, financial records reflecting in any way costs claimed on the Project), and to inspect the Site, including Contractor's trailer, or other job Site office, and this requirement shall be contained in the subcontracts of Subcontractors working on Site. By way of example, County shall have the right to inspect and obtain copies of all Contract Documents, planning and design documents, Bid proposal and negotiation documents, cost records and job cost variance reports, design modification proposals, value engineering or other cost reduction proposals, revisions made to the original design, job progress reports, photographs, and as-built drawings maintained by Contractor. County and any other applicable governmental entity shall have the right to inspect all information and documents maintained hereunder at any time during the Project and for a period of five years following Final Completion, in accordance with the provisions of Government Code Section 8546.7. This right of inspection shall not relieve Contractor of its duties and obligations under the Contract Documents. This right of inspection shall be specifically enforceable in a court of law, either independently or in conjunction with enforcement of any other rights in the Contract Documents.

#### **8.03 Contractor to Supply Sufficient Workers and Materials**

- A. Unless otherwise required by County under the terms of Contract Documents, Contractor shall at all times keep on the Site materials and employ qualified workers sufficient to prosecute Work at a rate and in a sequence and manner necessary to complete Work within the Contract Time. This obligation shall remain in full force and effect notwithstanding disputes or claims of any type.
- B. At any time during progress of Work should Contractor directly or indirectly (through Subcontractors) refuse, neglect, or be unable to supply sufficient materials or employ qualified workers to prosecute the Work as required, then County may require Contractor to accelerate the Work and/or furnish additional qualified workers or materials as County may consider necessary, at no cost to County. If Contractor does not comply with the notice within three Business Days of date of service thereof, County shall have the right (but not a duty) to provide materials and qualified workers to finish the Work or any affected portion of Work, as County may elect. County may, at its discretion, exclude Contractor from the Site, or portions of the Site or separate work elements during the time period that County exercises this right. County will deduct from moneys due or which may thereafter become due under the Contract Documents, the sums necessary to meet expenses thereby incurred and paid to persons supplying materials and doing Work. County will

deduct from funds or appropriations set aside for purposes of Contract Documents the amount of such payments and charge them to Contractor as if paid to Contractor. Contractor shall remain liable for resulting delay, including liquidated damages and indemnification of County from claims of others.

- C. Exercise by County of the rights conferred upon County in this subparagraph is entirely discretionary on the part of County. County shall have no duty or obligation to exercise the rights referred to in this subparagraph and its failure to exercise such rights shall not be deemed an approval of existing Work progress or a waiver or limitation of County's right to exercise such rights in other concurrent or future similar circumstances. (The rights conferred upon County under this subparagraph are, like all other such rights, cumulative to County's other rights under any provision of the Contract Documents.)

#### **8.04 Contractor to Maintain Project Record Documents**

- A. Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Contract Modifications, Change Orders, Work Directives, Force Account orders, and written interpretations and clarifications in good order and annotated to show all as-built changes made during construction. These Project Record Documents, together with all approved Samples and a counterpart of all approved Shop Drawings, shall be maintained and available to County for reference. Upon completion of the Work, Contractor shall deliver to County, the Project Record Documents, Samples and Shop Drawings and as-built drawings.
- B. Throughout Contractor's performance of the Work of the Project, Contractor shall maintain construction records to include: shop drawings; product data/material data sheets; samples; submittal; purchases; materials; equipment; inspections; applicable handbooks; applicable codes and standards; maintenance and operating manuals and instructions; RFI Log; Submittal Log; other related documents and revisions which arise out of the Construction Contracts. Contractor shall maintain records of principal building layout lines, elevations for the bottom of footings, floor levels, and key site elevations (certified by a qualified surveyor or professional engineer). Contractor shall make all records available to County. At the completion of the Project, Contractor shall deliver all such records to the County to have a complete set of record as-built drawings.

#### **8.05 Contractor to Not Disrupt County Operation**

- A. Contractor shall schedule and execute all Work in a manner that does not interfere with or disrupt County operations including, without limitation, parking, utilities (electricity, gas, water), noise, access by employees and administration, access by vendors, physicians, patients and any other person or entity using County facilities or doing business with County. Contractor shall produce and supply coordination plans and requests to County, following County procedures, for all necessary interference of construction with County, which County will reasonably cooperate with.

#### **8.06 Contractor to Provide Temporary Facilities and Controls**

- A. Unless expressly provided otherwise in the Contract Documents, Contractor shall provide all temporary utilities (including without limitation electricity, water, natural gas), lighting, heating, cooling and ventilating devices, telephone, sanitary facilities, barriers, fences and enclosures, tree and plant protection, fire protection, pollution, erosion, Storm Water Pollution Prevention controls, noise and traffic control, and any other necessary services required for construction, testing or completion of the Work.

### **ARTICLE 9 - WARRANTY, GUARANTY, AND INSPECTION OF WORK**

#### **9.01 Warranty and Guaranty**

- A. General Representations and Warranties: Contractor represents and warrants that it is and will be at all times fully qualified and capable of performing every Phase of the Work and to complete Work in accordance with the terms of Contract Documents. Contractor warrants that all construction services shall be performed in accordance with generally accepted professional standards of good and sound construction practices and all requirements of Contract Documents. Contractor warrants that Work including, without limitation, each item of materials and equipment incorporated therein, shall be new, of suitable grade of its respective kind for its intended use, and free from

defects in design, engineering, materials, construction and workmanship. Contractor warrants that Work shall conform in all respects with all applicable requirements of federal, state and local laws, applicable construction codes and standards, licenses, and permits, Drawings and Specifications and all descriptions set forth therein, and all other requirements of Contract Documents. Contractor shall not be responsible, however, for the negligence of others in the specification of specific equipment, materials, design parameters and means or methods of construction where that is specifically shown and expressly required by Contract Documents.

- B. Extended Warranties: Any warranty exceeding one year provided by the supplier or manufacturer of any equipment or materials used in the Project shall be extended for such term. Contractor expressly agrees to act as co-guarantor of such equipment and materials and shall supply County with all warranty and guarantee documents relative to equipment and materials incorporated in the Project and guaranteed by their suppliers or manufacturers.
- C. Environmental and Toxics Warranty: The covenants, warranties and representations contained in this Paragraph are effective continuously during Contractor's Work on the Project and following cessation of labor for any reason including, without limitation, Project completion. Contractor covenants, warrants and represents to County that:
  - 1. To Contractor's knowledge after due inquiry, no lead or Asbestos-containing materials were installed or discovered in the Project at any time during Contractor's construction thereof. If any lead or Asbestos-containing materials were discovered, Contractor made immediate written disclosure to County.
  - 2. To Contractor's knowledge after due inquiry, no electrical transformers, light fixtures with ballasts or other equipment containing PCBs are or were located on the Project at any time during Contractor's construction thereof.
  - 3. To Contractor's knowledge after due inquiry, no storage tanks for gasoline or any other toxic substance are or were located on the Project at any time during Contractor's construction thereof. If any such materials were discovered, Contractor made immediate written disclosure to County.
  - 4. Contractor's operations concerning the Project are and were not in violation of any applicable environmental federal, state, or local statute, law or regulation dealing with hazardous materials substances or toxic substances and no notice from any governmental body has been served upon Contractor claiming any violation of any such law, ordinance, code or regulation, or requiring or calling attention to the need for any Work, repairs, construction, alteration, or installation on or in connection with the Project in order to comply with any such laws, ordinances, codes, or regulations, with which Contractor has not complied. If there are any such notices with which Contractor has complied, Contractor shall provide County with copies thereof.

## **9.02 Inspection of Work**

- A. Work and materials, and manufacture and preparation of materials, from beginning of construction until Final Completion and acceptance of Work, shall be subject to inspection and rejection by County, its agents, representatives or independent contractors retained by County to perform inspection services, or governmental agencies with jurisdictional interests. Contractor shall provide them proper and safe conditions for such access and advise them of Contractor's Site safety procedures and program so that they may comply therewith as applicable. Upon request or where specified, County shall be afforded access for inspection at the source of supply, manufacture or assembly of any item of material or equipment, with reasonable accommodations supplied for making such inspections.
- B. Contractor shall furnish, in such quantities and sizes as may be required for proper examination and tests, Samples or test specimens of all materials to be used or offered for use in connection with Work. Contractor shall prepare Samples or test specimens at its expense and furnish them to County. Contractor shall submit all Samples in ample time to enable County to make any necessary tests, examinations, or analyses before the time it is desired to incorporate the material into the Work.

- C. Contractor shall give County timely notice of readiness of Work for all required inspections, tests or approvals, and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- D. Upon advance notice as set forth above, County will endeavor to schedule required inspections, but if resources are not available, Contractor may need to reschedule the Work at no additional cost to the County.
- E. If applicable laws or regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested or approved by an employee or other representative of such public body, Contractor shall assume full responsibility for arranging and obtaining such inspections, tests or approvals, and furnish County with the required certificates of inspection, or approval. County will pay the cost of initial testing and Contractor shall pay all costs in connection with any follow-up or additional testing. Contractor shall also be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests or approvals required for the acceptance of materials or equipment to be incorporated in the Work, or of materials, mix designs, or equipment submitted for approval prior to Contractor's purchase thereof for incorporation in the Work.
- F. If Contractor covers any Work, or the work of others, prior to any required inspection, test or approval without written approval of County, Contractor shall uncover the Work at County's request. Contractor shall bear the expense of uncovering Work and replacing Work. In any case where Contractor covers Work contrary to County's request, Contractor shall uncover Work for County's observation or inspection at County's request. Contractor shall bear the cost of uncovering Work.
- G. Whenever required by County, Contractor shall furnish tools, labor and materials necessary to make examination of Work that may be completed or in progress, even to extent of uncovering or taking down portions of finished Work. Should Work be found unsatisfactory, cost of making examination and of reconstruction shall be borne by Contractor. If Work is found to be satisfactory, County, in manner herein prescribed for paying for alterations, Modifications, and extra Work, except as otherwise herein specified, will pay for examination.
- H. Inspection of the Work by or on behalf of County, or County's failure to do so, shall not under any circumstances be deemed a waiver or approval of any non-conforming aspect of the Work. Contractor shall have an absolute duty, in the absence of a written Change Order signed by County, to perform Work in conformance with the Contract Documents and to immediately correct Defective Work immediately upon Contractor's knowledge.
- I. Any inspection, evaluation, or test performed by or on behalf of County relating to the Work is solely for the benefit of County, and shall not be relied upon by Contractor. Contractor shall not be relieved of the obligation to perform Work in accordance with the Contract Documents, nor relieved of any guaranty, warranty, or other obligation, as a result of any inspections, evaluations, or tests performed by County, whether or not such inspections, evaluations, or tests are permitted or required under the Contract Documents. Contractor shall be solely responsible for testing and inspecting Work already performed to determine whether such Work is in proper condition to receive later Work.

### **9.03 Correction of Defective Work**

- A. County may direct Contractor to correct any Defective Work or remove it from the Site and replace it with Work that is not Defective and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting from the correction or removal.
- B. If Contractor fails to supply sufficient skilled workers, suitable materials or equipment, or to furnish or perform the Work in such a way that the completed Work will conform to Contract Documents, County may direct Contractor to perform the Work in accordance with the Contract Documents, correct or replace any such Defective Work, or stop any portion of Work.
- C. County may correct and remedy the Defective Work or perform any other work, corrective or otherwise (at Contractor's expense), if, after five Days' written notice to Contractor, Contractor fails to correct Defective Work or to remove and replace rejected Work; or provide a plan for correction of Defective Work acceptable to County; or perform Work in accordance with Contract Documents. In connection with such corrective and remedial action, County may exclude Contractor from all or part of the Site; take possession of all or part of Work and suspend Contractor's Work related thereto; take possession of all or part of Contractor's tools, appliances, construction equipment and

machinery at the Site; and incorporate in Work any materials and equipment stored at the Site or for which County has paid Contractor but which are stored elsewhere. Contractor shall allow County, its representatives, agents, employees, and other contractors and consultants' access to the Site to enable County to exercise the rights and remedies under this Paragraph.

- D. Contractor shall be responsible for all claims, costs, losses, damages, expenses and liabilities incurred or sustained by County in exercising rights and remedies under this Paragraph. Contractor shall be responsible for any and all claims, costs, losses and damages caused by or resulting from such correction or removal. A Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, County may decide the proper amount or, in its discretion may elect to leave the Contract Sum unchanged and deduct from monies due Contractor, all such claims, costs, losses and damages caused by or resulting from exercising its rights and remedies. If Contractor disagrees with County's calculations, it may make a claim as provided in Article 12 of this Document 00700.
- E. These County rights and remedies are entirely discretionary on the part of County, and shall not give rise to any duty on the part of County to exercise the rights for the benefit of Contractor or any other party. County's rights under this Paragraph shall be in addition to any other rights it may have under the Contract Documents or by law.

#### **9.04 Acceptance of Defective Work**

- A. County may in its sole discretion elect to accept Defective Work. Contractor shall pay all claims, costs, losses and damages attributable to County's evaluation of and determination to accept such Defective Work. If County accepts any Defective Work prior to final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work and the Contract Sum. If the parties are unable to agree to the amount of an appropriate decrease in the Contract Sum, County may deduct from monies due Contractor, all claims, costs, losses, damages, expenses and liabilities attributable to the Defective Work. If Contractor disagrees with County's calculations, Contractor may make a claim as provided in Article 12 of this Document 007200. If County accepts any Defective Work after final payment, Contractor shall pay to County, an appropriate amount as determined by County.

#### **9.05 Rights Upon Inspection, Correction Or Acceptance**

- A. Contractor shall not be allowed an extension of Contract Time because of any delay in the performance of Work attributable to the exercise by County of its rights and remedies under this Article. Where County exercises its rights under this Article, it retains and may still exercise all other rights it has by law or under the Contract Documents including, without limitation, the right to terminate Contractor's right to proceed with the Work under the Contract Documents for cause and/or make a claim or back charge where a Change Order cannot be agreed upon.
- B. Observation or inspection by County or its authorized agents or representatives shall not relieve Contractor of its obligation to have furnished material and workmanship in accordance with Contract Documents. Payment for Work completed through periodic progress payments, final payment or otherwise shall not operate to waive County's right to require full compliance with Contract Documents and shall in no way be deemed as acceptance of any defective Work paid therefor. Contractor's obligation to complete the Work in accordance with Contract Documents shall be absolute, unless County agrees otherwise in writing.

#### **9.06 Proof of Compliance of Contract Provisions**

- A. In order that County may determine whether Contractor has complied or is complying with requirements of Contract Documents not readily enforceable through inspection and tests of Work and materials, Contractor shall at any time, when requested, submit to County properly authenticated documents or other satisfactory proofs of compliance with all applicable requirements.
- B. Before commencing any portion of Work, Contractor shall inform County in writing as to time and place at which Contractor wishes to commence Work, and nature of Work to be done, in order that proper provision for inspection of Work may occur, and to assure measurements necessary for record and payment. Information shall be given to County a reasonable time in advance of time at

which Contractor proposes to begin Work, so that County may complete necessary preliminary work without inconvenience or delay to Contractor.

**9.07 Correction Period and Project Warranty Period:**

- A. If within one year after the date of Final Acceptance, or such longer period of time as may be prescribed by laws, regulations or by the terms of Contract Documents or any extended warranty or guaranty, any Work (completed or incomplete) is found to be Defective, Contractor shall promptly without cost to County and in accordance with County's written instructions, correct such Defective Work. Contractor shall remove any Defective Work rejected by County and replace it with Work that is not Defective, and satisfactorily correct or remove and replace any damage to other Work or the work of others resulting therefrom. If Contractor fails to promptly comply with the terms of such instructions, or in an emergency where delay would cause serious risk of loss or damage, County may have the Defective Work corrected or the rejected Work removed and replaced. Contractor shall pay for all claims, costs, losses and damages caused by or resulting from such removal and replacement. Where Contractor fails to correct Defective Work, or defects are discovered outside the correction period, County shall have all rights and remedies granted by law.
- B. In special circumstances where a part of the Work is occupied or a particular item of equipment is placed in continuous service before Final Acceptance of all the Work, the correction period for that part of Work or that item may start to run from an earlier date if so provided by Change Order.
- C. Where Defective Work or rejected Work (and damage to other Work resulting therefrom) has been corrected, removed, or replaced under this Paragraph after the commencement of the correction period, the correction period hereunder with respect to such Work shall be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

**9.08 No Waiver**

- A. Neither recordation of Final Acceptance nor final certificate for payment nor provision of the Contract nor partial or entire use or occupancy of premises by County shall constitute acceptance of Work not done in accordance with Contract Documents nor relieve Contractor of liability in respect to express warranties or responsibility for faulty materials or workmanship.
- B. If, after installation, operation, or use of materials or equipment to be provided under Contract proves to be unsatisfactory to County, County shall have right to operate and use materials or equipment until said materials and equipment can, without damage to County, be taken out of service for correction or replacement. Period of use of Defective materials or equipment pending correction or replacement shall in no way decrease guarantee period required for acceptable corrected or replaced items of materials or equipment.
- C. Nothing in the Contract Documents shall be construed to limit, relieve, or release Contractor's, Subcontractors', and equipment suppliers' liability to County for damages sustained as result of latent defects in materials or equipment caused by negligence of Contractor, its agents, suppliers, employees, or Subcontractors.

**ARTICLE 10 - MODIFICATIONS OF CONTRACT DOCUMENTS**

**10.01 County's Right to Direct Changed Work.**

- A. County may, without notice to the sureties and without invalidating the Contract, make changes in the Work (**Changed Work**), including without limitation: alterations, deviations, additions to, or deletions from Contract Documents; increase or decrease the quantity of any item or portion of the Work; expand, reduce or otherwise change the Contract Time; delete any item or portion of the Work; and require extra Work. Contractor shall perform such Work under applicable provisions of the Contract Documents, unless specifically provided otherwise at the time the change is ordered. In the case of any ordered extra Work, County reserves the right to furnish all or portions of associated labor, material, and equipment, which Contractor shall accept and use without payment for costs, markup, profit, or otherwise for such County-furnished labor, materials, and equipment.
- B. If Changed Work is of such a nature as to increase or decrease the time or cost of any part of Work, price fixed in Contract shall be increased or decreased by amount as the Contractor and County may agree upon as reasonable and proper allowance for increase or decrease in cost of Work

using the cost guidelines set forth in this Article, and absent such agreement, then as County may direct (with Contractor retaining its rights under Article 12 herein).

#### **10.02 Required Documentation for Changed Work**

- A. Changes affecting the Contract Time or Contract Sum of the Work shall be set forth in a written Change Order or Change Directive that shall specify:
  - 1. The Work performed in connection with the change to be made;
  - 2. The amount of the adjustment of the Contract Sum, if any, and the basis for compensation for the Work ordered; and
  - 3. The extent of the adjustment in the Contract Time, if any.
- B. A Change Order or Change Directive will become effective when signed by County, notwithstanding that Contractor has not signed it. A Change Order will become effective without Contractor's signature, provided County indicates same thereon (by indicating it as a "unilateral change order").
- C. All changes in any plans and specifications approved by any authority with jurisdiction may also require addenda or change orders approved by that authority.
- D. Where County requests, a performance bond rider covering the changed Work must be executed and delivered to County before proceeding with the changed Work or shortly in time thereafter.

#### **10.03 Procedures and Pricing Of Changed Work**

- A. Procedures for changed work and pricing of changed work, claims and all forms of extra compensation, are set forth in Section 01250 (Modification Procedures).

### **ARTICLE 11 - TIME ALLOWANCES**

#### **11.01 Time Allowances**

- A. Time is of the essence. Contract Time may only be changed by Change Order, and all time limits stated in the Contract Documents are to mean that time is of the essence.
- B. Float. Float shall be treated as a Project resource. Contractor shall not be entitled to a time extension for impacts that consume float, but do not impact the critical path.
- C. Time extensions will not be granted unless substantiated by the Critical Path Method (**CPM**) Schedule, and then not until the CPM project float becomes zero. If Contractor fails to submit a TIE, as required by Section 01260 (Modification Procedures) and Section 01320 (Progress Schedules and Reports), within the required time period, then Contractor shall be deemed to have agreed that there is no time impact and that Contractor has irrevocably waived its rights to any additional Contract Time.

#### **11.02 Excusable Delay And Inexcusable Delay Defined.**

- A. Excusable Delay. An "excusable delay" is a delay that meets each and every of the following conditions: (a) The delay was beyond the control of Contractor and its subcontractors and material suppliers; (b) the delay was caused by events of which Contractor was not advised at or before the time of bidding; (c) the delay impacted and delayed (i) the controlling items of Work (i.e., the as-built critical path, as determined from the as-planned schedule and the actual progress of the Work), or (ii) the completion of the whole Work within the Contract Time; (d) the delay was not caused by Contractor or its subcontractors or suppliers, including but not limited to their breaches of contract or the standard of care; (e) the delay was not associated with loss of time resulting from the necessity of submittals to County for approval, or from necessary County surveys, measurements, inspections and testing; (f) the delay was not caused by usual or common weather for the time of year, as defined by the parameters set forth in Paragraph 11.5 (Adverse Weather) of this Section 00700; and (g) the delay could not have been prevented by the exercise of care, prudence, foresight, and diligence by Contractor. Excusable delays may include fires, floods, epidemics, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, or acts of God (together, "force majeure events"), provided damages resulting therefrom are not the result of Contractor's failure to protect the Work as required by Contract Documents ("Force Majeure"). County shall take into consideration other relevant factors such as concurrent delays. Contractor has the burden of proving that any delay

was excusable, including but not limited to an analysis that establishes no concurrency. Subject to the provisions on Notice of Delay below, Contract Time may be adjusted in an amount equal to the time lost due to:

1. Changes in the Work ordered by County (**Changes**”);
  2. Acts or neglect by County, Architect, any County Representative, utility owners or other contractors performing other work, not permitted or provided for in the Contract Documents, provided that Contractor has performed its responsibilities under the Contract Documents (including, without limitation, pre-bid investigations) (**Acts or Neglect**); or
  3. Fires, floods, epidemics, abnormal weather conditions beyond the parameters otherwise set forth in this Article, earthquakes, civil or labor disturbances, or acts of God (together, “force majeure events”), provided damages resulting therefrom are not the result of Contractor’s failure to protect the Work as required by Contract Documents (**Force Majeure**).
- B. Inexcusable Delay. Contract Time shall not be extended for any period of time where Contractor (and/or any Subcontractor) is delayed or prevented from completing any part of the Work for any reason that fails to qualify as “excusable delay” pursuant to Paragraph 11.02.A, above, or due to a cause that is within Contractor’s risk or responsibility under the Contract Documents. Delays attributable to or within the control of a Subcontractor, or its subcontractors, or supplier, are deemed delays within the control of Contractor.

### 11.03 Notice of Delay

- A. Within seven Days of the beginning of any delay (excepting adverse weather delays), Contractor shall notify County in writing, by submitting a notice of delay that shall describe the anticipated delays resulting from the delay event in question. If Contractor requests an extension of time, Contractor shall submit a TIE, in accordance with by Section 01260 (Modification Procedures) and Section 01320 (Progress Schedules and Reports), within ten days of the notice of delay. County will determine all claims and adjustments in the Contract Time. No claim for an adjustment in the Contract Time will be valid and such claim will be waived if not submitted in accordance with the requirements of this subparagraph. In cases of substantial compliance with the seven-day notice requirement here (but not to exceed twenty-one days from the beginning of the delay event), County may in its sole discretion recognize a claim for delay accompanied with the proper TIE, provided Contractor also shows good faith and a manifest lack of prejudice to County from the late notice.

### 11.04 Compensable Time Extensions

- A. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Sum in addition to Contract Time for:
1. Excusable Delay caused solely by Changes in the Work ordered by County, as provided above, and/or
  2. Excusable Delay caused solely by Acts or Neglect by County or other person, as provided above.

### 11.05 Non-Compensable Time Extensions

- A. Subject to other applicable provisions of the Contract Documents, Contractor may be entitled to adjustment in Contract Time only, without adjustment in Contract Sum, for
1. Periods of Excusable Delay caused solely by weather or Force Majeure events as provided above in this Article, or
  2. Periods of concurrent delay, where delay results from two or more causes, one of which is compensable (resulting from Changes or Acts or Neglect as set forth above in this Article), and the other of which is non-compensable or unexcusable, such as: acts or neglect of Contractor, Subcontractors or others for whom Contractor is responsible; other acts, omissions and conditions which would not entitle Contractor to adjustment in Contract Time; adverse weather; and/or actions of Force Majeure as provided above in this Article.

### 11.06 Adverse Weather

- A. Adverse weather delays may be allowed only if the number of workdays of adverse weather exceeds the parameters listed or referenced immediately below in this subparagraph and Contractor proves that adverse weather actually caused delays to work on the critical path. Contractor shall give written notice of intent to claim an adverse weather day within one Day of the adverse weather day occurring.
- B. Claims for extension of time for rain delay will not be granted unless the number of days work is prevented by rain exceeds the Adverse Weather Contingency specified in Document 00800 (Supplementary Conditions), based on the records of the National Oceanic & Atmospheric Administration (**NOAA**) at the weather station specified in Document 00800 or, if none, the station closest to the Project Site, as measured and reported by NOAA. (For example, for California, Oregon and Washington, these figures are contained in the ">=0.10 inch" column at the applicable weather station's "General Climate Summary Table" for "Precipitation" at <http://www.wrcc.dri.edu/climate-summaries/>). Delays due to adverse weather conditions will not be allowed for weather conditions that fall within these parameters.
- C. In order to qualify as an adverse weather delay with respect to the foregoing parameters, (i.) daily rainfall must exceed 0.1 inch, and/or (ii.) daily snowfall must exceed 1.0 inch or more, at the NOAA station identified in Paragraph 11.B above, as measured and reported by NOAA. Notwithstanding these allowances, Contractor shall at all times employ all available mitigation measures to enable Work to continue, Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, lime treatment, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for County to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.
- D. Contractor shall include the foregoing precipitation parameters as a monthly activity in its progress schedule. As Work on the critical path is affected by precipitation, Contractor shall notify County and request that the days be moved to the affected activities. Any adverse weather days remaining shall be considered Project float available to either County or Contractor.
- E. Adverse weather delay for precipitation shall be recognized for the actual period of time Contractor proves it was delayed by precipitation exceeding the specified parameters. For example, and not by way of limitation, if precipitation exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves to County's satisfaction that precipitation exceeding the specified parameters causes delay to Contractor for a period longer than the number of precipitation days incurred (e.g., if it rains or snows during grading work), then Contractor shall be entitled to a time extension equal to the actual period of such delay.
- F. During unfavorable weather, wet ground, or other unsuitable construction conditions, Contractor shall employ best practices to protect the Work, manage the construction site and rainwater during inclement weather. Persons performing the Work shall examine surfaces to receive their Work and shall report in writing to Contractor, with copy to County representative and the Architect conditions detrimental to the Work. Failure to examine and report discrepancies makes the Contractor responsible, at no increase in Contract Sum, for corrections County may require. Commencement of Work constitutes acceptance of surface.

#### **11.07 Liquidated Damages**

- A. Time is of the essence. Execution of Contract Documents by Contractor shall constitute its acknowledgement that County will actually sustain damages in the form of Contract administration expenses (such as Project management and consultant expenses) in the amount fixed in the Contract Documents for each and every Day during which completion of Work required is delayed beyond expiration of time fixed for completion plus extensions of time allowed pursuant to provisions hereof.
- B. Contractor and County agree that because of the nature of the Project, it would be impractical or extremely difficult to fix the amount of such actual damages incurred by County because of a delay in completion of all or any part of the Work. Contractor and County agree that specified measures of liquidated damages shall be presumed to be the amount of such damages actually sustained by County, and that because of the nature of the Project, it would be impracticable or extremely difficult to fix the actual damages.

- C. Liquidated damages for delay shall cover administrative, overhead, interest on bonds, and general loss of public use damages suffered by County as a result of delay. Liquidated damages shall not cover the cost of completion of the Work, damages resulting from Defective Work, lost revenues or costs of substitute facilities, or damages suffered by others who then seek to recover their damages from County (for example, delay claims of other contractors, subcontractors, tenants, or other third-parties), and defense costs thereof. County may deduct from any money due or to become due to Contractor subsequent to time for completion of entire Work and extensions of time allowed pursuant to provisions hereof, a sum representing then-accrued liquidated damages.
- D. Contractor and County agree that the Key Personnel listed in Contractor's Statement of Qualifications (Document 004513) were a material factor in County's assessment of Contractor's experience and the adequacy of Contractor's supervisory personnel. Accordingly, Contractor and County agree that Contractor shall not remove, reassign or make changes to any of the Key Personnel without County's prior written approval. In the event that any Key Personnel leaves the Project, is reassigned and/or is removed and replaced by Contractor before Project Final Completion, for any reason whatsoever, Contractor agrees to pay County liquidated damages as set forth in the Agreement (Document 005200), unless Contractor can demonstrate to County's satisfaction that the Key Personnel were reassigned and/or removed and replaced for reasons beyond Contractor's control.

## **ARTICLE 12 - CLAIMS BY CONTRACTOR**

### **12.01 Obligation to File Claims for Disputed Work**

- A. Should it appear to Contractor that the Work to be performed or any of the matters relative to the Contract Documents are not satisfactorily detailed or explained therein, or should any questions arise as to the meaning or intent of the Contract Documents, or should any dispute arise regarding the true value of any work performed, work omitted, extra work that the Contractor may be required to perform, time extensions, payment to the Contractor during performance of this Contract, performance of the Contract, and/or compliance with Contract procedures, or should Contractor otherwise seek extra time or compensation FOR ANY REASON WHATSOEVER, then Contractor shall first follow procedures set forth in the Contract Documents (including, without limitation, Paragraphs 11.03, 11.04, 13.03 and 13.04 of this Document 007200 and Section 012600.) If a dispute remains, then Contractor shall give written notice to County that expressly invokes this Article 12. County shall decide the issue in writing within 15 days; and County's written decision shall be final and conclusive. If Contractor disagrees with County's decision, or if Contractor contends that County failed to provide a decision timely, then Contractor's SOLE AND EXCLUSIVE REMEDY is to promptly file a written claim setting forth Contractor's position as required herein.

### **12.02 Form and Contents Of Claim**

- A. Contractor's written claim must identify itself as a "**Claim**" under this Article 12 and must include the following: (i) a narrative of pertinent events; (ii) citation to contract provisions; (iii) theory of entitlement; (iv) complete pricing of all cost impacts; (v) a time impact analysis of all time delays that shows actual time impact on the critical path; (vi) documentation supporting items (i) through (v); and (vii) a verification under penalty of perjury of the claim's accuracy. The Claim shall be submitted to County within thirty (30) calendar days of receiving County's written decision, or the date Contractor contends such decision was due, and shall be priced like a change order according to Section 012600, and must be updated monthly as to cost and entitlement if a continuing claim. Routine contract materials, for example, correspondence, RFI, Change Order requests, or payment requests shall not constitute a claim. Contractor shall bear all costs incurred in the preparation and submission of a claim.

### **12.03 Administration During/After Claim Submission**

- A. County may render a final determination based on the Claim or may in its discretion conduct an administrative hearing on Contractor's claim, in which case Contractor shall appear, participate, answer questions and inquiries, and present any further evidence or analysis requested by County prior to rendering a final determination. Should County take no action on the Claim within 45 days of submission, it shall be deemed denied. Consistent with Public Contract Code Section 9204, if

- County takes any action on the Claim. It will provide Contractor a written statement identifying what portion of the Claim is disputed and what portion is undisputed.
- B. County shall tender any payment due to Contractor on any undisputed portion of a Claim within 60 days after County issues its written statement
  - C. If Contractor disputes County's written response, or if County fails to respond to a Claim tendered pursuant to this Section 00700 within the time prescribed, Contractor may demand in writing an informal conference to meet and confer for settlement of the issues in the dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, County will schedule a meet and confer conference within 30 days for settlement of the dispute. Within 10 business days following conclusion of the meet and confer conference, if the Claim or any portion of the Claim remains in dispute, County will provide Contractor with a written statement identifying the portion of the Claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the Claim will be tendered within 60 days after County issues its written statement. Any disputed portion of the Claim, as identified by Contractor in writing, shall be submitted to non-binding mediation, with the County and Contractor sharing the associated costs equally. The County and Contractor shall mutually agree to a mediator within 10 business days after the disputed portion of the Claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators will select a qualified neutral third party mediate with regard to the disputed portion of the Claim. Each party shall bear the fees costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the Claim remaining in dispute shall be subject to the remaining procedures of this Article 12.
  - D. Notwithstanding and pending the resolution of any claim or dispute, Contractor shall diligently prosecute the disputed work to final completion in accordance with County's determination.
  - E. After their submission, claims less than \$375,000 shall also be subject to Local Agencies Dispute Act (Public Contract Code Sections 20104, et seq.) which provides further requirements to meet and confer, mediate and arbitrate before proceeding with a Government Code Claim in accordance with the procedures specified in this Article 12.

#### **12.04 Compliance**

- A. The provisions of this Article 12 constitute a non-judicial claim settlement procedure that, pursuant to Government Code Section 930.2, shall constitute a condition precedent to submission of a valid Government Code Claim under the Government Code. Contractor shall bear all costs incurred in the preparation, submission and administration of a claim. Any claims presented in accordance with the Government Code must affirmatively indicate Contractor's prior compliance with the claims procedure herein and the previous dispositions under Paragraph 12.03 above of the claims asserted. No suit may be brought against County arising out of or in connection with the Project unless and until Contractor presents to County a statutory Government Code Claim, in accordance with Government Code Sections 910, et seq. Pursuant to Government Code Section 930.2, the one-year period in Government Code section 911.2 shall be reduced to 150 days from either accrual of the cause of action, substantial completion or termination of the contract, whichever occurs first; in all other respects, the Government Code shall apply unchanged.
- B. Failure to submit and administer claims as required in Article 12 shall waive Contractor's right to claim on any specific issues not included in a timely submitted claim. Claim(s) or issue(s) not raised in a timely protest and timely claim submitted under this Article 12 may not be asserted in any subsequent litigation, Government Code Claim, or legal action.
- C. County shall not be deemed to waive any provision under this Article 12, if at County's sole discretion, a claim is administered in a manner not in accord with this Article 12. Waivers or modifications of this Article 12 may only be made a signed change order approved as to form by legal counsel for both County and Contractor; oral or implied modifications shall be ineffective.

#### **12.05 Mediation**

- A. All Contractor claims not otherwise subject to Public Contract Code Sections 20104 et seq shall, as a condition precedent to litigation thereon, first be mediated. Mediation shall be confidential, non-binding, pursuant to the construction mediation procedures of JAMS in San Francisco, California, and utilize the services of a mediator mutually acceptable to the parties. If the parties

are unable to agree, the mediator will be selected by JAMS from its panel of approved construction industry mediators, having a minimum of 20 years' experience in the construction industry.

- B. All statutes of limitation shall be tolled from the date of the demand for mediation until a date two weeks following the mediation's conclusion. All unresolved Contractor claims shall be submitted to the same mediator. The cost of mediation shall be equally shared by all parties to the mediation. The parties shall, prior to the commencement of a mediation pursuant to this Paragraph, upon notice of the other party, exchange relevant, non-privileged project documents in compliance with Code of Civil Procedure Sections 2031.010 et seq. Additionally, the parties may agree mutually to engage in additional discovery prior to mediation. Should the parties proceed with additional discovery, they shall, unless mutually agreed otherwise, comply with Code of Civil Procedure Sections 2019, et. seq. The Mediator will undertake to resolve any discovery disputes relating to the Mediation.

## **ARTICLE 13 - UNDERGROUND CONDITIONS**

### **13.01 Contractor to Locate Underground Facilities.**

- A. During construction, Contractor shall comply with Government Code Sections 4216 to 4216.9, and in particular Section 4216.2 which provides, in part: "Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center at least two working days, but no more than 14 calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator, and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated. The regional notification center shall provide an inquiry identification number to the person who contacts the center and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation."
- B. Contractor shall contact USA, and schedule the Work to allow ample time for the center to notify its members and, if necessary, for any member to field locate and mark its facilities. Contractor is charged with knowledge of all subsurface conditions reflected in USA records. Prior to commencing excavation or trenching work, Contractor shall provide County with copies of all USA records secured by Contractor. Contractor shall advise County of any conflict between information provided in Document 00320 (Existing Conditions), the Drawings and that provided by USA records. Contractor's excavation shall be subject to and comply with the Contract Documents.
- C. Contractor shall also investigate the existence of existing service laterals, appurtenances or other types of utilities, indicated by the presence of an underground transmission main or other visible facilities, such as buildings, manholes, new asphalt, meters and junction boxes, on or adjacent to the Site, even if not shown or indicated in Existing Conditions Data, Contract Documents, or USA records, or discovered during Contractor's pre- or post-bid investigation. Contractor shall immediately secure all such available information and notify County and the utility owner, in writing, of its discovery.

### **13.02 Contractor to Protect Underground Facilities.**

- A. At all times during construction, all operating Underground Facilities shall remain in operation, unless the Contract Documents expressly indicate otherwise. Contractor shall maintain such Underground Facilities in service where appropriate; shall repair any damage to them caused by the Work; and shall incorporate them into the Work, including reasonable adjustments to the design location (including minor relocations) of the existing or new installations. Contractor shall take immediate action to restore any in service installations damaged by Contractor's operations.
- B. Prior to performing Work at the Site, Contractor shall lay out the locations of Underground Facilities that are to remain in service and other significant known underground installations indicated by the Existing Conditions Data, Contract Documents, USA records, or any material otherwise reasonably available to Contractor or discovered during Contractor's pre- or post-bid investigations. Contractor shall further locate, by carefully excavating with small equipment, potholing and principally by hand, all such utilities or installations that are to remain and that are subject to damage. If additional utilities whose locations are unknown are discovered, Contractor shall immediately report to County

- for disposition of the same. Additional compensation or extension of time on account of utilities not shown or otherwise brought to Contractor's attention, including reasonable action taken to protect or repair damage, shall be determined as provided in this Document 007200.
- C. If during construction, an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown, indicated, or discovered in the materials and investigations described in Paragraph 13.02B, above, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby (and in no event later than seven Days), and prior to performing any Work in connection therewith (except in an emergency), identify the owner of such Underground Facility and give written notice to that owner and to County. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
  - D. The cost of all of the following will be included in the Contract Sum and Contractor shall have full responsibility for (a) reviewing and checking all available information and data including, without limitation, Existing Conditions Data, and information on file at USA; (b) locating all Underground Facilities shown or indicated in the Contract Documents or reasonably available information, or indicated by visual observation including, without limitation, and by way of example only, through performance of all pre-Bid investigations required by this Document 007200 and Bidding Documents and post-Bid investigations required by this Document 007200, and by engaging qualified locating services and all necessary backhoeing and potholing; (c) coordination of the Work with the owners of such Underground Facilities during construction; and (d) the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
  - E. Consistent with Government Code Section 4215, as between County and Contractor, County will be responsible for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Site only if such utilities are not identified in the Contract Documents or information made available for bidding. County will compensate for the cost of locating and repairing damage not due to Contractor's failure to exercise reasonable care, removing and relocating such main or trunk line utility facilities not indicated in the Contract Documents or information made available for bidding with reasonable accuracy, and equipment on the Project necessarily idled during such Work. Contractor shall not be assessed liquidated damages for delay in completion of the Project, when such delay was caused by the failure of County or the utility to provide for removal or relocation of such utility facilities.

### **13.03 Concealed or Unknown Conditions**

- A. If either of the following conditions is encountered at Site when digging trenches or other excavations that extend deeper than four feet below the surface, Contractor shall give a written Notice of Differing Site Conditions to County promptly before conditions are disturbed, except in an emergency as set forth in this Document 007200, and in no event later than seven Days after first observance of:
  - 1. Subsurface or Latent physical conditions which differ materially from those indicated in the Contract Documents; or
  - 2. Unknown physical conditions of an unusual nature or which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents.
- B. In response to Contractor's Notice of Differing Site Conditions under this Paragraph, County will investigate the identified conditions, and if they differ materially and cause increase or decrease in Contractor's cost of, or time required for, performance of any part of the Work, County will negotiate the appropriate change order following the procedures set forth in the Contract Documents. If County determines that physical conditions at the Site are not Latent or are not materially different from those indicated in Contract Documents or that no change in terms of the Contract Documents is justified, County will so notify Contractor in writing, stating reasons (with Contractor retaining its rights under Article 12 of this Document 00700.)
- C. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed Latent or materially different Site conditions (whether above or below grade) if Contractor knew or should have known of the existence of such conditions at the time Contractor submitted

its Bid, failed to give proper notice, or relied upon information, conclusions, opinions or deductions of the kind that the Contract Documents preclude reliance upon.

- D. Regarding Underground Facilities, Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility that is owned and was built by County only where the Underground Facility:
1. Was not shown or indicated in the Contract Documents or in the information supplied for bidding purposes or in information on file at USA; and
  2. Contractor did not know of it; and
  3. Contractor could not reasonably have been expected to be aware of it or to have anticipated it from the information available. (For example, if surface conditions such as pavement repairs, valve covers, or other markings, indicate the presence of an Underground Facility, then an increase in the Contract Sum or an extension of the Contract Time will not be due, even if the Underground Facility was not indicated in the Contract Documents, in the information supplied to Contractor for bidding purposes, in information on file at USA, or otherwise reasonably available to Contractor.)
- E. Contractor shall bear the risk that Underground Facilities not owned or built by County may differ in nature or locations shown in information made available by County for bidding purposes, in information on file at USA, or otherwise reasonably available to Contractor. Underground Facilities are inherent in construction involving digging of trenches or other excavations on County's Project, and Contractor is to apply its skill and industry to verify the information available.
- F. Contractor's compensation for claimed Latent or materially different Site conditions shall be limited to the actual, reasonable, incremental increase in cost of that portion of the Work, resulting from the claimed Latent or materially different Site conditions. Such calculation shall take into account the estimated value of that portion of the Work and the actual value of that portion of the Work, using for guidance Contractor's or its subcontractor's bid amount and actual amounts incurred for that portion of the Work and the reasonable expectation (if any) of differing or difficult site conditions in the Work area based on the available records and locale of the Work. For example, if Contractor excavates in an area unexpected, then such costs would be recoverable entirely; while if Contractor extends an existing excavation, then such costs would be recoverable if the resulting excavation costs in that work area exceeded the reasonable expectations therefore.

#### 13.04 Notice of Hazardous Waste Or Materials Conditions

- A. Contractor shall give a written Notice of Hazardous Materials Condition to County promptly, before any of the following conditions are disturbed (except in an emergency as set forth in this Document 007200), and in no event later than 24 hours after first observance of any:
1. Material that Contractor believes may be hazardous waste or hazardous material, as defined in Section 25117 of the Health and Safety Code (including, without limitation, Asbestos, lead, PCBs, petroleum and related hydrocarbons, and radioactive material) that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law (**hazardous material**); or
  2. Other material that may present an imminent substantial danger to persons or property exposed thereto in connection with Work at the Site (**other materials**).
- B. Except as otherwise provided in the Contract Documents or as provided by applicable law, Contractor shall not be required to give any notice for the disturbance or observation of any such hazardous materials or other materials where such matter is disturbed or observed as part of the scope of Work under the Contract Documents (such as hazardous waste or hazardous material investigation, remediation or disposal activities which are identified as the subject of Work under the Contract Documents), where Contractor complies with all requirements in the Contract Documents and applicable law respecting such materials.
- C. Contractor's Notice of Hazardous Materials Condition shall indicate whether the hazardous materials or other materials were shown or indicated in the Contract Documents to be within the scope of Work, and whether the hazardous materials or other materials were brought to the Site by Contractor, its Subcontractors, suppliers, or anyone else for whom Contractor is responsible.

- D. Contractor shall not be entitled to any adjustment in the Contract Sum or Contract Time regarding claimed hazardous waste or materials if:
  - 1. Contractor knew of the existence of such hazardous materials or other materials at the time Contractor submitted its Bid; or
  - 2. Contractor should have known of the existence of such hazardous material or other materials as a result of its having the responsibility to obtain additional or supplementary examinations, investigation, explorations, tests, studies, and data concerning the conditions at or contiguous to the Site prior to submitting its Bid; or
  - 3. Contractor failed to give the written notice within the required timeframe set forth below.
- E. If County determines that conditions involve hazardous materials or other materials and that a change in Contract Document terms is justified, County will issue either a Request for Proposal or Construction Change Directive under the procedures described in the Contract Documents. If County determines that conditions do not involve hazardous materials or other materials or that no change in Contract Document terms is justified, County will notify Contractor in writing, stating the reasons for its determination.
- F. In addition to the parties' other rights under this Document 007200, if Contractor does not agree to resume Work based on a reasonable belief that it is unsafe, or does not agree to resume Work under special conditions, County may order the disputed portion of Work deleted from the Work, or performed by others, or County may invoke its right to terminate Contractor's right to proceed under the Contract Documents in whole or in part, for convenience or for cause as the facts may warrant.
- G. If Contractor does not agree with any County determination of any adjustment in the Contract Sum or Contract Time under this Article, Contractor may make a claim as provided in Article 12 of this Document 00700.

## **ARTICLE 14 - LEGAL AND MISCELLANEOUS**

### **14.01 Laws and Regulations**

- A. Contractor shall keep fully informed of and shall comply with all laws, ordinances, regulations and orders of any properly constituted authority affecting the Contract Documents, Work and persons connected with Work, and shall protect and indemnify County and its officers, employees, consultants and agents against any claim or liability, including attorney's fees, arising from or based on violation of law, ordinance, regulation or order, whether by Contractor or by Subcontractors, employees or agents. Authorized persons may at any time enter upon any part of Work to ascertain compliance of all applicable laws, ordinances, regulations and orders.

### **14.02 Permits and Taxes**

- A. Contractor shall procure all permits and licenses applicable to the Work (including environmental matters to the extent applicable); pay all charges and fees, including fees for street opening permits; comply with, implement and acknowledge effectiveness of all permits; initiate and cooperate in securing all required notifications or approvals therefore; and give all notices necessary and incident to due and lawful prosecution of Work, unless otherwise provided herein. County will pay applicable building permits, sanitation and water fees for the completed construction, except as otherwise provided in the Contract Documents. Contractor shall pay all sales and/or use taxes levied on materials, supplies, or equipment purchased and used on or incorporated into Work, and all other taxes properly assessed against equipment or other property used in connection with Work, without any increase in the Contract Sum. Contractor shall make necessary arrangements with proper authorities having jurisdiction over roads, streets, pipelines, navigable waterways, railroads, and other works in advance of operations, even where County may have already obtained permits for the Work.

### **14.03 Communications and Information Distribution**

- A. All communications recognized under the Contract Documents shall be in writing, in the form of a serialized document, by type of communication. For example, RFI's shall be serialized beginning with RFI No. 1; payment applications shall be serialized beginning with Payment Application No. 1, submittals shall be serialized per specification section and transmitted with transmittal sheets

beginning with Transmittal No. 1; and correspondence shall be serialized beginning with letter No. 1. Contractor may propose other record management and identification systems or protocols, intended to facilitate orderly transmittal of project information, storage and retrieval of such information, which County will review consistent with these stated objectives, and accept or reject in its sole discretion.

- B. Documents Requiring Signatures. All documents requiring signatures for approval prior to implementing action, as stipulated in other portions of Contract Documents, shall require a manually signed, serialized letter delivered to the other party at its address for notice otherwise specified in the Contract Documents, either personally or by mail.
- C. Electronic data transfer of such correspondence will serve to expedite preliminary concurrence of information, only. Receipt of "hard copy" signature on forms is required prior to implementing action or work as the conditions may require. For example, change orders and authorizations for extra cost, require signatures. A party may acknowledge receipt of PDF copies of required correspondence by e-mail, but in the absence of such acknowledgment, mail or personal delivery is required.
- D. All emails shall be copied to County's and Contractor's Project Representative. County reserves the right to preclude e-mail communication, in whole or in part, as Project needs may require. Communication between County and Contractor shall not be via Twitter, Facebook, or other types of instant text message systems. Any such communications shall be inadmissible for any purpose related to this Contract.

#### **14.04 Suspension of Work**

- A. County may, without cause, order Contractor in writing to suspend, delay or interrupt Work in whole or in part for such period of time as County may determine. An adjustment shall be made for increases in cost of performance of Work of the Contract Documents caused by any such suspension, delay or interruption, calculated using the measures set forth in Section 01260 (Modification Procedures). No adjustment shall be made to extent that performance is, was or would have been so suspended, delayed or interrupted by another cause for which Contractor is responsible.

#### **14.05 Termination of Contract For Cause**

- A. The Contractor shall be in default of the Contract Documents and County may terminate the Contractor's right to proceed under the Contract Documents, for cause, in whole or in part, should the Contractor commit a material breach of the Contract Documents and not cure such breach within ten (10) calendar days of the date of notice from County to the Contractor demanding such cure; or, if such breach is curable but not curable within such ten (10) day period, within such period of time as is reasonably necessary to accomplish such cure. (In order for the Contractor to avail itself of a time period in excess of 10 calendar days, the Contractor must provide County within the ten (10) day period with a written plan acceptable to County that demonstrates actual resources, personnel and a schedule to promptly to cure said breach, and then diligently commence and continue such cure according to the written plan).
- B. In the event of termination by County for cause as provided herein, the Contractor shall deliver to County possession of the Work in its then condition including, without limitation, all designs, engineering, Project records, cost data of all types, plans and specifications and contracts with vendors and subcontractors, all other documentation associated with the Project, and all construction supplies and aids dedicated solely to performing the Work which, in the normal course of construction, would be consumed or only have salvage value at the end of the construction period. The Contractor shall remain fully liable for the failure of any Work completed and materials and equipment provided through the date of such termination to comply with the provisions of the Contract Documents. The provisions of this Section shall not be interpreted to diminish any right that County may have to claim and recover damages for any breach of the Contract Documents or otherwise, but rather, the Contractor shall compensate County for all loss, cost, damage, expense, and/or liability suffered by County as a result of such termination and/or failure to comply with the Contract Documents.
- C. In the event a termination for cause is later determined to have been made wrongfully or without cause, then the termination shall be treated as a termination for convenience, and the Contractor

shall have no greater rights than it would have had following a termination for convenience. Any Contractor claim arising out of a termination for cause shall be made in accord with Article 12 herein. No other loss, cost, damage, expense or liability may be claimed, requested or recovered by the Contractor.

#### **14.06 Termination of Contract for Convenience**

- A. County may terminate performance of the Work under the Contract Documents in accordance with this clause in whole, or from time to time in part, whenever County shall determine that termination is in County's best interest. Termination shall be effected by County delivering to the Contractor notice of termination specifying the extent to which performance of the Work under the Contract Documents is terminated, and the effective date of the termination.
- B. Contractor shall comply strictly with County's direction regarding the effective date of the termination, the extent of the termination, and shall stop work on the date and to the extent specified.
- C. Contractor shall be entitled to a total payment on account of the Contract work so terminated measured by (i.) the actual cost to Contractor of Work actually performed, up to the date of the termination, with profit and overhead limited to twelve percent (12%) of actual cost of work performed, up to but not exceeding the actual contract value of the work completed as measured by the Schedule of Values and Progress Schedule, (ii.) offset by payments made and other contract credits. In connection with any such calculation, however, County shall retain all rights under the Contract Documents including, without limitation, claims, indemnities, or setoffs.
- D. Under no circumstances may Contractor recover legal costs of any nature, nor may Contractor recover costs incurred after the date of the termination.

#### **14.07 Contingent Assignment of Subcontracts**

- A. Contractor hereby assigns to County each Subcontract for a portion of the Work, provided that:
  - 1. The assignment is effective only after County's termination of Contractor's right to proceed under the Contract Documents (or portion thereof relating to that Subcontract) as set forth herein.
  - 2. The assignment is effective only for the Subcontracts which County expressly accepts by notifying the Subcontractor in writing;
  - 3. The assignment is subject to the prior rights, if any, of the Surety, obligated by Document 00610 (Construction Performance Bond) provided under the Contract Documents, where the Surety exercises its rights to complete the Contract;
  - 4. After the effectiveness of an assignment, Contractor shall, at its sole cost and expense (except as otherwise provided in this Document 00700), sign all instruments and take all actions reasonably requested by County to evidence and confirm the effectiveness of the assignment in County; and
  - 5. Nothing in this Paragraph shall modify or limit any of Contractor's obligations to County arising from acts or omissions occurring before the effectiveness of any Subcontract assignment including, without limitation, all defense, indemnity and hold-harmless obligations arising from or related to the assigned Subcontract.

#### **14.08 Remedies and Contract Integration**

- A. Subject to Contract Documents provisions regarding Contractor claims, claim review, and claim resolution, and subject to the limitations therein, the exclusive jurisdiction and venue for resolving all claims, counter claims, disputes and other matters in question between County and Contractor arising out of or relating to Contract Documents, any breach thereof or the Project shall be the applicable court of competent jurisdiction located in the State and County where the Project is located. All County remedies provided in the Contract Documents shall be taken and construed as cumulative and not exclusive; that is, in addition to each and every other remedy herein provided; and in all instances County shall have any and all other equitable and legal rights and remedies which it would have according to law.
- B. The Contract Documents, any Contract Modifications and Change Orders, shall represent the entire and integrated agreement between County and Contractor regarding the subject matters

hereof and thereof and shall constitute the exclusive statement of the terms of the parties' agreement. The Contract Documents, and any Contract Modifications and Change Orders, shall supersede any and all prior negotiations, representations or agreements, written or oral, express or implied, that relate in any way to the subject matter of the Contract Documents or written Modifications. County and Contractor represent and agree that, except as otherwise expressly provided in the Contract Documents, they are entering into the Contract Documents and any subsequent written Modification in sole reliance upon the information set forth or referenced in the Contract Documents or Contract Modifications; the parties are not and will not rely on any other information, which shall be inadmissible in any proceeding to enforce these documents.

- C. Either party's waiver of any breach or failure to enforce any of the terms, covenants, conditions or other provisions of the Contract Documents at any time shall not in any way affect, limit, modify or waive that party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision hereof, any course of dealing or custom of the trade or oral representations notwithstanding.
- D. Neither acceptance of the whole or any part of Work by County nor any verbal statements on behalf of County or its authorized agents or representatives shall operate as a waiver or modification of any provision of the Contract Documents, or of any power reserved to County herein nor any right to damages provided in the Contract Documents.

#### **14.09 Interpretation.**

- A. Should any part, term or provision of this Agreement or any of the Contract Documents, or any document required herein or therein to be executed or delivered, be declared invalid, void or unenforceable, all remaining parts, terms and provisions shall remain in full force and effect and shall in no way be invalidated, impaired or affected thereby. If the provisions of any law causing such invalidity, illegality or unenforceability may be waived, they are hereby waived to the end that this Agreement and the Contract Documents may be deemed valid and binding agreements, enforceable in accordance with their terms to the greatest extent permitted by applicable law. In the event any provision not otherwise included in the Contract Documents is required to be included by any applicable law, that provision is deemed included herein by this reference (or, if such provision is required to be included in any particular portion of the Contract Documents, that provision is deemed included in that portion).
- B. Contract Documents shall not be construed to create a contractual relationship of any kind between (i) Project Manager or any County's representative and Contractor; (ii) County and/or its Representatives and a Subcontractor, sub-Subcontractor, or supplier of any Project labor, materials, or equipment; or (iii) between any persons or entities other than County and Contractor.

#### **14.10 Patents**

- A. Fees or claims for any patented invention, article or arrangement that may be used upon or in any manner connected with performance of the Work or any part thereof shall be included in the Bid price for doing the Work. Contractor shall defend, indemnify and hold harmless County and each of its officers, employees, consultants and agents including, without limitation, the Board and each County's Representative, from all damages, claims for damages, costs or expenses in law or equity, including attorney's fees, arising from or relating to any claim that any article supplied or to be supplied under the Contract Documents infringes on the patent rights, copyright, trade name, trademark, service mark, trade secret or other intellectual property right of any person or persons or that the person or entity supplying the article does not have a lawful right to sell the same. Such costs or expenses for which Contractor agrees to indemnify and hold harmless the above indemnities include but are not limited to any and all license fees, whether such fees are agreed by any indemnitee or ordered by a court or administrative body of any competent jurisdiction.

