

INVITATION FOR BIDS (IFB)

**MOSS LANDING JETTY REPAIR PROJECT
MONTEREY COUNTY, CALIFORNIA**

SOLICITATION NO. W912P723B0001



**US ARMY CORPS OF ENGINEERS
San Francisco District**

SOLICITATION

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COVER SHEET

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NOTE:

AS A MINIMUM ANY CONTRACT AWARDED AS A RESULT OF THIS SOLICITATION SHALL CONSIST OF THE FOLLOWING DOCUMENTS: STANDARD FORM 1442, SECTIONS 00 10 00, 00 72 00, TECHNICAL SPECIFICATIONS AND DRAWINGS, AND ATTACHMENTS AS DESCRIBED IN CONTRACT DOCUMENT.

SECTION 00 45 00, AS COMPLETED BY AWARDEE, IS INCORPORATED INTO ANY RESULTANT CONTRACT BY REFERENCE.

SECTION 00 21 00 IS INCLUDED FOR SOLICITATION PURPOSES ONLY. THIS SECTION WILL BE REMOVED, MAINTAINED IN THE CONTRACT FILE AND NOT MADE PART OF THE CONTRACT.

AMENDMENTS ARE INCORPORATED INTO THE RESULTANT CONTRACT.

SUBCONTRACTING PLAN (IF REQUIRED) BECOMES AN ATTACHMENT TO AND A MATERIAL PART OF THE CONTRACT.

SOLICITATION

SOLICITATION, OFFER, AND AWARD <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. W912P723B0001	2. TYPE OF SOLICITATION <input checked="checked" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 27-Oct-2022	PAGE OF PAGES 3 OF 365
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IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.
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7. ISSUED BY CODE W912P7 USACE, SAN FRANCISCO DISTRICT 450 GOLDEN GATE SAN FRANCISCO CA 94102 TEL: (415) 503-6995 FAX:	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE <div style="text-align: center; font-weight: bold;">See Item 7</div> TEL: FAX:
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9. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i>
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SOLICITATION

NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying no., date):*

Invitation for Bid (IFB) - Moss Landing Jetty Repair Project, Monterey County, California.

The work includes the repair of the Moss Landing north and south jetties, the replacement of two danger signs, two aids to navigation, two project signs and removal of timber piles. Damages to each jetty include displacement of existing armor stones. Damaged areas on the jetty with displaced armor stones shall be reset using the existing armor stones on site or supplemented with new armor stones.

This requirement is Full and Open Competition. It will be issued as an Invitation for Bid (IFB) which will result in the award of a single Firm Fixed Price (FFP) Contract.

The North American Industry Classification System (NAICS) Code applicable to this acquisition is 237990.

ESTIMATED COST RANGE IS BETWEEN \$5,000,000 and \$10,000,000.

See FAR Clause 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

Bidder Questions - Questions relating to this solicitation and technical inquiries will be submitted via email to the assigned Contract Specialist.

Inquiries must be received no later than 14 calendar days prior to the date set for bid opening.

The Government anticipates issuing Notice to Proceed no earlier than January 11, 2023. See FAR Clause 52.211-10.

11. The Contractor shall begin performance within <u>1</u> calendar days and complete it within <u>240</u> calendar days after receiving <input type="checkbox"/> award, <input checked="checked" type="checkbox"/> notice to proceed. This performance period is <input checked="checked" type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. (See 52.211-10 _____)	
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12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO	12B. CALENDAR DAYS 5
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13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 01:00 PM (hour) local time 30 Nov 2022 (date). If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee ☒ is, ☐ is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.

D. Offers providing less than 60 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

SOLICITATION, OFFER, AND AWARD (Continued) <i>(Construction, Alteration, or Repair)</i>										
OFFER (Must be fully completed by offeror)										
14. NAME AND ADDRESS OF OFFEROR <i>(Include ZIP Code)</i>					15. TELEPHONE NO. <i>(Include area code)</i>					
<div style="border: 1px solid black; height: 40px; width: 100%;"></div>					16. REMITTANCE ADDRESS <i>(Include only if different than Item 14)</i> See Item 14					
CODE		FACILITY CODE								
17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. <i>(Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)</i>										
AMOUNTS		SEE SCHEDULE OF PRICES								
18. The offeror agrees to furnish any required performance and payment bonds.										
19. ACKNOWLEDGMENT OF AMENDMENTS <i>(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)</i>										
AMENDMENT NO.										
DATE										
20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER <i>(Type or print)</i>					20B. SIGNATURE				20C. OFFER DATE	
AWARD (To be completed by Government)										
21. ITEMS ACCEPTED:										
22. AMOUNT		23. ACCOUNTING AND APPROPRIATION DATA								
24. SUBMIT INVOICES TO ADDRESS SHOWN IN <i>(4 copies unless otherwise specified)</i>				ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)					
26. ADMINISTERED BY			CODE		27. PAYMENT WILL BE MADE BY: CODE					
CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE										
<input type="checkbox"/> 28. NEGOTIATED AGREEMENT <i>(Contractor is required to sign this document and return _____ copies to issuing office.)</i> Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.					<input type="checkbox"/> 29. AWARD <i>(Contractor is not required to sign this document.)</i> Your offer on this solicitation, is hereby accepted as to the items listed. This award commutes the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.					
30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN <i>(Type or print)</i>					31A. NAME OF CONTRACTING OFFICER <i>(Type or print)</i>					
30B. SIGNATURE			30C. DATE		31B. UNITED STATES OF AMERICA BY			31C. AWARD DATE		

CONTINUATION OF STANDARD FORM 1442

BLOCK 20D:

(1) IF THE OFFEROR IS A JOINT VENTURE, EACH PARTICIPANT IN THE JOINT VENTURE MUST COMPLETE THE FOLLOWING:

_____ Company Name	_____ Signature	_____ Title
_____ Company Name	_____ Signature	_____ Title
_____ Company Name	_____ Signature	_____ Title

NOTE: If a corporation is participating as a member of a Joint Venture, the certificate below must also be completed and signed.

CORPORATION AUTHORIZATION TO PARTICIPATE IN JOINT VENTURE CERTIFICATE

I, _____, certify that I am the Secretary of the corporation (name) named as a participant in a Joint Venture on this offer; that _____, who signed said offer on behalf of the corporation, was _____ (name) then _____ of said corporation; that the signature thereto is _____ (title) genuine; that said contract was duly signed, sealed and attested for and in behalf of said corporation by authority of its governing body; and that the corporation is authorized to participate in the Joint Venture on this offer.

(Name of Corporation)

(Secretary)

(2) IF THE OFFEROR IS A PARTNERSHIP, LIST FULL NAME OF ALL PARTNERS BELOW. SIGNATURES BY ALL PARTNERS HERE SIGNIFY THAT THE INDIVIDUAL WHO SIGNED THE OFFER IN BLOCK 20B HAS THE AUTHORITY TO BIND THE PARTNERSHIP.

_____ Name	_____ Signature
_____ Name	_____ Signature
_____ Name	_____ Signature

(3) IF THE OFFEROR IS A CORPORATION, THE OFFER SHALL BE SIGNED IN THE CORPORATE NAME FOLLOWED BY THE WORD "BY" AND THE SIGNATURE OF THE PERSON AUTHORIZED TO SIGN THE OFFER IN BLOCK 20B. PROVIDE PROOF THAT THE PERSON SIGNING FOR THE CORPORATION HAS THE AUTHORITY TO BIND THE CORPORATION BY COMPLETING THE FOLLOWING CERTIFICATE:

SOLICITATION

CONTINUATION OF STANDARD FORM 1442

CORPORATION AUTHORIZATION CERTIFICATE

I, _____, certify that I am the Secretary of the

(name)

corporation named as offeror in the within offer; that

_____,

(name)

who signed said offer on behalf of the corporation, was then

_____ of said corporation, that the signature
(title)

thereto is genuine; that said contract was duly signed, sealed and attested for in behalf of said corporation by authority of its governing body.

(Name of Corporation)

(Secretary)

(4) IF THE OFFEROR IS AN INDIVIDUAL DOING BUSINESS AS A FIRM, THE OFFER SHALL BE SIGNED BY THAT INDIVIDUAL IN BLOCK 20B FOLLOWED BY THE WORDS "AN INDIVIDUAL DOING BUSINESS AS _____ (INSERT NAME OF FIRM) .

(5) WHEN AN AGENT SIGNS THE OFFER, PROVIDE PROOF OF THE AGENT'S AUTHORITY TO BIND THE PRINCIPAL.

SOLICITATION

SECTION 00 10 00

PRICING SCHEDULE

MOSS LANDING JETTY REPAIR PROJECT

Contract Line Item No. (CLIN)	Description of Supplies and Services	*Estimated Quantity	Unit	Unit Price	Amount
0001	Mobilization and Demobilization	1	Job	\$	\$
0002	North Jetty Armor Stone	5,800	Tons	\$	\$
0003	North Jetty	1	Job	\$	\$
0004	South Jetty Armor Stone	1,300	Tons	\$	\$
0005	South Jetty	1	Job	\$	\$
<u>Total Price (Items 0001 through 0005)</u>					<u>\$</u>

* - ALL QUANTITIES ARE ESTIMATES. SEE FAR 52.211-18, SECTION 00 72 00 (GENERAL CONDITION) OF THE CONTRACT.

Notes:

- 1 . To be considered responsive, prices must be submitted on all individual items within Pricing Schedule. Failure to do so may be cause for rejection of bids.
- 2 . The term "Job", which appears on the Pricing Schedule (Section 00 10 00) under "Unit" for Bid Item No. 0001 shall be considered as a Lump Sum. The Variation in Estimated Quantities contract clause, FAR 52.211-18, shall not apply to Bid Item No. 0001.
- 3 . BASIS of AWARD: The contract will be awarded in accordance with FAR 52.214-19 Contract Award - Sealed Bidding - Construction.
- 4 . The Contractor shall furnish all plant, labor, material, equipment, etc., necessary to perform all work in strict accordance with the terms and conditions set forth in the contract to include all attachments thereto.

End of Document

SECTION 00 21 00
**INSTRUCTIONS, CONDITIONS AND NOTICES TO BIDDERS/
 OFFERORS AND EVALUATION CRITERIA FOR AWARD**

1.1 GENERAL

The scope of this Invitation for Bid (IFB) is for Moss Landing Jetty Repair Project, Monterey County, California. The work includes the repair of the Moss Landing north and south jetties, the replacement of two danger signs, two aids to navigation, two project signs and removal of timber piles. Damages to each jetty include displacement of existing armor stones. Damaged areas on the jetty with displaced armor stones shall be reset.

This requirement is for full and open competition with HUBZone preference and will be awarded with a single Firm-Fixed Price (FFP) contract.

1.2 BID EXPENSES AND PRE-CONTRACT COSTS

This Invitation for Bid (IFB) does not commit the Government to pay, as a direct charge, any costs incurred in the preparation and submission of a bid.

1.3 ACCURACY IN BIDS

Bids must set forth full, accurate, and complete information as required by this IFB (including attachments). The penalty for making false statements is prescribed in 18 U.S.C. 1001.

1.4 BIDDER QUESTIONS

Questions relating to this solicitation and technical inquiries will be submitted via email to the assigned contract specialist, Maelani Ellison via email at maelani.t.ellison@usace.army.mil.

Please include the solicitation number, the project title, the location of the project together with the company name, email address, and telephone number in your correspondence. Inquiries must be received no later than 14 calendar days prior to the date set for bid opening.

Answers to pertinent questions will be posted on the Federal Business Opportunities website (sam.gov); however, changes to the solicitation will be made by amendment only. Solicitation Amendments will be posted to sam.gov separately.

1.5 COPIES OF SOLICITATION DOCUMENTS AND AMENDMENTS

Copies of the solicitation are available by INTERNET ACCESS ONLY. All solicitation documents will be posted to <https://sam.gov>.

All amendments will be posted to the sam.gov website. It shall be the contractor's responsibility to check the website for any amendments. The Bidder shall submit in the bid all requested information specified in this section of the Invitation for Bid (IFB) solicitation.

1.6 BID FORMAT AND SUBMITTAL REQUIREMENTS

BID FORMAT

Offerors shall submit the Pricing Schedule from Section 00 10 00. Bid prices must be entered for all items of the Pricing Schedule. Award will be made to one (1) contractor.

SUBMITTAL REQUIREMENTS

The subsequent information will be submitted to the San Francisco District US Army Corps of Engineers and labeled Solicitation No. W912P723B0001.

A Bid Package shall consist of the following items:

(a) COVER LETTER:

- 1) Solicitation number and Project Title: W912P723B0001 Moss Landing Jetty Repair Project, Monterey County, California.
- 2) Bidder name, DUNS number, tax identification number (TIN), address, email, telephone, and fax numbers.
- 3) Names, title, and email of authorized signer.
- 4) Name, title, and signature of the person authorized to sign the bid.
- 5) A statement specifying agreement with all terms, conditions, and provisions included in the IFB.

(b) SCHEDULE:

- 1) The SF-1442 duly executed with an original signature by authorized official.
- 2) Include the Offeror's DUNS number in block 14.
- 3) Acknowledgement of all amendments.
- 4) Pricing Schedule (SECTION 00 10 00).
- 5) Bid Bond (SF-24), See FAR Clause 52.228-1 DEV, SECTION 00 72 00.

(c) REPRESENTATIONS AND CERTIFICATIONS:

- 1) The completed SECTION 00 45 00 of the IFB (Representations and Certifications)
- 2) Printed System for Award Management (SAM) Record (www.sam.gov)

(d) SUBMISSIONS FOR DETERMINATION OF CONTRACTOR RESPONSIBILITY (FAR 9.104-1 and 9.104-2):

Bidders shall submit the following:

- 1) A bank certification of financial capability or a financial statement not more than 60 days old. If more than 60 days old, a certificate stating that the financial condition is substantially the same or outlining the changes that have taken place.
- 2) Names of commercial and financial reporting agencies from which credit reports may be obtained.

Note: Information accumulated for purposes of determining the responsibility of a prospective contractor shall not be released or disclosed outside the Government, FAR 9.105-3. No award shall be made unless the contracting officer makes an affirmative determination of responsibility. To be determined responsible, the Bidder must meet the general standards of responsibility, FAR 9.104-1. A prospective contractor that is or recently has been seriously deficient in contract performance will be deemed non-responsible, unless the contracting officer determines that the circumstances were properly beyond the contractor's control or that the contractor has taken appropriate corrective action.

1.7 SPECIAL INSTRUCTIONS FOR SUBMITTING YOUR BID:

Due to the coronavirus pandemic, and in the interests of public health and safety, all bidders are required to submit their bids electronically via the DoD Secure Access File Exchange (DoD SAFE) (<https://safe.apps.mil/>). No hand-delivered bids will be accepted.

To submit a bid, each bidder must contact Maelani Ellison to obtain a unique DoD SAFE submittal code. Maelani Ellison can be reached at maelani.t.ellison@usace.army.mil or (415) 503-6725. In the event Maelani Ellison cannot be reached, please contact Mary Fronck at mary.fronck@usace.army.mil or (415) 503-6554, to request assistance. Once a bidder has a unique submittal code, they may upload their bid submission to DoD SAFE. All submissions may be up to six (6) calendar days prior to Bid Opening. Early and late submissions outside of this window will not be accepted.

The public bid opening will be held via WebEx at **1:30 PM PST on November 30, 2022**, which will allow participants to hear a live reading of the bids. Prior to the bid opening, participants must follow this link: <https://usace1.webex.com/meet/mary.fronck>. The link will provide each participant to register and obtain a security code to be used to access the bid opening Webex Meeting. Government will review the bids received electronically and post the abstracts of bids on sam.gov as soon as practicable after bid closing.

It is the responsibility of all bidders to ensure their bid submissions are complete, inclusive of the price schedule, acknowledge of amendments, bid guarantee, and all additional information requested through this advertisement.

1.8 OTHER BID DELIVERY METHODS

Telegraphic, Facsimile, emailed, HAND DELIVERED, MAILED, or comparable delivery methods of the Bid Package are not acceptable.

Bids may only be modified or withdrawn by electronic means through a signed letter request uploaded to DoD SAFE using the same request code as the original bid. A notice to modify or withdraw a bid sent via DoD SAFE must be received in DoD SAFE no later than the exact date and time set for Bid Opening.

1.9 PERFORMANCE AND PAYMENT BONDS

The offeror will, furnish performance and payment bonds within the time established in the contract in accordance with FAR 52.228-15 DEV located in Section 00 72 00. The offeror will provide the bonds to the Government electronically via the DoD SAFE. The offeror will also mail original, hard copies of bid bonds and performance bonds to the U.S. Army Corps of Engineers, San Francisco District, Contracting Division, 450 Golden Gate Avenue, Fourth Floor, San Francisco, CA 94102.

2.0 INDIVIDUAL SURETIES IN SUPPORT OF BID BONDS

An offeror utilizing individual sureties in support of a bid bond shall include a Standard Form (SF) 28 (Affidavit of Individual Surety), accompanied by a pledge of acceptable assets from each person acting as an individual surety, and include these with the SF 24 (Bid Bond), and the proposal itself (see clause titled "Pledges of Assets," FAR 52.228-11 DEVIATION 2020-00016).

Pledges of acceptable assets shall be in the form of (1) evidence of an escrow account and/or (2) a recorded lien on real estate.

Failure to provide required documentation described herein may cause the offeror to be deemed "unacceptable".

2.1 BID GUARANTEE FORM AND AMOUNT

The offeror shall furnish a separate bid guarantee in accordance with the solicitation provision titled "Bid Guarantee", FAR 52.228-1. In accordance with FAR 28.101-2 (b) the bid guarantee amount shall be at least 20 percent of the "proposed price" but shall not exceed \$3 million. When the penal sum is expressed as a percentage, a maximum dollar limitation may be stated.

In accordance with FAR 28.106-1 a Standard Form (SF) 24 shall be used for the bid bond. In accordance with FAR 28.202(a) (1), corporate sureties utilized must appear on the list contained in the

Department of Treasury Circular 570 titled, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies."

2.2 ACCEPTANCE OF OFFERS

A written award or acceptance of an offer mailed or otherwise furnished to the offeror within the time for acceptance specified in the offer, shall result in a binding contract without further action by either party.

At a minimum, any contract awarded as a result of this solicitation shall consist of the following documents: Standard Form 1442, Sections 00 10 00, 00 70 00, 00 72 00, 00 73 00, technical specifications and drawings, and attachments listed in contract document.

2.3 CONTRACTOR RESPONSIBILITY, PRE-AWARD SURVEY

To determine a contractor's responsibility for purposes of contract award in accordance with FAR Part 9, the contractor is required to provide a statement regarding previous experience and past performance in performing comparable work, information related to the business organization, financial resources, and/or plant to be used in performing the work (see Attachment 2, Pre-award Survey).

The Government will request this information from the eligible contractor after receipt of offer if they have not had a contract with the San Francisco District within the last twelve months and the Government will set a due date for its submission.

The Pre-award Survey is attached to the solicitation for information purposes only and is not required as part of the Proposal package.

(a) If required to determine that a prospective contractor is responsible, the offeror must:

- 1) Demonstrate that they have adequate financial resources to perform the contract or the ability to obtain them.
- 2) Be able to comply with the required or proposed delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments.
- 3) Have a satisfactory performance record. In making the determination of responsibility, the Government Contracting Officer shall consider relevant past performance information. A prospective contractor shall not be determined as responsible or not responsible solely based on a lack of relevant performance history except when there are special standards set forth in the solicitation, which applies, to all offerors that must be met in order to receive the award. These special standards may be necessary when unusual expertise or specialized facilities are necessary in the performance of the contract; therefore, in order to be determined as responsible for a particular contract, the offeror must be able to meet those special standards. A prospective contractor that is or recently has been seriously deficient in contract performance shall be presumed to be nonresponsive unless the Contracting Officer determines that the circumstances were beyond the contractor's control or that the contractor has taken appropriate corrective action. Other responsibility considerations by the Contracting Officer will include past efforts by the contractor to apply sufficient tenacity and perseverance to perform acceptably, to meet quality requirements of contracts, and the contractor's past compliance with subcontracting plans (if required) under recent contracts.
- 4) Have a satisfactory record of integrity and business ethics.
- 5) Have the necessary organization, experience, accounting and operational controls, and technical skills, or the ability to obtain them (including, as appropriate, such elements as production control procedures, property control systems, quality assurance measures, and safety programs applicable

to materials to be produced or services to be performed by the prospective contractor and subcontractors).

- 6) Have the necessary production, construction, and technical equipment and facilities, or the ability to obtain them.
- 7) Be otherwise qualified and eligible to receive an award under applicable laws and regulations.

2.4 PREPARATION OF SUBCONTRACTING PLAN (SEP 2004)

(a) See FAR 52.219-9, Small Business Subcontracting Plan, incorporated by reference into this contract in Section 00 72 00.

(b) The Small Business Subcontracting Plan is not required from the low bidder until after the Bid Opening; it is not required as part of the bid package. After the Bid Opening, if the selected bidder fails to submit an acceptable plan within the time prescribed by the Contracting Officer, the bidder will be ineligible for award.

(c) Contact Contracting Officer, Contracting Division, (415) 503-6554, with questions on the Small Business Subcontracting Plan requirements.

(d) The acceptable Small Business Subcontracting Plan will be incorporated into and made a material part of the contract.

(e) The Corps of Engineers highly encourages all bidders/offerors to meet the recommended subcontracting goals as follows:

Small Businesses 23.0%

Small, Disadvantaged Businesses 5.0%

Women-Owned Small Businesses 5.0%

HUBZone Small Business 3.0%

Veteran-Owned Small Businesses 3.0%

Service Disabled Veteran Owned Small Business 3.0%

The goals are calculated as a percentage of the TOTAL SUBCONTRACTING DOLLARS, NOT THE TOTAL CONTRACT AMOUNT.

SOLICITATION

Section 00 21 00 - Instructions

CLAUSES INCORPORATED BY REFERENCE

52.207-1	Notice Of Standard Competition	MAY 2006
52.232-14	Notice Of Availability Of Progress Payments Exclusively For Small Business Concerns	APR 1984
52.252-3	Alterations in Solicitation	APR 1984

CLAUSES INCORPORATED BY FULL TEXT

52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a Firm-fixed price contract resulting from this solicitation.

(End of provision)

52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

(a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.

(b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
28.9%	6.9%

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in

excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
 - (2) Employer's identification number of the subcontractor;
 - (3) Estimated dollar amount of the subcontract;
 - (4) Estimated starting and completion dates of the subcontract; and
 - (5) Geographical area in which the subcontract is to be performed.
- (e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Monterey, CA.
- (End of provision)

52.228-1 BID GUARANTEE (SEP 1996)

- (a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.
 - (b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-
 - (c) The amount of the bid guarantee shall be **20 percent** of the bid price or **\$3,000,000.00**, whichever is less.-
 - (d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-
 - (e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.
- (End of provision)

52.233-2 SERVICE OF PROTEST (SEP 2006)

- (a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

U.S. Army Corps of Engineers, San Francisco District
Attn: Contracting Officer, Mary Fronck
450 Golden Gate Avenue, 4th Floor
San Francisco, CA 94102-3406

(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:

Name: Trevor Greene

Email: Trevor.C.Greene@usace.army.mil

Telephone: 415-289-3019

(End of provision)

52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

This solicitation incorporates one or more solicitation provisions by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. The offeror is cautioned that the listed provisions may include blocks that must be completed by the offeror and submitted with its quotation or offer. In lieu of submitting the full text of those provisions, the offeror may identify the provision by paragraph identifier and provide the appropriate information with its quotation or offer. Also, the full text of a solicitation provision may be accessed electronically at this/these address(es):

<https://www.acquisition.gov>

(End of provision)

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (NOV 2020)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any (48 CFR Chapter1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

SECTION 00 45 00
REPRESENTATIONS, CERTIFICATIONS,
AND OTHER STATEMENTS OF BIDDERS/OFFERORS

CLAUSES INCORPORATED BY REFERENCE

52.204-7	System for Award Management	OCT 2018
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.204-19	Incorporation by Reference of Representations and Certifications.	DEC 2014
52.214-3	Amendments To Invitations For Bids	DEC 2016
52.214-4	False Statements In Bids	APR 1984
52.214-5	Submission Of Bids	DEC 2016
52.214-6	Explanation To Prospective Bidders	APR 1984
52.214-7	Late Submissions, Modifications, and Withdrawals of Bids	NOV 1999
52.214-18	Preparation of Bids-Construction	APR 1984
52.214-19	Contract Award-Sealed Bidding-Construction	AUG 1996
52.214-34	Submission Of Offers In The English Language	APR 1991
52.214-35	Submission Of Offers In U.S. Currency	APR 1991
52.225-12	Notice of Buy American Requirement - Construction Materials Under Trade Agreements	MAY 2014
252.204-7016	Covered Defense Telecommunications Equipment or Services -- Representation	DEC 2019

CLAUSES INCORPORATED BY FULL TEXT

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAY 2022)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is **237990**.

(2) The small business size standard is **\$39,500,000.00**.

(3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce is 500 employees if the acquisition--

(i) Is set aside for small business and has a value above the simplified acquisition threshold;

(ii) Uses the HUBZone price evaluation preference regardless of dollar value, unless the offeror waives the price evaluation preference; or

(iii) Is an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(b)(1) If the provision at 52.204-7, System for Award Management, is included in this solicitation, paragraph (d) of this provision applies.

(2) If the provision at 52.204-7, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), the Offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The Offeror shall indicate which option applies by checking one of the following boxes:

() Paragraph (d) applies.

() Paragraph (d) does not apply and the offeror has completed the individual representations and certifications in the solicitation.

(c) (1) The following representations or certifications in SAM are applicable to this solicitation as indicated:

(i) 52.203-2, Certificate of Independent Price Determination. This provision applies to solicitations when a firm-fixed-price contract or fixed-price contract with economic price adjustment is contemplated, unless—

(A) The acquisition is to be made under the simplified acquisition procedures in Part 13;

(B) The solicitation is a request for technical proposals under two-step sealed bidding procedures; or

(C) The solicitation is for utility services for which rates are set by law or regulation.

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed \$150,000.

(iii) 52.203-18, Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements--Representation. This provision applies to all solicitations.

(iv) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the provision at 52.204-7, System for Award Management.

(v) 52.204-5, Women-Owned Business (Other Than Small Business). This provision applies to solicitations that—

(A) Are not set aside for small business concerns;

(B) Exceed the simplified acquisition threshold; and

(C) Are for contracts that will be performed in the United States or its outlying areas.

(vi) 52.204-26, Covered Telecommunications Equipment or Services--Representation. This provision applies to all solicitations.

(vii) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations--Representation.

(viii) 52.209-5, Certification Regarding Responsibility Matters. This provision applies to solicitations where the contract value is expected to exceed the simplified acquisition threshold.

(ix) 52.209-11, Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law. This provision applies to all solicitations.

(x) 52.214-14, Place of Performance--Sealed Bidding. This provision applies to invitations for bids except those in which the place of performance is specified by the Government.

(xi) 52.215-6, Place of Performance. This provision applies to solicitations unless the place of performance is specified by the Government.

(xii) 52.219-1, Small Business Program Representations (Basic, Alternates I, and II). This provision applies to solicitations when the contract is for supplies to be delivered or services to be performed in the United States or its outlying areas, or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii).

(A) The basic provision applies when the solicitations are issued by other than DoD, NASA, and the Coast Guard.

(B) The provision with its Alternate I applies to solicitations issued by DoD, NASA, or the Coast Guard.

(C) The provision with its Alternate II applies to solicitations that will result in a multiple-award contract with more than one NAICS code assigned.

(xiii) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract is for supplies to be delivered or services to be performed in the United States or its outlying areas, or when the contracting officer has applied part 19 in accordance with 19.000(b)(1)(ii).

(xiv) 52.222-22, Previous Contracts and Compliance Reports. This provision applies to solicitations that include the clause at 52.222-26, Equal Opportunity.

(xv) 52.222-25, Affirmative Action Compliance. This provision applies to solicitations, other than those for construction, when the solicitation includes the clause at 52.222-26, Equal Opportunity.

(xvi) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial products or commercial services.

(xvii) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

(xviii) 52.223-4, Recovered Material Certification. This provision applies to solicitations that are for, or specify the use of, EPA- designated items.

(xix) 52.223-22, Public Disclosure of Greenhouse Gas Emissions and Reduction Goals--Representation. This provision applies to solicitations that include the clause at 52.204-7.)

(xx) 52.225-2, Buy American Certificate. This provision applies to solicitations containing the clause at 52.225-1.

(xxi) 52.225-4, Buy American--Free Trade Agreements--Israeli Trade Act Certificate. (Basic, Alternates I, II, and III.) This provision applies to solicitations containing the clause at 52.225- 3.

(A) If the acquisition value is less than \$25,000, the basic provision applies.

(B) If the acquisition value is \$25,000 or more but is less than \$50,000, the provision with its Alternate I applies.

(C) If the acquisition value is \$50,000 or more but is less than \$92,319, the provision with its Alternate II applies.

(D) If the acquisition value is \$92,319 or more but is less than \$100,000, the provision with its Alternate III applies.

(xxii) 52.225-6, Trade Agreements Certificate. This provision applies to solicitations containing the clause at 52.225-5.

(xxiii) 52.225-20, Prohibition on Conducting Restricted Business Operations in Sudan--Certification. This provision applies to all solicitations.

(xxiv) 52.225-25, Prohibition on Contracting with Entities Engaging in Certain Activities or Transactions Relating to Iran—Representation and Certification. This provision applies to all solicitations.

(xxv) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions.

(2) The following representations or certifications are applicable as indicated by the Contracting Officer:

[Contracting Officer check as appropriate.]

XX (i) 52.204-17, Ownership or Control of Offeror.

XX (ii) 52.204-20, Predecessor of Offeror.

(iii) 52.222-18, Certification Regarding Knowledge of Child Labor for Listed End Products.

(iv) 52.222-48, Exemption from Application of the Service Contract Labor Standards to Contracts for Maintenance, Calibration, or Repair of Certain Equipment--Certification.

(v) 52.222-52 Exemption from Application of the Service Contract Labor Standards to Contracts for Certain Services--Certification.

(vi) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA-Designated Products (Alternate I only).

(vii) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

(viii) 52.227-15, Representation of Limited Rights Data and Restricted Computer Software.

(d) The Offeror has completed the annual representations and certifications electronically in SAM accessed through <https://www.sam.gov>. After reviewing the SAM information, the Offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in paragraph (c) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by clause number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR Clause	Title	Date	Change

(End of provision)

The Offeror shall not complete the representation at paragraph (d)(1) of this provision if the Offeror has represented that it "does not provide covered telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument" in paragraph (c)(1) in the provision at 52.204-26, Covered Telecommunications Equipment or Services--Representation, or in paragraph (v)(2)(i) of the provision at 52.212-3, Offeror Representations and Certifications-Commercial Products and Commercial Services. The Offeror shall not complete the representation in paragraph (d)(2) of this provision if the Offeror has represented that it "does not use covered telecommunications equipment or services, or any equipment, system, or service that uses covered telecommunications equipment or services" in paragraph (c)(2) of the provision at 52.204-26, or in paragraph (v)(2)(ii) of the provision at 52.212-3.

Backhaul, covered telecommunications equipment or services, critical technology, interconnection arrangements, reasonable inquiry, roaming, and substantial or essential component have the meanings provided in the clause 52.204-25, Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment.

(1) Section 889(a)(1)(A) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2019, from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. Nothing in the prohibition shall be construed to--

- (i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or
- (ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

- (2) Section 889(a)(1)(B) of the John S. McCain National Defense Authorization Act for Fiscal Year 2019 (Pub. L. 115-232) prohibits the head of an executive agency on or after August 13, 2020, from entering into a contract or extending or renewing a contract with an entity that uses any equipment, system, or service that uses covered telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system. This prohibition applies to the use of covered telecommunications equipment or services, regardless of whether that use is in performance of work under a Federal contract. Nothing in the prohibition shall be construed to--

(i) Prohibit the head of an executive agency from procuring with an entity to provide a service that connects to the facilities of a third-party, such as backhaul, roaming, or interconnection arrangements; or

(ii) Cover telecommunications equipment that cannot route or redirect user data traffic or cannot permit visibility into any user data or packets that such equipment transmits or otherwise handles.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) (<https://www.sam.gov>) for entities excluded from receiving federal awards for "covered telecommunications equipment or services."

(d) Representations. The Offeror represents that--

(1) It [____] will, [____] will not provide covered telecommunications equipment or services to the Government in the performance of any contract, subcontract or other contractual instrument resulting from this solicitation. The Offeror shall provide the additional disclosure information required at paragraph (e)(1) of this section if the Offeror responds "will" in paragraph (d)(1) of this section; and

(2) After conducting a reasonable inquiry, for purposes of this representation, the Offeror represents that--

It [____] does, [____] does not use covered telecommunications equipment or services, or use any equipment, system, or service that uses covered telecommunications equipment or services. The Offeror shall provide the additional disclosure information required at paragraph (e)(2) of this section if the Offeror responds "does" in paragraph (d)(2) of this section.

(e) Disclosures.

(1) Disclosure for the representation in paragraph (d)(1) of this provision. If the Offeror has responded "will" in the representation in paragraph (d)(1) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment--

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the original equipment manufacturer (OEM) or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(ii) For covered services--

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the Product Service Code (PSC) of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(1) of this provision.

(2) Disclosure for the representation in paragraph (d)(2) of this provision. If the Offeror has responded "does" in the representation in paragraph (d)(2) of this provision, the Offeror shall provide the following information as part of the offer:

(i) For covered equipment--

(A) The entity that produced the covered telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known);

(B) A description of all covered telecommunications equipment offered (include brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); and

(C) Explanation of the proposed use of covered telecommunications equipment and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(ii) For covered services--

(A) If the service is related to item maintenance: A description of all covered telecommunications services offered (include on the item being maintained: Brand; model number, such as OEM number, manufacturer part number, or wholesaler number; and item description, as applicable); or

(B) If not associated with maintenance, the PSC of the service being provided; and explanation of the proposed use of covered telecommunications services and any factors relevant to determining if such use would be permissible under the prohibition in paragraph (b)(2) of this provision.

(End of provision)

52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (OCT 2018)

(a) Definitions. As used in this provision--

Administrative proceeding means a non-judicial process that is adjudicatory in nature in order to make a determination of fault or liability (e.g., Securities and Exchange Commission Administrative Proceedings, Civilian Board of Contract Appeals Proceedings, and Armed Services Board of Contract Appeals Proceedings). This includes administrative proceedings at the Federal and State level but only in connection with performance of a Federal contract or grant. It does not include agency actions such as contract audits, site visits, corrective plans, or inspection of deliverables.

Federal contracts and grants with total value greater than \$10,000,000 means--

(1) The total value of all current, active contracts and grants, including all priced options; and

(2) The total value of all current, active orders including all priced options under indefinite-delivery, indefinite-quantity, 8(a), or requirements contracts (including task and delivery and multiple-award Schedules).

Principal means an officer, director, owner, partner, or a person having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a division or business segment; and similar positions).

(b) The offeror () has () does not have current active Federal contracts and grants with total value greater than \$10,000,000.

(c) If the offeror checked "has" in paragraph (b) of this provision, the offeror represents, by submission of this offer, that the information it has entered in the Federal Awardee Performance and Integrity Information System (FAPIS) is current, accurate, and complete as of the date of submission of this offer with regard to the following information:

(1) Whether the offeror, and/or any of its principals, has or has not, within the last five years, in connection with the award to or performance by the offeror of a Federal contract or grant, been the subject of a proceeding, at the Federal or State level that resulted in any of the following dispositions:

(i) In a criminal proceeding, a conviction.

(ii) In a civil proceeding, a finding of fault and liability that results in the payment of a monetary fine, penalty, reimbursement, restitution, or damages of \$5,000 or more.

(iii) In an administrative proceeding, a finding of fault and liability that results in--

(A) The payment of a monetary fine or penalty of \$5,000 or more; or

(B) The payment of a reimbursement, restitution, or damages in excess of \$100,000.

(iv) In a criminal, civil, or administrative proceeding, a disposition of the matter by consent or compromise with an acknowledgment of fault by the Contractor if the proceeding could have led to any of the outcomes specified in paragraphs (c)(1)(i), (c)(1)(ii), or (c)(1)(iii) of this provision.

(2) If the offeror has been involved in the last five years in any of the occurrences listed in (c)(1) of this provision, whether the offeror has provided the requested information with regard to each occurrence.

(d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the System for Award Management, which can be accessed via <https://www.sam.gov> (see 52.204-7).

(End of provision)

52.219-28 POST-AWARD SMALL BUSINESS PROGRAM REREPRESENTATION (SEP 2021)

(a) Definitions. As used in this clause--

Long-term contract means a contract of more than five years in duration, including options. However, the term does not include contracts that exceed five years in duration because the period of performance has been extended for a cumulative period not to exceed six months under the clause at 52.217-8, Option to Extend Services, or other appropriate authority.

Small business concern--

(1) Means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR part 121 and the size standard in paragraph (d) of this clause. Such a concern is "not dominant in its field of operation" when it does not exercise a controlling or major influence on a national basis in a kind of business activity in which a number of business concerns are primarily engaged. In determining whether dominance exists, consideration shall be given to all appropriate factors, including volume of business, number of employees, financial resources, competitive status or position, ownership or control of materials, processes, patents, license agreements, facilities, sales territory, and nature of business activity.

(2) Affiliates, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership,

common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

(b) If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall rerepresent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, upon occurrence of any of the following:

(1) Within 30 days after execution of a novation agreement or within 30 days after modification of the contract to include this clause, if the novation agreement was executed prior to inclusion of this clause in the contract.

(2) Within 30 days after a merger or acquisition that does not require a novation or within 30 days after modification of the contract to include this clause, if the merger or acquisition occurred prior to inclusion of this clause in the contract.

(3) For long-term contracts--

(i) Within 60 to 120 days prior to the end of the fifth year of the contract; and

(ii) Within 60 to 120 days prior to the date specified in the contract for exercising any option thereafter.

(c) If the Contractor represented that it was any of the small business concerns identified in 19.000(a)(3) prior to award of this contract, the Contractor shall rerepresent its size and socioeconomic status according to paragraph (f) of this clause or, if applicable, paragraph (h) of this clause, when the Contracting Officer explicitly requires it for an order issued under a multiple-award contract.

(d) The Contractor shall rerepresent its size status in accordance with the size standard in effect at the time of this rerepresentation that corresponds to the North American Industry Classification System (NAICS) code(s) assigned to this contract. The small business size standard corresponding to this NAICS code(s) can be found at <https://www.sba.gov/document/support-table-size-standards>.

(e) The small business size standard for a Contractor providing an end item that it does not manufacture, process, or produce itself, for a contract other than a construction or service contract, is 500 employees if the acquisition--

(1) Was set aside for small business and has a value above the simplified acquisition threshold;

(2) Used the HUBZone price evaluation preference regardless of dollar value, unless the Contractor waived the price evaluation preference; or

(3) Was an 8(a), HUBZone, service-disabled veteran-owned, economically disadvantaged women-owned, or women-owned small business set-aside or sole-source award regardless of dollar value.

(f) Except as provided in paragraph (h) of this clause, the Contractor shall make the representation(s) required by paragraph (b) and (c) of this clause by validating or updating all its representations in the Representations and Certifications section of the System for Award Management (SAM) and its other data in SAM, as necessary, to ensure that they reflect the Contractor's current status. The Contractor shall notify the contracting office in writing within the timeframes specified in paragraph (b) of this clause, or with its offer for an order (see paragraph (c) of this clause), that the data have been validated or updated, and provide the date of the validation or update.

(g) If the Contractor represented that it was other than a small business concern prior to award of this contract, the Contractor may, but is not required to, take the actions required by paragraphs (f) or (h) of this clause.

(h) If the Contractor does not have representations and certifications in SAM, or does not have a representation in SAM for the NAICS code applicable to this contract, the Contractor is required to complete the following rerepresentation and submit it to the contracting office, along with the contract number and the date on which the rerepresentation was completed:

(1) The Contractor represents that it [] is, [] is not a small business concern under NAICS Code assigned to contract number .

(2) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [] is, [] is not, a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [] is, [] is not a women-owned small business concern.

(4) Women-owned small business (WOSB) concern eligible under the WOSB Program. [Complete only if the Contractor represented itself as a women-owned small business concern in paragraph (h)(3) of this clause.] The Contractor represents that--

(i) It [] is, [] is not a WOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [] is, [] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(4)(i) of this clause is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture.

[The Contractor shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture: .] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

(5) Economically disadvantaged women-owned small business (EDWOSB) concern. [Complete only if the Contractor represented itself as a women-owned small business concern eligible under the WOSB Program in (h)(4) of this clause.] The Contractor represents that--

(i) It [] is, [] is not an EDWOSB concern eligible under the WOSB Program, has provided all the required documents to the WOSB Repository, and no change in circumstances or adverse decisions have been issued that affects its eligibility; and

(ii) It [] is, [] is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(5)(i) of this clause is accurate for each EDWOSB concern participating in the joint venture. [The Contractor shall enter the name or names of the EDWOSB concern and other small businesses that are participating in the joint venture: .] Each EDWOSB concern participating in the joint venture shall submit a separate signed copy of the EDWOSB representation.

(6) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that it [] is, [] is not a veteran-owned small business concern.

(7) [Complete only if the Contractor represented itself as a veteran-owned small business concern in paragraph (h)(6) of this clause.] The Contractor represents that it [] is, [] is not a service-disabled veteran-owned small business concern.

(8) [Complete only if the Contractor represented itself as a small business concern in paragraph (h)(1) of this clause.] The Contractor represents that--

(i) It [] is, [] is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no

material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

(ii) It [] is, [] is not a HUBZone joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (h)(8)(i) of this clause is accurate for each HUBZone small business concern participating in the HUBZone joint venture. [The Contractor shall enter the names of each of the HUBZone small business concerns participating in the HUBZone joint venture: .] Each HUBZone small business concern participating in the HUBZone joint venture shall submit a separate signed copy of the HUBZone representation.

[Contractor to sign and date and insert authorized signer's name and title.]

(End of clause)

252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAY 2021)

Substitute the following paragraphs (b), (d) and (e) for paragraphs (b) and (d) of the provision at FAR 52.204-8:

(b)(1) If the provision at FAR 52.204-7, System for Award Management, is included in this solicitation, paragraph (e) of this provision applies.

(2) If the provision at FAR 52.204-7, System for Award Management, is not included in this solicitation, and the Offeror has an active registration in the System for Award Management (SAM), the Offeror may choose to use paragraph (e) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The Offeror shall indicate which option applies by checking one of the following boxes:

☐ (i) Paragraph (e) applies.

☐ (ii) Paragraph (e) does not apply and the Offeror has completed the individual representations and certifications in the solicitation.

(d)(1) The following representations or certifications in the SAM database are applicable to this solicitation as indicated:

(i) 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation. Applies to all solicitations.

(ii) 252.216-7008, Economic Price Adjustment--Wage Rates or Material Prices Controlled by a Foreign Government. Applies to solicitations for fixed-price supply and service contracts when the contract is to be performed wholly or in part in a foreign country, and a foreign government controls wage rates or material prices and may during contract performance impose a mandatory change in wages or prices of materials.

(iii) 252.225-7042, Authorization to Perform. Applies to all solicitations when performance will be wholly or in part in a foreign country.

(iv) 252.225-7049, Prohibition on Acquisition of Certain Foreign Commercial Satellite Services--Representations. Applies to solicitations for the acquisition of commercial satellite services.

(v) 252.225-7050, Disclosure of Ownership or Control by the Government of a Country that is a State Sponsor of Terrorism. Applies to all solicitations expected to result in contracts of \$150,000 or more.

(vi) 252.229-7012, Tax Exemptions (Italy)--Representation. Applies to solicitations when contract performance will be in Italy.

(vii) 252.229-7013, Tax Exemptions (Spain)--Representation. Applies to solicitations when contract performance will be in Spain.

(viii) 252.247-7022, Representation of Extent of Transportation by Sea. Applies to all solicitations except those for direct purchase of ocean transportation services or those with an anticipated value at or below the simplified acquisition threshold.

(2) The following representations or certifications in SAM are applicable to this solicitation as indicated by the Contracting Officer: [Contracting Officer check as appropriate.]

___ (i) 252.209-7002, Disclosure of Ownership or Control by a Foreign Government.

___ (ii) 252.225-7000, Buy American--Balance of Payments Program Certificate.

___ (iii) 252.225-7020, Trade Agreements Certificate.

___ Use with Alternate I.

___ (iv) 252.225-7031, Secondary Arab Boycott of Israel.

___ (v) 252.225-7035, Buy American--Free Trade Agreements--Balance of Payments Program Certificate.

___ Use with Alternate I.

___ Use with Alternate II.

___ Use with Alternate III.

___ Use with Alternate IV.

___ Use with Alternate V.

___ (vi) 252.226-7002, Representation for Demonstration Project for Contractors Employing Persons with Disabilities.

___ (vii) 252.232-7015, Performance-Based Payments--Representation.

(e) The Offeror has completed the annual representations and certifications electronically via the SAM website at <https://www.acquisition.gov/>. After reviewing the SAM database information, the Offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in FAR 52.204-8(c) and paragraph (d) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to the NAICS code referenced for this solicitation), as of the date of this offer, and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [Offeror to insert changes, identifying change by provision number, title, date ____]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete as of the date of this offer.

FAR/DFARS provision No.	Title	Date	Change

Any changes provided by the Offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications located in the SAM database.

(End of provision)

252.204-7017 PROHIBITION ON THE ACQUISITION OF COVERED DEFENSE TELECOMMUNICATIONS EQUIPMENT OR SERVICES--REPRESENTATION (MAY 2021)

The Offeror is not required to complete the representation in this provision if the Offeror has represented in the provision at 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation, that it “does not provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument.”

(a) Definitions. Covered defense telecommunications equipment or services, covered mission, critical technology, and substantial or essential component, as used in this provision, have the meanings given in the 252.204-7018 clause, Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services, of this solicitation.

(b) Prohibition. Section 1656 of the National Defense Authorization Act for Fiscal Year 2018 (Pub. L. 115-91) prohibits agencies from procuring or obtaining, or extending or renewing a contract to procure or obtain, any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system.

(c) Procedures. The Offeror shall review the list of excluded parties in the System for Award Management (SAM) at <https://www.sam.gov> for entities that are excluded when providing any equipment, system, or service to carry out covered missions that uses covered defense telecommunications equipment or services as a substantial or essential component of any system, or as critical technology as part of any system, unless a waiver is granted.

(d) Representation. If in its annual representations and certifications in SAM the Offeror has represented in paragraph (c) of the provision at 252.204-7016, Covered Defense Telecommunications Equipment or Services--Representation, that it “does” provide covered defense telecommunications equipment or services as a part of its offered products or services to the Government in the performance of any contract, subcontract, or other contractual instrument, then the Offeror shall complete the following additional representation:

The Offeror represents that it [] will [] will not provide covered defense telecommunications equipment or services as a part of its offered products or services to DoD in the performance of any award resulting from this solicitation.

(e) Disclosures. If the Offeror has represented in paragraph (d) of this provision that it “will provide covered defense telecommunications equipment or services,” the Offeror shall provide the following information as part of the offer:

(1) A description of all covered defense telecommunications equipment and services offered (include brand or manufacturer; product, such as model number, original equipment manufacturer (OEM) number, manufacturer part number, or wholesaler number; and item description, as applicable).

(2) An explanation of the proposed use of covered defense telecommunications equipment and services and any factors relevant to determining if such use would be permissible under the prohibition referenced in paragraph (b) of this provision.

(3) For services, the entity providing the covered defense telecommunications services (include entity name, unique entity identifier, and Commercial and Government Entity (CAGE) code, if known).

(4) For equipment, the entity that produced or provided the covered defense telecommunications equipment (include entity name, unique entity identifier, CAGE code, and whether the entity was the OEM or a distributor, if known).

(End of provision)

SOLICITATION

SECTION 00 72 00
GENERAL CONDITIONS - CONTRACT CLAUSES

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JUN 2020
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	MAY 2014
52.203-6	Restrictions On Subcontractor Sales To The Government	JUN 2020
52.203-7	Anti-Kickback Procedures	JUN 2020
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	MAY 2014
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	MAY 2014
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	JUN 2020
52.203-13	Contractor Code of Business Ethics and Conduct	NOV 2021
52.203-17	Contractor Employee Whistleblower Rights and Requirement To Inform Employees of Whistleblower Rights	JUN 2020
52.203-19	Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements	JAN 2017
52.204-4	Printed or Copied Double-Sided on Postconsumer Fiber Content Paper	MAY 2011
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUN 2020
52.204-13	System for Award Management Maintenance	OCT 2018
52.204-16	Commercial and Government Entity Code Reporting	AUG 2020
52.204-18	Commercial and Government Entity Code Maintenance	AUG 2020
52.204-21	Basic Safeguarding of Covered Contractor Information Systems	NOV 2021
52.204-22	Alternative Line Item Proposal	JAN 2017
52.204-23	Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab and Other Covered Entities	NOV 2021
52.204-25	Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment	NOV 2021
52.209-6	Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment	NOV 2021
52.209-9	Updates of Publicly Available Information Regarding Responsibility Matters	OCT 2018
52.209-10	Prohibition on Contracting With Inverted Domestic Corporations	NOV 2015
52.209-13	Violation of Arms Control Treaties or Agreements -- Certification	NOV 2021
52.210-1	Market Research	NOV 2021
52.214-26	Audit and Records--Sealed Bidding	JUN 2020
52.214-27	Price Reduction for Defective Certified Cost or Pricing Data - Modifications - Sealed Bidding	JUN 2020
52.214-28	Subcontractor Certified Cost Or Pricing Data--Modifications--Sealed Bidding	JUN 2020
52.219-4	Notice of Price Evaluation Preference for HUBZone Small Business Concerns	SEP 2021
52.219-8	Utilization of Small Business Concerns	OCT 2018
52.219-9	Small Business Subcontracting Plan	NOV 2021
52.219-16	Liquidated Damages-Subcontracting Plan	SEP 2021

52.222-3	Convict Labor	JUN 2003
52.222-4	Contract Work Hours and Safety Standards - Overtime Compensation	MAY 2018
52.222-5	Construction Wage Rate Requirements--Secondary Site of the Work	MAY 2014
52.222-6	Construction Wage Rate Requirements	AUG 2018
52.222-7	Withholding of Funds	MAY 2014
52.222-8	Payrolls and Basic Records	JUL 2021
52.222-9	Apprentices and Trainees	JUL 2005
52.222-10	Compliance with Copeland Act Requirements	FEB 1988
52.222-11	Subcontracts (Labor Standards)	MAY 2014
52.222-12	Contract Termination-Debarment	MAY 2014
52.222-13	Compliance With Construction Wage Rate Requirements and Related Regulations	MAY 2014
52.222-14	Disputes Concerning Labor Standards	FEB 1988
52.222-15	Certification of Eligibility	MAY 2014
52.222-21	Prohibition Of Segregated Facilities	APR 2015
52.222-26	Equal Opportunity	SEP 2016
52.222-27	Affirmative Action Compliance Requirements for Construction	APR 2015
52.222-35	Equal Opportunity for Veterans	JUN 2020
52.222-36	Equal Opportunity for Workers with Disabilities	JUN 2020
52.222-37	Employment Reports on Veterans	JUN 2020
52.222-40	Notification of Employee Rights Under the National Labor Relations Act	DEC 2010
52.222-50	Combating Trafficking in Persons	NOV 2021
52.222-54	Employment Eligibility Verification	MAY 2022
52.222-55	Minimum Wages for Contractor Workers Under Executive Order 14026	JAN 2022
52.222-62	Paid Sick Leave Under Executive Order 13706	JAN 2022
52.223-2	Affirmative Procurement of Biobased Products Under Service and Construction Contracts	SEP 2013
52.223-5	Pollution Prevention and Right-to-Know Information	MAY 2011
52.223-6	Drug-Free Workplace	MAY 2001
52.223-10	Waste Reduction Program	MAY 2011
52.223-11	Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons.	JUN 2016
52.223-17	Affirmative Procurement of EPA-Designated Items in Service and Construction Contracts	AUG 2018
52.223-18	Encouraging Contractor Policies To Ban Text Messaging While Driving	JUN 2020
52.223-19	Compliance with Environmental Management Systems	MAY 2011
52.225-13	Restrictions on Certain Foreign Purchases	FEB 2021
52.227-1	Authorization and Consent	JUN 2020
52.227-2	Notice And Assistance Regarding Patent And Copyright Infringement	JUN 2020
52.227-4	Patent Indemnity-Construction Contracts	DEC 2007
52.228-2	Additional Bond Security	OCT 1997
52.228-11	Individual Surety--Pledge of Assets	FEB 2021
52.228-12	Prospective Subcontractor Requests for Bonds	MAY 2014
52.228-15 (Dev)	Performance and Payment Bonds-Construction. (Deviation 2020-O0016)	JUN 2020
52.229-3	Federal, State And Local Taxes	FEB 2013
52.232-17	Interest	MAY 2014
52.232-18	Availability Of Funds	APR 1984

52.232-23 Alt I	Assignment of Claims (May 2014) - Alternate I	APR 1984
52.232-27	Prompt Payment for Construction Contracts	JAN 2017
52.232-33	Payment by Electronic Funds Transfer--System for Award Management	OCT 2018
52.232-39	Unenforceability of Unauthorized Obligations	JUN 2013
52.232-40	Providing Accelerated Payments to Small Business Subcontractors	NOV 2021
52.233-1	Disputes	MAY 2014
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-5	Material and Workmanship	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-13 Alt I	Accident Prevention (Nov 1991) - Alternate I	NOV 1991
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-16 Alt I	Quantity Surveys (Apr 1984) - Alternate I	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995
52.242-5	Payments to Small Business Subcontractors	JAN 2017
52.242-13	Bankruptcy	JUL 1995
52.242-14	Suspension of Work	APR 1984
52.244-6	Subcontracts for Commercial Products and Commercial Services	JAN 2022
52.246-12	Inspection of Construction	AUG 1996
52.248-3	Value Engineering-Construction	OCT 2020
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (Apr 2012) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.252-4	Alterations in Contract	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	SEP 2011
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	SEP 2013
252.203-7003	Agency Office of the Inspector General	AUG 2019
252.203-7004	Display of Hotline Posters	AUG 2019
252.203-7005	Representation Relating to Compensation of Former DoD Officials	NOV 2011
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7008	Compliance With Safeguarding Covered Defense Information Controls	OCT 2016
252.204-7018	Prohibition on the Acquisition of Covered Defense Telecommunications Equipment or Services	JAN 2021
252.204-7019	Notice of NIST SP 800-171 DoD Assessment Requirements	MAR 2022
252.204-7020	NIST SP 800-171 DoD Assessment Requirements	MAR 2022
252.205-7000	Provision Of Information To Cooperative Agreement Holders	DEC 1991

252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Country that is a State Sponsor of Terrorism	MAY 2019
252.215-7008	Only One Offer	JUL 2019
252.215-7013	Supplies and Services Provided by Nontraditional Defense Contractors.	JAN 2018
252.219-7003	Small Business Subcontracting Plan (DOD Contracts)	DEC 2019
252.222-7006	Restrictions on the Use of Mandatory Arbitration Agreements	DEC 2010
252.223-7004	Drug Free Work Force	SEP 1988
252.223-7999 (Dev)	Ensuring Adequate COVID-19 Safety Protocols for Federal Contractors (Deviation 2021-O0009)	OCT 2021
252.225-7012	Preference For Certain Domestic Commodities	MAR 2022
252.225-7048	Export-Controlled Items	JUN 2013
252.225-7052	Restriction on the Acquisition of Certain Magnets, Tantalum, and Tungsten.	OCT 2020
252.225-7972 (Dev)	Prohibition on the Procurement of Foreign-Made Unmanned Aircraft Systems (DEVIATION 2020-O0015)	MAY 2020
252.225-7973 (Dev)	Prohibition on the Procurement of Foreign-Made Unmanned Aircraft Systems - Representation (DEVIATION 2020-O0015)	MAY 2020
252.227-7025	Limitations on the Use or Disclosure of Government-Furnished Information Marked with Restrictive Legends	MAY 2013
252.227-7033	Rights in Shop Drawings	APR 1966
252.231-7000	Supplemental Cost Principles	DEC 1991
252.232-7003	Electronic Submission of Payment Requests and Receiving Reports	DEC 2018
252.232-7010	Levies on Contract Payments	DEC 2006
252.236-7002	Obstruction of Navigable Waterways	DEC 1991
252.236-7008	Contract Prices-Bidding Schedules	DEC 1991
252.244-7000	Subcontracts for Commercial Items	JAN 2021
252.247-7000	Hardship Conditions	AUG 2000
252.247-7023	Transportation of Supplies by Sea	FEB 2019

CLAUSES INCORPORATED BY FULL TEXT

52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within one (1) calendar day after the date the Contractor receives the notice to proceed, no earlier than January 11, 2023, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 240 calendar days. The time stated for completion shall include final cleanup of the premises.

(End of clause)

52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$2,100.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

52.211-13 TIME EXTENSIONS (SEP 2000)

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

(End of clause)

52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.

52.225-11 BUY AMERICAN--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (NOV 2021)

(a) Definitions. As used in this clause--

Caribbean Basin country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different construction material distinct from the materials from which it was transformed.

Commercially available off-the-shelf (COTS) item—

(1) Means any item of supply (including construction material) that is--

(i) A commercial product (as defined in paragraph (1) of the definition of "commercial product" at Federal Acquisition Regulation (FAR) 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in 46 U.S.C. 40102(4) such as agricultural products and petroleum products.

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the construction material.

Designated country means any of the following countries:

(1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Armenia, Aruba, Australia, Austria, Belgium, Bulgaria, Canada, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Moldova, Montenegro, Netherlands, New Zealand, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan, Ukraine, or United Kingdom);

(2) A Free Trade Agreement (FTA) country (Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Korea (Republic of), Mexico, Morocco, Nicaragua, Oman, Panama, Peru, or Singapore);

(3) A least developed country (Afghanistan, Angola, Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Central African Republic, Chad, Comoros, Democratic Republic of Congo, Djibouti, Equatorial Guinea, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Laos, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mozambique, Nepal, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Solomon Islands, Somalia, South Sudan, Tanzania, Timor-Leste, Togo, Tuvalu, Uganda, Vanuatu, Yemen, or Zambia); or

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

Designated country construction material means a construction material that is a WTO GPA country construction material, an FTA country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

Domestic construction material means--

(1) For construction material that does not consist wholly or predominantly of iron or steel or a combination of both-

(i) An unmanufactured construction material mined or produced in the United States; or

(ii) A construction material manufactured in the United States, if--

(A) The cost of its components mined, produced, or manufactured in the United States exceeds 55 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic. Components of unknown origin are treated as foreign; or

(B) The construction material is a COTS item; or

(2) For construction material that consists wholly or predominantly of iron or steel or a combination of both, a construction material manufactured in the United States if the cost of foreign iron and steel constitutes less than 5 percent of the cost of all components used in such construction material. The cost of foreign iron and steel includes but is not limited to the cost of foreign iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the construction material and a good faith estimate of the cost of all foreign iron or steel components excluding COTS fasteners. Iron or steel components of unknown origin are treated as foreign. If the construction material contains multiple components, the cost of all the materials used in such construction material is calculated in accordance with the definition of "cost of components".

Fastener means a hardware device that mechanically joins or affixes two or more objects together. Examples of fasteners are nuts, bolts, pins, rivets, nails, clips, and screws.

Foreign construction material means a construction material other than a domestic construction material.

Foreign iron and steel means iron or steel products not produced in the United States. Produced in the United States means that all manufacturing processes of the iron or steel must take place in the United States, from the initial melting stage through the application of coatings, except metallurgical processes involving refinement of steel additives. The origin of the elements of the iron or steel is not relevant to the determination of whether it is domestic or foreign.

Least developed country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

Free Trade Agreement country construction material means a construction material that—

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a FTA country into a new and different construction material distinct from the materials from which it was transformed.

Least developed country construction material means a construction material that—

(1) Is wholly the growth, product, or manufacture of a least developed country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a least developed country into a new and different construction material distinct from the materials from which it was transformed.

Predominantly of iron or steel or a combination of both means that the cost of the iron and steel content exceeds 50 percent of the total cost of all its components. The cost of iron and steel is the cost of the iron or steel mill products (such as bar, billet, slab, wire, plate, or sheet), castings, or forgings utilized in the manufacture of the product and a good faith estimate of the cost of iron or steel components excluding COTS fasteners.

Steel means an alloy that includes at least 50 percent iron, between 0.02 and 2 percent carbon, and may include other elements.

United States means the 50 States, the District of Columbia, and outlying areas.

WTO GPA country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a WTO GPA country; or

(2) In the case of a construction material that consists in whole or in part of materials from another country, has been substantially transformed in a WTO GPA country into a new and different construction material distinct from the materials from which it was transformed.

(b) Construction materials.

(1) This clause implements 41 U.S.C. chapter 83, Buy American, by providing a preference for domestic construction material. In accordance with 41 U.S.C. 1907, the domestic content test of the Buy American statute is waived for construction material that is a COTS item, except that for construction material that consists wholly or predominantly of iron or steel or a combination of both, the domestic content test is applied only to the iron and steel content of the construction material, excluding COTS fasteners. (See FAR 12.505(a)(2)). In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American restrictions are waived for designated country construction materials.

(2) The Contractor shall use only domestic or designated country construction material in performing this contract, except as provided in paragraphs (b)(3) and (b)(4) of this clause.

(3) The requirement in paragraph (b)(2) of this clause does not apply to information technology that is a commercial product or to the construction materials or components listed by the Government as follows:

[Contracting Officer to list applicable excepted materials or indicate ``none"]

(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American statute is unreasonable when the cost of such material exceeds the cost of foreign material by more than 20 percent;

(ii) The application of the restriction of the Buy American statute to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American statute.

(1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(4) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American statute applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(4)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American statute applies, use of foreign construction material is noncompliant with the Buy American statute.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) *

Item 1:			
Foreign construction material....
Domestic construction material...
Item 2:			
Foreign construction material....
Domestic construction material...

[* Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued)].

[List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.]

[Include other applicable supporting information.]

(End of clause)

52.228-14 IRREVOCABLE LETTER OF CREDIT (NOV 2014)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to 40 U.S.C. chapter 31, subchapter III, Bonds, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period

following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d)(1) Only federally insured financial institutions rated investment grade by a commercial rating service shall issue or confirm the ILC.

(2) Unless the financial institution issuing the ILC had letter of credit business of at least \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of at least \$25 million in the past year.

(3) The Offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institutions have the required credit rating as of the date of issuance of the ILC.

(4) The current rating for a financial institution is available through any of the following rating services registered with the U.S. Securities and Exchange Commission (SEC) as a Nationally Recognized Statistical Rating Organization (NRSRO). NRSRO's can be located at the Web site <http://www.sec.gov/answers/nrsro.htm> maintained by the SEC.

(e) The following format shall be used by the issuing financial institution to create an ILC:

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _ _ _ _

IRREVOCABLE LETTER OF CREDIT NO. ____

Account party's name _ _ _ _

Account party's address _ _ _ _

For Solicitation No. ____ (for reference only)

TO: [____ U.S. Government agency]

[____ U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$ ____ . This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [____ issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on ____ , or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we

notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., "Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution, if any, otherwise State of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[____ Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

____ [Confirming Financial Institution's Letterhead or Name and Address]

(Date) ____

Our Letter of Credit Advice Number ____

Beneficiary: ____ [U.S. Government agency]

Issuing Financial Institution: ____

Issuing Financial Institution's LC No.: ____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by ____ [name of issuing financial institution] for drawings of up to United States dollars ____ /U.S. \$ ____ and expiring with our close of business on ____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at ____ .

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider

this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, International Chamber of Commerce Publication No. ____ -- (Insert version in effect at the time of ILC issuance, e.g., ``Publication 600, 2006 edition") and to the extent not inconsistent therewith, to the laws of ____ --[State of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

[City, State]

(Date) ____

[Name and address of financial institution]

Pay to the order of ____ [Beneficiary Agency] ____ the sum of United States ____ This draft is drawn under Irrevocable Letter of Credit No. ____

____ [Beneficiary Agency]

By: ____

(End of clause)

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (MAY 2014)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

(Name)

(Title)

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 6305).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least 60 percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

52.236-4 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by NA

(b) Weather conditions NA

(c) Transportation facilities NA

(d) (insert other pertinent information).

(End of clause)

52.243-4 CHANGES (JUN 2007)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

(1) In the specifications (including drawings and designs);

(2) In the method or manner of performance of the work;

(3) In the Government-furnished property or services; or

(4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

(1) the date, circumstances, and source of the order and

(2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of clause)

52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

This contract incorporates one or more clauses by reference, with the same force and effect as if they were given in full text. Upon request, the Contracting Officer will make their full text available. Also, the full text of a clause may be accessed electronically at this/these address(es):

Acquisition.gov

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (NOV 2020)

(a) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the clause.

(b) The use in this solicitation or contract of any (48 CFR Chapter 1) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (DEC 2008)

(a) Definitions. As used in this clause—

(1) “Arising out of a contract with the DoD” means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) “Conviction of fraud or any other felony” means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of nolo contendere, for which sentence has been imposed.

(3) “Date of conviction” means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on this contract;

(2) On the board of directors of the Contractor;

(3) As a consultant, agent, or representative for the Contractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of the Contractor with regard to this contract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that the Contractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly--

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone 301-937-1542; www.ojp.usdoj.gov/BJA/grant/DPFC.html".

(End of clause)

252.204-7015 NOTICE OF AUTHORIZED DISCLOSURE OF INFORMATION FOR LITIGATION SUPPORT (MAY 2016)

(a) Definitions. As used in this clause--

Computer software means computer programs, source code, source code listings, object code listings, design details, algorithms, processes, flow charts, formulae, and related material that would enable the software to be reproduced, recreated, or recompiled. Computer software does not include computer data bases or computer software documentation.

Litigation support means administrative, technical, or professional services provided in support of the Government during or in anticipation of litigation.

Litigation support contractor means a contractor (including its experts, technical consultants, subcontractors, and suppliers) providing litigation support under a contract that contains the clause at 252.204-7014, Limitations on the Use or Disclosure of Information by Litigation Support Contractors.

Sensitive information means controlled unclassified information of a commercial, financial, proprietary, or privileged nature. The term includes technical data and computer software, but does not include information that is lawfully, publicly available without restriction.

Technical data means recorded information, regardless of the form or method of the recording, of a scientific or technical nature (including computer software documentation). The term does not include computer software or data incidental to contract administration, such as financial and/or management information.

(b) Notice of authorized disclosures. Notwithstanding any other provision of this solicitation or contract, the Government may disclose to a litigation support contractor, for the sole purpose of litigation support activities, any information, including sensitive information, received—

(1) Within or in connection with a quotation or offer; or

(2) In the performance of or in connection with a contract.

(c) Flowdown. Include the substance of this clause, including this paragraph (c), in all subcontracts, including subcontracts for commercial items.

(End of clause)

252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

SEE SEPARATE DRAWING ATTACHMENT(S)

(End of clause)

252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) Sixty percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining forty percent upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs (a) (1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by the Contracting Officer, of --

(i) Actual mobilization costs at completion of mobilization;

(ii) Actual demobilization costs at completion of demobilization; and

(iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

(End of clause)

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (DEC 2012)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been

separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

(Official's Name)

(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Certified cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Data other than certified cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if certified cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

SOLICITATION

**SECTION 00 73 00
SPECIAL CONTRACT REQUIREMENTS**

ATTACHMENTS:

1. GENERAL WAGE DETERMINATION

2. PREAWARD SURVEY - SEE SECTION 00 21 00. THE PREAWARD SURVEY IS ATTACHED FOR INFORMATION PURPOSES ONLY; IT WILL BE REQUIRED ONLY FROM THE LOW BIDDER AFTER BIDOPENING IF THE LOW BIDDER HAS NOT HAD A CONTRACT WITH THE SAN FRANCISCO DISTRICT, SACRAMENTO DISTRICT, OR LOS ANGELES DISTRICT, CORPS OF ENGINEERS, IN THE LAST TWELVE-MONTH PERIOD. IT IS NOT REQUIRED AS PART OF THE BID PACKAGE.

REQUIRED INSURANCE SCHEDULE (Construction) (AUG 2008)

Type	Amount
Workmen's Compensation	coverage complying with applicable state statutes
Employer's Liability	minimum amount of \$100,000.00,
General Liability on	minimum limits of \$500,000.00 per occurrence for bodily
Comprehensive form of policy	injury which includes, but is not limited to, insurance for work required herein
Comprehensive Automobile	minimum limits of \$200,000.00 per person and \$500,000.00 per Liability occurrence for bodily injury and \$20,000.00 per occurrence for property damage

(End)

SOLICITATION

"General Decision Number: CA20220018 10/21/2022

Superseded General Decision Number: CA20210018

State: California

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

Counties: Alameda, Calaveras, Contra Costa, Fresno, Kings, Madera, Mariposa, Merced, Monterey, San Benito, San Francisco, San Joaquin, San Mateo, Santa Clara, Santa Cruz, Stanislaus and Tuolumne Counties in California.

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

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	<ul style="list-style-type: none"> . Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker

SOLICITATION

Modification Number	Publication Date
0	01/07/2022
1	01/14/2022
2	01/21/2022
3	02/18/2022
4	02/25/2022
5	03/25/2022
6	04/01/2022
7	06/03/2022
8	07/01/2022
9	07/15/2022
10	07/22/2022
11	07/29/2022
12	08/05/2022
13	08/12/2022
14	08/19/2022
15	08/26/2022
16	09/02/2022
17	09/23/2022
18	09/30/2022
19	10/07/2022
20	10/14/2022
21	10/21/2022

ASBE0016-004 01/01/2021

AREA 1: CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED,
 MONTEREY, SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS &
 TOULMNE COUNTIES

AREA 2: ALAMEDA, CONTRA COSTA, SAN FRANSICO, SAN MATEO & SANTA
 CLARA COUNTIES

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

Area 1.....	\$ 30.45	10.60
Area 2.....	\$ 36.53	9.27

 ASBE0016-008 01/01/2021

AREA 1: ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN
 FRANSICO, SAN MATEO, SANTA CLARA, & SANTA CRUZ

AREA 2: CALAVERAS, COLUSA, FRESNO, KINGS, MADERA, MARIPOSA,
 MERCED, SAN JOAQUIN, STANISLAU, & TUOLUMNE

	Rates	Fringes
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Asbestos Workers/Insulator

(Includes the application of
all insulating materials,
Protective Coverings,
Coatings, and Finishes to all
types of mechanical systems)

Area 1.....	\$ 74.16	23.58
Area 2.....	\$ 46.81	33.50

BOIL0549-001 01/01/2021

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

AREA 2: REMAINING COUNTIES

	Rates	Fringes
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BOILERMAKER

Area 1.....	\$ 49.62	41.27
Area 2.....	\$ 45.60	38.99

BRCA0003-001 08/01/2021

	Rates	Fringes
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MARBLE FINISHER.....	\$ 37.72	17.64
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BRCA0003-003 08/01/2021

	Rates	Fringes
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MARBLE MASON.....	\$ 53.17	29.10
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BRCA0003-005 05/01/2020

	Rates	Fringes
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BRICKLAYER

(1) Fresno, Kings, Madera, Mariposa, Merced....	\$ 43.68	22.19
(7) San Francisco, San Mateo.....	\$ 47.65	26.77
(8) Alameda, Contra Costa, San Benito, Santa Clara.....	\$ 49.42	22.70
(9) Calaveras, San Joaquin, Stanislaus, Toulumne.....	\$ 45.12	21.55
(16) Monterey, Santa Cruz...	\$ 45.88	25.02

BRCA0003-008 07/01/2021

	Rates	Fringes
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TERRAZZO FINISHER.....	\$ 39.95	18.46
TERRAZZO WORKER/SETTER.....	\$ 53.03	28.34

BRCA0003-011 04/01/2019

AREA 1: Alameda, Contra Costa, Monterey, San Benito, San Francisco, San Mateo, Santa Clara, Santa Cruz

AREA 2: Calaveras, San Joaquin, Stanislaus, Tuolumne

SOLICITATION

	Rates	Fringes
TILE FINISHER		
Area 1.....	\$ 29.94	16.38
Area 2.....	\$ 25.60	14.30
Area 3.....	\$ 26.58	15.65
Tile Layer		
Area 1.....	\$ 49.90	19.16
Area 2.....	\$ 42.67	16.81
Area 3.....	\$ 40.27	18.58

CARP0022-001 07/01/2021

San Francisco County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 55.00	31.49
Journeyman Carpenter.....	\$ 54.85	31.49
Millwright.....	\$ 54.95	33.08

CARP0034-001 07/01/2021

	Rates	Fringes
Diver		
Assistant Tender, ROV Tender/Technician.....	\$ 54.10	34.69
Diver standby.....	\$ 60.51	34.69
Diver Tender.....	\$ 59.51	34.69
Diver wet.....	\$ 103.62	34.69
Manifold Operator (mixed gas).....	\$ 64.51	34.69
Manifold Operator (Standby).\$	59.51	34.69

DEPTH PAY (Surface Diving):

050 to 100 ft	\$2.00 per foot
101 to 150 ft	\$3.00 per foot
151 to 220 ft	\$4.00 per foot
221 ft.-deeper	\$5.00 per foot

SATURATION DIVING:

The standby rate shall apply until saturation starts. The saturation diving rate applies when divers are under pressure continuously until work task and decompression are complete. The diver rate shall be paid for all saturation hours.

DIVING IN ENCLOSURES:

Where it is necessary for Divers to enter pipes or tunnels, or other enclosures where there is no vertical ascent, the following premium shall be paid: Distance traveled from entrance 26 feet to 300 feet: \$1.00 per foot. When it is necessary for a diver to enter any pipe, tunnel or other enclosure less than 48" in height, the premium will be

\$1.00 per foot.

W912P723B0001

WORK IN COMBINATION OF CLASSIFICATIONS:

Employees working in any combination of classifications within the diving crew (except dive supervisor) in a shift are paid in the classification with the highest rate for that shift.

CARP0034-003 07/01/2021

	Rates	Fringes
Piledriver.....	\$ 54.10	34.69

CARP0035-007 07/01/2020

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, San Joaquin, Stanislaus, Tuolumne Counties

	Rates	Fringes
Modular Furniture Installer		
Area 1		
Installer.....	\$ 28.76	22.53
Lead Installer.....	\$ 32.21	23.03
Master Installer.....	\$ 36.43	23.03
Area 2		
Installer.....	\$ 26.11	22.53
Lead Installer.....	\$ 29.08	23.03
Master Installer.....	\$ 32.71	23.03
Area 3		
Installer.....	\$ 25.16	22.53
Lead Installer.....	\$ 27.96	23.03
Master Installer.....	\$ 31.38	23.03

CARP0035-008 08/01/2020

AREA 1: Alameda, Contra Costa, San Francisco, San Mateo, Santa Clara counties

AREA 2: Monterey, San Benito, Santa Cruz Counties

AREA 3: San Joaquin

AREA 4: Calaveras, Fresno, Kings, Madera, Mariposa, Merced, Stanislaus, Tuolumne Counties

	Rates	Fringes
Drywall Installers/Lathers:		
Area 1.....	\$ 52.65	31.26
Area 2.....	\$ 46.77	31.26
Area 3.....	\$ 47.27	31.26
Area 4.....	\$ 45.92	31.26
Drywall Stocker/Scraper		
Area 1.....	\$ 26.33	18.22
Area 2.....	\$ 23.39	18.22

Area 3.....	\$ 23.64	18.22
Area 4.....	\$ 22.97	18.22

W912P723B0001

CARP0152-001 07/01/2020

Contra Costa County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 52.80	30.82
Journeyman Carpenter.....	\$ 52.65	30.82
Millwright.....	\$ 52.75	32.41

CARP0152-002 07/01/2020

San Joaquin County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 46.92	30.82
Journeyman Carpenter.....	\$ 46.77	30.82
Millwright.....	\$ 49.27	32.41

CARP0152-004 07/01/2020

Calaveras, Mariposa, Merced, Stanislaus and Tuolumne Counties

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 52.65	30.82
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 45.57	30.82
Journeyman Carpenter.....	\$ 45.42	30.82
Millwright.....	\$ 47.92	32.41

CARP0217-001 07/01/2021

San Mateo County

	Rates	Fringes
Carpenters		
Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw		

Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 55.00	31.49
Journeyman Carpenter.....	\$ 54.85	31.49
Millwright.....	\$ 54.95	33.08

CARP0405-001 07/01/2021

Santa Clara County

	Rates	Fringes
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Carpenters

Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 55.00	31.49
Journeyman Carpenter.....	\$ 54.85	31.49
Millwright.....	\$ 54.95	33.08

CARP0405-002 07/01/2021

San Benito County

	Rates	Fringes
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Carpenters

Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 49.12	31.49
Journeyman Carpenter.....	\$ 48.97	31.49
Millwright.....	\$ 51.47	33.08

CARP0505-001 07/01/2021

Santa Cruz County

	Rates	Fringes
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Carpenters

Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 49.12	31.49
Journeyman Carpenter.....	\$ 48.97	31.49
Millwright.....	\$ 51.47	33.08

CARP0605-001 07/01/2021

Monterey County

	Rates	Fringes
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Carpenters

Bridge Builder/Highway		
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Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 49.12	31.49
Journeyman Carpenter.....	\$ 48.97	31.49
Millwright.....	\$ 51.47	33.08

 CARP0701-001 07/01/2021

Fresno and Madera Counties

Rates Fringes

Carpenters

Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 47.77	31.49
Journeyman Carpenter.....	\$ 47.62	31.49
Millwright.....	\$ 50.12	33.08

 CARP0713-001 07/01/2021

Alameda County

Rates Fringes

Carpenters

Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 55.00	31.49
Journeyman Carpenter.....	\$ 54.85	31.49
Millwright.....	\$ 54.95	33.08

 CARP1109-001 07/01/2021

Kings County

Rates Fringes

Carpenters

Bridge Builder/Highway Carpenter.....	\$ 54.85	31.49
Hardwood Floorlayer, Shingler, Power Saw Operator, Steel Scaffold & Steel Shoring Erector, Saw Filer.....	\$ 47.77	31.49
Journeyman Carpenter.....	\$ 47.62	31.49
Millwright.....	\$ 50.12	33.08

 ELEC0006-004 12/01/2021

SAN FRANCISCO COUNTY

Rates Fringes

SOLICITATION

Sound & Communications

Installer.....	\$ 48.43	3%+23.15
Technician.....	\$ 55.69	3%+23.15

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0006-007 06/01/2022

SAN FRANCISCO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 83.25	3%+40.065

ELEC0100-002 09/01/2022

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 43.00	26.84

ELEC0100-005 12/01/2019

FRESNO, KINGS, MADERA

	Rates	Fringes
Communications System		
Installer.....	\$ 35.25	20.86
Technician.....	\$ 40.54	21.02

SCOPE OF WORK

Includes the installation testing, service and maintenance, of the following systems which utilize the transmission and/or transference of voice, sound, vision and digital for commercial, education, security and entertainment purposes for the following: TV monitoring and surveillance, background-foreground music, intercom and telephone interconnect, inventory control systems, microwave transmission, multi-media, multiplex, nurse call system, radio page, school intercom and sound, burglar alarms, and low voltage master clock systems.

A. SOUND AND VOICE TRANSMISSION/TRANSFERENCE SYSTEMS

Background foreground music, Intercom and telephone interconnect systems, Telephone systems Nurse call systems, Radio page systems, School intercom and sound systems, Burglar alarm systems, Low voltage, master clock systems, Multi-media/multiplex systems, Sound and musical entertainment systems, RF systems, Antennas and Wave Guide,

B. FIRE ALARM SYSTEMS Installation, wire pulling and testing

C. TELEVISION AND VIDEO SYSTEMS Television monitoring and surveillance systems Video security systems, Video entertainment systems, Video educational systems, Microwave transmission systems, CATV and CCTV

D. SECURITY SYSTEMS Perimeter security systems Vibration sensor systems Card access systems Access control systems, Sonar/infrared monitoring equipment

E. COMMUNICATIONS SYSTEMS THAT TRANSMIT OR RECEIVE INFORMATION AND/OR CONTROL SYSTEMS THAT ARE INTRINSIC TO THE ABOVE LISTED SYSTEMS SCADA (Supervisory Control and Data Acquisition) PCM (Pulse Code Modulation) Inventory Control Systems, Digital Data Systems Broadband and Baseband and Carriers Point of Sale Systems, VSAT Data Systems Data Communication Systems RF and Remote Control Systems, Fiber Optic Data Systems

WORK EXCLUDED Raceway systems are not covered (excluding Ladder-Rack for the purpose of the above listed systems). Chases and/or nipples (not to exceed 10 feet) may be installed on open wiring systems. Energy management systems. SCADA (Supervisory Control and Data Acquisition) when not intrinsic to the above listed systems (in the scope). Fire alarm systems when installed in raceways (including wire and cable pulling) shall be performed at the electrician wage rate, when either of the following two (2) conditions apply:

1. The project involves new or major remodel building trades construction.
2. The conductors for the fire alarm system are installed in conduit.

ELEC0234-001 12/27/2021

MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
ELECTRICIAN		
Zone A.....	\$ 56.91	29.31
Zone B.....	\$ 62.60	29.48

Zone A: All of Santa Cruz, Monterey, and San Benito Counties within 25 air miles of Highway 1 and Dolan Road in Moss Landing, and an area extending 5 miles east and west of Highway 101 South to the San Luis Obispo County Line

Zone B: Any area outside of Zone A

ELEC0234-003 12/01/2021

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 47.93	24.09
Technician.....	\$ 55.12	24.30

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0302-001 03/01/2021

CONTRA COSTA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 63.86	29.17
ELECTRICIAN.....	\$ 56.76	28.95

ELEC0302-003 12/01/2021

CONTRA COSTA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 43.71	23.96
Technician.....	\$ 50.27	24.16

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0332-001 06/01/2022

SANTA CLARA COUNTY

	Rates	Fringes
CABLE SPLICER.....	\$ 92.20	42.316
ELECTRICIAN.....	\$ 80.17	41.955

FOOTNOTES: Work under compressed air or where gas masks are required, or work on ladders, scaffolds, stacks, "Bosun's chairs," or other structures and where the workers are not protected by permanent guard rails at a distance of 40 to 60 ft. from the ground or supporting structures: to be paid one and one-half times the straight-time rate of pay. Work on structures of 60 ft. or over (as described above): to be paid twice the straight-time rate of pay.

ELEC0332-003 12/01/2021

SANTA CLARA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 47.93	24.088
Technician.....	\$ 55.12	24.304

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0595-001 06/01/2021

ALAMEDA COUNTY

	Rates	Fringes
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CABLE SPLICER.....	\$ 72.80	3%+39.94
ELECTRICIAN.....	\$ 63.30	3%+39.94

ELEC0595-002 06/01/2021

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
CABLE SPLICER.....	\$ 50.70	7.75%+25.58
ELECTRICIAN		
(1) Tunnel work.....	\$ 44.25	7.75%+25.58
(2) All other work.....	\$ 42.25	7.75%+25.58

ELEC0595-006 12/01/2021

ALAMEDA COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 47.93	3%+22.65
Technician.....	\$ 55.12	3%+22.65

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0595-008 12/01/2021

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
Communications System		
Installer.....	\$ 38.24	3%+22.65
Technician.....	\$ 43.98	3%+22.65

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when

performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0617-001 06/01/2022

SAN MATEO COUNTY

	Rates	Fringes
ELECTRICIAN.....	\$ 74.00	43.76

ELEC0617-003 12/01/2021

SAN MATEO COUNTY

	Rates	Fringes
Sound & Communications		
Installer.....	\$ 47.93	24.09
Technician.....	\$ 55.12	24.30

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC0684-001 06/01/2022

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
ELECTRICIAN.....	\$ 44.25	3%+26.63

ELEC0684-004 12/01/2021

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
Communications System		
Installer.....	\$ 38.24	23.80
Technician.....	\$ 43.98	23.97

SCOPE OF WORK: Including any data system whose only function is to transmit or receive information; excluding all other data systems or multiple systems which include control function or power supply; inclusion or exclusion of terminations and testings of conductors determined by their function; excluding fire alarm work when installed in raceways (including wire and cable pulling) and when performed on new or major remodel building projects or jobs for which the conductors for the fire alarm system are installed in conduit; excluding installation of raceway systems, line voltage work, industrial work, life-safety systems (all buildings having floors located more than 75' above the lowest floor level having building access); excluding energy management systems.

FOOTNOTE: Fire alarm work when installed in raceways (including wire and cable pulling), on projects which involve new or major remodel building construction, for which the conductors for the fire alarm system are installed in the conduit, shall be performed by the inside electrician.

ELEC1245-001 06/01/2022

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	\$ 64.40	22.58
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....	\$ 50.00	21.30
(3) Groundman.....	\$ 38.23	20.89
(4) Powderman.....	\$ 51.87	18.79

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

ELEV0008-001 01/01/2022

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 74.54	36.885+a+b

FOOTNOTE:

a. PAID VACATION: Employer contributes 8% of regular hourly

rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
 b. PAID HOLIDAYS: New Year's Day, Memorial Day, Independence Day, Labor Day, Veterans' Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

 ENGI0003-001 06/28/2021

""AREA 1"" WAGE RATES ARE LISTED BELOW

""AREA 2"" RECEIVES AN ADDITIONAL \$2.00 PER HOUR ABOVE AREA 1 RATES.

SEE AREA DEFINITIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (AREA 1:)		
GROUP 1.....	\$ 53.92	31.54
GROUP 2.....	\$ 52.39	31.54
GROUP 3.....	\$ 50.91	31.54
GROUP 4.....	\$ 49.53	31.54
GROUP 5.....	\$ 48.26	31.54
GROUP 6.....	\$ 46.94	31.54
GROUP 7.....	\$ 45.80	31.54
GROUP 8.....	\$ 44.66	31.54
GROUP 8-A.....	\$ 42.45	31.54
OPERATOR: Power Equipment (Cranes and Attachments - AREA 1:)		
GROUP 1		
Cranes.....	\$ 52.30	31.15
Oiler.....	\$ 43.79	31.15
Truck crane oiler.....	\$ 46.08	31.15
GROUP 2		
Cranes.....	\$ 50.54	31.15
Oiler.....	\$ 42.83	31.15
Truck crane oiler.....	\$ 45.07	31.15
GROUP 3		
Cranes.....	\$ 48.80	31.15
Hydraulic.....	\$ 44.44	31.15
Oiler.....	\$ 42.55	31.15
Truck crane oiler.....	\$ 44.83	31.15
GROUP 4		
Cranes.....	\$ 45.76	31.15
OPERATOR: Power Equipment (Piledriving - AREA 1:)		
GROUP 1		
Lifting devices.....	\$ 52.64	31.15
Oiler.....	\$ 43.38	31.15
Truck Crane Oiler.....	\$ 45.66	31.15
GROUP 2		
Lifting devices.....	\$ 50.82	31.15
Oiler.....	\$ 43.11	31.15
Truck Crane Oiler.....	\$ 45.41	31.15
GROUP 3		
Lifting devices.....	\$ 49.14	31.15
Oiler.....	\$ 42.89	31.15
Truck Crane Oiler.....	\$ 45.12	31.15
GROUP 4		
Lifting devices.....	\$ 47.37	31.15
GROUP 5		

SOLICITATION

Lifting devices.....	\$ 44.73	31.15
GROUP 6		
Lifting devices.....	\$ 42.50	31.15
OPERATOR: Power Equipment (Steel Erection - AREA 1:)		
GROUP 1		
Cranes.....	\$ 53.27	31.15
Oiler.....	\$ 43.72	31.15
Truck Crane Oiler.....	\$ 45.95	31.15
GROUP 2		
Cranes.....	\$ 51.50	31.15
Oiler.....	\$ 43.45	31.15
Truck Crane Oiler.....	\$ 45.73	31.15
GROUP 3		
Cranes.....	\$ 50.02	31.15
Hydraulic.....	\$ 45.07	31.15
Oiler.....	\$ 43.23	31.15
Truck Crane Oiler.....	\$ 45.46	31.15
GROUP 4		
Cranes.....	\$ 48.00	31.15
GROUP 5		
Cranes.....	\$ 46.70	31.15
OPERATOR: Power Equipment (Tunnel and Underground Work - AREA 1:)		
SHAFTS, STOPES, RAISES:		
GROUP 1.....	\$ 47.52	31.15
GROUP 1-A.....	\$ 49.99	31.15
GROUP 2.....	\$ 46.26	31.15
GROUP 3.....	\$ 44.93	31.15
GROUP 4.....	\$ 43.79	31.15
GROUP 5.....	\$ 42.65	31.15
UNDERGROUND:		
GROUP 1.....	\$ 47.42	31.15
GROUP 1-A.....	\$ 49.89	31.15
GROUP 2.....	\$ 46.16	31.15
GROUP 3.....	\$ 44.83	31.15
GROUP 4.....	\$ 43.69	31.15
GROUP 5.....	\$ 42.55	31.15

FOOTNOTE: Work suspended by ropes or cables, or work on a Yo-Yo Cat: \$.60 per hour additional.

POWER EQUIPMENT OPERATOR CLASSIFICATIONS

GROUP 1: Operator of helicopter (when used in erection work); Hydraulic excavator, 7 cu. yds. and over; Power shovels, over 7 cu. yds.

GROUP 2: Highline cableway; Hydraulic excavator, 3-1/2 cu. yds. up to 7 cu. yds.; Licensed construction work boat operator, on site; Power blade operator (finish); Power shovels, over 1 cu. yd. up to and including 7 cu. yds. m.r.c.