#### **14.11 Substitution for Patented And Specified Articles**

- A. Except as noted specifically in the instructions to Bidders or in Contract Documents, whenever in Specifications, material or process is designated by patent or proprietary name or by name of manufacturer, such designation shall be deemed to be used for purpose of facilitating description of material and process desired, and shall be deemed to be followed by the words "or Approved Equal" and Contractor may offer any substitute material or process that Contractor considers

“equal” in every respect to that so designated and if material or process offered by Contractor is, in opinion of County, Equal in every respect to that so designated, its use will be approved. However, Contractor may utilize this right only by timely submitting Document 00660 (Substitution Request Form) as provided in Document 00200 (Instructions to Bidders). A substitution will be approved only if it is a true “or equal” item in every aspect of its design and quality including, without limitation, its dimensions, weights, service requirements, durability, functioning, impact on contiguous construction elements, overall schedule and design.

#### **14.12 Interest of Public Officers**

- A. No representative, officer, or employee of County no member of the governing body of the locality in which the Project is situated, no member of the locality in which County was activated, and no other public official of such locality or localities who exercises any functions or responsibilities with respect to the Project, during the tenure of the official or for one year thereafter, shall, as principal, agent, attorney or otherwise, be directly or indirectly interested, in the Contract Documents or the proceeds thereof.

#### **14.13 Limit of Liability**

- A. COUNTY, AND EACH OF ITS OFFICERS, BOARD MEMBERS, EMPLOYEES, CONSULTANTS AND AGENTS INCLUDING, WITHOUT LIMITATION, PROJECT MANAGER AND EACH OTHER COUNTY REPRESENTATIVE, SHALL HAVE NO LIABILITY TO CONTRACTOR FOR SPECIAL, CONSEQUENTIAL, OR INCIDENTAL DAMAGES, EXCEPT TO THE LIMITED EXTENT THAT THESE CONTRACT DOCUMENTS OR APPLICABLE PUBLIC CONTRACTING STATUTES MAY SPECIFY THEIR RECOVERY.

### **ARTICLE 15 - WORKING CONDITIONS AND PREVAILING WAGES**

#### **15.01 Use of Site/Sanitary Rules**

- A. All portions of the Work shall be maintained at all times in neat, clean and sanitary condition. Contractor shall furnish toilets for use of Contractor’s and Subcontractors’ employees on the Site where needed, and their use shall be strictly enforced. All toilets shall be properly secluded from public observation, and shall be located, constructed and maintained subject to County’s approval.
- B. Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workers to the Site and land areas identified in and permitted by Contract Documents and other land and areas permitted by applicable laws and regulations, rights of way, permits and easements or as designated by County, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment. Contractor shall assume full responsibility for any damage to any such land or area, any improvement located thereon, or to County or occupant thereof resulting from the performance of Work.
- C. During the progress of the Work, Contractor shall keep the Site and the Project free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall clean the site, remove all waste materials, rubbish and debris from and about the Site as well as all tools, appliances, construction equipment and machinery and surplus materials. Contractor shall leave the premises clean and ready for occupancy by County at Substantial Completion of Work. Contractor shall restore to original condition all property not designated for alteration by Contract Documents.
- D. Contractor shall not load nor permit any part of any structure or pavement to be loaded in any manner that will endanger the structure or pavement, nor shall Contractor subject any part of Work or adjacent property to stresses or pressures that will endanger it. Contractor shall conduct all necessary existing conditions investigation regarding structural, mechanical, electrical or any other system existing, shall perform Work consistent with such existing conditions, and shall have full responsibility for insufficiencies or damage resulting from insufficiencies of existing systems, equipment or structures to accommodate performing the Work.

#### **15.02 Protection of Work, Persons, and Property**

- A. Contractor shall be responsible for initiating, maintaining and supervising all safety and site security precautions and programs in connection with Work, and shall develop and implement a site security

and safety plan throughout construction. Contractor shall comply with all safety requirements specified in any safety program established by County, or required by state, federal or local laws and ordinances. Contractor shall be responsible for all theft or damage to Work, property or structures, and all injuries to persons, either on the Site or constituting the Work (e.g., materials in transit), arising from the performance of Work of the Contract Documents from a cause.

- B. Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall notify County of adjacent property and of Underground Facilities and utility County when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property.
- C. Contractor shall remedy all damage, injury or loss to any property referred to above in this Article, caused, directly or indirectly, in whole or in part, by Contractor, any Subcontractor, supplier, or any other person or organization directly or indirectly employed by any of them to perform or furnish any Work or anyone for whose acts any of them may be liable. Contractor's duties and responsibility for safety and for protection of Work shall continue until such time as all the Work is completed and Final Acceptance of the Work. County and its agents do not assume any responsibility for collecting any indemnity from any person or persons causing damage to Contractor's Work.
- D. Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.
- E. County may, at its option, retain such moneys due under the Contract Documents as County deems necessary until any and all suits or claims against Contractor for injury to persons or property shall be settled and County receives satisfactory evidence to that effect.
- F. Work within the right-of-way lines of the City, County and/or State shall be done in accordance with the standards and specifications of the controlling agency. Permit for such work shall be obtained and paid for by the Contractor before executing the work within such right-of-ways.

### **15.03 Responsibility for Safety and Health**

- A. Contractor shall ensure that its and each tier of Subcontractors' employees, agents and invitees comply with applicable health and safety laws while at the Site. These laws include the Occupational Safety and Health Act of 1970 and rules and regulations issued pursuant thereto, and County's safety regulations as amended from time to time. Contractor shall comply with all County directions regarding protective clothing and gear.
- B. Contractor shall be fully responsible for the safety of its and its Subcontractors' employees, agents and invitees on the Site. Contractor shall notify County, in writing, of the existence of hazardous conditions, property or equipment at the Site that are not under Contractor's control. Contractor shall be responsible for taking all the necessary precautions against injury to persons or damage to the property of Contractor, Subcontractors or persons from recognized hazards until the responsible party corrects the hazard.
- C. Contractor shall confine all persons acting on its or its Subcontractors' behalf to that portion of the Site where Work under the Contract Documents is to be performed, County-designated routes for ingress and egress thereto, and any other County-designated area. Except those routes for ingress and egress over which Contractor has no right of control, within such areas, Contractor shall provide safe means of access to all places at which persons may at any time have occasion to be present.

#### **15.04 Emergencies**

- A. In emergencies affecting the safety or protection of persons or Work or property at the Site or adjacent thereto, Contractor, without special instruction or authorization from County, is obligated to act to prevent threat and damage, injury or loss, until directed otherwise by County. Contractor shall give County prompt written notice if Contractor believes that any significant changes in Work or variations from Contract Documents have been caused thereby. If County determines that a change in the Contract Documents is required because of the action taken by Contractor in response to such an emergency, a Change Order or Construction Change Directive will be issued to document the consequences of such action.

#### **15.05 Use of Roadways And Walkways**

- A. Contractor shall not unnecessarily interfere with use of any roadway, walkway or other facility for vehicular or pedestrian traffic. Before beginning any interference and only with County's prior concurrence, Contractor may provide detour or temporary bridge for traffic to pass around or over the interference, which Contractor shall maintain in satisfactory condition as long as interference continues. Unless otherwise provided in the Contract Documents, Contractor shall bear the cost of these temporary facilities.

#### **15.06 Nondiscrimination**

- A. No person or entity shall discriminate in the employment of persons upon public works because of race, religious creed, color, national origin, ancestry, physical disability, mental disability, medical condition, marital status, sexual preference, or gender of such persons, except as provided in Government Code Section 12940. Every contractor for public works violating the provisions of Labor Code Section 1735 is subject to all the penalties imposed for a violation of Chapter 1, Part 7, Division 2 of the California Labor Code.

#### **15.07 Prevailing Wages and Working Hours**

- A. Contractor shall pay to persons performing labor in and about Work provided for in the Contract Documents an amount equal to or more than the general prevailing rate of per diem wages for (i) work of a similar character in the locality in which the Work is performed and (ii) legal holiday and overtime work in said locality. The per diem wages shall be an amount equal to or more than the stipulated rates contained in a schedule that has been ascertained and determined by the Director of the State Department of Industrial Relations and County to be the general prevailing rate of per diem wages for each craft or type of workman or mechanic needed to execute this Contract. Contractor shall also cause a copy of this determination of the prevailing rate of per diem wages to be posted at each Site.
- B. Contractor shall forfeit, as a penalty to County, \$200.00 for each laborer, worker, or mechanic employed in performing labor in and about the Work provided for in the Contract Documents for each Day, or portion thereof, that such laborer, worker or mechanic is paid less than the said stipulated rates for any Work done under the Contract Documents by him or her or by any Subcontractor under him or her, in violation of Articles 1 and 2 of Chapter 1 of Part 7 of Division II of the Labor Code. The sums and amounts that are forfeited pursuant to this Paragraph and the terms of the Labor Code shall be withheld and retained from payments due to Contractor under the Contract Documents, pursuant to this Document 007200 and the Labor Code, but no sum shall be so withheld, retained or forfeited except from the final payment without a full investigation by either the State Department of Industrial Relations or by County. The Labor Commissioner pursuant to Labor Code Section 1775 shall determine the final amount of forfeiture.
- C. Contractor shall insert in every subcontract or other arrangement which Contractor may make for performance of Work or labor on Work provided for in the Contract, provision that Subcontractor shall pay persons performing labor or rendering service under subcontract or other arrangement not less than the general prevailing rate of per diem wages for work of a similar character in the locality in which the Work is performed, and not less than the general prevailing rate of per diem wages for holiday and overtime work fixed in the Labor Code.

- D. Contractor stipulates that it shall comply with all applicable wage and hour laws, including without limitation, Labor Code Sections 1776 and 1810-1815. Failure to so comply shall constitute a default under this Contract.
- E. Contractor and its Subcontractors shall be responsible for compliance with Labor Code Sections 1810-1815.
1. Eight hours of labor performed in execution of the Contract constitutes a legal day's work. The time of service of any worker employed on the Project is limited and restricted to 8 hours during any one calendar day, and 40 hours during any one calendar week.
  2. Contractor and its Subcontractors shall keep an accurate record showing the name of and actual hours worked each calendar day and each calendar week by each worker employed by him or her in connection with the Project. The record shall be kept open at all reasonable hours to the inspection County and to the Division of Labor Standards Enforcement.
  3. Contractor or its Subcontractors shall, as a penalty to County, forfeit twenty-five dollars (\$25) for each worker employed in the execution of the Contract Documents by the respective Contractor or Subcontractor for each calendar day during which the worker is required or permitted to work more than 8 hours in any one calendar day and 40 hours in any one calendar week in violation of the provisions of Labor Code Sections 1810-1815.
  4. Work performed on the Project by employees of Contractor or its Subcontractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than 1 1/2 times the basic rate of pay.
- F. Contractor and its Subcontractors shall be responsible for compliance with Labor Code Section 1776. This Project is subject to prevailing wage compliance monitoring and enforcement by the Department of Industrial Relations. Contractor shall furnish, and require all subcontractors to furnish, the records specified in Labor Code Section 1776 (e.g. electronic certified payroll records) directly to the Labor Commissioner at least monthly.
1. Contractor and Subcontractors must keep accurate payroll records, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each journeyman, apprentice, worker, or other employee employed by him or her in connection with the Work of the Contract Documents. Each payroll record shall contain or be verified by a written declaration as required by Labor Code Section 1776.
  2. The payroll records enumerated above must be certified and shall be available for inspection at all reasonable hours at the principal office of the Contractor as required by Labor Code Section 1776.
    - a. Contractor shall inform County of the location of records enumerated above, including the street address, city and county, and shall, within five working days, provide a notice of a change of location and address.
    - b. Contractor or Subcontractor has 10 days in which to comply subsequent to receipt of a written notice requesting the records enumerated above. In the event that the Contractor or Subcontractor fails to comply with the ten-day period, he or she shall, as a penalty to County on whose behalf the contract is made or awarded, forfeit \$100.00 for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, these penalties shall be withheld from progress payments then due. Contractor is not subject to a penalty assessment pursuant to this Paragraph due to the failure of a Subcontractor to comply with this Paragraph.
  3. With each application for payment, Contractor shall also deliver certified payrolls to County as set forth above in this Document 007200 (General Conditions), and concurrently therewith

(but in no event less frequently than monthly) directly to the Labor Commissioner in the format prescribed by the Labor Commissioner.

4. Contractor shall post all jobsite notices if and when prescribed by regulation.
- G. Contractor and all subcontractors shall be registered and qualified to perform public work pursuant to Labor Code 1725.5 as a condition to engage in the performance of any Work hereunder.

#### **15.08 Environmental Controls**

- A. Contractor shall comply with all rules, regulations, ordinances, and statutes that apply to any Work performed under the Contract Documents including, without limitation, any toxic, water, stormwater management and soil pollution controls and air pollution controls specified in Government Code Section 11017. Contractor shall be responsible for insuring that Contractor's Employees, Subcontractors, and the public are protected from exposure to airborne hazards or contaminated water, soil, or other toxic materials used during or generated by activities on the Site or associated with the Project.

#### **15.09 Shoring Safety Plan**

- A. Any conflict between this Paragraph and the Technical Specifications shall be resolved in favor of the most stringent requirement.
- B. At least five Days in advance of any excavation five feet or more in depth, Contractor shall submit to County a detailed plan showing the shoring, bracing and sloping design (including calculations) and other provisions to be made for worker protection from the hazard of caving ground during the excavation, as required by Labor Code Section 6705. A civil or structural engineer registered in California shall prepare and sign any plan that varies from the shoring system standards established by the State Construction Safety Orders.
- C. During the course of Work, Contractor shall be responsible for determining where sloping, shoring, and/or bracing is necessary and the adequacy of the design, installation, and maintenance of all shoring and bracing for all excavation, including any excavation less than five feet in depth. Contractor will be solely responsible for any damage or injuries that may result from excavating or trenching. County's acceptance of any drawings showing the shoring or bracing design or Work schedule shall not relieve Contractor of its responsibilities under this Paragraph.
- D. Appoint a qualified supervisory employee who shall be responsible to determine the sloping or shoring system to be used depending on local soil type, water table, stratification, depth, etc.

**END OF DOCUMENT**

**DOCUMENT 00800  
SUPPLEMENTARY CONDITIONS**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. This document includes requirements that supplement the paragraphs of Document 00700 (General Conditions).

**1.2 SUPPLEMENTS**

**1.3 EXISTING UTILITIES**

- A. Drawings may indicate above-and below-grade structures, drainage lines, storm drains, sewers, water, gas, electrical, chemical, hot water, and other similar items and utilities, and additional information may be on file at the regional notification center, "Underground Service Alert" ("USA"). Contractor shall locate these known existing installations before proceeding with trenching or other operations that may cause damage, shall maintain them in service where appropriate, and shall repair any damage to them caused by the Work, at no increase in Contract Sum. Additional utilities whose locations are unknown to County are suspected to exist. Contractor shall be alert to their existence; if they are encountered, Contractor shall immediately report to County for disposition of the same. In addition to reporting if any utility is damaged, Contractor shall take appropriate action as provided in this Document 00800. Additional compensation or extension of time on account of utilities not shown or otherwise brought to Contractor's attention, including reasonable action taken to protect or repair damage, shall be determined as provided in this Document 00800.
- B. At no additional cost to County, Contractor shall incorporate into the Work main or trunk line utilities identified in the Contract Documents and other utilities or underground structures known or reasonably discernible and that will remain in service, including reasonable adjustments to the design location (including minor relocations) of the existing or new installations. Contractor shall take immediate action to restore any in service installations damaged by Contractor's operations. Should County determine that Contractor has not responded in a timely manner or not diligently pursued restoration of service, County may restore service and deduct the costs of such action by County from the amounts due under the Contract.
- C. Consistent with Government Code Section 4215, as between County and Contractor, County will be responsible for the timely removal, relocation, or protection of existing main or trunk line utility facilities located on the Site only if such utilities are not identified in the Contract Documents or Document 00320 (Existing Conditions Information). County will compensate Contractor for the cost of locating and repairing damage not due to Contractor's failure to exercise reasonable care, removing and relocating such main or trunk line utility facilities not indicated in the Contract Documents or Document 00320 (Existing Conditions Information) with reasonable accuracy, and equipment on the Project necessarily idled during such Work.
- D. Prior to performing Work at the Site, Contractor shall lay out the locations of known underground utilities that are to remain in service and other significant known underground installations. At no additional cost to County, prior to commencing other Work in proximity to such known underground utilities or installations that can be readily inferred from adjacent surface improvements, Contractor shall further locate, by carefully excavating with small equipment, potholing and principally by hand, such utilities or installations that are to remain and that are subject to damage. This obligation applies to all utilities (including, but not limited to, those referenced in paragraph 1.3.C of this Document 00800).
- E. Nothing in this Document 00800 shall be deemed to require County to indicate the

presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred by Contractor from the presence of an underground transmission main or other visible facilities, such as buildings, new asphalt, meters and junction boxes, on or adjacent to the Site. Contractor shall immediately secure all available information and notify County and utility, in writing, of its discovery, while performing Work under the Contract Documents, of any utility facilities not identified in the Drawings and Specifications.

#### 1.4 UNDERGROUND FACILITIES

- A. Before commencing Work of digging trenches or excavation, Contractor shall review all information available regarding subsurface conditions, including but not limited to information supplied in Document 00320 (Existing Conditions Information), and subject to the terms and conditions of these documents, Contractor shall also comply with Government Code Sections 4216 to 4216.9, and in particular Section 4216.2 which provides, in part:
- 1) "Except in an emergency, every person planning to conduct any excavation shall contact the appropriate regional notification center at least two working days, but no more than 14 calendar days, prior to commencing that excavation, if the excavation will be conducted in an area which is known, or reasonably should be known, to contain subsurface installations other than the underground facilities owned or operated by the excavator, and, if practical, the excavator shall delineate with white paint or other suitable markings the area to be excavated. The regional notification center shall provide an inquiry identification number to the person who contacts the center and shall notify any member, if known, who has a subsurface installation in the area of the proposed excavation."
  - 2) Contractor shall contact USA, and schedule the Work to allow ample time for the center to notify its members and, if necessary, for any member to field locate and mark its facilities. Contractor is charged with knowledge of all subsurface conditions reflected in USA records. Prior to commencing excavation or trenching Work, Contractor shall provide County with copies of all USA records secured by Contractor. Contractor shall advise County of any conflict between information provided in Document 00320 (Existing Conditions Information), the Drawings and that provided by USA records. Contractor's excavation shall be subject to and comply with the Contract Documents.
  - 3) In addition, County owns certain underground facilities which may not be reflected in USA records or those of other utility companies. Contractor shall notify County's representative prior to commencing any excavation in locations not shown clearly and unambiguously in the Contract Documents and shall allow ample time for County to locate and mark its facilities.
- B. The cost of all of the following will be included in the Contract Sum and Contractor shall have full responsibility for (a) reviewing and checking all available information and data including, but not limited to, Document 00320 (Existing Conditions Information) and information on file at USA; (b) locating all Underground Facilities shown or indicated in the Contract Documents, available information, or indicated by visual observation including, but not limited to, and by way of example only, engaging qualified locating services and all necessary back-hoeing and potholing; (c) coordinating the Work with the owners of such Underground Facilities during construction; and (d) the safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.
- C. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated in the materials supplied by County or in information on file at USA or is otherwise reasonably available to Contractor, then Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby (and in no event later than seven Days), and prior to performing any Work in connection therewith (except in an emergency as required by Article 15.4.A

- of Document 00700), identify the Owner of such Underground Facility and give written notice to that Owner and to County. During such time, Contractor shall be responsible for the safety and protection of such Underground Facility.
- D. Contractor shall be allowed an increase in the Contract Sum or an extension of the Contract Time, or both, to the extent that they are attributable to the existence of any Underground Facility that is owned and was built by County only where the Underground Facility:
- 1) Was not shown or indicated in the Contract Documents or in the information supplied pursuant to Document 00320 (Existing Conditions Information) or in information on file at USA;, and
  - 2) Contractor did not know of it; and
  - 3) Contractor could not reasonably have been expected to be aware of it or to have anticipated it from the information available. (For example, if surface conditions such as pavement repairs, valve covers, or other markings, indicate the presence of an Underground Facility, then an increase in the Contract Sum or an extension of the Contract Time will not be due, even if the Underground Facility was not indicated in the Contract Documents, in the information supplied to Contractor pursuant to Document 00320 (Existing Conditions Information), in information on file at USA, or otherwise reasonably available to Contractor.
- E. Contractor shall bear the risk that Underground Facilities may differ in nature or locations shown in information made available by County pursuant to Document 00320 (Existing Conditions Information), in information on file at USA, or otherwise reasonably available to Contractor. Underground Facilities are inherent in construction involving digging of trenches or other excavations and Contractor is to apply its skill and industry to verify the information available.

#### **1.5 WEATHER DELAYS**

- A. Delays due to abnormal or adverse weather conditions will not be allowed for weather conditions that fall within the parameters listed herein. Adverse weather delays may be allowed only if the number of workdays of adverse weather exceeds the adverse weather contingency, and Contractor proves that adverse weather actually caused delays. Contractor shall give written notice of intent to claim an adverse weather Day within one (1) Day of the adverse weather delay occurring. Rain parameters are listed below. The Adverse Weather Contingency for this contract will be ten (10) work days, and Contractor shall include in the project schedule at least ten (10) work days for adverse weather. The total number of rain days constitutes the Adverse Weather Contingency to be included in the project schedule as described in Section 01320 (Progress Schedules and Reports). The Adverse Weather Contingency is included in the total Contract Time. In order to qualify as an adverse weather delay with respect to the foregoing parameters, daily rainfall must exceed 0.10 of an inch or more at the Santa Rosa, California station, as measured by the National Oceanic & Atmospheric Administration, and Contractor shall prove that the rain actually caused delay.
- B. Contractor shall include the foregoing rain parameters as a monthly activity in its Progress Schedule. As Work on the critical path is affected by rain, Contractor shall notify County and request that the Days be moved to the affected activities. Any adverse weather Days remaining shall be considered Project Float.
- C. Adverse weather delay for rain shall be recognized for the actual period of time Contractor proves it was delayed by rain exceeding the specified parameters. For example, and not by way of limitation, if rain exceeding the specified parameters does not in fact delay Contractor's progress on the critical path, then no time extension shall be recognized; and conversely, if Contractor proves that rain exceeding the specified parameters causes delay to Contractor for a period longer than the number of rain Days incurred (e.g., if it rains during grading Work), then Contractor shall be entitled to a time extension equal to the actual period of such delay.

- D. Contractor shall take reasonable steps to mitigate potential weather delays, such as dewatering the Site, and covering Work and material that could be affected adversely by weather. Failure to do so shall be cause for County to not grant a time extension due to adverse weather, where Contractor could have avoided or mitigated the potential delay by exercising reasonable care.

**1.6 PRELIMINARY SCHEDULE OF SUBMITTALS**

- A. Seven (7) Days after Commencement Date, but no later than the Preconstruction Conference (whichever is earlier), a preliminary schedule of Submittals that shall list each required Submittal and the times for submitting, reviewing and processing such Submittal, as required by Section 01330 (Submittal Procedures). If no such schedule is agreed upon, then all Submittals shall be completed and submitted within 21 Days after receipt of Notice of Award from County.

END OF DOCUMENT

DOCUMENT 00821

**SUPPLEMENTARY CONDITIONS – INSURANCE****I. Contractor - Required Insurance**

At or before the date specified in Document 00200 (Instructions to Bidders), Contractor shall furnish to County satisfactory proof that Contractor has obtained the following insurance as specified below.

County reserves the right to review any and all of the required insurance policies and/or endorsements, but has no obligation to do so. Failure to demand evidence of full compliance with the insurance requirements set forth in this Contract or failure to identify any insurance deficiency shall not relieve Contractor from, nor be construed or deemed a waiver of, its obligation to maintain the required insurance at all times during the performance of this Contract.

**1. Workers Compensation and Employers Liability Insurance**

- a. Workers Compensation insurance with statutory limits as required by the Labor Code of the State of California.
- b. Employers Liability with minimum limits of \$1,000,000 per Accident; \$1,000,000 Disease per employee; \$1,000,000 Disease per policy.
- c. The policy shall be endorsed to include a written waiver of the insurer's right to subrogate against County.
- d. Required Evidence of Insurance:
  - i. Subrogation waiver endorsement; and
  - ii. Certificate of Insurance.

If injury occurs to any employee of Contractor, Subcontractor or sub-subcontractor for which the employee, or the employee's dependents in the event of employee's death, is entitled to compensation from County under provisions of the Workers Compensation Insurance and Safety Act, as amended, or for which compensation is claimed from County, County may retain out of sums due Contractor under Contract Documents, amount sufficient to cover such compensation, as fixed by the Act, as amended, until such compensation is paid, or until it is determined that no compensation is due. If County is compelled to pay compensation, County may, in its discretion, either deduct and retain from the Contract Sum the amount so paid, or require Contractor to reimburse County.

**2. General Liability Insurance**

- a. Commercial General Liability Insurance on a standard occurrence form, no less broad than Insurance Services Office (ISO) form CG 00 01.
- b. Minimum Limits: The required limits may be provided by a combination of General Liability Insurance and Commercial Excess or Commercial Umbrella Liability Insurance. If Contractor maintains higher limits than the specified minimum limits, County requires and shall be entitled to coverage for the higher limits maintained by Contractor.
  - i. Projects under \$1,000,000: \$1,000,000 per Occurrence; \$2,000,000 General Aggregate; \$2,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.

- ii. Projects from \$1,000,000 - \$4,999,999: \$2,000,000 per Occurrence; \$4,000,000 General Aggregate; \$4,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.
  - iii. Projects from \$5,000,000 - \$9,999,999: \$5,000,000 per Occurrence; \$5,000,000 General Aggregate; \$5,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.
  - iv. Projects \$10,000,000 and Over: \$10,000,000 per Occurrence; \$10,000,000 General Aggregate; \$10,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.
- c. Any deductible or self-insured retention shall be shown on the Certificate of Insurance. If the deductible or self-insured retention exceeds \$25,000, it must be approved in advance by County. Contractor is responsible for any deductible or self-insured retention and shall fund it upon County's written request, regardless of whether Contractor has a claim against the insurance or is named as a party in any action involving the County.
  - d. Insurance shall be maintained for the entire period of the Work including any warranty period. Completed operations insurance shall be maintained after the end of the warranty period for the additional periods specified below:
    - i. Projects under \$1,000,000: one (1) year after the end of the warranty period.
    - ii. Projects from \$1,000,000 - \$4,999,999: two (2) years after the end of the warranty period.
    - iii. Projects from \$5,000,000 - \$9,999,999: three (3) years after the end of the warranty period.
    - iv. Projects \$10,000,000 and over: five (5) years after the end of the warranty period.
  - e. **The County of Sonoma, its Board of Supervisors, and their employees, representatives, consultants, and agents** shall be endorsed as additional insureds for liability arising out of ongoing and completed operations by or on behalf of the Contractor in the performance of the Contract Documents. Additional insured status shall continue for the periods specified in Section 2.d. above.
  - f. The additional insured endorsement for completed operations shall not be restricted to work performed during the current policy period.
  - g. The policy definition of "insured contract" shall include assumptions of liability arising out of both ongoing operations and the products-completed operations hazard (broad form contractual liability coverage including the "f" definition of insured contract in ISO form CG 00 01, or equivalent).
  - h. The insurance provided to the additional insureds shall be primary to, and non-contributory with, any insurance or self-insurance program maintained by them.
  - i. The policy shall not exclude injury or damage caused by, or resulting from, explosion, collapse and/or underground hazards.
  - j. The policy shall not contain a Contractors Warranty or other similar language which eliminates or restricts insurance because of a subcontractor's failure to carry specific insurance or to supply evidence of such insurance.
  - k. The policy shall be endorsed to include a written waiver of the insurer's right to subrogate against all persons or entities that are, or are required to be, additional insureds.
  - l. The policy shall cover inter-insured suits between Contractor and the additional insureds

and shall include a “separation of insureds” or “severability” clause which treats each insured separately.

**m. Required Evidence of Insurance:**

- i. Additional insured endorsements or policy language granting additional insured status;
- ii. Endorsement or policy language indicating that insurance is primary and non-contributory;
- iii. Subrogation waiver endorsement; and
- iv. Certificate of Insurance.

**3. Automobile Liability Insurance**

**a. Minimum Limit:**

- i. Projects under \$1,000,000: \$1,000,000 combined single limit per accident.
- ii. Projects \$1,000,000 and over: \$2,000,000 combined single limit per accident.

b. The required limits may be provided by a combination of Automobile Liability Insurance and Commercial Excess or Umbrella Liability Insurance.

c. Insurance shall cover all owned, hired and non-owned vehicles.

d. **The County of Sonoma** shall be defined as insureds under the policy or shall be endorsed as additional insureds.

e. Insurance shall be maintained for the entire term of this Contract, including any warranty period.

**f. Required Evidence of Insurance:**

- i. Endorsement or policy language documenting 3.d.; and
- ii. Certificate of Insurance.

**4. Increase of Minimum Limits**

Required minimum amounts of insurance may be increased should conditions of Work, in opinion of County, warrant such increase. Contractor shall increase required insurance amounts upon direction by County.

**5. Standards for Insurance Companies**

Insurers, other than the California State Compensation Insurance Fund, shall have an A.M. Best's rating of at least A:VII.

**6. Documentation**

a. The Certificate of Insurance shall include the following reference: Tolay Lake Regional Park Gathering Area Phase 2 – Shade Structure.

b. Contractor agrees to maintain current Evidence of Insurance on file with County for the periods specified above in Sections 1-5. Any requirement to maintain insurance after Final Completion of the Work, including providing Certificates evidencing required Insurance, shall survive the Contract.

c. Required Evidence of Insurance shall be submitted to County of Sonoma – Regional Parks Department  
400 Aviation Blvd, Suite 100  
Santa Rosa, CA 95403

d. Required Evidence of Insurance shall be submitted for any renewal or replacement of a

policy that already exists, at least ten (10) days before expiration or other termination of the existing policy.

- e. Contractor shall provide immediate written notice if: (1) any of the required insurance policies are terminated; (2) the limits of any of the required policies are reduced; or (3) the deductible or self-insured retention is increased.
- f. Upon written request, certified copies of required insurance policies must be provided within thirty (30) days.

## 7. Material Breach

If Contractor fails to maintain Insurance which is required pursuant to the Contract Documents, it shall be deemed a material breach. County, at its sole option, may terminate the Contract for default and obtain damages from Contractor resulting from said breach. Alternatively, County may purchase the required Insurance, and without further notice to Contractor, County may deduct from sums due to Contractor any premium costs advanced by County for such insurance. These remedies shall be in addition to any other remedies available to County under the Contract Documents or Law.

## II. Subcontractors - Required Insurance

With respect to their portion of the work, subcontractors of all tiers shall maintain the same insurance required to be maintained by contractor with limits as follows:

1. Minimum General Liability Limits for Framing, Mechanical, and Electrical Subcontractors:
  - a. Projects under \$1,000,000: 1,000,000 per Occurrence; \$2,000,000 General Aggregate; \$2,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.
  - b. Projects \$1,000,000 and Over: \$2,000,000 per Occurrence; \$4,000,000 General Aggregate; \$4,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.
2. Minimum General Liability Limits for all Subcontractors other than Framing, Mechanical, and Electrical Subcontractors: \$1,000,000 per Occurrence; \$2,000,000 General Aggregate; \$2,000,000 Products/Completed Operations Aggregate. The General Aggregate shall apply separately to each Project.
3. Minimum Automobile Liability Limits: \$1,000,000 combined single limit per accident.
4. Minimum Employers Liability Limits: \$1,000,000 per Accident; \$1,000,000 Disease per employee; \$1,000,000 Disease per policy.
5. Professional Liability/Errors & Omissions Insurance:  
*(Required for any architect, engineer, surveyor or other licensed professional engaged by Contractor to perform portions of the Work)*
  - a. Minimum Limit: \$1,000,000 per claim or per occurrence.
  - b. Any deductible or self-insured retention shall be shown on the Certificate of Insurance. If the deductible or self-insured retention exceeds \$25,000 it must be approved in advance by County.
  - c. If the insurance is on a Claims-Made basis, the retroactive date shall be no later than the commencement of the work.
  - d. Coverage applicable to the work performed under the Contract shall be continued for two

(2) years after completion of the work. Such continuation coverage may be provided by one of the following: (1) renewal of the existing policy; (2) an extended reporting period endorsement; or (3) replacement insurance with a retroactive date no later than the commencement of the work under this Contract.

- e. Required Evidence of Insurance: Certificate of Insurance.

**III. Builders Risk**

With respect to Work under this Contract, County shall maintain “All-Risk” Course of Construction insurance as follows:

1. Insured Property shall include: (1) real property in course of construction; (2) building materials and supplies intended to be in or on the completed Work located at the Site, in storage or in transit, and whether or not owned or paid for by County; (3) fixtures and machinery intended to be in or on the completed Work; (4) scaffolding, cribbing, fencing, forms and temporary trailers, while located on the Site, in storage or in transit.
2. The limit of insurance shall be the full contract value.
3. Responsibility for paying deductibles is as follows:

<i>Contract Value or Description</i>	<i>Contractor’s Responsibility for Deductible: Earthquake and Flood</i>	<i>Contractor’s Responsibility for Deductible: Other Insured Perils</i>	<i>County’s Responsibility for Deductible</i>
Full Contract Value under \$1,000,000	First \$10,000	First \$5,000	Balance of Deductible
Full Contract Value: \$1,000,000 - \$9,999,999	First \$20,000	First \$10,000	Balance of Deductible
Full Contract Value: \$10,000,000 - \$19,999,999	First \$50,000	First \$25,000	Balance of Deductible
Full Contract Value: \$20,000,000 and above	First \$60,000	First \$30,000	Balance of Deductible

4. Contractor and Subcontractors of all tiers shall be additional insureds.
5. **Excluded projects: dams; piers; roads; bridges; wastewater treatment facilities.**
6. **Excluded property: equipment, tools and personal effects belonging to Contractor or Subcontractors of all tiers.**
7. Insured perils: All Risks of Direct Physical Damage or Loss, including flood and, for scheduled locations, earthquake, except as excluded.
8. **Exclusions may include, but are not limited to:**
  - a. **Loss due to wear and tear, moths, vermin, termites, insects, latent defects, gradual deterioration, wet or dry rot, rust, corrosion, erosion or normal settling, shrinkage and/or expansion of buildings or foundations.**
  - b. **The cost of making good, faulty or defective workmanship, material, construction or design. Damage resulting from such faulty or defective workmanship, material, construction or design is not excluded.**
  - c. **Loss resulting from delay in completion of contract or non-compliance with contract**

- conditions.**
- d. Loss or damage due to contaminants and/or pollutants. However, fire losses arising directly or indirectly from pollutants or contaminants are covered.**
  - e. Loss of use or occupancy or consequential loss.**
  - f. Liquidated damages and/or penalties for delay or detention in connection with guarantees of performance or efficiency.**
  - g. Loss or damage caused by or resulting from infidelity or dishonesty on the part of any insured or the employees or agents of any insured.**
  - h. Inventory shortage or unexplained disappearance.**
- 8.** County's Course of Construction Insurance, including all policy coverages, conditions and exclusions, shall control in the event of any conflict with the language of these Supplementary Conditions. Upon request, County will provide a Certificate of Property Insurance.

## DOCUMENT 00822

**APPRENTICESHIP PROGRAM**

- 1.1** Contractor and subcontractors shall comply with the requirements of California Labor Code Sections 1776, 1777.5, and 1777.6 concerning the employment of apprentices by Contractor or subcontractors. Willful failure to comply may result in penalties, including loss of the right to bid on or receive public works contracts.
- 1.2** Section 1777.5, as amended, requires a contractor or subcontractor employing tradespersons in any apprenticeable occupation to apply to the joint apprenticeship committee nearest the site of a public works project and which administers the apprenticeship program in that trade for a certification of approval. The certificate shall also fix the ratio of apprentices to journeypersons that will be used in performance of the contract. The ratio of work performed by apprentices to journeypersons in such cases shall not be less than one *hour* of apprentices work for every five *hours* of labor performed by journeypersons (the minimum ratio for the land surveyor classification shall not be less than one apprentice for each five journeypersons), except:
- A. When unemployment for the previous three-month period in the area exceeds an average of 15 percent;
  - B. When the number of apprentices in training in the area exceeds a ratio of one to five;
  - C. When a trade can show that it is replacing at least 1/30 of its membership through apprenticeship training on an annual basis state-wide or locally; or
  - D. Assignment of an apprentice to any work performed under a public works contract would create a condition which would jeopardize his or her life or the life, safety, or property of fellow employees or the public at large or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyperson.
- 1.3** Contractor is required to make contributions to funds established for administration of apprenticeship programs if contractor employs registered apprentices or journeypersons in any apprenticeable trade on such contracts and if other contractors on the public works site are making such contributions.
- 1.4** Information relative to apprenticeship standards, wage schedules, and other requirements may be obtained from the Director of the California Department of Industrial Relations, or from the Division of Apprenticeship Standards and its branch offices.

END OF DOCUMENT



## SECTION 01100

**SUMMARY****PART 1 GENERAL****1.1 SUMMARY**

A. Section includes:

- 1) Summary of Work and Work Restrictions including:
  - a. Work Covered By Contract Documents
  - b. Bid Alternates and Unit Prices
  - c. Work Under Other Contracts
  - d. Work Sequence
  - e. Hours Of Work And Notification Of Adjacent Residents
  - f. Partial Occupancy/Utilization Requirements
  - g. Products Ordered in Advance
  - h. County-Furnished Products

**1.2 WORK COVERED BY CONTRACT DOCUMENTS**

- A. Work comprises construction of County's, **Tolay Lake Regional Park Gathering Phase 2 – Shade Structure** located at **5869 Cannon Lane, Petaluma, California**, including without limitation **construction of custom design steel shade structure over existing concrete stage, complete concrete flatwork and interpretive elements from the initial phase 1 project.**
- B. Unless provided otherwise in the Contract Documents, all risk of loss to Work covered by Contract Documents shall rest with Contractor until Final Acceptance of the Work.

**1.3 BID ALTERNATE**

A. Alternate: As described in Section 01230 (Alternates)**WORK UNDER OTHER CONTRACTS**

- A. Contractor shall coordinate with County and any County forces, or other contractors and forces, as required by Document 00700 (General Conditions), paragraph 6.
- B. County will contract with other contractors or forces for other work including but not limited to the following:
- 1) NONE

**1.5 WORK SEQUENCE**

- A. Construct Work in stages and at times to accommodate County operation requirements during the construction period; coordinate construction schedule and operations with County.
- 1) NONE
- B. The following portions of the work shall be substantially completed prior to Substantial Completion of all of the Work. Notify County in writing when Contractor considers any such part of the Work ready for its intended use and Substantially Complete and request County to issue a Certificate of Substantial Completion for that part of the Work.
- 1) NONE

**1.6 HOURS OF WORK AND NOTIFICATION OF ADJACENT RESIDENTS**

- A. Prior to starting construction, the County will notify adjacent residents of the proposed construction schedule if deemed necessary.
- B. Outdoor construction activity, except for emergency situations, will be confined to the hours 7:00 a.m. through 7:00 p.m. on Monday through Friday. Contractor may request with at least forty-eight (48) hours prior notification to and approval from County's Project Manager, an alternate schedule. Construction will not be allowed on Sundays or holidays.

**1.7 PARTIAL OCCUPANCY/UTILIZATION REQUIREMENTS**

- A. Contractor shall allow County to take possession of and use any completed or partially

- completed portion of the Work during the progress of the Work as soon as is possible without interference to the Work.
- B. Possession, use of Work, and placement and installation of equipment by County shall not in any way evidence the completion of the Work or any part of it.
  - C. Contractor shall not be held responsible for damage to the occupied part of the Work resulting from County occupancy.
  - D. Use and occupancy by County prior to acceptance of Work does not relieve Contractor of its responsibility to maintain insurance and bonds required under the Contract until entire Work is completed and accepted by County.
    - 1) Responsibility for operation and maintenance of said equipment shall remain with Contractor.
    - 2) Make, and County shall certify, an itemized list of each piece of equipment so operated with the date operation commences.
    - 3) Itemized list noted above shall be basis for commencement of warranty period for equipment.
    - 4) County shall pay for utility cost arising out of occupancy by County during construction.
  - E. Use and occupancy by county prior to acceptance of Work does not relieve Contractor of its responsibility to maintain insurance and bonds required under the Contract until entire Work is completed and accepted by County.
  - F. Prior to date of Final Acceptance of the Work by County, all necessary repairs or renewals in Work or part thereof so used, not due to ordinary wear and tear, but due to Defective materials or workmanship or to operations of Contractor, shall be made at expense of Contractor, as required in Document 00700 (General Conditions).
  - G. Use by County of Work or part thereof as contemplated by this Section 01100 shall in no case be construed as constituting acceptance of Work or any part thereof. Such use shall neither relieve Contractor of any responsibilities under Contract, nor act as waiver by County of any of the conditions thereof.

## **PART 2 PRODUCTS**

### **1.8 PRODUCTS ORDERED IN ADVANCE**

- A. As provided in Section 01200 (Price and Payment Procedures), paragraph 1.5E, and subject to all other provisions of the Contract Documents, County will pay for the following materials and equipment prior to incorporation into the Work:
  - 1) NONE

### **1.9 COUNTY-FURNISHED PRODUCTS**

- A. County-Furnished Products:
  - 1) NONE

END OF SECTION

## SECTION 01200

**PAYMENT PROCEDURES****PART 1 GENERAL****1.1 SUMMARY**

## A. Section includes:

- 1) Description of requirements and procedures for determining amount of Work performed and for obtaining payment for Work performed.

**1.2 REFERENCES**

- A. California Public Contract Code
- B. Code of Civil Procedures
- C. Government Code

**1.3 SCOPE OF WORK**

- A. Work under Contract Documents, or under any Bid item, allowance, or Alternate, shall include all labor, materials, taxes, transport, handling, storage, supervision, administration, and all other items necessary for the satisfactory completion of Work, whether or not expressly specified or indicated.

**1.4 SCOPE OF PAYMENT**

- A. Contract Sum, as adjusted by Contract Modification, shall be deemed to be full compensation and shall include all costs necessary to complete required Work, including Contractor overhead and profit, all costs (if any) for loss or damage arising from nature of Work or prosecution of the Work, and from action of elements. Unless Contract Documents expressly provide otherwise, the Contract Sum shall be deemed to include:
  - 1) Any and all costs arising from any unforeseen difficulties which may be encountered during, and all risks of any description connected with, prosecution of Work or prosecution of Bid item (whether lump sum or unit price) until acceptance by County;
  - 2) All expenses incurred due to suspension, or discontinuance of Work or discontinuance of Bid item (whether lump sum or unit price) as provided in Contract Documents;
  - 3) Escalation to allow for cost increases between time of Contract Award and completion of Work or completion of Bid item (whether lump sum or unit price).
  - 4) Any expense incurred by Contractor for any purpose in connection with the performance and completion of said Work, including all incidental Work necessary for completion of the Work.
- B. Whenever it is specified herein that Contractor is to do Work or furnish materials of any class for which no price is fixed in Contract Documents, it shall be understood that Contractor is to do such Work or furnish such materials without extra charge or allowance or direct payment of any sort, and that cost of doing Work or furnishing materials is to be included in price Bid, unless it is expressly specified herein, in particular cases, that Work or material is to be paid for as extra Work.
- C. No payment shall be made for materials or equipment not yet incorporated into the Work, except as may be specifically approved by County in its sole discretion. Before payment for any such materials and equipment, Contractor must satisfy the following conditions:
  - 1) The materials and/or equipment shall be delivered and suitably stored at the Site or at another local location agreed to in writing, for example, a mutually acceptable bonded warehouse;
  - 2) Full title to the materials and/or equipment shall vest in County at the time of delivery to the Site, warehouse or other storage location;
  - 3) Obtain a negotiable warehouse receipt, endorsed over to County for materials and/or equipment stored in an Off Site bonded warehouse. No payment will be made until such endorsed receipts are delivered to County;

- 4) Stockpiled materials and/or equipment shall be available for County inspection, but County shall have no obligation to inspect them and its inspection or failure to inspect shall not relieve Contractor of any obligations under the Contract Documents. Materials and/or equipment shall be segregated and labeled or tagged to identify these specific Contract Documents;
- 5) After delivery of materials and/or equipment, if any inherent or acquired defects are discovered, Defective materials and/or equipment shall be removed and replaced with suitable materials and/or equipment at Contractor's expense;
- 6) At Contractor's expense, insure the materials and/or equipment against theft, fire, flood, vandalism, and malicious mischief, as well as any other coverages required under the Contract Documents;
- 7) Contractor's Application for Payment shall be accompanied by a bill of sale, invoice or other documentation warranting that County has received the materials and equipment free and clear of all liens and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect County's interest therein, all of which must be satisfactory to County. This documentation shall include, but not be limited to, conditional releases of mechanics' liens and stop notices from all those providing materials and equipment as to which the Application for Payment relates, as well as unconditional releases of the same from the same as to the previous Application for Payment for which they have not already been provided.

#### **1.5 BASIS OF PAYMENT**

- A. When estimated quantity for specific portion of Work is not indicated or unit is designated as lump sum, payment will be on a lump sum basis for Work satisfactorily completed in accordance with Contract Documents.
- B. When estimated quantity for specific portions of Work is listed in Bid Form, and Bid Item is described in Section 01026 (Unit Prices): As provided in Section 01026.
- C. County does not expressly, or by implication, agree, warrant, or represent in any manner, that actual amount of Work will correspond with amount shown or estimated and reserves right to increase or decrease amount of any class or portion of Work, to leave out entire Bid Item or Items, or to add work not originally included in Bid or Contract Documents, when in its judgment such change is in County's best interests. No change in Work shall be considered a waiver of any other condition of Contract Documents. No claim shall be made for anticipated profit, for loss of profit, for damages, or for extra payment whatever, except as otherwise expressly provided for in Contract Documents, because of any differences between amount of work actually done and estimated amount as set forth herein, or for elimination of Bid Items.

#### **1.6 PROGRESS PAYMENTS**

- A. County's Project Manager is authorized to approve progress payments in conformance with Contract Documents and the Auditor/Controller of the County of Sonoma is authorized to process such payments upon their submission by the Regional Parks Department.
- B. The contractor shall use the forms attached to this Section 01200 (Payment Procedures) for payment applications and payment requests to the County.
- C. Progress payments will be made monthly.
- D. Schedule of Values:
  - 1) Not later than the time described in Document 00700 (General Conditions) paragraph 11.1.B, Contractor shall submit a preliminary, detailed breakdown of its Bid by scheduled Work items and/or activities, including coordination responsibilities and Project Record Documents responsibilities. Where more than one Subcontractor comprises the work of a Work item or activity, the breakdown shall show a separate line item for each subcontract. Furnish such breakdown of the total Contract Sum by assigning dollar values (cost estimates) to each applicable Work activity, which cumulative sum equals the total Contract Sum. The format and detail of the breakdown shall be as directed by County to facilitate and clarify future progress

payments to Contractor for direct Work under Contract Documents. Once approved by County, this breakdown shall be referred to as the Schedule of Values.

- 2) Contractor's overhead, profit, insurance, cost of bonds (except to the extent expressly identified in a Bid item) and/or other financing, as well as "general conditions costs," (e.g., Site cleanup and maintenance, temporary roads and access, off-Site access roads, temporary power and lighting, security, and the like), shall be prorated through all activities so that the sum of all the Schedule of Values line items equals Contractor's total Contract Sum.
  - 3) County will review the breakdown in conjunction with the Progress Schedule to ensure that the dollar amounts of this Schedule of Values are, in fact, reasonable cost allocations for the Work items listed. Upon favorable review by County, County will accept this Schedule of Values for use. County shall be the sole judge of reasonable cost allocations.
  - 4) County will reject any attempt to increase the cost of early activities, i.e., "front loading," resulting in a complete reallocation of moneys until such "front loading" is corrected. Repeated attempts at "front loading" may result in suspension or termination of the Work for default, or refusal to process progress payments until such time as the Schedule of Values is acceptable to County.
- E. Application for Payment:
- 1) On thirty (30) Day intervals, Contractor shall submit to County one (1) copy of the Application for Payment for the cost of the Work put in place during the period from the previous thirty (30) Days work of the current month, along with one (1) copy of County-approved updated Schedule. Such Applications for Payment shall be for the total value of activities completed or partially completed, including approved activity costs, based upon Schedule of Values prices (or Bid item prices if unit price of all labor and materials incorporated in the Work up until midnight of the last Day of that one month period, less the aggregate of previous payments. Accumulated retainage shall be shown as separate item in payment summary. If necessary, County and Contractor will meet to reconcile any differences. If Contractor is late submitting its' Application for Payment, that Application may be processed at any time during the succeeding one-month period, resulting in processing of Contractor's Application for Payment being delayed for more than a Day for Day basis.
  - 2) Applications for Payment may include, but are not necessarily limited to the following:
    - a. Material, equipment, and labor incorporated into the Work, less any previous payments for the same;
  - 3) At the time any Application for Payment is submitted, certify in writing the accuracy of the Application and that Contractor has fulfilled all scheduling requirements of Document 00700 (General Conditions) and Section 01320 (Progress Schedules and Reports), including updates and revisions. A responsible officer of Contractor shall execute the certification.
  - 4) No progress or initial payment will be processed prior to County receiving all requested, acceptable schedule update information. Failure to submit a Progress Schedule update complying with Section 01320 justifies denying the entire Application for Payment.
  - 5) Each Application for Payment shall list each Change Order executed prior to date of submission, including the Change Order Number, and a description of the Work activities, consistent with the descriptions of original Work activities.
  - 6) If County requires substantiating data, submit information requested by County, with cover letter identifying Project, Application for Payment number and date, and detailed list of enclosures. Submit one (1) copy of substantiating data and cover letter for each copy of Application for Payment submitted.
  - 7) Original certified payroll records and/or notification forms from the prime contractor and any sub-contractor that has started work at the site must be submitted with each Application for Payment.

## F. Progress Payments:

- 1) County will review Contractor's Application for Payment following receipt. If adjustments need to be made to percent of completion of each activity, County will make appropriate notations and return to Contractor. Contractor shall revise and resubmit. All parties shall update percentage of completion values in the same manner, i.e., express value of an accumulated percentage of completion to date.
- 2) Each Application for Payment may be reviewed by County and/or inspectors to determine whether the Application for Payment is proper, and shall be rejected, revised, or approved by County pursuant to the Schedule of Values prepared in accordance with paragraph 1.6A of this Section 01200.
- 3) If it is determined that the Application for Payment is not proper and suitable for payment, County will return it to Contractor as soon as practicable, but no later than seven (7) Days after receipt, together with a document setting forth in writing the reasons why the Application for Payment is not proper. If County determines that portions of the Application for Payment are not proper or not due under the Contract Documents, then County may approve the other portions of the Application for Payment, and in the case of disputed items or Defective Work not remedied, may withhold up to one hundred fifty percent (150%) of the disputed amount from the progress payment.
- 4) Pursuant to Public Contract Code Section 20104.50, if County fails to make any progress payment within thirty (30) Days after receipt of an undisputed and properly submitted Application for Payment from Contractor, County shall pay interest to Contractor equivalent to the legal rates set forth in subdivision (a) of Section 685.010 of the Code of Civil Procedure. The thirty (30) Day period shall be reduced by the number of Days by which County exceeds the seven (7) Day return requirement set forth herein.
- 5) As soon as practicable after approval of each Application for Payment for progress payments, County will pay to Contractor in manner provided by law, an amount equal to ninety percent (90%) of the amounts otherwise due as provided in the Contract Documents, or a lesser amount if so provided in Contract Documents, provided that payments may at any time be withheld if, in judgment of County, Work is not proceeding in accordance with Contract, or Contractor is not complying with requirements of Contract, or to comply with stop notices or to offset liquidated damages accruing or expected.
- 6) Before any progress payment or final payment is due or made, Contractor shall submit satisfactory evidence that Contractor is not delinquent in payments to employees, Subcontractors, suppliers, or creditors for labor and materials incorporated into Work. This specifically includes, without limitation, conditional lien release forms for the current progress payment and unconditional release forms for past progress payments. County also may elect in its sole discretion to pay progress payments by joint check to Contractor and each Subcontractor having an interest in that progress payment in such amount.
- 7) County reserves and shall have the right to withhold payment for any equipment and/or specifically fabricated materials that, in the sole judgment of County, are not adequately and properly protected against weather and/or damage prior to or following incorporation into the Work.
- 8) Granting of progress payment or payments by County, or receipt thereof by Contractor, shall not be understood as constituting in any sense acceptance of Work or of any portion thereof, and shall in no way lessen liability of Contractor to replace unsatisfactory Work or material, though unsatisfactory character of Work or material may have been apparent or detected at time payment was made.
- 9) When County shall charge sum of money against Contractor under any provision of Contract Documents, amount of charge shall be deducted and retained by County from amount of next succeeding progress payment or from any other moneys due or that may become due Contractor under Contract. If, on completion or termination of

Contract, such moneys due Contractor are found insufficient to cover County's charges against it, County shall have right to recover balance from Contractor or Sureties.

#### **1.7 SUBSTITUTION OF SECURITIES IN LIEU OF RETENTION**

- A. In accordance with the provisions of Public Contract Code Section 22300, substitution of securities for any moneys withheld under Contract Documents to ensure performance is permitted under following conditions:
- 1) At request and expense of Contractor, securities listed in Section 16430 of the Government Code, bank or savings and loan certificates of deposit, interest bearing demand deposit accounts, standby letters of credit, or any other security mutually agreed to by Contractor and County which are equivalent to the amount withheld under retention provisions of Contract shall be deposited with Controller or with a state or federally chartered bank in California, as the escrow agent, who shall then pay such moneys to Contractor. Upon satisfactory completion of Contract, securities shall be returned to Contractor.

#### **1.8 FINAL PAYMENT**

- A. As soon as practicable after all required Work is completed in accordance with Contract Documents, including punchlist, testing, record documents, Contractor maintenance after Final Acceptance and issuance of Final Inspection report, County will pay to Contractor, in manner provided by law, unpaid balance of Contract Sum of Work (including without limitation retentions), or whole Contract Sum of Work if no progress payment has been made, determined in accordance with terms of Contract Documents, less sums as may be lawfully retained under any provisions of Contract Documents or by law.
- B. Prior progress payments shall be subject to correction in the final payment. County's determination of amount due as final payment shall be final and conclusive evidence of amount of Work performed by Contractor under Contract Documents and shall be full measure of compensation to be received by Contractor.
- C. Contractor and each assignee under an assignment in effect at time of final payment shall execute and deliver at time of final payment, and as a condition precedent to final payment, Document 00650 (Agreement and Release of Any and All Claims).

#### **1.9 EFFECT OF PAYMENT**

- A. Payment will be made by County, based on County's observations at the Site and the data comprising the Application for Payment. Payment will not be a representation that County has:
- 1) Made exhaustive or continuous on-Site inspections to check the quality or quantity of Work;
  - 2) Reviewed construction means, methods, techniques, sequences, or procedures;
  - 3) Reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by County to substantiate Contractor's right to payment; or
  - 4) Made examination to ascertain how or for what purpose Contractor has used money previously paid on account of the Contract Sum.