GROUP 3: Asphalt milling machine; Cable backhoe; Combination backhoe and loader over 3/4 cu. yds.; Continuous flight tie back machine assistant to engineer or mechanic; Crane mounted continuous flight tie back machine, tonnage to apply; Crane mounted drill attachment, tonnage to apply; Dozer, slope brd; Gradall; Hydraulic excavator, up to 3 1/2 cu. yds.; Loader 4 cu. yds. and over; Long reach excavator; Multiple engine scraper (when used as push pull); Power shovels, up to and including 1 cu. yd.; Pre-stress wire

wrapping machine; Side boom cat, 572 or larger; Track loader 4 cu. yds. and over; Wheel excavator (up to and including 750 cu. yds. per hour)

GROUP 4: Asphalt plant engineer/box person; Chicago boom; Combination backhoe and loader up to and including 3/4 cu. yd.; Concrete batch plant (wet or dry); Dozer and/or push cat; Pull- type elevating loader; Gradesetter, grade checker (GPS, mechanical or otherwise); Grooving and grinding machine; Heading shield operator; Heavy-duty drilling equipment, Hughes, LDH, Watson 3000 or similar; Heavy-duty repairperson and/or welder; Lime spreader; Loader under 4 cu. yds.; Lubrication and service engineer (mobile and grease rack); Mechanical finishers or spreader machine (asphalt, Barber-Greene and similar); Miller Formless M-9000 slope paver or similar; Portable crushing and screening plants; Power blade support; Roller operator, asphalt; Rubber-tired scraper, self-loading (paddle-wheels, etc.); Rubber- tired earthmoving equipment (scrapers); Slip form paver (concrete); Small tractor with drag; Soil stabilizer (P & H or equal); Spider plow and spider puller; Tubex pile rig; Unlicensed construction work boat operator, on site; Timber skidder; Track loader up to 4 yds.; Tractor-drawn scraper; Tractor, compressor drill combination; Welder; Woods-Mixer (and other similar Pugmill equipment)

GROUP 5: Cast-in-place pipe laying machine; Combination slusher and motor operator; Concrete conveyor or concrete pump, truck or equipment mounted; Concrete conveyor, building site; Concrete pump or pumpcrete gun; Drilling equipment, Watson 2000, Texoma 700 or similar; Drilling and boring machinery, horizontal (not to apply to waterliners, wagon drills or jackhammers); Concrete mixer/all; Person and/or material hoist; Mechanical finishers (concrete) (Clary, Johnson, Bidwell Bridge Deck or similar types); Mechanical burm, curb and/or curb and gutter machine, concrete or asphalt); Mine or shaft hoist; Portable crusher; Power jumbo operator (setting slip-forms, etc., in tunnels); Screed (automatic or manual); Self-propelled compactor with dozer; Tractor with boom D6 or smaller; Trenching machine, maximum digging capacity over 5 ft. depth; Vermeer T-600B rock cutter or similar

GROUP 6: Armor-Coater (or similar); Ballast jack tamper; Boom- type backfilling machine; Assistant plant engineer; Bridge and/or gantry crane; Chemical grouting machine, truck-mounted; Chip spreading machine operator; Concrete saw (self-propelled unit on streets, highways, airports and canals); Deck engineer; Drilling equipment Texoma 600, Hughes 200 Series or similar up to and including 30 ft. m.r.c.; Drill doctor; Helicopter radio operator; Hydro-hammer or similar; Line master; Skidsteer loader, Bobcat larger than 743 series or similar (with attachments); Locomotive; Lull hi-lift or similar; Oiler, truck mounted equipment; Pavement breaker, truck-mounted, with compressor combination; Paving fabric installation and/or laying machine; Pipe bending machine (pipelines only); Pipe wrapping machine (tractor propelled and supported); Screed (except asphaltic concrete paving); Self- propelled pipeline wrapping machine; Tractor; Self-loading chipper; Concrete barrier moving machine

GROUP 7: Ballast regulator; Boom truck or dual-purpose A-frame truck, non-rotating - under 15 tons; Cary lift or

similar; Combination slurry mixer and/or cleaner; Drilling equipment, 20 ft. and under m.r.c.; Firetender (hot plant); Grouting machine operator; Highline cableway signalperson; Stationary belt loader (Kolman or similar); Lift slab machine (Vagtborg and similar types); Maginnes internal full slab vibrator; Material hoist (1 drum); Mechanical trench shield; Pavement breaker with or without compressor combination); Pipe cleaning machine (tractor propelled and supported); Post driver; Roller (except asphalt); Chip Seal; Self-propelled automatically applied concrete curing machine (on streets, highways, airports and canals); Self-propelled compactor (without dozer); Signalperson; Slip-form pumps (lifting device for concrete forms); Tie spacer; Tower mobile; Trenching machine, maximum digging capacity up to and including 5 ft. depth; Truck- type loader

GROUP 8: Bit sharpener; Boiler tender; Box operator; Brakeperson; Combination mixer and compressor (shotcrete/gunite); Compressor operator; Deckhand; Fire tender; Forklift (under 20 ft.); Generator; Gunite/shotcrete equipment operator; Hydraulic monitor; Ken seal machine (or similar); Mixermobile; Oiler; Pump operator; Refrigeration plant; Reservoir-debris tug (self-propelled floating); Ross Carrier (construction site); Rotomist operator; Self-propelled tape machine; Shuttlecar; Self-propelled power sweeper operator (includes vacuum sweeper); Slusher operator; Surface heater; Switchperson; Tar pot firetender; Tugger hoist, single drum; Vacuum cooling plant; Welding machine (powered other than by electricity)

GROUP 8-A: Elevator operator; Skidsteer loader-Bobcat 743 series or smaller, and similar (without attachments); Mini excavator under 25 H.P. (backhoe-trencher); Tub grinder wood chipper

ALL CRANES AND ATTACHMENTS

GROUP 1: Clamshell and dragline over 7 cu. yds.; Crane, over 100 tons; Derrick, over 100 tons; Derrick barge pedestal-mounted, over 100 tons; Self-propelled boom-type lifting device, over 100 tons

GROUP 2: Clamshell and dragline over 1 cu. yd. up to and including 7 cu. yds.; Crane, over 45 tons up to and including 100 tons; Derrick barge, 100 tons and under; Self-propelled boom-type lifting device, over 45 tons; Tower crane

GROUP 3: Clamshell and dragline up to and including 1 cu. yd.; Cranes 45 tons and under; Self-propelled boom-type lifting device 45 tons and under;

GROUP 4: Boom Truck or dual purpose A-frame truck, non-rotating over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) over 15 tons; Truck-mounted rotating telescopic boom type lifting device, Manitex or similar (boom truck) - under 15 tons;

GROUP 1: Derrick barge pedestal mounted over 100 tons; Clamshell over 7 cu. yds.; Self-propelled boom-type lifting device over 100 tons; Truck crane or crawler, land or barge mounted over 100 tons

GROUP 2: Derrick barge pedestal mounted 45 tons to and including 100 tons; Clamshell up to and including 7 cu. yds.; Self-propelled boom-type lifting device over 45 tons; Truck crane or crawler, land or barge mounted, over 45 tons up to and including 100 tons; Fundex F-12 hydraulic pile rig

GROUP 3: Derrick barge pedestal mounted under 45 tons; Self-propelled boom-type lifting device 45 tons and under; Skid/scow piledriver, any tonnage; Truck crane or crawler, land or barge mounted 45 tons and under

GROUP 4: Assistant operator in lieu of assistant to engineer; Forklift, 10 tons and over; Heavy-duty repairperson/welder

GROUP 5: Deck engineer

GROUP 6: Deckhand; Fire tender

STEEL ERECTORS

GROUP 1: Crane over 100 tons; Derrick over 100 tons; Self-propelled boom-type lifting device over 100 tons

GROUP 2: Crane over 45 tons to 100 tons; Derrick under 100 tons; Self-propelled boom-type lifting device over 45 tons to 100 tons; Tower crane

GROUP 3: Crane, 45 tons and under; Self-propelled boom-type lifting device, 45 tons and under

GROUP 4: Chicago boom; Forklift, 10 tons and over; Heavy-duty repair person/welder

GROUP 5: Boom cat

TUNNEL AND UNDERGROUND WORK

GROUP 1-A: Tunnel bore machine operator, 20' diameter or more

GROUP 1: Heading shield operator; Heavy-duty repairperson; Mucking machine (rubber tired, rail or track type); Raised bore operator (tunnels); Tunnel mole bore operator

GROUP 2: Combination slusher and motor operator; Concrete pump or pumpcrete gun; Power jumbo operator

GROUP 3: Drill doctor; Mine or shaft hoist

GROUP 4: Combination slurry mixer cleaner; Grouting Machine operator; Motorman

GROUP 5: Bit Sharpener; Brakeman; Combination mixer and compressor (gunite); Compressor operator; Oiler; Pump

AREA DESCRIPTIONS:

POWER EQUIPMENT OPERATORS, CRANES AND ATTACHMENTS, TUNNEL AND UNDERGROUND [These areas do not apply to Piledrivers and Steel Erectors]

AREA 1: ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, STANISLAUS, TUOLUMNE

AREA 2 -NOTED BELOW

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

CALAVERAS COUNTY:

Area 1: Remainder

Area 2: Eastern Part

FRESNO COUNTY:

Area 1: Remainder

Area 2: Eastern Part

MADERA COUNTY:

Area 1: Remainder

Area 2: Eastern Part

MARIPOSA COUNTY:

Area 1: Remainder

Area 2: Eastern Part

MONTEREY COUNTY:

Area 1: Remainder

Area 2: Southwestern part

TUOLUMNE COUNTY:

Area 1: Remainder

Area 2: Eastern Part

ENGI0003-008 08/01/2022

	Rates	Fringes
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Dredging: (DREDGING:
CLAMSHELL & DIPPER DREDGING;
HYDRAULIC SUCTION DREDGING:)

AREA 1:

(1) Leverman.....	\$ 55.15	35.46
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(2) Dredge Dozer; Heavy duty repairman.....	\$ 50.19	35.46
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(3) Booster Pump Operator; Deck Engineer; Deck mate; Dredge Tender; Winch Operator.....	\$ 49.07	35.46
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(4) Bargeman; Deckhand; Fireman; Leveehand; Oiler..	\$ 45.77	35.46
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AREA 2:

(1) Leverman.....	\$ 57.15	35.46
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(2) Dredge Dozer; Heavy duty repairman.....	\$ 52.19	35.46
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(3) Booster Pump	
Operator; Deck	
Engineer; Deck mate;	
Dredge Tender; Winch	
Operator.....	\$ 51.07
	35.46
(4) Bargeman; Deckhand;	
Fireman; Leveehand; Oiler..	\$ 47.77
	35.46

AREA DESCRIPTIONS

AREA 1: ALAMEDA,BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED,
NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN,
SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS,
SUTTER, YOLO, AND YUBA COUNTIES

AREA 2: MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2
AS NOTED BELOW:

ALPINE COUNTY:

Area 1: Northernmost part
Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Remainder
Area 2: Eastern part

COLUSA COUNTY:

Area 1: Eastern part
Area 2: Remainder

ELDORADO COUNTY:

Area 1: North Central part
Area 2: Remainder

FRESNO COUNTY:

Area 1: Remainder
Area 2: Eastern part

GLENN COUNTY:

Area 1: Eastern part
Area 2: Remainder

LASSEN COUNTY:

Area 1: Western part along the Southern portion of border
with Shasta County
Area 2: Remainder

MADERA COUNTY:

Area 1: Except Eastern part
Area 2: Eastern part

MARIPOSA COUNTY

Area 1: Except Eastern part
Area 2: Eastern part

MONTERREY COUNTY

Area 1: Except Southwestern part
Area 2: Southwestern part

NEVADA COUNTY:

Area 1: All but the Northern portion along the border of
Sierra County
Area 2: Remainder

SOLICITATION

PLACER COUNTY:

Area 1: All but the Central portion

Area 2: Remainder

PLUMAS COUNTY:

Area 1: Western portion

Area 2: Remainder

SHASTA COUNTY:

Area 1: All but the Northeastern corner

Area 2: Remainder

SIERRA COUNTY:

Area 1: Western part

Area 2: Remainder

SISKIYOU COUNTY:

Area 1: Central part

Area 2: Remainder

SONOMA COUNTY:

Area 1: All but the Northwestern corner

Area 2: Remainder

TEHAMA COUNTY:

Area 1: All but the Western border with Mendocino & Trinity
Counties

Area 2: Remainder

TRINITY COUNTY:

Area 1: East Central part and the Northeastern border with
Shasta County

Area 2: Remainder

TUOLUMNE COUNTY:

Area 1: Except Eastern part

Area 2: Eastern part

ENGI0003-019 06/29/2020

SEE AREA DESCRIPTIONS BELOW

	Rates	Fringes
OPERATOR: Power Equipment (LANDSCAPE WORK ONLY)		
GROUP 1		
AREA 1.....	\$ 39.95	30.28
AREA 2.....	\$ 41.95	30.28
GROUP 2		
AREA 1.....	\$ 36.35	30.28
AREA 2.....	\$ 38.35	30.28
GROUP 3		
AREA 1.....	\$ 31.74	30.28
AREA 2.....	\$ 33.74	30.28

GROUP DESCRIPTIONS:

GROUP 1: Landscape Finish Grade Operator: All finish grade work regardless of equipment used, and all equipment with a rating more than 65 HP.

GROUP 2: Landscape Operator up to 65 HP: All equipment with

a manufacturer's rating of 65 HP or less except equipment covered by Group 1 or Group 3. The following equipment shall be included except when used for finish work as long as manufacturer's rating is 65 HP or less: A-Frame and Winch Truck, Backhoe, Forklift, Hydragraphic Seeder Machine, Roller, Rubber-Tired and Track Earthmoving Equipment, Skiploader, Straw Blowers, and Trencher 31 HP up to 65 HP.

GROUP 3: Landscae Utility Operator: Small Rubber-Tired Tractor, Trencher Under 31 HP.

AREA DESCRIPTIONS:

AREA 1: ALAMEDA, BUTTE, CONTRA COSTA, KINGS, MARIN, MERCED, NAPA, SACRAMENTO, SAN BENITO, SAN FRANCISCO, SAN JOAQUIN, SAN MATEO, SANTA CLARA, SANTA CRUZ, SOLANO, STANISLAUS, SUTTER, YOLO, AND YUBA COUNTIES

AREA 2 - MODOC COUNTY

THE REMAINING COUNTIES ARE SPLIT BETWEEN AREA 1 AND AREA 2 AS NOTED BELOW:

ALPINE COUNTY:

Area 1: Northernmost part

Area 2: Remainder

CALAVERAS COUNTY:

Area 1: Except Eastern part

Area 2: Eastern part

COLUSA COUNTY:

Area 1: Eastern part

Area 2: Remainder

DEL NORTE COUNTY:

Area 1: Extreme Southwestern corner

Area 2: Remainder

ELDORADO COUNTY:

Area 1: North Central part

Area 2: Remainder

FRESNO COUNTY

Area 1: Except Eastern part

Area 2: Eastern part

GLENN COUNTY:

Area 1: Eastern part

Area 2: Remainder

HUMBOLDT COUNTY:

Area 1: Except Eastern and Southwestern parts

Area 2: Remainder

LAKE COUNTY:

Area 1: Southern part

Area 2: Remainder

LASSEN COUNTY:

Area 1: Western part along the Southern portion of border with Shasta County

Area 2: Remainder

SOLICITATION

MADERA COUNTY
Area 1: Remainder
Area 2: Eastern part

MARIPOSA COUNTY
Area 1: Remainder
Area 2: Eastern part

MENDOCINO COUNTY:
Area 1: Central and Southeastern parts
Area 2: Remainder

MONTEREY COUNTY
Area 1: Remainder
Area 2: Southwestern part

NEVADA COUNTY:
Area 1: All but the Northern portion along the border of
Sierra County
Area 2: Remainder

PLACER COUNTY:
Area 1: All but the Central portion
Area 2: Remainder

PLUMAS COUNTY:
Area 1: Western portion
Area 2: Remainder

SHASTA COUNTY:
Area 1: All but the Northeastern corner
Area 2: Remainder

SIERRA COUNTY:
Area 1: Western part
Area 2: Remainder

SISKIYOU COUNTY:
Area 1: Central part
Area 2: Remainder

SONOMA COUNTY:
Area 1: All but the Northwestern corner
Area 2: Remainder

TEHAMA COUNTY:
Area 1: All but the Western border with Mendocino & Trinity
Counties
Area 2: Remainder

TRINITY COUNTY:
Area 1: East Central part and the Northeast border with
Shasta County
Area 2: Remainder

TULARE COUNTY;
Area 1: Remainder
Area 2: Eastern part

TUOLUMNE COUNTY:
Area 1: Remainder
Area 2: Eastern Part

ALAMEDA, CONTRA COSTA, SAN MATEO, SANTA CLARA & SAN FRANCISCO
COUNTIES

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 38.08	24.91
Ornamental, Reinforcing and Structural.....	\$ 45.73	33.55

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

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

\$4.00 additional per hour at the following locations:

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

\$2.00 additional per hour at the following locations:

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

IRON0433-005 07/01/2020

REMAINING COUNTIES

	Rates	Fringes
IRONWORKER		
Fence Erector.....	\$ 34.58	24.81
Ornamental, Reinforcing and Structural.....	\$ 41.00	33.45

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

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

\$4.00 additional per hour at the following locations:

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

\$2.00 additional per hour at the following locations:

LAB00067-002 06/27/2022

AREA ""A"" - ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND
SANTA CLARA COUNTIES

AREA ""B"" - CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA,
MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, STANISLAUS, AND
TUOLUMNE COUNTIES

	Rates	Fringes
Asbestos Removal Laborer		
All Counties.....	\$ 27.05	13.50
LABORER (Lead Removal)		
Area A.....	\$ 35.37	26.95
Area B.....	\$ 34.37	26.95

ASBESTOS REMOVAL-SCOPE OF WORK: Site mobilization; initial site clean-up; site preparation; removal of asbestos-containing materials from walls and ceilings; or from pipes, boilers and mechanical systems only if they are being scrapped; encapsulation, enclosure and disposal of asbestos-containing materials by hand or with equipment or machinery; scaffolding; fabrication of temporary wooden barriers; and assembly of decontamination stations.

LAB00073-002 06/28/2021

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 33.48	26.21
Traffic Control Person I....	\$ 33.78	26.21
Traffic Control Person II...	\$ 31.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB00073-003 07/01/2022

SAN JOAQUIN COUNTY

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 35.29	25.21

LAB00073-005 07/01/2021

	Rates	Fringes
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Tunnel and Shaft Laborers:

GROUP 1.....	\$ 42.00	25.71
GROUP 2.....	\$ 41.77	25.71
GROUP 3.....	\$ 41.52	25.71
GROUP 4.....	\$ 41.07	25.71
GROUP 5.....	\$ 40.53	25.71
Shotcrete Specialist.....	\$ 42.52	25.71

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickers - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00073-007 06/25/2018

CALAVERAS AND SAN JOAQUIN COUNTIES

Rates Fringes

LABORER (CONSTRUCTION CRAFT
LABORERS)

Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,
HORTICULTURAL & LANDSCAPE
LABORERS)

(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty Period.....	\$ 23.23	23.20

LABORER (GUNITING)

GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31

LABORER (WRECKING)

W912P723B0001

GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and bucket; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for

such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be

salvaged and stocked to be reused on another job.
C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00073-009 07/01/2021

CALAVERAS AND SAN JOAQUIN COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 35.82	28.45

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

LAB00261-003 06/28/2021

SAN FRANCISCO AND SAN MATEO COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 34.48	26.21
Traffic Control Person I....	\$ 34.78	26.21
Traffic Control Person II...	\$ 32.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB00261-005 07/01/2021

SAN FRANCISCO AND SAN MATEO COUNTIES

SOLICITATION

	Rates	Fringes
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Tunnel and Shaft Laborers:

GROUP 1.....	\$ 42.00	25.71
GROUP 2.....	\$ 41.77	25.71
GROUP 3.....	\$ 41.52	25.71
GROUP 4.....	\$ 41.07	25.71
GROUP 5.....	\$ 40.53	25.71
Shotcrete Specialist.....	\$ 42.52	25.71

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickers - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunner & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00261-009 06/25/2018

SAN FRANCISCO, AND SAN MATEO COUNTIES

	Rates	Fringes
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LABORER (CONSTRUCTION CRAFT

LABORERS - AREA A:)

Construction Specialist

Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 31.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,

HORTICULTURAL & LANDSCAPE

LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20

LABORER (WRECKING - AREA A:)

GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

Laborers: (GUNITE - AREA A:)

W912P723B0001

GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder;

All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shotcrete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
 B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
 C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of ""form stripping, cleaning and oiling and moving to the next point of erection"".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00261-011 07/01/2021

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
MASON TENDER, BRICK.....	\$ 34.85	26.32

FOOTNOTES: Underground work such as sewers, manholes, catch basins, sewer pipes, telephone conduits, tunnels and cut trenches: \$5.00 per day additional. Work in live sewage: \$2.50 per day additional.

LAB00261-014 07/01/2022

SAN FRANCISCO AND SAN MATEO COUNTIES:

	Rates	Fringes
PLASTER TENDER.....	\$ 40.48	30.23

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

LAB00270-003 06/28/2021

AREA A: SANTA CLARA

AREA B: MONTEREY, SAN BENITO AND SANTA CRUZ COUNTIES

	Rates	Fringes
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LABORER (TRAFFIC CONTROL/LANE CLOSURE)

Escort Driver, Flag Person		
Area A.....	\$ 34.48	26.21
Area B.....	\$ 33.48	26.21
Traffic Control Person I		
Area A.....	\$ 34.78	26.21
Area B.....	\$ 33.78	26.21
Traffic Control Person II		
Area A.....	\$ 32.28	26.21
Area B.....	\$ 31.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB00270-004 07/01/2021

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 42.00	25.71
GROUP 2.....	\$ 41.77	25.71
GROUP 3.....	\$ 41.52	25.71
GROUP 4.....	\$ 41.07	25.71
GROUP 5.....	\$ 40.53	25.71
Shotcrete Specialist.....	\$ 42.52	25.71

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00270-005 07/01/2022

MONTEREY AND SAN BENITO COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 35.29	25.21

LABO0270-007 06/25/2018		

MONTEREY, SAN BENITO, AND SANTA CRUZ, COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B)		
Construction Specialist		
Group.....	\$ 30.40	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty		
Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete

saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and

every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00270-010 06/25/2018

SANTA CLARA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA A:)		
(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20
LABORER (GUNITE - AREA A:)		
GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or

over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting

or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:
 A: at demolition site for the salvage of the material.
 B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
 C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

----- GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 34.70	21.22

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

LAB00294-001 07/01/2022

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
LABORER (Brick)		
Mason Tender-Brick.....	\$ 35.29	25.21

LAB00294-002 06/28/2021

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 33.48	26.21
Traffic Control Person I....	\$ 33.78	26.21
Traffic Control Person II...	\$ 31.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB00294-005 07/01/2021

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 42.00	25.71
GROUP 2.....	\$ 41.77	25.71
GROUP 3.....	\$ 41.52	25.71
GROUP 4.....	\$ 41.07	25.71
GROUP 5.....	\$ 40.53	25.71
Shotcrete Specialist.....	\$ 42.52	25.71

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzle men

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzle man; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on

SOLICITATION

slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00294-008 06/25/2018

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA B:)		
Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS, HORTICULTURAL & LANDSCAPE LABORERS - AREA B:)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B:)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond drill; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00294-010 07/01/2021

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender.....	\$ 35.82	28.45
Work on a swing stage scaffold: \$1.00 per hour additional.		

LAB00294-011 07/01/2021

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 35.82	28.45
Work on a swing stage scaffold: \$1.00 per hour additional.		

LAB00304-002 06/28/2021

ALAMEDA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 34.48	26.21
Traffic Control Person I....	\$ 34.78	26.21
Traffic Control Person II...	\$ 32.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB00304-003 07/01/2021

ALAMEDA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 42.00	25.71
GROUP 2.....	\$ 41.77	25.71
GROUP 3.....	\$ 41.52	25.71
GROUP 4.....	\$ 41.07	25.71
GROUP 5.....	\$ 40.53	25.71
Shotcrete Specialist.....	\$ 42.52	25.71

GROUP 1: Diamond driller; Groundmen; Gunitite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunitite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00304-004 06/25/2018

ALAMEDA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA A:)		
(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty		
Period.....	\$ 24.23	23.20
LABORER (GUNITITE - AREA A:)		
GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers

entitled to receive the wage rate set forth in Group 1-a below.

W912P723B0001

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer

manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:

- A: at demolition site for the salvage of the material.
- B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
- C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

SOLICITATION

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Gunite laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB00304-005 05/01/2018

ALAMEDA COUNTY

	Rates	Fringes
Brick Tender.....	\$ 35.37	20.70

FOOTNOTES: Work on jobs where heat-protective clothing is required: \$2.00 per hour additional. Work at grinders: \$.25 per hour additional. Manhole work: \$2.00 per day additional.

LAB00304-008 07/01/2017

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender.....	\$ 34.70	23.11

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

LAB00324-002 06/28/2021

CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 34.48	26.21
Traffic Control Person I....	\$ 34.78	26.21
Traffic Control Person II...	\$ 32.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB00324-006 06/25/2018

CONTRA COSTA COUNTY

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 37.82	24.11
GROUP 2.....	\$ 37.59	24.11
GROUP 3.....	\$ 37.34	24.11
GROUP 4.....	\$ 36.89	24.11
GROUP 5.....	\$ 36.35	24.11
Shotcrete Specialist.....	\$ 38.34	24.11

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Guniting and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickers - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Guniting & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB00324-012 06/25/2018

CONTRA COSTA COUNTY

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT LABORERS - AREA A:)		
Construction Specialist		
Group.....	\$ 31.49	23.20
GROUP 1.....	\$ 30.79	23.20
GROUP 1-a.....	\$ 31.01	23.20
GROUP 1-c.....	\$ 30.84	23.20
GROUP 1-e.....	\$ 31.34	23.20
GROUP 1-f.....	\$ 30.37	23.20
GROUP 1-g.....	\$ 30.99	23.20
GROUP 2.....	\$ 30.64	23.20
GROUP 3.....	\$ 30.54	23.20
GROUP 4.....	\$ 24.23	23.20

See groups 1-b and 1-d under laborer classifications.

LABORER (GARDENERS,
HORTICULTURAL & LANDSCAPE
LABORERS - AREA A:)

(1) New Construction.....	\$ 30.54	23.20
(2) Establishment Warranty Period.....	\$ 24.23	23.20
LABORER (GUNITE - AREA A:)		
GROUP 1.....	\$ 30.75	22.31
GROUP 2.....	\$ 30.25	22.31
GROUP 3.....	\$ 29.66	22.31
GROUP 4.....	\$ 29.54	22.31
LABORER (WRECKING - AREA A:)		
GROUP 1.....	\$ 30.79	23.20
GROUP 2.....	\$ 30.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

CONSTRUCTION SPECIALIST GROUP: Asphalt ironer and raker; Chainsaw; Laser beam in connection with laborers' work; Cast-in- place manhole form setter; Pressure pipelayer; Davis trencher - 300 or similar type (and all small trenchers); Blaster; Diamond driller; Multiple unit drill; Hydraulic drill

GROUP 1: Asphalt spreader boxes (all types); Barko, Wacker and similar type tampers; Buggymobile; Caulker, bander, pipewrapper, conduit layer, plastic pipelayer; Certified hazardous waste worker including Leade Abatement; Compactors of all types; Concrete and magnesite mixer, 1/2 yd. and under; Concrete pan work; Concrete sander; Concrete saw; Cribber and/or shoring; Cut granite curb setter; Dri-pak-it machine; Faller, logloader and buckler; Form raiser, slip forms; Green cutter; Headerboard, Hubsetter, aligner, by any method; High pressure blow pipe (1-1/2" or over, 100 lbs. pressure/over); Hydro seeder and similar type; Jackhammer operator; Jacking of pipe over 12 inches; Jackson and similar type compactor; Kettle tender, pot and worker applying asphalt, lay-kold, creosote, lime, caustic and similar type materials (applying means applying, dipping or handling of such materials); Lagging, sheeting, whaling, bracing, trenchjacking, lagging hammer; Magnesite, epoxyresin, fiberglass, mastic worker (wet or dry); No joint pipe and stripping of same, including repair of voids; Pavement breaker and spader, including tool grinder; Perma curb; Pipelayer (including grade checking in connection with pipelaying); Precast-manhole setter; Pressure pipe tester; Post hole digger, air, gas and electric; Power broom sweeper; Power tampers of all types (except as shown in Group 2); Ram set gun and stud gun; Riprap stonepaver and rock-slinger, including placing of sacked concrete and/or sand (wet or dry) and gabions and similar type; Rotary scarifier or multiple head concrete chipping scarifier; Roto and Ditch Witch; Rototiller; Sandblaster, pot, gun, nozzle operators; Signalling and rigging; Tank cleaner; Tree climber; Turbo blaster; Vibrascreed, bull float in connection with laborers' work; Vibrator; Hazardous waste worker (lead removal); Asbestos and mold removal worker

GROUP 1-a: Joy drill model TWM-2A; Gardner-Denver model DH143 and similar type drills; Track driller; Jack leg driller; Wagon driller; Mechanical drillers, all types regardless of type or method of power; Mechanical pipe layers, all types regardless of type or method of power; Blaster and powder; All work of loading, placing and blasting of all powder and explosives of whatever type regardless of method used for such loading and placing; High scalers (including drilling of same); Tree topper; Bit grinder

GROUP 1-b: Sewer cleaners shall receive \$4.00 per day above Group 1 wage rates. "Sewer cleaner" means any worker who handles or comes in contact with raw sewage in small diameter sewers. Those who work inside recently active, large diameter sewers, and all recently active sewer manholes shall receive \$5.00 per day above Group 1 wage rates.

GROUP 1-c: Burning and welding in connection with laborers' work; Synthetic thermoplastics and similar type welding

GROUP 1-d: Maintenance and repair track and road beds. All employees performing work covered herein shall receive \$.25 per hour above their regular rate for all work performed on underground structures not specifically covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

GROUP 1-e: Work on and/or in bell hole footings and shafts thereof, and work on and in deep footings. (A deep footing is a hole 15 feet or more in depth.) In the event the depth of the footing is unknown at the commencement of excavation, and the final depth exceeds 15 feet, the deep footing wage rate would apply to all employees for each and every day worked on or in the excavation of the footing from the date of inception.

GROUP 1-f: Wire winding machine in connection with guniting or shot crete

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general

laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

GROUP 4: Final clean-up work of debris, grounds and building including but not limited to: street cleaner; cleaning and washing windows; brick cleaner (jobsite only); material cleaner (jobsite only). The classification "material cleaner" is to be utilized under the following conditions:
 A: at demolition site for the salvage of the material.
 B: at the conclusion of a job where the material is to be salvaged and stocked to be reused on another job.
 C: for the cleaning of salvage material at the jobsite or temporary jobsite yard.

The material cleaner classification should not be used in the performance of "form stripping, cleaning and oiling and moving to the next point of erection".

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

GROUP 4: Guniting laborer

WRECKING WORK LABORER CLASSIFICATIONS

GROUP 1: Skilled wrecker (removing and salvaging of sash, windows and materials)

GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

GROUP 1-g, CONTRA COSTA COUNTY: Pipelayer (including grade checking in connection with pipelaying); Caulker; Bander; Pipewrapper; Conduit layer; Plastic pipe layer; Pressure pipe tester; No joint pipe and stripping of same, including repair of voids; Precast manhole setters, cast in place manhole form setters

LAB00324-014 05/01/2018

CONTRA COSTA COUNTY:

	Rates	Fringes
Brick Tender.....	\$ 35.37	20.70

FOOTNOTES: Work on jobs where heat-protective clothing is required: \$2.00 per hour additional. Work at grinders: \$.25 per hour additional. Manhole work: \$2.00 per day additional.

LAB00324-018 07/01/2021

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Plasterer tender.....	\$ 38.28	29.43

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

LAB01130-002 06/28/2021

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (TRAFFIC CONTROL/LANE CLOSURE)		
Escort Driver, Flag Person..	\$ 33.48	26.21
Traffic Control Person I....	\$ 33.78	26.21
Traffic Control Person II...	\$ 31.28	26.21

TRAFFIC CONTROL PERSON I: Layout of traffic control, crash cushions, construction area and roadside signage.

TRAFFIC CONTROL PERSON II: Installation and removal of temporary/permanent signs, markers, delineators and crash cushions.

LAB01130-003 06/26/2017

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
Tunnel and Shaft Laborers:		
GROUP 1.....	\$ 36.60	24.83
GROUP 2.....	\$ 36.37	24.83
GROUP 3.....	\$ 36.12	24.83
GROUP 4.....	\$ 35.67	24.83
GROUP 5.....	\$ 35.13	24.83
Shotcrete Specialist.....	\$ 37.12	24.83

TUNNEL AND SHAFT CLASSIFICATIONS

GROUP 1: Diamond driller; Groundmen; Gunite and shotcrete nozzlemen

GROUP 2: Rodmen; Shaft work & raise (below actual or excavated ground level)

GROUP 3: Bit grinder; Blaster, driller, powdermen, heading; Cherry pickermen - where car is lifted; Concrete finisher in tunnel; Concrete screedman; Grout pumpman and potman; Gunite & shotcrete gunman & potman; Headermen; High pressure nozzleman; Miner - tunnel, including top and bottom man on shaft and raise work; Nipper; Nozzleman on slick line; Sandblaster - potman, Robotic Shotcrete Placer, Segment Erector, Tunnel Muck Hauler, Steel Form raiser and setter; Timberman, retimberman (wood or steel or substitute materials therefore); Tugger (for tunnel laborer work); Cable tender; Chuck tender; Powderman - primer house

GROUP 4: Vibrator operator, pavement breaker; Bull gang - muckers, trackmen; Concrete crew - includes rodding and spreading, Dumpmen (any method)

GROUP 5: Grout crew; Reboundman; Swamper/ Brakeman

LAB01130-005 07/01/2022

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER		
Mason Tender-Brick.....	\$ 35.29	25.21

LAB01130-007 06/25/2018

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE , COUNTIES

	Rates	Fringes
LABORER (CONSTRUCTION CRAFT		
LABORERS - AREA B:)		
Construction Specialist		
Group.....	\$ 30.49	23.20
GROUP 1.....	\$ 29.79	23.20
GROUP 1-a.....	\$ 30.01	23.20
GROUP 1-c.....	\$ 29.84	23.20
GROUP 1-e.....	\$ 30.34	23.20
GROUP 1-f.....	\$ 29.37	23.20
GROUP 2.....	\$ 29.64	23.20
GROUP 3.....	\$ 29.54	23.20
GROUP 4.....	\$ 23.23	23.20
See groups 1-b and 1-d under laborer classifications.		
LABORER (GARDENERS,		
HORTICULTURAL & LANDSCAPE		
LABORERS - AREA B:)		
(1) New Construction.....	\$ 29.54	23.20
(2) Establishment Warranty		
Period.....	\$ 23.23	23.20
LABORER (GUNITE - AREA B:)		
GROUP 1.....	\$ 29.75	22.31
GROUP 2.....	\$ 29.25	22.31
GROUP 3.....	\$ 28.66	22.31
GROUP 4.....	\$ 28.54	22.31
LABORER (WRECKING - AREA B:)		
GROUP 1.....	\$ 29.79	23.20
GROUP 2.....	\$ 29.64	23.20

FOOTNOTES:

Laborers working off or with or from bos'n chairs, swinging scaffolds, belts shall receive \$0.25 per hour above the applicable wage rate. This shall not apply to workers entitled to receive the wage rate set forth in Group 1-a below.

LABORER CLASSIFICATIONS

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SOLICITATION

covered herein. This paragraph shall not be construed to apply to work below ground level in open cut. It shall apply to cut and cover work of subway construction after the temporary cover has been placed.

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GROUP 2: Asphalt shoveler; Cement dumper and handling dry cement or gypsum; Choke-setter and rigger (clearing work); Concrete bucket dumper and chute; Concrete chipping and grinding; Concrete laborer (wet or dry); Driller tender, chuck tender, nipper; Guinea chaser (stake), grout crew; High pressure nozzle, adductor; Hydraulic monitor (over 100 lbs. pressure); Loading and unloading, carrying and hauling of all rods and materials for use in reinforcing concrete construction; Pittsburgh chipper and similar type brush shredders; Sloper; Single foot, hand-held, pneumatic tamper; All pneumatic, air, gas and electric tools not listed in Groups 1 through 1-f; Jacking of pipe - under 12 inches

GROUP 3: Construction laborers, including bridge and general laborer; Dump, load spotter; Flag person; Fire watcher; Fence erector; Guardrail erector; Gardener, horticultural and landscape laborer; Jetting; Limber, brush loader and piler; Pavement marker (button setter); Maintenance, repair track and road beds; Streetcar and railroad construction track laborer; Temporary air and water lines, Victaulic or similar; Tool room attendant (jobsite only)

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----- GUNITE LABORER CLASSIFICATIONS

GROUP 1: Structural Nozzleman

GROUP 2: Nozzleman, Gunman, Potman, Groundman

GROUP 3: Reboundman

WRECKING WORK LABORER CLASSIFICATIONS

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GROUP 2: Semi-skilled wrecker (salvaging of other building materials)

LAB01130-008 07/01/2021

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE

	Rates	Fringes
Plasterer tender.....	\$ 35.82	28.45
Work on a swing stage scaffold: \$1.00 per hour additional.		

LAB01130-009 07/01/2021

MARIPOSA, MERCED, STANISLAUS, AND TUOLUMNE COUNTIES

	Rates	Fringes
LABORER (Plaster Tender).....	\$ 35.82	28.45
Work on a swing stage scaffold: \$1.00 per hour additional.		

PAIN0016-001 01/01/2021

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN MATEO, SANTA CLARA, AND SANTA CRUZ COUNTIES

	Rates	Fringes
Painters:.....	\$ 45.22	25.48

PREMIUMS:

EXOTIC MATERIALS - \$1.25 additional per hour.

SPRAY WORK: - \$0.50 additional per hour.

INDUSTRIAL PAINTING - \$0.25 additional per hour

[Work on industrial buildings used for the manufacture and processing of goods for sale or service; steel construction (bridges), stacks, towers, tanks, and similar structures]

HIGH WORK:

over 50 feet - \$2.00 per hour additional

100 to 180 feet - \$4.00 per hour additional

Over 180 feet - \$6.00 per hour additional

PAIN0016-003 07/01/2021

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO & SANTA CLARA COUNTIES

	Rates	Fringes
Drywall Finisher/Taper		
AREA 1.....	\$ 54.91	29.49
AREA 2.....	\$ 50.78	28.09

PAIN0016-012 07/01/2022

ALAMEDA, CONTRA COSTA, MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 54.25	32.28

PAIN0016-015 01/01/2021

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE COUNTIES

	Rates	Fringes
PAINTER		
Brush.....	\$ 35.88	21.16

FOOTNOTES:

SPRAY/SANDBLAST: \$0.50 additional per hour.

EXOTIC MATERIALS: \$1.25 additional per hour.

HIGH TIME: Over 50 ft above ground or water level \$2.00 additional per hour. 100 to 180 ft above ground or water level \$4.00 additional per hour. Over 180 ft above ground or water level \$6.00 additional per hour.

PAIN0016-022 01/01/2021

SAN FRANCISCO COUNTY

	Rates	Fringes
PAINTER.....	\$ 48.84	25.48

PAIN0169-001 06/01/2020

FRESNO, KINGS, MADERA, MARIPOSA AND MERCED COUNTIES:

	Rates	Fringes
GLAZIER.....	\$ 40.00	26.76

PAIN0169-005 01/01/2022

ALAMEDA CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN MATEO, SANTA CLARA & SANTA CRUZ COUNTIES

	Rates	Fringes
GLAZIER.....	\$ 54.77	31.45

PAIN0294-004 01/01/2021

FRESNO, KINGS AND MADERA COUNTIES

	Rates	Fringes
PAINTER		
Brush, Roller.....	\$ 31.36	20.33
Drywall Finisher/Taper.....	\$ 40.10	25.00

FOOTNOTE:

Spray Painters & Paperhangers receive \$1.00 additional per hour. Painters doing Drywall Patching receive \$1.25 additional per hour. Lead Abaters & Sandblasters receive \$1.50 additional per hour. High Time - over 30 feet (does not include work from a lift) \$0.75 per hour additional.

PAIN0294-005 08/01/2022

FRESNO, KINGS & MADERA

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 37.12	22.10

PAIN0767-001 01/01/2022

CALAVERAS, SAN JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
GLAZIER.....	\$ 41.78	33.09

PAID HOLIDAYS: New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Veteran's Day, Thanksgiving Day, and Christmas Day.

Employee required to wear a body harness shall receive \$1.50 per hour above the basic hourly rate at any elevation.

* PAIN1176-001 07/01/2022

HIGHWAY IMPROVEMENT

	Rates	Fringes
Parking Lot Striping/Highway Marking:		
GROUP 1.....	\$ 40.83	17.62
GROUP 2.....	\$ 34.71	17.62
GROUP 3.....	\$ 35.11	17.62

CLASSIFICATIONS

GROUP 1: Striper: Layout and application of painted traffic stripes and marking; hot thermo plastic; tape, traffic stripes and markings

GROUP 2: Gamecourt & Playground Installer

GROUP 3: Protective Coating, Pavement Sealing

 PAIN1237-003 08/01/2022

CALAVERAS; SAN JOAQUIN COUNTIES; STANISLAUS AND TUOLUMNE
 COUNTIES:

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 44.72	24.98

PLAS0066-002 07/01/2019

ALAMEDA, CONTRA COSTA, SAN MATEO AND SAN FRANCISCO COUNTIES:

	Rates	Fringes
PLASTERER.....	\$ 42.41	30.73

PLAS0300-001 07/01/2018

	Rates	Fringes
PLASTERER		
AREA 188: Fresno.....	\$ 32.70	31.68
AREA 224: San Benito, Santa Clara, Santa Cruz.....	\$ 32.88	31.68
AREA 295: Calaveras & San Joaquin Counties.....	\$ 32.70	31.68
AREA 337: Monterey County..	\$ 32.88	31.68
AREA 429: Mariposa, Merced, Stanislaus, Tuolumne Counties.....	\$ 32.70	31.68

PLAS0300-005 07/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 32.15	23.27

PLUM0038-001 07/01/2022

SAN FRANCISCO COUNTY

	Rates	Fringes
PLUMBER (Plumber, Steamfitter, Refrigeration Fitter).....	\$ 82.00	48.18

PLUM0038-005 07/01/2022

SAN FRANCISCO COUNTY

	Rates	Fringes
Landscape/Irrigation Fitter (Underground/Utility Fitter).....	\$ 69.70	33.15

PLUM0062-001 07/01/2022

MONTEREY AND SANTA CRUZ COUNTIES

	Rates	Fringes
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PLUMBER & STEAMFITTER.....\$ 48.95 38.65

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PLUM0159-001 07/01/2022

CONTRA COSTA COUNTY

	Rates	Fringes
Plumber and steamfitter		
(1) Refrigeration.....	\$ 56.93	41.04
(2) All other work.....	\$ 62.12	45.24

PLUM0246-001 07/01/2022

FRESNO, KINGS & MADERA COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....	\$ 46.05	37.84

* PLUM0246-004 01/01/2017

FRESNO, MERCED & SAN JOAQUIN COUNIES

	Rates	Fringes
PLUMBER (PIPE TRADESMAN).....	\$ 13.00 **	10.74

PIPE TRADESMAN SCOPE OF WORK:

Installation of corrugated metal piping for drainage, as well as installation of corrugated metal piping for culverts in connection with storm sewers and drains; Grouting, dry packing and diapering of joints, holes or chases including paving over joints, in piping; Temporary piping for dirt work for building site preparation; Operating jack hammers, pavement breakers, chipping guns, concrete saws and spades to cut holes, chases and channels for piping systems; Digging, grading, backfilling and ground preparation for all types of pipe to all points of the jobsite; Ground preparation including ground leveling, layout and planting of shrubbery, trees and ground cover, including watering, mowing, edging, pruning and fertilizing, the breaking of concrete, digging, backfilling and tamping for the preparation and completion of all work in connection with lawn sprinkler and landscaping; Loading, unloading and distributing materials at jobsite; Putting away materials in storage bins in jobsite secure storage area; Demolition of piping and fixtures for remodeling and additions; Setting up and tearing down work benches, ladders and job shacks; Clean-up and sweeping of jobsite; Pipe wrapping and waterproofing where tar or similar material is applied for protection of buried piping; Flagman

PLUM0342-001 07/01/2022

ALAMEDA & CONTRA COSTA COUNTIES

	Rates	Fringes
PIPEFITTER		
CONTRA COSTA COUNTY.....	\$ 72.00	45.70
PLUMBER, PIPEFITTER, STEAMFITTER		
ALAMEDA COUNTY.....	\$ 72.00	45.70

 PLUM0355-004 07/01/2022

ALAMEDA, CALAVERAS, CONTRA COSTA, FRESNO, KINGS, MADERA,
 MARIPOSA, MERCED, MONTEREY, SAN BENITO, SAN JOAQUIN, SAN MATEO,
 SANTA CLARA, SANTA CRUZ, STANISLAUS, AND TUOLUMNE COUNTIES:

	Rates	Fringes
Underground Utility Worker /Landscape Fitter.....	\$ 32.22	17.55

PLUM0393-001 07/01/2021

SAN BENITO AND SANTA CLARA COUNTIES

	Rates	Fringes
PLUMBER/PIPEFITTER.....	\$ 68.76	46.63

PLUM0442-001 07/01/2022

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS & TUOLUMNE
 COUNTIES

	Rates	Fringes
PLUMBER & STEAMFITTER.....	\$ 49.75	34.49

PLUM0467-001 07/01/2021

SAN MATEO COUNTY

	Rates	Fringes
Plumber/Pipefitter/Steamfitter...	\$ 73.10	38.61

ROOF0027-002 01/01/2022

FRESNO, KINGS, AND MADERA COUNTIES

	Rates	Fringes
ROOFER.....	\$ 38.81	14.81

FOOTNOTE: Work with pitch, pitch base of pitch impregnated
 products or any material containing coal tar pitch, on any
 building old or new, where both asphalt and pitches are
 used in the application of a built-up roof or tear off:
 \$2.00 per hour additional.

 ROOF0040-002 08/01/2022

SAN FRANCISCO & SAN MATEO COUNTIES:

	Rates	Fringes
ROOFER.....	\$ 49.83	21.14

ROOF0081-001 08/01/2022

ALAMEDA AND CONTRA COSTA COUNTIES:

	Rates	Fringes
Roofer.....	\$ 50.27	20.66

ROOF0081-004 08/01/2022		

CALAVERAS, MARIPOSA, MERCED, SAN JOAQUIN, STANISLAUS AND
TUOLUMNE COUNTIES:

	Rates	Fringes
ROOFER.....	\$ 43.13	19.71

ROOF0095-002 08/01/2022		

MONTEREY, SAN BENITO, SANTA CLARA, AND SANTA CRUZ COUNTIES:

	Rates	Fringes
ROOFER		
Bitumastic, Enameler, Coal		
Tar, Pitch and Mastic		
worker.....	\$ 55.16	20.82
Journeyman.....	\$ 51.16	20.82
Kettle person (2 kettles)...	\$ 53.16	20.82

SFCA0483-001 08/01/2022		

ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO AND SANTA CLARA
COUNTIES:

	Rates	Fringes
SPRINKLER FITTER (FIRE).....	\$ 73.05	36.39

SFCA0669-011 04/01/2022		

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, MONTEREY,
SAN BENITO, SAN JOAQUIN, SANTA CRUZ, STANISLAUS AND TUOLUMNE
COUNTIES:

	Rates	Fringes
SPRINKLER FITTER.....	\$ 42.30	26.69

SHEE0104-001 07/01/2020		

AREA 1: ALAMEDA, CONTRA COSTA, SAN FRANCISCO, SAN MATEO, SANTA
CLARA

AREA 2: MONTEREY & SAN BENITO

AREA 3: SANTA CRUZ

	Rates	Fringes
SHEET METAL WORKER		
AREA 1:		
Mechanical Contracts		
under \$200,000.....	\$ 55.92	45.29

All Other Work.....	\$ 64.06	46.83
AREA 2.....	\$ 52.90	36.44
AREA 3.....	\$ 55.16	34.18

SHEE0104-003 07/01/2021

CALAVERAS AND SAN JOAQUIN COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	\$ 44.34	39.22

SHEE0104-005 07/01/2021

MARIPOSA, MERCED, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Excluding metal deck and siding).....	\$ 41.28	45.41

SHEE0104-007 07/01/2021

FRESNO, KINGS, AND MADERA COUNTIES:

	Rates	Fringes
SHEET METAL WORKER.....	\$ 44.07	40.79

SHEE0104-015 07/01/2020

ALAMEDA, CONTRA COSTA, MONTEREY, SAN BENITO, SAN FRANCISCO, SAN
MATEO, SANTA CLARA AND SANTA CRUZ COUNTIES:

	Rates	Fringes
SHEET METAL WORKER (Metal Decking and Siding only).....	\$ 44.45	35.55

SHEE0104-018 07/01/2020

CALAVERAS, FRESNO, KINGS, MADERA, MARIPOSA, MERCED, SAN
JOAQUIN, STANISLAUS AND TUOLUMNE COUNTIES:

	Rates	Fringes
Sheet metal worker (Metal decking and siding only).....	\$ 44.45	35.55

TEAM0094-001 07/01/2022

	Rates	Fringes
Truck drivers:		
GROUP 1.....	\$ 36.95	31.14
GROUP 2.....	\$ 37.25	31.14
GROUP 3.....	\$ 37.55	31.14
GROUP 4.....	\$ 37.90	31.14
GROUP 5.....	\$ 38.25	31.14

FOOTNOTES:

Articulated dump truck; Bulk cement spreader (with or without
auger); Dumpcrete truck; Skid truck (debris box); Dry

pre-batch concrete mix trucks; Dumpster or similar type;
Slurry truck: Use dump truck yardage rate.
Heater planer; Asphalt burner; Scarifier burner; Industrial
lift truck (mechanical tailgate); Utility and clean-up
truck: Use appropriate rate for the power unit or the
equipment utilized.

TRUCK DRIVER CLASSIFICATIONS

GROUP 1: Dump trucks, under 6 yds.; Single unit flat rack (2-
axle unit); Nipper truck (when flat rack truck is used
appropriate flat rack shall apply); Concrete pump truck
(when flat rack truck is used appropriate flat rack shall
apply); Concrete pump machine; Fork lift and lift jitneys;
Fuel and/or grease truck driver or fuel person; Snow buggy;
Steam cleaning; Bus or personhaul driver; Escort or pilot
car driver; Pickup truck; Teamster oiler/greaser and/or
serviceperson; Hook tender (including loading and
unloading); Team driver; Tool room attendant (refineries)

GROUP 2: Dump trucks, 6 yds. and under 8 yds.; Transit
mixers, through 10 yds.; Water trucks, under 7,000 gals.;
Jetting trucks, under 7,000 gals.; Single-unit flat rack
(3-axle unit); Highbed heavy duty transport; Scissor truck;
Rubber-tired muck car (not self-loaded); Rubber-tired truck
jumbo; Winch truck and "A" frame drivers; Combination winch
truck with hoist; Road oil truck or bootperson;
Buggymobile; Ross, Hyster and similar straddle carriers;
Small rubber-tired tractor

GROUP 3: Dump trucks, 8 yds. and including 24 yds.; Transit
mixers, over 10 yds.; Water trucks, 7,000 gals. and over;
Jetting trucks, 7,000 gals. and over; Vacuum trucks under
7500 gals. Trucks towing tilt bed or flat bed pull
trailers; Lowbed heavy duty transport; Heavy duty transport
tiller person; Self-propelled street sweeper with
self-contained refuse bin; Boom truck - hydro-lift or
Swedish type extension or retracting crane; P.B. or similar
type self-loading truck; Tire repairperson; Combination
bootperson and road oiler; Dry distribution truck (A
bootperson when employed on such equipment, shall receive
the rate specified for the classification of road oil
trucks or bootperson); Ammonia nitrate distributor, driver
and mixer; Snow Go and/or plow

GROUP 4: Dump trucks, over 25 yds. and under 65 yds.; Water
pulls - DW 10's, 20's, 21's and other similar equipment
when pulling Aqua/pak or water tank trailers; Helicopter
pilots (when transporting men and materials); Lowbedk Heavy
Duty Transport up to including 7 axles; DW10's, 20's, 21's
and other similar Cat type, Terra Cobra, LeTourneau Pulls,
Tournorocker, Euclid and similar type equipment when
pulling fuel and/or grease tank trailers or other
miscellaneous trailers; Vacuum Trucks 7500 gals and over
and truck repairman

GROUP 5: Dump trucks, 65 yds. and over; Holland hauler; Low
bed Heavy Duty Transport over 7 axles

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

** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00) or 13658 (\$11.25). Please see the Note at the top of the wage determination for more information.

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

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

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

Union Rate Identifiers

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

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

Survey Rate Identifiers

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

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

Union Average Rate Identifiers

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

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

WAGE DETERMINATION APPEALS PROCESS

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

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

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

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

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor

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

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

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

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

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

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

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END OF GENERAL DECISION"

SOLICITATION

PREAWARD SURVEYPREAWARD SURVEY OF PROSPECTIVE CONTRACTORS
CONSTRUCTION CONTRACTS

It is the general policy of the Department of Defense that contracts shall be awarded only to contractors determined to be responsible in accordance with Part 9 of the Federal Acquisition Regulation (FAR).

No contract shall be awarded to any person or firm unless the Contracting Officer first makes an affirmative determination that the prospective contractor is responsible within the meaning of the FAR, Part 9.

Before making a determination of responsibility, the Contracting Officer shall have in his/her possession or obtain information sufficient to satisfy himself/herself that a prospective contractor currently meets the minimum FAR Part 9 standards.

In order to make the required determination and also to expedite the contract award, the following information must be submitted by the Contractor as directed (see Section 00 21 00):

- A. COMPLETED CONTRACTOR EXPERIENCE DATA FORM WITH SUPPLEMENTAL SCHEDULES A-D (ATTACHED).
- B. LATEST FINANCIAL STATEMENTS. IF THE FINANCIAL STATEMENT IS MORE THAN 60 DAYS OLD, SUBMIT A CERTIFICATE STATING THAT THE FIRM'S FINANCIAL CONDITION IS SUBSTANTIALLY THE SAME, OR, IF NOT THE SAME, STATE THE CHANGES THAT HAVE TAKEN PLACE.
- C. PROVIDE LETTERS FROM BANKS OR OTHER FINANCIAL INSTITUTIONS WITH WHICH THE CONTRACTOR CONDUCTS BUSINESS. THE LETTERS SHOULD CONTAIN INFORMATION ABOUT YOUR FIRM'S ACCOUNTS, LOANS, LINES OF CREDIT, ETC., PROVIDING INFORMATION LEADING TO A DETERMINATION THAT YOUR FIRM IS "RESPONSIBLE" AS DEFINED IN THE FEDERAL ACQUISITION REGULATION, PART 9, "HAS THE FINANCIAL RESOURCES TO PERFORM THE CONTRACT OR THE ABILITY TO OBTAIN THEM". THE GOVT IS INTERESTED IN FINANCIAL STABILITY, TIMELY PAYMENTS, THE LENGTH AND NATURE OF THE RELATIONSHIP BETWEEN THE FIRM AND THE FINANCIAL INSTITUTION, ETC. WHICH REVEALS THE FIRM'S FINANCIAL ABILITY TO PERFORM THE CONTRACT. THE LETTERS SHOULD ALSO PROVIDE THE NAME AND TELEPHONE NUMBER OF THE BANK REPRESENTATIVE THE GOVERNMENT MAY CONTACT.

BE SURE TO INCLUDE IN YOUR PREAWARD SURVEY, INFORMATION ON ANY CONTRACTS YOU HAVE HAD WITH THE SAN FRANCISCO DISTRICT, SACRAMENTO DISTRICT OR LOS ANGELES DISTRICT, CORPS OF ENGINEERS, WITHIN THE LAST 12 MONTHS.

THESE DOCUMENTS SHALL BE TREATED BY THE GOVERNMENT AS CONFIDENTIAL.

CONSTRUCTION CONTRACTOR EXPERIENCE DATA		DATE:
Firm Name and Telephone Number	Main Office Address (Street, City, and State)	
Branch Offices		Services Rendered <input type="checkbox"/> Construction <input type="checkbox"/> Design <input type="checkbox"/> Consultant
Organization <input type="checkbox"/> Individual <input type="checkbox"/> Joint Venture <input type="checkbox"/> Partnership <input type="checkbox"/> Corporation	Date Organized	Date Incorporated: State:
Names of Officers and Other Key Personnel		
I – PRESENT PAYROLL PERSONNEL (List Number of Each Category Below)		
Partners:	Remainder:	Subtotal Permanent:
Officers:	Total:	Maximum Personnel at Any Time:
Other Key:		Date:
II—EQUIPMENT OWNED		III—FINANCIAL DATA AS OF (DATE):
Present Value (\$)		Current Assets:
Acquisition Cost (\$)		Current Liabilities:
		Net Worth:
IV—TOTAL VALUE OF CONSTRUCTION AND DEMOLITION WORK IN PAST 6 YRS EXCLUSIVE OF JOINT VENTURE (LIST MOST RECENT FIRST)		V—LARGEST JOB EVER CONTRACTED (If Other Than in Past Six Years)
\$	LARGEST JOB IN PAST 6 YRS	Contract Amount:
\$	Contract Amount:	Date:
\$	Date:	Description:
\$	Description:	
\$		
\$		
Avg. Annual Income	Owner:	Owner:
\$		
VI—TYPE OF WORK IN WHICH FIRM SPECIALIZES		
NAME AND POSITION/TITLE OF PERSON SIGNING		SIGNATURE
NOTE: Use reverse side for explanations or detailed description of item(s) reported above.		

SCHEDULE A

CONSTRUCTION CONTRACTOR EXPERIENCE DATA

EXISTING COMMITMENTS: (List below the construction projects your firm has under way on this date, including those on which you are presently low bidder but have not received an award.)

CONTRACT NUMBER			PERCENT	PERCENT
AND AMOUNT	DESCRIPTION OF WORK	FOR WHOM PERFORMED*	COMPLETE	SUBLET

* PROVIDE NAME OF ORGANIZATION, POINT OF CONTACT AND TELEPHONE NUMBER FOR CONTACT.

SOLICITATION

SCHEDULE B

CONSTRUCTION CONTRACTOR EXPERIENCE DATA

EXPERIENCE DATA: (List below the principal construction projects your firm has completed within the past six (6) years.)

<u>CONTRACT NO.</u>	<u>AMOUNT</u>	<u>DESCRIPTION/LOCATION</u>	<u>CONTACT PERSON/PHONE NO.</u>	<u>PERCENT</u>	<u>SUBLET</u>
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SOLICITATION

SCHEDULE C

CONSTRUCTION CONTRACTOR EXPERIENCE DATA

CONSTRUCTION AND/OR TECHNICAL EQUIPMENT: (List total equipment and Facilities owned for performing the work and present status as to whether or not it is committed to existing contracts.)

			YEARS OF PRESENT SERVICE STATUS
QUANTITY	DESCRIPTION	CONDITION	

SOLICITATION

SCHEDULE D

CONSTRUCTION CONTRACTOR EXPERIENCE DATA

TO BE COMPLETED IF PROPOSED MILITARY CONSTRUCTION CONTRACT EXCEEDS \$1,000,000.

A. Each contract awarded within the preceding three-month period exceeding \$1,000,000 in value with brief description of the contract:

B. Each contract awarded within the preceding three-year period not already physically completed and exceeding \$5,000,000 in value with brief description of the contract:

SOLICITATION

PROJECT TABLE OF CONTENTS**DIVISION 01 - GENERAL REQUIREMENTS**

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01 22 00	PRICE AND PAYMENT PROCEDURES
01 30 00	ADMINISTRATIVE REQUIREMENTS
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01 42 00	SOURCES FOR REFERENCE PUBLICATIONS
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01 58 00	PROJECT IDENTIFICATION
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DIVISION 02 - EXISTING CONDITIONS

02 87 00	REMOVAL AND DISPOSAL OF CHEMICALLY TREATED WOOD WASTE
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DIVISION 03 - CONCRETE

03 31 30	MARINE CONCRETE
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DIVISION 35 - WATERWAY AND MARINE CONSTRUCTION

35 31 19	JETTIES
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ATTACHMENT LIST

SECTION	SUBPART	ATTACHMENT
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01 35 26	1.3	Summary of Worker Compensation Claims
01 35 26	1.12.3	USACE Summary of Contractor Work-Related Injury and Illnesses
01 35 26	1.12.3	Summary Guide for Completing USACE Contractor Summary Record Injuries/Illnesses & Work Hour Exposure
01 58 00	1.4	Jetty Signage

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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 11 00

SUMMARY OF WORK

08/15

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-- End of Section Table of Contents --

SOLICITATION

SECTION 01 11 00

SUMMARY OF WORK
08/15

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Surveying Equipment; G

1.2 WORK COVERED BY CONTRACT DOCUMENTS

1.2.1 Project Description

The work includes the repair of the Moss Landing north and south jetties, the replacement of two danger signs, two project signs, two aids to navigation and removal of timber piles. The jetties are located near the entrance to the Moss Landing Channel approximately 95 miles south of San Francisco.

- a. The repairs consist of procurement and delivery of stones and placement of stones along the identified repair areas.
- b. The repairs include resetting existing stone as needed to achieve the required interlocking with newly placed stone.
- c. Staging areas have been identified on the drawings.
- d. Contractor Surveys are required prior to acceptance of completed work areas. Acceptance will be based on the presence of armor stone placed within the design template and allowable tolerances as determined by the difference in the pre- and post-construction surveys.
- e. The environmental window is from 15 June to 30 November.
- f. Coordinate with the U.S. Coast Guard prior to starting the work to replace the aids to navigation. The U.S. Coast Guard POC is:

LT Miranda Brumbaugh
(510) 437-2978 (Office)
(619) 621-0026 (Mobile)
Miranda.E.Brumbaugh@uscg.mil

1.2.1.1 Constraints

- a. Jetty Road is the road that connects Hwy 1 to the North Jetty. It must not be used to transport armor stones or heavy construction equipment.
- b. All dredging is prohibited.

- c. Sidecasting (dumping excavated material alongside a line being dredged) of material adjacent to the North and South Jetties is prohibited.
- d. Transport all armor stones to the North and South Jetties by barges.

1.2.2 Location

The work is located near Moss Landing, California. The exact location is shown in the project plans.

1.3 EXISTING WORK

- a. Submit documentation of pre-construction conditions with color photographs or video at the following locations:
 - (1) Contractor's Staging area.
 - (2) Contractor's haul routes from the Staging Area (if using land-based transportation).
 - (3) Any haul routes used as part of the project (e.g. for transportation of materials, equipment, worker access, or other purposes related to the project) between Highway 101 and the project site.
 - (4) Land-based features near the root section at each jetty.
- b. Remove or alter existing work in such a manner as to prevent injury or damage to any portions of the existing work which will remain.
- c. Repair or replace portions of existing work which have been altered during construction operations to match existing or adjoining work, as directed. At the completion of operations, existing work must be in a condition equal to or better than that which existed before new work started.
- d. Restore streets, sidewalks, parking lots, and haul roads and areas (used for haul routes and mobilizing equipment) and work areas to pre-project condition upon completion of the work.
- e. Protect in place all existing features that are not identified for removal or relocation.

1.4 EXISTING UTILITIES

1.4.1 Underground Utilities

No utilities are known to exist within the limits of work.

1.4.2 Surface Utilities

Notify the local utility purveyors prior to work near any existing utility. Flag, sign, and place barriers in areas of potential conflict with the work. At all times, ensure safe clearances for workmen, equipment and staging of materials. The names of known utility purveyors are included in paragraph NOTICES.

1.4.3 Unknown Utilities

Notify the Contracting Officer or delegated representative immediately in writing if unknown utilities are discovered that may affect the work. The Contracting Officer or delegated representative will make a determination as to how to proceed with the work.

1.4.4 Interruption of Existing Utilities Services

Perform the work with a minimum of interruption and outage time for all utilities. For each relocation, by-pass, removal, or abandonment, schedule work in a continuous effort, with minimum impact to utility service. Obtain written permission from utility purveyors prior to work affecting their facilities and submit to the Contracting Officer or delegated representative. Provide notification at least 15 days prior to any utility interruption.

1.5 NOTICES

1.5.1 Points of Contact

a. Prior to the start of work, provide the names, addresses, and 24-hour phone numbers of the Contractor's project engineers, superintendents, foremen, and marine vessel operators.

b. List of Government/Agency Contacts

Moss Landing Harbor District	(831)633.5417
California State Parks	(831)649-2836
Monterey County Public Works	(831)647-7748
State Department of Transportation (Caltrans)	(916)322-1297
Dig Alert	811
EMERGENCY	911
California State Air Resources Board	(800)242-4450
National Response Center (NRC)	(800)424-8802
U.S. Coast Guard, Eleventh District	(510)437-2980

1.5.2 U.S. Coast Guard

a. Notify the U.S. Coast Guard, Eleventh District at least 14 days prior to commencing work and submit a Local Notice to Mariners (LNM). Include, in the notification, at the least:

- (1) Project description, including the type of operation (i.e. jetty repair)
- (2) Location of operations, including Latitude / Longitude (in NAD 83)
- (3) Work start and completion dates along with the expected duration. Provide periodic updates if these dates change.

- (4) Vessels involved in the operations (name, size and type)
- (5) VHF-FM radio frequencies monitored by vessels on scene
- (6) Point of contact and 24 hour phone number
- (7) Chart number for the area of operation (18765)
- (8) Potential hazards to navigation
- (9) Recommend the following language be used in the LNM: "Mariners are urged to transit at their slowest speed to minimize wake and proceed with caution after passing arrangements have been made."

1.5.3 Existing Survey Monuments

Provide notification in writing 7 days prior to any disturbance or movement of bench marks, road and channel monuments, property corners, centerline ties or any existing survey monument.

1.6 CONTRACTOR PERFORMANCE EVALUATIONS

The Contractor's performance must be evaluated using the Construction Performance Assessment Reporting System (CPARS) in accordance with Subpart 36.201 (Evaluation of Contractor Performance) of the Federal Acquisition Regulation and Engineering Regulation 415-1-17. The Contractor may access, review, and comment on the evaluation for a period of 60 days. Accessing and using CPARS requires Public Key Infrastructure (PKI) certification. The certification is a Department of Defense requirement and was implemented to provide security in electronic transactions. This certification is purchased from an External Certificate Authorities (ECA) vendor. Contractor access to CPARS is required for Contractor to participate in the performance evaluation process. PKI certification is the sole responsibility of the Contractor. Current information about the PKI certification process and known PKI vendors can be found at the following link: <http://www.cpars.gov/>.

1.7 PUBLIC SAFETY

1.7.1 General

The Contractor must provide guard personnel as required to provide protection in the interest of public safety. Whenever the Contractor's operations create a condition hazardous to the public, he must furnish at his own expense and without cost to the Government, such guards as are necessary to give adequate warning to the public of any dangerous conditions to be encountered, and he must furnish, erect, or maintain such lights, signs and other devices as are necessary to prevent accidents and to avoid damage or injury to the public. Signs, flags, lights, and other warning and safety devices must conform to applicable city, county, and state requirements. Should the Contractor appear to be negligent in furnishing adequate warning and protective measures, the Contracting Officer or delegated representative will direct attention to the existence of a hazard, and the necessary warning and protective measures must be furnished and installed by the Contractor without additional cost to the Government. The installation of any general illumination must not relieve the Contractor of his responsibility for furnishing and maintaining all devices necessary to provide protection to all parties concerned.

1.8 PERMITS

Refer to the 52.236-7 Permits and Responsibilities which requires the Contractor to obtain all required licenses and permits, including, but not limited to the permits specified below. Submit permits prior to work performed in execution of the permit. Maintain copies at the work site at all times.

1.8.1 Permits To Be Obtained By The Contractor

1.8.1.1 Haul Route Permit

Obtain haul route permit(s) from CalTrans, the County of Monterey, and California State Parks, as required.

1.8.1.2 Stockpile Permit

Obtain a temporary stockpile permit(s) from the County of Monterey, and California State Parks, as required for on land stockpiling of stone.

1.8.1.3 Temporary Utility Connection Permit

Obtain a sewer, water, and power permit from the appropriate utility purveyor, as required.

1.9 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the CONDITION OF CONTRACT 52.249-10 DEFAULT (FIXED PRICE CONSTRUCTION). The Contracting Officer or delegated representative may award a time extension under this clause, if the following conditions are satisfied:

- a. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipation for the project location during any given month. Adverse weather may also consist of wave overtopping conditions that significantly affect the conduct of the work.
- b. The unusually severe weather must actually cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the Contractor.
- c. During the Contract performance period, the Contractor must record on the daily CQC report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the Contractor's scheduled workday.

1.9.1 Monthly Anticipated Adverse Weather Delay Work Days

The following is a schedule of monthly anticipated adverse weather days during armor stone placement based on a 5 day work week. The Contractor's progress schedule must reflect these anticipated adverse weather delays in all weather dependent activities.

JAN	FEB	MAR	APR	MAY	JUNE	JUL	AUG	SEP	OCT	NOV	DEC
6	5	7	4	2	1	1	0	1	2	4	6

1.9.2 Documentation

The number of actual adverse weather days will include days impacted by actual adverse weather, and be calculated chronologically from the first to the last day of each month, and be recorded as full days. If the number of actual adverse weather days exceeds the number of days anticipated above, the Contractor may request an extension to the contract.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 CONTRACTOR SURVEYS

Contractor Surveys are required prior to acceptance of completed work areas. Acceptance will be based on the presence of armor stone placed within the design template and allowable tolerances as determined by the difference in the pre- and post-construction surveys. All surveys and survey results must follow the guidance outlined in this section. Survey data which does not conform to the specifications will not be considered for payment.

3.1.1 Survey Standards

Perform all surveys and prepare final digital survey material in accordance with the following References:

EM 385-1-1 (2014) Safety and Health Requirements Manual
EM 1110-1-1000 (2015) Photogrammetric and LiDAR Mapping
EM 1110-1-1002 (2012) Survey Markers and Monumentations
EM 1110-1-1003 (2011) NAVSRTAR Global Positioning System Surveying
EM 1110-1-1005 (2007) Control and Topographic Surveying
EM-1110-1-2909 (2012) Geospatial Data and Systems
EM 1110-2-1003 (2013) Hydrographic Surveying

3.1.2 Survey Firm Acceptance

All surveys must be performed by a third-party survey firm, independent of the Contractor. The firm must have a minimum of three years of qualifying experience in hydrographic surveying using multibeam technology and a minimum of three years of qualifying experience in topographic surveying, including the use of LiDAR or photogrammetric technologies. The firm must have at least one person in responsible charge who holds a current California Land Surveyor's license. The Surveyor must be approved by the Contracting Officer prior to performing surveys for this Contract. Submit documentation for:

a. Modern, electronic surveying equipment and processing software to be used for all surveys. Documentation must include: name, model, and year of manufacture of the electronic equipment and software; the manufacturer's stated accuracies; the last time equipment was calibrated; and capability of the equipment and software proposed for use.

b. Credentials and qualifications verifying qualified, experienced staff are available and will be used for the operation of the

electronic positioning and surveying equipment and processing software. Include records of training.

3.1.1.3 Survey Control and Datum

a. Perform all surveys using the Corps of Engineers control network as indicated. All survey and mapping work must be in the datum, projection and units of the control indicated or as otherwise directed.

b. Prior to commencement of construction, research all available maps and notes of record; conduct a diligent search for all survey monuments within the project limits and adjacent vicinity; reference or tie-out all monuments subject to disturbance or destruction; prepare and file Corner Records or a Record of Survey with the County Surveyor, as directed. Depict the location and character of the original found monuments, prior to disturbance or destruction. Prior to completion of construction, perpetuate the original monuments by setting new monuments and file Corner Records depicting the location and character of the new monuments. Submit copies of recorded instruments for Corner Records and Record of Surveys.

c. Replace or relocate survey control points that have been disturbed or destroyed pursuant to California law, including Section 8771(b) of the California Business and Professions Code, which requires filing of Corner Records or Record of Surveys with the County Surveyor. Coordinate with the Contracting Officer and County Surveyor's office based on the original survey control and submit field notes showing the character of the new points and methods of establishment or re-establishment. Make no changes without prior written approval from the Contracting Officer or delegated representative.

d. Notify the Contracting Officer or delegated representative in writing, 7 days in advance of movement or removal of any monument, benchmark or right-of-way marker.

3.1.1.4 Positioning System

Perform surveys using proven, modern electronic surveying equipment such as Real-Time Kinematic (RTK) Global Positioning System (GPS) or similar system with positional accuracy equal to or exceeding the requirements of EM 1110-1-1003 and EM 1110-1-1005.

3.1.1.5 Hydrographic Surveys

For portions of the work area that are below water, perform surveys of the completed work areas of the structure using multibeam survey methods.

3.1.1.5.1 Survey Data

a. Contractor's hydrographic surveys must be performed electronically (automated) with multibeam survey equipment, the data must be submitted to the Government on an electronic media (ASCII format) in delimited files of easting, northing, and elevation (x,y,z), where the elevation is indicated as negative if recorded below MLLW. Survey data should be binned at 3 x 3 feet.

b. Each survey submittal must consist of three sets of the applicable files on external hard drives, if necessary, and include the following:

- (1) Autocad Civil 3D 2018 DWG file with contours generated from the DTM. All Autocad files must include the proper Geographic Coordinate System and working unit's settings. Each digital file must immediately reference to other digital files and be correctly oriented. CAD files must use the settings for layer, color, and other properties found in ERDC/ITL TR-19-7.
- (2) A Autocad Civil 3D 2018 DWG file of the surface. Submit each DTM with layers at a minimum showing: point ID Descriptions, Codes, breaklines, and contours and TIN. The DTM must be processed and ready for surface to surface comparisons.
- (3) ASCII mass points file with a data header. The first header line must be preceded by an asterisk, which indicates a comment line.
- (4) A HyPack file of the surface.

c. All hard drives, points files, and drawing files (DWG files) must be labeled with a header or title block showing, at a minimum, the following project information:

- (1) Project Name (e.g. Moss Landing Jetty Repair)
- (2) Date of Survey (DD-MMM-YYYY)
- (3) Surveyor's Name and Company (Include license type & number)
- (4) Area(s) Surveyed (e.g. North Jetty Head)
- (5) Type of Survey (e.g. Pre-construction, Acceptance, etc.)
- (6) Indicate multi-beam, and list bin size
- (7) Vertical Datum / control utilized (include geoid model if applicable; if tidal, state NOAA station ID and epoch)
- (8) Horizontal Datum (include coordinate epoch)
- (9) Unit of measure: U.S. Survey Feet
- (10) Control Used (Include primary NGS control points (include PID) and local monuments established)
- (11) Tide Gage Location
- (12) Data Format (use: Easting, Northing, Elevation, Point Description (if applicable))

d. A plot of the coverage area must accompany the x,y,z data.

3.1.5.2 Sounding Data Standards

All depth measurement devices, positioning, and motion compensation systems must be calibrated following the quality control procedures outlined in

EM 1110-2-1003. Survey data must be in the coordinate system, datum and units as indicated. Horizontal and vertical positioning for hydrographic surveys must meet or exceed the minimum tolerance performance standards for breakwater or jetty surveys as set forth in the latest edition of EM 1110-2-1003, Chapter 11.

3.1.5.3 Data Processing

Use a Data Processing System to map the sounding data. Import the reduced sounding data into the Data Processing System where cross-sections are compared to design templates. The software must be capable of digital terrain modeling and must produce, as a minimum, sounding sheets, cross section profiles, 3-dimensional area profiles, and quantity volume calculations using the Triangulated Irregular Network (TIN) method.

3.1.6 Topographic Surveys

For portions of the work area that are above water, perform surveys using proven, modern electronic surveying equipment such as RTK GPS, automated Total Station, Aerial Mapping, LiDAR or similar system with positional accuracy equal to or exceeding the requirements of EM 1110-1-1003 and EM 1110-1-1005. Finished products must have a point density of at least one point per three foot on visible surfaces. Conduct surveys in the presence of the Contracting Officer, unless waived by the Contracting Officer or delegated representative.

3.1.6.1 Survey Data

a. Each survey submittal must consist of three sets of the applicable files on external hard drives, if necessary, and include the following:

- (1) Autocad Civil 3D 2018 file with contours generated from the DTM. All AutoCAD Civil 3D files must include the proper Geographic Coordinate System and working unit's settings. Each digital file must immediately reference to other digital files and be correctly oriented. CAD files must use the settings for layer, color, and other properties found in ERDC/ITL TR-19-7.
- (2) An Autocad Civil 3D file of the surface. Submit each DTM with layers at a minimum showing: point ID Descriptions, Codes, breaklines, and contours and TIN. The DTM must be processed and ready for surface to surface comparisons.
- (3) ASCII mass points file with a data header. The first header line must be preceded by an asterisk, which indicates a comment line.

b. All hard drives, points files, and drawing files (DWG files) must be labeled with a header or title block showing, at a minimum, the following project information:

- (1) Project: (e.g. Mission Bay Navigation Structure Repair)
- (2) Date: (DD-MMM-YYYY)
- (3) Surveyor: Name of firm, licensed surveyor, include license number
- (4) Area: (i.e. North Jetty Head, North Jetty Root, etc.)
- (5) Survey Type: topographic, construction staking, boundary, other
- (6) Survey Method: RTK, total station, digital levels, other
- (7) Unit of Measure: US Survey Feet
- (8) Vertical Datum: (include geoid model if applicable)
- (9) Horizontal Datum: (include coordinate epoch)
- (10) Projection: (e.g. California state plane zone)
- (11) Control used: (Include primary NGS control points)
- (12) Data Format: use Northing, Easting, elevation, point description

3.1.6.2 Data Collection Standards

a. If aerial mapping is utilized, atmospheric conditions must be cloud and fog free between the survey craft and structure during all data collection operations.

b. Conduct survey at or near low tide to maximize portion of the structure extending above the water surface for above water surveys.

c. If performing a topographic survey using LiDAR survey equipment technology, adhere to the following:

- (1) Submit the data on an electronic media in georeferenced point cloud format. Provide both raw and classified point cloud data.
- (2) Collect survey data at 1,000 feet above ground level (AGL) to achieve an RMSEz of 4 inch for a Non-Vegetated vertical accuracy (NVA) of 7.8 inch at 95 percent confidence level and 6.4 inch at 90 percent confidence level.
- (3) Nominal Point Spacing (NPS) will be 2.3 feet for the LiDAR within the project limits.
- (4) Survey data must meet ASPRS Accuracy Standards for a 4 inch RMMSEx Horizontal Accuracy Class, which equates to a Horizontal Positional Horizontal Accuracy of +/- 9.8 inches at a 95 percent confidence level.

3.1.6.3 Data Processing

Use a Data Processing System to map the survey data. Processed survey data must then be imported into the Data Processing System where the data is compared to design templates. The software must be capable of digital terrain modeling and must produce, at a minimum, topographic survey sheets, cross section profiles, and 3-dimensional area profiles.

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SECTION 01 14 00

WORK RESTRICTIONS

11/11

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

List of Contact Personnel

CONTRACTOR ACCESS AND USE OF PREMISES

1.2 Activity Regulations

Ensure that Contractor personnel become familiar with and obey regulations including safety, fire, traffic, security regulations, and environmental protection requirements. Keep within the limits of the work and avenues of ingress and egress. Wear hard hats in designated areas. Do not enter any critical habitat.

1.2.1 Subcontractors and Personnel Contacts

Provide a list of contact personnel of the Contractor and subcontractors including addresses and telephone numbers for use in the event of an emergency. As changes occur and additional information becomes available, correct and change the information contained in previous lists.

1.2.2 No Smoking Policy

Federal law prohibits smoking in and near entrances to Federally owned buildings and installations except where specifically authorized.

1.3 Working Hours

Regular working hours are from 9 PM Sunday to 6 AM Saturday, excluding Government holidays.

1.4 Work Outside Regular Hours

Work outside regular working hours requires Contracting Officer or delegated representative approval. Make application 15 calendar days prior to such work to allow arrangements to be made by the Government for inspecting the work in progress, giving the specific dates, hours, location, type of work to be performed, contract number and project title. Based on the justification provided, the Contracting Officer or delegated representative may or may not approve work outside regular hours. During periods of darkness, the different parts of the work must be lighted in a manner approved by the Contracting Officer or delegated representative.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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SECTION 01 22 00

PRICE AND PAYMENT PROCEDURES
11/20

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Scale Certification; G

1.2 SINGLE JOB PAYMENT ITEMS

Payment items for the work of this contract for which contract job payments will be made are listed in the PRICING SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular job or unit price payment item, are included in the listed job item most closely associated with the work involved. The job price and payment made for each item listed constitutes full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

1.2.1 North Jetty

1.2.1.1 Payment

Payment will be made for costs associated with armor stone resets, miscellaneous concrete, project and danger sign replacement, aids to navigation reinstallation and removal of timber piles.

1.2.1.2 Unit of Measure

Unit of measure: Job (JA)

1.2.2 South Jetty

1.2.2.1 Payment

Payment will be made for costs associated with armor stone resets, miscellaneous concrete, project and danger sign replacement and aids to navigation reinstallation.

1.2.2.2 Unit of Measure

Unit of measure: Job (JA)

1.3 UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the PRICING SCHEDULE and described below. The unit price and payment made for each item listed constitutes full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

1.3.1 North Jetty, Armor Stone

1.3.1.1 Payment

Payment will be made for costs associated with furnishing, transporting, stockpiling (if applicable), placing, chinking, and constructing the armor stone (stone) protection as specified.

1.3.1.2 Measurement

a. Measure stone for payment by the ton (2,000 pounds) by weighing each truckload to the nearest 0.1 ton, and the final quantity of the whole sum is rounded to the nearest whole ton.

b. Weigh the stone for payment on approved scales before being placed in the work. Quarry weights will not be accepted. Provide and use scales of sufficient length to permit simultaneous weighing all axle loads. Scales must be inspected, tested and sealed as directed to assure accuracy with 0.5 percent throughout the range of the scales. Submit scale certification conducted by an inspector of the State Inspection Bureau charged with scale inspection within the State of California. Scales must be checked and certified before stone hauling, rechecked and recertified whenever a variance is suspected or as directed. If commercial scales are readily available within 10 miles of the site of work, the Contracting Officer or delegated representative may approve the use of the scales. Weigh stone in the presence of the Contracting Officer or delegated representative. Certified weight certificates may be furnished by a public weighmaster in lieu of scale weights at the jobsite. Unused or rejected armor stone will be transported offsite and becomes the property of the Contractor. Weigh unused or rejected stone and do not include in payment.

c. Stone delivered by floating barge may have weight calculated by the displacement method. Using the displacement method, one cubic foot of displacement will be the equivalent of 64 pounds. The total displacement of the floating barge will be calculated using the average draft measured at four corners of the vessel with information from the current naval architecture analysis. Excess water accumulated in the vessel must be properly discharged before any draft measurements can be taken. Draft measurements cannot be performed within 48 hours after a rain event of more than 0.5 inches. Draft measurements and displacement calculations must be obtained prior to stone loading, subsequent to loading and upon arrival at the construction site. Only measurements prior to stone loading and arrival to the construction site will be used for payment calculation. Provide notice 5 days prior and take all draft measurements in the presence of the Contracting Officer or delegated representative unless otherwise directed.

1.3.1.3 Unit of Measure

Unit of measure: Tons (2,000 pounds).

1.3.2 South Jetty, Armor Stone

1.3.2.1 Payment

Payment will be made for costs associated with furnishing, transporting, stockpiling (if applicable), placing, chinking, and constructing the armor stone (stone) protection as specified.

1.3.2.2 Measurement

a. Measure stone for payment by the ton (2,000 pounds) by weighing each truckload to the nearest 0.1 ton, and the final quantity of the whole sum is rounded to the nearest whole ton.

b. Weigh the stone for payment on approved scales before being placed in the work. Quarry weights will not be accepted. Provide and use scales of sufficient length to permit simultaneous weighing all axle loads. Scales must be inspected, tested and sealed as directed to assure accuracy with 0.5 percent throughout the range of the scales. Submit scale certification conducted by an inspector of the State Inspection Bureau charged with scale inspection within the State of California. Scales must be checked and certified before stone hauling, rechecked and recertified whenever a variance is suspected or as directed. If commercial scales are readily available within 10 miles of the site of work, the Contracting Officer or delegated representative may approve the use of the scales. Weigh stone in the presence of the Contracting Officer or delegated representative. Certified weight certificates may be furnished by a public weighmaster in lieu of scale weights at the jobsite. Unused or rejected armor stone will be transported offsite and becomes the property of the Contractor. Weigh unused or rejected stone and do not include in payment.

c. Stone delivered by floating barge may have weight calculated by the displacement method. Using the displacement method, one cubic foot of displacement will be the equivalent of 64 pounds. The total displacement of the floating barge will be calculated using the average draft measured at four corners of the vessel with information from the current naval architecture analysis. Excess water accumulated in the vessel must be properly discharged before any draft measurements can be taken. Draft measurements cannot be performed within 48 hours after a rain event of more than 0.5 inches. Draft measurements and displacement calculations must be obtained prior to stone loading, subsequent to loading and upon arrival at the construction site. Only measurements prior to stone loading and arrival to the construction site will be used for payment calculation. Provide notice 5 days prior and take all draft measurements in the presence of the Contracting Officer or delegated representative unless otherwise directed.

1.3.2.3 Unit of Measure

Unit of Measure: Tons (2,000 pounds).

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

View Location Map

1.2 VIEW LOCATION MAP

Submit, prior to or with the first digital photograph submittals, a sketch or drawing indicating the required photographic locations. Update as required if the locations are moved.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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PROJECT SCHEDULE

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AACE INTERNATIONAL (AACE)

AACE 29R-03

(2011 Forensic Schedule Analysis)

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Preliminary Project Schedule; G

Initial Project Schedule; G

Periodic Schedule Updates; G

Project Scheduler Qualifications; G

1.3 PROJECT SCHEDULER QUALIFICATIONS

Each schedule submittal must identify the Project Scheduler who was responsible for the preparation of the schedule submittal and all required updating and production of reports. The Project Scheduler must have a minimum of 2 years' experience scheduling construction projects similar in size and nature to this project with scheduling software that meets the requirements of this specification. Representative must have a comprehensive knowledge of CPM scheduling principles and application.

PART 2 PRODUCTS

2.1 SOFTWARE

The scheduling software utilized to produce and update the schedules required herein must be capable of meeting all requirements of this specification.

2.1.1 Government Default Software

The Government intends to use Primavera P6.

2.1.1.2 Contractor Software

Scheduling software used by the contractor must be commercially available from the software vendor for purchase with vendor software support agreements available. The software routine used to create the required sdef file must be created and supported by the software manufacturer.

2.1.2.1 Primavera

If Primavera P6 is selected for use, provide the "xer" export file in a version of P6 importable by the Government system.

2.1.2.2 Other than Primavera

If the contractor chooses software other than Primavera P6, that is compliant with this specification, provide for the Government's use two licenses, two computers, and training for two Government employees in the use of the software. These computers will be stand-alone and not connected to Government network. Computers and licenses will be returned at project completion.

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Prepare for approval a Project Schedule, as specified herein, pursuant to FAR Clause 52.236-15, SCHEDULE FOR CONSTRUCTION CONTRACTS. Show in the schedule the proposed sequence to perform the work and dates contemplated for starting and completing all schedule activities. The scheduling of the entire project is required. The scheduling is the responsibility of the Contractor. Contractor management personnel must actively participate in its development, and maintaining an accurate Project Schedule. Provide a schedule that is a forward planning as well as a project monitoring tool. Use the Critical Path Method (CPM) of network calculation to generate all Project Schedules. Prepare each Project Schedule using the Precedence Diagram Method (PDM).

3.2 BASIS FOR PAYMENT AND COST LOADING

The schedule is the basis for determining contract earnings during each update period and therefore the amount of each progress payment. The aggregate value of all activities coded to a contract CLIN must equal the value of the CLIN.

3.2.1 Activity Cost Loading

Activity cost loading must be reasonable and without front-end loading. Provide additional documentation to demonstrate reasonableness if requested by the Contracting Officer or delegated representative.

3.2.2 Withholdings / Payment Rejection

Failure to meet the requirements of this specification may result in the disapproval of the preliminary, initial or periodic schedule updates and subsequent rejection of payment requests until compliance is met.

In the event that the Contracting Officer or delegated representative directs schedule revisions and those revisions have not been included in subsequent Project Schedule revisions or updates, the Contracting Officer

or delegated representative may withhold 10 percent of pay request amount from each payment period until such revisions to the project schedule have been made.

3.3 PROJECT SCHEDULE DETAILED REQUIREMENTS

3.3.1 Level of Detail Required

Develop the Project Schedule to the appropriate level of detail to address major milestones and to allow for satisfactory project planning and execution. Failure to develop the Project Schedule to an appropriate level of detail will result in its disapproval. The Contracting Officer or delegated representative will consider, but is not limited to, the following characteristics and requirements to determine appropriate level of detail:

3.3.2 Activity Durations

Reasonable activity durations are those that allow the progress of ongoing activities to be accurately determined between update periods. Less than 2 percent of all non-procurement activities may have Original Durations (OD) greater than 20 work days or 30 calendar days.

3.3.3 Procurement Activities

Include activities associated with the critical submittals and their approvals, procurement, fabrication, and delivery of long lead materials, equipment, fabricated assemblies, and supplies. Long lead procurement activities are those with an anticipated procurement sequence of over 90 calendar days.

3.3.4 Mandatory Tasks

Include the following activities/tasks in the initial project schedule and all updates, if applicable to dredging and jetty repair activities.

- a. Submission, review and acceptance of SD-01 Preconstruction Submittals (individual activity for each).
- b. Long procurement activities
- c. Submission and approval of as-built drawings.
- d. Contractor's pre-final inspection.
- e. Correction of punch list from Contractor's pre-final inspection.
- f. Government's pre-final inspection.
- g. Correction of punch list from Government's pre-final inspection.
- h. Final inspection.

3.3.5 Government Activities

Show Government and other agency activities that could impact progress. These activities include, but are not limited to: approvals, acceptance, design reviews, environmental permit approvals by State regulators, inspections, and utility tie-in.

3.3.6 Activity Code Structure

Use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11. This exact structure is mandatory. Develop and assign all Activity Codes to activities as detailed herein. A template SDEF compatible schedule backup file is available on the RMS CM web site: <http://rms.usace.army.mil>.

The SDEF format is as follow:

FIELD	ACTIVITY CODE	LENGTH	DESCRIPTION
1	WRKP	3	WORKERS PER DAY
2	RESP	4	RESPONSIBLE PARTY
3	AREA	4	AREA OF WORK
4	MODF	6	MODIFICATION NUMBER
5	BIDI	6	BID ITEM (CLIN)
6	PHAS	2	PHASE OF WORK
7	CATW	1	CATEGORY OF WORK
8	FOW	20	FEATURE OF WORK*
*Some systems require that FEATURE OF WORK values be placed in several activity code fields. The notation shown is for Primavera P6. Refer to the specific software guidelines with respect to the FEATURE OF WORK field requirements.			

3.3.6.1 Workers per Day (WRKP)

Assign Workers per Day for all field or direct work activities, if directed by the Contracting Officer or delegated representative. Workers per day is based on the average number of workers expected each day to perform a task for the duration of that activity.

3.3.6.2 Responsible Party Coding (RESP)

Assign responsibility code for all activities to the Prime Contractor, Subcontractor(s) or Government agency(ies) responsible for performing the activity.

- a. Activities coded with a Government Responsibility code include, but are not limited to: Government approvals, Government design reviews, environmental permit approvals by State regulators, Government Furnished Property/Equipment (GFP) and Notice to Proceed (NTP) for phasing requirements.
- b. Activities cannot have more than one Responsibility Code. Examples of acceptable activity code values are: DOR (for the designer of record); ELEC (for the electrical subcontractor); MECH (for the

mechanical subcontractor); and GOVT (for USACE).

3.3.6.3 Area of Work Coding (RESP)

Assign Work Area code to activities based upon the work area in which the activity occurs. Define work areas based on resource constraints or space constraints that would preclude a resource, such as a particular trade or craft work crew from working in more than one work area at a time due to restraints on resources or space. Activities cannot have more than one Work Area Code.

Not all activities are required to be Work Area coded. A lack of Work Area coding indicates the activity is not resource or space constrained.

3.3.6.4 Modification Number (MODF)

Assign a Modification Number Code to any activity or sequence of activities added to the schedule as a result of a Contract Modification, when approved by Contracting Officer or delegated representative. Key all Code values to the Government's modification numbering system. An activity can have only one Modification Number Code.

3.3.6.5 Bid Item Coding (BIDI)

Assign a Bid Item Code to all activities using the Contract Line Item Schedule (CLIN) to which the activity belongs, even when an activity is not cost loaded. An activity can have only one BIDI Code.

3.3.6.6 Phase Work Coding (PHAS)

Assign Phase of Work Code to all activities. Examples of phase of work are design phase, procurement phase, and construction phase. Each activity can have only one Phase of Work code.

- a. Code proposed fast track design and construction phases proposed to allow filtering and organizing the schedule by fast track design and construction packages.
- b. If the contract specifies phasing with separately defined performance periods, identify a Phase Code to allow filtering and organizing the schedule accordingly.

3.3.6.7 Category of Work Coding (CATW)

Assign a Category of Work Code to all activities. Category of Work Codes include, but are not limited to construction submittal, procurement, fabrication, weather sensitive installation, non-weather sensitive installation, start-up, and testing activities. Each activity can have no more than one Category of Work Code.

3.3.6.8 Feature of Work Coding (FOW)

Assign a Feature of Work Code to appropriate activities based on the Definable Feature of Work to which the activity belongs based on the approved QC plan.

Definable Feature of Work is defined in Section 01 45 00.00 10 QUALITY CONTROL. An activity can have only one Feature of Work Code.

3.3.7 Contract Milestones and Constraints

Milestone activities are to be used for significant project events including, but not limited to, project phasing, project start and end activities, or interim completion dates. The use of artificial float constraints such as "zero free float" or "zero total float" are prohibited.

Mandatory constraints that ignore or effect network logic are prohibited. No constrained dates are allowed in the schedule other than those specified herein. Submit additional constraints to the Contracting Officer or delegated representative for approval on a case by case basis.

3.3.7.1 Project Start Date Milestones and Constraint

The first activity in the project schedule must be a start milestone titled "NTP Acknowledged," which must have a "Start On" constraint date equal to the date that the NTP is acknowledged.

3.3.7.2 End Project Finish Milestone and Constraint

The last activity in the schedule must be a finish milestone titled "End Project."

Constrain the project schedule to the Contract Completion Date in such a way that if the schedule calculates an early finish, then the float calculation for "End Project" milestone reflects positive float on the longest path. If the project schedule calculates a late finish, then the "End Project" milestone float calculation reflects negative float on the longest path. The Government is under no obligation to accelerate Government activities to support a Contractor's early completion.

3.3.7.3 Interim Completion Dates and Constraints

Constrain contractually specified interim completion dates to show negative float when the calculated late finish date of the last activity in that phase is later than the specified interim completion date.

3.3.7.3.1 Start Phase

Use a start milestone as the first activity for a project phase. Call the start milestone "Start Phase X" where "X" refers to the phase of work.

3.3.7.3.2 End Phase

Use a finish milestone as the last activity for a project phase. Call the finish milestone "End Phase X" where "X" refers to the phase of work.

3.3.8 Calendars

Schedule activities on a Calendar to which the activity logically belongs. Develop calendars to accommodate any contract defined work period such as a 7-day calendar for Government Acceptance activities, concrete cure times, etc. Develop the default Calendar to match the physical work plan with non- work periods identified including weekends and holidays. Develop Seasonal Calendar(s) and assign to seasonally affected activities as applicable.

If an activity is weather sensitive it should be assigned to a calendar

showing non-work days on a monthly basis, with the non-work days selected at random across the weeks of the calendar, using the anticipated adverse weather delay work days provided in the Special Contract Requirements. Assign non-work days over a seven-day week as weather records are compiled on seven-day weeks, which may cause some of the weather related non-work days to fall on weekends.

3.3.9 Open Ended Logic

Only two open ended activities are allowed: the first activity "NTP Acknowledged" may have no predecessor logic, and the last activity -"End Project" may have no successor logic.

Predecessor open ended logic may be allowed in a time impact analyses upon the Contracting Officer or delegated representative's approval.

3.3.10 Default Progress Data Disallowed

Actual Start and Finish dates must not automatically update with default mechanisms included in the scheduling software. Updating of the percent complete and the remaining duration of any activity must be independent functions. Disable program features that calculate one of these parameters from the other. Activity Actual Start (AS) and Actual Finish (AF) dates assigned during the updating process must match those dates provided in the Contractor Quality Control Reports. Failure to document the AS and AF dates in the Daily Quality Control report will result in disapproval of the Contractor's schedule.

3.3.11 Out of Sequence Progress

Activities that have progressed before all preceding logic has been satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case basis subject to approval by the Contracting Officer or delegated representative. Propose logic corrections to eliminate out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule. Address out of sequence progress or logic changes in the Narrative Report and in the periodic schedule update meetings.

3.3.12 Added and Deleted Activities

Do not delete activities from the project schedule or add new activities to the schedule without approval from the Contracting Officer or delegated representative. Activity ID and description changes are considered new activities and cannot be changed without Contracting Officer or delegated representative approval.

3.3.13 Original Durations

Activity Original Durations (OD) must be reasonable to perform the work item. OD changes are prohibited unless justification is provided and approved by the Contracting Officer or delegated representative.

3.3.14 Leads, Lags, and Start to Finish Relationships

Lags must be reasonable as determined by the Government and not used in place of realistic original durations, must not be in place to artificially absorb float, or to replace proper schedule logic.