END OF SECTION

PAYMENT APPLICATION FORM FOLLOWS ON NEXT TWO PAGES

PAYMENT REQUEST FORM

SHEET: 1 OF 2  
APPLICATION NUMBER [ # ]  
APPLICATION DATE:  
PERIOD FROM:

CONTRACTOR: [NAME OF CONTRACTOR]  
PROJECT: [PROJECT NAME]  
PROJECT NUMBER: [ # ]

A ITEM NO.	B DESCRIPTION OF WORK	C SCHEDULED VALUE	D PREVIOUS APPLICATIONS		E WORK COMPLETED THIS APPLICATION		F STORED MATERIALS NOT IN PLACE	G TOTAL COMPLETED AND STORED TO DATE D-E+F	H PERCENT COMPLETED G/C %	I BALANCE TO FINISH C-G	J RETENTION 5% OF G
			WORK IN PLACE	WORK COMPLETED THIS APPLICATION	WORK IN PLACE	STORED MATERIALS NOT IN PLACE					
1	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
2	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
3	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
4	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
5	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
6	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
7	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
8	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
9	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
10	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
11	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
12	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
13	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
14	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
15	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
16	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
17	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
18	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
19	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
20	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
21	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
22	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
23	Bid Item	\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	
		\$0.00	\$0.00	0.00	0.00	0.00	0.00	#DIV/0!	\$0.00	0.00	

Approved by: \_\_\_\_\_ DATE: \_\_\_\_\_ SIGNED BY: \_\_\_\_\_ DATE: \_\_\_\_\_  
 SONOMA COUNTY REGIONAL PARKS (PROJECT MANAGER) Contractor/Owner/Project Manager  
 [Project Name]  
 Project No. [ # ]

<b>CONTRACTOR'S APPLICATION FOR PAYMENT</b>			
This application is made for Payment, as shown below, in connection with the following project:			
[PROJECT NAME]			
ORIGINAL CONTRACT SUM		\$	<u>0.00</u>
Net change by Change Orders approved to date		(+/-)\$	<u>0.00</u>
CONTRACT SUM TO DATE		\$	<u>0.00</u>
<hr/>			
TOTAL COMPLETED AND STORED TO DATE		\$	<u>0.00</u>
RETENTION 5%		-\$	<u>0.00</u>
TOTAL EARNED LESS RETAINAGE		\$	<u>0.00</u>
LIQUIDATED DAMAGES		-\$	<u>0.00</u>
LESS PREVIOUS CERTIFICATES FOR PAYMENT		-\$	<u>0.00</u>
CURRENT PAYMENT DUE FOR APPLICATION NUMBER #1		\$	<u>0.00</u>
APPROVED BY:		DATE:	
SONOMA COUNTY REGIONAL PARKS (PARK PLANNING MANAGER)			
SIGNED BY:		DATE:	
CONTRACTOR			
Contract Encumbrance No.:			
User Code:			
Department ID:			
Account:			



## SECTION 01230

**ALTERNATES****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes: Identification and description of each alternate.
- B. Related Documents:
  - 1) Bid Form: Price (additive or deductive from Contract Sum) of each Alternate.
  - 2) Agreement: Alternates accepted by County for incorporation into the Work.
  - 3) Sections of Specifications identified in each Alternate.

**1.2 PROCEDURES**

- A. Alternates will be exercised at the option of County at any time within 30 days of Contract award, or such later time (if any) indicated in Contract Documents. Any Alternate not so exercised will not be included in Work of Contract documents, nor shall Bid prices thereof be included in Contract Sum.
- B. County exercise of any Alternate shall not adjust Contract Time, unless specifically stated otherwise in this Section 01230.

**PART 2 PRODUCTS – NOT USED****PART 3 EXECUTION****3.1 SCHEDULE OF ALTERNATE BIDS:**

- A. ALTERNATE NO. BA.1:
  - 1) Under Alternate 1, provide Shade Sails – materials, fabrication and installation of metal posts and dials at stage seating, as indicated in the Schedule of Alternates listed in Section 00400 Bid Form and in accordance with the plans and specifications.
- B. ALTERNATE NO. BA.2:
  - 1) Under Alternate 2, provide Metal Restroom Screen – fabricate and install restroom screen with custom laser panels, as indicated in in Section 00400 Bid Form and in accordance with the plans and specifications.

END OF SECTION



## SECTION 01250

**CLARIFICATION AND MODIFICATION PROCEDURES****PART 1 GENERAL****1.1 SUMMARY**

A. Section includes:

- 1) Description of general procedural requirements for clarifications, alterations, modifications, and extras.

**1.2 GENERAL**

- A. Any change in scope of Work or deviation from Contract Documents including, without limitation, extra Work, or alterations or additions to or deductions from the original Work, shall not invalidate the original Contract, and shall be performed under the terms of the Contract Documents.
- B. Only Contractor or County may initiate changes in scope of Work or deviation from Contract Documents.
- 1) Contractor may initiate changes by submitting RFIs.
    - a. RFIs shall be submitted to seek clarification of or to request changes in the Contract Documents.
    - b. RFIs related to concealed or unknown conditions shall be submitted in accordance with Document 00700 (General Conditions).
    - c. RFIs related to hazardous waste conditions shall be submitted in accordance with Document 00700 (General Conditions).
  - 2) Contractor shall be responsible for its costs to implement and administer RFIs throughout the Contract duration, regardless of the number of RFIs submitted. Contractor shall be responsible for both County and its Architect's, Engineer's, and Consultant's administrative costs for answering RFIs where the answer could reasonably be found by reviewing the Contract Documents, as determined by County; at County's discretion, such costs may be deducted from progress payments or final payment.
  - 3) County may seek to clarify Contract Documents provisions by issuing Architect's Supplemental Instruction (ASI). If Contractor disagrees with ASI or believes that complying with ASI entitles it to changes in the Work or Contract Time, Contractor shall notify County in writing by submitting an RFI within ten (10) Days of receipt of the ASI.
  - 4) County may initiate changes in the Work or Contract Time by issuing RFPs to Contractor. Such RFPs will detail all proposed changes in the Work and request a quotation of changes in Contract Sum and Contract Time from Contractor.
  - 5) County may also, by Construction Change Directive ("CCD"), order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly. A CCD shall be used in the absence of total agreement on the terms of a Change Order.

**1.3 PROCEDURES**

- A. Cost Proposal and Procedures: Whenever Contractor is required in this Section 01250 to prepare a Cost Proposal, and whenever Contractor is entitled to submit a Cost Proposal and elects to do so, Contractor shall prepare and submit to County for consideration a Cost Proposal using the form attached to this Section 01250. All Cost Proposals must contain a complete breakdown of costs of credits, deducts, and extras; itemizing materials, labor, taxes, overhead and profit; plus, cost of bonds and insurance. The cost of bonds and insurance shall not be more than 2% of the total cost of materials, labor, taxes, overhead and profit. All Subcontractor Work shall be so indicated. Individual entries on the Cost Proposal form shall be determined as provided in paragraphs 1.4 and 1.5 of this Section 01250. After receipt of a Cost Proposal with a detailed breakdown, County will act promptly thereon.
- 1) If County accepts a Cost Proposal, County will prepare Change Order for County and

- Contractor signatures.
- 2) If Cost Proposal is not acceptable to County because it does not agree with cost and/or time included in Cost Proposal, County will submit in a response what it believes to be a reasonable cost and/or adjustment, if any. Except as otherwise provided in this Section 01250, Contractor shall have seven (7) Days in which to respond to County with a revised Cost Proposal.
  - 3) When necessity to proceed with a change does not allow County sufficient time to conduct a proper check of a Cost Proposal (or revised Cost Proposal), County may issue CCD ordering Contractor to proceed on basis to be determined at earliest practical date. In this event, value of change, with corresponding equitable adjustment to Contract, shall not be more than increase or less than decrease proposed.
- B. RFI Procedures: Whenever Contractor requires information regarding the Project or Contract Documents, or receives a request for information from a Subcontractor, Contractor may prepare and deliver an RFI to County. Contractor shall use RFI format provided by County. Contractor must submit time critical RFIs at least thirty (30) Days before scheduled start date of the affected Work activity. Contractor shall reference each RFI to an activity of Progress Schedule and shall note time criticality of the RFI, indicating time within which a response is required. Contractor's failure to reference RFI to an activity on the Progress Schedule and note time criticality on the RFI shall constitute Contractor's waiver of any claim for time delay or interruption to the Work resulting from any delay in responding to the RFI.
- 1) County will respond within ten (10) Days from receipt of RFI with a written response to Contractor. Additionally, County may return RFI to Contractor requesting additional information from Contractor should original RFI be inadequate in describing condition. Contractor shall distribute response to all appropriate Subcontractors.
  - 2) If Contractor is satisfied with the response and does not request change in Contract Sum or Contract Time, then the response shall be executed without a change.
  - 3) If Contractor believes the response is incomplete, Contractor shall issue another RFI (with the same RFI number with the number .1 indicating if it is a follow-up RFI) to County clarifying original RFI.
  - 4) If Contractor believes that the response results in change in Contract Sum or Contract Time, Contractor shall notify County in writing within seven (7) Days after receiving the response. If County disagrees with Contractor, then Contractor shall proceed with the work identified and may give notice of intent to submit a Claim as described in Article 12 of Document 00700 (General Conditions) and submit its Claim within thirty (30) Days of County's response. If County agrees with Contractor, then Contractor must submit a Cost Proposal within twenty-one (21) Days of date of County's response as described in article 1.3.A above. Contractor's failure to deliver either the foregoing notice and Claim or Cost Proposal by the respective deadlines stated in the foregoing sentences shall result in waiver of the right to file a Cost Proposal or Claim.
- C. Supplemental Instruction: County may issue Supplemental Instruction to Contractor.
- 1) If Contractor is satisfied with Supplemental Instruction and does not request change in Contract Sum or Contract Time, then the Supplemental Instruction shall be executed without a Change Order.
  - 2) If Contractor believes that the response results in change in Contract Sum or Contract Time, Contractor shall follow the procedure described in paragraph 1.3.B.4.
- D. Construction Change Directives: If at any time County believes in good faith that a timely Change Order will not be agreed upon using the foregoing procedures, County may issue a CCD with its recommended cost and/or time adjustment. Upon receipt of CCD, Contractor shall promptly proceed with the change of Work involved and concurrently respond to County's CCD within seven (7) Days.
- 1) Contractor's response must be any one of following:
    - a. Provide written response to County, accepting County's response, time, and cost.
    - b. Submit a (revised if applicable) Cost Proposal with supporting documentation (if applicable, reference original Cost Proposal number followed by the number .1,

- .2, .3, etc. for each revision), if County so requests.
- c. Give notice of intent to submit a Claim as described in Article 12 of Document 00700 (General Conditions).
- 2) If the CCD provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:
  - a. Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation.
  - b. Unit prices stated in the Contract Documents or subsequently agreed upon.
  - c. Force Account.
  - d. Cost to be determined in a manner agreed.
  - e. Lump Sum.
- 3) Contractor's written agreement to a CCD shall be recorded in a Change Order.
- 4) If Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the method and the adjustment shall be determined by County on the basis of reasonable expenditures and savings of those performing the Work attributable to the change including, in case of an increase in the Contract Sum, a reasonable allowance for overhead and profit. If the parties still do not agree on the price for a CCD, Contractor may file a Claim per Article 12 of Document 00700 (General Conditions). Contractor shall keep and present, in such form as County may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this paragraph shall be limited to those provided in paragraphs 1.4 and 1.5 of this Section 01250.
- 5) Pending final determination of cost to County, amounts not in dispute may be included in Applications for Payment after a Change Order is executed for the amount not in dispute.
- E. County requested RFP: Contractor shall furnish a Cost Proposal within twenty-one (21) Days of County's RFP. Upon approval of RFP, County will issue a Change Order directing Contractor to proceed with extra Work. If the parties do not agree on the price for an RFP, County may either issue a CCD or decide the issue per Article 12 of Document 00700 (General Conditions). Contractor shall perform the changed Work notwithstanding any claims or disagreements of any nature.
- F. All Changes:
  - 1) Documentation of Change in Contract Sum and Contract Time:
    - a. Contractor shall maintain detailed records of Work performed on a time-and-material basis.
    - b. Contractor shall document each proposal for a change in cost or time with sufficient data to allow evaluation of the proposal.
    - c. Contractor shall, on request, provide additional data to support computations for:
      - 1) Quantities of products, materials, labor, and equipment
      - 2) Taxes, insurance, and bonds
      - 3) Overhead and profit
      - 4) Justification for any change in Contract Time and new Progress Schedule showing revision due, if any
      - 5) Credit for deletions from Contract, similarly, documented
    - d. Contractor shall support each claim for additional costs, and for Work performed on a Force-Account basis, with additional information including:
      - 1) Credit for deletions from Contract, similarly, documented
      - 2) Origin and date of claim
      - 3) Dates and times Work was performed and by whom
      - 4) Time records and wage rates paid
      - 5) Invoices and receipts for products, materials, equipment, and subcontracts, similarly documented
- G. Correlation of Other Items:
  - 1) Contractor shall revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Sum as shown thereon prior to the next monthly pay period.
  - 2) Contractor shall revise the Progress Schedules prior to the next monthly pay period.
  - 3) Contractor shall enter changes in Project Record Documents prior to the next

monthly pay period.

- H. Responses: For all responses for which the Contract Documents, including without limitation this Section 01250, do not provide a specific time period, recipients shall respond within a reasonable time.

#### 1.4 COST DETERMINATION

- A. Total cost of extra Work or of Work omitted shall be the sum of labor costs, material costs, equipment rental costs, and specialist costs as defined herein plus overhead, and profit as allowed herein. This limit applies in all cases of claims for extra Work, whether calculating Cost Proposals, Change Orders or CCDs, or calculating claims of all types, and applies even in the event of fault, negligence, strict liability, or tort claims of all kinds, including strict liability or negligence. Contractor may recover no other costs arising out of or connected with the performance of extra Work, of any nature. No special, incidental or consequential damages may be claimed or recovered against County, its representatives or agents, whether arising from breach of Contract, negligence, or strict liability, unless specifically authorized in the Contract Documents.
- B. Overhead and Profit: (Overhead shall be as defined in paragraph 1.8 of this Section 01250)
- 1) Overhead and profit on labor for extra Work shall not exceed **fifteen** percent (**15%**).
  - 2) Overhead and profit on materials for extra Work shall not exceed **fifteen** percent (**15%**).
  - 3) Overhead and profit on equipment rental for extra Work shall not exceed **fifteen** percent (**15%**).
  - 4) When extra Work is performed by a first tier Subcontractor, Contractor shall receive a **five** percent (**5%**) markup on Subcontractors' total costs of extra Work. First tier Subcontractor's markup on its Work shall not exceed fifteen percent (15%).
  - 5) When extra Work is performed by a lower tier Subcontractor, Contractor shall receive a total of **five** percent (**5%**) markup on all Subcontractors' total costs of extra Work. First tier Subcontractors and lower tier Subcontractors shall combine markup not to exceed **nineteen** percent (**19%**) and shall be divided as mutually agreed.
  - 6) Notwithstanding the foregoing, in no case shall the total markup on any extra Work exceed **twenty-five** percent (**25%**) of the direct cost, notwithstanding the actual number of Contract tiers.
  - 7) On proposals covering both increases and decreases in Contract Sum, overhead and profit shall be allowed on the net increase only as determined in this paragraph 1.4. When the net difference is a deduction, no percentage for overhead profit and commission shall be allowed, but rather a deduction shall apply.
  - 8) The markup shall include profit, small tools, cleanup, engineering, supervision, warranties, cost of preparing the cost proposal, jobsite overhead, home office overhead, and other items as defined in paragraph 1.8 of this section 01250. No markup will be allowed on taxes, insurance, and bonds.
- C. Taxes:
- 1) All State sales tax, use tax, and Sonoma County and applicable City sales taxes shall be included.
  - 2) Federal and Excise tax shall not be included.
- D. Owner-Operated Equipment: When owner-operated equipment is used to perform extra Work, Contractor will be paid for operator as follows:
- 1) Payment for equipment will be made in accordance with paragraph 1.5C of this Section 01250.
  - 2) Payment for cost of labor will be made at no more than rates of such labor established by Department of Industrial Relations Prevailing Wage Determination for type of worker and location of Work, whether or not owner-operator is actually covered by such an agreement.
- E. Accord and Satisfaction: Every Change Order shall constitute a full accord and satisfaction, and release, of all Contractor (and if applicable, Subcontractor) claims for additional time, money or other relief arising from or relating to the subject matter of the change including, without limitation, impacts of all types, cumulative impacts, inefficiency, overtime, delay, and any other type of claim. Contractor may elect to reserve its rights to disputed claims arising from or relating to the changed Work at the time it signs a Change

Order, but must do so expressly in writing delivered concurrently with the executed Change Order, and must also submit a Claim for the reserved disputed items pursuant to Article 12 of Document 00700 (General Conditions) no later than thirty (30) Days of Contractor's first written notice of its intent to reserve rights.

## 1.5 COST BREAKDOWN

- A. Labor: Contractor will be paid cost of labor for workers (including forepersons when authorized by County) used in actual and direct performance of extra Work. Labor rate, whether employer is Contractor, Subcontractor or other forces, will be sum of following:
- 1) Actual Wages: Actual wages paid shall include any employer payments to or on behalf of workers for health and welfare, pension, vacation, and similar purposes.
  - 2) Labor surcharge: Payments imposed by local, county, state, and federal laws and ordinances, and other payments made to, or on behalf of, workers, other than actual wages as defined in paragraph 1.5.A.1 of this Section 01250, such as taxes and insurance. Labor surcharge shall be and shall not exceed that set forth in California Department of Transportation official labor surcharges schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein.
- B. Material: Only materials furnished by Contractor and necessarily used in performance of extra Work will be paid for. Cost of such materials will be cost, including sales/use taxes, to purchaser (Contractor, Subcontractor or other forces) from supplier thereof, except as the following are applicable:
- 1) If cash or trade discount by actual supplier is offered or available to purchaser, it shall be credited to County notwithstanding fact that such discount may not have been taken.
  - 2) For materials salvaged upon completion of extra Work, salvage value of materials shall be deducted from cost, less discounts, of materials.
  - 3) If cost of a material is, in opinion of County, excessive, then cost of material shall be deemed to be lowest current wholesale price at which material is available in quantities concerned delivered to Site, less any discounts as provided in paragraph 1.5.B.1 of this Section 01250.
- C. Equipment Rental: For Contractor- or Subcontractor-owned equipment, payment will be made at rental rates listed for equipment in California Department of Transportation official equipment rental rate schedule which is in effect on date upon which extra Work is accomplished and which schedule is incorporated herein by reference as though fully set forth herein. If there is no applicable rate for an item of equipment, then payment shall be made for Contractor- or Subcontractor-owned equipment at rental rate listed in the most recent edition of the Association of Equipment Distributors (AED) book. For rented equipment, payment will be made based on actual rental invoices. Equipment used on extra Work shall be of proper size and type. If, however, equipment of unwarranted size or type and cost is used, cost of use of equipment shall be calculated at rental rate for equipment of proper size and type, as determined by County. Rental rates paid shall be deemed to cover cost of fuel, oil, lubrication, supplies, small tools, necessary attachments, repairs and maintenance of any kind, depreciation, storage, insurance, and all incidentals. Unless otherwise specified, manufacturer's ratings, and manufacturer-approved modifications, shall be used to classify equipment for determination of applicable rental rates. Individual pieces of equipment or tools not listed in said publication and having a replacement value of \$100 or less, whether or not consumed by use, shall be considered to be small tools and no payment will be made therefor as payment is included in payment for labor. Rental time will not be allowed while equipment is inoperative due to breakdowns.
- 1) For equipment on Site, rental time to be paid for equipment shall be time equipment is in operation on extra Work being performed or on standby as approved by County. The following shall be used in computing rental time of equipment:
    - a. When hourly rates are listed, less than 30 minutes of operation shall be considered to be half ( $\frac{1}{2}$ ) hour of operation.
    - b. When daily rates are listed, less than four hours of operation shall be considered to be half ( $\frac{1}{2}$ ) Day of operation.
  - 2) For equipment that must be brought to Site to be used exclusively on extra Work,

cost of transporting equipment to Site and its return to its original location shall be determined as follows:

- a. County will pay for costs of loading and unloading equipment.
  - b. Cost of transporting equipment in low bed trailers shall not exceed hourly rates charged by established haulers.
  - c. Cost of transporting equipment shall not exceed applicable minimum established rates of California Public Utilities Commission.
  - d. County will not make any payment for transporting and loading and unloading equipment if equipment is used on Work in any other way than upon extra Work.
- 3) Rental period may begin at time equipment is unloaded at Site of extra Work and terminate at end of the performance of the extra Work or Day on which County directs Contractor to discontinue use of equipment, whichever first occurs. Excluding Saturdays, Sundays, and except for County's legal holidays, unless equipment is used to perform extra Work on such Days, rental time to be paid per Day shall be four (4) hours for zero (0) to four (4) hours of operation, six (6) hours for four (4) to six (6) hours of operation and eight (8) hours for six (6) to eight (8) hours of operation. Hours to be paid for equipment that is operated less than eight hours due to breakdowns, shall not exceed eight - less number of hours equipment is inoperative due to breakdowns.

#### **1.6 FORCE-ACCOUNT WORK**

- A. If it is impracticable because of nature of Work, or for any other reason, to fix an increase or decrease in price definitely in advance, Contractor may be directed to proceed at a not-to-exceed (NTE) maximum price which shall not under any circumstances be exceeded. Subject to such limitation, such extra Work shall be paid for at actual necessary cost for Force-Account Work or at the negotiated cost, as determined by County. The cost for Force-Account Work shall be determined pursuant to paragraphs 1.4 and 1.5 of this Section 01250.
- B. Force-Account Work shall be used when it is not possible or practical to price out the changed Work prior to the start of that Work. In these cases, Force-Account Work will be utilized during the pricing and negotiation phase of the change. Once negotiations have been concluded and a bilateral agreement has been reached, the tracking of the Work under Force-Account is no longer necessary. Force-Account Work shall also be used when a bilateral agreement on the value of the changed Work cannot be reached. County may approve other uses of Force-Account Work.
- C. Whenever any Force-Account Work is in progress, Contractor shall report to County each Business Day in writing in detail amount and cost of labor and material used, and any other expense incurred in Force-Account Work on preceding Day. No claim for compensation for Force-Account Work will be allowed unless report shall have been made. Force-Account (cost reimbursement) charges shall be recorded daily and summarized in a form acceptable to County. Contractor or authorized representative shall complete, and sign form each Day. Contractor shall also provide with the form: the names and classifications of workers and hours worked by each; an itemization of all materials used; a list by size, type, and identification number of equipment and hours operated; and an indication of all Work performed by specialists.
- D. Whenever Force-Account Work is in progress, Contractor shall report to County when seventy-five percent (75%) of the NTE amount has been expended.
- E. Force-Account Work shall be paid as extra Work under this Section 01250. Methods of determining payment for Work and materials provided in this paragraph 1.6 shall not apply to performance of Work or furnishings of material that, in judgment of County, may properly be classified under items for which prices are otherwise established in Contract Documents.

#### **1.7 COUNTY-FURNISHED MATERIALS**

- A. County reserves right to furnish materials as it deems advisable, and Contractor shall have no claims for costs and overhead and profit on such materials.

#### **1.8 OVERHEAD DEFINED**

- A. The following constitutes charges that are deemed included in overhead for all Contract Modifications, including Force-Account Work or CCD Work, whether incurred by

Contractor, Subcontractors, or suppliers, and Contractor shall not invoice or receive payment for these costs separately:

- 1) Drawings: field drawings, Shop Drawings, etc., including submissions of drawings
- 2) Routine field inspection of Work proposed
- 3) General Superintendence
- 4) General administration and preparation of cost proposals, schedule analysis, Change Orders, and other supporting documentation as necessary
- 5) Computer services
- 6) Reproduction services
- 7) Salaries of project engineer, superintendent, timekeeper, storekeeper, and secretaries
- 8) Janitorial services
- 9) Temporary on-Site facilities, including for any extended periods of Contract Time
  - a. Offices
  - b. Telephones
  - c. Plumbing
  - d. Electrical: Power, lighting
  - e. Platforms
  - f. Fencing, etc.
  - g. Water
- 10) Home office expenses
- 11) Procurement and use of vehicles and fuel used coincidentally in Work otherwise included in the Contract Documents
- 12) Surveying
- 13) Estimating
- 14) Protection of Work
- 15) Handling and disposal fees
- 16) Final cleanup
- 17) Other incidental Work

#### **1.9 RECORDS AND CERTIFICATION**

- A. No payment for Force-Account Work shall be made until Contractor submits a Cost Proposal with original invoices substantiating materials and labor charges and all daily reports.
- B. County shall have the right to audit all records in possession of Contractor relating to activities covered by Contractor's claims for Modification of Contract, including Force-Account Work and CCD Work.
- C. Further, County will have right to audit, inspect, or copy all records maintained in connection with this Contract, including financial records, in possession of Contractor relating to any transaction or activity occurring or arising out of, or by virtue of, the Contract. If Contractor is a joint venture, right of County shall apply collaterally to same extent to records of joint venture sponsor, and of each individual joint venture member. This right shall be specifically enforceable, and any failure of Contractor to voluntarily comply shall be deemed an irrevocable waiver and release of all claims then pending that were or could have been subject to the Article 12 of Document 00700 (General Conditions).

#### **PART 2 PRODUCTS – NOT USED**

#### **PART 3 EXECUTION – NOT USED**

END OF SECTION COST PROPOSAL

FORM FOLLOWS ON NEXT PAGE

**COST PROPOSAL**

**[Name of Project]  
Project No. [ # ]**

Sonoma County Regional Parks  
2300 County Center Drive, Suite A120  
Santa Rosa, CA 95403  
(707) 565-2041 Phone  
(707) 579-8247 Fax

**CP Number:** \_\_\_\_\_

**Date:** \_\_\_\_\_

**In Response To:** \_\_\_\_\_  
RFP#, RFI# or ASI#

**FROM:** \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**TO:** [Project Manager Name, Title]  
2300 County Center Drive, Suite A220  
Santa Rosa, CA 95403

This Cost Proposal is in response to the above referenced form.

Brief description of change(s):

Number of pages attached: \_\_\_\_\_

ITEM DESCRIPTION	PRIME CONTR	SUB 1 (NAME)	SUB 2 (NAME)	SUB 3 (NAME)	SUB 4 (NAME)	TOTAL
Material						
Direct Labor Cost						
Equipment						
Other (Specify) Extended Overhead						
Total Cost						
Subcontractor's Overhead and Profit 15% - 19% max						
Contractor's Overhead and Profit 15%						
Subcontractor Total						
O/P to Contractor For Sub-contractor's work at 5%						
Bonds and Insurance 2%						
<b>GRAND TOTAL</b>						

**REQUESTED CHANGE IN CONTRACT TIME** \_\_\_\_\_ **DAYS**  

**BY**  
  
\_\_\_\_\_  
Contractor

\_\_\_\_\_  
Engineer

- Engineer agrees with above proposal.
- Engineer DOES NOT agree with above proposal. See attached.

Date \_\_\_\_\_

Date \_\_\_\_\_

## SECTION 01315

**PROJECT MEETINGS****PART 1 GENERAL****1.1 SUMMARY**

## A. Section Includes:

- 1) Descriptions of the required Project meetings for the Work. These meetings include:
  - a. PRECONSTRUCTION CONFERENCE
  - b. PERIODIC PROGRESS MEETINGS
  - c. SPECIAL MEETINGS

**1.2 PRECONSTRUCTION CONFERENCE**

- A. County will call for and administer Preconstruction Conference at time and place to be announced (usually the week prior to start of Work at the Site).
- B. Contractor, its job superintendent, all major Subcontractors, and major suppliers shall attend Preconstruction Conference.
- C. Agenda may include, but not be limited to, the following items.
  - 1) Schedules
  - 2) Personnel and vehicle permit procedures
  - 3) Use of premises
  - 4) Location of Contractor's on-Site facilities
  - 5) Security
  - 6) Housekeeping
  - 7) Submittal and RFI procedures
  - 8) Inspection and testing procedures, on-Site and off-Site
  - 9) Utility shutdown procedures
  - 10) Control and reference point survey procedures
  - 11) Contractor's Injury and Illness Prevention Program
  - 12) Contractor's Initial Schedule
  - 13) Contractor's Schedule of Values
  - 14) Contractor's Schedule of Submittals
  - 15) Jurisdictional agency requirements
- D. County will distribute copies of meeting notes to attendees. Attendees shall have seven (7) Days to submit comments or additions to meeting notes. Meeting notes will constitute final memorialization of results of Preconstruction Conference.

**1.3 PERIODIC PROGRESS MEETINGS**

- A. County will schedule and administer periodic progress meetings throughout duration of Work. Progress meetings will be held periodically unless otherwise directed by County.
  - 1) Meetings shall be held at Contractor's on site field office unless otherwise directed by County.
  - 2) A County Representative will prepare agenda.
  - 3) County will record and distribute meeting notes to Contractor, who will distribute to those affected by decisions made at meeting. Attendees can either submit comments or additions to meeting notes prior to the next progress meeting, or may attend the next progress meeting and submit comments or additions there. Meeting notes, with any comments or additions, will constitute final memorialization of results of meeting.
- B. Progress meetings shall be attended by Contractor's job superintendent, major Subcontractors and suppliers as determined by Contractor, County, and others as appropriate to agenda topics for each meeting.
- C. Agenda may contain the following items, as appropriate:
  - 1) Review, revise as necessary, and approve previous meeting notes.
  - 2) Safety and Security: Review of Work progress since last meeting. Review of Contractor's safety program activities and results, including report on all serious

- injury and/or damage accidents.
- 3) Old Business: Discuss Open Items in previous meeting notes
- 4) New Business: Discuss new items
- 5) Review Progress Schedule/Look Ahead: Status of Construction Work Schedule, delivery schedules, adjustments. Submittal, RFI, and Change Order status.
- 6) Other items affecting progress of Work.

**1.4 SPECIAL MEETINGS**

- A. County or Contractor may call special meetings by notifying all desired participants and County in advance, giving reason for meeting. Special meetings may be held without advance notice in emergency situations.
- B. At any time during the progress of Work, County shall have authority to require Contractor attend meeting of any or all of the Subcontractors engaged in Work or in other work and notice of such meeting shall be duly observed and complied with by Contractor.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION

## SECTION 01320

**PROGRESS SCHEDULES AND REPORTS****PART 1 GENERAL****1.1 SUMMARY**

- A. Perform scheduling of Work under this Contract in accordance with requirements of this Section 01320.
  - 1) Development of schedule, of the Progress Schedule, monthly payment requests, and Project status reporting requirements of the Contract Documents shall employ scheduling as required in this Section 01320.
  - 2) Submit schedules and reports as specified in 00700 (General Conditions).
- B. Upon Award of Contract, immediately commence development of Initial Schedule to ensure compliance with schedule submittal requirements.

**1.2 GENERAL**

- A. Progress Schedule shall be based on and incorporate Milestone and completion dates specified in Contract Documents.
- B. Overall time of completion and time of completion for each Milestone shown on Progress Schedule shall adhere to times in Document 00520 (Agreement), unless an earlier (advanced) time of completion is requested by Contractor and agreed to by County. A Change Order shall formalize any such agreement.
  - 1) County is not required to accept an earlier (advanced) schedule, i.e., one that shows early completion date(s) for the Contract Time.
  - 2) Contractor is not entitled to extra compensation in event agreement is reached on an earlier (advanced) schedule and Contractor completes its Work, for whatever reason, beyond completion date shown in earlier (advanced) schedule but within the Contract Time.
- C. Progress Schedule shall be the basis for evaluating job progress, payment requests, and time extension requests. Responsibility for developing Contract schedule and monitoring actual progress as compared to Progress Schedule rests with Contractor.
- D. Failure of Progress Schedule to include any element of the Work or any inaccuracy in Progress Schedule will not relieve Contractor from responsibility for accomplishing the Work in accordance with the Contract. County's acceptance of Schedule shall be for its use in monitoring and evaluating job progress, payment requests, and time extension requests, and shall not, in any manner, impose a duty of care upon County, or act to relieve Contractor of its responsibility for means and methods of construction.
- E. Transmit each item under form approved by County or following Section 01330.
  - 1) Identify Project with County Contract number, and name of Contractor.
  - 2) Provide space for Contractor's approval stamp and County's review stamps.
  - 3) Submittals received from sources other than Contractor will be returned to Contractor without County's review.
- F. Include adverse weather contingency described in Document 00700 (General Conditions) and in Document 00800 (Supplementary Conditions) as the last activity in the Progress Schedule. If adverse weather Day(s) are granted by County, deduct the number of Day(s) from the weather contingency and apply those Day(s) to the date(s) the weather delay occurred.
  - 1) Adverse weather contingency shall be work days, not calendar days.
  - 2) Any unused adverse weather contingency days shall remain part of the total Contract Time.
  - 3) If weather related Day(s) are granted, such as wet soil conditions caused by rainfall, the time granted will be a contract time extension, not a reduction to the adverse weather contingency.

### 1.3 INITIAL AND ORIGINAL PROGRESS SCHEDULE

- A. Contractor shall prepare an Initial Schedule for review at the Preconstruction Conference which shall serve as Contractor's schedule for up to fifteen (15) Days after the Notice to Proceed.
- B. Initial Schedule must indicate detailed plan for the Work to be completed in first sixty (60) Days of the Contract; details of planned mobilization of plant and equipment; sequence of early operations; and procurement of materials and equipment. Show Work beyond sixty (60) Days in summary form.
- C. Contractor shall submit its Original Schedule for review no later than first progress payment. Original Schedule and all updates shall comply with all standards herein.
- D. All Schedules shall be time-scaled.
- E. County's review and comment on any Schedule shall be limited to Contract conformance (with sequencing, coordination, and Milestone requirements). Contractor shall make corrections to Schedule necessary to comply with Contract requirements and shall adjust Schedule to incorporate any missing information requested by County. Resubmit Initial Schedule if requested by County.

### 1.4 SCHEDULE FORMAT AND LEVEL OF DETAIL

- A. Each Schedule (Initial, Original, and updates) shall indicate all separate fabrication, procurement and field construction activities required for completion of the Work, including but not limited to the following:
  - 1) All Contractor, Subcontractor, and assigned Contractor Work shall be shown in a logical Work sequence that demonstrates a coordinated plan of Work for all contractors. The intent is to provide a common basis of acceptance, understanding, and communication, as well as interface with other contractors.
  - 2) Activities related to the delivery of Contractor- and County-furnished equipment to be Contractor-installed per Contract shall be shown.
  - 3) Apply the following information to all activities:
    - a. All activities shall be identified through codes or other identification to indicate the building (i.e. buildings, Site Work).
    - b. Include Contractor/Subcontractor responsibility to which they pertain to each activity.
    - c. Time scaled, CPM schedule.
    - d. No activity on schedule shall have duration longer than fifteen (15) workdays, with exception of submittal, approval, fabrication and procurement activities, unless otherwise approved by County.
      - 1) Activity durations shall be total number of actual workdays required to perform that activity.
    - e. Start and completion dates of all items of Work, their major components, and milestone completion dates, if any. Show critical path in red; show early start, late start, and total float for each activity.
    - f. County-furnished materials and equipment, if any, identified as separate activities.
    - g. All facility equipment commissioning activities.
    - h. Activities for maintaining Project Record Documents.
    - i. Dependencies (or relationships) between activities.
    - j. Processing/approval of submittals and shop drawings for all Contract Documents-required material and equipment. Activities that are dependent on submittal acceptance or material delivery shall not be scheduled to start earlier than expected acceptance or delivery dates. See Section 01330 (Submittal Procedures)
      - 1) Include time for submittals, resubmittals, and reviews by County. Coordinate with accepted schedule for submission of shop drawings, samples and other submittals.
      - 2) Contractor shall be responsible for all impacts resulting from resubmittal of shop drawings and submittals.

- k. Procurement of major equipment, through receipt and inspection at jobsite, identified as separate activity.
    - 1) Include time for fabrication and delivery of manufactured products for Work.
    - 2) Show dependencies between procurement and construction.
  - l. Activity description: what Work is to be accomplished and where.
  - m. Responsibility code for each activity corresponding to Contractor or Subcontractor responsible for performing Work.
  - n. Identify activities that constitute the controlling operations or critical path. No more than twenty-five (25%) of the activities shall be critical or near critical. Near critical is defined as float in the range of one (1) to (10) days.
  - o. Interface with the work of other contractors, County, and agencies such as, but not limited to, utility companies.
  - p. Show detailed Subcontractor Work activities.
  - q. Activity durations shall be in Workdays.
  - r. Submit with the schedule a list of anticipated non-Workdays, such as weekends and holidays. The Progress Schedule shall exclude in its Workday calendar all non-Workdays on which Contractor anticipates critical Work will not be performed.
- B. Seasonal weather conditions (which do not constitute a delay as defined herein) shall be considered in the planning and scheduling of all Work influenced by high or low ambient temperatures or presence of high moisture for the completion of the Work within the allotted Contract Time.
  - C. Failure by Contractor to include any element of Work required for performance of the Work on the detailed construction schedule shall not excuse Contractor from completing all Work required within the Contract Time.
  - D. Progress Schedule Submittals
    - 1) Submit one (1) electronic and two (2) print copies of schedule at each of the following times:
      - a. Initial Progress Schedule at the Preconstruction Conference
      - b. Original Schedule within twenty (20) Days of the Notice to Proceed date
      - c. Adjustments to the Schedule as required
      - d. Schedule updates monthly, five (5) Days prior to monthly progress schedule and billing meeting
    - 2) Contractor shall submit additional schedule reports as may be requested by County.
    - 3) Electronic files shall be complete copies, including all programs and electronic coding.

### **1.5 MONTHLY SCHEDULE UPDATE SUBMITTALS**

- A. Following acceptance of Contractor's Initial Schedule, Contractor shall monitor progress of Work and adjust Schedule each month to reflect actual progress and any anticipated changes to planned activities. Schedule update submittals shall be submitted with each Contractor application for payment.
  - 1) Each Schedule update submitted shall be complete, including all information requested for the Initial Schedule and Original Schedule submittal.
  - 2) Each update shall continue to show all Work activities including those already completed. These completed activities shall accurately reflect "as built" information by indicating when activities were actually started and completed, and Contractor warrants the accuracy of as-built information as shown.
- B. Schedule update submittals are due with each monthly progress payment application.

### **1.6 SCHEDULE REVISIONS**

- A. With each Schedule update identify clearly any revisions affecting the sequence of Work, provide a schedule diagram that compares the original sequence to the revised sequence of Work. Clearly show and discuss any changes in the critical path.
- B. Schedule revisions shall not be incorporated into any schedule update until County has reviewed the revisions. County may request further information and justification for schedule revisions and, within three (3) Days, Contractor shall provide County with a

complete written narrative response to County's request.

- C. If County does not accept Contractor's revision, and Contractor disagrees with County's position, Contractor has seven (7) Days from receipt of County's letter rejecting the revision, to provide a written narrative providing full justification and explanation for the revision. Contractor's failure to respond in writing within seven (7) Days of County's written rejection of a schedule revision shall be contractually interpreted as acceptance of County's position, and Contractor waives its rights to subsequently dispute or file a claim regarding County's position. If Contractor files a timely response as provided in this paragraph, and the parties are still unable to agree, Contractor's sole right shall be to file a claim as provided in Document 00700 (General Conditions), Article 12.
- D. At County's discretion, Contractor can be required to provide Subcontractor certifications of performance regarding proposed schedule revisions affecting said Subcontractors.

#### **1.7 RECOVERY SCHEDULE**

- A. If a Schedule update shows a Substantial Completion date beyond any Contract Substantial Completion date, or individual Milestone completion dates, County may require Contractor to submit to County within seven (7) Days proposed revisions to recover the lost time. As part of this submittal, provide a written narrative for each revision made to recapture the lost time. If the revisions include sequence changes, provide a schedule diagram comparing the original sequence to the revised sequence of Work. If County reasonably requests, show the intended critical path; secure appropriate Subcontractor and supplier consent to the recovery Schedule; submit a narrative explaining trade flow and construction flow changes, duration changes, added/deleted activities, critical path changes and identify all near critical paths and man-hour loading assumptions for major Subcontractors. Contractor agrees to take all necessary actions to recover time at no additional cost to County. These actions may include, but are not limited to:
  - 1) Increase manpower in quantities and crafts necessary.
  - 2) To the extent allowed by applicable legal requirements, increase the number of working hours per shift, shifts per working day, working days per week, the amount of equipment, or and combination of the foregoing.
- B. The revisions shall not be incorporated into any Schedule update until County has reviewed the revisions.
- C. If County does not accept Contractor's revisions, County and Contractor shall follow the procedures in paragraphs 1.6B, 1.6C, and 1.6D of this Section 01320.
- D. At County's discretion, Contractor can be required to provide Subcontractor certifications for revisions affecting said Subcontractors.

#### **1.8 TIME EXTENSIONS**

- A. Contractor is responsible for requesting time extensions for time impacts that, in the opinion of Contractor, impact the critical path of the current schedule update. Notice of time impacts shall be given in accordance with Document 00700 (General Conditions).
- B. Failure to request time, provide TIE, or provide the required mitigation plan will result in Contractor waiving its right to a time extension and cost to mitigate the delay.
- C. No time will be granted under the Contract Documents for cumulative effect of changes.
- D. County will not be obligated to consider any time extension request unless requirements of Contract Documents are complied with.
- E. Failure of Contractor to perform in accordance with the current schedule update shall not be excused by submittal of time extension requests.

#### **1.9 WEEKLY SCHEDULE REPORT**

- A. At the Weekly Progress Meeting, described in Section 01315 (Project Meetings), Contractor shall provide and present a time scaled three week look ahead schedule that is based and correlated by activity number to the current schedule (i.e., Initial, Original CPM, or Schedule Update).

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION



## SECTION 01330

**SUBMITTAL PROCEDURES****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes:
- 1) Description of general requirements for Submittals for the Work:
    - a. Procedures
    - b. Product Data
    - c. Shop Drawings
    - d. Samples
      - 1) Design Data
      - 2) Test Reports
      - 3) Certificates
      - 4) Manufacturers' Instructions
      - 5) Material Safety Data Sheets
    - e. Installation, Operation, and Maintenance Manual
    - f. Computer Programs
    - g. Project Record Documents
  - 2) Delay of Submittals

**1.2 PROCEDURES**

- A. Submit at Contractor's expense the following items ("Submittals") required by the Contract Documents:
- 1) Schedule of Submittals
  - 2) Safety Program
  - 3) Progress Schedule
  - 4) Product Data; Shop Drawings; Samples
  - 5) Coordination Drawings
  - 6) Quality Assurance/Control Data
  - 7) Installation, Operation, and Maintenance Manual
  - 8) Project Record Documents
  - 9) Other material requested by County
- B. Submit these Submittals to County, in accordance with in accordance with the accepted initial and/or Progress Schedule and with such promptness as to cause no delay in Contractor's own work or that of any other County contractor.
- C. Transmit each item with County provided Submittal transmittal form. Where manufacturer's standard drawings or data sheets are used, they shall be marked clearly to show those portions of the data that are applicable to this Project. Inapplicable portions shall be marked out. Organize Submittals by Specification Section. Submittals containing information about more than one Specification Section will be returned for resubmittal. Submittals shall include all information requested by each Specification Section. Incomplete Submittals will be returned not reviewed by County.
- D. Begin no fabrication or Work that requires Submittals until County's review does not require resubmittal. Do not extrapolate from Submittals covering similar Work.
- E. The data shown on the Submittals shall be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show County the materials and equipment Contractor proposes to provide and to enable County to review the information for the limited purposes specified in this Section 01330. Submittals shall be identified clearly as to material, supplier, pertinent data such as catalog numbers and the use for which it is intended and otherwise as County may require to enable County to review the Submittal.
- F. At the time of each submission, Contractor shall give County specific written notice of all deviations, if any, that the Submittal may have from the requirements of the Contract

- Documents, and the reasons therefore. This written notice shall be in a written communication attached to the Submittal transmittal form. In addition, Contractor shall cause a specific notation to be made on each Submittal submitted to County for review and approval of each such variation. County reserves the right to reject any product or work provided by Contractor if Contractor fails to provide this written notice of all deviation, even if County and/or Architect approved the Submittal.
- G. Submittal coordination and verification is the responsibility of Contractor; this responsibility shall not be delegated in whole or in part to Subcontractors or suppliers. Before submitting each Submittal, review and coordinate each Submittal with other Submittals and with the requirements of the Work and the Contract Documents, and determine and verify:
- 1) All field measurements, quantities, dimensions, specified performance criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
  - 2) All materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work; and
  - 3) All information relative to Contractor's sole responsibility for means, methods, techniques, sequences, and procedures of construction and safety precautions and programs incident thereto.
- H. Contractor's submission to County of a Submittal shall constitute Contractor's representation that it has satisfied its obligations under the Contract Documents, and as set forth immediately above in this paragraph 1.2 of this Section 01330, with respect to Contractor's review and approval of that Submittal.
- I. Designation of Work "by others" or the like in a Submittal shall not limit Contractor's responsibility under Contract Documents for either the Submittal or any work described therein.
- J. After review by County of each Submittal, material will be returned to Contractor with actions defined as follows:
- 1) NO EXCEPTIONS TAKEN - Accepted subject to its compatibility with future Submittals and additional partial Submittals for portions of the Work not covered in this Submittal. Does not constitute approval or deletion of specified or required items not shown on the Submittal.
  - 2) MAKE CORRECTIONS NOTED (NO RESUBMISSIONS REQUIRED) - Same as item 1 above, except that minor corrections as noted shall be made by Contractor.
  - 3) REVISE AS NOTED AND RESUBMIT - Rejected because of major inconsistencies or errors that shall be resolved or corrected by Contractor prior to subsequent review by County.
  - 4) INCOMPLETE SUBMITTAL - RESUBMIT - A portion of the submitted material does not conform to Drawings and/or Specifications (i.e. information is missing or incorrect). Contractor shall correct prior to subsequent review by County.
  - 5) REJECTED - RESUBMIT - Submitted material does not conform to Drawings and/or Specifications in major respect, i.e.: wrong size, model, capacity, or material.
  - 6) RETAINED FOR A/E AND COUNTY RECORD ONLY - INFORMATIONAL ONLY - No further action is required by Contractor.
- K. County reserves the right to deduct monies from payments due Contractor to cover additional costs of review beyond the second submission. Illegible Submittals will be rejected and returned to Contractor for resubmission. Contractor shall be in breach of the Contract if Contractor, at least by second submission, is not complete.
- 1) Charge for resubmissions:
    - a. One re-examination of Contractor's Submittals that have been returned for correction or replacement will be included in County's budget. Any additional re-examination of Contractor's Submittals will be considered additional scope services to be paid by Contractor through County. Contractor shall pay County (or County may deduct from any progress or final payment), for County personnel time on an hourly basis at 2.5 times direct payroll expenses, and for consultant (including A/E) personnel time at 1.25 times the amount billed County.

- L. Favorable review will not constitute acceptance by County of any responsibility for the accuracy, coordination, or completeness of the Submittals. Accuracy, coordination, and completeness of Submittals shall be sole responsibility of Contractor, including responsibility to back-check comments, corrections, and modifications from County's review before fabrication. Contractor, Subcontractors, or suppliers may prepare Submittals, but Contractor shall ascertain that Submittals meet requirements of Contract Documents, while conforming to structural space and access conditions at point of installation. County's review will be only to assess if the items covered by the Submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as indicated by the Contract Documents. Favorable review of Submittal, method of Work, or information regarding materials and equipment Contractor proposes to provide shall not relieve Contractor of responsibility for errors therein and shall not be regarded as assumption of risks or liability by County, or any officer or employee thereof, and Contractor shall have no claim under Contract Documents on account of failure or partial failure or inefficiency or insufficiency of any plan or method of Work or material and equipment so accepted. Favorable review shall be considered to mean merely that County has no objection to Contractor using, upon Contractor's own full responsibility, plan or method of Work proposed, or furnishing materials and equipment proposed.
- M. Unless otherwise specified, County's review will not extend to the means, methods, techniques, sequences, or procedures of construction or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
- N. Submit complete initial Submittal for those items where required by individual Specification Sections. Complete Submittal shall contain sufficient data to demonstrate that items comply with Specifications, shall meet minimum requirements for submissions cited in Specification Sections, shall include motor data and seismic anchorage certifications, where required, and shall include necessary revisions required for equipment other than first named.
- O. Copy, conform, and distribute reviewed Submittals in sufficient numbers for Contractor's files, Subcontractors, and vendors. Distribute copies of reviewed Submittals to concerned persons. Instruct recipients to promptly report any inability to comply with provisions
- P. After County's review of Submittal, revise as noted and resubmit as required. Identify changes made since previous Submittal.
  - 1) Normally, Submittals will be processed and returned to Contractor within fourteen (14) Days of receipt.
- Q. All Submittals shall be number-identified by Contractor, using unique sequential numbers for each submittal.
- R. Submission Requirements:
  - 1) Schedule submission of submittals so as not to delay Work and allow fourteen (14) Days from County receipt of initial Submittal and an additional fourteen (14) Day review period for all subsequent Submittals without delay to Work. Deliver initial Submittals to County at least fourteen (14) Days before dates reviewed Submittals will be needed.
  - 2) Submittal shall be electronic unless they must otherwise be hardcopy as in the case of example products. The following table lists the number of initial Submittals required from Contractor for each type of submission, to whom Contractor shall distribute the information, and County's return of reviewed submissions. If Contractor needs more copies of reviewed Submittals returned to it, then either submit additional copies or make copies from the returned Submittal. Submittals requiring resubmission will require the same quantity and distribution as an initial Submittal.

SUBMITTAL	Contractor Submittal		A/E Submittal Review Return	
	# of Copies/ Prints/ Samples*		# of Copies/ Prints/ Samples*	
	County	A/E	County	Contractor
Shop Drawings	2	4	2	1
Product Data	2	4	2	1
Samples	1	3	1	1
MSDSs	1	1	0	0
Installation, Operation, and Maintenance Manual	1	3	2	0
Other Documents	2	4	2	1

\*If submittal is an electronic file, only one (1) copy of the file should be submitted.

- 3) Accompany Submittals with Submittal Transmittal form provided by county, containing:
  - a. Date, revision date, and Submittal identification number
  - b. Project name and County's Contract number
  - c. Contractor's name, address, and job number
  - d. Specification Section number clearly identified
  - e. The quantity of Shop Drawings, Product Data, or Samples submitted
  - f. Notification of deviations from Contract Documents
- 4) Submittal shall include:
  - g. Date and revision dates
  - h. Revisions, if any, identified
  - i. Project Name and Contract number
  - j. The names of:
    - 1) Contractor, Subcontractor, Supplier, Manufacturer, and separate detailer, when pertinent
  - k. Identification of product material by location within the Project
  - l. Relation to adjacent structure or materials
  - m. Field dimensions, clearly identified as such
  - n. Specification Section number and applicable detail reference number and Drawing number
  - o. Applicable reference standards, such as ASTM, ANSI, FS, NEMA, SMACNA or ACI
  - p. A blank space, on each Drawing or data sheet, 5" x 4" for the A/E review stamp
  - q. Identification of deviations from Contract Documents
  - r. Contractor's stamp, initialed or signed, with language certifying the review of Submittals, verification of field measurements, construction criteria, and technical standards in compliance with Contract Documents
  - s. MSDS for each item complying with OSHA's Hazard Communication Standard 29 CFR 1910.1200
  - t. Other pertinent data
- S. Resubmission requirements:
  - 1) Shop Drawings:
    - a. Revise initial Shop Drawings as required and resubmit as specified for initial Submittals.  
Resubmittals require the same amount of time to review as an initial submittal.
    - b. Indicate on Shop Drawings any changes that have been made other than those requested by County.
  - 2) Product Data and Samples:
    - a. Submit new Product Data and Samples as required for initial Submittals.
  - 3) Installation, Operation, and Maintenance Manual:
    - a. Revise initial Installation, Operation, and Maintenance Manual(s) as required and

resubmit as specified for initial Submittals.

### 1.3 PRODUCT DATA

- A. Within ten (10) Days after the Notice to Proceed Commencement Date, submit two (2) copies of complete list of major products proposed for use, with name of manufacturer, telephone number, trade name, and model number of each product. Tabulate data by Specification Section.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.
- C. Product or Catalog Data:
  - 1) Manufacturers' standard drawings shall be modified to delete non-applicable data or include applicable data.
  - 2) Manufacturers' catalog sheets, brochures, diagrams, schedules, charts, illustrations, and other standard descriptive data:
    - a. Mark each copy to identify pertinent materials, products, or models.
    - b. Show dimensions and clearances required, performance characteristics and capacities, wiring diagrams and controls.
  - 3) Material Safety Data Sheets:
    - a. In addition to MSDSs otherwise required by the Contract Documents, submit four (4) copy for any products containing a hazardous substance such as paints, solvents, thinners, varnish, lacquer, glues and adhesives, mastics, sealants, equipment fuel, equipment lubricant, or other materials needed for the Project as required by the individual Specification Sections or as otherwise specified in the Contract Documents.
    - b. MSDSs must be submitted with Product Data in order for the Submittal to be reviewed.
- D. Supplemental Data:
  - 1) Submit number of copies that Contractor requires, plus two (2) copies that will be retained by County.
  - 2) Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to Project.
- E. Provide copies for Project Record Documents described in Section 01780 (Project Record Documents).

### 1.4 SHOP DRAWINGS

- A. Minimum Sheet Size: 8½ inches by 11 inches. All others: Multiples of 8½ inches by 11 inches, 34 inches by 44 inches maximum.
- B. Original sheet or reproducible transparency will be marked with County's review comments and returned to Contractor.
- C. Mark each copy to identify applicable products, models, options, and other data; supplement manufacturers' standard data to provide information unique to Work.
- D. Include manufacturers' installation instructions when required by Specification Section.
- E. If Contractor submits Shop Drawings for items that Shop Drawings are not specified, County will not be obliged to review them.
- F. Contractor is responsible for procuring copies of Shop Drawings for its own use as it may require for the progress of the Work.
- G. Shop Drawings shall be drawn to scale and completely dimensioned, showing plan view together with such sectional views as are necessary to clearly show construction detail, materials, and methods.

### 1.5 SAMPLES

- A. Submit full range of manufacturers' standard colors, textures, and patterns for County's selection.
- B. Submit Samples to illustrate functional and aesthetic characteristics of product, with integral parts and attachment devices. Coordinate Submittal of different categories for interfacing Work.
- C. Include identification on each Sample, giving full information.

- D. Sizes: Unless otherwise specified, provide the following:
  - 1) Paint Chips: Manufacturers' standard
  - 2) Flat or Sheet Products: Minimum 6 inches square, maximum 12 inches square
  - 3) Linear Products: Minimum 6 inches, maximum 12 inches long
  - 4) Bulk Products: Minimum 1 pint, maximum 1 gallon
- E. Full size Samples may be used in Work upon approval by County.
- F. Field Samples and Mock-ups (if applicable):
  - 1) Erect field Samples and mock-ups at Site in accordance with requirements of Specification Sections. If testing is conducted, record and certify results and full Contract compliance.
  - 2) Modify or make additional field Samples and mock-ups as required to provide appearance and finishes approved by County.
  - 3) Approved field Samples and mock-ups may be used in Work upon approval by County.
  - 4) Construct or prepare as many additional Samples as may be required, as directed by County, until desired textures, finishes, and/or colors are obtained.
  - 5) Accepted Samples and mock-up shall serve as the standard of quality for the various units of Work.
- G. No review of a Sample shall constitute a change or modify the requirements in the Contract Documents.
- H. Finishes, materials, and workmanship in the completed Work shall match accepted Samples.

#### **1.6 INSTALLATION, OPERATION, AND MAINTENANCE MANUAL**

- A. Sheet Size: 8½ x 11 inch
- B. Drawing Size: Reduce drawings or diagrams to an 8½ x 11 inch or 11 x 17 inch size. However, where reduction is not practical to ensure readability, fold larger drawings separately and place in vinyl envelopes bound into the binder. Identify vinyl envelopes with drawing numbers.
- C. Binding: Bind in stiff, metal-hinged, three-ring binder(s) with standard three-hole punching.
- D. Multiple Items: Multiple items may be combined into one binder; tab each section with plastic-coated dividers.
- E. Page Protectors: Provide plastic sheet lifters prior to first page and following last page.
- F. Binder title: Include the following title on front and spine of binder:
  - TOLAY LAKE REGIONAL PARK
  - GATHERING AREA PHASE 2 – SHADE STRUCTURE
  - INSTALLATION, OPERATION, AND MAINTENANCE MANUAL, [ENTER DATE]
- G. Contents:
  - 1) Introductory Information:
    - a. Title page providing the same information as paragraph 1.6F above
    - b. Contractor's name, address, and telephone number
    - c. Table of Contents
  - 2) Contractor shall include, at a minimum, the following detailed information for each item as applicable and as required by individual Specification Sections:
    - a. Equipment function, normal operating characteristics, limiting operations.
    - b. Assembly, disassembly, installation, alignment, adjustment, and checking instructions.
    - c. Operating instructions for startup, routine and normal operation, regulation and control, shutdown, and emergency conditions.
    - d. Lubrication and maintenance instructions including specific type and amount of lubricant and recommended lubrication interval.
    - e. Guide to "troubleshooting."
    - f. Parts list and predicted life of parts subject to wear.
    - g. Outline, cross-section, and assembly drawings; engineering data; and electrical diagrams, including elementary diagrams, labeled wiring diagrams, connection

- diagrams, word description of wiring diagrams and interconnection diagrams.
- h. Test data and performance curves.
- i. A list of recommended spare parts with a price list and a list of spare parts provided under this Contract.
- j. Copies of parts lists or other documents packed with equipment when delivered.
- k. Instrumentation or tag numbers relating the equipment back to the Contract Documents.

3) Index

**1.7 PROJECT RECORD DOCUMENTS**

- A. Submit Project Record Documents as required by Section 01780 (Project Record Documents).