- a. Leads (negative lags) are prohibited.
- b. Start to Finish (SF) relationships are prohibited.

3.3.15 Retained Logic

Schedule calculations must retain the logic between predecessors and successors ("retained logic" mode) even when the successor activity(s) starts and the predecessor activity(s) has not finished (out-of-sequence progress). Software features that in effect sever the tie between predecessor and successor activities when the successor has started and the predecessor logic is not satisfied ("progress override") are not be allowed.

3.3.16 Percent Complete

Update the percent complete for each activity started, based on the realistic assessment of earned value. Activities which are complete but for remaining minor punch list work and which do not restrain the initiation of successor activities may be declared 100 percent complete to allow for proper schedule management.

3.3.17 Remaining Duration

Update the remaining duration for each activity based on the number of estimated work days it will take to complete the activity. Remaining duration may not mathematically correlate with percentage found under paragraph entitled Percent Complete.

3.3.18 Cost Loading of Closeout Activities

Cost load the "Correction of punch list from Government pre-final inspection" activity(ies) not less than 1 percent of the present contract value. Activity(ies) may be declared 100 percent complete upon the Government's verification of completion and correction of all punch list work identified during Government pre-final inspection(s).

3.3.18.1 As-Built Drawings

If there is no separate contract line item (CLIN) for as-built drawings, cost load the "Submission and approval of as-built drawings" activity not less than \$35,000 or 1 percent of the present contract value, whichever is greater, up to \$200,000. Activity will be declared 100 percent complete upon the Government's approval.

3.3.19 Early Completion Schedule and the Right to Finish Early

An Early Completion Schedule is an Initial Project Schedule (IPS) that indicates all scope of the required contract work will be completed before the contractually required completion date.

- a. No IPS indicating an Early Completion will be accepted without being fully resource-loaded (including crew sizes and man-hours) and the Government agreeing that the schedule is reasonable and achievable.
- b. The Government is under no obligation to accelerate work items it is responsible for to ensure that the early completion is met nor is it responsible to modify incremental funding (if applicable) for the

project to meet the contractor's accelerated work.

3.4 PROJECT SCHEDULE SUBMISSIONS

Provide the submissions as described below. The data, reports, and network diagrams required for each submission are contained in paragraph 3.5 SUBMISSION REQUIREMENTS. If the Contractor fails or refuses to furnish the information and schedule updates as set forth herein, then the Contractor will be deemed not to have provided an estimate upon which a progress payment can be made.

Review comments made by the Government on the schedule(s) do not relieve the Contractor from compliance with requirements of the Contract Documents.

3.4.1 Preliminary Project Schedule Submission

Within 7 calendar days after the NTP is acknowledged submit the Preliminary Project Schedule defining the planned operations detailed for the first 90 calendar days for approval. The approved Preliminary Project Schedule will be used for payment purposes not to exceed 30 calendar days after NTP. Completely cost load the Preliminary Project Schedule to balance the contract award CLINS shown on the Price Schedule. The Preliminary Project Schedule may be summary in nature for the remaining performance period. It must be early start and late finish constrained and logically tied as specified. The Preliminary Project Schedule forms the basis for the Initial Project Schedule specified herein and must include all of the required plan and program preparations, submissions and approvals identified in the contract (for example, Quality Control Plan, Safety Plan, and Environmental Protection Plan) as well as design activities, planned submissions of all early design packages, permitting activities, design review conference activities, and other non-construction activities intended to occur within the first 30 calendar days. Government acceptance of the associated design package(s) and all other specified Program and Plan approvals must occur prior to any planned construction activities. Activity code any activities that are summary in nature after the first 90 calendar days with Bid Item (CLIN) code (BIDI), Responsibility Code (RESP) and Feature of Work code (FOW). Submit the Initial Project Schedule for approval within 42 calendar days after notice to proceed is issued. The schedule must demonstrate a reasonable and realistic sequence of activities which represent all work through the entire contract performance period. No payment will be made for work items not fully detailed in the Project Schedule.

3.4.2 Initial Project Schedule Submission

Submit the Initial Project Schedule for approval within 15 calendar days after notice to proceed is issued. The schedule must demonstrate a reasonable and realistic sequence of activities which represent all work through the entire contract performance period. No payment will be made for work items not fully detailed in the Project Schedule.

3.4.3 Periodic Schedule Updates

Update the Project Schedule on a regular basis, monthly at a minimum. Provide a draft Periodic Schedule Update for review at the schedule update meetings as prescribed in the paragraph PERIODIC SCHEDULE UPDATE MEETINGS. These updates will enable the Government to assess Contractor's progress.

a. Update information including Actual Start Dates (AS), Actual Finish Dates (AF), Remaining Durations (RD), and Percent Complete is subject to the approval of the Government at the meeting.

b. AS and AF dates must match the date(s) reported on the Contractor's Quality Control Report for an activity start or finish.

3.5 SUBMISSION REQUIREMENTS

Submit the following items for the Preliminary Schedule, Initial Schedule, and every Periodic Schedule Update throughout the life of the project:

3.5.1 Data Electronic Files

Provide one set of data in electronic format in RMS containing the current project schedule and all previously submitted schedules in the format of the scheduling software (e.g. .xer). Also include in the data electronic file, the Narrative Report and all required Schedule Reports. Label each data file indicating the type of schedule (Preliminary, Initial, Update), full contract number, Data Date and file name. Each schedule must have a unique file name and use project specific settings.

3.5.2 Narrative Report

Provide a Narrative Report with each schedule submission. The Narrative Report is expected to communicate to the Government the thorough analysis of the schedule output and the plans to compensate for any problems, either current or potential, which are revealed through that analysis. Include the following information as minimum in the Narrative Report:

- a. Identify and discuss the work scheduled to start in the next update period.
- b. A description of activities along the two most critical paths where the total float is less than or equal to 20 work days.
- c. A description of current and anticipated problem areas or delaying factors and their impact and an explanation of corrective actions taken or required to be taken.
- d. Identify and explain why activities based on their calculated late dates should have either started or finished during the update period but did not.
- e. Identify and discuss all schedule changes by activity ID and activity name including what specifically was changed and why the change was needed. Include at a minimum new and deleted activities, logic changes, duration changes, calendar changes, lag changes, resource changes, and actual start and finish date changes.
- f. Identify and discuss out-of-sequence work.

3.5.3 Schedule Reports

The format, filtering, organizing and sorting for each schedule report will be as directed by the Contracting Officer or delegated representative. Typically, reports contain Activity Numbers, Activity

Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date, Late Finish Date, Total Float, Actual Start Date, Actual Finish Date, and Percent Complete. Provide the reports electronically in .pdf format and provide 2 sets of hardcopy reports. The following lists typical reports that will be requested:

3.5.3.1 Activity Report

List of all activities sorted according to activity number.

3.5.3.2 Logic Report

List of detailed predecessor and successor activities for every activity in ascending order by activity number.

3.5.3.3 Total Float Report

A list of all incomplete activities sorted in ascending order of total float. List activities which have the same amount of total float in ascending order of Early Start Dates. Do not show completed activities on this report.

3.5.3.4 Earnings Report by CLIN

A compilation of the Total Earnings on the project from the NTP to the data date, which reflects the earnings of activities based on the agreements made in the schedule update meeting defined herein. Provided a complete schedule update has been furnished, this report serves as the basis of determining progress payments. Group activities by CLIN number and sort by activity number. Provide a total CLIN percent earned value, CLIN percent complete, and project percent complete. The printed report must contain the following for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Earnings to Date, Earnings this period, Total Quantity, Quantity to Date, and Percent Complete (based on cost).

3.5.3.5 Schedule Log

Provide a Scheduling/Leveling Report generated from the current project schedule being submitted.

3.5.4 Network Diagram

The Network Diagram is required for the Preliminary, Initial and Periodic Updates. Depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer or delegated representative will use, but is not limited to, the following conditions to review compliance with this paragraph:

3.5.4.1 Continuous Flow

Show a continuous flow from left to right with no arrows from right to left. Show the activity number, description, duration, and estimated earned value on the diagram.

3.5.4.2 Project Milestone Dates

Show dates on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

3.5.4.3 Critical Path

Show all activities on the critical path. The critical path is defined as the longest path.

3.5.4.4 Banding

Organize activities using the WBS or as otherwise directed to assist in the understanding of the activity sequence. Typically, this flow will group activities by major elements of work, category of work, work area and/or responsibility.

3.5.4.5 Cash Flow / Schedule Variance Control (SVC) Diagram

With each schedule submission, provide a SVC diagram showing 1) Cash Flow S- Curves indicating planned project cost based on projected early and late activity finish dates, and 2) Earned Value to-date.

3.6 PERIODIC SCHEDULE UPDATE MEETINGS

3.6.1 Periodic Schedule Update Meetings

Conduct periodic schedule update meetings for the purpose of reviewing the proposed Periodic Schedule Update, Narrative Report, Schedule Reports, and progress payment. Conduct meetings at least monthly within five days of the proposed schedule data date. Provide a computer with the scheduling software loaded and a projector which allows all meeting participants to view the proposed schedule during the meeting. The Contractor's authorized scheduler must organize, group, sort, filter, perform schedule revisions as needed and review functions as requested by the Contractor and/or Government. The meeting is a working interactive exchange which allows the Government and Contractor the opportunity to review the updated schedule on a real time and interactive basis. The meeting will last no longer than 8 hours. Provide a draft of the proposed narrative report and schedule data file to the Government a minimum of two workdays in advance of the meeting. The Contractor's Project Manager and scheduler must attend the meeting with the Contracting Officer or delegated representative. Superintendents, foremen and major subcontractors must attend the meeting as required to discuss the project schedule and work. Following the periodic schedule update meeting, make corrections to the draft submission. Include only those changes approved by the Government in the submission and invoice for payment.

3.6.2 Update Submission Following Progress Meeting

Submit the complete Periodic Schedule Update of the Project Schedule containing all approved progress, revisions, and adjustments, pursuant to paragraph SUBMISSION REQUIREMENTS not later than 4 work days after the periodic schedule update meeting.

3.7 WEEKLY PROGRESS MEETINGS

Conduct a weekly meeting with the Government (or as otherwise mutually agreed to) between the meetings described in paragraph entitled PERIODIC SCHEDULE UPDATE MEETINGS for the purpose of jointly reviewing the actual progress of the project as compared to the as planned progress and to review planned activities for the upcoming two weeks. Use the current approved schedule update for the purposes of this meeting and for the

production and review of reports. At the weekly progress meeting, address the status of RFIs, RFPs and Submittals.

3.8 REQUEST FOR TIME EXTENSIONS

Provide a justification of delay to the Contracting Officer or delegated representative in accordance with the contract provisions and clauses for approval within 10 days of a delay occurring. Also prepare a time impact analysis for each Government request for proposal (RFP) to justify time extensions.

3.8.1 Justification of Delay

Provide a description of the event(s) that caused the delay and/or impact to the work. As part of the description, identify all schedule activities impacted. Show that the event that caused the delay/impact was the responsibility of the Government. Provide a time impact analysis that demonstrates the effects of the delay or impact on the project completion date or interim completion date(s). Evaluate multiple impacts chronologically; each with its own justification of delay. With multiple impacts consider any concurrency of delay. A time extension and the schedule fragnet becomes part of the project schedule and all future schedule updates upon approval by the Contracting Officer or delegated representative.

3.8.2 Time Impact Analysis (Prospective Analysis)

Prepare a time impact analysis for approval by the Contracting Officer or delegated representative based on industry standard AACE 52R-06. Utilize a copy of the last approved schedule prior to the first day of the impact or delay for the time impact analysis. If Contracting Officer or delegated representative determines the time frame between the last approved schedule and the first day of impact is too great, prepare an interim updated schedule to perform the time impact analysis. Unless approved by the Contracting Officer or delegated representative, no other changes may be incorporated into the schedule being used to justify the time impact.

3.8.3 Forensic Schedule Analysis (Retrospective Analysis)

Prepare an analysis for approval by the Contracting Officer or delegated representative based on industry standard AACE 29R-03.

3.8.4 Fragmentary Network (Fragnet)

Prepare a proposed fragnet for time impact analysis consisting of a sequence of new activities that are proposed to be added to the project schedule to demonstrate the influence of the delay or impact to the project's contractual dates. Clearly show how the proposed fragnet is to be tied into the project schedule including all predecessors and successors to the fragnet activities. The proposed fragnet must be approved by the Contracting Officer prior to incorporation into the project schedule.

3.8.5 Time Extension

The Contracting Officer or delegated representative must approve the Justification of Delay including the time impact analysis before a time extension will be granted. No time extension will be granted unless the

delay consumes all available Project Float and extends the projected finish date ("End Project" milestone) beyond the Contract Completion Date. The time extension will be in calendar days.

Actual delays that are found to be caused by the Contractor's own actions, which result in a calculated schedule delay will not be a cause for an extension to the performance period, completion date, or any interim milestone date.

3.8.6 Impact to Early Completion Schedule

No extended overhead will be paid for delay prior to the original Contract Completion Date for an Early Completion IPS unless the Contractor actually performed work in accordance with that Early Completion Schedule. The Contractor must show that an early completion was achievable had it not been for the impact.

3.9 FAILURE TO ACHIEVE PROGRESS

Should the progress fall behind the approved project schedule for reasons other than those that are excusable within the terms of the contract, the Contracting Officer or delegated representative may require provision of a written recovery plan for approval. The plan must detail how progress will be made-up to include which activities will be accelerated by adding additional crews, longer work hours, extra work days, etc.

3.9.1 Artificially Improving Progress

Artificially improving progress by means such as, but not limited to, revising the schedule logic, modifying or adding constraints, shortening activity durations, or changing calendars in the project schedule is prohibited. Indicate assumptions made and the basis for any logic, constraint, duration and calendar changes used in the creation of the recovery plan. Any additional resources, manpower, or daily and weekly work hour changes proposed in the recovery plan must be evident at the work site and documented in the daily report along with the Schedule Narrative Report.

3.9.2 Failure to Perform

Failure to perform work and maintain progress in accordance with the supplemental recovery plan may result in an interim and final unsatisfactory performance rating and/or may result in corrective action directed by the Contracting Officer or delegated representative pursuant to FAR 52.236-15 Schedules for Construction Contracts, FAR 52.249-10 Default (Fixed-Price Construction), and other contract provisions.

3.9.3 Recovery Schedule

Should the Contracting Officer or delegated representative find it necessary, submit a recovery schedule pursuant to FAR 52.236-15 Schedules for Construction Contracts.

3.10 OWNERSHIP OF FLOAT

Except for the provision given in the paragraph IMPACT TO EARLY COMPLETION

SCHEDULE, float available in the schedule, at any time, may not be considered for the exclusive use of either the Government or the Contractor including activity and/or project float. Activity float is the number of work days that an activity can be delayed without causing a delay to the "End Project" finish milestone. Project float (if applicable) is the number of work days between the projected early finish and the contract completion date milestone.

3.11 TRANSFER OF SCHEDULE DATA INTO RMS/QCS

Import the schedule data into the Resident Management System Contractor Mode (RMS CM) and export the RMS CM data to the Government. This data is considered to be additional supporting data in a form and detail required by the Contracting Officer or delegated representative pursuant to FAR 52.232-5 - Payments under Fixed- Price Construction Contracts. The receipt of a proper payment request pursuant to FAR 52.232-27 - Prompt Payment for Construction Contracts is contingent upon the Government receiving both acceptable and approvable hard copies and matching electronic export from RMS CM of the application for progress payment.

3.12 PRIMAVERA P6 MANDATORY REQUIREMENTS

If Primavera P6 is being used, request a backup file template (.xer) from the Government, if one is available, prior to building the schedule. The following settings are mandatory and required in all schedule submissions to the Government:

- a. Activity Codes must be Project Level, not Global or EPS level.
- b. Calendars must be Project Level, not Global or Resource level.
- c. Activity Duration Types must be set to "Fixed Duration & Units".
- d. Percent Complete Types must be set to "Physical".
- e. Time Period Admin Preferences must remain the default "8.0 hr/day, 40 hr/week, 172 hr/month, 2000 hr/year". Set Calendar Work Hours/Day to 8.0 Hour days.
- f. Set Schedule Option for defining Critical Activities to "Longest Path".
- g. Set Schedule Option for defining progressed activities to "Retained Logic".
- h. Set up cost loading using a single lump sum labor resource. The Price/Unit must be \$1/hr, Default Units/Time must be "8h/d", and settings "Auto Compute Actuals" and "Calculate costs from units" selected.
- i. Activity ID's must not exceed 10 characters.
- j. Activity Names must have the most defining and detailed description within the first 30 characters.

-- End of Section --

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SECTION 01 33 00

SUBMITTAL PROCEDURES

08/18

PART 1 GENERAL

1.1 SUMMARY

The Contracting Officer or delegated representative may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections.

Units of weights and measures used on all submittals are to be the same as those used in the contract drawings.

Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

Contractor's to check and approve all items prior to submittal and stamp, sign, and date indicating action taken. Proposed deviations from the contract requirements are to be clearly identified. Include within submittals items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals.

Submittals requiring Government approval are to be scheduled and made prior to the acquisition of the material or equipment covered thereby. Pick up and dispose of samples not incorporated into the work in accordance with manufacturer's Material Safety Data Sheets (MSDS) and in compliance with existing laws and regulations.

A submittal register showing items of equipment and materials for when submittals are required by the specifications is provided as "Attachment 1 - Submittal Register" at the end of the Specification package.

1.2 DEFINITIONS

1.2.1 Submittal Descriptions (SD)

Submittals requirements are specified in the technical sections. Submittals are identified by Submittal Description (SD) numbers and titles as follows:

SD-01 Preconstruction Submittals

Submittals which are required prior to or the start of the next major phase of the construction on a multi-phase contract, includes schedules, tabular list of data, or tabular list including location, features, or other pertinent information regarding products, materials, equipment, or components to be used in the work.

Certificates of insurance

Surety bonds

List of proposed Subcontractors

List of proposed products

Construction progress schedule

Network Analysis Schedule (NAS)

Submittal Register

Schedule of prices

Health and safety plan

Work plan

Quality Control(QC) plan

Environmental protection plan

Documentation of Pre-Construction Conditions

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.

Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-05 Design Data

Design calculations, mix designs, analyses or other data pertaining to a part of work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by

the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports.

Daily logs and checklists.

Final acceptance test and operational test procedure.

SD-07 Certificates

Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a manufacturer, supplier, installer or Subcontractor through Contractor. The document purpose is to further promote the orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

Text of posted operating instructions.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Submittals required for Guiding Principle Validation (GPV) or Third Party Certification (TPC).

Special requirements necessary to properly close out a construction contract. For example, Record Drawings and as-built drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

1.2.2 Approving Authority

Office or designated person authorized to approve submittal.

1.2.3 Work

As used in this section, on- and off-site construction required by contract documents, including labor necessary to produce submittals, except those SD-01 Pre-Construction Submittals noted above, construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation;

submittals not having a "G" designation are for information only. The following must be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Submittal Register; G; 01 33 00-1.9

1.4 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.4.1 Government Approved (G)

1.4.2 For Information Only

They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.5 PREPARATION

1.5.1 Transmittal Form

Use the transmittal form (ENG Form 4025) provided in RMS for submitting both Government approved and information only submittals in accordance with the instructions on the reverse side of the form. These forms are included in the RMS CM software that the Contractor is required to use for this contract. Properly complete this form by filling out all the heading blank spaces and identifying each item submitted. Exercise special care to ensure proper listing of the specification paragraph and sheet number of the contract drawings pertinent to the data submitted for each item.

1.5.2 Electronic File Format

Provide submittals in electronic format, with the exception of material samples required for SD-04 Sample items. Compile the submittal file as a single, complete document, to include the Transmittal Form described within. Name the electronic submittal file specifically according to its contents, coordinate the file naming convention with the Contracting Officer or designated representative. Electronic files must be of sufficient quality that all information is legible. Use PDF as the electronic form, unless otherwise specified or directed by the Contracting Officer or designated representative. Index and bookmark files exceeding 30 pages to allow efficient navigation on the file. When required, the electronic file must include a valid electronic signature, or scan of a signature.

Submittals must be transmitted using RMS 3.0.

Provide hard copies of submittals when requested by the Contracting Officer or designated representative. Up to 3 additional hard copies of any submittal may be requested at the discretion of the Contracting Officer or designated representative, at no additional cost to the Government.

1.6 QUANTITY OF SUBMITTALS

1.6.1 Number of Copies of SD-02 Shop Drawings

Submit one electronic copy of submittal of shop drawings requiring review and approval only by QC organization and one electronic copy of shop drawings requiring review and approval by Contracting Officer or delegated representative.

1.6.2 Number of Copies of SD-01 Preconstruction Submittals and SD-11 Closeout Submittals

Unless otherwise specified, submit one set of administrative submittals. Submit in electronic format in RMS, for Minutes of Weekly Meetings.

1.6.3 Number of Samples SD-04 Samples

Submit two samples, or two sets of samples showing range of variation, of each required item. One approved sample or set of samples will be retained by approving authority and one will be returned to Contractor.

1.7 INFORMATION ONLY SUBMITTALS

Normally submittals for information only will not be returned. Approval of the Contracting Officer or delegated representative is not required on information only submittals. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Contracting Officer or delegated representative from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe.

1.8 SUBMITTAL REGISTER

Prepare and maintain submittal register, as the work progresses. Do not change data which is output in columns (c), (d), (e), and (f) as delivered by Government; retain data which is output in columns (a), (g), (h), and (i) as approved. A submittal register showing items of equipment and materials for which submittals are required by the specifications is provided as an attachment. This list may not be all inclusive and additional submittals may be required. Maintain a submittal register for the project in accordance with Section 01 45 00.15 10 RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)).

Column (c): Lists specification section in which submittal is required.

Column (d): Lists each submittal description (SD No. and type, e.g. SD-02 Shop Drawings) required in each specification section.

Column (e): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column (e) as limiting project requirements.

1.8.1 Use of Submittal Register

Submit submittal register. Submit with QC plan and project schedule. Verify that all submittals required for project are listed and add missing submittals. Coordinate and complete the following fields on the register submitted with the QC plan and the project schedule:

Column (a) Activity Number: Activity number from the project schedule.

Column (g) Contractor Submit Date: Scheduled date for approving authority to receive submittals.

Column (h) Contractor Approval Date: Date Contractor needs approval of submittal.

Column (i) Contractor Material: Date that Contractor needs material delivered to Contractor control.

1.8.2 Contractor Use of Submittal Register

Update the following fields with each submittal throughout contract.:

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (j) Action Code (k): Date of action used to record Contractor's review when forwarding submittals to QC.

Column (l) List date of submittal transmission.

Column (q) List date approval received.

1.8.3 Approving Authority Use of Submittal Register

Update the following fields.

Column (b) Transmittal Number: List of consecutive, Contractor-assigned numbers.

Column (l) List date of submittal receipt.

Column (m) through (p) List Date related to review actions.

Column (q) List date returned to Contractor.

1.8.4 Copies Delivered to the Government

Deliver one copy of submittal register updated by Contractor to Government with each invoice request.

1.9 VARIATIONS

Variations from contract requirements require Government approval pursuant to contract Clause FAR 52.236-21 Specifications and Drawings for Construction and will be considered where advantageous to Government.

1.9.1 Considering Variations

Discussion with Contracting Officer or delegated representative prior to submission will help ensure functional and quality requirements are met and minimize rejections and re-submittals. When contemplating a variation which results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).

Specifically point out variations from contract requirements in transmittal letters. Failure to point out deviations may result in the Government requiring rejection and removal of such work at no additional cost to the Government.

1.9.2 Proposing Variations

When proposing variation, deliver written request to the Contracting Officer or delegated representative, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to Government. If lower cost is a benefit, also include an estimate of the cost savings. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

Check the column "variation" of ENG Form 4025 for submittals which include proposed deviations requested by the Contractor. Set forth in writing the reason for any deviations and annotate such deviations on the submittal. The Government reserves the right to rescind inadvertent approval of submittals containing unnoted deviations.

1.9.3 Warranting that Variations are Compatible

When delivering a variation for approval, Contractor, including its Designer(s) of Record, warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.

1.10 SCHEDULING

Schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Include certifications to be submitted with the pertinent drawings at the same time. No delay damages or time extensions will be allowed for time lost in late submittals.

- a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential resubmittal of requirements.
- b. Submittals called for by the contract documents will be listed on the register. If a submittal is called for but does not pertain to the contract work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Contracting Officer or delegated representative does not relieve the Contractor of supplying submittals required by the contract documents but which have been omitted from the register or marked "N/A."
- c. Re-submit register and annotate monthly by the Contractor with actual

submission and approval dates. When all items on the register have been fully approved, no further re-submittal is required.

- d. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

1.11 GOVERNMENT APPROVING AUTHORITY

When approving authority is Contracting Officer or delegated representative, the Government will:

- a. Note date on which submittal was received.
- b. Review submittals for approval within scheduling period specified and only for conformance with project design concepts and compliance with contract documents.
- c. Identify returned submittals with one of the actions defined in paragraph entitled, "Review Notations," of this section and with markings appropriate for action indicated.

Upon completion of review of submittals requiring Government approval, stamp and date submittals. One electronic copy of the submittal will be retained by the Contracting Officer or delegated representative and one electronic copy of the submittal will be returned to the Contractor.

1.11.1 Review Notations

Contracting Officer or delegated representative review will be completed within a minimum of 14 calendar days after date of submission. Submittals will be returned to the Contractor with the following notations:

- a. Submittals marked "approved" or "accepted" authorize the Contractor to proceed with the work covered.
- b. Submittals marked "approved as noted" "or approved, except as noted, resubmittal not required," authorize the Contractor to proceed with the work covered provided he takes no exception to the corrections.
- c. Submittals marked "not approved" or "disapproved," or "revise and resubmit," indicate noncompliance with the contract requirements or design concept, or that submittal is incomplete. Resubmit with appropriate changes. No work must proceed for this item until resubmittal is approved.
- d. Submittals marked "not reviewed" will indicate submittal has been previously reviewed and approved, is not required, does not have evidence of being reviewed and approved by Contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Resubmit submittals returned for lack of review by Contractor or for being incomplete, with appropriate action, coordination, or change.

1.12 DISAPPROVED SUBMITTALS

Make corrections required by the Contracting Officer or delegated representative. If the Contractor considers any correction or notation on

the returned submittals to constitute a change to the contract drawings or specifications; notice as required under the FAR clause entitled CHANGES, is to be given to the Contracting Officer or delegated representative. Contractor is responsible for the dimensions and design of correction details. Failure to point out deviations may result in the Government requiring rejection and removal of such work at the Contractor's expense.

If changes are necessary to submittals, make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

1.13 APPROVED/ACCEPTED SUBMITTALS

The Contracting Officer or delegated representative's approval or acceptance of submittals is not to be construed as a complete check, and indicates only that the general method of construction, materials, detailing and other information are satisfactory.

Approval or acceptance will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for dimensions, the design of adequate connections and details, and the satisfactory construction of all work design, dimensions, etc., and the satisfactory construction of all work.

After submittals have been approved or accepted by the Contracting Officer or delegated representative, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.14 APPROVED SAMPLES

Approval of a sample is only for the characteristics or use named in such approval and is not be construed to change or modify any contract requirements. Before submitting samples, the Contractor to assure that the materials or equipment will be available in quantities required in the project. No change or substitution will be permitted after a sample has been approved.

Match the approved samples for materials and equipment incorporated in the work. If requested, approved samples, including those which may be damaged in testing, will be returned to the Contractor, at his expense, upon completion of the contract. Samples not approved will also be returned to the Contractor at its expense, if so requested.

Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. Government reserves the right to disapprove any material or equipment which previously has proved unsatisfactory in service.

Samples of various materials or equipment delivered on the site or in place may be taken by the Contracting Officer or delegated representative for testing. Samples failing to meet contract requirements will automatically void previous approvals. Contractor must replace such materials or equipment to meet contract requirements.

Approval of the Contractor's samples by the Contracting Officer or delegated representative does not relieve the Contractor of his responsibilities under the contract.

1.15 WITHHOLDING OF PAYMENT

Payment of materials incorporated in the work will not be made if required approvals have not been obtained.

1.16 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements is to be similar to the following:

CONTRACTOR	
(Firm Name)	
_____ Approved	
_____ Approved with corrections as noted on submittal data and/or attached sheets(s)	
SIGNATURE:	_____
TITLE:	_____
DATE:	_____

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS

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GOVERNMENTAL SAFETY REQUIREMENTS
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PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF SAFETY PROFESSIONALS (ASSP)

ASSP A10.34	(2001; R 2012) Protection of the Public on or Adjacent to Construction Sites
ASSP Z359.0	(2018) Definitions and Nomenclature Used for Fall Protection and Fall Arrest
ASSP Z359.1	(2016) The Fall Protection Code
ASSP Z359.2	(2017) Minimum Requirements for a Comprehensive Managed Fall Protection Program
ASSP Z359.3	(2019) Safety Requirements for Lanyards and Positioning Lanyards
ASSP Z359.4	(2013) Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems and Components
ASSP Z359.6	(2016) Specifications and Design Requirements for Active Fall Protection Systems
ASSP Z359.7	(2019) Qualification and Verification Testing of Fall Protection Products
ASSP Z359.11	(2014) Safety Requirements for Full Body Harnesses
ASSP Z359.12	(2019) Connecting Components for Personal Fall Arrest Systems
ASSP Z359.13	(2013) Personal Energy Absorbers and Energy Absorbing Lanyards
ASSP Z359.14	(2014) Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems
ASSP Z359.15	(2014) Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems

ASSP Z359.16	(2016) Safety Requirements for Climbing Ladder Fall Arrest Systems
ASSP Z359.18	(2017) Safety Requirements for Anchorage Connectors for Active Fall Protection Systems

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)

ASME B30.3	(2020) Tower Cranes
ASME B30.5	(2018) Mobile and Locomotive Cranes
ASME B30.8	(2015) Floating Cranes and Floating Derricks
ASME B30.9	(2018) Slings
ASME B30.20	(2018) Below-the-Hook Lifting Devices
ASME B30.22	(2016) Articulating Boom Cranes
ASME B30.26	(2015; R 2020) Rigging Hardware

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(2018; ERTA 1-2 2018) Standard for Portable Fire Extinguishers
NFPA 70	(2020; ERTA 20-1 2020; ERTA 20-2 2020; TIA 20-1; TIA 20-2; TIA 20-3; TIA 20-4) National Electrical Code
NFPA 70E	(2018; TIA 18-1; TIA 18-2) Standard for Electrical Safety in the Workplace
NFPA 241	(2019) Standard for Safeguarding Construction, Alteration, and Demolition Operations

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety and Health Requirements Manual
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U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.146	Permit-required Confined Spaces
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 CFR 1926	Safety and Health Regulations for Construction

29 CFR 1926.16	Rules of Construction
29 CFR 1926.450	Scaffolds
29 CFR 1926.500	Fall Protection
29 CFR 1926.1400	Cranes and Derricks in Construction
CPL 2.100	(1995) Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146

1.2 DEFINITIONS

1.2.1 Competent Person (CP)

The CP is a person designated in writing, who, through training, knowledge and experience, is capable of identifying, evaluating, and addressing existing and predictable hazards in the working environment or working conditions that are dangerous to personnel, and who has authorization to take prompt corrective measures with regards to such hazards.

1.2.2 Competent Person, Confined Space

The CP, Confined Space, is a person meeting the competent person requirements as defined EM 385-1-1 Appendix Q, with thorough knowledge of OSHA's Confined Space Standard, 29 CFR 1910.146, and designated in writing to be responsible for the immediate supervision, implementation and monitoring of the confined space program, who through training, knowledge and experience in confined space entry is capable of identifying, evaluating and addressing existing and potential confined space hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.3 Competent Person, Cranes and Rigging

The CP, Cranes and Rigging, as defined in EM 385-1-1 Appendix Q, is a person meeting the competent person, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the Crane and Rigging Program, who through training, knowledge and experience in crane and rigging is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.4 Competent Person, Excavation/Trenching

A CP, Excavation/Trenching, is a person meeting the competent person requirements as defined in EM 385-1-1 Appendix Q and 29 CFR 1926, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the excavation/trenching program, who through training, knowledge and experience in excavation/trenching is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.5 High Risk Activities

High Risk Activities are activities that involve work at heights, crane and rigging, excavations and trenching, scaffolding, electrical work, and

confined space entry.

1.2.6 High Visibility Accident

A High Visibility Accident is any mishap which may generate publicity or high visibility.

1.2.7 Load Handling Equipment (LHE)

LHE is a term used to describe cranes, hoists and all other hoisting equipment (hoisting equipment means equipment, including crane, derricks, hoists and power operated equipment used with rigging to raise, lower or horizontally move a load).

1.2.8 Medical Treatment

Medical Treatment is treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even when provided by a physician or registered personnel.

1.2.9 Near Miss

A Near Miss is a mishap resulting in no personal injury and zero property damage, but given a shift in time or position, damage or injury may have occurred (e.g., a worker falls off a scaffold and is not injured; a crane swings around to move the load and narrowly misses a parked vehicle).

1.2.10 Operating Envelope

The Operating Envelope is the area surrounding any crane or load handling equipment. Inside this "envelope" is the crane, the operator, riggers and crane walkers, other personnel involved in the operation, rigging gear between the hook, the load, the crane's supporting structure (i.e. ground or rail), the load's rigging path, the lift and rigging procedure.

1.2.11 Qualified Person (QP)

The QP is a person designated in writing, who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems related to the subject matter, the work, or the project.

1.2.12 Qualified Person, Fall Protection (QP for FP)

A QP for FP is a person meeting the definition requirements of EM 385-1-1 Appendix Q, and ASSP Z359.2 standard, having a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, and evaluating and specifying fall protection and rescue systems.

1.2.13 USACE Property and Equipment

Interpret "USACE" property and equipment specified in USACE EM 385-1-1 as Government property and equipment.

1.2.14 Load Handling Equipment (LHE) Accident or Load Handling Equipment Mishap

A LHE accident occurs when any one or more of the eight elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents, even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, or roll over). Document an LHE mishap using the Crane High Hazard working group mishap reporting form.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G

SD-06 Test Reports

Monthly Exposure Report

Notifications and Reports

Accident Reports; G

LHE Inspection Reports

SD-07 Certificates

Crane Operators/Riggers

Standard Lift Plan; G

Critical Lift Plan ; G

Activity Hazard Analysis (AHA)

Certificate Of Compliance

1.4 MONTHLY EXPOSURE REPORTS

Provide a Monthly Exposure Report and attach to the monthly billing request through RMS. This report is a compilation of employee-hours worked each month for all site workers, both Prime and subcontractor. Failure to submit the report may result in retention of up to 10 percent of the voucher.

1.5 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this Contract, comply with the most recent edition of USACE EM 385-1-1, and the following federal, state OSHA, Coast Guard laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

1.6 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Provide an SSHO that meets the requirements of EM 385-1-1 Section 1. The SSHO must ensure that the requirements of 29 CFR 1926.16 are met for the project. Provide a Safety oversight team that includes a minimum of one person at each project site to function as the Site Safety and Health Officer (SSHO). The SSHO or an equally-qualified Alternate SSHO must be at the work site at all times to implement and administer the Contractor's safety program and Government-accepted Accident Prevention Plan. The SSHO and Alternate SSHO must have the required training, experience, and qualifications in accordance with EM 385-1-1 Section 01.A.17, and all associated sub-paragraphs.

If the SSHO is off-site for a period longer than 24 hours, an equally-qualified alternate SSHO must be provided and must fulfill the same roles and responsibilities as the primary SSHO. When the SSHO is temporarily (up to 24 hours) off-site, a Designated Representative (DR), as identified in the AHA may be used in lieu of an Alternate SSHO, and must be on the project site at all times when work is being performed. Note that the DR is a collateral duty safety position, with safety duties in addition to their full time occupation.

1.6.1.1.1 Additional Site Safety and Health Officer (SSHO) Requirements and Duties

The SSHO may not serve as the Quality Control Manager. The SSHO may not serve as the Superintendent. The SSHO must be assigned no additional duties.

1.6.1.2 Competent Person Qualifications

Provide Competent Persons in accordance with EM 385-1-1, Appendix Q and herein. Competent Persons for high risk activities include confined space, cranes and rigging, excavation/trenching, fall protection, and electrical work. The CP for these activities must be designated in writing, and meet the requirements for the specific activity (i.e. competent person, fall protection).

The Competent Person identified in the Contractor's Safety and Health Program and accepted Accident Prevention Plan, must be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. Provide the credentials of the Competent Persons(s) to the Contracting Officer or delegated representative for information in consultation with the Safety Office.

1.6.1.2.1 Competent Person for Fall Protection

Provide a Competent Person for Fall Protection who meets the requirements of EM 385-1-1, Section 21.C.04, 21.B.03, and herein.

1.6.1.3 Qualified Trainer Requirements

Individuals qualified to instruct the 40 hour contract safety awareness course, or portions thereof, must meet the definition of a Competent Person Trainer, and, at a minimum, possess a working knowledge of the following subject areas: EM 385-1-1, Electrical Standards, Lockout/Tagout, Fall Protection, Confined Space Entry for Construction; Excavation, Trenching and Soil Mechanics, and Scaffolds in accordance with 29 CFR 1926.450, Subpart L.

Instructors are required to:

- a. Prepare class presentations that cover construction-related safety requirements.

1.6.1.4 Crane Operators/Riggers

Provide Operators, Signal Persons, and Riggers meeting the requirements in EM 385-1-1, Section 15.B for Riggers and Section 16.B for Crane Operators and Signal Persons. Provide proof of current qualification.

1.6.2 Personnel Duties

1.6.2.1 Duties of the Site Safety and Health Officer (SSHO)

The SSHO must:

- a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily production report.
- b. Conduct mishap investigations and complete required accident reports. Report mishaps and near misses.
- c. Use and maintain OSHA's Form 300 to log work-related injuries and illnesses occurring on the project site for Prime Contractors and subcontractors, and make available to the Contracting Officer or delegated representative upon request. Post and maintain the Form 300A on the site Safety Bulletin Board.
- d. Maintain applicable safety reference material on the job site.
- e. Attend the pre-construction, pre-work meetings including preparatory meetings, and periodic in-progress meetings.
- f. Review the APP and AHAs for compliance with EM 385-1-1, and approve, sign, implement and enforce them.
- g. Establish a Safety and Occupational Health (SOH) Deficiency Tracking System that lists and monitors outstanding deficiencies until resolution.

- h. Ensure subcontractor compliance with safety and health requirements.
- i. Maintain a list of hazardous chemicals on site and their material Safety Data Sheets (SDS).
- j. Maintain a weekly list of high hazard activities involving energy, equipment, excavation, entry into confined space, and elevation, and be prepared to discuss details during QC Meetings.
- k. Provide and keep a record of site safety orientation and indoctrination for Contractor employees, subcontractor employees, and site visitors.

Superintendent, QC Manager, and SSHO are subject to dismissal if the above or any other required duties are not being effectively carried out. If either the Superintendent, QC Manager, or SSHO are dismissed, project work will be stopped and will not be allowed to resume until a suitable replacement is approved and the above duties are again being effectively carried out.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

- a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the preconstruction. This includes the project superintendent, Site Safety and Occupational Health Officer, quality control manager, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).
- b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the Contract. This list of proposed AHAs will be reviewed and an agreement will be reached between the Contractor and the Contracting Officer as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, and Government review of AHAs to preclude project delays.
- c. Deficiencies in the submitted APP, identified during the Contracting Officer or designated representative's review, must be corrected, and the APP re-submitted for review prior to the start of construction. Work is not permitted to begin until an APP is established that is acceptable to the Contracting Officer or designated representative.

1.6.3.2 Safety Meetings

Conduct safety meetings to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent Safety and Occupational Health (SOH) training and motivation. Conduct meetings at least once a month for all supervisors at the project location. The SSHO, supervisors, foremen, or Alternate SSHO must conduct meetings at least once a week for the trade workers. Document meeting minutes to include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Maintain

documentation on-site and furnish copies to the Contracting Officer or delegated representative on request. Notify the Contracting Officer or delegated representative of all scheduled meetings 7 calendar days in advance.

1.7 ACCIDENT PREVENTION PLAN (APP)

A qualified person must prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1, Appendix A, and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1, Appendix A. The APP must be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP must interface with the Contractor's overall safety and health program referenced in the APP in the applicable APP element, and made site-specific. Describe the methods to evaluate past safety performance of potential subcontractors in the selection process. Also, describe innovative methods used to ensure and monitor safe work practices of subcontractors. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the Contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP must be signed by an officer of the firm (Prime Contractor senior person), the individual preparing the APP, the on-site superintendent, the designated SSHO, the Contractor Quality Control Manager, and any designated Certified Safety Professional (CSP) or Certified Health Physicist (CIH). The SSHO must provide and maintain the APP and a log of signatures by each subcontractor foreman, attesting that they have read and understand the APP, and make the APP and log available on-site to the Contracting Officer. If English is not the foreman's primary language, the Prime Contractor must provide an interpreter.

Submit the APP to the Contracting Officer or delegated representative 15 calendar days prior to the date of the preconstruction for acceptance. Work cannot proceed without an accepted APP. Once reviewed and accepted by the Contracting Officer or delegated representative, the APP and attachments will be enforced as part of the Contract. Disregarding the provisions of this Contract or the accepted APP is cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified. Continuously review and amend the APP, as necessary, throughout the life of the Contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer or delegated representative, project superintendent, SSHO and Quality Control Manager. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered. Should any severe hazard exposure (i.e. imminent danger) become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer or delegated representative within 24 hours of discovery. Eliminate and remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSP A10.34), and the environment.

1.7.1 Names and Qualifications

Provide plans in accordance with the requirements outlined in Appendix A

of EM 385-1-1, including the following:

- a. Names and qualifications (resumes including education, training, experience and certifications) of site safety and health personnel designated to perform work on this project to include the designated Site Safety and Health Officer and other competent and qualified personnel to be used. Specify the duties of each position.
- b. Qualifications of competent and of qualified persons. As a minimum, designate and submit qualifications of competent persons for each of the following major areas: excavation; fall protection; and personal protective equipment and clothing to include selection, use and maintenance.

1.7.2 Plans

Provide plans in the APP in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

1.7.2.1 Confined Space Entry Plan

Develop a confined or enclosed space entry plan in accordance with EM 385-1-1, applicable OSHA standards 29 CFR 1910, 29 CFR 1915, and 29 CFR 1926, OSHA Directive CPL 2.100, and any other federal, state and local regulatory requirements identified in this Contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by Contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)

1.7.2.2 Standard Lift Plan (SLP)

Plan lifts to avoid situations where the operator cannot maintain safe control of the lift. Prepare a written SLP in accordance with EM 385-1-1, Section 16.A.03, using Form 16-2 for every lift or series of lifts (if duty cycle or routine lifts are being performed). The SLP must be developed, reviewed and accepted by all personnel involved in the lift in conjunction with the associated AHA. Signature on the AHA constitutes acceptance of the plan. Maintain the SLP on the LHE for the current lift(s) being made. Maintain historical SLPs for a minimum of three months.

1.7.2.3 Critical Lift Plan - Crane or Load Handling Equipment

Provide a Critical Lift Plan as required by EM 385-1-1, Section 16.H.01, using Form 16-3. In addition, Critical Lift Plans are required for the following:

- a. Lifts over 50 percent of the capacity of barge mounted mobile crane's hoist.
- b. When working around energized power lines where the work will get closer than the minimum clearance distance in EM 385-1-1 Table 16-1.
- c. For lifts with anticipated binding conditions.
- d. When erecting cranes.

1.7.2.3.1 Critical Lift Plan Planning and Schedule

Critical lifts require detailed planning and additional or unusual safety precautions. Develop and submit a critical lift plan to the Contracting Officer or delegated representative 30 calendar days prior to critical lift. Comply with load testing requirements in accordance with EM 385-1-1, Section 16.F.03.

1.7.2.3.2 Lifts of Personnel

In addition to the requirements of EM 385-1-1, Section 16.H.02, for lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.1400 and EM 385-1-1, Section 16.T.

1.7.2.4 Multi-Purpose Machines, Material Handling Equipment, and Construction Equipment Lift Plan

Multi-purpose machines, material handling equipment, and construction equipment used to lift loads that are suspended by rigging gear, require proof of authorization from the machine OEM that the machine is capable of making lifts of loads suspended by rigging equipment. Written approval from a qualified registered professional engineer, after a safety analysis is performed, is allowed in lieu of the OEM's approval. Demonstrate that the operator is properly trained and that the equipment is properly configured to make such lifts and is equipped with a load chart.

1.7.2.5 Fall Protection and Prevention (FP&P) Plan

The plan must be in accordance with the requirements of EM 385-1-1, Section 21.D and ASSP Z359.2, be site specific, and address all fall hazards in the work place and during different phases of construction. Address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A competent person or qualified person for fall protection must prepare and sign the plan documentation. Include fall protection and prevention systems, equipment and methods employed for every phase of work, roles and responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Review and revise, as necessary, the Fall Protection and Prevention Plan documentation as conditions change, but at a minimum every six months, for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. Keep and maintain the accepted Fall Protection and Prevention Plan documentation at the job site for the duration of the project. Include the Fall Protection and Prevention Plan documentation in the Accident Prevention Plan (APP).

1.7.2.6 Rescue and Evacuation Plan

Provide a Rescue and Evacuation Plan in accordance with EM 385-1-1 Section 21.N and ASSP Z359.2, and include in the FP&P Plan and as part of the APP. Include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility.

1.7.2.7 Excavation Plan

Identify the safety and health aspects of excavation, and provide and

prepare the plan in accordance with EM 385-1-1, Section 25.A.

1.7.2.8 Work in Tsunami Evacuation Zone

The work of this contract takes place in a recognized Tsunami evacuation zone. The Accident Prevention Plan (APP) must identify the means for receiving tsunami warnings from government agencies and providing timely notification of tsunami hazards to site personnel. The APP must identify evacuation and accountability plans for all site personnel.

1.8 ACTIVITY HAZARD ANALYSIS (AHA)

Before beginning each activity, task or Definable Feature of Work (DFOW) involving a type of work presenting hazards not experienced in previous project operations, or where a new work crew or subcontractor is to perform the work, the Contractor(s) performing that work activity must prepare an AHA. AHAs must be developed by the Prime Contractor, subcontractor, or supplier performing the work, and provided for Prime Contractor review and approval before submitting to the Contracting Officer or designated representative. AHAs must be signed by the SSHO, Superintendent, QC Manager and the subcontractor Foreman performing the work. Format the AHA in accordance with EM 385-1-1, Section 1 or as directed by the Contracting Officer or designated representative. Submit the AHA for review at least 15 working days prior to the start of each activity task, or DFOW. The Government reserves the right to require the Contractor to revise and resubmit the AHA if it fails to effectively identify the work sequences, specific anticipated hazards, site conditions, equipment, materials, personnel and the control measures to be implemented.

AHAs must identify competent persons required for phases involving high risk activities, including confined entry, crane and rigging, excavations, trenching, electrical work, fall protection, and scaffolding.