**1.8 PROJECT DELAY CAUSED BY SUBMITTAL DELAY**

- A. Any Project delay which is caused by Contractor delay in submitting Submittals is considered avoidable delay, and will not be a basis for extension of Contract Time. Liquidated damages incurred because of late Submittals will be assessed to Contractor as otherwise provided in Contract Documents.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION

SUBMITTAL FORM ON FOLLOWING PAGE

**SUBMITTAL TRANSMITTAL NO. [#]**  
 PROJECT NAME: [PROJECTT NAME AND NO.]

**Date of Original transmission:** \_\_\_\_\_

OWNER: SONOMA COUNTY REGIONAL PARKS  
 Project Manager: [Project Manager]

**Date Received:** \_\_\_\_\_

**Date of Revision:** \_\_\_\_\_

CONTRACTOR: [Contractor Name]  
 Address: [Contractor Address]  
 Contractor Supe:[Owner/Supe/PM]  
 Specification Section Number: \_\_\_\_

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

			1st Submittal	Resubmittal
No. Copies	Description	Manufacturer		

Submittal Remarks: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

\*The action designated above is in accordance with the following legend:

- A - No Exceptions Taken
- B – Make Corrections Noted (No Resubmission Required)
- C – Revise as Noted and Resubmit
- D – Incomplete Submittal Resubmit
- E – Retained for A/E and County Record Only – Informational Only
- F – Rejected Resubmit
  - 1. Not enough information for review
  - 2. Copies illegible
  - 3. Wrong sequence
  - 4. Wrong re-submittal number
  - 5. Wrong Specification Document number
  - 6. See comments

Comments: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

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

## SECTION 01410 REGULATORY REQUIREMENTS

### PART 1 GENERAL

#### 1.1 SUMMARY

- A. Section includes: regulatory requirements applicable to Contract Documents.
- B. Specific reference in the Specifications to codes and regulations or requirements of regulatory agencies shall mean the latest printed edition of each adopted by the regulatory agency in effect at the time of the opening of Bids, except as may be otherwise specifically stated in the Contract Documents.
- C. Should any conditions develop not covered by the Contract Documents wherein the finished Work will not comply with current codes, a Change Order detailing and specifying the required Work shall be submitted to and approved by County before proceeding with the Work.

#### 1.2 REFERENCES TO REGULATORY REQUIREMENTS

- A. Codes, laws, ordinances, rules and regulations referred to shall have full force and effect as though printed in full in these Specifications. Code, laws, ordinances, rules and regulations are not furnished to Contractor, because Contractor is assumed to be familiar with these requirements. The listing of applicable codes, laws, and regulations for hazardous waste abatement Work in the Contract Documents is supplied to Contractor as a courtesy and shall not limit Contractor's responsibility for complying with all applicable laws, regulations, or ordinances having application to the Work. Where conflict among the requirements or with these Specifications occurs, the most stringent requirements shall be used.
- B. Conform to referenced codes, laws, ordinances, rules and regulations.

#### 1.3 CODES

- A. Codes that apply to Contract Documents include, but are not limited to, the following:
  - 1) CBC (Part 2, Title 24, CCR, including, without means of limitation, Sections 16A, 102A.23, 308, 420A, 504-506, 904.2.6, 1019 and 1604)
  - 2) CEC (Part 3, Title 24, CCR)
  - 3) CMC (Part 4, Title 24, CCR)
  - 4) CPC (Part 5, Title 24, CCR),
  - 5) State Elevator Safety Regulations (Part 7, Title 24, CCR)
  - 6) IBC
  - 7) UPC
  - 8) UMC
  - 9) NEC

#### 1.4 LAWS, ORDINANCES, RULES, AND REGULATIONS

- A. During prosecution of Work to be done under Contract Documents, comply with applicable laws, ordinances, rules and regulations, including, but not limited to, the following:
  - 1) Federal:
    - a. Americans With Disabilities Act of 1990
    - b. 29 CFR, Section 1910.1001, Asbestos
    - c. 40 CFR, Subpart M, National Emission Standards for Asbestos
    - d. Executive Order 11246
    - e. Federal Endangered Species Act
    - f. Clean Water Act
  - 2) State of California:
    - a. California Code of Regulations, Titles 5, 8, 19, 21, 22, 24 and 25
    - b. California Public Contract Code
    - c. California Health and Safety Code
    - d. California Government Code

- e. California Labor Code
- f. California Civil Code
- g. California Code of Civil Procedure
- h. CPUC General Order 95, Rules for Overhead Electric Line Construction
- i. CPUC General Order 128, Rules for Construction of Underground Electric Supply and Communications Systems
- j. Cal/OSHA
- k. OSHA: Hazard Communications Standards
- l. California Endangered Species Act
- m. Water Code
- n. Fish and Game Code
- 3) State of California Agencies:
  - a. State and Consumer Services Agency
  - b. Office of Statewide Health Planning and Development
  - c. Department of Fish and Game
  - d. Bay Area Air Quality Management District
  - e. San Francisco Bay Regional Water Quality Control Board
  - f. North Coast Regional Water Quality Control Board
    - 1) Order No. 93-61
    - 2) Order No. 81-73
    - 3) Clean Water Act Section 401
- 4) County of Sonoma:
  - a. Ordinance 3836R
  - b. Building permit
  - c. Electrical permit
  - d. Grading permit
  - e. Encroachment permit
  - f. Valley Oak Protection Ordinance
  - g. Fuel storage tank permit
  - h. Fire sprinkler system permit
  - i. Fire alarm system permit
  - j. Underground fire protection water main and hydrant system permit
- 5) Local Agencies:
  - a. Applicable County Ordinances
  - b. Northern Sonoma County Air Pollution Control District
- 6) Other Requirements:
  - a. National Fire Protection Association (NFPA): Pamphlet 101, Life Safety.
  - b. References on Drawings or in Specifications to "code" or "building code" not otherwise identified shall mean the codes specified in this Section 01410, together with all additions, amendments, changes, and interpretations adopted by code authorities of the jurisdiction.
- B. Have access to all of the foregoing within 24 hours.
- C. Other Applicable Laws, Ordinances and Regulations:
  - 1) Work shall be accomplished in conformance with all applicable laws, ordinances, rules and regulations of federal, state, and local governmental agencies and jurisdictions having authority over the Project.
  - 2) Work shall be accomplished in conformance with all rules and regulations of public utilities and utility districts.
  - 3) Where such laws, ordinances rules, and regulations require more care or greater time to accomplish Work, or require better quality, higher standards or greater size of products, Work shall be accomplished in conformance to such requirements with no change to the Contract Time and Contract Sum, except where changes in laws, ordinances, rules, and regulations occur subsequent to the time of opening of the Bids.
- D. Change Orders and Claims. The California Public Contract Code (including but not limited to Section 7105(d)(2)) and the California Government Code (Section 930.2 et

seq.) apply to all contract procedures for changes, time extensions, change orders (time and money), and claims. Federal law (U.S. v. Holpuch 326 U.S. 234) shall supplement but not supercede California law on these requirements. Any change, alteration, Modifications, waiver, or omission to implement these procedures, shall have no legal effect unless approved in advance in a fully executed Change Order approved by County's Board of Supervisors.

### 1.5 PRECEDENCE

- A. Where Drawings or Specifications require or describe products or execution of better quality, higher standard or greater size than required by applicable codes, ordinances and standards, Drawings and Specifications shall take precedence so long as such increase is legal.
- B. Where no requirements are identified on Drawings or in Specifications, comply with all requirements of applicable codes, ordinances and standards of governing authorities having jurisdiction.
- C. Conflicts between referenced regulatory requirements: Comply with the one establishing the more stringent requirement.
- D. Conflicts between referenced regulatory requirements and Contract Documents: Comply with the one establishing the more stringent requirement.

### 1.6 REQUIRED PROVISIONS ON CONTRACT CLAIM RESOLUTION

- A. The California Public Contract Code specifies required provisions on resolving contract claims less than \$375,000, which are set forth below, and constitute a part of this Contract.
  - 1) For the purposes of this section, "Claim" means a separate demand by Contractor of \$375,000 or less for (1) a time extension, (2) payment or money or damages arising from Work done by or on behalf of Contractor arising under the Contract Documents and payment of which is not otherwise expressly provided for or the Claimant is not otherwise entitled to, or (3) an amount the payment of which is disputed by County. In order to qualify as a Claim, the written demand must state that it is a Claim submitted under paragraph 12 of Document 00700 (General Conditions) and be submitted in compliance with all requirements of Document 00700 (General Conditions), paragraph 12. Separate Claims which total more than \$375,000 do not qualify as a "separate demand of \$375,000 or less," as referenced above, and are not subject to this section.
  - 2) A voucher, invoice, payment application, or other routine or authorized form of request for payment is not a Claim for purposes of this section. If such request is disputed as to liability or amount, then the disputed portion of the submission may be converted to a Claim under this section by submitting a separate claim in compliance with Contract Documents claim submission requirements.
  - 3) Caution: This section does not apply to tort claims and nothing in this section is intended nor shall be construed to change the time periods for filing tort claims or actions specified by Chapter 1 and Chapter 2 of Part 3 of Division 3.6 of Title 1 of the California Government Code.
- B. Procedure:
  - 1) The Claim must be in writing, submitted in compliance with all requirements of Document 00700 (General Conditions), Article 12, including, but not limited to, the time prescribed by and including the documents necessary to substantiate the Claim, pursuant to Document 00700 (General Conditions), paragraph 12.3. Claims must be filed on or before the day of final payment. Nothing in this section is intended to extend the time limit or supersede notice requirements for the filing of claims as set forth in Document 00700 (General Conditions), Article 12 or elsewhere in the Contract Documents.
  - 2) For Claims of Fifty Thousand Dollars (\$50,000) or less
    - a. County shall respond in writing within forty-five (45) days of receipt of the Claim, or
    - b. County may request in writing within thirty (30) days of receipt of the Claim, any

additional documentation supporting the Claim or relating to any defenses or claims County may have against Claimant.

- 1) If additional information is thereafter required, it shall be requested and provided in accordance with this section, upon mutual agreement of County and Claimant.
  - 2) County's written response to the Claim, as further documented, shall be submitted to Claimant within fifteen (15) days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.
- 3) For Claims over Fifty Thousand Dollars (\$50,000) and less than or equal to Three Hundred Seventy-Five Dollars (\$375,000):
- a. County shall respond in writing within sixty (60) days of receipt of the Claim, or
  - b. County may request in writing within thirty (30) days of receipt of the Claim, any additional documentation supporting the Claim or relating to any defenses or claims County may have against Claimant.
    - 1) If additional information is thereafter required, it shall be requested and provided in accordance with this section, upon mutual agreement of County and Claimant;
    - 2) County's written response to the Claim, as further documented, shall be submitted to Claimant within thirty (30) days after receipt of further documentation or within a period of time no greater than taken by Claimant in producing the additional information, whichever is greater.
- 4) Meet and Confer:
- a. If Claimant disputes County's written response, or County fails to respond within the time prescribed above, Claimant shall notify County, in writing, either within fifteen (15) days of receipt of County's response or within fifteen (15) days of County's failure to timely respond, and demand an informal conference to meet and confer for settlement of the issues in dispute. Upon demand County will schedule a meet and confer conference within thirty (30) days for settlement of the dispute.
  - b. Following the meet and confer conference, if the Claim or any portion remains in dispute, 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 California 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 Claimant submits its written Claim as set forth in paragraph 1.6.B above, 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.

#### **1.7 COMPLIANCE WITH AMERICANS WITH DISABILITIES ACT**

- A. Contractor acknowledges that, pursuant to the Americans with Disabilities Act (ADA), programs, services, and other activities provided by a public entity to the public, whether directly or through a contractor, must be accessible to the disabled public. Contractor shall provide the services specified in the Contract Documents in a manner that complies with the ADA and any and all other applicable federal, state, and local disability rights legislation. Contractor agrees not to discriminate against disabled persons in the provision of services, benefits, or activities provided under this Agreement and further agrees that any violation of this prohibition on the part of Contractor, its employees, agents, or assigns shall constitute a material breach of the Contract Documents.

#### **1.8 CAL/OSHA PERMIT. OBTAIN, AS APPLICABLE, PERMIT(S) AS REQUIRED BY CAL/OSHA FOR THE FOLLOWING:**

- A. Construction of trenches or excavations that are five feet or more in depth and into which a person is required to descend.
- B. Construction or demolition of any building, structure, or scaffolding for falsework more than three stories high, or the equivalent height (36 feet).

C. Erection or dismantling of vertical shoring systems more than three stories high, or the equivalent height (36 feet).

**1.9 COUNTY OF SONOMA BUILDING PERMIT(S)**

- A. County of Sonoma Building Permit. County will obtain the necessary permit from PRMD for the Work under this Contract requiring a permit. A copy of the permit and a copy of the required Inspection Record Card will be furnished to Contractor for posting at the Site.
- B. All other permits that may be required, such as deferred submittals (underground fire protection water supply system, fire sprinkler system, fire alarm system, fuel storage and tank, and kitchen exhaust hood systems), electrical, mechanical, fire prevention, irrigation, grading, slope protection, tree cutting, etc., have not been applied for and shall be obtained by Contractor. Applicable permit fees will be reimbursed by County to the extent specified in Document 00700 (General Conditions).

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION



**SECTION 01420  
REFERENCES AND DEFINITIONS**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Reference standards, abbreviations, symbols, definitions, and terminology used in Contract Documents.
- B. Full titles are given in this Section for standards cited in other Sections of Specifications.
- C. Material and workmanship specified by reference to number, symbol, or title of specific standard such as state standard, commercial standard, federal specifications, technical society, or trade association standard, or other similar standard, shall comply with requirements of standards except when more rigid requirements are specified or required by applicable codes.
- D. Standards referred to, except as modified herein, shall have full force and effect as though printed in the Contract Documents. Standards are not furnished to Contractor because manufacturers and trades involved are assumed to be familiar with their requirements.

**1.2 REFERENCE TO STANDARDS AND SPECIFICATIONS OF TECHNICAL SOCIETIES; REPORTING AND RESOLVING DISCREPANCIES**

- A. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard, specification, manual, code, or laws or regulations (including all amendments, changes, errata, addenda, and supplements) in effect at the time of opening of Bids, except as may be otherwise specifically stated in the Contract Documents.
  - 1) When an edition or effective date of a reference is not given, it shall be understood to be the current edition or latest revision published as of the date of opening Bids.
    - a. Exception: Comply with issues in effect as listed in governing legal requirements.
- B. If during the performance of the Work, Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any such law or regulation applicable to the performance of the Work or of any such standard, specification, manual, or code, or of any instruction of any supplier, report it in writing at once by submitting a RFI to County, and do not proceed with the Work affected thereby until consent to do so is given by County.
- C. Except as otherwise specifically stated in the Contract Documents or as may be provided by Change Order, CCD, or Supplemental Instruction, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
  - 1) The provisions of any such standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
  - 2) The provisions of any such laws or regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such law or regulation).
- D. No provision of any such standard, specification, manual, code, or instruction shall be effective to change the duties and responsibilities of County, Contractor, or Architect, or any of their subcontractors, consultants, agents, or employees, from those set forth in the Contract Documents, nor shall it be effective to assign to County, Architect, or any of their consultants, agents, representatives or employees any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.
- E. Comply with the applicable portions of standards and specifications published by the technical societies, institutions, associations, and governmental agencies referred to in Specifications.

- F. Referenced Grades, Classes, and Types: Where an alternative or optional grade, class, or type of product or execution is included in a reference but is not identified in Drawings or in Specifications, provide the highest, best, and greatest of the alternatives or options for the intended use and prevailing conditions.
- G. Jobsite Copies:
- 1) Obtain and maintain at the Site copies of reference standards identified on Drawings and in Specifications in order to properly execute the Work.
  - 2) At a minimum, the following shall be readily available at the Site:
    - a. Safety Codes: State of California, Division of Industrial Safety regulations.
- H. ASTM and ANSI References: Specifications and Standards of the American Society for Testing and Materials (ASTM) and the American National Standards Institute (ANSI) are identified in the Drawings and Specifications by abbreviation and number only and may not be further identified by title, date, revision, or amendment. It is presumed that Contractor is familiar with and has access to these nationally- and industry-recognized specifications and standards.

### 1.3 ABBREVIATIONS

- A. Listed hereinafter are the various organizations or references which may appear in the Contract Documents, along with their respective acronyms and/or abbreviations:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	Architectural Aluminum Manufacturers Association
AAP	Affirmative Action Program
AASHTO	American Association of State Highway and Transportation Officials
ABMA	American Bearing Manufacturers Association
ABPA	American Board Products Association
ACI	American Concrete Institute
ADA	Americans with Disabilities Act
AED	Association of Equipment Distributors
AFBMA	Anti-friction Bearing Manufacturers Association
AGA	American Gas Association
AGMA	American Gear Manufacturers Association
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association, Inc.
ANSI	American National Standards Institute (formerly American Standards Association)
APA	American Plywood Association
ARI	Air-Conditioning and Refrigeration Institute
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigeration, and Air-Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASTM	American Society for Testing and Materials
AWCI	Association of the Wall and Ceiling Industries
AWPA	American Wood-Preservers' Association
AWPB	American Wood Preservers Bureau
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturers Association
BIL	Basic Insulation Level
Cal/OSHA	California Occupational Safety and Health Administration
Caltrans	State of California, Department of Transportation
CBC	California Building Code
CCD	Construction Change Directive
CCR	California Code of Regulations
CEC	California Electric Code

CFR	Code of Federal Regulations
CI	Chlorine Institute, Inc.
CISPI	Cast Iron Soil Pipe Institute
CLMFI	Chain Link Fence Manufacturers Institute
CMAA	Crane Manufacturers Association of America, Inc.
CMC	California Mechanical Code
CO	Change Order
COE	United States Army Corps of Engineers
CPC	California Plumbing Code
CPM	Critical Path Method
CPUC	California Public Utilities Commission
CRA	California Redwood Association
CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standards, U.S. Department of Commerce
CSA	Canadian Standards Association
CTI	Ceramic Tile Institute
DHI	Door and Hardware Institute
DSA	Division of State Architect (formerly known as the Office of the State Architect)
EIA	Electronic Industries Association
EPA	Environmental Protection Agency
ETL	Electrical Testing Laboratories
FGMA	Flat Glass Marketing Association
FM	Factory Mutual
FMRC	Factory Mutual Research Corporation
FS	Federal Specifications
GA	Gypsum Association
HI	Hydraulic Institute
HMMA	Hollow Metal Manufacturer's Association
HPMA	Hardwood Plywood Manufacturers Association
HVAC	Heating, Ventilating and Air Conditioning
I.D.	Identification
IACS	International Annealed Copper Standards
IAPMO	International Association of Plumbing and Mechanical Officials
ICBO	International Conference of Building Officials
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronic Engineers, Inc.
IES	Illuminating Engineering Society
ISA	The Instrumentation, Systems, and Automation Society
ISA	Instrumentation Society of America
ISO	International Organization for Standardization
JATC	Joint Apprenticeship Training Committee
JV	Joint Venture
LBE	Local Business Enterprise
M.I.	Middle Initial
M/WBE	Minority and/or Woman-Owned Business Enterprise
MBE	Minority Business Enterprise
MIA	Masonry Institute of America
MIA	Marble Institute of America
MLSFA	Metal Lath/Steel Framing Association
MS	Military Specifications
MSDS	Material Safety Data Sheet
MSS	Manufacturers Standardization Society of the Valve & Fitting Industry
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electric Code

NEMA	National Electric Manufacturers Association
NESC	National Electrical Safety Code
NFoPA	National Forest Products Association
NFPA	National Fire Protection Association
NIOSH	National Institute for Occupational Safety and Health
NIST	National Institute of Standards and Technology
NOFMA	National Oak Flooring Manufacturers Association
NRMCA	National Ready Mixed Concrete Association
NSF	National Sanitation Foundation
NTMA	National Terrazzo & Mosaic Association
NWWDA	National Wood Windows and Doors Association
OSHA	Occupational Safety and Health Administration
OSHPD	Office of Statewide Health Planning and Department
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PDI	Plumbing and Drainage Institute
PG&E	Pacific Gas and Electric Company
PM	Preventive Maintenance
PR	Proposal Request
PRMD	Permits and Resource Management Department, County of Sonoma
PS	Product Standard, U. S. Department of Commerce
RFI	Request for Information
RFP	Request for Proposals
RFS	Request for Substitution
RIS	Redwood Inspection Service
SAE	Society of Automotive Engineers
SDoI	Steel Door Institute
SDel	Steel Deck Institute
SFM	State of California, Office of State Fire Marshal
SIGMA	Sealed Insulating Glass Manufacturers Association
SJI	Steel Joint Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SPIB	Southern Pine Inspection Bureau
SSPC	Steel Structures Painting Council
SWI	Steel Window Institute
TCA	Tile Council of America
TIE	Time Impact Evaluation
TMS	The Masonry Society
TPI	Truss Plate Institute Inc.
IBC	Uniform Building Code
UFC	Uniform Fire Code
UL	Underwriters' Laboratories, Inc.
UMC	Uniform Mechanical Code
UPC	Uniform Plumbing Code
USA	Underground Service Alert
USC	United States Code
WCLIB	West Coast Lumber Inspection Bureau
WHI	Warnock Hersey International
WIC	Woodwork Institute of California
WWPA	Western Wood Products Association
WWPI	Western Wood Preservers Institute

B. Abbreviations in Specifications:

AWG	American Wire Gauge
accord	Accordance
Co.	Company
Corp.	Corporation
cm.	centimeter (centimeters)
cu.	Cubic
Div.	Division
dia.	diameter
ft.	foot (feet)
g./gr.	gram (grams)
gal.	gallon (gallons)
gpd	gallons per Day
gpm	gallons per minute
hr.	hour
kg.	kilogram (kilograms)
in.	inch (inches)
Inc.	Incorporated
km.	kilometer (kilometers)
kVAR	Kilovolts amperes reactive
kW	Kilowatt
l.	liter (liters)
lbs.	pounds
m	meter (meters)
Mfg.	manufacturing
mg.	milligram (milligrams)
ml./mls.	milliliter (milliliters)
mm.	millimeter (millimeters)
No.	number
o.c.	on centers
O.D.	outside diameter
psi	pounds per square inch
psf	pounds per square foot
sq.	square
T & G	tongue and groove
U.S.	United States
yd.	yard (yards)

- C. Abbreviations on Drawings:  
 1) Additional abbreviations, used only on Drawings, are indicated thereon.

**1.4 SYMBOLS**

- A. Symbols in Specifications:

:	“shall be” or “shall” - where used within sentences or paragraphs
#1	Number
1#	Pound
&	And
%	Percent
C	Centigrade
F	Fahrenheit
°	Degree
/	per, except where used to combine words; example: power/fuel, and in that case it means and
“	inch (inches)
‘	foot (feet)
@	At

- B. Symbols on Drawings:
  - 1) Symbols, used only on Drawings, are indicated thereon.

## 1.5 DEFINITIONS

- A. Wherever any of the words or phrases defined below, or a pronoun used in place thereof, is used in any part of the Contract Documents, it shall have the meaning here set forth. In the Contract Documents, the neuter gender includes the feminine and masculine, and the singular number includes the plural.
- B. While County has made an effort to identify all defined terms with initial caps, the following definitions shall apply regardless of case unless the context otherwise requires:
  - 1) Addenda: Written or graphic instruments issued prior to the opening of Bids, which clarify, correct, or change the bidding requirements or the Contract Documents. Addenda shall not include the minutes of the Pre-Bid Conference and/or Site Visit.
  - 2) Agreement (Document 00520): Agreement is the basic Contract Document that binds the parties to construction Work. Agreement defines relationships and obligations between County and Contractor and by reference incorporates Conditions of Contract, Drawings, and Specifications and contains Addenda and all Modifications subsequent to execution of Contract Documents.
  - 3) Alternate: Work added to or deducted from the Base Bid, if accepted by County.
  - 4) Application for Payment: Written application for monthly or periodic progress or final payment made by Contractor complying with the Contract Documents.
  - 5) Approved Equal: Approved in writing by County as being of equivalent quality, utility and appearance.
  - 6) Architect: The individual (or firm including the individual) holding a valid California State Architect's license designated within the Contract Documents as Architect to provide architectural and/or engineering services on the Project. When Architect is referred to within the Contract Documents and no Architect has in fact been designated, then the matter shall be referred to County. The term Architect shall be construed to include all of Architect's consultants retained for the Project, as well as employees of Architect. When the designated Architect is an employee of County, his or her authorized representatives on the Project will be included under the term Architect, and Architect is the beneficiary of all Contractor obligations to County, including without limitation, all releases and indemnities.
  - 7) Architect's Supplemental Instruction ("ASI"): A written clarification of Contract Documents issued by Architect that does not result in change in Contract Sum or Contract Time, nor substantially changes Drawings or Specifications. See Section 01250 (Clarification and Modification Procedures).
  - 8) Asbestos: Any material that contains more than one (1) percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by OSHA or Cal/OSHA.
  - 9) Bid: The offer or proposal of the Bidder submitted on the prescribed form(s) setting forth the prices for the Work to be performed.
  - 10) Bidder: One who submits a Bid to the County.
  - 11) Bidding Documents: All documents comprising the Project Manual (including all documents and Specification Sections listed in Document 00010 [Table of Contents]), including documents supplied for bidding purposes only and Contract Documents.
  - 12) Board: The Board of Supervisors of the County.
  - 13) Business Day: Any Day other than Saturday, Sunday, and the following days that have been designated as holidays by County. If a holiday falls on a Saturday, the preceding Friday will be the holiday. If a holiday falls on a Sunday, the following Monday will be the holiday.
    - a. New Year's Day, January 1;
    - b. Martin Luther King Jr.'s Birthday, third Monday in January;
    - c. Lincoln's Birthday, February 12;
    - d. Presidents' Day, third Monday in February;

- e. Memorial Day, last Monday in May;
  - f. Independence Day, July 4;
  - g. Labor Day, first Monday in September;
  - h. Veterans' Day, November 11;
  - i. Thanksgiving Day, as designated by the President;
  - j. The Day following Thanksgiving Day;
  - k. Christmas Day, December 25; and
  - l. Each day appointed by the Governor of California and formally recognized by the Sonoma County Board of Supervisors as a day of mourning, thanksgiving, or special observance.
- 14) Change Order: A written instrument prepared by County and signed by County and Contractor, stating their agreement upon all of the following:
- a. a change in the Work;
  - b. the amount of the adjustment in the Contract Sum, if any; and
  - c. the amount of the adjustment in the Contract Time, if any.
- 15) Claim: Is defined in Document 00700 (General Conditions).
- 16) Code Inspector: A local or state agency responsible for the enforcement of applicable codes and regulations.
- 17) Commencement Date: The date on which Contract Time commences to run as provided in the Contract Documents.
- 18) Construction Change Directive ("CCD"): A written order prepared and signed by County, directing a change in the Work and stating a proposed basis for adjustment, if any, in the Contract Sum or Contract Time, or both.
- 19) Consultant: A consultant is an expert or a professional in a specific field and has a wide knowledge of the subject matter.
- 20) Contract Conditions or Conditions of the Contract: Consists of two parts: General Conditions and Supplementary Conditions.
- a. General Conditions are general clauses that are common to County Contracts, including Document 00700 (General Conditions).
  - b. Supplementary Conditions modify or supplement General Conditions to meet specific requirements for these Contract Documents, including Document 00800 (Supplementary Conditions) and Document 00821 (Supplementary Conditions - Insurance) and Document 00805 (Supplementary Conditions – Hazardous Materials) (if used).
- 21) Contract Documents and Contract: Contract Documents and Contract shall consist of the documents identified as the Contract Documents in Document 00520 (Agreement), plus all changes, Addenda, and Modifications thereto.
- 22) Contract Modification: Either:
- a. a written amendment to Contract signed by Contractor and County; or
  - b. a Change Order; or
  - c. a Construction Change Directive; or
  - d. a written directive for a minor change in the Work issued by County.
- 23) Contract Sum: The sum stated in the Agreement and, including authorized adjustments, the total amount payable by County to Contractor for performance of the Work and the Contract Documents. The Contract Sum is also sometimes referred to as the Contract Price or the Contract Amount.
- 24) Contract Time: The number or numbers of Days or the dates stated in the Agreement:
- a. to achieve Substantial Completion of the Work or designated Milestones; and/or
  - b. to complete the Work so that it is ready for final payment and is accepted.
- 25) Contractor: The person or entity identified as such in the Agreement and referred to throughout the Contract Documents as if singular in number and neutral in gender. The term "Contractor" includes Contractor or its authorized representative.
- 26) Contractor's Employees: Persons engaged in execution of Work under Contract as direct employees of Contractor, as Subcontractors, or as employees of Subcontractors.

- 27) County: County of Sonoma
- 28) County-Furnished, Contractor-Installed: Items furnished by County at its cost for installation by Contractor at its cost under Contract Documents.
- 29) County's Representative(s): See Document 00520 (Agreement).
- 30) Day: One calendar day of twenty-four (24) hours measured from midnight to the next midnight, unless the word "day" is specifically modified to the contrary.
- 31) Defective: An adjective which, when modifying the word "Work," refers to Work that is unsatisfactory or unsuited for the use intended, faulty or deficient, that does not conform to the Contract Documents, or breaches any express or implied warranty or guaranty, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract Documents (including but not limited to approval of Samples and "or equal" items), or has been damaged prior to final payment (unless responsibility for the protection thereof has been assumed by County). County is the judge of whether Work is Defective.
- 32) Disputed Work: As defined in Document 00700 (General Conditions), Article 12.
- 33) Drawings: The graphic and pictorial portions of Contract Documents, wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.
- 34) Engineer: If used elsewhere in the Contract Documents, "Engineer" shall mean an individual (or firm including the individual) holding a valid California State Architect's or Engineer's license designated within the Contract Documents as Engineer to provide engineering and/or architectural services on the Project. Engineer may be an employee of or an independent consultant to County. When Engineer is referred to within the Contract Documents and no Engineer has in fact been designated, then the matter shall be referred to County. The term Engineer shall be construed to include employees of Engineer and/or employees that Engineer supervises. When Engineer is an employee of County, his or her authorized representatives on the Project will be included under the term Engineer. If Architect is an employee of County, Engineer is the beneficiary of all Contractor obligations to County, including without limitation, all releases and indemnities.
- 35) Equal: Equal in opinion of County. Burden of proof of equality is responsibility of Contractor.
- 36) Final Acceptance or Final Completion: County's acceptance of the Work as satisfactorily completed in accordance with Contract Documents, as evidence by County's issuance of Final Inspection Report. Requirements for Final Acceptance/Final Completion include, but are not limited to:
  - a. All systems having been tested and accepted as having met requirements of Contract Documents.
  - b. All required instructions and training sessions having been given by Contractor.
  - c. All Project Record Documents having been submitted by Contractor, reviewed by County, and accepted by County.
  - d. All punch list Work, as directed by County, having been completed by Contractor.
  - e. Generally all Work, except Contractor maintenance after Final Acceptance/Final Completion, having been completed to satisfaction of County.
- 37) Final Inspection Report: Document issued by County to indicate Final Completion has occurred.
- 38) Force Account: Work directed to be performed without prior agreement as to lump sum or unit price cost thereof, and which is to be billed at cost for labor, materials, equipment, taxes, and other costs, plus a specified percentage for overhead and profit.
- 39) Guaranty Period: Is defined in Document 00630 (Guaranty).
- 40) Initial Schedule: See Section 01320 (Progress Schedules).
- 41) Milestone: A principal event specified in Contract Documents relating to an intermediate completion date or time prior to Substantial Completion of all Work.
- 42) Modification: Same as Contract Modification.

- 43) Not in Contract: Work that is outside the scope of Work to be performed by Contractor under Contract Documents.
- 44) Notice of Completion: Shall have the meaning provided in California Civil Code Section 3093, and any successor statute.
- 45) Notice of Potential Claim: As described in Document 00700 (General Conditions), Article 12.
- 46) Off Site: Outside geographical location of the Project.
- 47) Original Schedule: See Section 01320 (Progress Schedules and Reports).
- 48) Partial Utilization: Use by County of a substantially completed part of the Work for the purpose for which it is intended (or a related purpose) prior to Substantial Completion of all of the Work.
- 49) PCBs: Polychlorinated biphenyls.
- 50) Phase: A specified portion of the Work (if any) specifically identified as a Phase in Document 00520 (Agreement) or Document 01100 (Summary).
- 51) Product Data: That information (brochures, catalog sheets, manufacturer's data sheets, etc.) supplied by vendors having technical and commercial characteristics of the supplied equipment or materials and accompanying commercial terms such as warranties, instructions, and manuals.
- 52) Progress Report: A periodic report submitted by Contractor to County with progress payment invoices accompanying progress schedule. See Section 01320 (Progress Schedules and Reports) and Document 00700 (General Conditions).
- 53) Project: Total construction of which Work performed under Contract Documents may be whole or part.
- 54) Project Inspector: A person(s) subcontracted to testing and special inspection agency or engaged directly by County to provide general observation of the Work, scheduling requested inspections by Contractor and reporting to County.
- 55) Project Float: As defined in Section 01320, paragraph 1.2.B.3.
- 56) Project Manager: See County Representative.
- 57) Project Manual: Project Manual consists of Bidding Requirements, Agreement, Bonds, Certificates, Contract Conditions, Drawings, and Specifications.
- 58) Project Record Documents: All Project deliverables required under Sections 01700 et seq., including without limitation, as-built drawings; Installation, Operation, and Maintenance Manuals; and Machine Inventory Sheets.
- 59) Request for Information ("RFI"): A document prepared by Contractor or County requesting information regarding the Project or Contract Documents as provided in Section 01250 (Clarification and Modification Procedures). The RFI system is also a means for County to submit Contract Document clarifications or supplements to Contractor.
- 60) Request for Proposals ("RFP"): A document issued by County to Contractor whereby County may initiate changes in the Work or Contract Time as provided in Contract Documents. See Section 01250 (Clarification and Modification Procedures).
- 61) Request for Substitution ("RFS"): A document prepared by Contractor requesting substitution of materials as permitted and to the extent permitted in Contract Documents. See Section 01600 (Product Requirements).
- 62) RFI-Reply: A document consisting of supplementary details, instructions, or information issued by County that clarifies or supplements Contract Documents, and with which Contractor shall comply. RFI-Replies do not constitute changes in Contract Sum or Contract Time except as otherwise agreed in writing by County. RFI-Replies will be issued through the RFI administrative system.
- 63) Samples: Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
- 64) Schedule of Values ("SOV"): The detailed breakdown of Contractor's Bid by scheduled Work items and/or activities, to be used as a basis for Applications of Payment and as described in Section 01200 (Payment Procedures).
- 65) Serving Utilities: Is a source or entity that provides utility services; electricity, gas,

- water, or sewer.
- 66) Shop Drawings: All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for Contractor and submitted by Contractor to illustrate some portion of the Work.
  - 67) Site: The particular geographical location of Work performed pursuant to Contract Documents.
  - 68) Specifications: The written portion of the Contract Documents consisting of requirements for materials, equipment, construction systems, standards, and workmanship for the Work; performance of related services; and are contained in Divisions 1 through 16.
  - 69) Subcontractor: A person or entity that has a direct contract with Contractor to perform a portion of the Work at the Site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in number and neutral in gender and includes Subcontractor or an authorized representative of the Subcontractor. The term "Subcontractor" does not include a separate contractor or subcontractors of a separate contractor.
  - 70) Submittal: Includes shop drawings, material data, samples produced by Contractor, and other items referenced or described in Section 01330 (Submittal Procedures).
  - 71) Substantial Completion: The Work (or a specified part thereof) has progressed to the point where, in the opinion of County as evidenced by a Certificate of Substantial Completion, the Work is sufficiently complete, in accordance with Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended; or if no such certificate is issued, when the Work (or specified part) is complete and ready for final payment as evidenced by written recommendation of County for final payment. The terms "Substantially Complete" and "Substantially Completed" as applied to all or part of the Work refer to Substantial Completion thereof.
  - 72) Superintendent: A construction superintendent is Contractor's representative who is responsible for continuous field supervision, coordination, and completion of the work.
  - 73) Supplemental Instruction ("SI"): See Architect's Supplemental Instruction above.
  - 74) Underground Facilities: All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities that have been installed underground to furnish any of the following services or materials: Electricity, gases, chemicals, steam, liquid petroleum products, telephone or other communications, cable television, sewage and drainage removal, traffic or other control systems, or water.
  - 75) Unit Price Work: Shall be the portions of the Work for which a unit price is provided in Document 00520 (Agreement) or Section 01100 (Summary).
  - 76) Work: The entire completed construction, or the various separately identifiable parts thereof, required to be furnished under the Contract Documents within the Contract Time. Work includes and is the result of performing or furnishing labor and furnishing and incorporating materials and equipment into the construction, and performing or furnishing services and furnishing documents, all as required by the Contract Documents including everything shown in the Drawings and set forth in the Specifications. Wherever the word "work" is used, rather than the word "Work," it shall be understood to have its ordinary and customary meaning.
- C. The following terms are not necessarily identified with initial caps; however they shall have the meaning set forth below:
- 1) Wherever words "as directed," "as required," "as permitted," or words of like effect are used, it shall be understood that direction, requirements, or permission of County is intended. Words "sufficient," "necessary," "proper," and the like shall mean sufficient, necessary, or proper in judgment of County. Words "approved," "acceptable," "satisfactory," "favorably reviewed," or words of like import, shall mean approved by, or acceptable to, or satisfactory to, or favorably reviewed by County.
  - 2) Wherever the word "may" or "ought" is used, the action to which it refers is

discretionary. Wherever the word “shall” or “will” is used, the action to which it refers is mandatory.

- 3) By County: Work that will be performed by County or its agents at County’s expense.
- 4) By Others: Work that is outside scope of Work to be performed by Contractor under this Contract, which will be performed by County, other contractors, or other means.
- 5) Concealed: Work not exposed to view in the finished Work, including within or behind various construction elements.
- 6) Exposed: Work exposed to view in the finished Work, including behind louvers, grilles, registers and various other construction elements.
- 7) Furnish: Supply only, do not install.
- 8) Indicated: Shown or noted on the Drawings.
- 9) Install: Install or apply only, do not furnish.
- 10) Latent: Not apparent by reasonable inspection, including but not limited to, the inspections and research required as a condition to bidding under Document 00700 (General Conditions).
- 11) Law: Unless otherwise limited, all applicable laws including without limitation all federal, state, and local laws, statutes, standards, rules, regulations, ordinances, and judicial and administrative decisions.
- 12) Material: This word shall be construed to embrace machinery, manufactured articles, materials of construction (fabricated or otherwise), and any other classes of material to be furnished in connection with Contract, except where a more limited meaning is indicated by context.
- 13) Provide: Furnish and install.
- 14) Shown: As indicated on Drawings.
- 15) Specified: As written in Specifications.
- 16) Testing and special inspection agency: An independent entity engaged by County to inspect and/or test the workmanship, materials, or manner of construction of buildings or portions of buildings, to determine if such construction complies with the Contract Documents and applicable codes.

## **PART 2 PRODUCTS – NOT USED**

## **PART 3 EXECUTION – NOT USED**

END OF SECTION



**SECTION 01450  
QUALITY CONTROL**

**PART 1 GENERAL**

**1.1 SECTION INCLUDES**

- A. Contractor's Quality Control
- B. Quality of the Work
- C. Inspections and Tests by Governing Authorities
- D. Inspections and Tests by Serving Utilities
- E. Inspections and Tests by Manufacturer's Representatives
- F. Tests and Inspections by County or Independent Testing and Inspection Agency
- G. Additional Testing and Inspection

**1.2 CONTRACTOR'S QUALITY CONTROL**

- A. Contractor's Quality Control: Ensure that products, services, workmanship, and Site conditions comply with requirements of Drawings and Specifications by coordinating, supervising, testing, and inspecting the Work and by utilizing only suitably qualified and appropriately audited, licensed, or trained personnel.
- B. Quality Requirements: Work shall be accomplished in accordance with quality requirements of Drawings and Specifications, including, by reference, all codes, laws, rules, regulations, and standards. When no quality basis is prescribed, the quality and testing procedures shall be in accordance with the best-accepted practices of the construction industry for the locale of the Project, for projects of this type, or standards set by engineering or technical societies (e.g., ASTM or ASHRAE), whichever is more stringent.
- C. Quality Control Personnel: Employ and assign knowledgeable and skilled personnel as necessary to perform quality control functions to ensure that the Work is provided as required.

**1.3 QUALITY OF THE WORK**

- A. Quality of Products: Unless otherwise indicated or specified, all products shall be new, free of defects, and fit for the intended use.
- B. Quality of Installation: All Work shall be produced plumb, level, square and true, or true to indicated angle, and with proper alignment and relationship between the various elements, as shown on or required by Contract Documents.
- C. Protection of Completed Work: Take all measures necessary to preserve completed Work free from damage, deterioration, soiling, and staining, until acceptance by County.
- D. Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Unless more stringent requirements are indicated or specified, comply with manufacturer's instructions and recommendations, reference standards and building code research report requirements in preparing, fabricating, erecting, installing, applying, connecting, and finishing Work.
- E. Deviations from Standards and Code Compliance and Manufacturer's Instructions and Recommendations: Secure County's advanced written consent. Document and explain all deviations from reference standards and building code research report requirements and manufacturer's product installation instructions and recommendations, including acknowledgement by the manufacturer that such deviations are acceptable and appropriate for the Project.
- F. Verification of Quality: Work shall be subject to verification of quality by County in accordance with provisions of the Contract Documents.
  - Cooperate by making Work available for inspection.
  - Such verification may include mill, plant, shop, or field inspection as required.
  - Provide access to all parts of the Work, including plants where materials or equipment are manufactured or fabricated.
  - Provide all information and assistance as required, including that by and from

subcontractors, fabricators, materials suppliers and manufacturers, for verification of quality by County.

Applicable provisions of the Contract Documents shall govern Contract Modifications, if any, resulting from such verification activities.

- G. Observations by County's Consultants: Periodic and occasional observations of Work in progress will be made by County and County's consultants as deemed necessary to review progress of Work and general conformance with design intent.
- H. Limitations on Inspection, Test, and Observation: Neither employment of independent testing and inspection agency nor observations or tests by County and County's consultants shall in any manner relieve Contractor of obligation to perform Work in full conformance to all requirements of Contract Documents.
- I. County's Acceptance and Rejection of Work: County reserves the right to reject all Work not in conformance to the requirements of the Drawings and Specifications, or otherwise Defective.
- J. Correction of Defective Work: Defective Work shall be modified, replaced, repaired or redone by Contractor at no change in Contract Sum or Contract Time.
- K. Acceptance of Defective Work: Acceptance of Defective Work, without specific written acknowledgement and approval of County, shall not relieve Contractor of the obligation to correct such Work.
- L. Contract Adjustment for Defective Work: Should County determine that it is not feasible or in County's interest to require Defective Work to be repaired or replaced, an equitable reduction in Contract Sum shall be made by agreement between County and Contractor. If equitable amount cannot be agreed upon, a Construction Change Directive will be issued and the amount in dispute resolved in accordance with applicable provisions of Document 00700 (General Conditions).
- M. Non-Responsibility for Defective Work: County and County's consultants disclaim any and all responsibility for Work produced not in conformance with the Drawings and Specifications.
- N. Responsibility for Defective Work: Contractor shall have full responsibility for all consequences resulting from Defective Work, including without limitation all delays, disruptions, extra inspection and correction costs by Contractor and County and re-Work, and extra time and costs of all types. Contractor waives excuses for defective work relating to County's prior review of Submittals and/or prior failure to notice Defective Work in place on inspection.

#### **1.4 INSPECTIONS AND TESTS BY GOVERNING AUTHORITIES**

- A. Regulatory Requirements for Testing and Inspection: Comply with UBC requirements, including specific requirements of the building permit, if any, and all other requirements of governing authorities having jurisdiction.
- B. Inspections and Tests by Governing Authorities: Cause all tests and inspections required by governing authorities having jurisdiction to be made for Work under this Contract. Except as specifically noted, scheduling, conducting and paying for such inspections shall be solely Contractor's responsibility.

#### **1.5 INSPECTIONS AND TESTS BY SERVING UTILITIES**

- A. Inspections and Tests by Serving Utilities: Cause all tests and inspections required by serving utilities to be made for Work under this Contract. Scheduling, conducting, and paying for such inspections shall be solely Contractor's responsibility.

#### **1.6 INSPECTIONS AND TESTS BY MANUFACTURER'S REPRESENTATIVES**

- A. Inspections and Tests by Manufacturer's Representatives: Cause all tests and inspections specified to be conducted by materials or systems manufacturers to be made. Additionally, all tests and inspections required by materials or systems manufacturers as conditions of warranty or certification of Work shall be made, the cost of which shall be included in the Contract Sum.

**1.7 TESTS AND INSPECTIONS BY COUNTY OR INDEPENDENT TESTING AND INSPECTION AGENCY**

- A. County will conduct or County will select an independent testing and inspection agency or agencies to conduct tests and inspections as indicated on Drawings, in Specifications, and as required by governing authorities having jurisdiction.
- B. Responsibility for payment for tests and inspections shall be as indicated in paragraph C and 1.8 below. All time and costs for Contractor's service related to such tests and inspections shall be included in Contract Time and Contract Sum.
- C. All additional charges by testing and inspection agencies and governing authorities having jurisdiction shall be deducted from the Contract Sum due to the following:
  - Contractor's failure to properly schedule or notify testing and inspection agency or authorities having jurisdiction.
  - Changes in sources, lots, or suppliers of products after original tests or inspections.
  - Changes in means, methods, techniques, sequences, and procedures of construction that necessitate additional testing, inspection, and related services.
  - Changes in mix designs for concrete and mortar after review and acceptance of submitted mix design.
  - Contractor submitted requests to change materials or products, which are accepted, but require testing and/or reinspection beyond original design.
- D. Contractor Responsibilities for Inspections and Tests:
  - Unless specified otherwise, notify County and testing agency twenty-four (24) hours in advance of expected time of each test and inspection, and for all other operations requiring inspection and testing services, by submitting Contractor's inspection request in writing (or, if County provides a specific form, on that form).
    - a. When tests or inspections cannot be performed after such notice, reimburse County for testing and inspection agency personnel and travel expenses incurred due to Contractor's negligence.
    - b. For local fire inspections, notify County twenty-four (24) hours in advance of expected time of each test and inspection.
  - Deliver to laboratory or designated location, adequate samples of materials proposed to be used that require advance testing, together with proposed mix designs.
  - Cooperate with testing and inspection agency personnel, County, and County's consultants. Provide access to Work areas and off-Site fabrication and assembly locations, including during weekends and after normal Work hours.
  - Provide incidental labor and facilities to provide safe access to Work to be tested and inspected, to obtain and handle Samples at the Site or at source of products to be tested, and to store and cure test Samples.
  - Provide, at least fifteen (15) Days in advance of first test or inspection of each type, a schedule of tests or inspections indicating types of tests or inspections and their scheduled dates.

**1.8 ADDITIONAL TESTING AND INSPECTION**

- A. If initial tests or inspections made by County or the testing and inspection agency reveal that materials do not comply with Contract Documents, or if County has reasonable doubt that materials do not comply with Contract Documents, additional tests and inspections shall be made as directed.
  - a. If additional tests and inspections establish that materials comply with Contract Documents, County shall pay all costs for such tests and inspections.
  - b. If additional tests and inspections establish that materials do not comply with Contract Documents, all costs of such tests and inspections shall be deducted from Contract Sum.
  - c. If Work requiring inspection is covered by follow-on or follow-up Work before it is inspected, uncover Work so proper inspections can be performed. All costs of such tests and inspections shall be deducted from Contract Sum.

FINAL

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION

## SECTION 01500

**CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes:
- 1) Provide and maintain construction facilities and temporary controls as required to perform the Work; relocate as required by the progress of the Work.
  - 2) Materials for construction facilities and temporary controls shall be suitable for the purposes intended and unless otherwise required by County, may be new or used.
  - 3) Materials, installation and maintenance of construction facilities and temporary controls shall be in compliance with applicable regulatory requirements.
  - 4) Maintain construction facilities in sound, neat and clean condition. Remove any graffiti and repair any vandalism to satisfaction of County.
  - 5) Remove construction facilities and controls, including associated utilities and equipment, when their use is no longer required.
    - a. Remove and legally dispose of debris resulting from removal and reconditioning operations.
    - b. Restore or recondition, as applicable, areas of the site damaged or disturbed by the use of construction facilities and temporary controls.
  - 6) Do not attach any temporary facilities and controls to existing finishes or components to remain without written permission from County.
- B. Related Sections: The completion of the work described in this Section may require work in or coordination with other sections of these specifications. Contractor and the subcontractor shall be responsible for identifying and including all related work in other Sections of these specifications and/or drawings necessary for a complete installation of the work described in this Section.

**1.2 TEMPORARY UTILITIES**

- A. Electric Power: Contractor may use existing County provided electricity with County's prior approval and provided that the existing service and distribution are suitable for Contractor's loads without causing disruption or interference with County's use. If Contractor determines existing power is not adequate or suitable for the Work, Contractor shall provide, at no additional cost to County, power service from appropriate Utility source.
- 1) Provide lighting and convenience outlets in the temporary structures, if any.
- B. Water: Contractor may use existing County provided water with County's prior approval provided existing water system is adequate to the needs of the work without disruption or interference of County's continued use. If existing water system is not adequate or suitable for the Work, Contractor shall arrange with utility service company to provide water for construction and other purposes such as final testing of plumbing and fire suppression systems; pay the costs for water used, sewer and related charges, permit and connection fees, if any.
- 1) If necessary, install temporary branch piping with taps located so that water is available throughout the Work by the use of hoses.
  - 2) As the work progresses protect existing finishes from damage by water.
  - 3) Water may be available from fire hydrants located near the site. Obtain permission from the Fire Department to use the hydrants. Make all necessary arrangements with the Water Department, for the necessary installation of meters and payment of water used and related charges.
- C. Sanitary Facilities: Provide and locate temporary sanitary facilities as approved by County.
- 1) Maintain in a neat, sanitary condition, with adequate supplies.
- D. Fire Protection: Contractor shall meet all fire protection requirements for the Work and if required by the responding firefighting agency shall submit Contractor's plans for fire

protection and Fire Department access for fire fighting and equipment to County for approval prior to commencing work at the project site.

- 1) Provide and maintain fire extinguishers, controls and other equipment for fire protection in all areas of the Work and where materials are stored, in accordance with local and State fire codes and Cal-OSHA, whichever code is more stringent shall govern, and as directed by the Fire Department.
- 2) Use fire protection equipment for fire protection only.
- 3) Contractor shall maintain fire protection equipment, institute fire protection measures, and direct the prompt removal of unnecessary combustible materials and waste.
  - a. Contractor shall be responsible for overseeing correct and safe use of soldering coppers, extension lights, flammable liquids, welding and metal cutting apparatus, wax pots, and other flame tools.
  - b. Contractor shall be responsible to perform a walk-through before leaving the Site at the end of each workday to inspect the work areas for fire hazards.
  - c. Immediately mitigate all fire hazards.
- 4) Take special precautions to minimize fire hazards when it becomes necessary to use stoves, tar pots or other temporary heating devices.
  - a. Such devices shall conform to the requirements of the National Fire Code of the NFPA and shall be used only under proper supervision.
  - b. Locate such devices so that there are minimum clearances in compliance with manufacturer's recommendations and regulatory requirements. Do not place within 10 feet of tarpaulins, canvas covers, loose paper or flammable material.
  - c. Properly insulate legs of temporary heating devices when it is necessary to place such equipment on combustible platforms.
  - d. Do not use heaters burning LP gas.
- 5) Use special precautions to reduce fire hazard where electric or gas welding or cutting work is done. Provide and maintain suitable fire extinguishing equipment near such welding operations.
- 6) Store paints, varnishes, volatile oils, and similar combustible materials in a non-combustible storage building having good ventilation and containing no other material, or in metal lockers or metal boxes with self-closing covers. Store gasoline and other volatile flammable liquids in metal barrels well away from structure or other combustible materials.
  - a. No storage of chemicals, solvents, paints, or other flammable materials will be allowed in building.

### **1.3 CONSTRUCTION AIDS**

- A. Plant and Equipment: Furnish, operate, and maintain in safe and efficient operating condition a complete plant for fabricating, handling, conveying, applying, installing and erecting materials and equipment; and conveying systems for transporting workers.
  - 1) Include construction elevators, hoists, debris chutes and other equipment, tools and appliances necessary for performance of the Work.
- B. Construction Staging Areas: Construction staging shall be restricted to the areas approved by County in writing. Contractor shall provide adequate measures including fencing and lighting if necessary to secure the staging and storage areas.

### **1.4 BARRIERS AND ENCLOSURES**

- A. General: Provide and maintain temporary barriers and enclosures at the site.
  - 1) Provide as required to protect the Work and existing facilities from the elements.
  - 2) Protect adjacent construction, improvements and persons from damage or injury from demolition and construction operations.
  - 3) Prevent unauthorized entry to construction areas.
  - 4) Protect vehicular and pedestrian traffic from injury or damage from Contractor's operations.
  - 5) Provide 8-foot high commercial grade chain link fence around construction site. Clamp and bolt fence sections together.
    - a. Equip with vehicular gates with vandal-resistant locks, all keyed alike.

- B. Potential Hazards: Storing, positioning or use of equipment, tools, materials, scraps, and trash in a manner that could present a hazard to the public or facilities by its accidental shifting, ignition, fumes, or other hazardous qualities is prohibited.
- C. Remove barriers and enclosures upon completion of the Work, in accordance with applicable regulatory requirements and to the satisfaction of County.

### **1.5 TREE AND PLANT PROTECTION**

- A. Root protection: No storage of materials, equipment, washing of equipment, tearing or grubbing, attachments using nails spikes or screws, or wound, break trunks or branches by equipment/vehicle contact or landscape trimmers /lawn mowers will be allowed within the Dripline. Erect exclusionary fencing around trees the dripline of single specimen trees or along the edge of stand of trees. Excavation shall be on a radial line, diverging from the tree trunk. If it is not possible to diverge from critical root zone cut roots cleanly and immediately cover cut root by soil or wet cloth. All roots larger the 3"d require County approval.
- B. Where construction is to be performed in the vicinity of trees and shrubbery, the Work shall be carried on in a manner that will not cause damage. Trees and shrubbery that are to remain, shall be protected from injury or damage with exclusionary fencing. Any damage resulting from Contractor's operations shall be replaced at Contractors expense to the satisfaction of County.

### **1.6 GENERAL PROTECTION**

- A. Summary:
  - 1) Protect existing facilities and installed Work and provide special protection where specified in individual specification Sections.
  - 2) Provide temporary and removable protection for installed products. Control activity in immediate work area to minimize damage.
  - 3) Provide protective coverings at walls, projections, as required by the Work.
  - 4) Protect finished flatwork, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects, by protecting with durable sheet materials.
  - 5) Prohibit traffic from landscaped areas.

### **1.7 ENVIRONMENTAL CONTROLS**

- A. General
  - 1) Contractor shall comply with all rules, regulations, ordinances and statutes that apply to any work performed under Contract Documents including, without limitation, any toxic, water and soil pollution controls and air pollution controls specified in Government Code, Section 11017. Contractor shall be responsible for insuring that Contractor's employees, subcontractors and the public are protected from exposure to airborne hazards or contaminated water, soil or other toxic materials used during or generated by activities on the Site or associated with the Project.
- B. Dust Control and Disposal of Surplus Soils
  - 1) Water or other dust palliative shall be sprayed on stockpiles of soil, unpaved construction and staging areas during construction to control dust, as needed, or required by County's Project Manager.
  - 2) All surplus soils that cannot be used on the Site will be disposed of at an acceptable disposal site at no additional cost to County. If any areas outside the Site are used for disposal or stockpiling of soil or other materials, Contractor will obtain all the required permits, including, if applicable, a grading permit. Contractor will notify the California Department of Fish and Game of the intent to use the site, and the Sonoma County Permit and Resource Management Department to determine if a grading permit is required. Contractor will provide evidence to County's Project Manager that the site does not affect wetlands under the jurisdiction of the Army Corps of Engineers, or that the site has the appropriate permit from the Army Corps of Engineers.
  - 3) Surplus concrete, rubble or pavement will be taken to a permitted concrete and/or asphalt recycling facility.