1.8.1 AHA Management

Review the AHA list periodically (at least monthly) at the Contractor supervisory safety meeting, and update as necessary when procedures, scheduling, or hazards change. Use the AHA during daily inspections by the SSHO to ensure the implementation and effectiveness of the required safety and health controls for that work activity.

1.8.2 AHA Signature Log

Each employee performing work as part of an activity, task or DFOW must review the AHA for that work and sign a signature log specifically maintained for that AHA prior to starting work on that activity. The SSHO must maintain a signature log on site for every AHA. Provide employees whose primary language is other than English, with an interpreter to ensure a clear understanding of the AHA and its contents.

1.9 DISPLAY OF SAFETY INFORMATION

1.9.1 Safety Bulletin Board

Within one calendar day(s) after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer or delegated representative, that is

accessible and includes all mandatory information for employee and visitor review, may be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, Section 01.A.07.

1.9.2 Safety and Occupational Health (SOH) Deficiency Tracking System

Establish a SOH deficiency tracking system that lists and monitors the status of SOH deficiencies in chronological order. Use the tracking system to evaluate the effectiveness of the APP. A monthly evaluation of the data must be discussed in the QC or SOH meeting with everyone on the project. The list must be posted on the project bulletin board and updated daily, and provide the following information:

- a. Date deficiency identified;
- b. Description of deficiency;
- c. Name of person responsible for correcting deficiency;
- d. Projected resolution date;
- e. Date actually resolved.

1.10 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in paragraph REFERENCES. Maintain applicable equipment manufacturer's manuals.

1.11 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment in accordance with EM 385-1-1. Government has no responsibility to provide emergency medical treatment.

1.12 NOTIFICATIONS and REPORTS

1.12.1 Mishap Notification

Notify the Contracting Officer or delegated representative as soon as practical, but no more than twenty-four hours, after any mishaps, including recordable accidents, incidents, and near misses, as defined in EM 385-1-1 Appendix Q, any report of injury, illness, or any property damage. For LHE or rigging mishaps, notify the Contracting Officer or delegated representative as soon as practical but not more than four hours after mishap. The Contractor is responsible for obtaining appropriate medical and emergency assistance and for notifying fire, law enforcement, and regulatory agencies. Immediate reporting is required for electrical mishaps, to include Arc Flash; shock; uncontrolled release of hazardous energy (includes electrical and non-electrical); load handling equipment or rigging; fall from height (any level other than same surface); and underwater diving. These mishaps must be investigated in depth to identify all causes and to recommend hazard control measures.

Within notification include Contractor name; Contract title; type of Contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description

of accident (for example, type of construction equipment used and PPE used). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted. Assist and cooperate fully with the Government's investigation(s) of any mishap.

1.12.2 Accident Reports

- a. Conduct an accident investigation for recordable injuries and illnesses, property damage, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. Complete the applicable USACE Accident Report Form 3394, and provide the report to the Contracting Officer or delegated representative within 5 calendar day(s) of the accident.
- b. Near Misses: Near miss reports are considered positive and proactive Contractor safety management actions.
- c. Conduct an accident investigation for any load handling equipment accident (including rigging accidents) to establish the root cause(s) of the accident. Complete the LHE Accident Report (Crane and Rigging Accident Report) form and provide the report to the Contracting Officer or delegated representative within 30 calendar days of the accident. Do not proceed with crane operations until cause is determined and corrective actions have been implemented to the satisfaction of the Contracting Officer or delegated representative.

1.12.3 LHE Inspection Reports

Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

1.12.4 Certificate of Compliance and Pre-lift Plan/Checklist for LHE and Rigging

Provide a FORM 16-1 Certificate of Compliance for LHE entering an activity under this Contract and in accordance with EM 385-1-1. Post certifications on the crane.

Develop a Standard Lift Plan (SLP) in accordance with EM 385-1-1, Section 16.H.03 using Form 16-2 Standard Pre-Lift Crane Plan/Checklist for each lift planned. Submit SLP to the Contracting Officer or delegated representative for approval within 15 calendar days in advance of planned lift.

1.13 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must:

- a. Secure outside equipment and materials and place materials that could be damaged in protected areas
- b. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 CONSTRUCTION AND OTHER WORK

Comply with EM 385-1-1, NFPA 70, NFPA 70E, NFPA 241, the APP, the AHA, Federal and State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard prevails.

PPE is governed in all areas by the nature of the work the employee is performing. Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks. Safety glasses must be worn or carried/available on each person. Mandatory PPE includes:

- a. Hard Hat
- b. Long Pants
- c. Appropriate Safety Shoes
- d. Appropriate Class Reflective Vests

3.1.1 Worksite Communication

Employees working alone in a remote location or away from other workers must be provided an effective means of emergency communications (i.e., cellular phone, two-way radios, land-line telephones or other acceptable means). The selected communication must be readily available (easily within the immediate reach) of the employee and must be tested prior to the start of work to verify that it effectively operates in the area/environment. An employee check-in/check-out communication procedure must be developed to ensure employee safety.

3.1.2 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this Contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited. The Contracting Officer or delegated representative, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer or delegated representative approval. Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

3.1.3 Unforeseen Hazardous Material

Contract documents identify materials such as PCB, lead paint, and friable and non-friable asbestos and other OSHA regulated chemicals (i.e. 29 CFR Part 1910.1000). If material(s) that may be hazardous to human health upon disturbance are encountered during construction operations, stop that portion of work and notify the Contracting Officer or delegated

representative immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to FAR 52.243-4 Changes and FAR 52.236-2 Differing Site Conditions.

3.2 FALL PROTECTION PROGRAM

Establish a fall protection program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify roles and responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures in accordance with ASSP Z359.2 and EM 385-1-1, Sections 21.A and 21.D.

3.2.1 Training

Institute a fall protection training program. As part of the Fall Protection Program, provide training for each employee who might be exposed to fall hazards and using personal fall protection equipment. Provide training by a competent person for fall protection in accordance with EM 385-1-1, Section 21.C. Document training and practical application of the competent person in accordance with EM 385-1-1, Section 21.C.04 and ASSP Z359.2 in the AHA.

3.2.2 Fall Protection Equipment and Systems

Enforce use of personal fall protection equipment and systems designated (to include fall arrest, restraint, and positioning) for each specific work activity in the Site Specific Fall Protection and Prevention Plan and AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, Section 21.

Provide personal fall protection equipment, systems, subsystems, and components that comply with EM 385-1-1 Section 21.I, 29 CFR 1926.500 Subpart M, ASSP Z359.0, ASSP Z359.1, ASSP Z359.2, ASSP Z359.3, ASSP Z359.4, ASSP Z359.6, ASSP Z359.7, ASSP Z359.11, ASSP Z359.12, ASSP Z359.13, ASSP Z359.14, ASSP Z359.15, ASSP Z359.16 and ASSP Z359.18.

3.2.2.1 Additional Personal Fall Protection

In addition to the required fall protection systems, other protective measures such as safety skiffs, personal floatation devices, and life rings, are required when working above or next to water in accordance with EM 385-1-1, Sections 21.0 through 21.0.06. Personal fall protection systems and equipment are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall protection systems are required when operating other equipment such as scissor lifts. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, travel, or while performing work.

3.2.2.2 Personal Fall Protection Equipment

Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. The

use of body belts is not acceptable. Harnesses must have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Snap hooks and carabineers must be self-closing and self-locking, capable of being opened only by at least two consecutive deliberate actions and have a minimum gate strength of 3,600 lbs in all directions. Use webbing, straps, and ropes made of synthetic fiber. The maximum free fall distance when using fall arrest equipment must not exceed 6 feet, unless the proper energy absorbing lanyard is used. Always take into consideration the total fall distance and any swinging of the worker (pendulum-like motion), that can occur during a fall, when attaching a person to a fall arrest system. Equip all full body harnesses with Suspension Trauma Preventers such as stirrups, relief steps, or similar in order to provide short-term relief from the effects of orthostatic intolerance in accordance with EM 385-1-1, Section 21.I.06.

3.2.3 Horizontal Lifelines (HLL)

Provide HLL in accordance with EM 385-1-1, Section 21.I.08.d.2. Commercially manufactured horizontal lifelines (HLL) must be designed, installed, certified and used, under the supervision of a qualified person, for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500). The competent person for fall protection may (if deemed appropriate by the qualified person) supervise the assembly, disassembly, use and inspection of the HLL system under the direction of the qualified person. Locally manufactured HLLs are not acceptable unless they are custom designed for limited or site specific applications by a Registered Professional Engineer who is qualified in designing HLL systems.

3.2.4 Guardrails and Safety Nets

Design, install and use guardrails and safety nets in accordance with EM 385-1-1, Section 21.F.01 and 29 CFR 1926 Subpart M.

3.2.5 Rescue and Evacuation Plan and Procedures

When personal fall arrest systems are used, ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue or assisted-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP). The plan must be in accordance with the requirements of EM 385-1-1, ASSP Z359.2, and ASSP Z359.4.

3.3 EQUIPMENT

3.3.1 Material Handling Equipment (MHE)

- a. Material handling equipment such as forklifts must not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions. Material handling equipment fitted with personnel work platform attachments are prohibited from traveling or positioning while personnel are working on the platform.

- b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions. Material Handling Equipment Operators must be trained in accordance with OSHA 29 CFR 1910, Subpart N.
- c. Operators of forklifts or power industrial trucks must be licensed in accordance with OSHA.

3.3.2 Load Handling Equipment (LHE)

The following requirements apply. In exception, these requirements do not apply to commercial truck mounted and articulating boom cranes used solely to deliver material and supplies (not prefabricated components, structural steel, or components of a systems-engineered metal building) where the lift consists of moving materials and supplies from a truck or trailer to the ground; to cranes installed on mechanics trucks that are used solely in the repair of shore-based equipment; to crane that enter the activity but are not used for lifting; nor to other machines not used to lift loads suspended by rigging equipment. However, LHE accidents occurring during such operations must be reported.

- a. Equip cranes and derricks as specified in EM 385-1-1, Section 16.
- b. Notify the Contracting Officer or delegated representative 15 working days in advance of any LHE entering the activity, in accordance with EM 385-1-1, Section 16.A.02, so that necessary quality assurance spot checks can be coordinated. Contractor's operator must remain with the crane during the spot check. Rigging gear must be in accordance with OSHA and ASME B30.9 Standards safety standards.
- c. Comply with the LHE manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in ASME B30.5). Perform all testing in accordance with the manufacturer's recommended procedures.
- d. Comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, ASME B30.8 for floating cranes and floating derricks, ASME B30.9 for slings, ASME B30.20 for below the hook lifting devices and ASME B30.26 for rigging hardware.
- e. When operating in the vicinity of overhead transmission lines, operators and riggers must be alert to this special hazard and follow the requirements of EM 385-1-1 Section 11, and ASME B30.5 or ASME B30.22 as applicable.
- f. Do not use crane suspended personnel work platforms (baskets) unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Do not lift personnel with a line hoist or friction crane. Additionally, submit a specific AHA for this work to the Contracting Officer. Ensure the activity and AHA are thoroughly reviewed by all involved personnel.
- g. Inspect, maintain, and recharge portable fire extinguishers as specified in NFPA 10, Standard for Portable Fire Extinguishers.

- h. All employees must keep clear of loads about to be lifted and of suspended loads, except for employees required to handle the load.
- i. Use cribbing when performing lifts on outriggers.
- j. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
- k. A physical barricade must be positioned to prevent personnel access where accessible areas of the LHE's rotating superstructure poses a risk of striking, pinching or crushing personnel.
- l. Maintain inspection records in accordance by EM 385-1-1, Section 16.D, including shift, monthly, and annual inspections, the signature of the person performing the inspection, and the serial number or other identifier of the LHE that was inspected. Records must be available for review by the Contracting Officer or delegated representative.
- m. Maintain written reports of operational and load testing in accordance with EM 385-1-1, Section 16.F, listing the load test procedures used along with any repairs or alterations performed on the LHE. Reports must be available for review by the Contracting Officer or delegated representative.
- n. Certify that all LHE operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
- o. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. At wind speeds greater than 20 mph, the operator, rigger and lift supervisor must cease all crane operations, evaluate conditions and determine if the lift may proceed. Base the determination to proceed or not on wind calculations per the manufacturer and a reduction in LHE rated capacity if applicable. Include this maximum wind speed determination as part of the activity hazard analysis plan for that operation.

3.3.3 Machinery and Mechanized Equipment

- a. Proof of qualifications for operator must be kept on the project site for review.
- b. Manufacture specifications or owner's manual for the equipment must be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Incorporate such additional safety precautions or requirements into the AHAs.

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SOURCES FOR REFERENCE PUBLICATIONS
02/19

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization (e.g., ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

AACE INTERNATIONAL (AACE)
1265 Suncrest Towne Centre Drive
Morgantown, WV 26505-1876 USA
Ph: 304-296-8444
Fax: 304-291-5728
Internet: <https://web.aacei.org/>

AMERICAN CONCRETE INSTITUTE (ACI)
38800 Country Club Drive
Farmington Hills, MI 48331-3439
Ph: 248-848-3700
Fax: 248-848-3701
Internet: <https://www.concrete.org/>

AMERICAN SOCIETY OF SAFETY PROFESSIONALS (ASSP)
520 N. Northwest Highway
Park Ridge, IL 60068
Ph: 847-699-2929
E-mail: customerservice@assp.org
Internet: <https://www.assp.org/>

APA - THE ENGINEERED WOOD ASSOCIATION (APA)
7011 South 19th St.
Tacoma, WA 98466-5333
Ph: 253-565-6600
Fax: 253-565-7265
Internet: <https://www.apawood.org/>

AMERICAN SOCIETY OF MECHANICAL ENGINEERS (ASME)
Two Park Avenue
New York, NY 10016-5990

Ph: 800-843-2763
Fax: 973-882-1717
E-mail: customercare@asme.org
Internet: <https://www.asme.org/>

ASTM INTERNATIONAL (ASTM)
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428-2959
Ph: 610-832-9500
Fax: 610-832-9555
E-mail: service@astm.org
Internet: <https://www.astm.org/>

CALIFORNIA CODE OF REGULATIONS (CCR)
300 Capitol Mall, Suite 1250
Sacramento, CA 95814-4339
Ph: 916-323-6225
Fax: 916-323-6826
Internet: <https://oal.ca.gov/publications/ccr/>

CONCRETE REINFORCING STEEL INSTITUTE (CRSI)
933 North Plum Grove Road
Schaumburg, IL 60173-4758
Ph: 847-517-1200
Fax: 847-517-1206
Internet: <http://www.crsi.org/>

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
Quincy, MA 02169-7471
Ph: 800-344-3555
Fax: 800-593-6372
Internet: <https://www.nfpa.org>

U.S. ARMY CORPS OF ENGINEERS (USACE)
CRD-C DOCUMENTS available on Internet:
<http://www.wbdg.org/ffc/army-coe/standards>
Order Other Documents from:
Official Publications of the Headquarters, USACE
E-mail: hqpublications@usace.army.mil
Internet: <http://www.publications.usace.army.mil/>
or
<https://www.hnc.usace.army.mil/Missions/Engineering-Directorate/TECHINFO/>

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004
Ph: 202-564-4700
Internet: <https://www.epa.gov>
--- Some EPA documents are available only from:
National Technical Information Service (NTIS)
5301 Shawnee Road
Alexandria, VA 22312
Ph: 703-605-6060 or 1-800-363-2068
Fax: 703-605-6880
TDD: 703-487-4639
E-mail: info@ntis.gov
Internet: <https://www.ntis.gov/>

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)
Order for sale documents from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: <https://www.gpo.gov/>
Order free documents from:
U.S. Department of Transportation
Federal Aviation Administration
800 Independence Avenue, SW
Washington, DC 20591
Ph: 866-835-5322
Internet: <https://www.faa.gov/>

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)
1200 New Jersey Ave., SE
Washington, DC 20590
Ph: 202-366-4000
E-mail: ExecSecretariat.FHWA@dot.gov
Internet: <https://www.fhwa.dot.gov/>
Order from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: <https://www.gpo.gov/>

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
8601 Adelphi Road
College Park, MD 20740-6001
Ph: 866-272-6272
Internet: <https://www.archives.gov/>
Order documents from:
Superintendent of Documents
U.S. Government Publishing Office (GPO)
732 N. Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800 or 866-512-1800
Bookstore: 202-512-0132
Internet: <https://www.gpo.gov/>

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

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QUALITY CONTROL
11/16

PART 1 GENERAL

1.1 REFERENCE

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

ASTM INTERNATIONAL (ASTM)

ASTM D3740	(2012a) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction
ASTM E329	(2014a) Standard Specification for Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Contractor Quality Control (CQC) Plan; G

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

Establish and maintain an effective quality control (QC) system that complies with FAR 52.246-12 Inspection of Construction. QC consists of plans, procedures, and organization necessary to produce an end product which complies with the Contract requirements. The QC system covers all construction operations, both onsite and offsite, and be keyed to the proposed sequence. The project superintendent will be held responsible for the quality of work and is subject to removal by the Contracting Officer or delegated representative for non-compliance with the quality requirements specified in the Contract. In this context the highest level manager responsible for the overall dredging activities at the site, including quality and production is the project superintendent. The project superintendent maintains a physical presence at the site at all times and is responsible for all construction and related activities at

the site, except as otherwise acceptable to the Contracting Officer or delegated representative.

3.2 CONTRACTOR QUALITY CONTROL(CQC) PLAN

Submit no later than 14 days after receipt of Notice to Proceed, the Contractor Quality Control (CQC) Plan proposed to implement the requirements FAR 52.246-12 Inspection of Construction. The Contractor will be permitted to begin only after acceptance of the CQC Plan.

3.2.1 Content of the CQC Plan

The Contractor must include, as a minimum, the following to cover all operations, both onsite and offsite, including work by:

- a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff will implement the three phase control system for all aspects of the work specified. Include a CQC System Manager who reports to the project superintendent
- b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.
- c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. Letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities will be issued by the CQC System Manager. Copies of these letters must be furnished to the Government.
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors. These procedures must be in accordance with Section 01 33 00 SUBMITTAL PROCEDURES.
- e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test. (Laboratory facilities approved by the Contracting Officer or delegated representative must be used.)
- f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- g. Procedures for tracking deficiencies from identification through acceptable corrective action. Establish verification procedures that identified deficiencies have been corrected.
- h. Reporting procedures, including proposed reporting formats.
- i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are

frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 Acceptance of Plan

Government acceptance of the Contractors plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the execution of the contract. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

3.2.3 Notification of Changes

After acceptance of the CQC Plan, notify the Contracting Officer or delegated representative in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer or delegated representative.

3.3 COORDINATION MEETING

After the NTP and prior to acceptance by the Government of the CQC Plan, the Contractor must meet with the Contracting Officer or delegated representative and discuss the Contractor's quality control system. The Contractor must submit the CQC Plan a minimum of 7 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details must be developed, including the forms for recording the CQC, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting will be prepared by the Contractor, signed by both the Contractor and the Contracting Officer or delegated representative and will become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC Resident Management System (RMS) Manager and sufficient number of additional qualified personnel to ensure safety and contract compliance. The Safety and Health Manager must receive direction and authority from the CQC System Manager and serve as a member of the CQC staff. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff must maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff will be subject to acceptance by the Contracting Officer or delegated representative. Provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Promptly complete and furnish all letters, material submittals, shop drawing submittals, schedules and all other project documentation to the CQC organization. The CQC organization must be responsible to maintain these documents and

records at the site at all times, except as otherwise acceptable to the Contracting Officer or delegated representative.

3.4.2 CQC System Manager

Identify as CQC System Manager an individual within the onsite work organization that is responsible for overall management of CQC and has the authority to act in all CQC matters for the Contractor. The CQC System Manager is required to be a graduate engineer, graduate architect, or a graduate of construction management, with a minimum of 10 years construction experience on construction similar to this Contract. This CQC System Manager is on the site at all times during construction and is employed by the prime Contractor. The CQC System Manager is assigned no other duties. Identify in the plan an alternate to serve in the event of the CQC System Manager's absence. The requirements for the alternate are the same as the CQC System Manager.

3.4.3 CQC Personnel

In addition to CQC personnel specified elsewhere in the contract, provide as part of the CQC organization specialized personnel to assist the CQC System Manager for the following areas: civil, environmental, biological monitor, materials technician and submittals clerk. These individuals or specialized technical companies are employees of the prime or subcontractor; be responsible to the CQC System Manager; be physically present at the project site during work on the specialized personnel's areas of responsibility; have the necessary education or experience in accordance with the experience matrix listed herein. These individuals have no other duties other than quality control.

Experience Matrix	
Area	Qualifications
Civil	Graduate Civil Engineer or Construction Manager with 2 years experience in the type of work being performed on this project or technician with 5 yrs related experience.
Environmental	Graduate Environmental Engineer with 3 yrs experience.
Biological Monitor	Hold or be able to obtain a 10(a)(1)(a) permit from the USFWS (Service) prior to the first inspection survey onsite.
Submittals	Submittal Clerk with 1 yr experience

3.4.4 Additional Requirement

In addition to the above experience and/or education requirements the CQC RMS Manager must have completed the course entitled "Construction Quality

Management for Contractors". This course is periodically offered at the San Francisco District and the Sacramento District.

3.4.5 Organizational Changes

The Contractor must maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer or delegated representative for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, must comply with the requirements in Section 01 33 00 SUBMITTAL PROCEDURES. The CQC organization is responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control must be conducted by the CQC RMS Manager for each definable feature of work as follows:

3.6.1 Preparatory Phase

This phase is performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase includes:

- a. A review of each paragraph of applicable specifications, reference codes, and standards. Make available during the preparatory inspection a copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field. Maintain and make available in the field for use by Government personnel until final acceptance of the work.
- b. Review of the contract drawings.
- c. Check to assure that all materials and/or equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. Examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. Review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document tolerances and workmanship standards for that feature of work.

- i. Check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer or delegated representative.
- j. Discussion of the initial control phase.
- k. The Government must be notified at least 72 hours in advance of beginning the preparatory control phase. Include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. Document the results of the preparatory phase actions by separate minutes prepared by the CQC System Manager and attach to the daily CQC report. Instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase

This phase is accomplished at the beginning of a definable feature of work. Accomplish the following:

- a. Check work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government must be notified at least 72 hours in advance of beginning the initial phase. Prepare separate minutes of this phase by the CQC System Manager and attach to the daily CQC report. Indicate the exact location of initial phase for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase

The Contractor must perform daily checks to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. Record the checks in the CQC documentation. Conduct final follow-up checks and correct all deficiencies prior to the start of additional features of work which may be affected by the deficient work. Do not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Conduct additional preparatory and initial phases on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor must perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. Procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. Perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Record results of all tests taken, both passing and failing on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test. If approved by the Contracting Officer or delegated representative, actual test reports may be submitted later with a reference to the test number and date taken. Provide an information copy of tests performed by an offsite or commercial test facility directly to the Contracting Officer or delegated representative. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.7.2 Testing Laboratories

All testing laboratories must be validated by the USACE Material Testing Center (MTC) for the tests to be performed. Information on the USACE MTC with web-links to both a list of validated testing laboratories and for the laboratory inspection request for can be found at:
<https://mtc.erdc.dren.mil/index.aspx>

3.7.3 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel is required to meet criteria detailed in ASTM

D3740 and ASTM E329.

3.7.4 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge of \$750 to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the Contract amount due the Contractor.

3.7.5 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests, and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Conduct an inspection of the work by the CQC System Manager near the end of the work, or any increment of the work established by a time stated in FAR 52.211-10 Commencement, Prosecution, and Completion of Work, or by the specifications. Prepare and include in the CQC documentation a punch list of items which do not conform to the approved drawings and specifications, as required by paragraph DOCUMENTATION. Include within the list of deficiencies the estimated date by which the deficiencies will be corrected. Make a second inspection the CQC System Manager or staff to ascertain that all deficiencies have been corrected. Once this is accomplished, notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. Ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Correct any items noted on the Pre-Final inspection in a timely manner. These inspections and any deficiency corrections required by this paragraph need to be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative is required to be in attendance at the final acceptance inspection. Additional Government personnel can also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer or delegated representative based upon results of the Pre-Final inspection. Notify the Contracting Officer or delegated representative at least 14 days prior to the final acceptance inspection and include the Contractor's assurance that all specific items previously

identified to the Contractor as being unacceptable, along with all remaining work performed under the Contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Contracting Officer or delegated representative to bill the Contractor for the Government's additional inspection cost in accordance FAR 52.246-12 Inspection of Construction.

3.9 DOCUMENTATION

The Contractor must maintain current records providing factual evidence that required quality control activities and/or tests have been performed. Include in these records the work of subcontractors and suppliers on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. Identify the control phase (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.
- g. Offsite surveillance activities, including actions taken.
- h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- i. Instructions given/received and conflicts in plans and/or specifications.
- j. Contractor's verification statement.

The Contractor must indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. The Contractor must cover both conforming and deficient features and include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The Contractor must furnish the original and one copy of these records in report form to the Government daily within 48 hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, the Contractor must prepare and submit one report for every 7 days of no work and on the last day of a no work period. All calendar days must be accounted for throughout the life of the contract. The first report following a day of no work will be for that day only. Reports must be signed and dated by the CQC System

Manager. The Contractor must include copies of test reports and copies of reports prepared by all subordinate quality control personnel within the CQC System Manager Report.

3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer or delegated representative will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor must take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer or delegated representative may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders will be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

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RESIDENT MANAGEMENT SYSTEM CONTRACTOR MODE (RMS CM)
11/16

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this section to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements Manual

1.2 MEASUREMENT AND PAYMENT

The work of this section is not measured for payment. The Contractor is responsible for the work of this section, without any direct compensation other than the payment received for contract items.

1.3 CONTRACT ADMINISTRATION

The Government will use the Resident Management System (RMS) to assist in its monitoring and administration of this contract. The Government accesses the system using the Government Mode of RMS (RMS GM) and the Contractor accesses the system using the Contractor Mode (RMS CM). The term RMS will be used in the remainder of this section for both RMS GM and RMS CM. The joint Government-Contractor use of RMS facilitates electronic exchange of information and overall management of the contract. The Contractor accesses RMS to record, maintain, input, track, and electronically share information with the Government throughout the contract period in the following areas:

- Administration
- Finances
- Quality Control
- Submittal Monitoring
- Scheduling
- Closeout
- Import/Export of Data

1.3.1 Correspondence and Electronic Communications

For ease and speed of communications, exchange correspondence and other documents in electronic format to the maximum extent feasible. Some correspondence, including pay requests and payrolls, are also to be provided in paper format with original signatures. Paper documents will govern, in the event of discrepancy with the electronic version.

1.3.2 Other Factors

Other portions of this document have a direct relationship to the reporting accomplished through RMS. Particular attention is directed to

the following:

- a. Contract Clause, 52.236-15 "Schedules for Construction Contracts"
- b. Contract Clause, 52.232-27 "Prompt Payment for Construction Contracts"
- c. Contract Clause, 52.232-5 "Payments Under Fixed-Priced Construction Contracts"
- d. Section 01 32 01.00 10 PROJECT SCHEDULE
- e. Section 01 33 00 SUBMITTAL PROCEDURES
- f. Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS
- g. Section 01 45 00.00 10 QUALITY CONTROL

1.4 RMS SOFTWARE

RMS is a Windows-based program that can be run on a Windows-based PC meeting the requirements as specified in paragraph SYSTEM REQUIREMENTS. Download, install and be able to utilize the latest version of the RMS software within 7 calendar days of receipt of the Notice to Proceed. RMS software, user manuals, access and installation instructions, program updates and training information are available from the RMS website (<http://rmsdocumentation.com>). The Government and the Contractor will have different access authorities to the same contract database through RMS. The common database will be updated automatically each time a user finalizes an entry or change.

1.5 SYSTEM REQUIREMENTS

The following is the recommended system configuration to run the Contractor Mode RMS for full utilization of all features for all types and sizes of contracts. Smaller, less complicated, projects may not require the configuration levels described below. Required configuration also noted below.

Recommended RMS System Requirements	
Hardware	
Windows-based PC	1.7 GHz i3; AMD A6 3650 GHz or higher processor (REQUIRED)
RAM	8 GB
Hard Drive Disk	100 GB space for sole use by RMS system
Monitor	Screen resolution 1366 x 768
Mouse or other pointing device	
Windows compatible printer	Laser printer must have 4 MB+ of RAM

Recommended RMS System Requirements	
Connection to the Internet	minimum 4 Mbs per user
Software	
MS Windows	Windows 7 x 64 bit (RMS requires 64 bit O/S) or newer (REQUIRED)
Word Processing software	Viewer for MS Word 2013, MS Excel 2013 or newer (REQUIRED)
E-mail	MAPI compatible (REQUIRED)
Virus protection software	Regularly upgraded with all issued Manufacturer's updates and is able to detect most zero day viruses (REQUIRED)

1.6 CONTRACT DATABASE - GOVERNMENT

The Government will enter the basic contract award data in RMS prior to granting the Contractor access. The Government entries into RMS will generally be related to submittal reviews, correspondence status, and Quality Assurance(QA)comments, as well as other miscellaneous administrative information.

1.7 CONTRACT DATABASE - CONTRACTOR

Contractor entries into RMS establish, maintain, and update data throughout the duration of the contract. Contractor entries generally include prime and subcontractor information, daily reports, submittals, RFI's, schedule updates and payment requests. RMS includes the ability to import attachments and export reports in many of the modules, including submittals. The Contractor responsibilities for entries in RMS typically include the following items:

1.7.1 Administration

1.7.1.1 Contractor Information

Contractor must enter all current Contractor administrative data and information into RMS within 7 calendar days of receiving access to the contract in RMS. This includes, but is not limited to, Contractor's name, address, telephone numbers, management staff, and other required items.

1.7.1.2 Subcontractor Information

Contractor must enter all missing subcontractor administrative data and information into RMS CM within 7 calendar days of receiving access to the contract in RMS or within 7 calendar days of the signing of the subcontractor agreement for agreements signed at a later date. This includes name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor is listed separately for each trade to be performed.

1.7.1.3 Correspondence

Contractor must identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters are numbered starting from 0001. (e.g., H-0001 or S- 0001). The Government's letters to the Contractor will be prefixed with "C" or "RFP".

1.7.1.4 Equipment

Contractor must enter and maintain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.7.1.5 Reports

Contractor must track the status of the project utilizing the reports available in RMS. The value of these reports is reflective of the quality of the data input. These reports include the Progress Payment Request worksheet, Quality Control (QC) comments, Submittal Register Status, and Three-Phase Control worksheets.

1.7.1.6 Request For Information (RFI)

Contractor must create and track all Requests For Information (RFI) in the RMS Administration Module for Government review and response.

1.7.2 Finances

1.7.2.1 Pay Activity Data

Contractor must develop and enter a list of pay activities in conjunction with the project schedule. The sum of pay activities equals the total contract amount, including modifications. Each pay activity must be assigned to a Contract Line Item Number (CLIN). The sum of the activities assigned to a CLIN equals the amount of each CLIN.

1.7.2.2 Payment Requests

Contractor must prepare all progress payment requests using RMS. Update the work completed under the contract at least monthly, measured as percent or as specific quantities. After the update, generate a payment request and prompt payment certification using RMS. Submit the signed prompt payment certification and payment request as well as supporting data either electronically or by hard copy. Unless waived by the Contracting Officer or delegated representative, a signed paper copy of the approved payment certification and request is also required and will govern in the event of discrepancy with the electronic version.

1.7.3 Quality Control (QC)

Contractor must enter and track implementation of the 3-phase QC Control System, QC testing, transferred and installed property and warranties in RMS. Prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements in RMS. Maintain all data on a daily basis. Insure that RMS reflects all quality control methods, tests and actions contained within the Contractor Quality Control (CQC) Plan and Government review comments of same within 7

calendar days of Government acceptance of the CQC Plan.

1.7.3.1 Quality Control (QC) Reports

The Contractor' Quality Control (QC) Daily Report in RMS is the official report. The Contractor can use other supplemental formats to record QC data, but information from any supplemental formats are to be consolidated and entered into the RMS QC Daily Report. Any supplemental information may be entered into RMS as an attachment to the report. QC Daily Reports must be finalized, signed and submitted to the government for review in RMS within 24 hours after the date covered by the report. Provide the Government a printed signed copy of the QC Daily Report, unless waived by the Contracting Officer or delegated representative.

1.7.3.2 Deficiency Tracking.

Contractor must use the QC Daily Report Module to enter and track deficiencies. Deficiencies identified and entered into RMS by the Contractor or the Government will be sequentially numbered with a QC or QA prefix for tracking purposes. Enter each deficiency into RMS the same day that the deficiency is identified. Monitor, track and resolve all QC and QA entered deficiencies. A deficiency is not considered to be corrected until the Government indicates concurrence in RMS.

1.7.3.3 Three-Phase Control Meetings

Contractor must maintain scheduled and actual dates and times of preparatory and initial control meetings in RMS. Worksheets for the three-phase control meetings are generated within RMS.

1.7.3.4 Labor and Equipment Hours

Contractor must enter labor and equipment exposure hours on a daily basis. Roll up the labor and equipment exposure data into a monthly exposure report.

1.7.3.5 Accident/Safety Reporting

Both the Contractor and the Government enter safety related comments in RMS as a deficiency. The Contractor must monitor, track and show resolution for safety issues in the QC Daily Report area of the RMS QC Module. Contractor must also follow all reporting requirements for accidents and incidents as required in these specifications, EM 385-1-1 and as required by any other applicable Federal, State or local agencies.

1.7.3.6 Definable Features of Work

Contractor must enter each feature of work, as defined in the approved CQC Plan, into the RMS QC Module. A feature of work may be associated with a single or multiple pay activities, however a pay activity is only to be linked to a single feature of work.

1.7.3.7 Activity Hazard Analysis

Contractor must import activity hazard analysis electronic document files into the RMS QC Module utilizing the document package manager.

1.7.4 Submittal Management

Contractor must enter all current submittal register data and information into RMS within 7 calendar days of receiving access to the contract in RMS. Group electronic submittal documents into transmittal packages to send to the Government, except very large electronic files, samples, spare parts, mock ups, color boards, or where hard copies are specifically required. Track transmittals and update the submittal register in RMS on a daily basis throughout the duration of the contract. Submit hard copies of all submittals unless waived by the Contracting Officer or delegated representative.

1.7.5 Schedule

Contractor must enter and update the contract project schedule in RMS by either manually entering all schedule data or by importing the Standard Data Exchange Format (SDEF) file, based on the requirements in the Project Schedule section of these specifications.

1.7.6 Closeout

Closeout documents, processes and forms are managed and tracked in RMS by both the Contractor and the Government. Ensure that all closeout documents are entered, completed and documented within RMS.

1.8 IMPLEMENTATION

Use of RMS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain contract data within the RMS system. RMS is an integral part of the Contractor's required management of quality control.

1.9 NOTIFICATION OF NONCOMPLIANCE

Take corrective action within 7 calendar days after receipt of notice of RMS non-compliance by the Contracting Officer or delegated representative.

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Not Used

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Not Used

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SECTION 01 57 19

TEMPORARY ENVIRONMENTAL CONTROLS
11/15

PART 1 GENERAL

1.1 ORDER OF PRECEDENCE: TEMPORARY ENVIRONMENTAL CONTROLS

Any inconsistency in 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS is resolved by giving precedence in the following order:

- a. 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS
- b. Licenses and permits listed in paragraph LICENSES AND PERMIT.

1.2 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

EPA SW-846 (Third Edition; Update IV) Test Methods
for Evaluating Solid Waste:
Physical/Chemical Methods

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910.120	Hazardous Waste Operations and Emergency Response
29 CFR 1910.1053	Respirable Crystalline Silica
29 CFR 1926.1153	Respirable Crystalline Silica
40 CFR 50	National Primary and Secondary Ambient Air Quality Standards
40 CFR 64	Compliance Assurance Monitoring
40 CFR 112	Oil Pollution Prevention
40 CFR 122.26	Storm Water Discharges (Applicable to State NPDES Programs, see section 123.25)
40 CFR 241	Guidelines for Disposal of Solid Waste
40 CFR 243	Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste
40 CFR 258	Subtitle D Landfill Requirements
40 CFR 260	Hazardous Waste Management System: General

40 CFR 261	Identification and Listing of Hazardous Waste
40 CFR 261.7	Residues of Hazardous Waste in Empty Containers
40 CFR 262	Standards Applicable to Generators of Hazardous Waste
40 CFR 262.31	Standards Applicable to Generators of Hazardous Waste-Labeling
40 CFR 262.34	Standards Applicable to Generators of Hazardous Waste-Accumulation Time
40 CFR 263	Standards Applicable to Transporters of Hazardous Waste
40 CFR 264	Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 265	Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
40 CFR 266	Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities
40 CFR 268	Land Disposal Restrictions
40 CFR 273	Standards for Universal Waste Management
40 CFR 273.2	Standards for Universal Waste Management - Batteries
40 CFR 273.4	Standards for Universal Waste Management - Mercury Containing Equipment
40 CFR 273.5	Standards for Universal Waste Management - Lamps
40 CFR 279	Standards for the Management of Used Oil
40 CFR 300	National Oil and Hazardous Substances Pollution Contingency Plan
40 CFR 300.125	National Oil and Hazardous Substances Pollution Contingency Plan - Notification and Communications
40 CFR 355	Emergency Planning and Notification
40 CFR 403	General Pretreatment Regulations for Existing and New Sources of Pollution
40 CFR 761	Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in

Commerce, and Use Prohibitions

49 CFR 171	General Information, Regulations, and Definitions
49 CFR 172	Hazardous Materials Table, Special Provisions, Hazardous Materials Communications, Emergency Response Information, and Training Requirements
49 CFR 172.101	Hazardous Material Regulation-Purpose and Use of Hazardous Material Table
49 CFR 173	Shippers - General Requirements for Shipments and Packagings
49 CFR 178	Specifications for Packagings

1.3 DEFINITIONS

1.3.1 Class I and II Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act. A list of Class I ODS can be found on the EPA website at the following weblink.
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>.

Class II ODS is defined in Section 602(s) of The Clean Air Act. A list of Class II ODS can be found on the EPA website at the following weblink.
<https://www.epa.gov/ozone-layer-protection/ozone-depleting-substances>.

1.3.2 Contractor Generated Hazardous Waste

Contractor generated hazardous waste are materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene), waste thinners, excess paints, excess solvents and waste solvents.

1.3.3 Electronics Waste

Electronics waste is discarded electronic devices intended for salvage, recycling, or disposal.

1.3.4 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally or historically.

1.3.5 Environmental Protection

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes

management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.3.6 Hazardous Debris

As defined in paragraph SOLID WASTE, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) in accordance with 40 CFR 261. Hazardous debris also includes debris that exhibits a characteristic of hazardous waste in accordance with 40 CFR 261.

1.3.7 Hazardous Materials

Hazardous materials as defined in 49 CFR 171 and listed in 49 CFR 172.

Hazardous material is any material that: Is regulated as a hazardous material in accordance with 49 CFR 173; or requires a Safety Data Sheet (SDS) in accordance with 29 CFR 1910.120; or during end use, treatment, handling, packaging, storage, transportation, or disposal meets or has components that meet or have potential to meet the definition of a hazardous waste as defined by 40 CFR 261 Subparts A, B, C, or D. Designation of a material by this definition, when separately regulated or controlled by other sections or directives, does not eliminate the need for adherence to that hazard-specific guidance which takes precedence over this section for "control" purposes. Such material includes ammunition, weapons, explosive actuated devices, propellants, pyrotechnics, chemical and biological warfare materials, medical and pharmaceutical supplies, medical waste and infectious materials, bulk fuels, radioactive materials, and other materials such as asbestos, mercury, and polychlorinated biphenyls (PCBs).

1.3.8 Hazardous Waste

Hazardous Waste is any material that meets the definition of a solid waste and exhibit a hazardous characteristic (ignitability, corrosivity, reactivity, or toxicity) as specified in 40 CFR 261, Subpart C, or contains a listed hazardous waste as identified in 40 CFR 261, Subpart D.

1.3.9 Land Application

Land Application means spreading or spraying discharge water at a rate that allows the water to percolate into the soil. No sheeting action, soil erosion, discharge into storm sewers, discharge into defined drainage areas, or discharge into the "waters of the United States" must occur. Comply with federal, state, and local laws and regulations.

1.3.10 National Pollutant Discharge Elimination System (NPDES)

The NPDES permit program controls water pollution by regulating point sources that discharge pollutants into waters of the United States.

1.3.11 Oily Waste

Oily waste are those materials that are, or were, mixed with Petroleum, Oils, and Lubricants (POLs) and have become separated from that POLs. Oily wastes also means materials, including wastewaters, centrifuge solids, filter residues or sludges, bottom sediments, tank bottoms, and sorbents which have come into contact with and have been contaminated by,

POLs and may be appropriately tested and discarded in a manner which is in compliance with other state and local requirements.

This definition includes materials such as oily rags, "kitty litter" sorbent clay and organic sorbent material. These materials may be land filled provided that: It is not prohibited in other state regulations or local ordinances; the amount generated is "de minimus" (a small amount); it is the result of minor leaks or spills resulting from normal process operations; and free-flowing oil has been removed to the practicable extent possible. Large quantities of this material, generated as a result of a major spill or in lieu of proper maintenance of the processing equipment, are a solid waste. As a solid waste, perform a hazardous waste determination prior to disposal. As this can be an expensive process, it is recommended that this type of waste be minimized through good housekeeping practices and employee education.

1.3.12 Regulated Waste

Regulated waste are solid wastes that have specific additional federal, state, or local controls for handling, storage, or disposal.

1.3.13 Sediment

Sediment is soil and other debris that have eroded and have been transported by runoff water or wind.

1.3.14 Solid Waste

Solid waste is a solid, liquid, semi-solid or contained gaseous waste. A solid waste can be a hazardous waste, non-hazardous waste, or non-Resource Conservation and Recovery Act (RCRA) regulated waste.

1.3.14.1 Debris

Debris is non-hazardous solid material generated during the construction, demolition, or renovation of a structure that exceeds 2.5-inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (for example, cobbles and boulders), broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials may be reinforced with or contain ferrous wire, rods, accessories and weldments. A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.

1.3.14.2 Green Waste

Green waste is the vegetative matter from landscaping, land clearing and grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses and plants that are indicated to remain, be re-located, or be re-used are not included.

1.3.14.3 Non-Hazardous Waste

Non-hazardous waste is waste that is excluded from, or does not meet, hazardous waste criteria in accordance with 40 CFR 263.

1.3.14.4 Recyclables

Recyclables are materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable, wiring, insulated/non-insulated copper wire cable, wire rope, and structural components. It also includes commercial-grade refrigeration equipment with Freon removed, household appliances where the basic material content is metal, clean polyethylene terephthalate bottles, cooking oil, used fuel oil, textiles, high-grade paper products and corrugated cardboard, stackable pallets in good condition, clean crating material, and clean rubber/vehicle tires. Metal meeting the definition of lead contaminated or lead based paint contaminated may not be included as recyclable if sold to a scrap metal company. Paint cans that meet the definition of empty containers in accordance with 40 CFR 261.7 may be included as recyclable if sold to a scrap metal company.

1.3.14.5 Surplus Soil

Surplus soil is existing soil that is in excess of what is required for this work, including aggregates intended, but not used, for on-site mixing of concrete, mortars, and paving. Contaminated soil meeting the definition of hazardous material or hazardous waste is not included and must be managed in accordance with paragraph HAZARDOUS MATERIAL MANAGEMENT.

1.3.14.6 Scrap Metal

This includes scrap and excess ferrous and non-ferrous metals such as reinforcing steel, structural shapes, pipe, and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.

1.3.14.7 Wood

Wood is dimension and non-dimension lumber, plywood, chipboard, hardboard. Treated or painted wood that meets the definition of lead contaminated or lead based contaminated paint is not included. Treated wood includes, but is not limited to, lumber, utility poles, crossties, and other wood products with chemical treatment.

1.3.15 Surface Discharge

Surface discharge means discharge of water into drainage ditches, storm sewers, creeks or "waters of the United States". Surface discharges are discrete, identifiable sources and require a permit from the governing agency. Comply with federal, state, and local laws and regulations.

1.3.16 Waters of the United States

Waters of the United States means Federally jurisdictional waters, including wetlands, that are subject to regulation under Section 404 of the Clean Water Act or navigable waters, as defined under the Rivers and Harbors Act.

1.3.17 Wetlands

Wetlands are those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation

typically adapted for life in saturated soil conditions.

1.3.18 Universal Waste

The universal waste regulations streamline collection requirements for certain hazardous wastes in the following categories: batteries, mercury-containing equipment (for example, thermostats), and lamps (for example, fluorescent bulbs). The rule is designed to reduce hazardous waste in the municipal solid waste (MSW) stream by making it easier for universal waste handlers to collect these items and send them for recycling or proper disposal. These regulations can be found at 40 CFR 273.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Stormwater Pollution Prevention Plan (SWPPP); G

Stormwater Notice of Intent (for NPDES coverage under the general permit for construction activities); G

Spill Prevention and Control Plan; G

Environmental Protection Plan; G

Environmental Manager Qualifications; G

Preconstruction Survey

Erosion And Sediment Control Inspector Certification

Letter Of Acknowledgement

SD-06 Test Reports

Laboratory Analysis

Inspection Reports

Monthly Solid Waste Disposal Report

SD-07 Certificates

Employee Training Records; G

SD-11 Closeout Submittals

Waste Determination Documentation; G

Disposal Documentation for Hazardous and Regulated Waste; G

Waste Disposal Documentation Report; G

As-Built Topographic Survey

Stormwater Pollution Prevention Plan Compliance Notebook; G

Stormwater Notice of Termination (for NPDES coverage under the general permit for construction activities); G

Regulatory Notifications; G

1.5 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Protect the environmental resources within the project boundaries and those affected outside the limits of permanent work during the entire duration of this Contract. Comply with federal, state, and local regulations pertaining to the environment.

Tests and procedures assessing whether construction operations comply with Applicable Environmental Laws may be required. Analytical work must be performed by qualified laboratories; and where required by law, the laboratories must be certified.

1.6 SPECIAL ENVIRONMENTAL REQUIREMENTS

Comply with the special environmental requirements as follows:

1.6.1 Marine Mammal Protection

- a. Contractor furnished, trained biologist marine wildlife observers will act as Marine Mammal protected species observers (PSOs) in accordance with the provisions of section 01 15 19.13.43 BIOLOGICAL MONITORING FOR THE MOSS LANDING JETTIES PROJECT.
- b. Training for all contractor and sub-contractor personnel that will be onboard project vessels, shall take place prior to project start. Training shall be attended by all crew and captains and be given by the trained PSOs. Training shall stress individual responsibility for marine mammal awareness and protection, including marine mammal sighting and reporting.
- c. All vessel operators and crew shall maintain vigilant watch for whales, sea lions, seals, and otters and shall slow down or stop their vessel to avoid striking these protected species.
- d. All vessels will be restricted to speeds of 10 knots (<18.5 kilometers per hour [km/h]) or less within the Harbor area, unless otherwise specified by the Harbormaster.
- e. When possible, all vessels in transit will maintain a separation distance of 165 ft or greater from any sighted sea turtle, pinniped, or sea otter. Should any cetacean enter the harbor, a vessel separation distance of 300 ft is required (as required by the Marine Mammal Protection Act).
- f. The contractor will report any observed injury or mortality to NOAA Fisheries within 24 hours in accordance with NOAA Fisheries standard

incident reporting guidelines.