- 4) Trucks hauling soil, sand, and other loose materials over public roads will cover the loads, or will keep the loads at least two (2) feet below the level of the sides of the container, or will wet the load sufficiently to prevent dust emissions.
  - 5) Paved roads and streets will be swept as needed, or required by County's Project Manager, to remove soil that has been carried onto them from the Site.
  - 6) Traffic speeds on unpaved areas shall not exceed fifteen (15) mph, signs to be posted ensuring all drivers in the construction area are aware of this speed limit.
- C. Emergency Access
- 1) Contractor to maintain emergency vehicle access to existing areas of the site that require access through and/or have been altered due to site work phasing.
- D. Archaeological Materials
- 1) If any archaeological materials are discovered during project construction, Contractor will cease work in the immediate vicinity of the find until a qualified archaeologist is consulted to determine the significance of the find, and has recommended appropriate measures to protect the resource. Contractor will then follow the recommended measures under the direction of County's Project Manager.
- E. Tree, Stump and Vegetation Removal

## 1.8 TEMPORARY CONTROLS

- A. General:
- 1) Contractor shall exercise all special controls necessary to control dust, water, and pollution as required by the project conditions, Legal Requirements, or when directed by County Architect. The cost of special controls required shall be included in the Contract Sum and shall not create additional costs to County.
  - 2) Contractor shall not begin any demolition operations until all temporary dust curtains are in place and approved by County Architect. The dust partitions shall be maintained until after all sanding, painting or other operations which produce dust or fumes are completed. Dust protection will extend from floor to ceiling.
  - 3) Contractor shall assume all the liability for claims related to dust or wind-blown materials attributable to its work. Special dust control measures shall be taken to keep dust from automobiles parked in the vicinity of the construction site.
- B. Dust Control:
- 1) Perform the Work in a manner to minimize the generation of dust and dirt, to prevent dust and dirt from interfering with the progress of the Work, and to keep dust and dirt from accumulating in Work areas and adjacent areas.
    - a. Minimize the amount of excavated or demolished materials at the Work site. Stockpiled excavated material is prohibited at the Work site unless specifically authorized in writing by County.
    - b. Replace ground cover in disturbed areas as soon as possible.
    - c. Cover stockpiled imported backfill or other dust-generating soil materials with tarps at all times.
    - d. Limit dust emissions during periods of high winds (greater than fifteen (15) miles per hour). Suspend all excavation and dirt moving activities if winds exceed 25 mph.
    - e. Trucks and trailers used to transport excavated material shall be suitably constructed, covered, and equipped to prevent spillage of loaded materials on public streets and highways.
    - f. Hauling trucks carrying excavated material shall be loaded so that the material does not extend above the walls or back of the truck bed. The loaded material shall be wetted and tightly covered before the trucks leave the loading area.
    - g. Vehicle travel speed shall be limited to 15 mph for all vehicles operating within the construction site. Limit equipment speed to ten (10) miles per hour in unpaved areas. Refer to Section 01571 for truck access requirements.
- C. Pollution: Comply with applicable regulatory requirements and anti-pollution ordinances during the conduct of construction and disposal operations.
- 1) No burning of refuse, debris or other materials shall occur on or in the vicinity of the

- Project site.
- 2) Prevent toxic concentrations of chemicals.
- 3) Provide methods, means and facilities to prevent contamination of soil, water and atmosphere by the discharge of noxious substances from demolition and construction operations.
- 4) Remove and legally dispose of soil contaminated by the performance of the Work, and replace with good soil at no expense to County.
- 5) Provide systems for control of atmospheric pollutants.
- 6) Prevent harmful dispersal of pollutants into the atmosphere.
- 7) Maintain and operate construction equipment to minimize exhaust emissions of particulate and other pollutants.
  - a. Ensure that idling time for all heavy equipment is minimized to reduce on-Site emissions. Prohibit idling motors when equipment is not in use or when trucks are waiting in queues.
  - b. Maintain equipment in good mechanical condition. Implement specific maintenance programs to reduce emissions from equipment that would be in frequent use for much of the demolition and construction periods.
- D. Noise and Vibration Control: Conform with night and weekend construction work and general construction noise control requirements of local Codes and Ordinances and as described in the General Conditions / Supplemental Conditions.
  - 1) Noise and Vibration Control
    - a. Contractor shall comply with any and all noise related ordinances and restrictions that apply to the location of the Work.
    - b. Secure written permission from County Representative at least three (3) working days prior to using noisy and vibratory equipment; such as, jackhammers, concrete saws, impact tools, and high frequency electrical equipment. This type of noisy and vibratory work will not be allowed in occupied buildings between the hours of 7:00 A.M. and 6:00 P.M., Monday through Friday. Refer to Section 01100 (Summary) for further restrictions, if any.
    - c. All internal combustion engines, equipment and impact tools used on the Site shall be operated with exhaust (and intake where applicable) mufflers that meet the requirements of the State Public Resources Code, and, where applicable, the Vehicle Code.
    - d. No equipment used on the Site shall produce noise levels in excess of the following limits in Db(A) at a distance of 50 feet from the equipment under test:
      - 1) Earthmoving Equipment
 

(a) Front loader	-	79
(b) Backhoes	-	85
(c) Dozers	-	80
(d) Tractors	-	80
(e) Scrapers	-	88
(f) Graders	-	85
(g) Truck	-	91
(h) Paver	-	89
      - 2) Materials Handling Equipment
 

(a) Concrete Mixer	-	85
(b) Concrete Pump	-	82
(c) Crane	-	83
(d) Derrick	-	88
      - 3) Stationary Equipment
 

(a) Pumps	-	76
(b) Generators	-	78
(c) Compressors	-	81
      - 4) Impact Equipment
 

(a) Pile Drivers	-	101
(b) Jack Hammers	-	88

- (c) Rock Drills - 98
- (d) Pneumatic Tools - 86
- 5) Other Equipment
  - (a) Saws - 78
  - (b) Vibrators - 76
- 2) Idling diesel engines shall be turned off.
- E. Water Control:
  - 1) In the event that site excavations encounter groundwater that must be removed, Contractor shall obtain a de-watering permit from the North Coast Regional Water Quality Control Board, and shall follow the requirements or conditions of that permit.
  - 2) Provide and operate existing dewatering system and pumping equipment. Continue operations and provide all additional dewatering measures as needed to maintain excavations free from standing water.
  - 3) Provide proper site drainage to protect excavations and adjoining structures and improvements from damage.
  - 4) Pretreat all dewatered groundwater using settling tanks and, as necessary, oil/water separators and other systems as approved by County and City prior to discharge into City sewer system.
    - a. Contractor shall conform to the requirements for handling groundwater and obtain and pay for all permits required for disposal into City sewer system as described in the General Conditions / Supplemental Conditions.
    - b. Discharge groundwater at locations approved by County.
    - c. Do not permit surface and subsurface water and other liquids to accumulate in or about the Project site and vicinity thereof.
    - d. Should conditions develop, control water or other liquids, and suitably dispose by means of temporary pumps, piping, drainage lines, troughs, ditches, dams or other methods.
- F. Sewerage Control: Take adequate measures to prevent the impairment of the operation of the sewerage system. Prevent all construction material, pavement, concrete, soil, or other debris from entering all sewers, sewer structure, catch basin, or storm water inlet.

**1.9 TEMPORARY STORAGE AND PARKING FACILITIES**

- A. Contractor shall confine its apparatus, the storage of materials and operations of its workers to limits indicated by any Legal Requirements and/or directions of County Project Manager, and shall not unreasonably encumber the premises with its material. Apparatus and equipment used by Contractor during construction shall be placed in such locations as not to interfere with or delay the completion of the Work. Where any portion of the Work is to be finished before other portions of the Work, the portions to be finished shall not be used for the storage of materials, and no construction apparatus shall be installed in such parts of the Work. Hoist and construction appliances shall be installed on the interior of the building to which the Work pertains only when approved by County Project Manager, and are to be installed on the exterior wherever possible.
- B. Storage:
  - 1) Provide as required for the performance of the Work.
  - 2) Dimensions adequate for storage and handling of products.
  - 3)
  - 4) Location of on-site material storage areas shall be approved by County prior to storage of materials.
- C. On-site vehicle parking is allowed for Contractor's and subcontractor's employees in areas designated by County Representative
- D. Arrange with County Representative all parking permits needed for work force and deliveries.
- E. See also Section 01571.

**1.10 CONTRACTOR FIELD OFFICES**

- A. If Providing temporary Field Office and Facilities for Contractor's operations.

- 1) Space will be provided for County's and Contractor's trailers.
  - 2) Contractor shall provide all County required traffic controls necessary to protect and maintain the area allotted for Field Office(s).
  - 3) Contractor shall provide and pay for temporary utilities required for Contractor's trailers.
  - 4) Provided space and toilets shall be in compliance with the American's with Disabilities Act (ADA) requirements.
- B. Contractor's Field Office and Facilities, Minimum Requirements:
- 1) Prior to Project Completion, clean and restore areas to the original condition.

#### **1.11 CONTRACTOR USE OF SITE**

- A. Confine operations at Site to areas permitted by Contract Documents, permits, ordinances, and laws.
- B. Do not unreasonably encumber Site with materials or equipment.
- C. Prior to commencement of construction, Contractor and County shall jointly survey the area adjacent to the Project area making permanent note and record of such existing damage as cracks, sags, or other similar damage. This record shall serve as a basis for determination of subsequent damage to these structures due to Contractor's operations. If possible, damage as noted shall be marked on the structure. All parties making the survey shall sign the official record of existing damage. Cracks, sags, or damage of any nature to the adjacent Project area, not noted in the original survey but subsequently noted, shall be reported immediately to County.
- D. Employees and visitors shall have unobstructed ingress and egress. Parking facilities shall not be blocked or hindered.
- E. Access to occupied areas: Contractor shall give County at least seven (7) days written notice prior to requiring access to or work in any/or occupied areas except the immediate unoccupied work area(s) as indicated on the Drawings.
- F. Assume full responsibility for protection and safekeeping of products stored on premises.
- G. Move any stored products that interfere with operations of County or other contractor.
- H. Coordinate parking, storage, staging, and Work areas with County.

#### **1.12 AIR QUALITY STANDARDS**

- A. Cover trucks hauling dirt.
- B. Removed earth tracked onto neighboring paved roads at least once daily.

#### **1.13 CONSTRUCTION STAKING AND MONUMENT PROTECTION**

- A. Contractor will provide construction staking to establish horizontal and vertical control for the project that are necessary for Contractor to proceed with the Work.
  - 1) Contractor to refer to Section 1.13 Lines and Grades, Measurements of the Construction Facilities and Temporary Controls for additional information on Construction Staking.
- B. Contractor shall notify County a least seven (7) days prior to the need for benchmark and initial control staking. Contractor shall be responsible for locating all other necessary controls and all construction staking necessary to properly locate all Work.
  - 1) Illegible survey requests or requests for surveys to County without proper notification may result in delayed surveys. No extension of Contract Time will be allowed due to such delays.
  - 2) Contractor shall be responsible for protecting and preserve the established property monuments, and shall make no changes or relocations without the prior written approval of County. Whenever Contractor knows or reasonably should know that any Work activity is likely to damage or destroy any property monuments, or require relocation because of necessary changes in grades or locations, provide at least five (5) Days advance notice to County. In any event, Contractor shall notify County whenever any property monuments are lost or destroyed or require relocation because of necessary changes in grads of locations. County shall replace or repair property monuments at Contractor's expense.
- C. Contractor shall be responsible for protecting and preserve the established construction

stakes.

#### **1.14 PROTECTION OF EXISTING STRUCTURES AND UNDERGROUND FACILITIES**

- A. The Drawings may indicate existing above- and below-grade structures, drainage lines, storm drains, sewers, water lines, gas lines, electrical lines, hot water lines, and other similar items and Underground Facilities that are known to County.
  - 1) At least two (2) Business Days, or as otherwise noted, prior to commencement of excavation, notify County and USA.
- B. Where overhead service to a structure, known to receive service, does not exist, then underground service shall be assumed to exist.
- C. Attention is also directed to the existence of overhead power and telephone lines.
- D. Perform potholing by hand within 24 inches (in any direction) of the Underground Facilities. This may be done on an area-by-area basis, but shall be accomplished at least seven (7) Days in advance of the date of construction within such area.
- E. Power pole: Special attention is directed to the power poles shown on Drawings. Protection of the poles may require assistance from Pacific Gas and Electric Company. Cost for assistance by PG&E shall be borne by Contractor.
- F. No attempt has been made to locate private utilities on private property such as sprinkler irrigation systems or electrical conduits. Contact the property Owners prior to construction.
- G. In addition to reporting, if a utility is damaged, Contractor must take appropriate action as provided in Document 00700 (General Conditions).
- H. Additional compensation or extension of time on account of utilities not indicated or otherwise brought to Contractor's attention including reasonable action taken to protect or repair damage shall be determined as provided in Document 00700 (General Conditions).

#### **1.15 PERMITS**

- A. Permits, agreements, or written authorizations that are known by County to apply to this Project are listed below: NONE

#### **PART 2 PRODUCTS – NOT USED**

#### **PART 3 EXECUTION – NOT USED**

END OF SECTION

**SECTION 01505  
CONSTRUCTION WASTE MANAGEMENT**

**PART 1 GENERAL**

**1.1 SUMMARY**

- A. Section Includes: Administrative and procedural requirements for diversion of construction and demolition debris from landfill, including salvaging, recycling, and disposing of nonhazardous demolition and construction waste.
- 1) Contractor shall minimize factors that contribute to waste, such as over-packaging, improper storage, ordering error, poor planning, breakage, mishandling, and contamination.
  - 2) Of the inevitable waste that is generated, as many of the waste materials as economically feasible shall be reused, salvaged, or recycled. Waste disposal in landfills shall be minimized.

**1.2 REFERENCES**

- A. Sonoma County Waste Management Agency: Contact the Sonoma County Eco-Desk at 707-565-3375 or [www.recyclenow.org](http://www.recyclenow.org) for copies of the following:
- 1) Builder's Guide to Re-Use and Recycling.
  - 2) Sonoma County Recycling Guide, Latest Edition.

**1.3 DEFINITIONS**

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, or renovation operations. Construction waste includes packaging. Land clearing debris including soil, vegetation, and rocks are not to be included.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Divert: To use material for any purpose other than disposal in a landfill.
- D. Salvage: Recovery of demolition or construction waste for subsequent incorporation into the Work or for turnover to the County.

**1.4 PERFORMANCE REQUIREMENTS**

- A. Diversion/Recycling Goals: The County's Green Building Policy for Public Construction Projects requires at least 75% of all demolition and construction waste be diverted from landfill.
- 1) Demolition Waste:
    - a. Asphaltic concrete paving
    - b. Concrete
    - c. Concrete reinforcing steel
    - d. Concrete masonry units
    - e. Wood framing lumber including studs, joists, posts, beams and girders
    - f. Plywood, oriented strand board, and wood paneling
    - g. Metals, including galvanized and painted steel, stainless steel, iron, aluminum, copper, zinc, lead, brass, bronze, bolts, hangers, anchors, and metal used in suspended ceilings
    - h. Plastic film including shrink wrap and bags, stretch wrap, construction films and lumber wrap
  - 2) New Construction Waste:
    - a. Portland cement concrete and cement plaster
    - b. Concrete unit masonry, mortar, and grout
    - c. Wood products, including clean dimensional wood, palette wood, plywood, OSB, and particle board
    - d. Metals, including galvanized and primed steel, stainless steel, iron, aluminum, copper, zinc, lead, brass, and bronze. Uses include, but are not

limited to miscellaneous metals, rebar, piping, conduit, hangers, supports, fasteners, etc.

- e. Sheet metals including galvanized steel, stainless steel, aluminum, and copper. Uses include, but are not limited to ductwork, flashings, counterflashings, gutters, downspouts, hangers, supports, banding, etc.
- f. Roofing
- g. Packaging, including paper, cardboard, boxes, wood crates and pallets, metal banding, polystyrene packaging, and bubble wrap
- h. Plastic film including shrink wrap and bags, stretch wrap, construction films and lumber wrap

## 1.5 SUBMITTALS

### A. Waste Reduction Submittals:

- 1) Records of Donations and Sales: Indicate receipt and acceptance for salvageable waste donated or sold to individuals and organizations. Indicate whether organization is tax exempt.
- 2) Recycling Facility Records: Indicate receipt and acceptance of salvageable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- 3) Landfill Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices
- 4) Maintain log of each load, of each category item diverted from landfill. Log in separately debris sent to a Class III landfill and materials sent to recycling facilities (See example in this Section).

## 1.6 QUALITY ASSURANCE

### A. Recycling Company Qualifications: Recycling companies shall meet any of the following:

- 1) Recycling service provider contracted by Sonoma County to provide recycling services at the County landfill disposal site.
- 2) Any recycling service that will certify in writing that accepted waste will be diverted from landfill, not dumped illegally, or dumped at sea.

### B. Waste Management Meetings: Include Construction Waste Management on the agenda of meetings. Meetings shall include all subcontractors affected by the Diversion/Recycling Goals. At a minimum, discuss waste management goals and issues at the preconstruction meeting and at periodic jobsite meetings.

- 1) Review requirements for documenting quantities of each type of waste and its disposition.
- 2) Review procedures for materials separation and verify availability of containers and bins needed to avoid delays.
- 3) Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
- 4) Review waste management requirements for each trade.

## PART 2 PRODUCTS

### 1.7 SALVAGE MATERIALS

#### A. General:

- 1) Clean salvaged items. Pack or crate items after cleaning. Identify contents of containers.
- 2) Store items in a secure area until delivery to County or until re-installation.
- 3) Protect items from damage during transport and storage.
- 4) Salvaged Items for Reuse in the Work: 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. Salvage the following items for reuse:

- a. Gates

## **PART 3 EXECUTION**

### **1.8 PREPARATION**

- A. General: Provide handling, containers, storage, and transportation as required to implement waste management goals during entire duration of the Contract.
- B. Site Access and Temporary Controls:
  - 1) Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
  - 2) Comply with Section 01500 - Construction Facilities and Temporary Controls for controlling dust and dirt, environmental protection, and noise.

### **1.9 RECYCLING DEMOLITION AND CONSTRUCTION WASTE**

- A. Recycling Receivers and Processors: Refer to Sonoma County Recycling Guide, and "Builder's Guide to Re-Use and Recycling" for a list of recycling receivers and processors in Sonoma County. These resources are provided to the Contractor for information only and are not intended to limit the Contractor's means or methods for achieving the goal of diversion of waste material from landfill.
- B. Recycling Incentive: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste material shall accrue to Contractor.
- C. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical.
  - 1) Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from the Project site. Include list of acceptable and unacceptable materials at each container and bin.
  - 2) Stockpile recyclable materials on site without interfering with other materials.
  - 3) Designate a specific area or areas on site to facilitate separation of materials. Clearly mark bins for each category of waste.
  - 4) Keep waste bins and pile areas neat and clean. Do not contaminate non-recyclable waste with materials designated for reuse or recycling.
  - 5) Remove recyclable waste off County's property and transport to recycling receiver or processor.
- D. Environmental Controls during Handling, Storage, and Transport: Do not permit designated materials to become contaminated or to contaminate site or surrounding areas.
- E. Provide temporary protections to prevent water runoff which has been contaminated by recycled materials from entering storm water drainage system

### **1.10 HAZARDOUS WASTE**

- A. Hazardous Waste: Separate, store, and dispose of hazardous waste according to State regulations.
  - 1) Hazardous waste disposal information can be obtained from the Sonoma County Eco-Desk at 707-565-3375, or at [www.recyclenow.org](http://www.recyclenow.org).
  - 2) Keep all shipping manifests and make available to the County's Representative for auditing upon request.
  - 3) Special wastes requiring Class II landfill disposal are considered hazardous waste, including, but not limited to:
    - a. Contaminated soil.
    - b. Treated wood.
    - c. Asbestos and asbestos-containing materials.
    - d. PCBs used in transformers and light fixture ballasts.
  - 4) Deliver to a recycler the following mercury-containing products:

- a. Fluorescent lamps.
- b. High-pressure sodium lamps.
- c. Mercury vapor lamps.
- d. Mercury-containing thermostats and switches.
- e. Metal halide lamps.
- f. Neon lamps.

### **CONVERSION RATES TABLE**

The following conversion rates are estimates. The ranges vary widely, depending on how the materials are handled (compacted, loose, chipped, etc.). Use the conversion factors and receipts from previous projects to help you estimate the potential amount of materials and waste. Take into consideration the type and load of vehicles that will be used to haul the materials.

Ask your hauler or recycler to assist you in estimating these numbers.

<b>Material</b>	<b>Lbs/volume</b>	<b>Tons/cy</b>
Asphalt, crushed	45 lbs/cu. ft.	
Asphalt/paving, crushed	1,380 lbs/cy	0.7 tons/cy
Cardboard, corrugated, flattened boxes, loose	100 lbs/cy*	
Carpet & padding, loose	84.4 lbs/cy	
Cement, bulk	100 lbs/cu. ft.	
Cement, mortar	145 lbs/cu. ft.	
Concrete, scrap, loose	1,855 lbs/cy	0.9 tons/cy
Copper fittings, loose	1,048 lbs/cy	
Copper pipe, whole	211 lbs/cy	
Drywall	500 lbs/cy*	
Glass, broken	2,160 lbs/cy	
Gypsum, solid	142 lbs/cu. ft.	
Metal, scrap	1,000 lbs/cy*	
Steel, solid	487 lbs/cu. ft.	
Wood (chipped)	300 lbs/cy*	0.15 – 0.3 tons/cy
Mixed Construction and Demolition (C&D) Debris**	900 lbs/cy	0.45 tons/cy
Mixed Waste/Trash	350 lbs/cy*	0.5 – 0.175 tons/cy

\* USGBC Recommended weights

\*\* Construction and Demolition (C&D) Debris includes waste and recyclables generated from construction, renovation, and demolition or deconstruction of pre-existing structures. Land clearing debris including soil, vegetation, and rocks are not to be included.

**SAMPLE CONSTRUCTION WASTE MANAGEMENT LOG**

Total waste generated by project: \_\_\_\_\_ tons/cubic yards.

Material	Total Waste by Weight (Tons)	Diverted Waste by Weight (Tons)	Salvaged Waste by Weight (Tons)	Disposed at Landfill by Weight (Tons)	Hazardous Material by Weight (Tons)	Comments
Asphalt, crushed						
Asphalt/paving, crushed						
Cardboard, corrugated, flattened boxes, loose						
Carpet & padding, loose						
Cement, bulk						
Cement, mortar						
Concrete, scrap, loose						
Copper fittings, loose						
Copper pipe, whole						
Drywall						
Glass, broken						
Gypsum, solid						
Metal, scrap						
Steel, solid						
Wood (chipped)						
Mixed Construction and Demolition (C&D) Debris**						
Mixed Waste/Trash						

TOTAL: \_\_\_\_\_ Tons \_\_\_\_\_ Tons \_\_\_\_\_ Tons \_\_\_\_\_ Tons \_\_\_\_\_ Tons

TOTAL % Diverted from Landfill: \_\_\_\_\_ %

END OF SECTION



## SECTION 01540

**SITE SECURITY AND SAFETY****PART 1 GENERAL****1.1 SUBMITTALS**

- A. See Section 01330 (Submittal Procedures).
- B. Safety Program.
- C. Fire Protection Plan.

**1.2 PROTECTION**

- A. Continuously maintain protection as necessary to protect the Work, as a whole and in part, and adjacent property and improvements from accidents, injuries or damage.
- B. Properly protect the Work:
  - 1) With lights, guard rails, temporary covers and barricades.
  - 2) Enclose excavations with proper barricades.
  - 3) Brace and secure all parts of the Work against storm and accident.
  - 4) Provide such additional forms of protection that may be necessary under existing circumstances.
- C. Provide and maintain in good condition all protective measures required to adequately protect the public from hazards resulting from the Work and to exclude unauthorized persons from the Work. When regulated by Building Code, Cal OSHA, or other authority, such legal requirements for protection shall be considered as minimum requirements. Be responsible for the protection in excess of such minimum requirements as required.
- D. Related Sections:
  - 1) Section 01500 - Construction Facilities and Temporary Controls

**1.3 CONTROL OF SITE**

- A. Contractor shall be responsible for securing the project Site (the fence, area within the fence, and the building) to:
  - 1) Provide site security to assure that no member of the public is able to gain access to the work area at any time. Contractor shall maintain access and egress routes at all times.
  - 2) Secure, maintain, and protect the building, its contents, the Work, stored materials, equipment and temporary facilities until time of acceptance, or such earlier time as County may choose to assume such responsibility. Security and protection may be by any legal method, or methods, acceptable to County.
  - 3) At Contractor's option, provide a night security guard during all hours that Contractor is not physically in control of the site through its performance of the Work.
- B. Ensure that no alcohol, firearms, weapons, or controlled substance enters or is used at the Site. Immediately remove from the Site and terminate the employment of any employee found in violation of this provision.

**1.4 SAFETY PROGRAM**

- A. Prior to starting any Work at the Site, submit a Safety Program that has been reviewed and approved by an Industrial Hygienist certified by the American Board of Industrial Hygiene or a Certified Safety Professional. The Safety Program shall include the name, certification number, and certification seal of the Industrial Hygienist or Certified Safety Professional. Comply with the Safety Program and all applicable federal, state, and local regulation codes, rules, law and ordinances.
- B. Receipt and/or review of the Safety Program by County, Architect, Engineer or County's Representative shall not relieve Contractor of any responsibility for complying with all applicable safety regulations.
- C. It is essential that Contractor and each Subcontractor implement an effective and vigorous Safety and Health Program to cover their respective portions of the Work. Subject to Contractor's overall responsibility for Project safety, it shall be understood that

the full responsibility for providing a safe place to work with respect to their respective portions of the Work rests with each individual Contractor and Subcontractor.

- D. Safety Program components:
  - 1) Injury and Illness Prevention Program (IIPP): Conforming to the General Industrial Safety Orders (CCR Title 8, Division 1, Chapter 4, Subchapter 7, Section 3203), and the California Labor Code (Section 6401.7).
  - 2) Site-Specific Safety and Health Plan (SSHP): Describing health and safety procedures that shall be implemented during the Work in order to ensure safety of the public and those performing the Work. Follow the guidelines for a SSHP listed in CCR Title 8, Division 1, Chapter 4, Subchapter 7, Section 5192, Item (b)(4) f.
- E. The wearing of hard hats shall be mandatory at all times for personnel on Site. Supply sufficient hard hats to equip properly all employees and visitors.
- F. Whenever an exposure exists, appropriate personal protective equipment (PPE) shall be used by all affected personnel. Supply PPE to all personnel under Contractor's direction.
- G. Submit three (3) copies of Safety Program specific to these Contract Documents to County within the time set forth in Section 01540 (Site Security and Safety), paragraph 1.4.

## 1.5 SAFETY REQUIREMENTS

- A. Standards: Maintain the Project in accordance with state and local safety and insurance standards.
- B. Hazards Control:
  - 1) Store volatile wastes in covered metal containers and remove from premises daily.
  - 2) Prevent accumulation of wastes that create hazardous conditions.
  - 3) Provide adequate ventilation during use of volatile or noxious substances.
- C. Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
  - 1) Do not burn or bury rubbish or waste material on the Site.
  - 2) Do not dispose of volatile wastes such as mineral spirits, oil, or paint thinner in storm or sanitary drains.
  - 3) Do not dispose of wastes into streams or waterways.
- D. Provide accident information on the forms provided by Contractor. This information shall be provided on the same Day as the occurrence of said incident.
- E. Coordinate emergency vehicle access route to the site with the City of Santa Rosa Fire Department. Emergency vehicle access route to be maintained at all times during the project as required by the City of Santa Rosa Fire Department.

## 1.6 SITE SAFETY OFFICER

- A. Designate one of Contractor's staff as "Site Safety Officer" whose duties shall include the responsibility for enforcing the environmental protection provisions of the Contract Documents including safety and health, the requirements of the Occupational Safety and Health Act, and other applicable federal, state and local standards. Submit for review by County Contractor's intended traffic flow plan, security plan, program for temporary structures, housecleaning plan, demolition program, and environmental safety and health plan. After review by County, the implementation and enforcement of these plans shall become the responsibility of the Site Safety Officer. Any changes in the plans shall be requested by Contractor through the Site Safety Officer for written concurrence by County.
- B. County's risk management representative(s) shall be allowed access to accident/injury and illness reports, inspection reports, scheduling and construction meetings, and safety meetings.

## 1.7 FIRE PROTECTION PLAN

- A. Prior to starting any work that includes combustible materials at the Site, submit one (1) copy of a fire protection plan that has been reviewed and approved by the City of Santa Rosa Fire Department to County Project Manager. It is recommended that the plan include, but not be limited to, a discussion of the following items:

- 1) Equipment spark arresters
- 2) Fire-extinguishing equipment on hand
- 3) Method of operation in case of fire
- 4) Notification to authorities of any fire
- 5) Access available during performance of Work
- 6) Educating workers of fire protection plan

#### **1.8 SHORING SAFETY PLAN**

- A. Any conflict between this paragraph 1.8 and Division 2 of the Specifications shall be resolved in favor of the most stringent requirement.
- B. At least five Days in advance of any excavation five feet or more in depth, Contractor shall submit to County a detailed plan showing the shoring, bracing and sloping design (including calculations) and other provisions to be made for worker protection from the hazard of caving ground during the excavation, as required by Labor Code Section 6705. A civil or structural engineer registered in California shall prepare and sign any plan that varies from the shoring system standards established by the State Construction Safety Orders.
- C. During the course of Work, Contractor shall be responsible for determining where sloping, shoring, and/or bracing is necessary and the adequacy of the design, installation, and maintenance of all shoring and bracing for all excavation, including any excavation less than five feet in depth. Contractor will be solely responsible for any damage or injuries that may result from excavating or trenching. County's acceptance of any drawings showing the shoring or bracing design or Work schedule shall not relieve Contractor of its responsibilities under this paragraph 1.8.
- D. Contractor shall appoint a qualified supervisory employee who shall be responsible to determine the sloping or shoring system to be used depending on local soil type, water table, stratification, depth, etc.

#### **PART 2 PRODUCTS – NOT USED**

#### **PART 3 EXECUTION – NOT USED**

END OF SECTION



## SECTION 01600

**PRODUCT REQUIREMENTS****PART 1 GENERAL****1.1 SECTION INCLUDES**

- A. Products
- B. Product Options and Substitutions
- C. Product Delivery Requirements
- D. Product Storage and Handling

**1.2 PRODUCTS**

- A. Products: New material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying, and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. For similar components, provide interchangeable components of the same manufacturer.

**1.3 PRODUCT OPTIONS AND SUBSTITUTIONS**

- A. Summary:
  - 1) This paragraph 1.3 describes procedures for selecting products and requesting substitutions of unlisted materials in lieu of materials named in the Specifications or approved for use in Addenda that were not already the subject of a Document 00660 (Substitution Request Form) submittal as provided in Document 00200 (Instructions to Bidders).
- B. Contractor's Options:
  - 1) For products specified only by reference standard: Select any product meeting that standard.
  - 2) For products specified by naming one or more products or manufacturers:
    - a. Select products of any named manufacturer meeting Specifications.
    - b. If product becomes unavailable due to no fault of Contractor, submit Request for Substitution (RFS), including all information contained in this Section 01600 and a fully executed Document 00660 (Substitution Request Form), but using the term "Contractor" each place the term "Bidder" appears in that form.
- C. Substitutions:
  - 1) Except as provided in Document 00200 (Instructions to Bidders) with respect to "or Approved Equal" items, County will consider Contractor's substitution requests only when product becomes unavailable due to no fault of Contractor or if the product specified no longer complies with local regulations or laws. Requests for review of proposed substitute items will not be accepted from anyone other than Contractor. The RFS shall state the extent, if any, to which the evaluation and acceptance of the proposed substitute will prejudice Contractor's achievement of Substantial Completion on time, and whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with County for work on the Project).
  - 2) Submit separate RFS (and four (4) copies) for each product and support each request with:
    - a. Product identification
    - b. Manufacturer's literature
    - c. Samples, as applicable
    - d. Name and address of similar projects on which product has been used, and dates of installation
    - e. Name, address, and telephone number of manufacturer's representative or sales

- engineer
- f. For construction methods: Detailed description of proposed method; drawings illustrating methods
- 3) Where required, itemize a comparison of the proposed substitution with product specified and list significant variations including, but not limited to dimensions, weights, service requirements, and functional differences. If variation from product specified is not pointed out in submittal, variation will be rejected even though submittal was favorably reviewed. Identify all variations of the proposed substitute from that specified in the RFS and indicate available maintenance, repair, and replacement service.
  - 4) State whether the substitute will require a change in any of the Contract Documents (or provisions of any other direct contract with County for work on the Project) to adapt the design of the proposed substitute, and whether or not incorporation or use of the substitute in connection with Work is subject to payment of any license fee or royalty. Submit data relating to changes in construction schedule.
  - 5) Include accurate cost data comparing proposed substitution with product and amount of net change in Contract Sum including, but not limited to, an itemized estimate of all costs or credits that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which will be considered by County in evaluating the proposed substitute. County may require Contractor to furnish additional data about the proposed substitute.
  - 6) County will not consider substitutions for acceptance (or, in County's sole discretion, County may make Contractor solely responsible for all resulting costs, expenses and other consequences) when a substitution:
    - a. Results in delay meeting construction Milestones or completion dates
    - b. Is indicated or implied on submittals without formal request from Contractor
    - c. Is requested directly by Subcontractor or supplier
    - d. Acceptance will require substantial revision of Contract Documents
    - e. Disrupts Contractor's job rhythm or ability to perform efficiently
  - 7) Substitute products shall not be ordered without written acceptance of County.
  - 8) County will determine acceptability of proposed substitutions and reserve right to reject proposals due to insufficient information.
  - 9) All Contract Document requirements apply to Work involving substitutions.
- D. Contractor's Representation and Warranty:
- 1) Contractor's RFS constitutes a representation and warranty that Contractor:
    - a. Has investigated proposed product and determined that it meets or exceeds, in all respects, specified product.
    - b. Will provide the same warranty for substitution as for specified product.
    - c. Will coordinate installation and make other changes that may be required for Work to be complete in all respects.
    - d. Waives claims for additional costs which may subsequently become apparent.
    - e. Will compensate County for additional redesign costs associated with substitution.
    - f. Will be responsible for Construction Schedule slippage due to substitution.
    - g. Will be responsible for Construction Schedule delay due to late ordering of available specified products caused by requests for substitution that are subsequently rejected by County.
    - h. Will compensate County for all costs; including extra costs of performing Work under Contract Documents, extra cost to other contractors, and any claims brought against County, caused by late requests for substitutions or late ordering of products.
- E. County's Duties:
- 1) Review Contractor's RFS with reasonable promptness.
  - 2) Notify Contractor in writing of decision to accept or reject requested substitution.
- F. Administrative Requirements:
- 1) Specified products, materials, or systems for Project may include engineering or on-file standards required by the regulatory agency. Contractor's substitution of products,

materials or systems may require additional engineering, testing, reviews, approvals, assurances, or other information for compliance with regulatory agency requirements or both. Provide all agency approvals or other additional information required and pay additional costs for required County services made necessary by the substitution at no increase in Contract Sum or Contract Time, and as a part of substitution proposal.

**1.4 PRODUCT DELIVERY REQUIREMENTS**

- A. Deliver products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.

**1.5 PRODUCT STORAGE AND HANDLING**

- A. Store products only in staging area per provisions of Section 01100 (Summary).
- B. Handle, store, and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate-controlled enclosures.
- C. For exterior storage of fabricated products, place on appropriate supports, above ground.
- D. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- E. Store loose granular materials on solid flat surfaces in a well-drained area.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.
- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION



## SECTION 01740

**PROJECT CLEANING****PART 1 GENERAL****1.1 SUMMARY**

- A. This section contains provisions for periodic and final cleaning.

**1.2 GENERAL REQUIREMENTS**

- A. Contractor's Responsibility: Maintain premises and public properties free from accumulations of waste, debris, and rubbish in accordance with applicable safety and insurance standards.
- B. Perform all temporary and periodic clean-up of extra materials, waste and general debris during construction of the work, together with the final clean-up and cleaning, polishing and other "housekeeping" required to bring various surfaces to an acceptable condition prior to final inspection, or before additional work is done during construction.
- C. Acceptance of Cleanliness: The acceptable level of cleanliness of the Project shall be the decision of the Owner. Work necessary to achieve such acceptable state shall be performed when required. Action by County will result if the Project site is not maintained in a sanitary and orderly condition.
- D. Burning: Burning of waste materials and/or rubbish on site is not permitted.

**1.3 SAND OR WATER BLASTING**

- A. Use of Sand or Water Blasting: Sand or water blasting shall be only used upon receipt of written permission of the Architect.
- B. Sand or water blasting shall only be done by experienced mechanics using sound modulated power machinery designed for this use, and shall comply with the requirements of this Section, and all applicable regulatory agencies. Use blasting aggregate uniformly graded, free from all animal or vegetable material, and not larger than #30 grit. Air compressor shall be capable of providing air at a pressure of 100-110 pounds at 210-300 cfm. Use blast nozzle of 5/16 inch orifice.
- C. Operation: Sand or water blast by the "flash" method. Pass continuously over the surface, to provide a uniform cutting of the surface, without pitting or excessive erosion of the base material. Exercise care to prevent corners or sharp edges from being broken or unduly rounded. Used aggregate shall not be reused.
- D. Protection: Sand or water blaster shall protect installed work of others from damage by water blast, rebound, or used aggregate. Cover, or otherwise protect all mechanical work, intakes, and similar work, as well as finished surfaces. Replace all damaged work.
- E. Concrete Masonry Units: Sand or water blasting of concrete masonry units (CMU) shall not be performed without the observation and approval of the Architect.

**1.4 CLEAN-UP DURING CONSTRUCTION**

- A. Cleaning During Construction: Control accumulation of waste materials and rubbish; dispose of off-site.
- 1) Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.
  - 2) Remove debris and rubbish from pipe chases, plenums, attics, crawl spaces, and other closed or remote spaces before closing the space.
  - 3) Maintain site in a clean and orderly condition. Maintain the site, equipment, fences and construction free of graffiti. Remove all graffiti daily using methods which cause no damage to the work or existing facilities.
  - 4) Maintain public areas adjacent to site in a clean and orderly condition. Keep temporary pedestrian walkways, sidewalks and other areas around the site clean and free of accumulate trash and debris.
- B. During construction, Contractor shall be responsible for cleaning-up as follows:
- 1) Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean

- and orderly condition.
- 2) Remove debris and rubbish from pipe chases, plenums, down spouts, attics, and other closed or remote spaces, prior to enclosing the space.
  - 3) Broom and vacuum clean interior areas prior to start of surface finishing, and continue cleaning to eliminate dust.
  - 4) Remove waste materials, debris, and rubbish from site weekly and dispose off-site in compliance with local regulations.
  - 5) Storage areas: Ensure that materials to be used for construction are stored in designated structures or areas by the appropriate trades. Maintain such areas or structures in a clean condition for the life of the Project.
  - 6) Containers: Provide appropriate containers, such as dump containers, and locate on site for collection of waste materials and rubbish. Have contents removed from Project site at least once per week.
  - 7) Supervision: Oversee all cleaning of areas by the trades using them. Ensure that resulting accumulations are deposited in appropriate containers.
  - 8) Clean-up: Daily, weekly, or as necessary, clean-up all site areas. Remove all loose materials, by sweeping if necessary. Dispose of accumulations in appropriate containers.
- C. ROADWAY MAINTENANCE
- 1) Spills resulting from hauling operations along or across existing streets, roads, or ramps shall be removed immediately by Contractor. All gutters and roadside ditches shall be kept clean and free from obstructions. Contractor shall immediately remove spills by sweeping or flushing the areas.
  - 2) If in the opinion of County additional roadway maintenance is required to remove materials from spills, erosion, dust nuisance, etc. Contractor shall provide such additional maintenance at no additional cost to County.
- D. DRAINAGE STRUCTURES
- 1) Contractor shall provide dams, settling ponds, or filtering structures as may be required to keep construction debris and soil erosion from entering drainage systems. Upon completion of all grading and after establishment of all landscaping, Contractor shall clean and remove all soil, debris, etc. from drainage structures and systems.

## 1.5 FINAL CLEANING

- A. As a condition of final acceptance of the work, Contractor shall carefully clean up the work and the premises, remove all temporary structures built by or for him, remove all surplus construction materials, debris, and rubbish of all kinds from the grounds which he has occupied and leave them in a neat condition. The entire project shall be left in a condition that will present a pleasing appearance as viewed in general and in a manner satisfactory to County.
- B. Should County elect to partially occupy or use portions of the Work prior to Substantial Completion, perform final cleaning for those portions of the Work prior to their being so occupied or used.
- C. Comply with applicable regulatory requirements during cleaning and disposal operations. Use cleaning materials which will not create hazards to health or property or cause damage to products or Work.
- D. Use cleaning materials and methods recommended by the manufacturers of the products to be cleaned.
- E. Schedule cleaning operations to prevent resulting dust and other contaminants from adhering to wet or newly finished surfaces.
- F. Completely clean the site. Perform the following cleaning operations as applicable to the Work of this Contract:
  - 1) All paved areas shall be swept to remove all dirt, gravel or other debris. Flushing of streets will not be permitted. All access roads, haul roads, and the areas surrounding the project site shall be returned to their condition existing prior to commencement of work.

- 2) Remove dust, dirt, grease, stains, fingerprints, labels, spilled and spattered materials, and other foreign matter from surfaces exposed to view in the completed Work.
- G. County shall perform a final inspection of the clean-up of the site, and Contractor shall remedy such problems noted during the inspection, or provide such additional work as County deems appropriate, at no additional cost to County.
- H. Substantial Completion will be withheld and Contractor subject to remedies as provided in Article 12 of the General Conditions until Contractor has satisfactorily complied with the foregoing requirements for final cleaning of the project site.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION



## SECTION 01770

**CONTRACT CLOSEOUT****PART 1 GENERAL****1.1 SUMMARY**

- A. Section Includes:
  - 1) Description of Contract closeout procedures including:
    - a. Removal of Temporary Construction Facilities
    - b. Substantial Completion
    - c. Final Completion
    - d. Project Record Documents
    - e. Guarantee
    - f. Turn-In
    - g. Release of Claims
    - h. Building Final Permit Inspection Coordination

**1.2 REMOVAL OF TEMPORARY CONSTRUCTION FACILITIES**

- A. Remove temporary materials, equipment, services, and construction prior to Substantial Completion inspection.
- B. Clean and repair damage caused by installation or use of temporary facilities.
- C. Restore permanent facilities used during construction to specified condition.
- D. Comply with paragraph 1.15 of Section 01500 (Construction Facilities and Temporary Controls).

**1.3 SUBSTANTIAL COMPLETION**

- A. When Contractor considers Work or designated portion of the Work as Substantially Complete, submit written notice to County, with list of items remaining to be completed or corrected.
- B. Within reasonable time, County will inspect to determine status of completion.
- C. Should County determine that Work is not Substantially Complete, County will promptly notify Contractor in writing, listing all defects and omissions.
- D. Contractor shall remedy deficiencies and send a second written notice of Substantial Completion. County will reinspect the Work. If deficiencies previously noted are not corrected on reinspection, then Contractor shall pay the cost of the reinspection.
- E. When County concurs that Work is Substantially Complete, County will issue a Certificate of Substantial Completion, accompanied by Contractor's list of items to be completed or corrected as verified by County.
- F. Manufactured units, equipment and systems that require startup must have been started up and run for periods prescribed by County before a Certificate of Substantial Completion will be issued.
- G. A punch list examination will be performed upon Substantial Completion. One follow-up review of punch list items for each discipline will be provided. If further Site visits are required to review punch list items due to incompleteness of the Work by Contractor, Contractor will reimburse County for costs associated with these visits.

**1.4 FINAL COMPLETION**

- A. Final Completion occurs when Work meets requirements for County's Final Acceptance. When Contractor considers Work is Finally Complete, submit written certification that:
  - 1) Contractor has inspected Work for compliance with Contract Documents, and all requirements for Final Acceptance have been met.
  - 2) Except for Contractor maintenance after Final Acceptance, Work has been completed in accordance with Contract Documents and deficiencies listed with Certificate of Substantial Completion have been corrected. Equipment and systems have been tested in the presence of County, and are operative.
  - 3) Work is complete and ready for final inspection.

- B. In addition to submittals required by Contract Documents, provide submittals required by governing authorities and submit final statement of accounting giving total adjusted Contract Sum, previous payments, and sum remaining due.
- C. When County finds Work is acceptable and final closeout submittals are complete, County will issue a Final Inspection Report informing Contractor that the Work is complete, that any further accumulation of Liquidated Damages, if any were assessed, stop, and that the County will file the Notice of Completion with the County Recorder. Should County determine that Work is incomplete or Defective:
  - 1) County promptly will so notify Contractor, in writing, listing the incomplete or Defective items.
  - 2) Contractor shall promptly remedy the deficiencies and notify County when it is ready for reinspection.
- D. Final adjustments of accounts:
  - 1) Submit a final statement of accounting to County, showing all adjustments to the Contract Sum and complete and execute Document 00650 (Agreement and Release of Any and All Claims).
  - 2) If so required, County shall prepare a final Change Order for submittal to Contractor, showing adjustments to the Contract Sum that were not previously made into a Contract Modification.

#### **1.5 PROJECT RECORD DOCUMENTS**

- A. Contract Documents will not be closed out and final payment will not be made until completion and submittal of Project Record Documents described in Section 01780 (Project Record Documents).

#### **1.6 PROJECT GUARANTY**

- A. Requirements for Contractor's guaranty of completed Work are included in Article 9 of Document 00700 (General Conditions). Contractor shall guaranty Work done under Contract against failures, leaks, or breaks or other unsatisfactory conditions due to defective equipment, materials, or workmanship, and perform repair work or replacement required, at Contractor's sole expense, for period of year(s) from date of Final Acceptance.
- B. Neither recordation of Final Acceptance nor final certificate for payment nor provision of the Contract nor partial or entire use or occupancy of premises by County shall constitute acceptance of Work not done in accordance with Contract Documents nor relieve Contractor of liability in respect to express warranties or responsibility for faulty materials or workmanship.
- C. County may make repairs to Defective Work as set forth in Document 00700 (General Conditions), paragraph 9.3.
- D. If, after installation, operation, or use of materials or equipment to be provided under Contract proves to be unsatisfactory to County, County shall have right to operate and use materials or equipment until said materials and equipment can, without damage to County, be taken out of service for correction or replacement. Period of use of Defective materials or equipment pending correction or replacement shall in no way decrease guaranty period required for acceptable corrected or replaced items of materials or equipment.
- E. Nothing in this Section 01770 shall be construed to limit, relieve, or release Contractor's, Subcontractors', and equipment suppliers' liability to County for damages sustained as result of latent defects in equipment caused by negligence of suppliers' agents, employees, or Subcontractors. Stated in another manner, warranty contained in the Contract Documents shall not amount to, nor shall it be deemed to be, waiver by County of any rights or remedies (or time limits in which to enforce such rights or remedies) it may have for Defective workmanship or Defective materials under laws of this State pertaining to acts of negligence.

#### **1.7 WARRANTIES**

- A. Execute Contractor's Submittals and assemble warranty documents, and Installation,

Operation, and Maintenance Manuals described in Section 01330 (Submittal Procedures), executed or supplied by Subcontractors, suppliers, and manufacturers. Contractor may submit documents in an electronic format acceptable to County with prior approval of County Project Manager.

- 1) Provide table of contents and assemble in 8½ inches by 11 inches three-ring binder with durable plastic cover, appropriately separated and organized.
  - 2) Assemble in Specification Section order.
- B. Submit material prior to final Application for Payment.
- 1) For equipment put into use with County's permission during construction, submit within fourteen (14) Days after first operation.
  - 2) For items of Work delayed materially beyond Date of Substantial Completion, provide updated Submittal within fourteen (14) Days after acceptance, listing date of acceptance as start of warranty period.
- C. Warranties are intended to protect County against failure of Work and against deficient, Defective, and faulty materials and workmanship, regardless of sources.
- D. Limitations: Warranties are not intended to cover failures that result from the following:
- 1) Unusual or abnormal phenomena of the elements
  - 2) Vandalism after Substantial Completion
  - 3) Insurrection or acts of aggression including war
- E. Related Damages and Losses: Remove and replace Work which is damaged as result of Defective Work, or which must be removed and replaced to provide access for correction of warranted Work.
- F. Warranty Reinstatement: After correction of warranted Work, reinstate warranty for corrected Work to date of original warranty expiration or to a date not less than one year(s) after corrected Work was done, whichever is later.
- G. Replacement Cost: Replace or restore failing warranted items without regard to anticipated useful service lives.
- H. Warranty Forms: Submit drafts to County for approval prior to execution. Forms shall not detract from or confuse requirements or interpretations of Contract Documents.
- 1) Warranty shall be countersigned by manufacturers.
  - 2) Where specified, warranty shall be countersigned by Subcontractors and installers.
- I. Rejection of Warranties: County reserves right to reject unsolicited and coincidental product warranties that detract from or confuse requirements or interpretations of Contract Documents.
- J. Term of Warranties: For materials, equipment, systems, and workmanship, warranty period shall be one (1) year(s) minimum from date of Final Completion of entire Work except where:
- 1) Detailed Specifications for certain materials, equipment or systems require longer warranty periods.
  - 2) Materials, equipment or systems are put into beneficial use of County prior to Final Completion as agreed to in writing by County.
- K. Warranty of Title: No material, supplies, or equipment for Work under Contract shall be purchased subject to any chattel mortgage, security agreement, or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by seller or supplier. Contractor warrants good title to all material, supplies, and equipment installed or incorporated in Work and agrees upon completion of all Work to deliver premises, together with improvements and appurtenances constructed or placed thereon by Contractor, to County free from any claim, liens, security interest, or charges, and further agrees that neither Contractor nor any person, firm, or corporation furnishing any materials or labor for any Work covered by Contract shall have right to lien upon premises or improvement or appurtenances thereon. Nothing contained in this paragraph, however, shall defeat or impair right of persons furnishing materials or labor under bond given by Contractor for their protection or any rights under law permitting persons to look to funds due Contractor in hands of County.

## 1.8 TURN-IN

- A. Contract Documents will not be closed out and final payment will not be made until all keys issued to Contractor during prosecution of Work are turned in to County.

**1.9 RELEASE OF CLAIMS**

- A. Contract Documents will not be closed out and final payment will not be made until Document 00650 (Agreement and Release of Any and All Claims) is completed and executed by Contractor and County.

**1.10 BUILDING INSPECTION COORDINATION**

- A. Coordinate with County a final inspection for the purpose of Final Building Permit.

**PART 2 PRODUCTS – NOT USED**

**PART 3 EXECUTION – NOT USED**

END OF SECTION

## SECTION 02010 – DESCRIPTION OF WORK AND PAYMENT

### PART 1 GENERAL

#### 1.01 WORK TO BE PERFORMED

##### A. Description of Bid Items and Payment

1. Descriptions of each bid item and the method of payment are summarized below. The Contractor shall refer to the appropriate section(s) of these special provisions, the Standard Specifications and construction drawings for details not provided in the descriptions below.
2. **Any material, equipment, labor, etc. not specifically described herein that is required to fulfill these specifications, to complete work shown on the plans, or to comply with Standards is implied as included in the various contract items and no additional allowance will be made there for.**

##### B. Work Included Under All Bid Items

1. For all bid item work, Contractor's responsibilities shall conform to the provisions of the various parts of the Standard Specifications, the Special Provisions, or the Technical Specifications, except as modified herein. Additionally, Contractor shall ensure each of the following is included as part of the work under each bid item:
  - a. The safety of personnel, subcontractor's personnel, and the public. Safety measures shall include, but not be limited to, cover plating, sheeting, shoring, temporary A.C. surfacing, and warning signs as may be necessary. Owner's Representative may direct Contractor to erect any safety feature as may be necessary in his opinion.
  - b. Make available all work for inspection and/or testing by the Owner's Representatives.
  - c. Provide traffic control measures or personnel as required for the safe passage of vehicles, bicycles, equestrians and pedestrians around the areas of work when necessary. Traffic control shall conform to the requirements set forth in the Standard Specifications.
  - d. Pothole to verify utility and piping locations, depths, piping materials and arrangements. Piping materials, depths, arrangements and locations as depicted or described in the contract documents are based on the best available records and information, however, no assurance is implied or given as to the accuracy of the information provided. Any facilities damaged as a result of the work shall be repaired by Contractor at his own expense.
  - e. Clear, prune, and/or remove from site of work all items that might interfere with contract work, including, trees, landscaping, sidewalks, curbs and gutters, retaining structures, and A.C. Paving. Also remove existing piping, fittings, valves, boxes and debris as may be necessary

to complete work.

- f. Restore all surfaces to their original, existing condition as nearly as possible including native areas, landscaping, sidewalks, street and driveways, and curbs and gutters. All materials for restoration work shall be furnished by Contractor.
- g. Protection of all trees and their roots shown to be protected on the project plans. Any trees and their roots not shown to be removed shall be assumed to be protected trees unless shown to be removed on the drawings or as directed otherwise by the Owner's Representative.
- h. Proper restraint of existing facilities. Temporary restraints may be necessary to prevent upstream or downstream facilities from being dislodged by system pressure. Damage to existing facilities that occurs due to improper restraint shall be repaired by Contractor at his own expense.
- i. Supply all equipment, materials and labor for excavations, including saw-cutting of A.C. paving and concrete sidewalks, as necessary to complete the work.
- j. Disposal of excess or waste materials and debris including, but not limited to, excavated materials, piping, fittings, valves, boxes, concrete, asphalt, plant trimmings and landscaping materials.
- k. Provide 48 hours advance notice of water outages and road closures to Owner's Representative.

## **1.02 DESCRIPTION OF BID ITEMS – BASE BID**

### **Bid Item No. 1 – Mobilization/Demobilization, Bonds, and Insurance**

Mobilization shall include but not be limited to preparation of Contract by Contractor; completion of all tasks and submittal of all documents (bonds, insurance, schedule, etc.), required as a condition of issuing the Notice to Proceed; moving on to the site(s) all Contractor's equipment required; installing temporary buildings, power, water, lighting, etc. as may be required; providing all on-site communications equipment or facilities; obtaining all permits and permit fees; attending preconstruction and regular scheduled meeting' having all OSHA required notices and establishment of a safety program; preparing and delivering all pre-construction notices and/or job signs; physical verification (potholing) of existing facilities and arrangement of USA markings, and; beginning work on the project.

Demobilization shall include but shall not be limited to removal of all equipment, unused materials, all temporary facilities, job trailer, and any other items, facilities tools or materials accumulated by the contractor.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and incidentals required to mobilize for construction and demobilize and clean upon final project completion.

### **Bid Item No. 2 – General Conditions**

This bid item includes services, equipment, site/project management that the general contract shall provide to ensure that the project is completed as shown in the Plans and specifications efficiently and on schedule.

Shall be paid for at the contract **lump sum** price, which shall include full compensation for all labor, materials, tools, equipment, and incidentals required to construct and manage the project as shown in the Plans and specifications, and as direct by Owner Representative.

### **Bid Item No. 3 – Comprehensive Construction Staging Plan**

This bid item shall consist of temporary and project-duration signage and public access controls for the safety and convenience and direction for visiting public. This bid item shall include but not necessarily be limited to, the furnishing, installation, and removal of fences, barricades, lights, signs, and other devices as needed to complete the project in a safe and efficient manner.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and incidentals for completing all the work involved but not limited to producing, documenting, tracking, and enforcing the comprehensive construction staging plan, work schedule, and list of inspections.

#### **Bid Item No. 4 – Demolition**

This bid item shall consist of demolition and disposal of existing concrete internal circle at Story Stage 6; mockup concrete sawcut work for demo, demolition and disposal of fitted plywood at all story stages and main stage; demolition and removal of concrete samples and concrete mockup at equestrian lot (from Phase 1 construction), protection of existing remaining infrastructure, flatwork and paving, and all other misc. associated items as shown on the Plans and Specifications. All materials to be disposed of must be done so in a legal manner.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, and all other incidental costs associated with performing the work.

#### **Bid Item No. 5 – Shade Structure**

This bid item shall consist of fabricating and installation of steel shade structure at stage. This bid item shall include but not necessarily be limited to the furnishing, and installation of the shade structure.

\*Note: Shade Structure foundation has been constructed and is existing and approved by project and county inspectors per the permit plan set. The structure is fully permitted requiring special inspections throughout construction.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, delivery of materials, coordination with manufacturer, project architect, and Owner Representative and other special inspectors, and all other incidental costs involved with completing the work as shown in the Plans and Specifications.