1.6.2 Western Snowy Plover

The likelihood of western snowy plover occurrence within the project footprint is low, as the jetties themselves are not suitable habitat for nests. The selected locations for staging and storing equipment immediately adjacent to the jetties similarly lacks the vegetation profiles that Western snowy plovers prefer. The jetties and adjacent beach areas are used heavily by recreational visitors. While there have been documented plover nests further north on Moss Landing State Beach, no nests have recently been documented within the proposed construction limits.

- a. To the extent feasible, the contractor will direct any construction equipment mufflers away from the direction of Western snowy plover critical habitat to reduce noise disturbance.
- b. Contractor personnel shall be trained to identify Western snowy plovers and their nest, proper BMPs for minimizing habitat impact, and the procedure for reporting dead or injured individuals.
- c. The contractor will survey the project area prior to the start of construction, including construction limits and staging areas, for active plover nests or evidence of nesting attempts during the breeding season from March through September.
- d. In the event an active nest is detected within the survey area, the contractor will notify the contracting office or designated representative, and USACE will work with USFWS on how to proceed with the protection of the nest and establishment of a disturbance-free buffer zone.

1.6.3 Species and Habitat Protection

- a. In-water work will occur within the designated and approved in-water work window.
- b. The footprint, extent, and duration of the construction activities will be minimized to the extent possible.
- c. Onshore stockpiling of construction materials shall be confined to authorized staging or storage areas.
- d. The contractor will be responsible for restoring staging areas to pre-construction conditions following the completion of the project.
- e. Any kelp beds and eelgrass in the vicinity of the jetty repairs shall be avoided.
- f. Sidecasting and dredging are prohibited.
- g. The contractor shall inspect marine vessels' hulls and other regularly wetted portions of vessels for biofouling and aquatic invasive species prior to transporting anything to the site. Such inspections are required prior to the use of marine vessels for the project in any construction season in which a vessel is to be used. If biofouling covers over 15% of the wetted surfaces of the vessel, the vessel is

considered extensively fouled and shall be cleaned prior to being used to transport rock to the site. See the California Aquatic Invasive Species Management Plan to identify aquatic invasive species and related management information. Prior to the use of any vessels in a construction season, provide written certification to the Government that the vessel hulls are not extensively fouled or have been cleaned.

1.6.4 Traffic and Dirt and Dust Control

- a. Activities and operation on unpaved areas should be minimized to the extent feasible to minimize fugitive dust.
- b. As part of the Environmental Protection Plan (EPP; see paragraph ENVIRONMENTAL PROTECTION PLAN), implement BMPs to prevent excessive air-born dust from construction and transportation.
- c. Develop and implement a Traffic Control Plan such that public safety on roadways is maintained.
- d. Use only approved haul routes from the staging area to the jetty . No off-road travel, or new temporary roads may be constructed.

1.6.5 Hazardous Materials and Chemical Spills

- a. Project-related vessels will operate in accordance with laws regulating the at-sea discharges of vessel-generated waste.
- b. Include in the project Environmental Protection Plan (see paragraph ENVIRONMENTAL PROTECTION PLAN) Spill prevention and control best management practices (BMPs) to protect species and their habitat(s) from pollution because of fuels, oils, lubricants, and other harmful materials. These BMPs must include, but should not be limited to:
 - (1) Equipment that is used during the course of a proposed project will be fueled and serviced in a manner that will not affect federally-protected species in or around the action area or their habitats. Identify and implement Best Management Practices for oil and fuel handling.
 - (2) A spill and discharge control process to address the emergency cleanup of any hazardous material. The process will incorporate spill prevention control and countermeasures, hazardous waste, stormwater and other emergency planning requirements.
 - (3) Well-maintained equipment will be used to perform the work, and, except in the case of a failure or breakdown, equipment maintenance will be performed in the staging area.
 - (4) Equipment will be inspected daily by the operator for leaks or spills. If leaks or spills are encountered, the source of the leak will be identified, leaked material will be cleaned up, and the cleaning materials will be collected and properly disposed of.
 - (5) Fueling of marine-based equipment, if used, will be done in a way that does not adversely affect the surrounding environment. Spills will be cleaned up immediately using spill-response techniques and equipment.
 - (6) Exercise reasonable precaution to protect listed species and

Essential Fish Habitat protected species and their habitat(s) from pollutants and other deleterious materials.

- (7) Include primary spill containment features if the staging area for equipment and vehicle fueling and storage is located at least 100 feet away from waterways.
- (8) Implement both primary and secondary containment of leaks and spills if the staging area for equipment and vehicle fueling and storage is not located at least 100 feet away from waterways. Secondary containment shall be in the form of gravel filled bags wrapped in a visqueen layer surrounding the site, earthen berm or similar structure that prevents fluid discharge into waterways.
- (9) All construction-related equipment, materials, and any temporary BMPs no longer needed shall be removed and cleared from the site upon completion of the Project.

1.6.6 Water Quality

- a. Armor stones shall be placed slowly and deliberately in positions necessary to meet the jetty repair design, in order to reduce the amount of potential turbidity and suspended sediments produced by the placements.
- b. Minimize turbidity to the maximum extent practicable.
- c. All personnel who engage in construction activities or their oversight at the Project site (superintendent, construction manager, foreman, crew, contractor, biological monitor, etc.) must attend trainings on the conditions 401 Water Quality Certification for the project and how to perform their duties in compliance with those conditions. Every person shall attend an initial training within five working days of their start date at the Project site and follow-up trainings every six months until the Project is completed. Trainings shall be conducted by a qualified individual with expertise in 401 Water Quality Certification conditions and compliance.
- d. Implement and maintain washout, trackout, dust control, and any other applicable source control BMPs.
- e. Any material stockpiled that is not actively being used during construction shall be covered and surrounded with a linear sediment barrier.

1.6.7 Cultural Resources

There are no known archaeological resources within the work area. Two historic resources in the work area were identified and evaluated for historic significance. These resources are the Moss Landing Jetty structures themselves and the Moss Landing Jetty Road. Both resources were determined to be ineligible for listing on the National Register of Historic Places due to their lack of historic significance. Based on this evaluation, no impacts to these two historic resources from the repair work being proposed are expected.

It is possible that previously unknown archaeological, cultural, or historic resources may be encountered. If such resources are encountered at any time, all construction shall be stopped at that location (including

a reasonable distance around the site) and the Government's Contracting Officer or delegated representative shall be immediately notified to determine the next steps for post-review discoveries pursuant to 36 CFR § 800.13(b) for avoiding, minimizing, or mitigating adverse effects.

1.6.8 Other Requirements

The following requirements apply to any work associated with the project:

- a. Contractors and work crews are not allowed to have pets onsite at any time.
- b. Collect garbage daily from the worksite, and care will be taken not to leave garbage or litter within the construction footprint. Use self-closing garbage cans for trash generated by this project.
- c. Dredging is prohibited.
- d. Pile driving is prohibited.
- e. Any permanent fill other than specified in the approved plans and specifications and any disposal of fill is prohibited.
- f. Implement noise and vibration abatement by using devices to muffle equipment, using quieter equipment, and using properly maintained equipment to meet California, Monterey County, and local requirements for noise emissions.
- g. Minimize impacts to recreation in the vicinity of construction where safe and feasible
- h. At the end of construction, repair any damage to the transportation routes and staging areas utilized for the project to ensure these areas are left in existing or better condition.

1.7 QUALITY ASSURANCE

1.7.1 Preconstruction Survey and Protection of Features

This paragraph supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. Prior to start of any onsite construction activities, perform a Preconstruction Survey of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site. Submit a report for the record. Include in the report a plan describing the features requiring protection under the provisions of the Contract Clauses, which are not specifically identified on the drawings as environmental features requiring protection along with the condition of trees, shrubs and grassed areas immediately adjacent to the site of work and adjacent to the Contractor's assigned storage area and access route(s), as applicable. The Contractor and the Contracting Officer or delegated representative will sign this survey report upon mutual agreement regarding its accuracy and completeness. Protect those environmental features included in the survey report and any indicated on the drawings, regardless of interference that their preservation may cause to the work under the Contract.

1.7.2 Regulatory Notifications

Provide regulatory notification requirements in accordance with federal, state and local regulations. In cases where the Government will also provide public notification, coordinate with the Contracting Officer. Submit copies of regulatory notifications at least 7 days prior to commencement of work activities. Typically, regulatory notifications must be provided for the following (this listing is not all-inclusive): demolition, renovation, NPDES defined site work, construction, removal or use of a permitted air emissions source, and remediation of controlled substances (asbestos, hazardous waste, lead paint).

1.7.3 Environmental Meeting

During the Preconstruction Conference, before start of construction, and prior to acceptance by the Government of the EPP, the Contractor must meet with the Contracting Officer or Authorized Representative and discuss the EPP. The EPP must be submitted for review a minimum of 14 calendar days prior to the Environmental Meeting. During the meeting, a mutual understanding relative to the details of environmental protection must be agreed upon, including measures for protecting natural and cultural resources, required reports, required permits, permit requirements (such as mitigation measures), control activities, testing, administration of the EPP for both on-site and off-site work, the interrelationship of Contractor's Management, control with the Government's Quality Assurance, and other measures to be taken. Minutes of the meeting will be prepared by the Contractor and signed by both the Contractor and the Contracting Officer. The minutes must become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the EPP or procedures which may require corrective action by the Contractor. Provide the following information: types, quantities, and use of hazardous materials that will be brought into the project area; and types and quantities of wastes/wastewater that may be generated during the Contract. Discuss the results of the Preconstruction Survey at this time.

1.7.4 Environmental Manager

Appoint in writing an Environmental Manager for the project site. The Environmental Manager is directly responsible for coordinating contractor compliance with federal, state, local, and installation requirements. The Environmental Manager must ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the EPP; ensure environmental permits are obtained, maintained, and closed out; ensure compliance with Stormwater Program requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; and coordinate any remediation of regulated substances (lead, asbestos, PCB transformers). This can be a collateral position; however, the person in this position must be trained to adequately accomplish the following duties: ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation areas; ensure only authorized personnel add wastes to containers; ensure Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements; coordinate removal of waste containers; and maintain the Environmental Records binder and required documentation, including environmental permits compliance and close-out. Submit Environmental Manager Qualifications to the Contracting Officer.

1.7.5 Employee Training Records

Prepare and maintain Employee Training Records throughout the term of the contract meeting applicable 40 CFR requirements. Provide Employee Training Records in the Environmental Records Binder. Ensure every employee completes a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures compliance with federal, state and local regulatory requirements for environmental protections consistent with the EPP, and paragraph SPECIAL ENVIRONMENTAL REQUIREMENTS. Submit these Assembled Employee Training Records to the Contracting Officer at the conclusion of the project, unless otherwise directed.

Train personnel to meet the State of California requirements. Conduct environmental protection/pollution control meetings for personnel prior to commencing construction activities. Conduct additional meetings for new personnel and when site conditions change. Include in the training and meeting agenda: marine mammals, air, soil, and water-quality protection methods of detecting and avoiding pollution; familiarization with statutory and contractual pollution standards; installation and care of devices to ensure adequate and continuous environmental protection/pollution control; anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants; recognition and protection of archaeological sites, artifacts, waters of the United States, and endangered and special status species and their habitat that are known to be in the area including but not limited to: Western Snowy Plover. Provide copy of the Erosion and Sediment Control Inspector Certification as required by the State of California.

1.7.6 Non-Compliance Notifications

The Contractor will be notified in writing of any observed noncompliance with federal, state or local environmental laws or regulations, permits, and other elements of the Contractor's EPP. After receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. FAR 52.242-14 Suspension of Work provides that a suspension, delay, or interruption of work due to the fault or negligence of the Contractor allows for no adjustments to the contract for time extensions or equitable adjustments. In addition to a suspension of work, the Contracting Officer may use additional authorities under the contract or law.

1.8 ENVIRONMENTAL PROTECTION PLAN

The purpose of the environmental protection plan is to present an overview of known or potential environmental issues that must be considered and addressed during construction. Include in the Environmental Protection Plan measures for protecting natural and cultural resources, required reports, and other measures to be taken. Meet with the Contracting Officer or designated representative to discuss the Environmental Protection Plan and develop a mutual understanding relative to the details for environmental protection including measures for protecting natural resources, required reports, and other measures to be taken. Submit the Environmental Protection Plan within 15 days after notice to proceed and not less than 14 days before the PreConstruction Conference. Revise the Environmental Protection Plan throughout the project to include any reporting requirements, changes in site conditions, or contract

modifications that change the project scope of work in a way that could have an environmental impact. No requirement in this section will relieve the Contractor of any applicable federal, state, and local environmental protection laws and regulations. During Construction, identify, implement, and submit for approval any additional requirements to be included in the Environmental Protection Plan. Maintain the current version onsite.

The environmental protection plan should include, but not be limited to the following:

1.8.1 General Overview and Purpose

1.8.1.1 Descriptions

A brief description of each specific plan required by environmental permit or elsewhere in this Contract such as stormwater pollution prevention plan, spill control plan, solid waste management plan, clean air act compliance and dirt/dust control plan, contaminant prevention plan, historical, archaeological, cultural resources protection plan, noise management plan, biological resources and wetlands protection plan, traffic control plan, Hazardous, Toxic and Radioactive Waste (HTRW) Plan, Non-Hazardous Solid Waste Disposal Plan and biological monitoring plan (see Section 01 57 19.13 43 BIOLOGICAL MONITORING FOR THE MOSS LANDING JETTIES PROJECT).

1.8.1.2 Duties

The duties and level of authority assigned to the person(s) on the job site who oversee environmental compliance, such as who is responsible for adherence to the EPP, who is responsible for spill cleanup and training personnel on spill response procedures, who is responsible for manifesting hazardous waste to be removed from the site (if applicable), and who is responsible for training the Contractor's environmental protection personnel.

1.8.1.3 Procedures

A copy of any standard or project-specific operating procedures that will be used to effectively manage and protect the environment on the project site.

1.8.1.4 Communications

Communication and training procedures that will be used to convey environmental management requirements to Contractor employees and subcontractors.

1.8.1.5 Contact Information

Emergency contact information contact information (office phone number, cell phone number, and e-mail address).

1.8.2 General Site Information

1.8.2.1 Drawings

Drawings showing locations of proposed temporary excavations or embankment, jurisdictional wetlands or waters of the U.S., material storage areas, structures, sanitary facilities, storm drains and conveyances, and

stockpiles of materials.

1.8.2.2 Work Area

Work area plan showing the proposed activity in each portion of the area and identify the areas of limited use or nonuse. Include measures for marking the limits of use areas, including methods for protection of features to be preserved within authorized work areas and methods to control runoff and to contain materials on site, and a traffic control plan.

1.8.2.3 Documentation

A letter signed by an officer of the firm appointing the Environmental Manager and stating that person is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work.

1.8.3 Regulatory Notification and Permits

List what notifications and permit applications must be made. Demonstrate that those permits have been obtained or applied for by including copies of applicable environmental permits. The Environmental Protection Plan will not be approved until the permits have been obtained.

1.8.4 Clean Air Act Compliance

1.8.4.1 Haul Route

Submit access and material haul routes along with a Dirt and Dust Control Plan for controlling dirt, debris, and dust on any applicable roadways. As a minimum, identify in the plan the process and equipment for cleaning along applicable routes and measures to reduce dirt, dust, and debris from roadways including the applicable measures in SPECIAL ENVIRONMENTAL REQUIREMENTS. Submit THE Dust Control Plan, identifying truck access and material haul routes, together with the Traffic Control Plan.

1.8.4.2 Motorized Equipment Registration

All motorized equipment used for construction must obtain necessary state and local emissions vehicle registration, and this registration must stay current while being used for construction for this Contract. If a compliance officer from an air quality management district or any air quality regulatory agency issues a notice or fine to the Contractor for any construction equipment not in compliance with air quality regulations, the Contractor must report this to the COR immediately.

1.8.4.3 Air Pollution-engineering Processes

Identify planned air pollution-generating processes and management control measures (including, but not limited to, spray painting, abrasive blasting, demolition, material handling, fugitive dust, and fugitive emissions). Log hours of operations and track quantities of materials used.

1.8.4.4 Compliant Materials

Provide the Government a list of SDSs for all hazardous materials proposed

for use on site. Materials must be compliant with all Clean Air Act regulations for emissions including solvent and volatile organic compound contents, and applicable National Emission Standards for Hazardous Air Pollutants requirements.

1.8.4.5 Pollution Generating Equipment

Identify air pollution generating equipment or processes. Provide a list of all fixed or mobile equipment, machinery or operations that could generate air emissions during the project in the Environmental Protection Plan.

1.8.5 Pre-Construction Survey

Submit a Pre-Construction Survey as described in paragraph PRECONSTRUCTION SURVEY AND PROTECTION OF FEATURES.

1.8.6 Employee Training Records

Submit Employee Training Records as described in paragraph EMPLOYEE TRAINING RECORDS.

1.8.7 Environmental Manager Qualifications

Submit Environmental Manager Qualifications as described in paragraph ENVIRONMENTAL MANAGER.

1.8.8 Erosion and Sediment Control Inspector Qualifications

Provide copy of the Erosion and Sediment Control Inspector Qualifications as described in paragraph ENVIRONMENTAL MANAGER.

1.8.9 Stormwater Pollution Prevention Plan

Submit a Stormwater Pollution Prevention Plan in accordance with paragraph 3.1.1.1 Stormwater Pollution Prevention Plan.

1.8.10 Spill Prevention and Control Plan

Submit a Spill Prevention and Control Plan in accordance with paragraph SPECIAL ENVIRONMENTAL REQUIREMENTS.

1.8.11 Traffic Control Plan

Submit a Traffic Control Plan as described in paragraph SPECIAL ENVIRONMENTAL REQUIREMENTS.

1.8.12 Solid Waste Management Permit

Submit the Solid Waste Management Permit as described in paragraph SOLID WASTE MANAGEMENT PERMIT.

1.8.13 Hazardous Waste/Debris Management

This item consists of the management procedures for hazardous waste to be generated and debris generated. As a minimum, include or indicate non-applicability of the following and include any other information to ensure compliance with requirements in the paragraph CONTROL AND MANAGEMENT OF HAZARDOUS WASTE:

- a. List of the types of hazardous wastes expected to be generated
- b. Procedures to ensure a written waste determination is made for appropriate wastes that are to be generated
- c. Sampling/analysis plan, including laboratory method(s) that will be used for waste determinations and copies of relevant laboratory certifications
- d. Methods and proposed locations for hazardous waste accumulation/storage
- e. Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted)
- f. Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with applicable regulations
- g. Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and similar
- h. Used oil management procedures in accordance with 40 CFR 279
- i. Plans for the disposal of hazardous waste by permitted facilities; and Procedures to be employed to ensure required employee training records are maintained.
- j. Hazardous waste minimization procedures
- k. Procedures to be employed to ensure required employee training records are maintained

1.8.14 Plan for Management of Natural Resources

Identify locations, and procedures and practices to be employed, to protect natural resources in accordance with paragraphs PROTECTION OF NATURAL RESOURCES and SPECIAL ENVIRONMENTAL REQUIREMENTS. Include at a minimum:

- a. Land resources
- b. Vegetation / Trees
- c. Fish and wildlife resources (including Endangered Species and habitats)
- d. Wetland areas / Surface Waters / Waters of the U.S.

1.8.15 Protection of Historical, Cultural, and Archaeological Resources

Identify procedures and practices to be employed, to protect historic and cultural resources in accordance with paragraphs PROTECTION OF CULTURAL RESOURCES and SPECIAL ENVIRONMENTAL REQUIREMENTS. Include:

- a. Objectives
- b. Methods

1.9 LICENSES AND PERMITS

Obtain licenses and permits required for the construction of the project and in accordance with FAR 52.236-7 Permits and Responsibilities. Provide notification of all general use permitted equipment the Contractor plans to use on site. This paragraph supplements the Contractor's responsibility under FAR 52.236-7 Permits and Responsibilities.

- a. The following permits have been obtained by the Government and are available upon request. Provide a letter of acknowledgement stating the Contractor has reviewed and understand the requirements of each permit obtained by the Government prior to the commencement of work.

- (1) Water Quality Certification and Waste Discharge Requirements
- (2) California Coastal Commission Negative Determination
- (3) NOAA ESA and EFH Concurrence Letter
- (4) SHPO Continuing Consultation Letter
- (5) USFWS Informal Consultation

1.10 ENVIRONMENTAL RECORDS BINDER

Maintain on-site a separate three-ring Environmental Records Binder and submit at the completion of the project. Make separate parts within the binder that correspond to each submittal listed under paragraph CLOSEOUT SUBMITTALS.

1.11 SOLID WASTE MANAGEMENT PERMIT

Provide written notification of the quantity of anticipated solid waste or debris that is anticipated or estimated to be generated by construction. Include in the report the locations where various types of waste will be disposed or recycled. Include letters of acceptance from the receiving location or as applicable; submit one copy of the receiving location state and local Solid Waste Management Permit or license showing such agency's approval of the disposal plan before transporting wastes offsite.

1.11.1 Monthly Solid Waste Disposal Report

Monthly, submit a solid waste disposal report. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Contracting Officer, regarding rare species or sensitive habitats that need to be protected. The protection of rare,

threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility. The following species are known and could be affected within the construction area:

South-Central California Coast (S-CCC) distinct population segment (DPS) of steelhead, southern DPS of North American green sturgeon, leatherback sea turtle, tidewater goby, southern sea otter, and western snowy plover. Marine equipment will be maintained to be clean and free of aquatic invasive species, especially of those from the genus *Caulerpa*, in a manner compliant with the California Aquatic Invasive Species Management Plan (<https://www.wildlife.ca.gov/Conservation/Invasives>) and paragraph SPECIAL ENVIRONMENTAL REQUIREMENTS.

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work that is consistent with the requirements of the Environmental Protection Plan or as otherwise specified. Confine construction activities to within the limits of the work indicated or specified.

3.1.1 Flow Ways

Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife.

3.1.2 Vegetation

Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees, shrubs, or ground vegetation. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages unless authorized. Where such use of attached ropes, cables, or guys is authorized, the Contractor is responsible for any resultant damage.

Protect existing trees that are to remain to ensure they are not injured, bruised, defaced, or otherwise damaged by construction operations. Remove displaced rocks from uncleared areas. Coordinate the appropriate action for trees and other landscape features scarred or damaged by equipment operations.

3.1.3 Species and Habitats

Implement the measures in Special Environmental Requirements and Section 01 57 19.13.43 to protect species and habitats.

3.2 STORMWATER

Do not discharge stormwater from construction sites to the sanitary sewer. If the water is noted or suspected of being contaminated. Obtain authorization in advance for any release of contaminated water.

3.2.1 Construction General Permit

Provide a Construction General Permit as required by 40 CFR 122.26 or the State of California General Permit. Under the terms and conditions of the permit, install, inspect, maintain BMPs, prepare stormwater erosion and sediment control inspection reports, and submit SWPPP inspection reports. Maintain construction operations and management in compliance with the terms and conditions of the general permit for stormwater discharges from construction activities.

3.2.1.1 Stormwater Pollution Prevention Plan

Submit a project-specific Stormwater Pollution Prevention Plan (SWPPP) prior to the commencement of work. The SWPPP must meet the requirements of 40 CFR 122.26 and California State General Permit for stormwater discharges from construction sites. Select BMPs applicable to the site in accordance with state and local requirements. The U.S. Army Corps of Engineers will designate contractor as the legally responsible person for the purposes of the Construction General Permit/SWPPP.

Include the following:

- a. Comply with terms of the state general permit for stormwater discharges from construction activities. Prepare SWPPP in accordance with state requirements at https://www.waterboards.ca.gov/water_issues/programs/
- b. Include a completed copy of the Notice of Intent, BMP Inspection Report Template, and Stormwater Notice of Termination, except for the effective date.

3.2.1.2 Stormwater Notice of Intent for Construction Activities

Prepare and submit the Notice of Intent for NPDES coverage under the general permit for construction activities for review and approval.

Submit the approved NOI and appropriate permit fees onto the appropriate state agency to obtain the permit. No land disturbing activities may commence without permit coverage. Maintain an approved copy of the SWPPP at the onsite construction office, and continually update as regulations require, reflecting current site conditions.

3.2.1.3 Inspection Reports

Submit "Inspection Reports" in accordance with the State of California Construction General Permit.

3.2.1.4 Stormwater Pollution Prevention Plan Compliance Notebook

Create and maintain a three ring binder of documents that demonstrate compliance with the Construction General Permit. Include a copy of the permit Notice of Intent, proof of permit fee payment, SWPPP and SWPPP update amendments, inspection reports and related corrective action records, copies of correspondence with the California State Permitting Agency, and a copy of the permit Notice of Termination in the binder. At project completion, the notebook becomes property of the Government. Provide the compliance notebook.

3.2.1.5 Stormwater Notice of Termination for Construction Activities

Submit a stormwater notice of termination for approval once construction is complete and final stabilization has been achieved on all portions of the site for which the permittee is responsible. Once approved, submit the Notice of Termination to the appropriate state or federal agency. If survey(s) are required by a permitting agency for certification of the stormwater management system, prepare and submit as-built topographic survey(s) information.

3.2.2 Erosion and Sediment Control Measures

Provide erosion and sediment control measures in accordance with state and local laws and regulations. Preserve vegetation to the maximum extent practicable.

Erosion control inspection reports may be compiled as part of a stormwater pollution prevention plan inspection reports.

3.2.2.1 Erosion Control

Prevent erosion by mulching, Compost Blankets, or Geotextiles. Use of hay bales is prohibited.

3.2.2.2 Sediment Control Practices

Implement sediment control practices to divert flows from exposed soils, temporarily store flows, or otherwise limit runoff and the discharge of pollutants from exposed areas of the site. Implement sediment control practices prior to soil disturbance and prior to creating areas with concentrated flow, during the construction process to minimize erosion and sediment laden runoff.

3.2.3 Work Area Limits

Mark the areas that need not be disturbed under this Contract prior to commencing construction activities. Mark or fence isolated areas within the general work area that are not to be disturbed. Protect monuments and markers before construction operations commence. Where construction operations are to be conducted during darkness, any markers must be visible in the dark. Personnel must be knowledgeable of the purpose for marking and protecting particular objects.

3.2.4 Contractor Facilities and Work Areas

Place field offices, staging areas, stockpile storage, and temporary buildings in areas designated on the drawings or as directed. Move or relocate the Contractor facilities only when approved by the Government. Provide erosion and sediment controls for onsite borrow and spoil areas to prevent sediment from entering nearby waters. Control temporary excavation and embankments for plant or work areas to protect adjacent areas.

3.3 SURFACE AND GROUNDWATER

3.3.1 Waters of the United States

Do not enter, disturb, destroy, or allow discharge of contaminants into waters of the United States. The protection of waters of the United States shown on the drawings in accordance with paragraph LICENSES AND PERMITS is the Contractor's responsibility. Authorization to enter specific waters of the United States identified does not relieve the Contractor from any obligation to protect other waters of the United States within, adjacent to, or in the vicinity of the construction site and associated boundaries.

3.4 PROTECTION OF CULTURAL RESOURCES

3.4.1 Archaeological Resources

There are no existing archaeological resources within the work area. Follow the special environmental requirements (See Paragraph Special Environmental Requirements) related cultural resources in the case of inadvertent discovery of cultural or archaeological resources.

3.4.2 Historical Resources

Two historic resources were identified and evaluated for historic significance. These resources are the Moss Landing Jetty structures themselves and the Moss Landing Jetty Road. Both resources were determined to be ineligible for listing on the National Register of Historic Places due to their lack of historic significance. Based on this evaluation, these two historic resources will not require preservation or mitigation efforts and no impacts are expected from the repair work being proposed. Follow the special environmental requirements (See Paragraph Special Environmental Requirements) related cultural resources in the case of inadvertent discovery of other historic resources.

3.5 AIR RESOURCES

Equipment operation, activities, or processes will be in accordance with 40 CFR 64 and state air emission and performance laws and standards. The Contractor shall implement the following measures to reduce equipment exhaust emissions.

- a. Idling times shall be minimized either by shutting equipment off when not in use or reducing the maximum idling time to 5 minutes (as required by the California airborne toxics control measure CCR Title 13, Section 2485). Clear signage with these requirements shall be provided for construction workers at all access points.
- b. The contractor shall further limit the idling time of diesel-powered construction equipment to 2 minutes.
- c. All equipment shall further be maintained and properly tuned in accordance with manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

3.5.1 Burning

Burning is prohibited on the premises.

3.5.2 Accidental Venting of Refrigerant

Accidental venting of a refrigerant is a release and must be reported immediately.

3.5.3 Dust Control

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming. Air blowing will be permitted only for cleaning

nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete.

Do not unnecessarily shake bags of cement, concrete mortar, or plaster. Since these products contain Crystalline Silica, comply with the applicable OSHA standard, 29 CFR 1910.1053 or 29 CFR 1926.1153 for controlling exposure to Crystalline Silica Dust.

3.5.3.1 Particulates

Dust particles, aerosols and gaseous by-products from construction activities, and processing and preparation of materials (such as from asphaltic batch plants) must be controlled at all times, including weekends, holidays, and hours when work is not in progress. Maintain excavations, stockpiles, haul roads, permanent and temporary access roads, plant sites, spoil areas, borrow areas, and other work areas within or outside the project boundaries free from particulates that would exceed 40 CFR 50, state, and local air pollution standards or that would cause a hazard or a nuisance. Sprinkling, chemical treatment of an approved type, baghouse, scrubbers, electrostatic precipitators, or other methods will be permitted to control particulates in the work area. Sprinkling, to be efficient, must be repeated to keep the disturbed area damp. Provide sufficient, competent equipment available to accomplish these tasks. Perform particulate control as the work proceeds and whenever a particulate nuisance or hazard occurs. Comply with state and local visibility regulations.

3.5.4 Odors

Control odors from construction activities. The odors must be in compliance with state regulations and local ordinances and may not constitute a health hazard.

3.6 WASTE MINIMIZATION

Minimize the use of hazardous materials and the generation of waste. Include procedures for pollution prevention/hazardous waste minimization in the Hazardous Waste Management Section of the Environmental Protection Plan. Describe the anticipated types of the hazardous materials to be used in the construction in the Environmental Protection Plan.

3.6.1 Salvage, Reuse and Recycle

Identify anticipated materials and waste for salvage, reuse, and recycling. Describe actions to promote material reuse, resale or recycling. To the extent practicable, all scrap metal must be sent for reuse or recycling and will not be disposed of in a landfill.

Include the name, physical address, and telephone number of the hauler, if transported by a franchised solid waste hauler. Include the destination and, unless exempted, provide a copy of the state or local permit (cover) or license for recycling.

3.6.2 Nonhazardous Solid Waste Diversion Report

Maintain an inventory of nonhazardous solid waste diversion and disposal of construction and demolition debris. Submit a report on the first working day after each fiscal year quarter, starting the first quarter

that nonhazardous solid waste has been generated. Include the following in the report:

Construction and Demolition (C&D) Debris Disposed	cubic yards, as appropriate
C&D Debris Recycled	cubic yards, as appropriate
C&D Debris Composted	cubic yards, as appropriate
Total C&D Debris Generated	cubic yards, as appropriate
Waste Sent to Waste-To-Energy Incineration Plant (This amount should not be included in the recycled amount)	cubic yards, as appropriate

3.7 WASTE MANAGEMENT AND DISPOSAL

3.7.1 Waste Determination Documentation

Complete a Waste Determination form for Contractor-derived wastes to be generated. All potentially hazardous solid waste streams that are not subject to a specific exclusion or exemption from the hazardous waste regulations (e.g. scrap metal, domestic sewage) or subject to special rules, (lead-acid batteries and precious metals) must be characterized in accordance with the requirements of 40 CFR 261 or corresponding applicable state or local regulations. Base waste determination on user knowledge of the processes and materials used, and analytical data when necessary.

Consult for guidance on specific requirements. Attach support documentation to the Waste Determination form. As a minimum, provide a Waste Determination form for the following waste (this listing is not inclusive): oil- and latex -based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and containers of the original materials.

3.7.1.1 Sampling and Analysis of Waste

3.7.1.1.1 Waste Sampling

Sample waste in accordance with EPA SW-846. Clearly mark each sampled drum or container with the Contractor's identification number, and cross reference to the chemical analysis performed.

3.7.1.1.2 Laboratory Analysis

Follow the analytical procedure and methods in accordance with the 40 CFR 261. Provide analytical results and reports performed.

3.7.1.1.3 Analysis Type

Identify hazardous waste by analyzing for the following characteristics: ignitability, corrosivity, reactivity, and toxicity based on TCLP results..

3.7.2 Solid Waste Management

3.7.2.1 Project Solid Waste Disposal Documentation Report

Provide copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, a statement indicating the disposal location for the solid waste that is signed by an employee authorized to legally obligate or bind the firm may be submitted. The sales documentation must include the receiver's tax identification number and business, EPA or state registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained for the Contractor's own use, submit the information previously described in this paragraph on the solid waste disposal report. Prices paid or received do not have to be reported unless required by other provisions or specifications of this Contract or public law.

3.7.2.2 Control and Management of Solid Wastes

Pick up solid wastes, and place in covered containers that are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Employ segregation measures so that no hazardous or toxic waste will become co-mingled with non-hazardous solid waste. Transport solid waste off Government property and dispose of it in compliance with 40 CFR 260, state, and local requirements for solid waste disposal. A Subtitle D RCRA permitted landfill is the minimum acceptable offsite solid waste disposal option. Verify that the selected transporters and disposal facilities have the necessary permits and licenses to operate. Segregate and separate treated wood components disposed at a lined landfill approved to accept this waste in accordance with local and state regulations. Solid waste disposal offsite must comply with most stringent local, state, and federal requirements, including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

Manage hazardous material used in construction, including but not limited to, aerosol cans, waste paint, cleaning solvents, contaminated brushes, and used rags, in accordance with 49 CFR 173.

3.7.3 Control and Management of Hazardous Waste

Do not dispose of hazardous waste at the project site. Do not discharge any waste to a sanitary sewer, storm drain, or to surface waters or conduct waste treatment or disposal at the project site.

3.7.3.1 Hazardous Waste/Debris Management

Identify construction activities that will generate hazardous waste or debris. Provide a documented waste determination for resultant waste streams. Identify, label, handle, store, and dispose of hazardous waste or debris in accordance with federal, state, and local regulations, including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268.

Manage hazardous waste in accordance with the approved Hazardous Waste Management Section of the EPP. Store hazardous wastes in approved containers in accordance with 49 CFR 173 and 49 CFR 178. Prior to removal of any hazardous waste hazardous waste manifests must be signed by the contractor. Do not bring hazardous waste onto the project site. Provide

with a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D.

3.7.3.2 Waste Storage/Satellite Accumulation/90 Day Storage Areas

Accumulate hazardous waste at satellite accumulation points and in compliance with 40 CFR 262.34 and applicable state or local regulations. Individual waste streams will be limited to 55 gallons of accumulation (or 1 quart for acutely hazardous wastes). If the Contractor expects to generate hazardous waste at a rate and quantity that makes satellite accumulation impractical, the Contractor may request a temporary 90 day accumulation point be established. Submit a request in writing and provide the following information (Attach Site Plan to the Request):

Contract Number	
Contractor	
Haz/Waste or Regulated Waste POC	
Phone Number	
Type of Waste	
Source of Waste	
Emergency POC	
Phone Number	
Location of the Site	

Attach a Waste Determination form for the expected waste streams. Allow 10 working days for processing this request. Additional compliance requirements (e.g. training and contingency planning) that may be required are the responsibility of the Contractor. Barricade the designated area where waste is being stored and post a sign identifying as follows:

"DANGER - UNAUTHORIZED PERSONNEL KEEP OUT"

3.7.3.3 Hazardous Waste Disposal

3.7.3.3.1 Responsibilities for Contractor's Disposal

Provide hazardous waste manifest for review and approval prior to shipping waste offsite.

3.7.3.3.1.1 Services

Provide service necessary for the final treatment or disposal of the hazardous material or waste in accordance with 40 CFR 260, local, and state, laws and regulations, and the terms and conditions of the Contract within 60 days after the materials have been generated. These services include necessary personnel, labor, transportation, packaging, detailed analysis (if required for disposal or transportation, include manifesting or complete waste profile sheets, equipment, and compile documentation).

3.7.3.3.1.2 Samples

Obtain a representative sample of the material generated for each job done to provide waste stream determination.

3.7.3.3.1.3 Analysis

Analyze each sample taken and provide analytical results. See paragraph WASTE DETERMINATION DOCUMENTATION.

3.7.3.3.1.4 Labeling

Determine the Department of Transportation's (DOT's) proper shipping names for waste (each container requiring disposal) and demonstrate how this determination is developed and supported by the sampling and analysis requirements contained herein. Label all containers of hazardous waste with the words "Hazardous Waste" or other words to describe the contents of the container in accordance with 40 CFR 262.31 and applicable state or local regulations.

3.7.3.3.2 Contractor Disposal Turn-In Requirements

Hazardous waste generated must be disposed of in accordance with the following conditions to meet installation requirements:

- a. Drums must be compatible with waste contents and drums must meet DOT requirements for 49 CFR 173 for transportation of materials.
- b. Band drums to wooden pallets.
- c. No more than three 55 gallon drums or two 85 gallon over packs are to be banded to a pallet.
- d. Band using 1-1/4 inch minimum band on upper third of drum.
- e. Provide label in accordance with 49 CFR 172.101.
- f. Leave 3 to 5 inches of empty space above volume of material.

3.7.3.4 Universal Waste Management

Manage the following categories of universal waste in accordance with federal, state, and local requirements and installation instructions:

- a. Batteries as described in 40 CFR 273.2
- b. Lamps as described in 40 CFR 273.5
- c. Mercury-containing equipment as described in 40 CFR 273.4

Mercury is prohibited in the construction of this facility, unless specified otherwise, and with the exception of mercury vapor lamps and fluorescent lamps. Dumping of mercury-containing materials and devices such as mercury vapor lamps, fluorescent lamps, and mercury switches, in rubbish containers is prohibited. Remove without breaking, pack to prevent breakage, and transport out of the activity in an unbroken condition for disposal as directed.

3.7.3.5 Electronics End-of-Life Management

Recycle or dispose of electronics waste, including, but not limited to, used electronic devices such computers, monitors, hard-copy devices, televisions, mobile devices, in accordance with 40 CFR 260-262, state, and local requirements.

3.7.3.6 Disposal Documentation for Hazardous and Regulated Waste

Submit a copy of the applicable EPA and or state permit(s), manifest(s), or license(s) for transportation, treatment, storage, and disposal of hazardous and regulated waste by permitted facilities.

3.7.4 Releases/Spills of Oil and Hazardous Substances

3.7.4.1 Response and Notifications

Exercise due diligence to prevent, contain, and respond to spills of hazardous material, hazardous substances, hazardous waste, sewage, regulated gas, petroleum, lubrication oil, and other substances regulated in accordance with 40 CFR 300. Maintain spill cleanup equipment and materials at the work site. In the event of a spill, take prompt, effective action to stop, contain, curtail, or otherwise limit the amount, duration, and severity of the spill/release. In the event of any releases of oil and hazardous substances, chemicals, or gases; immediately (within 15 minutes) notify the Fire Department and the Contracting Officer.

Submit verbal and written notifications as required by the federal (40 CFR 300.125 and 40 CFR 355), state, local regulations and instructions. Provide copies of the written notification and documentation that a verbal notification was made within 20 days. Spill response must be in accordance with 40 CFR 300 and applicable state and local regulations. Contain and clean up these spills without cost to the Government.

3.7.4.2 Clean Up

Clean up hazardous and non-hazardous waste spills. Reimburse the Government for costs incurred including sample analysis materials, clothing, equipment, and labor if the Government will initiate its own spill cleanup procedures, for Contractor- responsible spills, when: Spill cleanup procedures have not begun within one hour of spill discovery/occurrence; or, in the Government's judgment, spill cleanup is inadequate and the spill remains a threat to human health or the environment.

3.7.5 Mercury Materials

Immediately report instances of breakage or mercury spillage. Clean mercury spill area to the satisfaction of the Contracting Officer.

Do not recycle a mercury spill cleanup; manage it as a hazardous waste for disposal.

3.7.6 Wastewater

3.7.6.1 Disposal of Wastewater

Disposal of wastewater must be as specified below.

3.7.6.1.1 Treatment

Do not allow wastewater from construction activities, such as onsite material processing, concrete curing, foundation and concrete clean-up, water used in concrete trucks, and forms to enter water ways or to be discharged prior to being treated to remove pollutants. Dispose of the construction- related waste water offsite in accordance with 40 CFR 403, state, regional, and local laws and regulations.

3.7.6.1.2 Surface Discharge

Surface discharge must be in accordance with federal, state, and local laws and regulations in accordance with the requirements of the NPDES permit.

3.8 HAZARDOUS MATERIAL MANAGEMENT

Include hazardous material control procedures in the Safety Plan, in accordance with Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS. Address procedures and proper handling of hazardous materials, including the appropriate transportation requirements. Do not bring hazardous material onto the project site that does not directly relate to requirements for the performance of this contract. Submit an SDS and estimated quantities to be used for each hazardous material prior to bringing the material on the project site. Typical materials requiring SDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. Use hazardous materials in a manner that minimizes the amount of hazardous waste generated. Containers of hazardous materials must have National Fire Protection Association labels or their equivalent. Certify that hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste, in accordance with 40 CFR 261.

3.9 PREVIOUSLY USED EQUIPMENT

Clean previously used construction equipment prior to bringing it onto the project site. Equipment must be free from soil residuals, egg deposits from plant pests, noxious weeds, and plant seeds. Consult with the U.S. Department of Agriculture jurisdictional office for additional cleaning requirements.

3.10 CONTROL AND MANAGEMENT OF POLYCHLORINATED BIPHENYLS (PCBS)

Manage and dispose of PCB-contaminated waste in accordance with 40 CFR 761.

3.11 CONTROL AND MANAGEMENT OF LIGHTING BALLAST AND LAMPS CONTAINING PCBS

Manage and dispose of contaminated waste in accordance with 40 CFR 761.

3.12 MILITARY MUNITIONS

In the event military munitions, as defined in 40 CFR 260, are discovered or uncovered, immediately stop work in that area and provide immediate notification.

3.13 PETROLEUM, OIL, LUBRICANT (POL) STORAGE AND FUELING

POL products include flammable or combustible liquids, such as gasoline, diesel, lubricating oil, used engine oil, hydraulic oil, mineral oil, and cooking oil. Store POL products and fuel equipment and motor vehicles in a manner that affords the maximum protection against spills into the environment. Manage and store POL products in accordance with EPA 40 CFR 112, and other federal, state, regional, and local laws and regulations. Use secondary containments, dikes, curbs, and other barriers, to prevent POL products from spilling and entering the ground, storm or sewer drains, stormwater ditches or canals, or navigable waters of the United States. Describe in the Environmental Protection Plan how POL tanks and containers must be stored, managed, and inspected and what protections must be provided.

3.13.1 Used Oil Management

Manage used oil generated on site in accordance with 40 CFR 279. Determine if any used oil generated while onsite exhibits a characteristic of hazardous waste. Used oil containing 1,000 parts per million of solvents is considered a hazardous waste and disposed of at the Contractor's expense. Used oil mixed with a hazardous waste is also considered a hazardous waste. Dispose in accordance with paragraph HAZARDOUS WASTE DISPOSAL.

3.14 INADVERTENT DISCOVERY OF PETROLEUM-CONTAMINATED SOIL OR HAZARDOUS WASTES

If petroleum-contaminated soil, or suspected hazardous waste is found during construction that was not identified in the Contract documents, provide immediate notification. Do not disturb this material until authorized.

3.15 SOUND INTRUSION

Make the maximum use of low-noise emission products, as certified by the EPA. Blasting or use of explosives are not permitted. Pile-driving operations are prohibited.

Keep construction activities under surveillance and control to minimize environment damage by noise. Comply with the provisions of the State of California rules.

3.16 POST CONSTRUCTION CLEANUP

Clean up areas used for construction in accordance with Contract Clause: "Cleaning Up". Unless otherwise instructed in writing, remove traces of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. Restore any roads utilized to their pre-project condition (as determined in the pre-construction survey and report. Grade parking area and similar temporarily used areas to conform with surrounding contours.

-- End of Section --

SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS
11/20

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2014) Safety and Health Requirements Manual

U.S. FEDERAL AVIATION ADMINISTRATION (FAA)

FAA AC 70/7460-1 (2015; Rev L) Obstruction Marking and Lighting

U.S. FEDERAL HIGHWAY ADMINISTRATION (FHWA)

MUTCD (2009; Rev 2012) Manual on Uniform Traffic Control Devices

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Site Plan; G

Traffic Control Plan; G

Haul Road Plan; G

1.3 CONSTRUCTION SITE PLAN

Prior to the start of work, submit for Government approval a site plan showing the locations and dimensions of temporary facilities (including layouts and details, equipment and material storage area (onsite and offsite), and access and haul routes, avenues of ingress/egress to the fenced area and details of the fence installation. Identify any areas which may have to be graveled to prevent the tracking of mud. Indicate if the use of a supplemental or other staging area is desired. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.

PART 2 PRODUCTS

2.1 TEMPORARY SIGNAGE

2.1.1 Bulletin Board

Prior to the commencement of work activities, provide a clear weatherproof covered bulletin board not less than 36 by 48 inches in size for displaying the Equal Employment Opportunity poster, a copy of the wage decision contained in the Contract, Wage Rate Information poster, Safety and Health Information as required by EM 385-1-1 Section 01 and other information approved by the Contracting Officer. Coordinate requirements herein with 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS.

2.1.2 Project Identification Signs

The requirements for the signs, their content, and location are as indicated in Section 01 58 00 PROJECT IDENTIFICATION. Erect signs within 15 days after receipt of the notice to proceed. Correct the data required by the safety sign daily, with light colored metallic or non-metallic numerals.

2.1.3 Warning Signs

Post temporary signs, tags, and labels to give workers and the public adequate warning and caution of construction hazards according to the EM 385-1-1 Section 04. Attach signs to the perimeter fencing every 150 feet warning the public of the presence of construction hazards. Signs must require unauthorized persons to keep out of the construction site. Correct the data required by safety signs daily.