#### **Bid Item No. 6 – Shade Structure Interpretive Panel Column Wraps**

This bid item shall consist of fabrication and installation of the interpretive column wraps on the shade structure. Work includes fabrication of column wraps, coordination of interpretive design between Owner Representative and fabricator, installation, and other misc. materials, equipment, and labor to complete installation as shown on the Plans and Specifications.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, delivery of materials, coordination with manufacture and Owner Representative and all other incidental costs involved with completing the work as shown on the Plans and Specifications.

#### **Bid Item No. 7 – Shade Structure Interpretive Panels Roof**

This bid item shall consist of fabrication and installation of interpretive panels on shade structure roof. Work includes fabrication of panels, coordination of interpretive design

between Owner Representative and fabricator, installation, and other misc. materials, equipment, and labor to complete installation as shown on the Plans and Specifications.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, delivery of materials, coordination with manufacturer and Owner Representative, and all other incidental costs associated with completing the work as shown on the Plans and Specifications.

#### **Bid Item No. 8 – Electrical at Shade Structure**

This bid item shall consist of completing Phase 2 electrical work. Confirming existing conditions conform to the Electrical As-Built, installing lighting control panel, running additional conduit as wire as needed to power outlets and lighting on the shade structure as shown in the Plans and Specifications.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for staging and furnishing all labor, materials, tools, equipment (including rental equipment), lighting to the Stage Shade Structure and complying with the requirements as depicted on the Plans and Specifications, and as directed by the Owner Representative.

#### **Bid Item No. 9 – Concrete Paving Story Stages**

This bid item shall consist of concrete paving internal circles and remaining unfinished flags at each story stage per the project Plans and Specifications. Work shall include but not necessarily be limited to concrete formwork, drilled dowels and epoxy anchors, concrete reinforcing, cast-in-place concrete, and cast-in-place concrete finishing as shown on the Plan and Specifications.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for staging and furnishing all labor, materials, tools, equipment (including rental equipment), and incidentals required to layout, saw cut, install reinforcement, dowling, and all work involved in staging and installing and finishing concrete paving and complying with the requirements as depicted on the Plans and Specifications.

#### **Bid Item No. 10 – Interpretive Elements Story Stage 1**

Installation of all interpretive elements at Story Stage 1 as shown on the Plans and Specifications. Work shall include but not necessarily be limited to coordinating with the Owner Representative of graphics for stencil to complete graphic interpretive flat work.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, stencils, collection of materials and all incidental costs to complete the work as shown on the Plans and Specifications.

### **Bid Item No. 11 – Interpretive Elements Story Stage 6**

Installation of all interpretive elements at Story Stage 6 as shown on the Plans and Specifications. Work shall include but not necessarily be limited to coordinating with the Owner Representative of graphics for stencil to complete graphic interpretive flat work.

Shall be paid for at the contract lump sum price, which price shall include full compensation for furnishing all labor, materials, tools, and equipment, stencils, collection of materials and all incidental costs to complete the work.

### **Bid Item No. 12 – Interpretive Signs**

Fabrication and installation of interpretive signs at Story Stages 1 and 5 as shown on the Plans and Specifications. Work shall include but not necessarily be limited to coordinating with Owner Representative and fabricator, fabrication and installation of signs and frames.

Shall be paid for at the contract lump sum price, which price shall include full compensation for fabricating all materials and furnishing all labor, tools and equipment, and all other incidental costs involved with completing the work.

### **Bid Item 13 – Fire Pit Metal Plate Cover**

This bid item shall consist of fabrication of the metal fire plate cover. Work shall include but not necessarily be limited to coordinating graphics with the Owner Representative and fabricator, fabrication and installation of metal plate cover.

Shall be paid for at the contract lump sum price, which price shall include full compensation for fabricating and furnishing all labor, materials, tools and equipment, and all other incidental costs involved with completing the work.

### **Bid Item 14 – Gate Laser Cut Panels**

This bid item shall consist of fabrication and installation of custom laser cut interpretive panels. Work shall include but not necessarily be limited to coordinating with Owner Representative and fabricator, and fabrication and installation of custom cut panels.

Shall be paid for at the contract lump sum price, which price shall include full compensation for fabricating and furnishing all labor, materials, tools and equipment, and all other incidental costs involved with completing the work.

### **Bid Item 15 – Adjustments to Existing Gates**

This bid item shall consist of making adjustments to the existing gates upon reinstallation once interpretive panels are in place. Work includes adjusting gate heights, changing open direction, adding open stops for canes, and touchup paint.

Shall be paid for at the contract lump sum price, which price shall include full

compensation for furnishing all labor, materials, tools and equipment, and all other incidental costs involved with completing the work.

**Bid Item 16 – Paint Existing Features**

This bid item shall consist of painting minor existing features as shown on the Plans and Specifications. Work shall include coordinating and ensuring matching paint color before completing the work.

Shall be paid for at the contract **lump sum** price, which price shall include full compensation for furnishing all labor, materials, tools and equipment, and all other incidental costs involved with completing the work.

**PRODUCTS (NOT USED)**

**PART 2 EXECUTION (NOT USED)**

**END OF SECTION**



**TECHNICAL SPECIFICATIONS**

**COUNTY OF SONOMA**

**REGIONAL PARKS**

**TOLAY LAKE REGIONAL PARK**

**GATHERING AREA PHASE 2 – SHADE STRUCTURE**



## **SECTION 02-41-00 – DEMOLITION**

### **PART 1 GENERAL**

#### **1.01 SUMMARY**

- A. The General Conditions and the Supplementary Conditions shall apply to all of the work of every Section or Subsection of these specifications as if fully repeated in each.
- B. Summary of work: Provide all material, labor and equipment necessary to complete all work as shown on the drawings and as specified herein, including, but not limited to, the following:
  - 1. Protection
  - 2. Removal
  - 3. Removal and Reinstallation

#### **1.02 DEFINITIONS**

- A. Owner or Owner's Representative (O.R.) for the project refers to the Sonoma County Regional Parks Engineer, associates, or agents.

#### **1.03 SUBMITTALS**

- A. Refer to General Conditions for submittal requirements.
- B. All submittals in this specification package (excluding resubmittals) shall be compiled together and submitted to the O.R. as one package.
- C. Mock-up: Prior to demolition of concrete at story stages, sawcut and remove concrete at existing mock-up for O.R. to review and approve sawcut work.
- D. Work Schedule: Submit a proposed schedule of work items to be performed, and a description of how the work is to be accomplished, coordinated with all required inspections, for the Engineer's review.

#### **1.04 QUALITY ASSURANCE**

- A. Comply with the following rules and regulations:
  - 1. State of California, California Administrative Code, Title 8, Industrial Relations, Chapter 4, Subchapter 4, "Construction Safety Order."
  - 2. Applicable local and state agencies having jurisdiction.
  - 3. Governing EPA notification regulations.
  - 4. Bay Area Air Quality Management District (BAAQMD) – <http://www.baaqmd.gov/>
  - 5. CALGreen Construction Waste Management Requirements
  - 6. California Occupational Safety and Health (Cal/OSHA)
  - 7. ANSI A10.6-1969: Safety Requirements for Demolition Operations

#### **1.05 PROJECT CONDITIONS**

- A. Except for stripped topsoil, artifacts, works of art, or materials indicated on the plans or in the specifications to remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project Site and disposed of in a legal manner. Any artifacts found on the site, whether noted or not on the plans, shall remain the property of the Owner unless otherwise determined. If the Owner chooses to relinquish ownership of

any found element(s), it shall be the responsibility of the Contractor to dispose of the element(s) in a legal manner off-site. Promptly dispose of demolished materials. Do not allow demolished materials to accumulate on-site.

1. Do not dispose of removed materials to the general public by sale, gift or in any other manner at the Site.
  2. These provisions shall not be construed as limiting or prohibiting sale or disposal of such materials at the Site to duly licensed Contractors or material suppliers, provided materials are removed from construction site by the Contractor.
  3. All removal of debris from the site, including removal of inventory to site of storage, is part of this Contract and shall be done by Contractor's employees and no others.
- B. If known or suspected hazardous materials are encountered during operations, stop operations immediately and notify the Engineer.
- C. Scheduling:
1. Coordinate with the Construction Manager or Owner in scheduling noisy or dirty work.
  2. Schedule work at the Owner's convenience to cause minimal interference with the Owner's normal operations.

## **PART 2 PRODUCTS (NOT USED)**

## **PART 3 EXECUTION**

### **3.01 PREPARATION**

- A. Verify that the area to be demolished or removed has been vacated, or adequate space made available to perform the work.
- B. Contractor shall identify existing concrete joint locations and clearly mark the concrete flags to be removed, with cut locations along existing joints. Identify locations where dowels or rebar are connected to adjacent flags to remain. Provide (5) days notice to O.R. for review and approval of cut locations and flags to be removed prior to proceeding with demolition.

### **3.02 PROTECTION**

- A. Erect and maintain temporary fencing and warning signs around work areas to protect the public, the Owner's employees for the duration of work in each area.
- B. To protect existing concrete, place plywood or rubber mats on flags adjacent to concrete being removed or in other areas that may be impacted by construction activities.
- C. To protect existing site furnishings, employ impact protection such as padding, blankets, or edge protectors to prevent damage. Fasten heavy-duty tarps, plastic sheeting, or other covers to shield furnishings from dust, concrete, debris, and other elements. The contractor will be responsible for replacing any existing site furnishings damaged during work activities at no cost to the owner.
- D. Wet down areas as required to prevent dust and dirt from rising.
- E. Contractor shall comply with all stormwater protection requirements, and install all Best Management Practices for erosion and sediment control prior to initiating work to prevent any runoff from construction activities from reaching adjacent water drainages or bodies.

### **3.03 REMOVAL**

- A. Concrete:

1. Concrete to be cut along existing joints. Obtain O.R. approval of cut locations and concrete removal areas prior to proceeding. Provide mock-up of sawcut and removal work at existing mock-up prior to proceeding with concrete removal at story stages.
2. Use a concrete saw to cut along edges of concrete to be removed. Cut to full depth (if possible) to separate any reinforcement or aggregates that may be shared between flags. Replace saw blade as needed to maintain clean, straight cuts. Jagged, wavy, or irregular cuts will not be accepted.
3. Break up concrete carefully using a small jackhammer or breaker tool and beginning at the center of the flag, working outward, to reduce pressure on joints shared with adjacent concrete. Avoid prying against the edge of the neighboring flag.
4. Remove concrete with small tools or by hand once broken into manageable pieces. Clean out joint and clear flag area to prepare for replacement. Grind or level as needed to prepare subgrade to receive new concrete. Inspect adjacent flags for any cracks or joint damage and notify O.R.
5. Protect adjacent concrete from chips or cracking for the duration of work. Chips, cracking, saw run-bys, or other damage to existing concrete due to project work will not be accepted. Contractor will be responsible for replacing any existing concrete damaged during construction at no cost to the owner. Patching existing concrete will not be accepted.

#### 3.04 REMOVAL AND REINSTALLATION

- A. Where indicated in plan to remove and reinstall existing gates, hinges, cane bolts, and other components of existing gate assemblies, store materials in protected location away from construction activities, weather, and other elements.
- B. Contractor will be held responsible for any damage (including painting, staining, denting, scratching, or otherwise tarnishing) to existing gate components due to construction operations or negligence. If damaged during construction activities, Contractor shall replace gate component(s), provide paint match and paint touch-up, or repair component(s) in an approved manner at no additional cost to the owner.

### **SECTION 02-41-00 – DEMOLITION**



## **SECTION 32-13-13 CONCRETE PAVING**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Provisions of the Contract including Scope of Services Agreement, General Conditions, Supplemental Conditions, and Project Scope Documents apply to this Section.

#### **1.02 RELATED SECTIONS**

- A. Section 03 10 00 – Concrete Formwork
- B. Section 03 15 00 – Drilled Dowels & Epoxy Anchors
- C. Section 03 20 00 – Concrete Reinforcing
- D. Section 03 30 00 – Cast-in-Place Concrete
- E. Section 03 35 00 – Cast-in-Place Concrete Finishing

#### **1.03 DEFINITIONS**

- A. Owner or Owner's Representative (O.R.) for the project refers to the Sonoma County Regional Parks (SCRP) Engineer, associates, or agents.
- B. Design Team refers to SCRCP, Restoration Design Group (RDG), and Ware Associates representatives.
- C. Defective work refers to concrete having insufficient strength, concrete placed out of line, level or plumb, as defined by ACI standards, or concrete containing significant cracks, spalls rock pockets or voids, or exposed reinforcing steel.
- D. Architectural Concrete: The term "Architectural Concrete" where used herein shall mean concrete normally exposed to view.

#### **1.04 APPLICABLE STANDARDS AND SPECIFICATIONS**

- A. California Building Code, (CBC)
- B. American Society for Testing Materials, (ASTM)
- C. American Concrete Institute, (ACI)
  - 1. ACI 117 - Standard Tolerances for Concrete Construction and Materials
  - 2. ACI 303R-91 - Guide to Cast-in-Place Architectural Concrete
  - 3. ACI 347 78 - CH. 5.2, Recommended Practice for Concrete Formwork.
- D. Concrete Reinforcing Steel Institute, (CRSI)

#### **1.05 SUBMITTALS**

- A. Refer to General Conditions for submittal requirements.
- B. All submittals in this specification package (excluding resubmittals) shall be compiled together and submitted to the O.R. as one package.
- C. Submit product data for proprietary materials and items, admixtures, joint systems, curing compounds, dry-shake finish materials, expansion joint fillers, and reinforcing materials.
  - 1. Reinforcement and Forming Accessories
  - 2. Cementitious materials
  - 3. Aggregate materials (course and fine)

4. Chemical Admixtures
  5. Concrete Curing materials
  6. Expansion joint filler material and joint sealant
  7. Finish retardant
  8. Integral color/color admixture
  9. Concrete paving surface sealant
- D. Submit design mixes for each class of concrete. Include revised mix proportions when characteristics of materials, project conditions, weather, test results, or other circumstances warrant adjustments.
- E. Submit laboratory test reports for evaluation of concrete materials and mix design tests.
- F. Provide material certificates in lieu of material laboratory test reports when permitted by Engineer.
1. Provide material certificates signed by manufacturer and Contractor certifying that each material item complies with or exceeds requirements.
  2. Provide certification from admixture manufacturers that chloride content complies with requirements.
- G. Provide 5' x 5' mock-up of concrete flatwork to match existing colors. In mock-up, include (1) full slab length expansion joint and (1) full slab length construction joint for O.R. review and approval. Utilize existing mock-up for sandblasting stencil artwork for O.R. review and approval. Include options for light, medium, and heavy grit in sandblast mock-up.

1.06 QUALITY ASSURANCE

- A. Comply with latest edition of the following standards and regulations:
1. American Society for Testing and Materials (ASTM).
  2. California Department of Transportation (CALTRANS) Standard Plans (CSP) and Standard Specifications (CSS).
  3. California Building Code latest edition.
  4. Local requirements where they are applicable.
- B. Prevent damage to adjacent concrete pavement and seat walls during installation.
- C. Repair any damage to concrete edges or breaks in concrete at no cost to the Owner, by removal and replacement of complete sections. Chips or cracking of adjacent concrete resulting from demolition and/or installation of new concrete will warrant the full removal and replacement of the damaged concrete flag.
- D. Patching will not be acceptable.
- E. Coordinate on-site inspections of concrete placement, sampling, and testing with O.R.

1.07 SITE CONDITIONS

- A. Submit to Owner in writing any discrepancy between existing conditions and the Contract Documents for coordination with the Engineer.
- B. Commencement of any part of the work shall constitute acceptance of existing site conditions as satisfactory.

## **PART 2 PRODUCTS**

### **2.01 CONCRETE**

- A. Provide concrete materials conforming to the applicable requirements for minor concrete in CSS Section 73 Concrete Curbs and Sidewalks and Section 90 Portland Cement Concrete except as follows:
  - 1. The maximum size of aggregate used for extruded or slip-formed curb construction is optional, but in no case shall the maximum size be larger than 1 inch or smaller than 3/8 inch.
  - 2. The cement content of the minor concrete shall be not less than 470 pounds per cubic yard except that when extruded or slip-formed curbs are constructed using a 3/8-inch maximum size aggregate the cement content shall be not less than 564 pounds per cubic yard.

### **2.02 ADMIXTURES**

- A. Chemical Admixtures: Admixtures, when used, shall be certified by manufacturer to be compatible with other admixtures and that will not contribute water-soluble chloride ions exceeding those permitted in hardened concrete. Do not use calcium chloride or admixtures containing calcium chloride.
  - 1. Water-Reducing Admixture: ASTM C 494/C 494M, Type A
  - 2. Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D
  - 3. High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F
- B. Color/Tone: Color to match existing adjacent concrete: Davis Colors "Palomino" 5447. Color to be reviewed and approved via mock-up to confirm color match to existing.

### **2.03 OTHER MATERIALS**

- A. Concrete Curing Material:
  - 1. Burlap: Conforming to AASHTO M182 with a weight of 14 ounces or more per square yard when dry.
  - 2. Impervious Sheeting: Comply with ASTM C171.
  - 3. Liquid Membrane Curing Compound: Comply with ASTM C309. Provide curing compound free of paraffin or petroleum.
- B. Expansion Joint Fillers: Comply with ASTM D1751 or provide a resin-impregnated fiber-board conforming to the physical requirements of ASTM D1752.
- C. Reinforcement: conforming to the requirements in Section 03 20 00 Concrete Reinforcing.
- D. Dowel bars and epoxy adhesive: conforming to the requirements in Section 03 15 00 Drilled Dowels & Epoxy Anchors.
- E. Concrete forms: conforming to the requirements in Section 03 10 00.
- F. Sandblast Stencils: Design Team to provide artwork files for stencils. Stencils to be fabricated in coordination with Surface Solutions International, Inc.

## **PART 3 EXECUTION**

### **3.01 EXAMINATION**

- A. Examine surfaces and areas to receive concrete to establish acceptable conditions. All drilled and epoxied dowels shall be inspected prior to concrete placement. Failed or misaligned holes shall be repaired per engineer's direction. Do not begin installation until defects have been

corrected. Do not begin installation until O.R. has reviewed and approved formwork and provided written notification to proceed.

### 3.02 SUBGRADE PREPARATION

- A. Remove material deflecting more than 1/2 inch under the roller to a depth of 4 inches below subgrade elevation and replace with an approved granular material, then compact new material.
- B. Test completed subgrade for grade and cross section with a template extending the full width of the flatwork and supported between side forms.
- C. Maintain subgrade in a smooth, compacted condition, in conformity with the required section and established grade until the concrete is placed.
- D. Prepare and protect subgrade to produce a subgrade free from frost and excessive moisture when the concrete is deposited.

### 3.06 CONCRETE PLACEMENT AND FINISHING

- A. Placement:
  - 1. Ensure dowels are embedded in new pour with minimum 6" of cover.
  - 2. Place new concrete only after epoxy has fully cured.
- B. Finishing:
  - 1. Review and approve all finishing via mock-up with O.R. prior to commencing work.
  - 2. When most of the water sheen has disappeared, and just before the concrete hardens, finish the surface to a smooth and uniformly fine granular or sandy texture free of waves, irregularities, or tool marks.
  - 3. Produce a scored surface by brooming with a fiber-bristle brush in a direction transverse to that of the traffic.
- C. Sandblasting:
  - 1. Allow 28 days to elapse after concrete placement before beginning sandblasting.
  - 2. Perform in a continuous operation using the same work crew to maintain continuity of finish.
  - 3. Blast corners and edges of patterns using backup boards.
  - 4. Use same nozzle and nozzle pressure and blasting technique as used for mock-up.
  - 5. Avoid blasting that reveals nozzle path or direction.
  - 6. Maintain control of abrasive grit and concrete dust.
  - 7. Exposed aggregate and surrounding matrix surfaces to match accepted mock-up.
  - 8. Use the same grit as was used for accepted mock-up.
  - 9. Sandblast to obtain required "reveal" (defined as projection of coarse aggregate from the matrix):
    - a. Brush – remove the cement matrix and expose the fine aggregate – no reveal.
    - b. Light – sufficient to expose fine aggregate with occasional exposure of coarse aggregate and to obtain a maximum reveal of 1/16 inch.
    - c. Medium – sufficient to generally expose coarse aggregate with slight reveal – maximum reveal 1/4 inch.
    - d. Heavy – sufficient to generally expose coarse aggregate to a maximum projection of a third of the aggregate diameter. Reveal is 1/4 to 1/2 inch. Surface is rugged and uneven.
  - 10. Sandblast finish between light and medium reveal to match existing concrete mock-up completed by Surface Solutions, Inc.
- D. Edge and Joint Finishing:

1. Finish slab edges, including those at formed joints, with an edger having a radius of 1/8 inch.
  2. Edge transverse joints before brooming. Brooming shall eliminate the flat surface left by the surface face of the edger.
  3. Corner and edges which have crumbled and areas which lack sufficient mortar for proper finishing shall be cleaned and filled solidly with a properly proportioned mortar mixture and then finished.
- E. Expansion Joints:
1. Fill transverse expansion joints with 3/8-inch joint filler strips.
  2. Place joint filler with top edge 1/4 inch below the finish surface.
    - a. Hold in place with steel pins or other devices to prevent warping of the filler during floating and finishing.
    - b. Immediately after finishing operations are completed, joint edges shall be rounded with an edging tool having a radius of 1/8 inch, and concrete over the joint filler shall be removed.
  3. Form expansion joints about structures and features that project through or into the sidewalk pavement, using joint filler of the type, thickness, and width indicated in plans. Install filler to form a complete, uniform separation between adjacent pavement.
  4. Expansion joints to be approved via mock-up prior to proceeding with construction.
- F. Surface Uniformity: Provide a completed surface uniform in color and free of surface blemishes and tool marks.

### 3.09 CURING AND PROTECTION

- A. Cure exposed concrete surfaces by one of the following methods:
1. Mat Method:
    - a. Cover the entire exposed surface with 2 or more layers of burlap; mats shall overlap each other at least 6 inches.
    - b. Prior to placing mats on concrete surface, thoroughly wet with water.
    - c. Continuously keep mats in a saturated condition and in intimate contact with concrete for not less than 7 days.
  2. Impervious Sheeting Method:
    - a. Wet the entire exposed surface with a fine spray of water and then cover with impervious sheeting material.
    - b. Lay sheets directly on the concrete surface and overlap 12 inches when a continuous sheet is not used.
    - c. Provide impervious sheeting at least 18 inches wider than the concrete surface to be cured.
    - d. Securely weight sheeting down with heavy wood planks, or by placing a bank of moist earth along edges and laps in the sheets.
    - e. Sheets shall be satisfactorily repaired or replaced if torn or otherwise damaged during curing.
    - f. The curing sheet shall remain on the concrete surface to be cured for not less than 7 days.
  3. Membrane-Curing Method:
    - a. Cover the entire exposed surface with a membrane-forming curing compound.
    - b. Apply curing compounds in 2 coats by hand-operated pressure sprayers as recommended by manufacturer.
    - c. Apply an additional coat to all surfaces showing discontinuity, pinholes or other defects.
    - d. Concrete surfaces that are subjected to heavy rainfall within 3 hours after curing compound has been applied shall be resprayed.
    - e. Protect concrete surfaces to which membrane-curing compounds have been applied.

- f. Any area covered with curing compound and damaged by subsequent construction operations within the 7-day curing period shall be resprayed.

3.10 BACKFILL

- A. After curing, remove debris; backfill, grade and compact the area adjoining the concrete to conform to the surrounding area in accordance with lines and grades indicated.

3.11 CLEANING AND PROTECTION

- A. Protect completed concrete from damage until accepted.
- B. Repair damaged concrete and clean concrete discolored during construction.
  - 1. Concrete that is damaged shall be removed and reconstructed for the entire length between regularly scheduled joints.
  - 2. Refinishing the damaged portion will not be acceptable.
  - 3. Remove damaged portions and dispose of as directed.

**SECTION 32-13-13 CONCRETE PAVING**

## **SECTION 32-33-00 SITE FURNISHINGS**

### **PART 1 GENERAL**

#### **1.01 RELATED DOCUMENTS**

- A. Provisions of the Contract including Scope of Services Agreement, General Conditions, Supplemental Conditions, and Project Scope Documents apply to this Section.

#### **1.02 RELATED SECTIONS**

- A. Section 05 50 00 – Metal Fabrications

#### **1.03 SUMMARY**

- A. This Section includes the following site work and site furnishings for work in the Tolay Lake Gathering Area.
  - 1. Welcome Signs
  - 2. Fire Ring Cover
  - 3. Custom Metal Gates
  - 4. Custom Metal Shade Structure Panels
  - 5. Add-Alternate 1: Shade Sails
  - 6. Add-Alternate 2: Custom Metal Privacy Screens

#### **1.04 DEFINITIONS**

- A. Owner refers to Sonoma County Regional Parks, which is the lead agency. Owner or Owner's Representative (O.R.) for the project refers to the Sonoma County Regional Parks Engineer, associates, or agents.

#### **1.05 APPLICABLE STANDARDS AND SPECIFICATIONS**

- A. American Society for Testing Materials, (ASTM)
- B. Structural Welding Code, (AWS)

#### **1.06 SUBMITTALS**

- A. Refer to General Conditions for submittal requirements.
- B. Submittal Package: All submittals in this specification section (excluding re-submittals) shall be compiled together and submitted to O.R. as one package.
- C. Product Data: Provide for each type of product indicated. Include construction and fabrication details, material descriptions, dimensions of individual components and profiles, finishes, expiration dates, field-assembly requirements, and installation details.
  - 1. Welcome Sign Frames
  - 2. Fire Ring Cover
  - 3. Shade Sail Fabric (Add-Alternate 1)
- D. Provide samples of the following for review and approval prior to fabrication:
  - 1. Fire ring cover metal (color and finish)
  - 2. Perforated metal panels
  - 3. Shade sail fabric (Add-Alternate 1)

- E. Shop Drawings: Show complete information necessary for the fabrication and installation. Include plan, elevation and detail section cuts. Show jointing, materials, gauges, finishes, hardware and all dimensions. Show adjacent work and show relationship of fabricated assembly to existing adjacent assemblies.
    - 1. Welcome Signs
    - 2. Fire Ring Cover
- 1.07 QUALITY ASSURANCE
- A. Fabricator Qualifications: Firm experienced in successfully producing metal fabrications similar to that indicated for this Project with sufficient production capacity to produce required units without causing delay in the work.
  - B. Welding Qualifications: Qualify welding processes and welding operators in accordance with AWS D1.1, D1.2, and D1.3 as applicable. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved.
- 1.08 PROJECT CONDITIONS
- A. Field Measurements: Check actual locations of stairs and other construction to which metal fabrications must fit by accurate field measurements before fabrication. Show recorded measurements on shop drawings. Coordinate fabrication schedule to avoid delay of work.
- 1.09 DELIVERY, STORAGE, AND HANDLING
- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
  - B. Storage: Store materials in clean, dry area in accordance with manufacturer's instructions. Keep materials in manufacturer's original, unopened containers and packaging until installation.
  - C. Handling: Protect materials and finish during handling and installation to prevent damage.
- 1.10 WARRANTY
- A. Products will be free from defects in material and/or workmanship for a period of three years from the date of invoice.

## **PART 2 PRODUCTS**

### **2.01 SITE FURNISHINGS**

- A. Welcome Sign Frames
  - 1. Metal Approvals: the supplier shall generate individual shop drawings from construction drawings provided by the O.R. Fabrication shall not commence until said shop drawings have been approved.
  - 2. Metal Fabrication: steel substrates shall be machine fabricated in accordance with approved shop drawings and shall exhibit straight lines, square corners and/or smooth bends, and shall be free of twists, kinks, warps, dents, and other imperfections which may affect appearance or serviceability. Curved section shall be formed to smooth and even radii.
  - 3. Exhibit Bases: Steel National Park Service-style Cantilever Exhibit Bases shall accommodate square or rectangular shaped panel sizes from 18 to 60 inches wide and from 12 to 36 inches high. Cantilever Exhibit Bases will include fully framed sign panel with all mounting hardware hidden beneath the base. The custom extruded frame shall have miter cut joints and displays the sign panel at a 30-degree (almost

flat) angle. Cantilever exhibit bases shall have a back plate. Anchor post to engineered concrete foundation per National Park Service | U.S. Department of the Interior NPS UniGuide Sign Standards Visitor Information Sign System VIS and Wayside Hardware Manual, 2017. Paint color: Themec "Campfire Coffee" 1095-63RDA.

4. Anchors, Fasteners, Fittings, and Hardware: corrosion-resistant-coated or non-corrodible materials; commercial quality; tamperproof, vandal and theft resistant; concealed, recessed, and capped or plugged. Provide as required (whether specified or not) for site furnishing assembly, mounting, secure attachment, and vandal resistance.
- B. Fire Ring Cover:
1. Fabricated by Manhole Covers Direct ([manholecoversdirect.com](http://manholecoversdirect.com)), or approved equal.
  2. Cover to be ½" thick 304 stainless steel plate, laser-cut to ¼" depth using artwork files provided by O.R. Cover to be rated for foot traffic.
  3. Cover shall include 2 pick-holes and cover hook/lifter sized to match pick holes and cover weight.
  4. Powder-coat finish. Provide Columbia Coatings texture color swatch set for O.R. selection of color.
- C. Custom Metal Gates:
1. See Section 05 50 00 Metal Fabrications for metal and paint system specifications.
    - a. Paint Color: Themec "Campfire Coffee" 1095-63RDA.
  2. Artwork for laser-cutting panels to be provided by Design Team.
- D. Add-Alternate 1: Shade Sails
1. See Section 05 50 00 Metal Fabrications for metal and paint system specifications.
  2. Fabric:
    - a. Tenshon TS-11 shade sail with stainless steel turnbuckle hardware.
    - b. Color: Desert Sand.
- E. Add-Alternate 2: Custom Metal Privacy Screens
1. See Section 05 50 00 Metal Fabrications for metal and paint system specifications.
  2. Artwork for laser-cutting panels to be provided by Design Team.

### **PART 3 EXECUTION**

#### **3.01 GENERAL**

- A. The aesthetics of all this work is important and as such extra care will need to be taken in the alignment of the materials, bolts and screw heads, and in the general tightness of the joints.
- B. On-site welding prohibited, unless approved by O.R.

#### **3.02 EXAMINATION**

- A. Examine areas and conditions, with Installer present, for compliance with requirements for correct and level finished grade, mounting surfaces, installation tolerances, and other conditions affecting performance.

- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.03 INSTALLATION

- A. Comply with furnishing manufacturers' installation standards, direction, and product manufacturer's written installation instructions, unless more stringent requirements are indicated. Complete field assembly of site furnishings, as required to complete the Work as shown on Plans.
- B. Fire Ring Cover:
1. Place fire ring cover in existing metal frame and ensure top of cover flush with surrounding surfaces.
- C. Custom Metal Gates:
1. Custom metal panels to be attached to existing gate assemblies. Existing gates and hinges require removal from their current position for fabrication. See plans for gate locations and direction for reinstallation.
    - a. Pedestrian Gate at Story Stage 1: Reinstall gates in existing position. Lift and adjust hinges from existing position to allow gates to swing with existing slope. Core and place cane bolts in new location per drawings and O.R. direction.
    - b. Vehicular Gate at Story Stage 1: Reinstall gates with hinges on opposite side to allow gates to swing inward toward the project site. Core and place cane bolts in new location per drawings and O.R. direction.
    - c. Pedestrian Gate at Story Stage 5: Reinstall gates in existing position. Core and place cane bolts in new location per drawings and O.R. direction.
  2. Cane bolt system to be approved by O.R. via shop drawings and onsite review to confirm location of cane bolts prior to drilling or coring concrete.
  3. Fabricator to mechanically attach laser-cut panels to existing gate frame; field welding will not be accepted.
  4. See section 05 50 00 Metal Fabrications for additional fabrication and installation requirements.
  5. Clean surfaces thoroughly prior to installation.
  6. Adjust gates to operate without binding and to ensure a smooth range of motion.
  7. Tolerances:
    - a. Maximum Variation From Plumb: 1/4 inch (6.3 mm).
    - b. Maximum Offset From Indicated Position: 1 inch (25.4 mm).
  8. Adjusting and Protection:
    - a. Touch-up and repair damage to exposed finishes to be indistinguishable from undamaged areas.
    - b. If damage to finishes and components cannot be repaired to be indistinguishable from undamaged finishes and components, replace damaged items.
    - c. Obtain approved coating for repainting surfaces from manufacturer.
    - d. Return and replace items that cannot be repaired or refinished in field.
    - e. Protect installed components and finishes from damage after installation.

- D. Add-Alternate 1: Shade Sails
    - 1. See Section 05 50 00 Metal Fabrications for fabrication and installation requirements.
  - E. Add-Alternate 2: Custom Metal Privacy Screens
    - 1. See Section 05 50 00 Metal Fabrications for fabrication and installation requirements.
- 3.04 CLEANING
- A. After completing the work in this section, inspect all components. Thoroughly clean surfaces; remove spots, dirt, and debris. Clean field welds, bolted connections, marred and abraded surfaces. Repair damaged finishes to match original finish or replace component. Paint and touch-up paint with specified paint system.

**SECTION 32-33-00 SITE FURNISHINGS**



SECTION 03 10 00 - CONCRETE FORMWORK

PART 1 GENERAL

RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.1 SUMMARY

- A. Furnish, install, and remove forms for structural cast-in-place concrete including shoring and form supports.
- B. Work included in this section includes formwork required for concrete for the foundations at Tolay Lake as shown on Drawings.

1.2 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. Cast-in Place Concrete: Section 03 30 00
- B. Cast-in Place Concrete Finishing: Section 03 35 00 (including finish for concrete formed surfaces including patching and curing of concrete.
- C. Concrete Paving: Section 32 13 13

1.3 DEFINITIONS

- A. None.

1.4 CODES AND STANDARDS

- A. The latest editions of the following references, codes, and standards are hereby made a part of this Section and formwork shall conform to the applicable requirements therein except as otherwise specified herein or shown on the drawings. Nothing contained herein shall be construed as permitting work that is contrary to code requirements.
  - 1. "Recommended Practice for Concrete Formwork," ACI 347.
  - 2. California Building Code (CBC), Chapter 19, latest edition.

1.5 ALLOWABLE TOLERANCES

- A. Design, construct, set, and maintain formwork so as to ensure completed work within the suggested tolerance limits specified in ACI 347, Section 3.1.1.

1.6 MATERIALS

- A. Earth / Bedrock Forms: Unless otherwise indicated or required by the Drawings or these specifications, concrete for footings may be placed directly against vertical excavated surfaces provided the material will stand without caving and provided that minimum reinforcing steel clearances indicated on the Drawings are maintained and suitable provisions are taken to prevent raveling of top edges or sloughing of loose material from walls of excavation. Sides of excavation shall be made with a neat cut and the width made as detailed on the Drawings. Where sides are unstable or excavations are not accurately cut, over-excavate to permit placement and removal of formwork.

- B. Fabricated Forms:

1. Exposed Architectural Concrete Not Otherwise Noted or Specified: Plywood, metal, metal framed plywood faced, or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces. Furnish in largest practical sizes to minimize number of joints and to conform to joint system shown on drawings.

If plywood is used, plywood shall comply with U.S. Product Standard PS 1-09 "B-B (Concrete Form) Plywood", Class I, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark. Thickness shall be of sufficient design and strength to hold concrete properly in place and alignment.

2. Chamfer Strips, Reveals, and Score Marks: Extruded polyvinylchloride specifically produced for concrete work; Greenstreak, Vinylex Corp., Preco Industries, Vulcan Metal Products, or approved equivalent.
3. Unexposed Concrete Not Otherwise Specified: Plywood, lumber, metal, or other acceptable material. Provide lumber dressed on at least 2 edges and one side for tight fit. Of sufficient design and strength to hold concrete properly in place and alignment.
4. Framing: At Contractor option subject to meeting necessary strengths and surface tolerances.

C. Form Release Agents:

1. Exposed Concrete Including Surfaces to Receive Paint and Other Coatings: Chemically active type producing water insoluble soaps. Form release agents shall be delivered in manufacturer's sealed and trademarked containers and shall be guaranteed to provide clean, stain-free concrete release and not to interfere with future applied coatings and finishes. Release agents shall contain no petroleum solvents such as creosote, paraffin, waxes, or diesel oil.
2. Concealed Concrete: Contractor option except that release agents shall not interfere with bond of any applied finish.

D. Form Sealer (Wood Forms):

1. MeadowBurke "Form Sealer," or approved equivalent, and of a type which will not interfere with bond of applied finishes.

E. Form Ties:

1. Metal, spreader type, removable to 1" from concrete face. Ties for exposed concrete shall leave smooth 1" diameter conical holes with no spalling upon form removal. Ties for exposed concrete shall be of same type throughout Project. Wire ties and wood spreaders will not be allowed.

F. Cold Joints (Exterior Paving Slab on Grade):

1. Standard 24 GA. galvanized steel, keyed profile, sized to suit slab thickness, punched on permit passage of continuous or doweled reinforcing bars of size and spacing shown on the drawings.

PART 2 - EXECUTION

2.1 PREPARATION

- A. Vertical and Horizontal Controls: Establish and maintain necessary benchmarks, lines, or controls throughout construction.
- B. Secure information and provide for underfloor electric raceways, openings, sleeves, chases, reglets, pipes, recesses, nailers, anchors, ties, inserts, and similar embedded items. Coordinate with concrete work for requirements governing embedment and sleeving of pipes, raceways, and conduits.

## 2.2 CONSTRUCTION

- A. Formwork - General: Construct wood forms of sound material, straight and rigid, thoroughly braced, mortar tight, and of such strength that the pressure of concrete and the movement of men and equipment will not displace them. Visible waves in exposed concrete surfaces after stripping of forms may result in rejection of that portion of the concrete. The design and engineering of formwork shall be the complete responsibility of the Contractor.
- B. Plywood Forms for Exposed Concrete: Plywood panels shall be clean, smooth, uniform in size, and free from damaged edges or faces (including holes other than those required for form ties). Use full panels wherever possible. Make plywood panel pattern regular and symmetrical, joints plumb or level, horizontal joints continuous. Block plywood edges, which do not occur at bearing points in order to eliminate, joint offsets.
- C. Framing and Bracing: Framing, bracing, and supporting members shall be of ample size and strength to carry safely, without excessive deflection (exceeding allowable tolerances), all dead and live loads to which formwork may be subjected, and shall be spaced sufficiently close to prevent any apparent bulging or sagging of forms.
- D. Form Ties: Form ties shall be of sufficient strength and used in sufficient quantities to prevent spreading of the forms. Ties for exposed concrete surfaces shall be arranged symmetrically and shall be aligned both vertically and horizontally (do not stagger), with layout pattern acceptable to Engineer based on Drawing layouts and, where not shown, in accordance with reviewed formwork layout shop drawing submittals.
- E. Forms for concrete shall be constructed full height and width between indicated construction joints or emphasized joints in concrete surface and shall not be broken for pour or construction joints within these areas.
- F. Construct forms no higher than 12" above top of pour or construction joint.
- G. Construction Joints: Construction joints shall be in accord with requirements of Section 033000: "Cast-in-Place Concrete." Confine construction or pour joints to rustication strip locations where they occur; where rusticated joints do not occur in a surface, provide a surfaced pouring strip where construction joints intersect exposed surfaces to provide straight line at joints. Prior to subsequent pour, remove strip and tighten forms. Construction joints shall show no "overlapping" or offsetting of concrete surfaces and shall, as closely as possible, present the same appearance as butted plywood joints. Joints in a continuous line shall be straight and true.

- H. Score Lines: Where "score," emphasized or rustication lines are indicated on vertical surfaces, obtain such lines by accurate placement of moldings in forms. Pieces shall be in longest lengths practical with joints mitered.
- I. Arrange forms to allow proper erection sequence and to permit form removal without damage to concrete.
- J. Form Sealer: Uncoated plywood forms for smooth Architectural Concrete shall be sealed on contact faces and edges using two (2) coats of specified form sealer in strict accord with manufacturer's directions.
- K. Form Release Agent: Thoroughly clean forms and coat with release agent prior to initial use and before each reuse. Apply release agent in strict accord with manufacturer's directions and coverage recommendations avoiding starved areas or excessive applications. Apply release agents reinforcing steel is placed.
- L. Reuse of Forms: Control reuse of forms for exposed surfaces to provide surface of uniform color and texture without sharp demarcation between adjacent surfaces.
- M. Prior to placement of concrete, remove dirt, debris, and foreign material from forms. Leave no wood in concrete except nailers.

### 2.3 FALSEWORK

- A. Contractor shall be fully responsible for proper strength, safety, and adequacy of formwork supports, and bearing surfaces thereof, used on and in connection with the work. Falsework shall be designed to support imposed loads without deformation, deflection, or settlement.
- B. Vertical and lateral loads shall be carried to ground by falsework system, or by the completed structure after it has attained the requisite strength.
- C. Erect shoring and vertical supports so that they cannot tilt or settle. Securely brace inclined shores against slipping or sliding. Cut bearing ends of shores square and with a tight fit at splices. Splices, where used, shall be secure against bending and buckling.

### 2.4 REMOVAL OF FORMS AND FALSEWORK

- A. The removal of forms and falsework shall be carried out in such manner as to ensure the complete safety of the structure. Supports shall not be removed until members have sufficient strength to support safely their own weight and any superimposed loading with proper factor of safety.

- B. Forms for exposed concrete surfaces shall be removed in such a manner as to preclude damage to finishes. Pinch bars and similar tools shall not be used for prying against exposed surfaces. Stripping shall commence at top edge or vertical corner where the use of wooden wedge is possible. Wedging shall be done gradually and shall be accompanied by light tapping on panels to loosen them. When free at one end, gradually loosen remaining area without jerking.
  
- C. After concrete is placed, the concrete shall achieve a minimum of 80% compressive strength and the following minimum times shall elapse before the removal of forms or shoring:
  - 1. Vertical Forms (Walls, Columns, and Beam Sides): 3 days
  - 2. Side Forms (Footings, Slabs on Grade): 48 hours
  - 3. Side Forms (Cantilevered Structural Slabs): 7 days
  - 4. Horizontal Forms (Cantilevered Structural Slabs): 21 days
  
- D. Upon removal of forms, remove bolts, wires, clamps, rod, etc., not necessary to the work to a minimum of 1" from the surface. Conduct operations so as to eliminate the danger of rust stains from form tie materials or other unprotected ferrous materials embedded in or adjacent to exposed concrete surfaces.

END OF SECTION 03 10 00

SECTION 03 15 00 - DRILLED DOWELS AND EPOXY ANCHORS

PART 1 - GENERAL

1.1 SUMMARY

- A. Provide all material, labor, equipment, and services necessary for the installation of all dowels and/or epoxy anchors. The work shall include but not necessarily be limited to the following:
  - 1. Design hole depths to achieve the required test loads for the approved epoxy
  - 2. Drill holes in existing concrete elements for new dowels and/or epoxy anchors.
  - 3. Insert dowels and/or epoxy anchors in holes.
- B. Work included in this section includes dowels and anchors required for concrete for the Tolay Stage and Landscape Site Elements Foundations, including concrete curbs, slabs and foundation concrete as shown on Drawings.

1.2 RELATED SECTIONS

- A. Concrete Reinforcing: Section 03 20 00.
- B. Cast-in-Place Concrete: Section 03 30 00.
- C. Concrete Paving: Section 32 13 13

1.3 QUALITY ASSURANCE

- A. Standards: Comply with the following applicable standards unless otherwise specified herein:
  - 1. CBC - California Building Code, latest edition
  - 2. ICC-ES - "Evaluation Report" of ICC Evaluation Service, Inc
  - 3. ACI 315—American Concrete Institute, "Details and Detailing of Concrete Reinforcement."

4. ASTM A615—American Society for Testing and Materials, “Deformed and Plain Billet-Steel Bars for Concrete Reinforcement.”
  5. ASTM C109—“Compressive Strength of Hydraulic Cement Mortars (using 2-in. or 50-mm Cube Specimens).”
  6. ASTM C309 – “Liquid Membrane-Forming Compounds for Curing Concrete.”
  7. AC 308 – ICC-ES Acceptance Criteria for the testing of Cracked Concrete epoxy anchors in compliance with adapted ACI 318 Appendix D requirements.
- B. Tests and Inspections: Tests and inspections shall be done by Testing Agency.
1. Sampling and Testing
    - a. Reinforcing bar dowels and/or anchors shall be sampled and tested in accordance with ASTM A615 as specified in Section 03 20 00, “Concrete Reinforcing.”
  2. Inspection
    - a. Special Inspection as required by CBC Chapter 17, Section 1705.3 & Table 1705.3.
    - b. Mixing and placing of epoxy and placing of dowels and/or epoxy anchors in the drilled holes shall be continuously inspected by a qualified inspector from the Testing Agency.
  3. Dowel and/or Anchor Testing
    - a. Load-test 10 percent of each size of dowel set each day to tension specified:
      1. Tension Test Loads: Refer to the schedules on the drawings.
      2. Test loads shall be held a minimum of 10 minutes each without slip.
      3. If any one dowel installed in any one day fails this test, all dowels and/or anchors installed that day shall be tested.

4. Do not apply test loads until at least seven days after placement of dowels and/or epoxy anchors, unless approved by Engineer.

#### 1.4 SUBMITTALS

- A. Shop Drawings: Submit shop drawings for Engineer's review. Indicate placing and assembly diagrams for dowels and epoxy anchors, dimensions and details of dowel and anchor, accessories, and cover. Do not scale dimensions from structural drawings to determine lengths of dowels and anchors.
  1. Review of drawings will cover only the general scheme and character of the details, but not the checking of dimensions, nor will such review relieve the Contractor from responsibility for executing the work in accordance with the Drawings.
- B. Manufacturer's Catalog Data for epoxy anchors
- C. ICC-ES Report: Submit Current ICC-ES report showing Cracked Concrete Compliance for each epoxy or adhesive system.
- D. Test and Inspection Reports from qualified inspector
  1. Anchor placement inspection report including all items referenced by ICC-ES report
  2. Anchor pull testing values

#### 1.5 STORAGE

- A. Provide dry and weather tight job site storage of epoxy within temperature ranges required by manufacturer.

### PART 2 - PRODUCTS

#### 2.1 MATERIALS

- A. Epoxy Adhesive
  1. Simpson Strong-Tie:

- a. 'SET-3G' Epoxy for cracked concrete (ICC- ESR-4057).
  - b. 'SET- XP' for grouted hollow masonry (IAPMO UES ER-265).
  - c. 'ET- HP' for URM / red clay brick (ICC- ESR-3638)
2. Hilti Fastening Systems:
- a. 'HIT-HY 200' epoxy concrete anchors for hammer drilled holes and anchors embedded 12 inches or less (ICC-ES Report ESR-3187)
  - b. 'HIT-RE 500-V3' for hammer or core drilled holes and concrete anchors embedded more than 12 inches (ICC-ESR Report 3814)
  - c. 'HIT-HY 270' for grouted and un-grouted CMU (grouted or un-grouted) and URM/ clay brick (ICC-ESR Reports 4143 & 4144)
- B. Reinforcing Bar Dowels and/or anchors
- 1. ASTM A615—Grade 60
- C. Threaded Rods
- 1. Galvanized: F1554 Gr. 55—Threaded full length with standard UNC threads.
  - 2. Stainless steel: ASTM A193 Gr. B7

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Inspect areas to be drilled to verify conditions of access, interferences, and existing materials.
  - 1. Verify location of all existing mild steel reinforcement in existing concrete prior to drilling. Pacometer tests, radiograph tests, or other appropriate tests shall be required to locate steel.
  - 2. Where drilling causes existing concrete to spall or crack, remove unsound materials and replace as directed by the Engineer.

3. Proceed with drilling following removal or replacement of unsound or damaged concrete.
- B. Holes for dowels and epoxy anchors shall be drilled in existing concrete using a rotary hammer drill with a carbide-tipped drill bit.
1. Hole depth shall be in accordance with manufacturer's recommendations as determined by the Contractor to suit the proposed epoxy and to achieve the required test loads. Minimum hold depth shall be indicated in Schedules and Details on the Drawings
  2. Clean hole by blowing out with oil-free compressed air, brushing hole out with a nylon brush and blowing out again with oil-free compressed air.
  3. Mix contents of two cartridges using nozzle as required by manufacturer and inject adhesive into bottom of hole and fill hole approximately half full.
  4. Insert dowel into hole containing adhesive to specified embedment depth. Adhesive should be visible at the top of the hole.
  5. Install dowel strictly in accordance with approved manufacturer's recommendations.
  6. Dowels and/or anchors shall be clean and free of dust, paint, grease, loose mill scale, rust corrosion or any other contaminant that would affect bonding of steel to epoxy.

### 3.2 PROTECTION

- A. Protect dowels or epoxy anchors from displacement or disturbance during curing time specified by the manufacturer, or for at least 24 hours, whichever is greater.
- B. Protect existing exposed surfaces and surrounding area during drilling and placing operations. Clean and/or repair marred or damaged surfaces as directed by the Architect.

### 3.3 CLEAN-UP

- A. Remove from the site all debris resulting from the work of this Section.

END OF SECTION 03 15 00



SECTION 03 20 00 - CONCRETE REINFORCING

PART 1 GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.2 SUMMARY

- A. The work under this section includes all materials, labor, accessories, equipment and related services to furnish and place all reinforcement in cast-in-place concrete construction, as shown on Drawings, as specified herein, and all required accompanying accessories.
- B. Work included in this section includes reinforcement required for concrete for the Stage Base and site foundations including column blockouts and foundations as shown on Drawings.

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. Concrete Formwork: Section 03 10 00
- B. Cast-in-Place Concrete: Section 03 30 00
- C. Cast-in-Place Concrete Finishing: Section 03 35 00 (including finish for concrete formed surfaces including patching and curing of concrete.

1.4 DEFINITIONS

- A. None.

1.5 CODES AND STANDARDS

- A. Code:

Reinforcement shall conform to the requirements of the 2016 California Building Code.

B. Standards:

Perform all work in accordance with the latest editions and revisions of the following standards which hereby become part of this section.

1. American Concrete Institute (ACI):
  - a. ACI 318 "Building Code Requirements for Reinforced Concrete".
  - b. ACI 301 "Specifications for Structural Concrete for Buildings".
  - c. ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete".
2. Concrete Reinforcing Steel Institute (CRSI):
  - a. "Recommended Practice for Placing Reinforcing Bars."
  - b. "Suggested Specifications, Reinforcement, including Provisions for Coated Reinforcing Bars."
3. American Welding Society (AWS):
  - a. 1. AWS D1.1 "Structural Welding Code - Steel".
  - b. 2. AWS D1.4 "Structural Welding Code - Reinforcing Steel".
4. American Society of Testing and Materials (ASTM):
  - a. "Specification for Deformed and Plain Billet-Steel Bars for Concrete Reinforcement" (ASTM A615)
  - b. "Specification for Steel Wire, Plain, for Concrete Reinforcement" (ASTM A82)
  - c. "Specification for Low-Alloy Steel Deformed Bars for Concrete Reinforcement" (ASTM A706)

1.6 SUBMITTALS

- A. None required.

1.7 PRODUCT HANDLING

- A. Delivery: Deliver reinforcement to the job site bundled, tagged and marked. Use metal tags indicating bar size, lengths and other information corresponding to markings shown on shop drawings. Note heat identification requirements for correspondence to mill certificates.

- B. Storage: Store reinforcement at the job-site in a manner to prevent damage and accumulation of dirt and excessive rust.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. All reinforcing shall conform to the requirements of ASTM A615 Grade 60 or ASTM A706 Grade 60, unless otherwise noted on the structural drawings.
- B. Mechanical couplers:
  - 1. Mechanical couplers shall only be used where specifically indicated on the structural drawings.
  - 2. Mechanical couplers shall satisfy the requirements of 2016 CBC and ACI 318 Section 12.14.3 for both Type 1 and Type 2 splices as noted on the structural drawings.
  - 3. Mechanical couplers shall have a current ICBO Evaluation Report which evidences compliance with requirements of these specifications.
  - 4. Mechanical couplers: "Bar-Lock" as manufactured by Bar-Lock Coupler Systems or ICBO approved equivalent.
- C. Headed reinforcing:
  - 1. Headed reinforcing may only be used where specifically indicated on the structural drawings. The connection of the head to the bar shall develop the lesser of 95% of the ultimate tensile strength of 160% of the specified minimum yield strength of the bar.
  - 2. Headed reinforcing shall have a current ICBO Evaluation Report which evidences compliance with requirements of these specifications.
  - 3. Headed reinforcing "HRC 100 series T-headed bars" as manufactured by "Headed Reinforcement Corp", or approved equivalent.
- D. Smooth dowels: ASTM A615 Grade 40, smooth; shop painted with iron oxide zinc chromate primer.
- E. Tie Wire:
  - 1. Black annealed wire, 16 gauge or heavier.
- F. Supports for Reinforcement: Bolsters, chairs, spacers and other devices for supporting, spacing and fastening reinforcement in place:

1. Use wire bar type supports complying with CRSI recommendations, unless otherwise indicated. Do not use wood, brick, and other unacceptable materials.
2. For slabs on grade use supports of precast concrete blocks of size sufficient to resist settlement into soil, but not less than 3 inches square, with embedded plastic coated wires.
3. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with either hot-dip galvanized or plastic protected legs. For this project, soffits and faces of slabs and beams shall be considered as exposed-to-view unless specifically noted otherwise.

### PART 3 - EXECUTION

#### 3.1 FABRICATION

- A. Fabrication of reinforcing bars shall conform to required shape and dimensions, with fabrication tolerances complying with the CRSI Manual and ACI 315. Fabrication shall not commence until shop drawings have been reviewed and returned by the Engineer as appropriate. In case of fabricating errors, do not rebend or straighten reinforcement in a manner that will injure or weaken the material.
- B. Unacceptable materials: Reinforcement with any of the following defects will not be permitted in the work:
  1. Bar lengths, depths, and bends exceeding specified fabrication tolerances.
  2. Bends or kinks not indicated on Drawings or final Shop Drawings.
  3. Bars with reduced cross-section due to excessive rusting or other causes.
- C. Welded splices shall be used only where specifically indicated on the structural drawings. When used, the splice shall have bars butted and welded to develop in tension at least 100 percent of the specified tensile strength of the bar.
- D. Welding of stirrups, ties, inserts or other similar elements to longitudinal reinforcing bars shall not be permitted.

#### 3.2 INSPECTION AND SOURCE QUALITY CONTROL

- A. Contractor to examine the substrate, formwork, and the conditions at which concrete reinforcement is to be placed, and correct conditions which would prevent proper and timely completion of the work. Do not proceed with the work until satisfactory conditions have been obtained.

- B. Contractor shall submit the following to the Special Inspector for all supplied reinforcing steel:
  - 1. Certificates of compliance with specified standards for reinforcing bars.
  - 2. Welding electrodes.
  - 3. Reinforcing bar coating.
  - 4. Certified mill test reports including physical and chemical analysis.
  
- C. Special Inspector will:
  - 1. Collect test reports and certificates of compliance.
  - 2. Review test reports and certificates of compliance for conformance with Contract Documents.
  - 3. Select random samples of reinforcing steel for testing by Testing Laboratory, at the discretion of the Special Inspector.
  
- D. Testing Laboratory will test random samples of reinforcing steel selected by the Special Inspector for compliance with strength, ductility and chemical requirements of ASTM A615 or A706.

### 3.3 INSTALLATION

- A. Comply with the specified standards for details and methods of reinforcement placement and supports, and as herein specified.
  
- B. Clean reinforcement to remove loose rust and mill scale, earth, and other materials which reduce or destroy bond with concrete.
  
- C. Position, support, and secure reinforcement against displacement by formwork, construction, or concrete placement operations. Locate and support reinforcing by metal chairs, runners, bolsters, spacers, and hangers, as required.
  
- D. Place reinforcement to obtain the required minimum coverages for concrete protection. Arrange, space, and securely tie bar supports together with 16 gauge wire to hold reinforcement accurately in position during concrete placement operations. Set wire ties so that twisted ends are directed away from exposed concrete surfaces.
  
- E. Provide sufficient numbers of supports and of strength to carry reinforcement. Do not place reinforcing bars more than 2" beyond the last leg of any continuous bar support. Do not use supports as bases for runways for concrete conveying equipment and similar construction loads.

- F. Splices shall only be made at locations and by the method indicated on the structural drawings. Any proposed alternate location or method must be submitted in writing to the Engineer for approval.
- G. Welding:
1. Welding is not permitted unless specifically detailed on the structural drawings.
  2. Employ shielded metal arc, gas metal arc or flux cored arc method and conform to requirements of AWS D1.4 using qualified procedures.
  3. Welding shall not be done within two bar diameters of any bent portion of a bar which has been bent cold.
  4. Welding of crossing bars is not permitted.
- H. Special Inspector will:
1. Inspect placement of reinforcement for conformance with the Contract Documents as required by CBC Section 1704 and Table 1705.3.

END OF SECTION

SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.2 SUMMARY

- A. Furnish and install cast-in-place concrete required for the Project as shown on the Drawings and specified herein for the site buildings, including the following principal items: Stage Base and Add Alternate: Restroom Screen Foundations. This Section also includes:
  - 1. Concrete including column blockouts and foundation concrete.
  - 2. Curing of formed concrete surfaces.
  - 3. Installation of anchor bolts, hangers, anchors, reglets, plates, inserts, and miscellaneous metal or other materials embedded in concrete.

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. Concrete Formwork: Section 03 10 00 (including erection, stripping, and removal).
- B. Concrete Reinforcing: Section 03 20 00.
- C. Cast-in-Place Concrete Finishing: Section 03 35 00 (including finish for concrete formed surfaces including patching and curing of concrete).

1.4 DEFINITIONS

- A. Architectural Concrete: The term "Architectural Concrete" where used herein shall mean concrete normally exposed to view.

1.5 REFERENCES, CODES, AND STANDARDS The following references, codes, and standards are hereby made a part of this Section and concrete work shall conform to the applicable requirements therein except as otherwise specified herein or shown on the Drawings. Nothing contained herein shall be construed as permitting work that is contrary to code requirements.

- A. "Building Code Requirements for Reinforced Concrete", ACI 318, latest edition.
- B. California Building Code, 2016 Edition, Chapter 19.

1.6 SUBMITTALS:

- A. Submit under provisions of General Conditions.
- B. Product data for proprietary materials and items, including admixtures, pigments, joint fillers, manufactured grouts, curing materials and vapor retarder.
- C. Delivery tickets for each batch of concrete delivered, bearing the following information.
  - 1. Mix identification.
  - 2. Weight of cement, aggregate, water and admixtures, and aggregate size.
- D. Quality Control:
  - 1. Mix design for each concrete mix.
  - 2. Laboratory test reports for concrete mixes.
  - 3. Material certificates for concrete materials, including cements, aggregates and admixtures.
  - 4. Statement of installer/finisher qualifications for Architectural Concrete.

1.7 ENVIRONMENTAL CONDITIONS

- A. Cold Weather Requirements: Comply with ACI 306(R)-16, "Cold Weather Concreting."
- B. Hot Weather Requirements: Comply with ACI 305(R)-10, "Hot Weather Concreting."

1.8 FINISH

- A. Refer to Section 03 33 00 for finishing cast concrete after formwork is stripped.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Cement: ASTM C 150-18, Type II. Cement shall be of same brand, type, and source throughout Project. Where aggregates are potentially reactive, use low alkali cement.
- B. Fly Ash: ASTM C 618 CLASS C OR F, with the following requirements:
  - 1. Fly ash shall be added to all concrete at a 20% minimum up to a 35% maximum rate of replacement by weight of the scheduled amount of cement.
  - 2. Modified ASTM requirements:

- a. Loss on Ignition (L.O.I.): Maximum 1%
- b. Sulfur Trioxide (SO<sub>3</sub>) shall not exceed 3% by weight.
- c. Water requirement – maximum: 100% of control
- d.  $R = \frac{\text{Ca O minus 5\%}}{\text{Fe}_2\text{O}_3}$

R = Sulfate Resistance = 0.75 maximum

$\frac{\text{Ca O}}{\text{Fe}_2\text{O}_3}$  Percentage fly ash oxide analysis

- C. Normal Weight Concrete Aggregate: Aggregate shall be 1" x #4 coarse, clean, uncoated, processed aggregate containing no clay, mud, loam or foreign matter, as follows:

1. Crushed stone, processed from natural rock or stone.
2. Natural or crushed gravel. Do not use pit, bank run, or pea gravel.

Conform to ASTM C-33 uniformly graded, 3/4-inch (19-mm) maximum aggregate size. Source shall be constant unless 10 days' prior notice is given for approval after recheck of mix design.

- D. Water: Clean and potable, free from impurities detrimental to concrete.
- E. Admixtures: The use of admixtures shall be subject to prior approval of the Engineer per ACI 318-14 Section 3.6 Admixtures. Calcium Chloride, Thiocyanates, and admixtures containing more than 0.05% chloride ions by mass of cementitious material are not permitted. Batch admixtures in strict accordance with manufacturer's recommendations.

1. Water-Reducing Admixture: ASTM C 494, Type A.
2. Water-Reducing and Retarding Admixture: ASTM C 494, Type D
3. High-Range, Water-Reducing Admixture: ASTM C 494, Type G.
4. Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II.
5. Color Admixtures: see Section 03 35 00 Cast-In-Place Concrete Finishing
6. Certification: Prior to preparation of mix designs, submit written conformance to above requirements and the chloride ion content of the admixture(s).

- F. Expansion Joint Fillers:

1. Exposed Fillers (On-Grade Slabs and similar flatwork where joints are not otherwise noted or specified): ASTM D 1751-18, preformed, non-extruding strips, 3/8" thick unless otherwise noted, precut to proper size.

- F. Granular Fill: Open graded gravel with maximum ¾-inch (19 mm) aggregate size conforming to Class 2 Aggregate Base as defined in Caltrans Standard Specifications Section 26.
- G. Sand: ASTM C33, uniformly graded, clean sand, free from excessive fines, organic materials, and other deleterious substances.
- H. Non-Shrink Grout (Metallic): Euclid Chemical Co. "Firmix," Master Builders "Embeco 636," Sonnenborn-Contech "Ferrolith G," or approved equivalent, premixed, metallic grout, conforming to Corps of Engineers Spec. CRD-C-621.
- I. Non-Shrink Grout (Non-Metallic): Euclid Chemical Co. "Euco N-S," LM "Crystex," UPCO "Upcon," U.S. Grout Corp. "Five Star," Master Builders "Masterflow 713," or approved equivalent, non-metallic, non-staining, premixed grout having a compressive strength at 28 days of not less than 6,800 psi, non-shrink at all flow levels.
- J. Curing Compounds: Conform to requirements of Concrete Finishes Section
- K. Waterstop: Products listed are by Sika Southern Metal and are specified to establish the required level of performance, quality, and appearance.
  - 1. Provide dumbbell/center bulb waterstops Sika Southern Metal Catalog Number 28DBCB, or approved equivalent.

2.2 MIXES

- A. Mix Designs:
  - 1. Mix designs for concrete shall be Contractor-designed at contractor expense. Designs shall be prepared by a qualified agency approved by the Engineer. Submit mix designs for review by the Engineer at least 2 weeks prior to placing any concrete. Submissions shall completely indicate brands, types, and quantities of admixtures included. If concrete is to be placed by pumping, recommendations of ACI Committee 304 shall be followed.
    - a. Slabs on Grade, Foundations and Retaining Walls (Normal Weight)
      - i. Minimum compressive strength, f'c at 28 days ..... 3,000 psi \*
      - ii. Maximum slump: ..... 4"
      - iii. Maximum water to cement ratio: ..... 0.45

\*note: no special inspection required as f'c (design) = 2,500 psi
  - 2. Mix designs shall be proportioned in accord with Section 4.3, "Proportioning on the Basis of Field Experience and/or Trial Mixtures" of ACI 318-14. Submit mix designs for each class of concrete for review. If trial batches are used, the mix design shall be prepared by an independent testing laboratory and shall achieve a compressive strength 1,200 psi higher than the specified strength.

2.3 SLABS ON GRADE

- A. Place slabs over 4" clean, free-draining crushed rock placed on the prepared subgrade scarified to a depth of 6 inches, moisture conditioned, and compacted to 95% relative compaction. Where subgrade extends into undisturbed bedrock, the subgrade does not need to be scarified and compacted prior to placement of additional fill. Slope subgrade to drain.

PART 3 - EXECUTION

3.1 MIXING: Concrete shall be ready mixed per ASTM C 94-16(b). Equipment shall be adequate for the purpose and kept in good mechanical condition at all times.

- A. The rate of delivery, haul time, mixing time, and hopper capacity shall be such that mixed concrete delivered shall be placed in the forms within 90 minutes or 300 revolutions of the drum from the time of introduction of cement and water to the mixer. Any interruption in placing in excess of 90 minutes or 300 revolutions will cause shutdown of the work for the day and the wasting of any mixed concrete remaining in hoppers or mixers. In case such interruption occurs, the Contractor shall provide construction joints where and as directed and cut concrete back to such line, cleaning forms and reinforcing as herein specified. Delivery tickets shall show departure time from plants. Revolution counters shall be set at "0" and shall commence to operate when drum revolution begins after introduction of all ingredients into the mixer.
- B. No water shall be added to the mix after the initial introduction of mixing water for the batch except when, on arrival at the job site, the slump of the concrete is less than that specified. In this case, additional water may be added from the truck system to bring the slump within required limits. The drum or blades shall then be turned an additional 30 revolutions until the mix is uniform.
- C. Mixers shall be equipped with an automatic device for recording number of revolutions of drum or blades prior to completion of mixing operation.
- D. Concrete shall be kept continuously agitated until discharged into the hopper at the job site.
- E. Contractor shall note that the appearance of concrete surfaces depends upon uniform color and texture within any one area and between adjacent areas and shall exercise strict batching and mixing controls to achieve this end.

3.2 PLACING

- A. Notify Engineer 72 hours (3 working days) minimum prior to placing of any concrete.

- B. Thoroughly wet absorbent forms before concrete is placed. Aggregate base/sand beds for slabs on grade shall be moist but not saturated when concrete is placed.
- C. Placing of concrete shall be done immediately after mixing. No concrete shall be placed or used after it has begun to set and no re-tempering will be allowed. The method used in placing shall be such that concrete is conveyed to place and deposited without separation of the ingredients. Place no concrete with a free unconfined fall in excess of five (5) feet. Concrete shall not be allowed to cascade through reinforcing steel in such a manner as to promote segregation. Do not support runways on reinforcing steel.
- D. Where concrete slab surfaces have obtained 75% of their 28 day compressive strength (56 day for fly ash replacement concrete) and such surfaces are to be used for construction traffic, including concrete buggies and other conveyances, such surfaces shall be protected over traffic lanes by not less than 1 layer of waterproof kraft paper and 1 layer of 5/8" (min.) plywood.
- E. Remove splash or accumulations of hardened or partially hardened concrete. Protect contact faces of forms for exposed concrete from splash during placement of adjacent concrete. Place concrete containing piping and electric raceways in a manner that will prevent damage to them.
- F. Distribution of concrete shall be even and continuous and no placement joints shall show. Before a placement is started, make certain that adequate equipment, workers, and concrete will be available to place in cycles, which will permit proper and thorough integration of each layer of concrete. Upon stopping of a placement, the top surface shall be level.
- G. Place no concrete for any element until reinforcing for same is fastened in place nor until forms are complete. Place no concrete before work that is to be embedded has been set. Notify other crafts so that they may deliver anchors, inserts, etc., or other work to be embedded in ample time and also notify them when their assistance in setting is required. Do not disturb reinforcing or other materials that have been set in place.
- H. Comply with ACI 318-14 chapter 26.8-Embedments for requirements governing embedded conduits and pipe. Sleeves and inserts will be provided and set under other Sections of the work
- I. Remove debris, mud and water from places to receive concrete. Verify depths of any depressed slab conditions for suitability with type and method of surfacing to be applied over concrete.
- J. Remove concrete splash and/or grout from exposed surfaces and from surfaces that will receive painter's finish.

- K. Place no concrete in water unless written permission has been obtained from Engineer as to proposed procedures.

### 3.3 VIBRATION AND CONSOLIDATION

- A. Thoroughly consolidate all concrete by means of internal mechanical vibrators. Such consolidation shall be produced as will be obtained by placing the vibrator directly in concrete at 18" - 30" intervals for a period of 5 to 15 seconds and withdrawing slowly or as directed, depending on the consistency of the concrete. One vibrator will be required for each location where simultaneous placing takes place, to ensure thorough vibrating of all sections. Provide sufficient spare vibrators on the job so as to have them readily available in case any vibrator in use should suddenly cease to function properly. When spare vibrators are employed, provide additional spares. Under no condition shall vibrator be placed against reinforcing steel or attached to forms. Do not use vibrators to transport material.
- B. Vibrators shall be of the flexible immersion type having a frequency of not less than 8,000 RPM. Use and type of vibrator shall conform to ACI 309, "Recommended Practice for Consolidation of Concrete."
- C. Spading will not be permitted on exposed concrete surfaces.
- D. Voids and rock pockets shall be eliminated. Voids and rock pockets occurring in exposed concrete may subject that portion to rejection.

### 3.4 CONSTRUCTION JOINTS

- A. Placement of construction joints and the manner in which they are provided for shall be only as approved by the Engineer or as shown on the Drawings. Construction joints shall be as few as possible and will not be permitted simply to save forms.
- B. Under no condition will construction joints be permitted in Architectural Concrete surfaces other than where specifically shown and specified. See Concrete Formwork Section.
- C. Clean and roughen construction joints by removing entire surface and exposing clean solidly embedded aggregate by means of sandblasting or other approved methods. Clean forms and reinforcing of drippings, debris, etc. Thoroughly consolidate initial pour with grout so that no variation in texture will occur in Architectural Concrete surfaces.

### 3.5 CURING CONCRETE

- A. Curing Concrete shall conform to Section 90-7 "Curing Concrete" of the Caltrans State Standard Specifications. The Curing Compound Method, Curing Compound Method or Forms in Place Method are acceptable methods.

Concrete surfaces exposed to the atmosphere within 7 days of placement shall be protected and cured per Caltrans State Standard Specifications, Section 90-7 "Curing Concrete" and as necessary until specified design strength has been achieved. At greater rates of cement replacement with fly ash the early strength and setting for flat work can be delayed, and in some cases, the 28 day design strength may have to be exceeded to 56 days or more. In this case, the construction needs and schedules may impact the cement replacement percentage. Care should be taken to ensure that proper curing is maintained for concretes in which fly ash has been substituted for a portion of the portland cement.

- B. If forms are permitted to be removed prior to expiration of curing period, exposed concrete surfaces shall be kept continuously wet by means of fog sprays or non-staining cotton or burlap mats kept moist or by approved curing compound. Application of curing compounds shall conform to requirements of Concrete Finishes Section.

### 3.6 EXPANSION JOINT FILLERS

- A. Preformed Filler Joints: Place filler material so that top of surface is level and aligned uniformly 1/4" below adjacent concrete surface. Provide where walks abut vertical surfaces, at not over 24 ft. centers horizontally in paving and at other locations so noted on the Drawings. Follow Drawings for pattern where indicated; where not indicated, coordinate locations with Engineer before proceeding.

### 3.7 GROUTING

- A. Where grouting is required and such grout is exposed in the finished work, use non-metallic, non-shrink grout only.

### 3.8 QUALITY CONTROL

- A. Tests and inspections shall comply with CBC Section 1903 and shall be performed by qualified individuals, engineering companies, or testing laboratories who shall perform those special inspections required by Table 1705.3 of the latest California Building Code, those tests and inspections specified below, and other such tests and inspections as the Engineer and SCRIP may require to establish the acceptability of the work.
- B. Testing and inspection services shall be retained by the SCRIP at its expense, except that when tests or inspections reveal failure of materials to meet contract requirements, costs for subsequent tests and inspections will be deducted from the moneys due the Contractor. Excessive inspection time required by Contractor's failure to provide sufficient workers or to pursue properly the progress of the work shall likewise be deducted from the Contract Price.

- C. Furnish material and handling for test cylinders and any other samples which testing agency requires for analysis of concrete work.
  
- D. Compression Strength Tests to determine Strength and Durability of Concrete shall be provided per ACI 318-14 Chapter 26.12. Concrete test samples: samples for concrete tests shall be taken in accordance with ASTM C 172. Test cylinders shall be cured under conditions not more favorable than the most unfavorable conditions for portions of concrete which specimens represent. Casting and curing on test cylinders shall be the responsibility of the Contractor. Testing of samples shall be carried out by an independent testing agency meeting the requirements of ASTM C 1077. Concrete shown to be defective shall be removed and replaced. Cost of core tests, repairs and removal, and replacement of defective concrete shall be paid by Contractor.

Compressive Strength Tests on concrete shall comply with the following:

1. Frequency of concrete sampling: for concrete [Note choose one of two following options in italics depending on condition] [*A) at or below grade, B) which is part of the lateral force resisting system (shear walls, moment frames, transfer beams, diaphragms, etc.)*] Samples for concrete compressive strength tests of each class of concrete placed each day shall be taken not less than once per day or per batch, nor less than once for every [*A)150, B)10*] yd<sup>3</sup> of concrete, nor less than once for every [*A)5000, B)1000*] ft<sup>2</sup> surface area for slabs or walls. A sample shall consist of [*A) four, B) five*] standard cylinders, one to be tested at 7 days, one to be tested at 14 days, and the remainder to be tested at 28 days, as required.
  
2. Acceptance of concrete shall be based on strength test results of standard cured cylinders in accordance with ASTM C 31 and tested at 28 days in accordance with ASTM C 39. Strength test results are defined as the average of a minimum of two specimens. Additional specimens for testing may be made at contractor's option and expense.
  
3. When cylinders are made, tests of slump, air content, temperature, and density shall be made and recorded with the strength test results.
  
4. Strength of each concrete class shall be deemed satisfactory when the following criterion is met:
  - a. No individual compressive-strength test result (i.e. the average of two cylinders minimum) falls below specified compressive strength by more than 500 psi.
  
5. When compressive strength tests indicate low strength, follow procedure in ACI 318 chapter 5.6.4 investigation of low-strength test results.
  
6. Submit certified test report of cylinders to engineer.

- E. Slump Tests: Slump tests will be performed as per ASTM C143/C143M-10(a) (slump cone) at time of taking test cylinders.
- F. SCRP's testing agency will supervise preparation and selection of samples taken at job site.

\*\*\* END OF SECTION \*\*\*

SECTION 03 35 00 - CAST-IN-PLACE CONCRETE FINISHING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.2 SUMMARY

- A. The work under this section includes all materials, labor, accessories, equipment and related services to finish cast-in-place concrete construction, as shown on Drawings, as specified herein, and all required accompanying accessories.
- B. Work included in this section includes finishing required for concrete for the Tolay Stage including walls, slabs on grade and foundation concrete as shown on Drawings.

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. Cast-in Place Concrete: Section 03 30 00
- B. Concrete Paving: Section 32 13 13

1.4 DEFINITIONS

- A. Architectural Concrete: The term "Architectural Concrete" where used herein shall mean concrete normally exposed to view.

1.5 SUBMITTALS

- A. Product Data: Submit for any specified color treatments.
- B. Samples:
  - 1. Architect's Selection: Where colors, etc. are specified to be selected by Architect from manufacturer's standard range, submit full range for Architect's use.

- 2. Specified Materials and Colors: Submit samples of specified color treatments.
  - C. Comply with submittal requirements listed in Concrete Paving Section 32 13 13.
- 1.6 QUALITY ASSURANCE
- A. Reference Standards apply to this Section and shall be the most current edition of the following:
    - 1. Comply with Reference Standards of Section 03 30 00, Cast-In Place Concrete.
  - B. Requirements of Regulatory Agencies: Comply with air pollution regulations of governing authorities for sandblasting activities and operations.
  - C. Concrete Finishing: Supervised and performed by workmen experienced in concrete finishing operations and capable of demonstrating completion of finishing projects of similar scope and complexity, including the finishing of blast furnace slag replacement concrete.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

- A. Color/Tone: Color to match existing adjacent concrete: Davis Colors "Palomino" 5447. Color to be reviewed and approved via mock-up to confirm color match to existing.
- B. Verify integral color concrete mix design w/ SCRIP, Landscape Architect, and Architect.
- C. See Concrete Paving Section 32 13 13 for concrete paving integral color and admixtures.

## PART 3 - EXECUTION

### 3.1 PRECONDITIONS

- A. Examine surfaces to receive finishing operations and conditions under which they are to be applied or conducted. Correct unsatisfactory surfaces or conditions prior to commencement of finishing operations.

1. Lines and Levels: Ensure that surfaces have been brought to proper lines and levels to produce finish surfaces within specified tolerance and at required elevations.

3.2 WORKMANSHIP

- A. Formed Surfaces: Remove all fins and other projections, fill and patch depressions and plug form tie holes in permanently exposed areas, leave "As-cast" unless otherwise shown or specified.
  1. Grouting of Form Tie Holes: After installation of plugs, fill depression with grout, strike flush with adjacent surfaces.
    - a. Grout Color: Match adjacent concrete color.
  2. Protruding Formwork Nails, Staples, etc. cut off flush with concrete surface, grind smooth.
- B. Slabs: Finish monolithically unless otherwise shown or specified, ensure that an even joint is maintained between successive concrete pours.
  1. Levels: As shown on drawings or as directed by Architect.
  2. Drainage: Slope slabs uniformly to provide positive drainage into floor drains, gutters, etc. where indicated on drawings.
  3. Finishes: As shown on drawings and as specified below.
- ~~C. Chamfer: Provide a 3/4" cast in place chamfer at all exposed edges of walls, beams, ledges, corbels, etc. as shown on plans. Chamfer shall provide a uniform flat edge, at 45 degrees relative to cast concrete surfaces. Verify and coordinate exposed chamfer with Architectural documents. Foundation concrete, permanently below grade need not be chamfered.~~
- D. Radius Corners: Provide 1/2" troweled radius corners on all exposed edges of concrete walls and benches as shown on plans. Verify and coordinate exposed radius corner with Architectural documents. See Concrete Paving Section 32 13 13 for concrete paving radius corners.
- E. Tolerances: Finish concrete to smooth, even surfaces with no abrupt variations, within the following tolerances:
  1. Slabs: In accordance with Reference Standard ACI 302.1R. Verify Flatness and Levelness of slabs using ASTM 1155 or ASTM E-1486 (Waviness Index) equivalent.p

### 3.3 FINISH DESCRIPTIONS

- A. Surface Finish of As-Cast Exposed to View Concrete: Concrete shall have uniform as-cast surface with minimal additional finishing being anticipated or required.
  - 1. Patch voids larger than 3/4 in. wide or 1/2 in. deep, surface blemishes will not be filled.
  - 2. Remove projections larger than 1/8 in. by grinding without marring surface.
  - 3. Fill tie holes and strike flush with adjacent surfaces, except as otherwise noted.
  - 4. Surface tolerance Class A as specified in ACI 117.
  - 5. Mockup of concrete surface appearance and texture required.
  
- B. Broom Finish: After floating operations have been completed and concrete has sufficiently hardened, lightly steel trowel slabs to remove irregularities and, prior to concrete becoming non-plastic, *Smooth Broom Finish* slabs using broom not less than twenty-four (24) inches wide to produce a finished surface free of small pockets, disturbed aggregate or other defects. Obtain EBRPD and Architect approval of sample for texture of final finish before application.
  - 1. Brooming: Produce even texture from edge-to-edge, lap adjacent strokes slightly to produce uniform pattern, perpendicular to the direction of traffic flow unless otherwise shown.

### 3.5 TOOLING

- A. Layout: Locate score lines or control joints where shown on drawings or as directed by Architect.
  
- B. Workmanship: Unless otherwise shown, use tool to produce a groove 6 mm (1/4 inch) wide at the top and 13 mm (1/2 inch) deep with rounded corners. Lines shall be straight, parallel and/or square, with square intersections unless otherwise shown.
  
- C. Edges: Round edges of slabs with tool to match score line corners. See Concrete Paving Section 32 13 13 for concrete paving edges.

### 3.6 PATCHING

- A. General: Minor defects in Cast-In-Place Concrete that do not affect its structural properties or weathertight integrity may be patched if approved by the Architect.
  - 1. Approval: Only defects that, in the opinion of the Architect, can be restored to the specified quality of finish and have a reasonable appearance match may be patched.

- B. Workmanship: Within three days after form removal, when approved by Architect, fill and patch all rock pockets, "honeycomb" voids and other surface defects to achieve specified finish quality.
1. Filling and Patching: Remove any loose material, thoroughly wet area to be patched, fill with fine sand-cement grout and patching mortar, compact and screed to achieve proper levels.
    - a. Form Tie Holes: Unless otherwise shown, fill and patch all form tie holes which would be exposed to view.
  2. Finishing: Match adjacent surfaces and levels.
- C. Final Approval: Areas that have been patched will be re-inspected by the Architect. If the patching has not, in the opinion of the Architect, restored the specified quality and appearance of the surface, the concrete shall be removed to nearest control joints, re-placed and refinished.

\*\*\* END OF SECTION \*\*\*



SECTION 05 05 19 - EXPANSION ANCHORS, SCREW ANCHORS & POWDER-ACTUATED  
FASTENERS

PART 1 GENERAL

1.1 SUMMARY

- A. Provide all material, labor, equipment and services necessary for the installation of all expansion, screw anchors and/or powder-actuated pins. The work shall include but not necessarily be limited to the following:
  - 1. Drill holes in existing and or new concrete elements for new expansion and screw anchors.
  - 2. Install expansion and screw anchors in drilled holes.
  - 3. Tighten the expansion anchors to the required torque.
- B. Work included in this section includes dowels and anchors required for concrete for the Tolay Stage and Landscape Site Elements Foundations including concrete curbs, grade beams, slabs and foundation concrete as shown on Drawings.

1.2 RELATED SECTIONS

- A. Cast-In-Place Concrete: Section 03 30 00.
- B. Concrete Masonry Unit: Section 04 22 00.

1.3 QUALITY ASSURANCE

- A. Standards: Comply with the following applicable standards unless otherwise specified herein:
  - 1. CBC - California Building Code, latest edition.
  - 2. ICC-ES- "Evaluation Report" of ICC Evaluation Service, Inc.
  - 3. ASTM - American Society for Testing and Materials.
  - 4. ASTM E488-18 - Strength of Anchors in Concrete and Masonry Elements.
  - 5. A.C. 193 – ICC-ES Acceptance Criteria for the testing of Cracked Concrete Expansion and Screw anchors in compliance with ACI 318 Chapter 17.

B. Tests and Inspections: Test and inspections shall be done by the Testing Agency.

1. Sampling and Testing

- a. Anchors shall be sampled and identified in accordance with manufacturer's suggested identification method.

2. Inspection

- a. Special inspection as required by CBC Chapter 17, Section 1705.3 & Table 1705.3.

- i. Drilling and placing of anchors in the drilled holes shall be inspected periodically by a qualified inspector from the Testing Agency.

3. Testing

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- a. Test each size and type of anchors to tension loads specified in schedules on the Drawings:

- 1) Test Load 10 percent of the total number of anchors installed each day:

- 2) Testing shall be in accordance with ASTM E488, "Strength of Anchors in Concrete and Masonry Elements."

- 3) Tension Test Loads: Refer to schedules on Drawings or this section for test loads.

- 4) Test loads shall be held a minimum of 2 minutes each with a maximum slip of 1/8 inch

- 5) If any one anchor installed in any one day fails the tension and slip test, all anchors installed that day shall be tested.

- 6) Do not apply test loads until at least two days after anchors are set and torqued.

#### 1.4 SUBMITTALS

A. Shop Drawings: Submit shop drawings for Engineer's review. Indicate placing diagrams for the anchors.

- 1. Review of drawings will cover only the general scheme and character of the anchor layout, but not the checking of dimensions, nor will such review relieve the Contractor from responsibility for executing the work in accordance with the Drawings.

B. Manufacturer's Catalog Data

1. Expansion Anchors, Screw Anchors and Components.

C. ICC-ES Evaluation Reports:

1. Submit Current ICC-ES report showing Cracked Concrete Compliance for Expansion Anchors and Screw Anchors.

D. Test and Inspection Reports from qualified inspector

1. Anchor placement inspection report including all items referenced by ICC-ES report.
2. Anchor pull testing values.

1.5 STORAGE

- A. Provide job site storage in weatherproof and dry enclosure. Protect from contaminants such as grease, oil and dirt.

PART 2 - PRODUCTS

2.1 MATERIALS

A. Expansion Anchors

1. Expansion anchors shall be steel "Wedge Anchors," stud type with wedge clips, tested in accordance with ICC-ES AC 193 and shall have 'Cracked Concrete' compliance.
2. The following "Wedge Anchors" have the minimum ICC-ES/CBC requirements for shear and tension values for use in lightweight aggregate concrete and/or stone aggregate concrete at the tabulated values for anchor diameter, minimum embedment, and concrete strength:
  - a. Simpson Strong-Tie: 'Strong-Bolt 2' (ICC-ESR Report 3037), A316 Stainless Steel finish, w/ exposed bolt painted to match adjacent steel finish.

- b. Hilti Fastening Systems: 'Hilti "Kwik Bolt-TZ' ( ICC-ESR Report 1917), A316 Stainless Steel finish, w/ exposed bolt painted to match adjacent steel finish.

3. Carbon steel anchors shall consist of the following, or equivalent, materials:

- a. Studs - ASTM A1 08, AISI Grade Designation 1010.
- b. Wedge Clips - ASTM A1 08, AISI Grade Designation 1010.
- c. Nuts - ASTM A563, Grade A
- d. Washers - ASTM A1 08, AISI Grade Designation 1010.
- e. Hot-Dip Galvanized Coating with w/ exposed bolt painted to match adjacent steel finish on all items - ASTM A153 or ASTM B695, U.O.N.

B. Concrete & Grouted Masonry Screws

1. Simpson Strong-Tie:

- a. 'Titen HD' for indoor use (ICC-ESR Report 2713 for concrete and ICC-ESR Report 1056 for masonry)
- b. 'Stainless Steel Titen HD' for exterior use (IAPMO UES ER-493 for concrete & ICC-ESR Report 1056 for masonry)

2. Hilti Fastening Systems:

- a. 'KH-EZ' for indoor use (ICC-ES Report 3027 for concrete and ICC- ESR Report 3056 for masonry)
- b. 'KH-EZ SS316' for exterior use (ICC-ES Report 3027 for concrete and ICC-ESR Report 3056 for masonry)

C. Powder Actuated Fasteners

- 1. Simpson Strong-Tie: 'PDP' pins (ICC-ESR Report 2138) for wood and cold formed framing.
- 2. Hilti Fastening Systems: 'X-CP 72 P8' pins for wood (ICC ESR-2379) and 'X-U P8' for cold formed ((ICC ESR-2269)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Inspect areas to be drilled to verify conditions of access, interferences and existing materials.
  - 1. Drilling operations may be limited to particular times of the normal work day.
  - 2. Verify location of all existing mild steel reinforcement in new and/or existing concrete prior to drilling. Use care and caution to avoid cutting or damaging existing reinforcing bars. Pacometer tests, radiograph tests, or other appropriate tests shall be required to locate steel. Maintain a minimum clearance of 1 inch between existing reinforcement and anchors.
  - 3. Where drilling causes concrete to spall or crack, remove unsound materials and replace as directed by the Engineer.
  - 4. Proceed with drilling following removal or replacement of unsound or damaged concrete.

### 3.2 ANCHOR HOLES

- A. Holes for anchors shall be drilled in new and/or existing concrete using a rotary hammer drill with a carbide-tipped bit. Holes shall be same diameter as bolt diameters and holes shall be drilled to the depths indicated on the plans.
- B. Anchor size and embedment shall be as indicated in Schedules and Details on the Drawings or this Section. In no case shall embedment of anchor be less than that shown in the valid ICC-ES Evaluation Report for that particular anchor.
- C. Dust and other contaminants shall be completely removed from holes by blowing with oil-free compressed air.

### 3.3 ANCHOR EMBEDMENT AND TEST LOAD SCHEDULE

- A. Anchors shall be installed with the minimum embedments as indicated in Schedules and Details on the Drawings and be tested to the values noted on the Drawings.

### 3.4 ANCHOR PLACEMENT

- A. Anchors shall be placed and driven in holes to a depth that will provide the minimum embedment.

### 3.5 ANCHOR TIGHTENING

- A. Anchors shall be tightened to the minimum torque values specified in schedules on the Drawings or this Section using torque wrenches or other approved methods for tightening the anchors.
- B. Installation of anchors shall be in strict accordance with manufacturers written recommendations and as directed by the manufacturer's service representative.
- C. Anchors shall set for a minimum of 2 days before any load test can be performed on the anchors.

3.6 PROTECTION

- A. Protect anchors from displacement or disturbance after installation.
- B. Protect existing exposed surfaces and surrounding area during drilling operations. Clean and/or repair marred or damaged surfaces as directed by the Architect or Engineer.

3.7 CLEAN-UP

- A. Remove from the site all debris resulting from the work of this Section.

\*\*\*END OF SECTION\*\*\*

SECTION 05 12 00 - STRUCTURAL STEEL FRAMING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.2 SUMMARY

- A. Provide all materials, labor, equipment and services necessary for the fabrication, erection and completion of all structural steel, including all bracing and shoring required for erection and related work. The work shall include and not necessarily be limited to the following:
  - 1. Tolay Lake Stage Superstructure.
  - 2. Structural steel columns, beams, anchor bolts, base and top plates, connection bolts, welded studs connected to structural steel.
  - 3. Verification of anchor bolt setting and of levels to assure adequate fit of the steel work.

1.3 RELATED SECTIONS

- A. Cast-in-Place Concrete: Section 03 30 00.
- B. Rough Carpentry: Section 06 10 00.

1.4 QUALITY ASSURANCE

- A. Standards: Comply with the following applicable standards unless otherwise specified herein:
  - 1. CBC—“California Building Code,” 2022 Edition and all applicable local Building Codes.
  - 2. AISC-- American Institute of Steel Construction’s “Specification for the Design, Fabrication, and Erection of Structural Steel for Buildings,” latest edition.

3. AISC—American Institute of Steel Construction’s “Code of Standard Practice for Steel Buildings and Bridges,” latest edition.
  4. AWS—American Welding Society’s “Structural Welding Code” AWS D1.1, latest Edition.
  5. “AISC—American Institute of Steel Construction’s “Specification for Structural Joints Using ASTM A325 or A490 Bolts,” latest edition.
  6. ASTM—American Society for Testing and Materials.
  7. SSPC—Steel Structures Painting Council.
  8. ICBO—“Evaluation Report” of ICBO Evaluation Service, Inc.
- B. Tests and Inspections:
1. Contractor shall certify, test and inspect all materials, welding, fabrication and erection in accordance with the requirements of AISC and AWS D1.1 and as noted herein. The Owner will employ a Testing Agency to provide for additional testing and inspections only as noted in the sections below.
  2. Mill analysis and test reports for the steel, certified and properly executed by the manufacturer, will constitute sufficient evidence of conformity with the specifications. Contractor shall identify steel in accordance with CBC Section 2202 as to heat number and furnish the Testing Agency. If the material cannot be identified or its source is questionable, one set of tension and bend tests shall be made by the Testing Agency in accordance with the CBC Section 2202.
    - a. The cost of all tests including sampling and machining of test coupons shall be paid by the Contractor.
    - b. The Contractor shall cooperate with Testing Agency and provide all material required to take coupons for testing, as required by the Engineer.
  3. Certificates of compliance for welding electrodes and shear studs properly executed by the manufacturer(s) shall constitute sufficient evidence of compliance with the specification.
  4. High strength bolts, nuts, washers and thread rods shall be sampled and tested in accordance with the requirements of the specification for High

Strength Bolts for Structural Steel Joints, ASTM A325 or ASTM A490 Bolts.

5. Additional testing required as a result of corrective measures to correct defects shall be paid for by the Contractor.
- C. Welding Inspection by the Contractor: All shop and field welding shall be inspected by the contractor's "Welding Inspector" as defined by AWS D1.1, Section 6.1. Governing Building Code regulations shall not be construed as to alleviate either the Contractor's welding inspector or the Testing Agency from the welding inspection requirements of AWS D1.1. The Contractor's Quality Control Inspector shall be present during all shop and field welding operations, shall inspect the work as required by AWS D1.1, Section 6, shall possess and be familiar with all approved WPSs and shall cooperate with the Testing Agency.
- D. Welding Inspection by the Testing Agency: All shop and field welding shall be inspected by a qualified and certified "Verification Inspector" as defined by AWS D1.1 Section 6.1, employed by the Testing Agency in accordance with AWS D1.1 Section 6 and in accordance with the Special Inspection Requirements of the governing Building Code. This inspector shall confirm the qualification of welders, the use of AWS qualified procedures, the manufacturer's recommended use of automatic equipment and the proper use of preheat. Inspection personnel shall be qualified for non-destructive testing at Level II as specified in Section 6, Paragraph 6.7 of AWS D1.1. The Testing Agency shall submit welding inspector qualifications to the engineer for approval. The Testing Agency shall submit a welding inspection checklist to the engineer for approval.
1. Welder Qualifications: All welders shall be qualified for the work in accordance with AWS D1.1, Section 5, Part C. Except as noted herein, the welders' qualification shall be considered as remaining in effect indefinitely unless there is a specific reason for questioning the welder's ability, in which case welder re-certification may be required. If in the opinion of the Architect, the welder is not suitable for the project, said welder may be disqualified from the project. Field Welders shall be qualified in all processes to be used on-site, in all positions, and on all thickness.
  2. Visual Inspection: Visually inspect all shop and field welding, including the columns, handrails, and supports and/or bracing of finishes and non-structural components. Visual inspection shall be in accordance with AWS D1.1., Sections 5 and 6, and shall include verification of fit up, preheat, calibration of equipment, equipment settings, materials, adherence to approved WPS, interpass temperatures, deposition rates, technique, proper fusion of each pass, ensure the weld is crack free at

each pass, confirm porosity and undercut do not exceed AWS requirements and confirm the final weld profile, and confirm that all special requirements specified herein are adhered to. Visual inspectors shall examine each step of the welding process.

3. Welded Studs: Testing and inspection of steel studs welded to structural steel shall be in accordance with Section 7, Stud Welding, AWS D1.1.
- E. Fabrication Inspection: All fabrication of structural steel shall be inspected by the Testing Agency. This inspection, in addition to the welding inspection requirements specified herein, shall consist of, but shall not necessarily be limited to, the following:
1. Visually inspect steel shapes and plates for existence of defects such as laminations and non-metallic inclusions.
  2. Verify steel materials with mill certificates, particularly where yield strength limits, grain size and/or toughness properties are specified in Section 2.01. Verify weld filler metal materials with certificates and manufacturers recommended limitations.
  3. Review sections used for conformity to dimensional standards specified.
- F. Erection Inspection: All erection of structural steel shall be inspected by the Contractor and the Testing Agency. Provisions under "Fabrication Inspection" and "Welding Inspection" shall apply.
1. All welding shall be inspected by the Testing Agency. Complete and partial penetration welds shall be ultrasonically tested per the provisions under "Welding Inspection."
  2. High strength bolting shall be inspected by the Testing Agency in conformance with the "Specification for Structural Joints using ASTM A325 Bolts" as approved by the Research Council on Riveted and Bolted Structural Joints of the Engineered Foundation.

#### 1.5 SUBMITTALS

- A. Mill Test Reports: Contractor shall furnish certified copies of all mill analysis and test reports covering the chemical and physical properties of the steel for review by the Testing Agency and the engineer.
- B. Certificates of compliance: Contractor shall submit certificates of compliance for bolts, welding electrodes, and shear studs.
- C. Shop Drawings:

1. Contractor shall submit shop drawings showing anchor bolt layout, details of members, their connections, details of weld groove profiles, indication of size and spacing of bolts, and erection plans for the execution of the work showing the marking, and position of each member. Detail drawings shall indicate the position of each member on the framing plans. Shop drawings of details incorporating SR welds shall include explicit references to corresponding approved weld procedure specifications.
  2. Checking by Contractor: Prior to submission of the shop drawings to the Architect/Engineer, they shall be pre-checked by the Contractor for conformity of detail with the Contract Documents and as coordinated with other subcontractors. The signature of a representative of the Contractor indicating that the drawings have been pre-checked will be required. The Contractor shall be wholly responsible for the conformity of dimensions and details of the shop drawings with the Contract Documents.
  3. Review by Architect/Engineer: Provide PDF Digital copies of any shop drawing submittal. After receipt of the shop drawings by the Architect/Engineer, they will be reviewed and necessary corrections will be marked on one copy, which will be returned. One copy shall be retained by the both the Architect and the Engineer. Corrections shall then be made and the drawings resubmitted. This procedure will be continued until the drawings are approved or approved as noted and released for construction. Once approved, if variations between the shop drawings and the original construction drawings (plans & details) exist, the shop drawings shall take precedence.
  4. Submissions: Per Standard Provisions.
  5. Additional copies of the approved shop drawings shall be at the Contractor's expense.
  6. File: At least one copy of each approved shop drawing shall be kept available by the Contractor at the job site. Drawings not bearing evidence of approval and release for construction by the Architect shall not be kept on the job site.
- D. Bolts: Submit manufacturer's data for high strength bolts and direct tension indicator washers.
- E. Review of submittals and shop drawings will cover only the general scheme and character of the details, but not the checking of dimensions, nor will such review

relieve the Contractor from responsibility for executing the work in accordance with the contract drawings.

- F. Provide two (2) paint color samples for approval by Owner and Architect prior to beginning paint coating process.

## PART 2 – PRODUCTS

### 2.1 STRUCTURAL STEEL MATERIALS

- A. Structural Steel shapes and Plates: ASTM A572 Grade 50, typical unless noted.
- B. Rolled steel W and WT sections: ASTM A992, Grade 50.
- C. Channel and angle sections may be ASTM A36.
- D. Rectangular HSS Sections: ASTM A500, Grade B—Cold Formed Structural Tubing.
- E. Steel Pipe: ASTM A53, Grade B.
- F. Round HSS Sections: ASTM A500, Grade B,  $F_y = 42$  ksi,  $F_u = 58$  ksi.

### 2.2 FASTENER PRODUCTS AND MATERIALS

- A. Anchor Bolts for Columns: ASTM F1554.
- B. Machine Bolts: ASTM A307.
- C. High-Strength Bolts: ASTM A325, Connection Type X, N or SC, as indicated on the Drawings.
- D. Direct Tension Indicators: ASTM F959-94A for use with SC bolts.
- E. Welded Steel Studs: ASTM A108, shear studs headed per Section 7, Stud Welding, AWS D1.1.
- F. Connections to Wood Heavy Timber Framing: ASTM A47 Galvanized Malleable Iron washers.

2.3 WELDING PRODUCTS AND MATERIALS

- A. Arc-welding Electrodes: Filler metals shall conform to Table 4.1 of AWS D1.1. Electrodes and equipment settings shall be as recommended by the filler metal manufacturer for the position, thickness or other conditions of actual use. All electrodes and filler metals shall be low hydrogen types.
1. Electrode wire diameter: FCAW wire diameter shall not exceed the values specified in AWS D1.1., Section 4.14.1.
- B. Arc-welding equipment: Equipment for electric welding shall have calibrated meters for voltage and amperage that accurately indicate voltage and amperage quantities at the welding site for the length of the cable to be used. Contractor shall demonstrate to the satisfaction of the Testing Agency the accuracy of the meters, using external meters attached to extension cables of a length that reflects actual project conditions. If equipment meters do not accurately reflect electrical properties at the welding site, external meters shall be used at the welding site and shall be provided but the Contractor at the Contractor's expense.

2.4 COATING PRODUCTS AND MATERIALS

- A. All steel framing shall be painted according to the following specifications:
1. Steel Primer Paint: Tnemec Series 394 PERIMEPRIME at 2.5 to 3.5 mils DFT, or equal meeting VOC requirements for BAAQMD of State Air Resources Board.
  2. Steel Final Coating: Tnemec Series 1095 ENDURA SHIELD Urethane finish at 3.0-5.0 mils DFT.
    - i. Pavilion Steel Structure Color: Tnemec "Campfire Coffee 63RD" or as selected by Architect. Contractor shall provide a range of four (4) color site samples painted on actual metal work for approval by Owner and Architect prior to beginning coating process.
- B. Shop Galvanizing: All items noted on the drawings or specifications as galvanized shall be hot dipped galvanized in accordance with ASTM A123. Thickness of galvanized coating shall be in conformance with ASTM A123.
- C. Galvanizing repair compound shall be All State Galvanizing Powder, Drygalvo, by American Solder and Flux, or approved equivalent.

PART 3 – EXECUTION

3.1 GENERAL

- A. Workmanship and details of structural steel work, unless otherwise specified, shall conform to Uniform Building Code and the AISCC Specification for Design, Fabrications and Erection of Structural Steel for Buildings. The quality of materials and the fabrication of all welded connections shall conform to the American Welding Society's Structural Welding Code, AWS D1.1.
- B. The Contractor shall secure all field measurements necessary for the completion of this work. The contractor shall be responsible for all errors of detailing and fabrication and for the correct fitting of the structural members to each other and to their supports. Provide column anchor bolts and templates for setting under Section 77; this Section to verify location.
- C. All materials both before and after fabrication shall be protected from rust corrosion and shall be kept free from dirt, grease and other foreign matter.
- D. Each framing member shall be free from twists and bends. Holes and all cut and sheared edges shall be neatly made without kinks, butts, and warped edges. All steel left exposed shall be straight, smooth and free of nicks, scars and dents. Exposed welds shall be uniform and neat.
- E. Installation of steel studs, headed for shear connectors and threaded for parts connectors, welded to structural steel, shall be in accordance with Section 7, Stud Welding, of AWS D1.1.
- F. Holes for Bolts: Holes for bolts shall be 1/16 inch larger than the nominal diameter of the bolt. If the thickness of the material is not greater than the nominal diameter for the bolt plus 1/8 inch, the holes may be punched. Holes in thicker material shall be drilled from the solid or sub-punched and reamed. Holes for high-strength bolts shall have all burrs removed by grinding.
- G. Column Bearing Surfaces: Column bases, as required by the AISC specification, and all column bearing surfaces shall be milled to a true plane perpendicular to the axis of the member to assure a complete bearing at the contact face.
- H. Camber: All beams and girders shall be cambered if and as indicated on the Drawings.
- I. Dimensional Tolerances: Fabrication and erection tolerances shall conform to AISC requirements except where closer tolerances are shown on the Drawings.

3.2 WELDING

- A. Welded Connections: Where structural joints are made by welding, the details of all joints, the techniques of welding employed, the appearance and quality of welds made, and the methods used in correcting defective work shall conform to requirements of "Structural Steel for Buildings" of American Institute of Steel Construction and "Structural Welding Code" of the American Welding Society.
- B. Qualification of Welders: Welding operators shall qualified by tests, as prescribed in the "Standard Qualification Procedure of the American Welding Society (AWS D1.1) to perform the type of work required, including process, position and thickness. All welders shall be capable of reading and following the approved written WPS.
- C. General Requirements: All welding shall conform to the following:
  - 1. Equipment: Use equipment which will supply proper current, voltage, etc., as recommended by the manufacturer of electrodes to be used, adjusted to suit arrangement and thickness of base metal. Suitable meters and means of adjustment shall be provided for current and voltage
  - 2. Preparation for Welding: All surfaces shall be clean, free of rust, paint and foreign matter of any kind. Scale shall be removed by wire brush, chipping or hammering as required. Thermal cut edges to be welded shall be chipped clean, and ground at least 1/32 inch to bright metal before welding. Clamp members as required, space and alternate welds all as may be necessary to prevent warping or misalignment.
  - 3. Fitup: Weld joint profiles shall meet dimensional requirements and maximum tolerances specified by AWS D1.1 or as specified in approved Qualification Procedures. Joint fitup that does not comply shall be corrected using approved procedures and approved by the inspector before welding proceeds.
  - 4. Preheat/Interpass/Postheat: Provide minimum preheat and interpass temperatures and Post-heat/Cool Down procedures as required by AWS D1.1, unless otherwise specified herein. Deposition rates shall be controlled to be within minimum and maximum interpass temperatures.
  - 5. Weld Quality: Welds shall present a uniform surface, free of imperfections as defined by AWS, and without undercutting or overlapping and free of excessive oxides, gas pockets and non-metallic inclusions. Welds shall be made with the proper number of beads or

passes to secure sound, thoroughly fused joints. Each deposit shall not exceed 5/16 inch of weld for each pass, nor shall each deposit exceed maximum layer height and bead width specified in AWS D1.1. Each pass shall be cleaned by chipping and wire brushing to remove scale and slag, before placing any additional weld metal.

6. Sequence of Welding: For highly restrained connection and/or weldments, the sequence of welding shall be designed to minimize distortion of the members and to minimize the buildup of internal stresses.
  7. Filler Metal: Filler metal shall conform to Table 4.1 of AWS D1.1. Weld metal shall be thoroughly fused with the base metal along all surfaces and edges of the union. Penetration shall be 1/16 inch minimum and shall be into the root of the joint.
- D. Faculty and Defective Welding: Any welding performed without inspection or contrary to the approved WPS, or showing cracks, slag inclusion, lack of fusion, undercut or other defects as defined by AWS, ascertained by visual or other means for inspection, shall be chipped out and properly replaced by the contractor, and re-inspected by the Testing Agency, all at the Contractor's expense.

### 3.3 ERECTION

- A. Field Connections: Workmanship of field bolted and welded connections shall conform in all respects to methods and tolerances specified for fabrication. Holes shall be cut, drilled or punched to a diameter 1/16" larger than the bolt holes, UON. Holes shall not be burned or enlarged by flame cutting.
- B. All bolted connections shall conform to the AISC and shall use high strength threaded fasteners, UON. High Strength bolted connections shall be made in conformance with the "Specification for Structural Joints using ASTM A325 , heavy hexagonal structural diameter, approved by Research Council of Riveted and Bolted Joints of the Engineering Foundation."
- C. Tighten nuts using wither "Calibrated Wrench" method, "Twist off Element" method, "Turn-of-Nut" method, or by the use of a "Direct Tension Indicator". Minimum bolt tension as per applicable standard ISC "Specification for Structural Joints using ASTM A325 or A490 Bolts" for each bolt type and size used. Washers may be omitted for ASTM A325 bolts when "Turn-of-Nut" method is used.

- D. Column anchor bolts shall be furnished under this Section and set under Section 77, Structural Cast-in-Place Concrete. Anchor bolts shall be Heavy Hex Head ASTM F1554-55 ksi yield strength. Provide washers under nuts and heads.
- E. Metal templates shall be furnished with bolts for setting of all column anchor bolts. The Contractor shall furnish instructions for the setting of anchor bolts and shall ascertain that the items are properly set during the progress of the work.
- F. Column base plates shall be set level to correct elevation, and temporarily supported until the supported members has been plumbed and the column base plate grouted. The entire bearing area under plates shall be grouted solid under Section 77 with non-shrink grout placed in strict accordance with the manufacturer's recommended procedures for 28-day minimum ultimate compressive strength of 5,000 psi.

#### 3.4 FRAMING AND BRACING

- A. All structural steel shall be erected true and plumb. Temporary shoring and bracing shall be used wherever necessary and shall be adequate for all loads to which the structure may be subjected, including wind and erection equipment and operation of same. Leave temporary bracing and shoring in place as long as may be required for safety, and until final framing construction is completed.
- B. No final connections shall be made until the structure has been properly aligned. All temporary flooring, planking and scaffolding necessary in connection with the erection of the structural steel, or support of erection machinery shall be provided as part of the erection work. The temporary floors and scaffolding shall conform to the requirements of all laws governing safety regulations.
- C. Drifting done during assembly shall not distort the metal or enlarge the holes. Mismatching of holes greater than 3/32 inch shall require reaming for the next larger bolt. Mismatching of holes greater than 1/8 inch shall be cause for rejection.

#### 3.5 SHOP PAINTING

- A. General: Shop prime all structural steel work except members or portions of members to be fireproofed or embedded in concrete. Prime embedded steel that is partially exposed on the exposed portions and the initial 2" of embedded areas only. Do not prime contact surfaces that are to be welded or high-strength bolted with friction-type connections or top flanges of beams to which metal decking will be welded.

1. Apply two coats of primer to surfaces that are inaccessible after assembly or erection. Change color of second coat to distinguish it from the first.
  
- B. Surface Preparation: After inspection, clean all steel work to be primed and prime before shipping from the shop. Remove loose rust, mill scale and spatter, slag or flux deposits. Clean all steel, including steel to be fireproofed or embedded in concrete as follows:
  1. Clean steel in accordance with Steel Structures Painting Council's "Painting Manual" for Solvent Cleaning (SSPC-SP 1), either Hand Tool Cleaning (SSPC-SP2) or Power Tool Cleaning (SSPC-SP3) and Commercial Blast Cleaning (SSPC-SP6/NACE 3).
  
- C. Also refer to Part 2.4 – Coating Products and Materials

### 3.6 FIELD TOUCH-UP PAINTING

- A. After installation, all field welds and areas in which shop painting has been disturbed shall receive surface preparation as specified for shop painting.

## PART 4 – DEFECTIVE WORK

### 4.1 GENERAL

- A. Work found to be defective, missing or damaged shall immediately be replaced with proper work. Such replaced work and the inspection for it shall be at the expense of the Contractor.
  
- B. Straightening of any material, if necessary, shall be done by a process and in a manner that will not injure the materials, and which is approved by the Architect. Sharp kinks or bends shall be cause for rejection. Heating will not be allowed.
  
- C. De-lamination and other rolling defects in structural shapes and plates shall be cause for rejection when, in the judgment of the Architect, repairs are not feasible or acceptable.
  
- D. If defects or damaged work cannot be corrected in the field, the material shall be returned to the shop, new parts furnished, as the Architect directs; the Contractor shall replace all work at his own expense.

- E. Beams supporting metal deck that are not in alignment or at the right elevation shall be changed to suit proper support conditions of the metal deck.
- F. Welds completed, or in process, that do not conform to the approved Welding Procedure Specification may be considered defective and shall be repaired at the Contractor's expense.

\*\*\* END OF SECTION \*\*\*



## SECTION 05 50 00 - METAL FABRICATIONS

### PART 1 – GENERAL

#### 1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

#### 1.2 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing metal fabrications made from steel shapes, plates, sheets, bars, strips, tubes, pipes and castings not a part of structural steel or specified in other Sections, including but not limited to the following items:

1. Stage roof panels and connections.
2. Stage vertical screen panels and connections.
3. Add-Alternate 1: Shade Post pipes, plates, and connections.
4. Pulling irons, inserts, and other miscellaneous steel shapes.
5. Miscellaneous angles, plates, bars, rods and other items not specified in other Sections but shown or required to complete the work.

- B. Related Sections:

1. Cast-In-Place Concrete is specified in Section 03 30 00.
2. Cast-In-Place Concrete Finishing is specified in Section 03 35 00.
3. Structural Steel Framing is specified in Section 05 12 00.
4. Metal Panels for Gates, Add-Alternate 1: Shade Sails, and Add-Alternate 2 Restroom Privacy Screen is specified in Section 32 33 00 Site Furnishings.
5. Manufacturer standard specifications for metal screens, panels, and patterns (Basis of Design: BokModern).

#### 1.3 SYSTEM PERFORMANCE REQUIREMENTS

- A. Stage Roof Panels, Stage Vertical Screen Panels, and Shade Sail Poles: See General Structural Notes for loading information. Contractor shall provide

complete in place including fabrication and installation of stage vertical screen panels, stage roof panels, and shade sail poles. Please see loading requirements on Sheet S0.0 General Structural Notes for performance requirements.

#### 1.4 STANDARDS

- A. Except as modified by governing codes and by the Contract Documents, comply with the applicable provisions and recommendations of the following:
1. AWS D1.1 "Structural Welding Code".
  2. AWS D1.2 "Structural Welding Code - Sheet Steel"
  3. ASTM E985 "Standard Specification for Permanent Metal Railing Systems and Rails for Buildings".
  4. NAAMM "Metal Bar Grating Manual".
  5. NAAMM "Pipe Railing Manual".
  6. NAAMM "Metal Stairs Manual".
  7. SSPC "Steel Structures Painting Manual, Volume 2, Systems and Specifications".
  8. Industrial Fasteners Institute "Fastener Standards Book".
  9. ANSI A14.3, ANSI A12.1, ANSI A58.1 and Part 1910 of the Occupational Safety and Health Standards (OSHA) as applicable to stairs, ladders, railings and protection of floor openings.

#### 1.5 SUBMITTALS

- A. Product Data: Submit for Architect's record only manufacturer's specifications, load tables, diagrams, details, data sheets including material descriptions and finishes, preparation instructions and recommendations, and installation instructions for products to be used in metal panels and miscellaneous metal work.
- B. Shop Drawings: Include plans, elevations and details of metal panels and metal fabrications. Show anchorage and accessory items.
1. Metal Panels: Prior to commencement of fabrication, submit detailed shop drawings, showing profiles, sections of components, finishes, and fastening details.
  2. Add-Alt 1: Include plans, elevations, and details of shade poles and related metal fabrications. Show anchorage and accessory items.
- C. Design Data:
1. Metal Panels and Screens: Submit comprehensive structural analysis of

design for the specified loads. Stamp and sign calculations by professional engineer.

- D. Samples:
1. Metal Panels and Vertical Screens: Submit two (2) of each item below for each type and condition shown.
    - a. Provide up to six different powder coat samples for submittal review.
    - b. 3 inch by 6 inch samples of powder coat or 2 inch by 2 inch Kynar color chips.
    - c. Pattern Sample: Submit 2 full size panel samples. Pattern scaling may vary depending on selection.
  2. Add-Alt 1: Provide (2) paint color samples of shade pole finish and color for approval by Owner and Architect prior to beginning paint coating process.
- E. Mock-Up: Provide Mock-Up of Metal Roof Panels and Screens to verify dimensions, fit, tolerances, finishes, and installation methods.
- F. Test Reports: If required, submit test reports from an independent testing agency showing compliance with specified design and performance requirements.
- G. Manufacturer's Installation Instructions.
- H. Manufacturers storage and handling instructions.
- I. Maintenance Data: Manufacturer's instructions for care and cleaning.
- J. Designer's Qualification Statement.
- K. Manufacturer's Qualification Statement.
- L. Installer's Qualification Statement.
- M. Warranty Documentation: Submit manufacturer warranty and ensure that forms have been completed in Owner's name and registered with manufacturer.

## 1.6 QUALITY ASSURANCE

- A. Fabricator Qualifications: Firm experienced in successfully producing metal fabrications similar to that indicated for this Project with sufficient production

capacity to produce required units without causing delay in the work .

- B. Welding Qualifications: Qualify welding processes and welding operators in accordance with AWS D1.1, D1.2, and D1.3 as applicable. Certify that each welder has satisfactorily passed AWS qualification tests for welding processes involved.
  
- C. Metal Panels and Screens Verification and Coordination per Manufacturer:
  - 1. Verify actual locations of walls and other construction contiguous with the work of this Section using field measurements before fabrication. Indicate measurements on Shop Drawings.
  - 2. Embedded Anchor Plates and Structural Connections: Coordinate support sizes and locations.
  
- D. Metal Panels and Screens Engineering:
  - 1. System to be engineered by manufacturer for standard loading criteria and geometry layout.
  - 2. Custom Systems: Structural design to be performed by the manufacturer or a Registered Engineer licensed in the State in which the Project is located.
  - 3. Engineering for assembly will be provided by the manufacturer.
  - 4. Attachment of metal panels and screens to structure to be designed and engineered by manufacturer.
  - 5. See General Structural Notes for loading information.
  
- E. Metal Panels and Screens Pre-Installation Meeting: Schedule and conduct a pre-installation meeting one week before starting work of this section. Attendees shall include, but are not limited to:
  - 1. Contractor.
  - 2. Manufacturer's representative.
  - 3. Architect.
  - 4. Owner's representative.
  - 5. Other subcontractors of adjacent work.

- F. Perform work in accordance with AISC 303.
  - 1. Maintain one copy on site.
- G. Metal Panels and Screens: Installer Qualifications: Company specializing in installation of metal canopy systems with a minimum of five years of documented experience and certified or approved by manufacturer.
- H. Metal Panels and Screens: Manufacturer Qualifications: Company specializing in manufacturing products specified in this section with not less than ten years of documented experience.
- I. Metal Panels and Screens: Fabricator Qualifications: Company specializing in fabrication of products of the type specified in this Section with a minimum of 8 years of documented experience and sufficient production capacity to produce the required units within the Project schedule.

#### 1.7 WARRANTY

- A. Correct defective work within a one-year period after Date of Substantial Completion.
- B. Warranty: Manufacturer's standard one year warranty against defects in materials, fabrication, finishes, and installation commencing on Date of Substantial Completion.
- C. Warranty on Finishes: Provide manufacturer's extended 20-year warranty on finish.

#### 1.8 PROJECT CONDITIONS

- A. Field Measurements: Check actual locations of stairs and other construction to which metal fabrications must fit, by accurate field measurements before fabrication. Show recorded measurements on shop drawings. Coordinate fabrication schedule to avoid delay of work.

#### 1.9 SEQUENCING AND SCHEDULING

- A. Painting: Items specified in this Section as having a shop applied prime coat will be painted as specified in Section 05 50 00, Paragraph 2.6, below.
- B. Powder Coating: Items specified in this Section as having a shop applied powder coat will be coated as specified in Section 05 50 00, Paragraph 2.6, below.

## PART 2 - PRODUCTS

### 2.1 FERROUS METALS

- A. General: Unless otherwise noted in the drawings or specifications, all ferrous metals shall be as identified by type below.
- B. Metal Surfaces: For fabrication of metal work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, roller marks, rolled trade names and roughness.
- C. Steel Plates, Shapes and Bars: ASTM A572 Grade 50, unless otherwise designated. Provide hot-dip galvanized in accordance with ASTM A123. Thickness of galvanized coating shall be in conformance with ASTM A123.
- D. Steel Tubing: Cold formed, ASTM A500, welded or seamless process. Provide hot-dip galvanized tubing in accordance with ASTM A123. Thickness of galvanized coating shall be in conformance with ASTM A123.
- E. Weathering Steel Sheet and Plate: ASTM A606 Type 4.
- F. Galvanized Structural Steel Sheet: ASTM A653, galvanized in accordance with ASTM A525, G90 coating designation.
- G. Steel Pipe: ASTM A53, Type S, Grade A, suitable for close coiling, Galvanized Finish, Extra Strong (XS) weight (Schedule 80S), unless otherwise indicated or required to satisfy performance criteria. Provide hot-dip galvanized in accordance with ASTM A123. Thickness of galvanized coating shall be in conformance with ASTM A123.
- H. Gray Iron Castings: ASTM A48, Class 30.
- I. Malleable Iron Castings: ASTM A47, grade selected by fabricator.

### 2.2 WELDING CONSUMABLES

- A. General: Filler materials and fluxes shall conform to requirements of AWS D1.1; of suitable type for base metals being welded and the intended application. Electrodes and equipment settings shall be as recommended by the filler metal manufacturer for the position, thickness or other conditions of actual use. All electrodes and filler metals shall be low hydrogen types.
  - 1. Electrode wire diameter: FCAW wire diameter shall not exceed the values specified in AWS D1.1., Section 4.14.1

2. For Weathering Steel: Provide 8018-C3, low alloy, low hydrogen electrode, intended for use with weathering steel; or approved equal.

2.3 SHADE STRUCTURE METAL PANELS / SCREENS

- A. Exterior Aluminum Panels / Screens: AA5052-H32 Aluminum Panel, 3/16 inch thick as detailed on the plans.

1. Perforated Aluminum Sheet. Laser Cut Custom Patterns per artwork files provided by Design Team. See drawings.
2. Solid Aluminum Sheet. See drawings.

- B. Manufacturers:

1. Basis of Design: BOK Modern Aluminum Screen Panel AA5052-H32, 0.1875-inch thick. Design Detailed and Shop Fabricated by BOK Modern, Inc., [www.bokmodern.com](http://www.bokmodern.com).
2. Or approved equal.

- C. Additional Provisions: Provide Concealed Structural Supports; isolate aluminum panels from dissimilar metals to prevent corrosion.

- D. Fasteners: ASTM F593 stainless steel or ASTM A307 carbon steel.

- E. Metal Surfaces: Provide materials with smooth surfaces, without seam marks, roller marks, rolled trade names, stains, discolorations or blemishes; unless allowed for specific metal types and finishes.

- F. Accessories:

1. Rod and clevis assemblies, stainless steel.
2. Welding Fittings: Factory- or shop-welded from matching pipe or tube; joints and seams ground smooth.
3. Universal Bracket:
  - a. Stainless steel 2-part bracket. System installed per manufacturer's instructions.
  - b. Finish: Powder coat.
  - c. Color: As selected by Architect from manufacturers standard range.
  - d. Manufacturer: BOK Modern, Inc.; [www.bokmodern.com](http://www.bokmodern.com).
4. Anchors and Fasteners:

- e. Select fasteners of type, grade and class required to product connections for anchoring metal panels to other types of construction indicated and capable of withstanding design loads.
  - f. Provide anchors and other materials as required to attach to structure, made of same materials as railing components unless otherwise indicated; where exposed fasteners are unavoidable provide flush countersunk fasteners.
  - g. Do not use metals that are corrosive or non-compatible with materials joined. Avoid fastening dissimilar materials and separate with isolating hardware where necessary.
    - i. For anchorage to concrete, provide inserts to be cast into concrete for bolt anchors.
    - ii. For anchorage to masonry, provide brackets to be embedded in masonry for bolt anchors.
    - iii. For anchorage to stud walls, provide backing plates for bolt anchors.
    - iv. Posts: Provide adjustable flanged brackets.
  - h. Exposed Fasteners: No exposed bolts or screws.
5. Carbon Steel Bolts and Nuts: ASTM A307.
  6. Hydraulic Expansion Cement: ASTM C1107/C1107M.
  7. Bituminous Coating: Cold-applied asphalt mastic, noncorrosive compound free of asbestos, sulfur, and other deleterious impurities; 0.015 inch ( 0.4 mm ) dry film thickness per coat complying with ASTM D1187.
  8. Sealant: Silicone; black.
  9. Finish Touch-Up Materials: As recommended by manufacturer for field application.
  10. Shop and Touch-Up Primer: SSPC-Paint 15, complying with VOC limitations of authorities having jurisdiction.
  11. Touch-Up Primer for Galvanized Surfaces: SSPC-Paint 20 Type I - Inorganic, complying with VOC limitations of authorities having jurisdiction.
  12. Trim, Closure Pieces, and Flashings: Same material, thickness and finish as decking; factory-fabricated to required profiles.
  13. Grout: ASTM C1107/C1107M; non-shrinking; premixed compound consisting of non-metallic aggregate, cement, water-reducing and plasticizing agents.

G. Delivery, Storage and Handling:

1. Deliver materials in manufacturer's original protective coverings and packaging with corresponding labels and identifying information.
2. Protect materials against damage during transit, delivery, storage, and installation at site. Protect against bending, warping, twisting or surface damage. Store in accordance with manufacturers written instructions and in a dry location.
3. Inspect materials upon delivery for damage. Repair damage to be indistinguishable from undamaged areas; if damage cannot be repaired to be indistinguishable from undamaged parts and finishes, replace damaged items.
4. Deliver materials to project site ready for erection.

H. Fabrication

1. Fabricate assemblies to comply with requirements indicated for design, dimensions, member sizes and spacing, details, finish and anchorage, but not less than required to support structural loads.
2. Fabricate in accordance with approved shop drawings and manufacturers written instructions. Form work true to line and level with accurate angles and surfaces.
3. Assemble in the shop to greatest extent possible to minimize field splicing and assembly.
4. Cut, drill and laser cut metals cleanly and accurately. Remove burrs and ease edges; unless allowed for specific metal types and finishes. Remove sharp or rough areas on exposed surfaces.
5. Cut, reinforce, drill and tap as indicated to receive finish hardware, screws and similar items.
6. Use grommets, bushings and washers or methods as recommended by the manufacturer for separation of dissimilar metals.
7. Provide a complete system ready for erection at project site.
8. Perform welding in accordance with AWS D1.1/D1.1M.

2.4 FASTENERS

A. All Fasteners shall be Hot-Dip Galvanized per ASTM A-153 or ASTM F-2329 or A316 Stainless Steel per ASTM F593 as called out on plans or specifications.

1. Bolts and Nuts: hot-dip galvanized finish, Regular hexagon-head bolts

ASTM A325 (F3125), Type 1, with Heavy Hex Nuts ASTM A563 Grade DH, and flat washers.

2. Machine Screws: stainless steel, ANSI B18.6.3.
3. Lag Bolts: hot-dip galvanized finish, ANSI B18.2.1.
4. Wood Screws: Flat head, stainless steel, ANSI B18.6.1.
5. Plain Washers: Round, hot-dip galvanized finish, ANSI B18.22.1.
6. Lock Washers: Helical, spring type, hot-dip galvanized finish, ANSI B18.21.1.

## 2.5 GROUT

- A. Non-Metallic Shrinkage Resistant Grout: Premixed, nonmetallic, noncorrosive, non-staining, shrinkage resistant product containing selected silica sands, Portland cement, shrinkage compensating agents, plasticizing and water-reducing agents, complying with CE-CRD-C621 and ASTM C1107, free of gas-producing or gas-releasing agents, oxidizing catalysts, inorganic accelerators and chlorides. Provide one of the following:
1. "Euco N-S Grout" (Euclid Chemical Co.).
  2. "Masterflow 928 and 713" (Master Builders Co.).
  3. "Crystex" (L&M Construction Chemicals, Inc.).

## 2.6 PAINT

- A. All steel handrails and railings, including all embedded sleeves and plates to be Duplex System Finish steel. Provide primer and finish paint as supplied by a single manufacturer for the entire project as specified below:
1. Metal Primer For Hot-Dip Galvanized Steel: Compatible with finish coats of paint; shop apply to the respective dry film mil thickness specified: Tnemec Co. Inc. "Series 161HS Tneme-Fascure"; 2.0 – 3.0 mils D.F.T. per Tnemec recommendations, or approved equal.
  2. Exposed to view items to be field painted for repairs shall be primed with a primer compatible with final finish coat.
- B. Galvanizing Repair Paint: High zinc dust content paint for re-galvanizing welds in galvanized steel; Rust-Oleum Corp. "Zinc-Rich Cold Galvanizing Compound", Tnemec 90-93, ZRC Worldwide "Galvalite" or approved equal. VOC content shall not exceed 420 g/L.

- C. Final coats for hot-dip galvanized handrails, guardrails and railings as indicated on drawings: Modified Polycarbamide two shop applied coats: Tnemec Co. Inc. UVX Series 750, 2.0 - 3.0 mils D.F.T. per coat per Tnemec recommendations or approved equal. Submit color samples for approval.
- D. Shade Pole Paint Color: Duplex System: Hot-Dip Galvanized and Shop Painted as specified above (See Appendix for Product Data Sheet).
  - 1. Add Alt 1: Shade Poles: Contractor shall provide four (4) beige brown color site samples painted on actual metal work for approval by OWNER and Architect prior to beginning coating process. Confirm sample colors with Architect prior to ordering. Colors shall include:
    - a. ALT 1: Custom Beige Brown to match Sherwin Williams SW 9108 Double Latte
    - b. ALT 2: Tnemec Mocha 69BR
    - c. ALT 3: Custom Beige Brown TBC by Architect and Landscape Architect
    - d. ALT 4: Cutom Beige Brown to match IFS Coatings Antique Bronze FRSL 46648
- E. Shade Structure Metal Panel Finish per Panel Manufacturer recommendations.
  - 1. Comply with NAAMM's MFM for recommendations for applying and designating finishes.
    - a. Appearance of Finished Work:
    - b. Variations in appearance of abutting or adjacent pieces are acceptable if they are within one-half of the range of approved samples.
    - c. Noticeable variations in same piece are not acceptable except for steel and anodized aluminum.
    - d. Variations in appearance of other components are acceptable if they are within the range of approved samples and are assembled or installed to minimize contrast.
  - 2. Fluoropolymer Coating to meet AAMA 2605:
    - a. Pretreat according to manufacturer's instructions and AAMA 2605 to withstand a minimum of 3000 hours (ASTM B117) or 2000 hours (ASTM G85) salt spray testing.

- b. Apply standard available colors, high volume RAL, or high volume custom color matches in single coat powder finish containing no less than 100% FEVE (fluorinated ethylene vinyl ether) at a minimum of 2.0 mils and process according to manufacturer's recommendations
- c. Apply custom color matches for low volume as a 2-coat 70% min. PVDF (poly vinylidene fluoride) resin fluoropolymer powder or liquid system including specially formulated inhibitive primer where required by manufacturer and top color coat to total dry film thickness of 2-3 mils.
- d. Apply specifically available pallet colors only as a 3-coat system including clear fluorocarbon topcoat using 70% min. PVDF (poly vinylidene fluoride) resin fluoropolymer liquid to total dry film thickness of 2-3 mils.
- e. Perforated and Solid Panel colors shall be selected by the Architect and Owner from manufacturer's complete range. Contractor shall provide a range of four (4) color site samples painted on actual metal work, 4' SQ. panel mockup, for approval by Owner and Architect prior to beginning coating process. Confirm sample colors with Architect prior to ordering. See Section 32 33 00 Site Furnishings for Metal Gate Panel Color and Add-Alternate 2: Custom Metal Privacy Screens Color.
  - i. ALT 1: Custom Beige Brown to match Sherwin Williams SW 9108 Double Latte.
  - ii. ALT 2: Custom Beige Brown to match Tnemec Mocha 69BR.
  - iii. ALT 3: Custom Beige Brown TBC by Architect and Landscape Architect.
  - iv. ALT 4: IFS Coatings Antique Bronze FRSL 46648.

2.7 FABRICATION, GENERAL

- A. Pre-assemble items in the shop to the greatest extent practical. Disassemble only as necessary for shipping and handling.
- B. Use materials of size and thickness indicated or, if not indicated, of required size and thickness to produce adequate strength and durability for intended use.
- C. Welding:
  - 1. Weld corners and seams continuously, making welds as smooth as practical. Grind welds at corners only as necessary to remove sharps. Grind butt welds smooth and flush.
  - 2. Weld in accordance with AWS D1.1 using manual shielded arc method (SMAW), flux cored arc method (FCAW), or gas shielded arc method (GMAW).
  - 3. Weld in accordance with welding procedure specifications (WPS's) for joint.
  - 4. Groove welds shall be complete joint penetration welds, unless designated otherwise on drawings. Groove preparation is at Contractor's option, subject to qualification in accordance with AWS D1.1.
- D. Workmanship:
  - 1. Use materials of size and thickness indicated or required to produce strength and durability in finished product for use intended.
  - 2. Work to dimensions indicated,
  - 3. Form exposed work true to line and level with accurate angles and surfaces and straight, sharp edges.
  - 4. Ease exposed edges to a radius of approximately 1/32-inch, unless otherwise indicated.
  - 5. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work. Weld corners and seams continuously, complying with AWS recommendations. At exposed connections, grind exposed welds smooth and flush to match and blend with adjoining surfaces. Welds shall be imperceptible in the finished work.
  - 6. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners wherever possible. Use Phillips flat - headcounter sunk screws or bolts for exposed fasteners, unless tamperproof security screws are indicated.

7. Cut, reinforce, drill and tap miscellaneous metal work as indicated to receive finish hardware and similar items.
8. Fabricate joints exposed to the weather to exclude water or provide weep holes.

## 2.7 MISCELLANEOUS METAL FABRICATIONS

### A. Miscellaneous Framing and Supports:

1. Provide miscellaneous framing and supports not a part of structural steel framework, as required to complete work.
2. Fabricate to sizes, shapes and profiles shown or required.
3. Fabricate from structural steel shapes and plates and steel bars of welded construction using mitered joints for field connection.
4. Cut, drill and tap units to receive hardware and similar items.
5. Furnish integrally welded anchors for casting into concrete or building into masonry.

## 2.8 DUPLEX SYSTEM FINISH

A. General: All Steel Handrails, Railings, Shade Poles and Guardrails Finish shall be a Duplex System Finish of Shop Powder Coated PER AAMA 2605 over Zinc (Hot-Dip Galvanized) Coated in accordance with ASTM D7803 for all steel railings, guardrails, shade poles and handrails, including tubing, fittings, supports, brackets, sleeves, embedded plates, fasteners, and all other ferrous components. See Appendix for Product Data Sheets.

### B. Surface Preparation:

1. Remove oil, grease and similar contaminants in accordance with SSPC SP-1 "Solvent Cleaning", prior to any additional surface preparation specified.
2. Clean and prepare metal surfaces. Remove weld splatters, rust and loose mill scale in accordance with SSPC SP-3 "Power Tool Cleaning".
3. Remove remaining mill scale and rust by methods specified in SSPC-SP 8, "Pickling". Power tool cleaning and pickling may be omitted from work fabricated from castings, provided surfaces are not heavily rusted.
4. Commercial Blast Clean the surface in accordance with SSPC SP-6 "Commercial Blast Cleaning" once surfaces have been degreased and mill

scale removed.

5. Weld seams, metal slivers and sharp edges revealed by the blasting process shall be ground down.

C. Galvanizing: Provide zinc coating for items indicated or specified to be hot-dip galvanized, as follows:

1. Comply with ASTM A123 for galvanizing both fabricated and unfabricated iron and all steel products made of uncoated rolled, pressed, and forged shapes, plates, bars, pipes and strip 1/8 in. thick and heavier and for assembled steel products.
2. Comply with ASTM A153, Classes A and B, for galvanizing iron and steel hardware.

D. Shop Applied Coatings (over Galvanized Coatings):

1. General: Duplex System powder coating shall provide corrosion protection, UV color as well as sheen stability. Apply per manufacturer's recommendations: Tnemec Inc. Representative Contact: Carl J. Bowers of Amos and Associates, (415) 264-7528, cbowers@tnemec.com.
2. Shop paint miscellaneous metal work, except members or portions of members to be embedded in concrete or masonry, surfaces and edges to be field welded and stainless steel, unless otherwise specified.
3. Surface Preparation (of Galvanized Surface): Prepare galvanized metal surface in accordance with ASTM D6386 or D7803 as applicable to remove all loose zinc oxide or zinc hydroxide particles and to prevent all adhesion problems from occurring.
  - a. Remove oil, grease and similar contaminants in accordance with SSPC SP-1 "Solvent Cleaning", prior to any additional surface preparation specified.
  - b. All hot-dip galvanized metal Guardrails, Handrails and Railings shall be Brush-Off Blasted before painting in accordance with SSPC-SP16 to create no less than a 1.0 mil dense and uniform surface profile / anchor pattern. Surfaces shall be clean, dry and roughened.
4. Application: Do not coat/paint when ambient temperature is below 40 degree Fahrenheit. Paint in dry weather or under cover; paint over dry rust-free surfaces. Stir paint and keep at uniform consistency during application. Apply paint by spray per manufacturer's directions to a dry film thickness of not less than 1.5 mils (approximately 370-375 SF of surface per gallon); do not thin paint in excess of manufacturer's recommendations. Allow paint to dry before

handling or shipment.

5. Immediately after surface preparation, spray on a maximum of two (2) shop applied coats of primer to all fabricated metal items in accordance with manufacturer's instructions, at a rate of 2.0 mils D.F.T. thickness for each coat. Use painting methods which will result in full coverage and dry film thickness specified.
6. Spray on two (2) final shop applied coats at a rate of 2.0 – 3.0 mils D.F.T. thickness for each coat of finish paint to entire surfaces as noted or specified. Change color of second coat to distinguish it from the first coat. Use painting methods which will result in full coverage and dry film thickness specified.
7. Separate dissimilar metals with one coat of dielectric separator. Do not extend coating onto exposed or finished surfaces.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Coordinate and furnish anchorages, setting drawings, diagrams, templates, instructions, and directions for installation of anchorages, such as concrete inserts, sleeves, anchor bolts and miscellaneous items having integral anchors.
- B. Metal Panels:
  - 1. Examine substrates and site area for conditions that might prevent satisfactory installation.
  - 2. Verify that foundation, electrical utilities, and placed anchors are in correct position.
  - 3. Verify that bearing surfaces are ready to receive this work.
  - 4. Do not proceed with installation until all conditions are satisfactory.
  - 5. Verify that dimensions of supporting structure are within plus/minus 1/8 inch ( 3.175 mm ) of dimensions indicated on shop drawings.
  - 6. Verify that all adjacent painting and other work that might affect canopy finish has been completed prior to installation.
  - 7. Notify Architect immediately of conditions that would prevent satisfactory installation.
  - 8. Do not proceed with work until detrimental conditions have been corrected.
  - 9. Furnish components to be installed in other work to installer of that other work, including but not limited to blocking, sleeves, inserts, anchor bolts, embedded plates, and supports for attachment of anchors.

### 3.2 INSTALLATION

- A. General:
  - 1. Fastening to In-Place Construction: Provide threaded fasteners for concrete inserts, toggle bolts, through-bolts, lag bolts, wood screws and other connectors as required.
  - 2. Cutting, Fitting and Placement:
    - a. Perform cutting, drilling and fitting required for installation of miscellaneous metal fabrications.
    - b. Set work accurately in location, alignment and elevation, plumb, level, true and free of rack, measured from established lines and

- levels.
  - c. Provide temporary bracing or anchors in formwork for items to be built into concrete, masonry or similar construction.
3. Fit exposed connections together forming tight hairline joints.
- a. Weld connections not shop welded.
  - b. Grind exposed joints smooth and imperceptible, and touch-up shop paint coat.
  - c. Do not weld, cut or abrade the surfaces of exterior units which have been hot-dip galvanized after fabrication, and intended for bolted or screwed field connections.
4. Field Welding: Comply with AWS Welding Code for procedures related to field welding as related to appearance and quality of welds made and for methods used in correcting welding work. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals. Obtain fusion without undercut or overlap. Remove welding flux immediately. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and contour of welded surface matches those adjacent.
5. Install prefabricated items in accordance with manufacturer's instructions.
- B. Setting Loose Plates:
- 1. Clean concrete bearing surfaces of bond-reducing materials, and roughen to improve surface bond. Clean bottom surface of bearing plates.
  - 2. Set loose leveling and bearing plates on wedges, or other adjustable devices.
  - 3. Tighten anchor bolts after the bearing members have been positioned and plumbed.
  - 4. Cut-off protruding ends of wedges flush with the edge of the bearing plate before packing with grout.
  - 5. Use metallic non-shrink grout in concealed locations where not exposed to moisture; use non-metallic non-shrink grout in exposed locations.
  - 6. Pack grout solidly between bearing surfaces and plates to ensure no voids remain.
- C. Steel Posts:

1. Space posts as indicated on plans.
2. Plumb posts in each direction.
3. Attach posts to steel collars as indicated on plans.

C. Metal Panels:

1. Comply with Drawings and manufacturer's written instructions.
2. Set panels level, plumb, with uniform joints, and in alignment with adjacent work as indicated.
3. Mechanically secure panels to supporting structure.
4. Fit exposed connections together to form tight, hairline joints per manufacturers recommendation for seismic movement or thermal expansion and contraction.
5. Do not cut or trim members without approval of manufacturer; do not install damaged members.
6. Adjust before anchoring to ensure alignment at abutting joints.
7. Use manufacturer's hardware for connections.
8. Attach securely in place using anchorage devices and fasteners as approved by Engineer of Record.
9. Conceal anchor bolts and screws whenever possible. Where not concealed, use flush countersunk fastenings.
10. Coat concealed surfaces of steel that will be in contact with grout, concrete, masonry, wood or dissimilar metals, with a heavy coat of bituminous paint.
11. Universal Bracket: Install per manufacturers printed instructions.
12. Weld connections that cannot be shop welded due to size limitations.
  1. Weld in accordance with AWS D1.1/D1.1M.
  2. Match shop welding and bolting.
  3. Clean welds, bolted connections, and abraded areas.
  4. Touch up shop primer and factory-applied finishes.
  5. Repair galvanizing with galvanizing repair paint per ASTM A780/A780M.
13. Isolate dissimilar materials with bituminous coating, bushings, grommets, or washers to prevent electrolytic corrosion.
14. Touch-up damaged finish coating using material provided by manufacturer

to match original coating.

15. Provide the services of the manufacturer for field observation of installation.

### 3.3 TOLERANCES

#### A. Vertical Metal Screens:

1. Maximum Variation from True Position: 1/8 inch (3 mm).

2. Maximum Offset From True Alignment: 1/8 inch (3 mm).

#### B. Roof Metal Panels:

1. Maximum Variation from True Position: 1/8 inch (3 mm).

2. Maximum Offset From True Alignment: 1/8 inch (3 mm).

### 3.4 ADJUST AND CLEAN

A. Immediately after erection, thoroughly clean surfaces, clean field welds, bolted connections, marred and abraded surfaces. Paint and touch-up paint with the specified paint system.

B. Touch up galvanized surfaces in accordance with ASTM A780.

#### C. Metal Panels and Screens:

1. Metal: Clean exposed metal finishes with potable water and mild detergent, in accordance with manufacturer recommendations; do not use abrasive materials or chemicals, detergents, or other substances that may damage the material or finish.

2. Touch-up and repair damage to exposed finishes to be indistinguishable from undamaged areas.

3. If damage to finishes and components cannot be repaired to be indistinguishable from undamaged finishes and components, replace damaged items.

4. Obtain approved coating for repainting surfaces from manufacturer.

5. Return and replace items that cannot be repaired or refinished in field.

6. Protect installed components and finishes from damage after installation until Date of Substantial Completion.

\*\*\* END OF SECTION \*\*\*



SECTION 06 10 00 - ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.2 SUMMARY

- A. Work Included: Rough carpentry, light hardware, and miscellaneous items of work not included in another Section. This Section also includes:
  - 1. Wood cants, stops, and nailers for roof as may be required.
  - 2. Wood blocking, backing, and nailers for flashings and sheet metal work.

1.3 RELATED WORK SPECIFIED IN OTHER SECTIONS

- 1. Concrete Formwork: Section 03 10 00
- 2. Structural Steel Framing: Section 05 12 00

1.4 DEFINITIONS

- A. None

1.5 REFERENCES, CODES AND STANDARDS

The following references, codes and standards are hereby made a part of this Section and carpentry work shall conform to the applicable requirements therein except as otherwise specified herein or shown on the Drawings. Nothing contained herein shall be construed as permitting work that is contrary to code requirements.

- A. "Standard Grading and Dressing Rules #17," of the West Coast Lumber Inspection Bureau, Current Edition, with current supplements.
- B. "Western Lumber Grading Rules," of the Western Wood Products Assn., current edition, with current supplements.
- C. "Plywood Design Specification" PS1, American Plywood Association, Current edition.

- D. American Wood Protection Assn. (AWPA) UCS Standard, "User Specification for Treated Wood U1-07".
- E. American Wood Protection Assn. (AWPA) UCS Standard "Processing and Treatment Standard T1-07".
- F. American Wood Preservers Bureau (AWPB) Quality Control Standards.
- G. Factory Manual "Loss Prevention Data No. 1-49-Perimeter Flashing", latest edition.
- H. Underwriters Laboratories Inc. (UL), ASTM E 84.
- I. California Building Code, Current Edition, Chapter 23.

1.6 QUALITY ASSURANCE:

Lumber and plywood shall be grade or quality marked by WWPA, WCLIB, APA, AWPA, UL 30 Min. ASTM E 84 test or by other grading and inspection agencies acceptable to the Engineer. Grade marks shall include the designation "S-DRY" (or "MC-15" as applies) where applicable. Grade and quality marks shall not be apparent on surfaces exposed in the finish work.

1.7 PRODUCT STORAGE

Store kiln dried materials, in enclosed areas, protected from moisture and separated from contact with concrete or soil.

1.8 SUBMITTALS

- A. Provide documentation certifying that wood products were obtained from forests verified by an FSC accredited certification body. Include statement indicating costs.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Temporary Construction: Clean lumber at Contractor's option, rough or smooth as usage requires, strength as required for purpose.
- B. All Exterior Exposed lumber: Western Red Cedar No. 2 or Better Clear, S4S, no

knots or Sap. Fire-Retardant Treated (F.R.T.). Stain finish as specified in Section 06 40 00

- C. Rough Hardware: All hardware to be hot-dipped galvanized or stainless steel.
1. Bolts and Nuts: ASTM A 307 (a) and A 563 (a), Grade A.
  2. Lag Bolts: Fed. Spec. FF-B-561.
  3. Nails: Fed. Spec. FF-N-101, common unless otherwise noted or specified.
  4. Powder Actuated Fasteners: Hilti, Simpson Strong Tie, or approved equivalent, unless otherwise noted, galvanized.
  5. Heavy Timber Column Only Connection Washers: Malleable Cast Iron Hot-Dip Galvanized Washers, Portland Bolt or approved equal.
  6. Round Plate Washers: ASTM F844, Current Edition.
  7. Expansion Bolts: Simpson Strong Tie, Hilti, or approved equivalent. See also Section 03255 – Expansion Anchors
  8. Self Tapping Screws: Stainless steel screws.
  9. Self Drilling Screws: Simpson Strong Tie SDS galvanized wood screws, or approved equivalent.
- D. Pressure Treatment (Decay and Termite Prevention):
1. Pressure treat for decay and termite prevention, wood materials, which are embedded in or set against concrete, masonry, plaster, or roofing, or where otherwise exposed to continuing dampness or moisture required by California Building Code. Where materials are also required to be treated for fire retardance, fire retardant shall be in lieu of decay and termite treatment.
  2. Treat in accord with Reference Standard 1.02 D and E quality marked as per Reference Standard 1.02 F.
  3. Treat with either of the following processes at Contractor option except do not use waterborne salts where wood is in contact with built-up roofing and other bituminous products. Creosote type preservatives are not permitted.
    - a. Alkaline Copper Quaternary (ACQ) 0.6 retention or ACZA.

- b. Members treated with waterborne salts shall be dried to a moisture content not exceeding 19% after treatment.
- 4. Where possible, pre-cut material before treatment.
- 5. Holes and cut-offs and handling and storage shall be in accord with AWPA M-4.
- 6. Ensure that ferrous metal fastenings and items in contact with wood treated with waterborne salts are hot dip galvanized (1.25 oz. coating).

## 2.2 MOISTURE CONTENT

At time of closing in: 15% maximum for 2x thickness or less; 19% maximum for thickness greater than 2x, and 22% maximum thickness greater than 4x.

## 2.3 SIZES

Surfaced to "Dry" sizes. Sizes noted are nominal unless shown as net.

## 2.4 SURFACING

S4S unless noted or specified elsewhere.

## PART 3 - EXECUTION

### 3.1 ERECTION AND INSTALLATION:

- A. Connections and Fastenings: Conform to Sec. 2311, California Building Code, unless otherwise specified or shown on the Drawings, conform to minimum nailing requirements of Table 23-I-Q. For bolted connections, provide washers under heads and nuts bearing on wood, and draw nuts tight. Retighten before closing in framing.
- B. Coordinate with Roofing Section and provide treated cants, stops, roof drains and flashings in accord with roofing manufacturer's requirements. Fit cant strips flush at ends and to wall surfaces corner mitered.
- C. Wood cants, blocking, backing, and nailers for perimeter sheet metal flashings shall be anchored in accord with recommendations contained in Reference Standard 1.02 G.
- D. Framing: Conform to CBC Sec. 2326 where same covers points not indicated in the

Drawings. Properly lay out framing with pieces closely fitted, accurately plumbed, leveled and aligned, and rigidly secured in place. Select plates free from perceptible variations from straight line.

- E. Except as specifically shown on Structural Drawings, cutting of all wood joists, beams, wall framing, etc., is limited to those cuts permitted by CBC Secs. 2306.2.2, 2326.11.9, and 2326.12.4.
- F. Any wood located nearer than 8 inches to the earth shall be treated wood or wood of natural resistance to decay. CBC Section 2317.4.
- G. Positive connection shall be provided between post and beam or girder construction per CBC Section 2324 and 2326.7.
- H. All materials shall be approved grade and identified by a grade mark. CBC Section 2305.
- I. Minimum nailing of structural members shall be in accordance with CBC Table 23-1-Q CBC Section 2305.

\*\*\* END OF SECTION \*\*\*



SECTION 06 40 10 - EXTERIOR ARCHITECTURAL WOODWORK

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions and Special Provisions, and other Technical Specification Sections apply to this Section.

1.2 DESCRIPTION

- A. This Section describes the requirements for furnishing and installing exterior architectural woodwork items including the following:

- 1. Exterior columns.

- B. Related Sections:

- 1. Metal fabrications are specified in Section 05 50 00.

- 2. Furring, blocking, shims, nailers, and other carpentry not exposed to view is specified in Section 06 10 00.

1.3 DEFINITIONS

- A. None.

1.4 SUBMITTALS

- A. Product data for each type of product and process specified in this Section and incorporated into items of architectural woodwork during fabrication, finishing, and installation.

- B. Shop drawings showing location of each item, dimensioned plans and elevations, large-scale details, fasteners, plates, attachment devices, and other components including:

- 1. Apply "WI Certified Compliance Label" to first page of shop drawings.

- C. Samples for verification purposes of the following:

- 1. Lumber for transparent finish in form of exterior wood stain, 50-square

inches, for each species, with one half of exposed surface finished with coating specified in Section 06 40 10, Paragraph 2.9.

2. Lumber and panel products for factory-applied opaque finish, 8-1/2inches by 11-inches for panels and 50-square inches for lumber, for each finish system and color, with one half of exposed surface finished with coating specified in Section 06 40 10, Paragraph 2.9.
- D. Product certificates signed by woodwork manufacturer certifying that products comply with specified requirements.
- E. Qualification data for firms and persons specified in "Quality Assurance" article to demonstrate their capabilities and experience. Include list of completed projects with project names, addresses, names of Architects and Owners, and other information specified.
- F. Submittals:
1. Provide chain-of-custody certificates certifying that products specified to be made from certified wood comply with forest certification requirements. Include evidence that mill is certified for chain of custody by an FSC-accredited certification body. Include statement indicating costs for each certified wood product.

#### 1.5 QUALITY ASSURANCE

- A. **Manufacturer Qualifications:** Firm experienced in successfully producing architectural woodwork similar to that indicated for this Project, with sufficient production capacity to produce required units without causing delay in the work.
- B. **Single-Source Responsibility for Fabrication and Installation:** Engage a qualified manufacturer to assume undivided responsibility for woodwork specified in this section, including fabrication and installation.
- C. **Installer Qualifications:** Arrange for installation of architectural woodwork by a firm that can demonstrate successful experience in installing architectural woodwork items similar in type and quality to those required for this project.
- D. **WI Quality Standard:** Comply with applicable requirements of "Manual of Millwork" published by Woodwork Institute (WI) unless otherwise indicated. Issue WI Certificates of Compliance certifying that items comply with Wire requirements for WI grade specified.

- E. Exterior wood shall comply with the requirements of California Building Code (CBC) Section 701A.3.2 and the requirements of the Wildland-Urban Interface Fire Area designated by the enforcing agency.

#### 1.6 ENVIRONMENTAL QUALITY ASSURANCE

- A. Wood Products: Shall originate in forests that are certified well-managed by an agency accredited by the Forest Stewardship Council (FSC), 202.342.0413.
  - 1. FSC-accredited certifying agencies include the following:
    - a. Smart Wood Program administered by the Rainforest Alliance, 802.434.5491.
    - b. Forest Conservation Program administered by Scientific Certification Systems, 510.832.1415.
    - c. For a complete list of internationally accredited agencies, visit [www.fscoax.org](http://www.fscoax.org).
  - 2. Well-managed shall mean forests that are being managed through professionally administered forestry management and logging plans that ensure regeneration of desired species so that timber growth equals or exceeds harvesting rates in both quantity and quality over the long term. Other considerations include protecting rivers and streams from degradation, minimizing damage to the forest when harvesting, promoting biodiversity, operating in concert with the lawful interests of local populations, and maximizing both the yield and value of the forest products.
- B. Documentation confirming the FSC-certified status of all wood products shall be submitted for approval prior to fabrication. Products not complying with this requirement will be rejected. Acceptable documentation includes the following:
  - 1. A copy of the wood supplier's Chain of Custody certificate issued by an FSC-accredited certifying agency and a copy of the supplier's invoice detailing the quantities of certified wood products supplied for this Project, with the FSC-certified status of each product listed in the individual line-items, or
  - 2. A copy of a letter from a FCS-accredited certifying agency corroborating that the products detailed on the wood supplier's invoice originate from certified well-managed forests.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Protect woodwork during transit, delivery, storage, and handling to prevent damage, soilage, and deterioration.

1.8 PROJECT CONDITIONS

- A. Environmental Limitations: Obtain and comply with woodwork manufacturer's and installer's coordinated advice for optimum temperature and humidity conditions for woodwork during its storage.
- B. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions will permit work to be performed and at least one coat of finish applied without exposure to rain or dampness.
- C. Field Measurements: Where woodwork is indicated to be fitted to other construction, check actual dimensions of other construction by accurate field measurements before manufacturing woodwork; show recorded measurements on final shop drawings. Coordinate manufacturing schedule with construction progress to avoid delay of work.
  - 1. Where field measurements cannot be made without delaying the work, guarantee dimensions and proceed with manufacture of woodwork without field measurements. Coordinate other construction to ensure that actual dimensions correspond to guaranteed dimensions.

1.8 COORDINATION

- A. Coordinate sizes and locations of framing, blocking, reinforcements, and other related items to ensure that exterior woodwork can be supported and installed as indicated.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide materials that comply with requirements of the WI woodworking standard for each type of woodwork and WI quality grade indicated on the plans.

2.2 INSTALLATION MATERIALS

- A. Blocking, Shims and Nailers: Softwood or hardwood lumber, kiln dried to less

than 15-percent moisture content.

- B. Screws: Material, type, size, and finish required, stainless steel or hot-dip galvanized.
- C. Nails: Material, type, size, and finish required for each use, hot-dip galvanized or stainless steel.
- D. Anchors: material, type, size, and finish required for each substrate for secure anchorage. Provide nonferrous metal or hot-dip galvanized anchors and inserts.
- E. Adhesives: Low VOC emitting adhesive. FS MMM-A-125C, Type II, water and mold resistant. For laminated and finger-jointed members, use ASTM D3110, dry use type. Adhesives shall be certified in accordance with ASTM C557 and shall comply with local VOC regulations.

### 2.3 FABRICATION GENERAL

- A. Wood Moisture Content: Comply with requirements of referenced quality standard for moisture content of lumber in relation to relative humidity conditions existing during time of fabrication and in installation areas.
- B. Fabricate woodwork to dimensions, profiles, and details indicated. Ease edges to radius indicated for the following:
  - 1. Edges of solid wood (lumber) members less than 1-inch in nominal thickness: 1/16-inch.
  - 2. Edges of rails and similar members 1-inch or more in nominal thickness: 1/8-inch.
- C. Complete fabrication, including assembly, finishing, and hardware application, before shipment to project site to maximum extent possible. Disassemble components only as necessary for shipment and installation. Where necessary for fitting at site, provide ample allowance for scribing, trimming, and fitting.
- D. Shop-cut openings, to maximum extent possible, to receive hardware, electrical work, and similar items. Locate openings accurately and use templates or roughing-in diagrams to produce accurately sized and shaped openings. Smooth edges of cutouts and seal edges with a water-resistant coating suitable for exterior applications.

### 2.4 COLUMNS FOR STAIN FINISH

- A. Quality Standard: Comply with WI "Architectural Woodwork Standards"

Sections 3 and Section 6.

- B. Grade: No. 2 and Better Clear, free of any knots or sapwood, S4S, 19% Max. moisture content.
- C. Back prime all members.
- E. Lumber Species: Western Red Cedar, fire-retardant treated.
- F. Fasteners: Galvanized malleable iron washers, do not countersink.
- G. Finish: Field-applied semi-transparent stain as specified in Section 06 40 10, Paragraph 2.8.

## 2.5 SHOP PRIMING

- A. Woodwork for Transparent Finish: Shop seal woodwork for transparent finish with stain, if required, and first coat of finish as specified in Section 06 40 10, Paragraph 2.9.
- B. Preparations for Finishing: Comply with referenced quality standard for sanding, filling countersunk fasteners, sealing concealed surfaces, and similar preparations.
- C. Back priming: Apply one coat of exterior sealer or exterior primer compatible with finish coats to concealed surfaces of woodwork, including back. Apply two coats to items installed over concrete or masonry.

## 2.6 STAIN FINISH

- A. Exterior Wood Semi-Transparent Penetrating Oil Stain Finish
  - 1. TWP 1500 (Color 101 Cedartone), Apply per manufacturer's recommendations.
  - 2. Wood surface must be cleaned, and dry for a minimum of 48 hours before stain can be applied. Temperature must at least 50 degrees and dry weather must be forecasted for the next several days. Apply the stain using a brush, roller, or sprayer. If the wood seems very thirsty, apply two "wet on wet" coats. For a penetrating stain never apply more stain than the wood can absorb. Once the stain has had 10 minutes or so to penetrate into the wood, wipe away or back brush any puddles, drips, or runs.

PART 3 - EXECUTION p

3.1 PREPARATION

- A. Condition woodwork to average prevailing humidity conditions in installation areas before installation.
- B. Deliver concrete inserts and similar anchoring devices to be built into substrates well in advance of time substrates are to be built.
- C. Before installing architectural woodwork, examine shop-fabricated work for completion and complete work as required, including back priming and removal of packing.

3.2 INSTALLATION

- A. Quality Standard: Install woodwork to comply with WI "Manual of Millwork" for same grade specified in Part 2 of this section for type of woodwork involved.
- B. Install woodwork plumb, level, true, and straight with no distortions. Shim as required with concealed shims. Install to a tolerance of 1/8 inch in 8'-0" for plumb and level and with no variations in flushness of adjoining surfaces.
- C. Scribe and cut woodwork to fit adjoining work.
- D. Install exterior woodwork with cupping to the interior side.
- E. Anchor woodwork to anchors or blocking built in or directly attached to substrates. Secure to grounds, stripping and blocking with countersunk, concealed fasteners and blind nailing as required for a complete installation. Use fine finishing nails for exposed nailing, countersunk and filled flush with woodwork.
- F. Soffit Trim: Install with minimum number of joints possible, using full-length pieces (from maximum length of lumber available) to the greatest extent possible. Stagger joints in adjacent and related members, cope at returns and miter at corners.
- G. CLT Sheathing Panels: Install in accordance with manufacturer's instructions. Touch-up all field cut edges before installing. Pre-drill nail holes if required to prevent breakage. Allow space between both ends of sheathing panels that butt against trim for thermal movement; seal joint between panel and trim with exterior grade sealant.

H. Refer to Paragraph 2.9 for final finishing of installed architectural woodwork.

3.3 ADJUSTMENT AND CLEANING

- A. Repair damaged and defective woodwork where possible to eliminate defects functionally and visually; where not possible to repair, replace woodwork. Adjust joinery for uniform appearance.
- B. Clean woodwork on exposed and semi-exposed surfaces.

3.4 PROTECTION

- A. Provide final protection and maintain conditions, in a manner acceptable to manufacturer and installer that ensure that woodwork is without damage or deterioration at time of Substantial Completion.

3.5 WASTE MANAGEMENT

- A. Separate the following categories for salvage or re-use on the site:
  - 1. Sheet materials larger than 2-sq. ft.
  - 2. Solid wood trim longer than 16-inches and multiple offcuts of any size larger than 12-inches.
- B. Separate the following for recycling. Material shall be placed in source-separated or comingled recycling bins.
  - 1. Composite wood.
  - 2. Clean dimensional lumber.
- C. Separate the following categories for disposal and place in designated areas for hazardous materials:
  - 1. Treated, stained, painted, or contaminated wood.

\*\*\* END OF SECTION \*\*\*

SHEET METAL FLASHING AND TRIM – 07 62 00

PART 1 GENERAL

1.1 SUMMARY

- A. Shop and field formed galvanized steel roofing accessories and trim, including:
  - 1. Counter flashing and base flashing.
  - 2. Exposed trim/fascia units.
  - 3. Miscellaneous accessories and flashing as shown or required.

1.2 RELATED WORK SPECIFIED IN OTHER SECTIONS

- A. Section 05 50 00: Metal Fabrications.

1.3 REFERENCES

- A. ASTM B 32 - Standard Specification for Solder Metal.
- B. ASTM D 2822 - Standard Specification for Asphalt Roof Cement.
- C. SMACNA - Architectural Sheet Metal Manual; Sheet Metal and Air Conditioning Contractors National Association, Inc.; latest edition.

1.4 SUBMITTALS

- A. Submit in accordance with general provisions.
- B. Product Data: Submit manufacturer's technical product data, installation instructions and general recommendations for each specified sheet material and fabricated product.

1.5 QUALITY ASSURANCE

- A. Installer: A firm with 3 years of successful experience with installation of galvanized steel flashing and trim similar in type and scope to project requirements. Must also be capable of showing evidence of having successfully completed projects of similar scope and complexity.
- B. Coordinate work of this section with interfacing and adjoining work for proper sequencing of each installation. Ensure best possible weather resistance and durability of work and protection of materials and finishes.
  - 1. Reference Standards apply to this Section and shall be the most current edition of the following:

2. Sheet Metal and Air Conditioning Contractor's National Association, Inc. (SMACNA), Architectural Sheet Metal Manual."
3. Surfaces to Receive Paint Finish: Use mill-phosphatized sheets.
4. Lock Forming: Where lock-forming is required by nature of construction, use ASTM A-527 steel sheets.
5. Zinc Alloy Sheet Metal: Commercial quality carbon steel sheets, with zinc-aluminum alloy coating, Ball Chemical Company "Microzinc" or equal.
6. Thickness: 26 gage unless otherwise shown or recommended by Reference Standards.
7. Aluminum: ASTM B209, 3003-H14 alloy unless otherwise specified.
8. Straps, Cleats, etc.: 0.040" thickness.
9. Miscellaneous Flashings: 0.019" thickness, 3003-O alloy.
10. Finish: Factory-applied baked enamel to match adjacent aluminum assemblies.
11. Sheet Lead: Antimonial lead, 4 psf.

PART 2      PRODUCTS

2.1          FLASHING AND TRIM MATERIALS

- A.      Galvanized Steel: ASTM-A446 Grade A G90 coating. 24-gauge, unless otherwise shown.
- B.      All exposed metal trim shall match the Metal Roof Panels in material and color, see Section 07 41 20.

2.2          ACCESSORIES

- A.      Solder: Provide 50 - 50 tin/lead solder.
- B.      Fasteners: Same metal as flashing/sheet metal or other non-corrosive metal as recommended by sheet manufacturer. Match finish of exposed heads with material being fastened.
- C.      Bituminous Coating: SSPC - Paint 12, solvent-type bituminous mastic, nominally free of sulfur, compounded for 15-mil dry film thickness per

coat.

- D. Mastic Sealant: Polyisobutylene; nonhardening, nonskinning, non-drying, nonmigrating sealant.
- E. Elastomeric Sealant: Generic type recommended by manufacturer of metal roof panels and fabricator of components being sealed.
- F. Epoxy Seam Sealer: 2-part noncorrosive metal seam cementing compound, recommended by metal manufacturer for exterior/interior nonmoving joints including riveted joints.
- G. Adhesives: Type recommended by flashing sheet manufacturer for waterproof/weather-resistant seaming and adhesive application of flashing sheet.
- H. Roofing Underlayment: Grace Ultra or approved equal.
- I. Paper Slip Sheet: 4 to 6-lb. rosin-sized building paper.
- J. Reglets: Units of type and profile indicated, compatible with copper, noncorrosive.
- K. Metal Accessories: Provide clips, straps, anchoring devices, and similar accessory units as required for installation of work, noncorrosive, size and gauge required for performance.
- L. Roofing Cement: ASTM D 2822, asphaltic.
- M. Miscellaneous: Items essential to the completeness of the sheet metal installation, though not specifically shown or specified, shall be provided. All such items, unless otherwise shown on the Drawings or specified, shall be compatible with the item to which applied.

## 2.3

### FABRICATION

- A. Metal Fabrication: Shop-fabricate work to greatest extent possible. Fabricate in accordance with Reference Standards and as detailed to comply with profiles and sizes shown or recommended by Reference Standards.
- B. Comply with details shown and with recognized industry practices.
- C. Fabricate for waterproof and weather-resistant performance, with expansion provisions for running work sufficient to permanently prevent leakage, damage, or deterioration of the work.

- D. Soldering: Methods as recommended by metal manufacturer.
- E. Form work to fit substrates. Comply with material manufacturer instructions and recommendations for forming material. Form exposed galvanized steel work without excessive oil-canning, buckling, and tool marks, true to line and levels indicated, with exposed edges folded back to form hems. Brake-formed or roll-formed at Contractor's option.
- F. Seams: Fabricate nonmoving seams with flat-lock seams. Tin edges to be seamed, form seams, and solder, flat-lock type, unless otherwise shown. Rivet joints for additional strength where required.
- G. Edges: Form hem on concealed side of all exposed edges.
- H. Expansion Provisions: Where lapped or bayonet-type expansion provisions in work cannot be used or would not be sufficiently water/weatherproof, form expansion joints of intermeshing hooked flanges, not less than 1 inch deep, filled with mastic sealant (concealed within joints).
- I. Thermal Expansion: Fabricate to allow for noiseless thermal expansion and contraction, conceal expansion provisions where possible.
- J. Sealant Joints: Where movable, nonexpansion type joints are indicated or required for proper performance of work, form metal to provide for proper installation of elastomeric sealant, in compliance with CDA standards.
- K. NOTE \*\* Insert specific listing in paragraph below of separations known to be required for work as detailed. Try to avoid this need by careful detailing.
- L. Separations: Provide for separation of metal from noncompatible metal or corrosive substrates by coating concealed surfaces at locations of contact, with bituminous coating or other permanent separation as recommended by manufacturer/fabricator.

PART 3 EXECUTION

3.1 PREPARATION

- A. Coordinate work of this section with adjoining work for proper sequencing of each installation to ensure best possible weather resistance and durability of work and protection of materials and finishes.

3.2 INSTALLATION

- A. Workmanship: Install as detailed and in accordance with Reference Standards with all required accessories, clips, fastenings, etc. to achieve a weathertight

enclosure for conditions shown or encountered.

- B. Except as otherwise indicated, comply with manufacturer's installation instructions and recommendations and with SMACNA Architectural Sheet Metal Manual.
  - 1. Anchor units of work securely in place by methods indicated, providing for thermal expansion of units; conceal fasteners where possible, and set units true to line and level as indicated.
  - 2. Install work with laps, joints, and seams that will be permanently watertight and weatherproof.
- C. Galvanic Action Protection: Isolate different metal types from each other to prevent galvanic action.
- D. Thermal Expansion: Provide expansion-contraction joints as shown or as required to preserve weathertight integrity of the system, including concealed backing plates or sleeves and soldered end or corner units.
- E. Underlayment: Where installation is to be directly on cementitious or wood substrate, install slip sheet over a course of roofing felt.
- F. Soldering: Tin uncoated galvanized steel surfaces for a width of 1-1/2 inches at edges, using solder recommended for galvanized steel work.
- G. Bed flanges of work in a thick coat of bituminous roofing cement where required for waterproof performance.
- H. Install reglets to receive counter flashing in manner and by methods indicated. Where shown in concrete, furnish reglets to trades of concrete work for installation. Where shown in masonry, furnish reglets to trades of masonry work for installation.
- I. Install counter flashing in reglets, either by snap-in seal arrangement or by soldering in place for anchorage and filling reglet with mastic or elastomeric sealant, as indicated and depending on degree of sealant exposure.
- J. Install elastic expansion joints in accordance with manufacturer's recommendations.
- K. Where required, provide for movement at joints by forming loops or bellows in width of flashing.
- L. Locate cover or filler strips at joints to facilitate complete drainage of water from flashing.
- M. Seam adjacent flashing sheets with adhesive, seal and anchor edges in

accordance with manufacturer's recommendations.

- N. Nail flanges of expansion joint units to curb nailers, at maximum spacing of 6 inches on center.
- O. Fabricate seams at joints between units with minimum 3 inch overlap, to form a continuous, waterproof system.
- P. Install continuous gutter guards on gutters and conductor-head guards at conductor heads.
- Q. Dissimilar Materials: Isolate flashing and sheet metal from dissimilar metals, plaster, concrete, etc. with bituminous coating. Where bitumen drips can occur, seal with butyl sealant tape.
- R. Fasteners: Comply with Reference Standards, conceal where possible.
- S. Cleaning: Solvent clean all sheet metal. Surfaces to be in contact with roofing or otherwise concealed shall be coated with asphaltic paint.

3.3      **CLEANING AND PROTECTION**

- A. Clean exposed galvanized steel surfaces, removing substances that might cause staining, corrosion, or deterioration of finish or that would interfere with uniform oxidation and weathering.
- B. Protect flashings and sheet metal work during construction to ensure that work will be without damage or deterioration other than natural weathering at time of Substantial Completion.

\*\*\*END OF SECTION\*\*\*