2.2 TEMPORARY TRAFFIC CONTROL

2.2.1 Haul Roads

Construct access and haul roads necessary for proper prosecution of the work under this Contract in accordance with EM 385-1-1 Section 04. Construct with suitable grades and widths; avoid sharp curves, blind corners, and dangerous cross traffic. Submit haul road plan for approval. Provide necessary lighting, signs, barricades, and distinctive markings for the safe movement of traffic. The method of dust control must be adequate to ensure safe operation at all times. Location, grade, width, and alignment of construction and haul roads are subject to approval by the Contracting Officer or delegated representative. Lighting must be adequate to assure full and clear visibility for full width of haul road and work areas during any night work operations. Jetty Road must not be used to transport armor stones or heavy equipment (see Section 01 11 00, subsection 1.2.1.1).

2.2.2 Barricades

Erect and maintain temporary barricades to limit public access to hazardous areas. Barricades are required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Securely place barricades clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.

2.3 FENCING

Provide fencing along the construction site and at all open excavations to control access by unauthorized personnel. Safety fencing must be highly visible to be seen by pedestrians and vehicular traffic. All fencing must meet the requirements of EM 385-1-1.

2.3.1 Polyethylene Mesh Safety Fencing

Temporary safety fencing must be a high visibility orange colored, high density polyethylene grid, a minimum of 48 inches high and maximum mesh size of 2 inches. Fencing must extend from the grade to a minimum of 48 inches above the grade and be tightly secured to T-posts spaced as necessary to maintain a rigid and taut fence. Fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection.

2.3.2 Chain Link Panel Fencing

Temporary panel fencing must be galvanized steel chain link panels 6 feet high. Multiple fencing panels may be linked together at the bases to form long spans as needed. Each panel base must be weighted down using sand bags or other suitable materials in order for the fencing to withstand anticipated winds while remaining upright. Fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection.

2.3.3 Post-Driven Chain Link Fencing

Temporary post-driven fencing must be galvanized chain link fencing 6 feet high supported by an tightly secured to galvanized steel posts driven below grade. Fence posts must be located on minimum 10 foot centers. Posts may be set in various surfaces such as sand, soil, asphalt or concrete as necessary. Chain link fencing must remain rigid and taut with a minimum of 200 pounds of force exerted on it from any direction with less than 4 inches of deflection. Fencing and posts must be completely removed at the completion of construction and any surfaces disturbed or damaged must be restored to its original condition. Underground utilities must be located and identified prior to setting fence posts. Fence must be equipped with a lockable gate. Equip fence with a lockable gate. Gate must remain locked when construction personnel are not present.

PART 3 EXECUTION

3.1 EMPLOYEE PARKING

Construction Contract employees must park privately owned vehicles in an area designated by the Contracting Officer or delegated representative.

3.2 TEMPORARY BULLETIN BOARD

Locate the bulletin board at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer or delegated representative.

3.3 AVAILABILITY AND USE OF UTILITY SERVICES

3.3.1 Temporary Utilities

Provide temporary utilities required for construction. Materials may be new or used, must be adequate for the required usage, not create unsafe conditions, and not violate applicable codes and standards.

3.3.2 Sanitation

Provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer or delegated representative and periodically empty wastes into a municipal, district, or station sanitary sewage system, or remove waste to a commercial facility. Obtain approval from the system owner prior to discharge into any municipal, district, or commercial sanitary sewer system. Any penalties or fines associated with improper discharge will be the responsibility of the Contractor. Coordinate with the Contracting Officer or delegated representative and follow station regulations and procedures when discharging into the station sanitary sewer system. Maintain these conveniences at all times. Include provisions for pest control and elimination of odors. Government toilet facilities will not be available to Contractor's personnel.

3.3.3 Telephone

Make arrangements and pay all costs for telephone facilities desired.

3.3.4 Obstruction Lighting of Cranes

Provide a minimum of 2 aviation red or high intensity white obstruction lights on temporary structures (including cranes) over 100 feet above ground level. Light construction and installation must comply with FAA AC 70/7460-1. Lights must be operational during periods of reduced visibility, darkness, and as directed by the Contracting Officer or delegated representative.

3.3.5 Fire Protection

Provide temporary fire protection equipment for the protection of personnel and property during construction. Remove debris and flammable materials weekly to minimize potential hazards.

3.4 TRAFFIC PROVISIONS

3.4.1 Maintenance of Traffic

- a. Conduct operations in a manner that will not close a thoroughfare or interfere with traffic on railways or highways except with written permission of the Contracting Officer or delegated representative at least 15 calendar days prior to the proposed modification date, and provide a Traffic Control Plan for Government approval detailing the proposed controls to traffic movement for approval. The plan must be in accordance with State and local regulations and the MUTCD, Part VI. Contractor may move oversized and slow-moving vehicles to the worksite provided requirements of the highway authority have been met.
- b. Conduct work so as to minimize obstruction of traffic, and maintain traffic on at least half of the roadway width at all times. Obtain

approval from the Contracting Officer or delegated representative prior to starting any activity that will obstruct traffic.

- c. Provide, erect, and maintain, at Contractor's expense, lights, barriers, signals, passageways, detours, and other items, that may be required by the Life Safety Signage, overhead protection authority having jurisdiction.

3.4.2 Protection of Traffic

Maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer or delegated representative. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment the work, and the erection and maintenance of adequate warning, danger, and direction signs, will be as required by the State and local authorities having jurisdiction. Protect the traveling public from damage to person and property. Minimize the interference with public traffic on roads selected for hauling material to and from the site. Investigate the adequacy of existing roads and their allowable load limit. Contractor is responsible for the repair of damage to roads caused by construction operations.

3.4.3 Dust Control

Dust control methods and procedures must be approved by the Contracting Officer or delegated representative. Coordinate dust control methods with 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS.

3.5 CONTRACTOR'S TEMPORARY FACILITIES

3.5.1 Quality Control Manager Records and Field Office

Provide on the jobsite an office with approximately 200 square feet of useful floor area for the exclusive use of the QC Manager. Provide a weathertight structure with adequate heating and cooling, toilet facilities, lighting, ventilation, a 4 by 8 foot plan table, a standard size office desk and chair, computer station, and working communications facilities. Provide either a 1,500 watt radiant heater and a window-mounted air conditioner rated at 9,000 Btus minimum or a window-mounted heat pump of the same minimum heating and cooling ratings. Provide a door with a cylinder lock and windows with locking hardware. Make utility connections. Locate as directed. File quality control records in the office and make available at all times to the Government. After completion of the work, remove the entire structure from the site.

3.5.2 Safety Systems

Protect the integrity of any installed safety systems or personnel safety devices. Obtain prior approval from Contracting Officer or delegated representative if entrance into systems serving safety devices is required. If it is temporarily necessary to remove or disable personnel safety devices in order to accomplish contract requirements, provide alternative means of protection prior to removing or disabling any permanently installed safety devices or equipment and obtain approval from the Contracting Officer or delegated representative.

3.5.3 Administrative Field Offices

Government office and warehouse facilities will not be available to the Contractor's personnel.

3.5.4 Storage Area

Construct a temporary 6 foot high chain link fence around trailers and materials. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Do not place or store trailers, materials, or equipment outside the fenced area unless such trailers, materials, or equipment are assigned a separate and distinct storage area by the Contracting Officer or delegated representative away from the vicinity of the construction site but within the project boundaries. Trailers, equipment, or materials must not be open to public view with the exception of those items which are in support of ongoing work on any given day. Do not stockpile materials outside the fence in preparation for the next day's work. Park mobile equipment, such as tractors, wheeled lifting equipment, cranes, trucks, and like equipment within the fenced area at the end of each work day. Utilities will not be provided to this area by the Government.

3.5.5 Appearance of Trailers

- a. Trailers which are rusted, have peeling paint or are otherwise in need of repair will not be allowed to be used for the project. Trailers must present a clean and neat exterior appearance and be in a state of good repair.
- b. Maintain the temporary facilities. Failure to do so will be sufficient reason to require their removal.

3.5.6 Maintenance of Storage Area

If the Contractor elects to traverse grassed or unpaved areas, which are not established roadways, cover the grassed or unpaved areas with a layer of gravel, gravel gradation at the Contractor's discretion, as necessary to prevent rutting and the tracking of mud onto paved or established roadway. Mow and maintain grass located within the boundaries of the construction site for the duration of the project. Grass and vegetation along fences, buildings, under trailers, and in areas not accessible to mowers will be edged or trimmed neatly.

3.5.7 Security Provisions

The Contractor will be responsible for the security of its own equipment.

3.6 GOVERNMENT FIELD OFFICE

3.6.1 Resident Engineer's Office

Provide the Government Resident Engineer with an office, approximately 200 square feet in floor area, located where directed and providing space heat, air conditioning unit, electric light and power, and toilet facilities consisting of one lavatory and one water closet complete with connections to water and sewer mains. If water and sewer are not available, provide non-potable water storage to operate toilets, labels at water fixtures to indicate water is non-potable, and provide, empty and maintain waste water collection system in accordance with state and local

laws and regulations. Provide a mail slot in the door or a lockable mail box mounted on the surface of the door. Include a 4 by 8 foot plan table, a standard size office desk and chair. At completion of the project, the office will remain the property of the Contractor and be removed from the site. Utilities will be connected and disconnected in accordance with local codes and to the satisfaction of the Contracting Officer. Compliance with safety and appearance requirements for temporary facilities stated in previous paragraphs is required.

3.6.2 Trailer-Type Mobile Office

The option is available to, furnish and maintain a trailer-type mobile office acceptable to the Contracting Officer to meet the requirements of the minimum facilities specified above. Securely anchor the trailer to the ground at all four corners to guard against movement during high winds. Coordinate requirements for proper anchoring with EM 385-1-1 Section 04.

3.7 TEMPORARY PROJECT SAFETY FENCING

As soon as practicable, but not later than 15 days after the date established for commencement of work, furnish and erect temporary project safety fencing at the work site. Maintain the safety fencing during the life of the Contract and, upon completion and acceptance of the work, remove from the work site.

3.8 CLEANUP

Remove construction debris, waste materials, packaging material and the like from the work site daily. Any dirt or mud which is tracked onto paved or surfaced roadways must be cleaned away. Store all salvageable materials resulting from demolition activities within the fenced area described above or at the supplemental storage area. Neatly stack stored materials not in trailers, whether new or salvaged.

3.9 RESTORATION OF STORAGE AREA

Upon completion of the project remove the bulletin board, signs, barricades, haul roads, and all other temporary products from the site. After removal of trailers, materials, and equipment from within the fenced area, remove the fence. Restore areas used during the performance of the Contract to the original or better condition. Remove gravel used to traverse grassed areas and restore the area to its original condition, including top soil and seeding as necessary.

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02/20

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SOLICITATION

SECTION 01 57 19.13 43

BIOLOGICAL MONITORING FOR THE MOSS LANDING JETTIES PROJECT
02/20

PART 1 GENERAL

1.1 DEFINITIONS

1.1.1 Listed Species

Listed species are defined as those listed as threatened or endangered under the Endangered Species Act (ESA) or Marine Mammal Protection (MMPA).

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Biological Monitor Qualifications; G

Biological Monitoring Plan; G

SD-06 Test Reports

Data Sheet

SD-11 Closeout Submittals

Marine Mammal Reports; G

1.3 BIOLOGICAL MONITOR QUALIFICATIONS

Submit to the Government the qualifications of two biological monitors for review and acceptance.

The Contractor furnished, trained biologist marine wildlife observers will act as Marine Mammal protected species observers (PSOs) during all construction activities and will monitor work each day beginning 15 minutes prior to the start of construction activity until 30 minutes after construction activities cease for the day.

PSO resumes must be submitted at least 15 days prior to starting any work that requires the use of a Marine Mammal Monitor and must be approved by the USACE and NMFS and/or USFWS. The biological monitors shall be biologists with at least two seasons of demonstrated construction monitoring experience working with both federally-listed species under the Endangered Species Act and marine mammals protected under the Marine Mammal Protection Act in the coastal areas of California. The biological monitors must be independent (i.e., not construction personnel) and have no other assigned tasks during monitoring periods.

1.4 QUALITY ASSURANCE

1.4.1 Regulatory Notifications

In the event that an ESA listed species or marine mammal is harmed or injured, construction activities shall stop immediately and the COR and Government Environmental Manager will be notified. The Government shall coordinate with the United States Fish and Wildlife Service to resume operations.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

a) Minimize interference with, disturbance to, and damage to fish, wildlife, and plants, including their habitats. Prior to the commencement of activities, consult with the Government Environmental Manager, regarding rare species or sensitive habitats that need to be protected. The protection of rare, threatened, and endangered animal and plant species identified, including their habitats, is the Contractor's responsibility. The following species are known and could be affected within the construction area: southern sea otter (*Enhydra lutris nereis*). An estimated 100 southern sea otters are known in the project vicinity.

3.1.1 Biological Monitoring Plan Requirements

a) The biological monitors shall conduct a pre-construction inspection 15 minutes before construction work begins each day and would remain on-site for 30 minutes after construction activities cease for the day. For nighttime activities, the biological monitors will also have equipment sufficient for nighttime observation monitoring, as well as for all weather-conditions.

b) A monitoring and operational exclusion zone (EZ) of 110 feet will be employed for Sea Otters and Harbor Seals and an operational exclusion zone of 500 ft will be employed for other Pinnipeds and marine mammals to prevent Level B acoustic take in accordance with the Marine Mammal Protection Act and Endangered Species Act.

c) PSOs will conduct pre-construction monitoring that will require a 15-minute observation period prior to any project activities or equipment operation each day, in which all marine mammals must be outside of the respective EZs before activities begin. If a marine mammal is sighted within its respective EZ, activities may not start until the animal has been observed exiting the EZ or until an additional period has elapsed with no further sighting (i.e., 15 minutes for otters and seals).

d) PSOs shall call for cessation of construction activities (stop work) if a marine mammal comes within the EZ or if a sea turtle comes within 165 feet of construction activities.

e) Construction will not take place if a southern sea otter is present within 110 feet of the active construction site (e.g. jetty repair sites

or timber pile removal areas) until the animals leave the area on their own accord. The monitor shall document all observations of southern sea otter and/or marine mammal pupping areas in the vicinity of the project area and provide documentation using an appropriate government approved data sheet on a weekly basis to the government environmental manager. A sample data sheet is available upon request.

f) Nighttime operations will require the use of floodlights illuminating all areas of vessel and construction material movement to reduce marine mammal collision risk and PSOs shall be outfitted with night vision goggles. Because of the known eye and headache strain of using these goggles, two PSOs shall be on duty during nighttime activities to allow for staff rotations.

3.1.2 Marine Mammal Reports

The biological monitors must keep a daily record of monitoring activities to use in a marine mammal report. All observations of marine mammals, regardless of distance from the construction areas must be recorded and included the following in their reports:

- (a) Draft report(s) must be submitted on all monitoring conducted within 60 calendar days of the completion of monitoring. A 35-day government review period will be given for the draft report. A final report must be prepared and submitted within 30 calendar days following receipt of any USFWS comments on the draft report. If no comments are received from NMFS within 30 calendar days of receipt of the draft report, the report shall be considered final.
- (b) The marine mammal report must contain the informational elements and, at minimum, must include:
 - (1) Dates and times (begin and end) of all monitoring.
 - (2) Construction activities occurring during each daily observation period.
 - (3) Locations during marine mammal monitoring.
 - (4) Environmental conditions during monitoring periods (at beginning and end of a shift and whenever conditions change significantly), including the Moss Landing Harbor state and any other relevant weather conditions including cloud cover, fog, sun glare, and overall visibility to the horizon, and estimated observable distance
 - (5) Upon observation of a marine mammal and/or marine mammal pupping activities, the following information including photographic documentation with coordinates/geolocation data shall be included in the monitoring report:
 - (a) Name of monitor who sighted the animal(s) and location and activity of mammal at time of sighting.
 - (b) Identification of the animal(s) (e.g., genus/species, lowest possible taxonomic level, or unidentified), confidence in identification, and the composition of the group if there is a mix of species.

(c) Distance and bearing of each marine mammal observed relative to the pile being driven for each sighting (if pile driving or cutting was occurring at time of sighting).

(d) Estimated number of animals (min/max/best estimate).

(e) Estimated number of animals by cohort (adults, juveniles, neonates, group composition, etc.)

(f) Animal's closest point of approach and estimated time spent within the harassment zone.

(g) Description of any marine mammal behavioral observations (e.g., observed behaviors such as feeding or traveling), including an assessment of behavioral responses thought to have resulted from the activity (e.g., no response or changes in behavioral state such as ceasing feeding, changing direction, flushing, or breaching).

(6) Number of marine mammals detected within the harassment zones, by species; relative to the pile removal location, for example or jetty repair area and what activity was occurring at time of sighting.

(7) Detailed information about implementation of any mitigation (e.g., shutdowns and delays), a description of specific actions that ensued, and resulting changes in behavior of the animal(s), if any.

(8) Weather parameters and water conditions during each monitoring period. (e.g., wind speed, percent cover, visibility, sea state).

(9) Construction activities occurring during each daily observation period, including how many and what type of piles were removed and by what method(i.e., snap).

(10) Description of attempts to distinguish between the number of individual animals taken and the number of incidences of take, such as ability to track groups or individuals.

(11) Submit all marine mammal monitor datasheets and/or raw sighting data (in a separate file from the final report).

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SOLICITATION

SECTION 01 58 00

PROJECT IDENTIFICATION
11/20

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation. Submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Sign Legend Orders; G

1.2 PROJECT SIGN

1.2.1 Construction Project Signs (USACE)

Furnish construction project sign packages (one for the north jetty construction and one for the south jetty construction), maintain the signs during construction, and remove the signs from the job upon completion of the project. The construction sign package consists of two signs: one for project identification and the other to show the on-the-job safety performance of the contractor. The package must conform to the requirements of EP 310-1-6a and EP 310-1-6b, specifically Section 16. Submit the sign legend orders as described in Section 16 of EP 310-1-6a prior to erecting the signs.

1.3 JETTY DANGER SIGNS

Remove existing North and South Jetty danger signs, metal brackets, and coverings on the jetty and replace with new jetty danger signs (sign type WDA-29, legend size 3 inch), metal brackets, and coverings. The jetty danger sign package must conform to the requirements of EP 310-1-6a and EP 310-1-6b, specifically Section 14. Submit the sign legend orders as described in Section 14 of EP 310-1-6a prior to erecting the sign.

1.4 CONTACT INFORMATION SIGN

Furnish a contact information sign with USACE and Contractor points-of-contact. Contact information sign must be visible to the general public during all construction activities. Coordinate USACE points-of-contact information with the Contracting Officer or delegated representative.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

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SOLICITATION

SECTION 01 78 00

CLOSEOUT SUBMITTALS
05/19

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

U.S. ARMY CORPS OF ENGINEERS (USACE)

ERDC/ITL TR-19-6 (2019) A/E/C Graphics Standard, Release 2.1

ERDC/ITL TR-19-7 (2019) A/E/C CAD Standard - Release 6.1

1.2 DEFINITIONS

1.2.1 As-Built Drawings

As-built drawings are developed and maintained by the Contractor and depict actual conditions and deviations from the Contract Documents. These deviations and additions may result from coordination required by, but not limited to: contract modifications; official responses to Contractor submitted Requests for Information (RFI's); direction from the Contracting Officer or delegated representative; design that is the responsibility of the Contractor, and differing site conditions. Maintain the as-builts throughout construction. These files serve as the basis for the creation of the record drawings.

1.2.2 Record Drawings

The record drawings are the final compilation of actual conditions reflected in the as-built drawings.

1.3 SOURCE DRAWING FILES

Request the full set of electronic drawings, in the source format, for Record Drawing preparation, after award and at least 30 days prior to required use.

1.3.1 Terms and Conditions

Data contained on these electronic files must not be used for any purpose other than as a convenience in the preparation of construction data for the referenced project. Any other use or reuse must be at the sole risk of the Contractor and without liability or legal exposure to the Government. The Contractor must make no claim and waives to the fullest extent permitted by law, any claim or cause of action of any nature against the Government, its agents or sub consultants that may arise out of or in connection with the use of these electronic files. The Contractor must, to the fullest extent permitted by law, indemnify and hold the Government harmless against all damages, liabilities or costs,

including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

These electronic CAD drawing files are not construction documents. Differences may exist between the CAD files and the corresponding construction documents. The Government makes no representation regarding the accuracy or completeness of the electronic CAD files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. In the event that a conflict arises between the signed and sealed construction documents prepared by the Government and the furnished Source drawing files, the signed and sealed construction documents govern. The Contractor is responsible for determining if any conflict exists. Use of these Source Drawing files does not relieve the Contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project. If the Contractor uses, duplicates or modifies these electronic source drawing files for use in producing construction data related to this contract, remove all previous indicia of ownership (seals, logos, signatures, initials and dates).

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-11 Closeout Submittals

As-Built Drawings; G

1.5 QUALITY CONTROL

Additions and corrections to the contract drawings must be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols must conform to ERDC/ITL TR-19-7.

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

Prepare the CAD drawing files in format compatible with a Windows 10 operating system.

2.1.1 Additional Drawings

If additional drawings are required, prepare them using the specified electronic file format applying ERDC/ITL TR-19-7 and ERDC/ITL TR-19-6. The title block and drawing border to be used for any new final record drawings must be identical to that used on the contract drawings.

2.1.1.1 Sheet Numbers and File Names

If a sheet needs to be added between two sequential sheets, append a Supplemental Drawing Designator in accordance with ERDC/ITL TR-19-7 Adding a drawing sheet, and ERDC/ITL TR-19-6 Adding or deleting drawing sheets and index sheet procedures.

PART 3 EXECUTION

3.1 AS-BUILT DRAWINGS

3.1.1 Markup Guidelines

Make comments and markup the drawings complete without reference to letters, memos, or materials that are not part of the As-Built drawing. Show what was changed, how it was changed, where item(s) were relocated and change related details. These working as-built markup prints must be neat, legible and accurate as follows:

- a. Use base colors of red, green, and blue. Color code for changes as follows:
 - (1) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes.
 - (2) Deletions (Red) - Over-strike deleted graphic items (lines), lettering in notes and leaders.
 - (3) Additions (Green) - Added items, lettering in notes and leaders.
- b. Provide a legend if colors other than the "base" colors of red, green, and blue are used.
- c. Add and denote any additional equipment or material facilities, service lines, incorporated under As-Built Revisions if not already shown in legend.
- d. Use frequent written explanations on markup drawings to describe changes. Do not totally rely on graphic means to convey the revision.
- e. Use legible lettering and precise and clear digital values when marking prints. Clarify ambiguities concerning the nature and application of change involved.
- f. Wherever a revision is made, also make changes to related section views, details, legend, profiles, plans and elevation views, schedules, notes and call out designations, and mark accordingly to avoid conflicting data on all other sheets.
- g. For deletions, cross out all features, data and captions that relate to that revision.
- h. For changes on small-scale drawings and in restricted areas, provide large-scale inserts, with leaders to the applicable location.
- i. Indicate one of the following when attaching a print or sketch to a markup print:
 - 1) Add an entire drawing to contract drawings
 - 2) Change the contract drawing to show
 - 3) Provided for reference only to further detail the initial design.
- j. Incorporate all shop and fabrication drawings into the markup drawings.

3.1.2 As-Built Drawings Content

Show on the as-built drawings, but not limited to, the following information:

- a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, show by offset dimensions to two permanently fixed surface features the end of each run including each change in direction on the record drawings. Locate valves, splice boxes and similar appurtenances by dimensioning along the utility run from a reference point. Also record the average depth below the surface of each run.
- b. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.
- c. Changes in details of design or additional information obtained from working drawings specified to be prepared or furnished by the Contractor; including but not limited to shop drawings, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment, and foundations.
- d. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
- e. Changes or Revisions which result from the final inspection.
- f. Where contract drawings or specifications present options, show only the option selected for construction on the working as-built markup drawings.
- g. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, furnish a contour map of the final borrow pit/spoil area elevations.
- h. Unusual or uncharted obstructions that are encountered in the contract work area during construction.
- i. Location, extent, thickness, and size of stone protection.

3.2 RECORD DRAWINGS

If additional drawings are required, prepare them using the specified electronic file format applying ERDC/ITL TR-19-7 and ERDC/ITL TR-19-6. The title block and drawing border to be used for any new final record drawings must be identical to that used on the contract drawings. Accomplish additions and corrections to the contract drawings using CAD files. Provide all program files and hardware necessary to prepare final PDF record drawings. The Contracting Officer or delegated representative will review final PDF record drawings for accuracy and return them to the Contractor for required corrections, changes, additions, and deletions.

3.2.1 Rename the CAD Drawing files

Rename the CAD Drawing files using the contract number as the Project Code field, (e.g., W91238-15-C-10A-102.DWG). Use only those renamed files for

the Marked-up changes. Make all changes on the layer/level as the original item.

- a. For AutoCAD files (DWG), enter all as-built delta changes and notations on the AS-BUILT layer.
- b. When final revisions have been completed, show the wording "RECORD DRAWING AS-BUILTS" followed by the name of the Contractor in letters at least 3/16 inch high on the cover sheet drawing. Date RECORD DRAWING AS-BUILTS" drawing revisions in the revision block.
- c. Within days after Government approval of all of the working record drawings for a phase of work, prepare the final CAD record drawings for that phase of work and submit PDF drawing files and two sets of prints for review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within days revise the CAD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within days of substantial completion of all phases of work, submit the final record drawing package for the entire project. Submit one set of electronic CAD files, and one set of the approved working record PDF files on three optical discs with two sets of prints. The CAD files must be complete in all details and identical in form and function to the CAD drawing files supplied by the Government. Prepare AutoCAD files for transmittal using e-Transmit. Make any transactions or adjustments necessary to accomplish this. The Government reserves the right to reject any drawing files it deems incompatible with the customer's CAD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final record PDF drawing files, CAD files and marked prints as specified will be cause for withholding any payment due under this contract. Approval and acceptance of final record drawings must be accomplished before final payment is made.

3.3 RECORD DRAWINGS

Prepare final record drawings after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). Transfer the changes from the approved working as-built markup drawings to the original electronic CAD drawing files. Modify the as-built CAD drawing files to correctly show the features of the project as-built by bringing the working CAD drawing set into agreement with approved working as-built markup drawings, and adding such additional drawings as may be necessary. Refer to ERDC/ITL TR-19-6 Chapter 11 Drawing Revisions. Jointly review the working as-built markup drawings with printouts from working as-built CAD drawing PDF files for accuracy and completeness. Monthly review of working as-built CAD drawing PDF file printouts must cover all sheets revised since the previous review. These PDF drawing files are part of the permanent records of this project. Any drawings damaged or lost must be satisfactorily replaced at no expense to the Government.

- a. Drawing revisions (include within change order price the cost to change working and final record drawings to reflect revisions) and compliance with the following procedures.
 - (1) Follow directions in the revision for posting descriptive changes.

- (2) The revision delta size must be 5/16 inch unless the area where the delta is to be placed is crowded. Use a smaller size delta for crowded areas.
- (3) Place a revision delta at the location of each deletion.
- (4) For new details or sections which are added to a drawing, place a revision delta by the detail or section title.
- (5) For minor changes, place a revision delta by the area changed on the drawing (each location).
- (6) For major changes to a drawing, place a revision delta by the title of the affected plan, section, or detail at each location.
- (7) For changes to schedules or drawings, place a revision delta either by the schedule heading or by the change in the schedule.

3.3.1 Final Record Drawing Package

Submit the final record PDF and CAD drawings package for the entire project within 20 days of substantial completion of all phases of work. Submit one set of ANSI D size PDF and CAD files on optical disc, read-only memory (ROM), two sets of ANSI D size prints and one set of the approved working record drawings. The package must be complete in all details and identical in form and function to the contract drawing files supplied by the Government.

3.4 CLEANUP

Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site. Remove blasting wires prior to placing new armor stones on the jetties.

-- End of Section --

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DIVISION 02 - EXISTING CONDITIONS

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REMOVAL AND DISPOSAL OF CHEMICALLY TREATED WOOD WASTE

06/19

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SOLICITATION

SECTION 02 87 00

REMOVAL AND DISPOSAL OF CHEMICALLY TREATED WOOD WASTE
06/19

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

CALIFORNIA CODE OF REGULATIONS (CCR)

CCR A Title 22, Division 4.5, Chapter 11,
Article 1

CCR B Title 22, Division 4.5, Chapter 34

1.2 DESCRIPTION

- a. The work of this Section consists of furnishing all transportation, labor, materials, equipment, and incidentals necessary to demolish, remove, transport, and dispose of all Treated Wood Waste (TWW) within the project limits, including treated timber piles, treated timber bull rail, wales and chocks, and other miscellaneous treated timber, as required by 66261.9.5 of the California Code of Regulations (CCR A), Title 22, Division 4.5, Chapter 11, Article 1 and CCR B, Title 22, Division 4.5 Chapter 34, Section 67386.1 through 67386.12 (California Department of Toxic Substances Control, Alternative Management Standards for Treated Wood Waste-R-2005-04).
- b. Review the contract drawings for the areas to be removed, to determine the type and amount of treated wood that the Contractor is responsible to demolish, remove, transport, and dispose of according to the requirements of the Specifications.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.1 REMOVAL OF TIMBER PILES

- a. Removal method must be performed by mechanically pulling on the pile until it is removed or otherwise snaps off.
- b. No vibratory extraction or digging methods are permitted.

3.2 STORAGE PROCEDURES FOR TREATED WOOD

- a. Store TWW in accordance with the alternative management standards (AMS) described in CCR B, Title 22, Division 4.5, Chapter 34. If TWW is to be stored on site pending disposal, the following requirements apply.

- (1) Store TWW off the ground by placing it on blocks, on concrete surfaces, or in containers.
 - (2) Cover TWW during inclement weather to prevent rain water from leaching chemicals out of the TWW.
- b. Personnel Protection: Wear PPE as specified in the Site Specific Safety Plan.
 - c. Labeling: Affix labels, in English and Spanish, to containers with Treated Wood Waste. Provide label with sufficient print size to be clearly legible, with bold print on a contrasting background, displaying the following:

TREATED WOOD WASTE - Do not burn or scavenge. TWW Handler Name and Address: Accumulation Date:
--

3.3 DISPOSAL PROCEDURES FOR TREATED WOOD

- a. Any timber pile stubs and timber remnants become the property of the Contractor.
- b. Segregate any TWW that may be generated from construction operations.
- c. Dispose of TWW in accordance with the AMS described in CCR B, Title 22, Division 4.5, Chapter 34, and all other Local, State, and Federal requirements for the proper waste loading, transportation, and disposal of TWW materials as non-hazardous waste.

-- End of Section --

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SECTION 03 31 30

MARINE CONCRETE
02/19

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN CONCRETE INSTITUTE (ACI)

ACI 117	(2010; Errata 2015) Specifications for Tolerances for Concrete Construction and Materials and Commentary
ACI 121R	(2008) Guide for Concrete Construction Quality Systems in Conformance with ISO 9001
ACI 201.2R	(2016) Guide to Durable Concrete
ACI 214R	(2011) Evaluation of Strength Test Results of Concrete
ACI 301	(2016) Specifications for Structural Concrete
ACI 304R	(2000; R 2009) Guide for Measuring, Mixing, Transporting, and Placing Concrete
ACI 306R	(2016) Guide to Cold Weather Concreting
ACI 308.1	(2011) Specification for Curing Concrete
ACI 347R	(2014; Errata 1 2017) Guide to Formwork for Concrete
ACI SP-15	(2011) Field Reference Manual: Standard Specifications for Structural Concrete ACI 301-05 with Selected ACI References

APA - THE ENGINEERED WOOD ASSOCIATION (APA)

APA PS 1	(2009) Structural Plywood (with Typical APA Trademarks)
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ASTM INTERNATIONAL (ASTM)

ASTM C138/C138M	(2017a) Standard Test Method for Density (Unit Weight), Yield, and Air Content (Gravimetric) of Concrete
ASTM C143/C143M	(2015) Standard Test Method for Slump of

Hydraulic-Cement Concrete

ASTM C150/C150M	(2018) Standard Specification for Portland Cement
ASTM C172/C172M	(2017) Standard Practice for Sampling Freshly Mixed Concrete
ASTM C173/C173M	(2016) Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method
ASTM C192/C192M	(2018) Standard Practice for Making and Curing Concrete Test Specimens in the Laboratory
ASTM C294	(2012; R 2017) Standard Descriptive Nomenclature for Constituents of Concrete Aggregates
ASTM C31/C31M	(2019) Standard Practice for Making and Curing Concrete Test Specimens in the Field
ASTM C33/C33M	(2018) Standard Specification for Concrete Aggregates
ASTM C39/C39M	(2018) Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens
ASTM C42/C42M	(2018a) Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete
ASTM C94/C94M	(2018) Standard Specification for Ready-Mixed Concrete
ASTM D75/D75M	(2014) Standard Practice for Sampling Aggregates

CONCRETE REINFORCING STEEL INSTITUTE (CRSI)

CRSI 10MSP	(2009; 28th Ed; Errata) Manual of Standard Practice
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1.2 DEFINITIONS

- a. "Cementitious material" as used herein includes portland cement and any pozzolanic material such as fly ash, natural pozzolans, and ground granulated blast-furnace slag.
- b. "Concrete System" is the term describing a structural element comprised of concrete, reinforcing steel and concrete cover.
- c. "Design strength" (f'_c) is the specified compressive strength of concrete at time(s) specified by Contracting Officer to meet structural design criteria.
- d. "Field test strength" (f_{cr}) is the required compressive strength of

concrete to meet structural and durability criteria. Determine (fcr) during mixture proportioning process.

- e. "Mixture proportioning" is the process of designing concrete mixture proportions to enable it to meet the strength, durability and constructability requirements and of the project while minimizing the initial and life-cycle cost.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Concrete Curing Plan

Concrete Qualification Program; G

Concrete Quality Control Program; G

Concrete Placement and Compaction

Curing Concrete Elements

Form Removal Schedule

Laboratory Qualifications; G

Quality Control Personnel Qualifications; G

SD-02 Shop Drawings

Formwork

SD-03 Product Data

Aggregates; G

SD-05 Design Data

Concrete Mixture Requirements; G

Mixture Designs

SD-06 Test Reports

Aggregates

Cement

Concrete Mixture Proportions; G

Concrete Test Reports

Fresh Concrete Properties

Hardened Concrete Properties

Water

SD-07 Certificates

Cementitious Materials

Cementitious Material Mill Certificates

SD-11 Closeout Submittals

Aggregate Moisture Content

Aggregate Sampling

Concrete Test Reports

1.4 MODIFICATION OF REFERENCES

Accomplish work in accordance with ACI publications except as modified herein. Consider the advisory or recommended provisions to be mandatory, as though the word "shall" had been substituted for the words "should" or "could" or "may," wherever they appear. Interpret reference to the "Building Official," the "Structural Engineer," and the "Architect/Engineer" to mean the Contracting Officer.

1.5 DELIVERY, PLACING, STORAGE, AND HANDLING OF CONCRETE

Follow ACI 301 and ACI 304R requirements and recommendations. Do not deliver concrete until forms, embedded items, and chamfer strips are in place and ready for concrete placement. Protect materials from contaminants such as grease, oil, and dirt. Ensure materials can be accurately identified after bundles are broken and tags removed.

1.6 CONCRETE QUALITY CONTROL

The objective of the concrete quality control program is for the Contractor to outline the procedures that will be used to construct a structure that will meet the project criteria. Develop and submit for approval a concrete quality control program in accordance with the guidelines of ACI 121R and as specified herein. Include approved laboratories in the plan. Provide direct oversight for the concrete qualification program inclusive of associated sampling and testing. If concrete cylinders tested during production indicate inadequate strength, excessive chloride ion penetration, or inadequate mixing, then the owner may require the Contractor to extract concrete core samples from the hardened concrete for analysis at Contractor's expense to assure that the quality of the concrete as placed and cured will satisfy the project criteria.

Develop and submit for approval a concrete quality control program in accordance with the guidelines of ACI 121R. Maintain a copy of ACI SP-15 and CRSI 10MSP at the project site.

1.6.1 Quality Control Personnel Qualifications

Submit for approval an organizational chart defining the quality control

hierarchy, the responsibilities of the various positions, including the names and qualifications of the individuals in those positions.

Submit American Concrete Institute certification for the following:

- a. CQC personnel responsible for inspection of concrete operations.
- b. Lead Foreman or Journeyman of the Concrete Placing, Finishing, and Curing Crews.
- c. Field Testing Technicians: ACI Concrete Field Testing Technician, Grade I.
- d. Laboratory Testing Technicians: ACI Concrete Strength Testing Technician and Laboratory Testing Technician, Grade I or II.
- e. Petrographer: Bachelor of Science degree in geology or petrography, trained in petrographic examination of concrete aggregate according to ASTM C294 and trained in identification of the specific deleterious processes and tests identified in this specification. In the resume detail the education, training and experience related to the project-specific test methods and deleterious materials and submit at least 20 days before petrographic and deleterious materials examination is to commence.
- f. Concrete Batch Plant Operator: National Ready Mix Concrete Association (NRMCA) Plant Manager Certification at the Plant Manager level.

1.6.1.1 Quality Manager Qualifications

The Quality Manager must hold a current license as a professional engineer in a U.S. state or territory with experience on at least five similar projects. Evidence of extraordinary proven experience may be considered by the Contracting Officer as sufficient to act as the Quality Manager.

1.6.2 Laboratory Qualifications for Concrete Qualification Testing

The concrete testing laboratory must have the necessary equipment and experience to accomplish required testing.

1.6.3 Laboratory Accreditation

Provide laboratory and testing facilities by and at the expense of the Contractor. The accreditation must be current and include the required test methods, as specified.

- a. Aggregate Testing and Mix Proportioning: Perform aggregate testing and mixture proportioning studies by an accredited laboratory and under the direction of a licensed/registered civil engineer in a U.S. state or territory, and sign all reports and designs.
- b. Acceptance Testing: Furnish all materials, labor, and facilities required for molding, curing, testing, and protecting test specimens at the site and in the laboratory. Furnish and maintain boxes or other facilities suitable for storing and curing the specimens at the site while in the mold within the temperature range stipulated by ASTM C31/C31M.
- c. Contractor Quality Control: Perform all sampling and testing by an

approved, onsite, independent, accredited laboratory.

1.7 CONCRETE DURABILITY

1.7.1 Concrete Mixture Proportions

At least 30 days prior to concrete placement, submit concrete mixture proportions, ingredient material certificates and test data, and trial batch test data for each class of concrete proposed for use on the project. In the submittal clearly indicate where each mixture will be used when more than one mixture design is submitted. Obtain approval prior to placement.

1.7.2 Concrete Design Requirements

Proportion concrete mixtures to meet the requirements specified hereafter in accordance with the procedures outlined in ACI 201.2R.

Develop the mixture proportions for concrete to produce the required compressive strength (f'_c), constructability, and other properties as specified.

Develop the mixture proportions for concrete to produce the design strength (f'_c) and to provide workability and mixture consistency to facilitate placement, without segregation or bleeding.

Air content: Concrete must be air entrained and conform to the air limits specified in ACI 301 for exposure.

Slump: Proportion the concrete mixture to have, at the point of deposit, a maximum slump not to exceed 2 inches as determined by ASTM C143/C143M when admixtures that affect slump are not used. Ensure slump tolerances comply with the requirements of ACI 117.

Concrete Design Requirements	
Minimum Compressive Strength (psi)	4500
Maximum Water/Cement Ratio	0.40
Maximum Sand - Aggregate Ratio	0.50

1.7.3 Concrete Mixture Qualifications

1.7.3.1 Previously Approved Concrete Mixtures

For identical concrete mixtures previously approved for use within the past 18 months, the previous mixture qualification submittal may be re-submitted without further trial batch testing if accompanied by:

- A copy of the prior approvals indicating the project name, project number, and location.
- Ingredient material test data conducted within 12 months of the submittal date.
- Copies of the previously approved trial batch test data.

- d. A log containing at least 15 sequential test results with the calculated mean and standard deviation of the production concrete for air content, and compressive strength.

If the Contractor changes material type, class, sources, or suppliers; chemical composition; and/or mix proportions, provide a written opinion of the significance of the change(s). The change(s) may require additional testing at the discretion of the Contracting Officer in consultation with the agency's Subject Matter Expert in Concrete Materials.

1.7.3.2 New Concrete Mixtures

- a. Submit complete ingredient material test data, including applicable reference specifications. Submit additional data regarding concrete aggregates if the source of aggregate changes.
- b. Submit copies of test reports by independent test lab showing that the mixture has been successfully tested to produce concrete with the properties specified and that mixture will be suitable for the job conditions as described. Submit test reports along with the concrete mixture proportions. Obtain approval before concrete placement.
- c. Test a minimum of one trial batch of production concrete. If batching facilities are located such that the haul-time will exceed 30 minutes, include a simulated haul time in the trial batch.

(1) Test and report fresh concrete property tests of each trial batch as follows:

(a) Slump in accordance with ASTM C143/C143M.

(b) Air content in accordance with ASTM C173/C173M.

(c) Unit weight in accordance with ASTM C138/C138M.

(2) Cast specimens, test, and report hardened concrete property tests of each trial batch as follows:

Compressive strength at 7 and 28 days in accordance with ASTM C39/C39M.

(3) Moist cure concrete intended for cast-in-place applications in accordance with the standard moist curing conditions described in ASTM C192/C192M unless otherwise specified.

1.7.4 Concrete Qualification Program

1.7.4.1 Fresh Concrete Properties

- a. Air Content: Ensure the mixture is proportioned and tested for qualification.
- b. Slump: Ensure the mixture is proportioned and tested for qualification.

1.7.4.2 Hardened Concrete Properties

- a. Compressive Strength: Ensure the structural engineer specifies the minimum compressive strength results at 28 days. Determine compressive strength (f'_{cr}) for qualification of concrete mixtures and for quality

acceptance testing. A compressive strength test result is defined as the mean of two properly conducted 28-day tests on 6 by 12 inch cylindrical specimens in accordance with ASTM C39/C39M. In addition:

- (1) Specified Compressive Strength: For structural concrete elements the minimum specified 28 day design strength is denoted as (f'_c).
- (2) Required Average Strength: Ensure the concrete proportioned such that the minimum required average compressive strength (f'_{cr}) exceeds the specified design strength (f'_c) as per ACI 301.
- (3) Strength of any individual concrete placement is considered satisfactory if both the following requirements are met:
 - (a) The arithmetic mean of any three consecutive lot strength tests is at least f'_c , and;
 - (b) No individual strength test result is less than $0.90 f'_c$.
- (4) In the event that a placement is represented by single sampling lot, strength is considered satisfactory if either:
 - (a) The mean of the initial test is at least f'_c , or;
 - (b) The mean of the initial test and retest is at least f'_c , and neither strength test result is less than $0.90 f'_c$.

1.8 CONCRETE

1.8.1 Drawings

Fabrication Drawings for concrete formwork, reinforcement materials, wall forms, and bulkhead forms must indicate concrete pressure calculations with both live and dead loads, along with material types. Provide design calculations by a registered Civil or Structural Engineer for the formwork.

1.8.1.1 Formwork

Prior to commencing work, submit drawings for approval showing details of formwork including, but not limited to: joints, supports, studding and shoring, and sequence of form and shoring removal. Reproductions of contract drawings are unacceptable.

Design, fabricate, erect, support, brace, and maintain formwork so that it is capable of supporting without failure all vertical and lateral loads that may reasonably be anticipated to be applied to the formwork.

ACI 347R. Include design calculations indicating arrangement of forms, sizes, species, and grades of supports (lumber), panels, and related components. Indicate placement schedule, construction, and location and method of forming control joints. Include locations of inserts, pipe work, conduit, sleeves, and other embedded items. Furnish drawings and descriptions of shoring and reshoring methods proposed for slabs, beams, and other horizontal concrete members.

All edges shall be chamfered at least 3/4-inch.

1.8.1.2 Joints

Submit a plan indicating the type and location of each construction joint. Final joint locations are subject to Government approval.

1.8.2 Pre-Construction Submittals

1.8.2.1 Curing Concrete Elements

Submit proposed materials and methods for curing concrete elements.

1.8.2.2 Concrete Curing Plan

Submit proposed materials, methods, and duration for curing and cooling concrete elements in accordance with ACI 308.1.

Minimum moist curing duration is seven days.

Begin curing immediately after placement. Protect concrete from premature drying, excessively hot temperatures, and mechanical injury; and maintain minimal moisture loss at a relatively constant temperature for the period necessary for hydration of the cement and hardening of the concrete. The materials and methods of curing are subject to approval.

1.8.2.3 Form Removal Schedule

Submit schedule for form removal indicating element and minimum length of time for form removal. Submit technical literature of forming material or liner, form release agent, form ties, and gasketing to prevent leakage at form and construction joints. Provide a full description of materials and methods to be used to patch form-tie holes.

1.8.2.4 Concrete Placement and Compaction

- a. Submit technical literature for equipment and methods proposed for use in placing concrete. Include concrete pumping or conveying equipment including type, size and material for pipe, valve characteristics, and the maximum length and height concrete will be pumped. Make no adjustments to the mixture design to facilitate pumping.
- b. Submit technical literature for equipment and methods proposed for vibrating and compacting concrete. Include technical literature describing the equipment including vibrator diameter, length, frequency, amplitude, centrifugal force, and manufacturer's description of the radius of influence under load. Where flat work is to be cast, provide similar information relative to the proposed compacting screed or other method to ensure dense placement.

1.8.2.5 Concrete Report

Provide a Report inclusive of materials and methods used, test results, and the field test strength (fcr) for concrete that shows compliance with the structural and durability requirements.

1.8.2.6 Preconstruction Testing of Materials

Perform all sampling and testing by, and at the expense of, the Contractor. Use an approved commercial laboratory or, for cementitious materials and chemical admixtures, a laboratory maintained by the

manufacturer of the material. Use no material until notice of acceptance has been given. The Contractor is not entitled to any additional payment or extension of time due to failure of any material to meet project requirements, or for any additional sampling or testing required. Additional tests may be performed by the Government at the discretion of the Contracting Officer; such Government testing will not relieve the Contractor of any testing responsibilities.

1.8.2.7 Mixture Designs

Provide a detailed report of materials and methods used, test results, and the field test strength (fcr) for concrete.

1.8.3 Sampling

The Contractor is responsible for conducting concrete production sampling and testing in compliance with this specification.

1.8.3.1 Ingredient Material Sampling

- a. Ensure Cementitious material mill certificates and test reports are provided for each shipment. Record the date delivered and quantity of material represented by the certificate.
- b. Conduct and log aggregate moisture content at a minimum frequency of twice daily for each day's production. Use of moisture sensors in storage bins is recommended practice, but does not satisfy this requirement.
- c. Ensure Aggregate sampling for gradation and dry-rodded unit weight is conducted for each 100 tons delivered for use on the project, or portion thereof.

1.8.4 Reporting

1.8.4.1 Non-conforming materials

Identify the exact location of non-conforming concrete as placed and notify the Contracting Officer and Engineer of Record immediately. There are numerous possible indicators that the as-placed concrete is non-conforming including (but not limited to) inadequate compressive strength, excessive slump, chloride ions penetration out of limits, excessive voids and honeycombing, and concrete delivery records that indicate excessive time between mixing and placement and/or excessive water was added to the mixture during delivery and placement. Any of these indicators alone are sufficient reason for the Contracting Officer to request additional sampling and testing to quantify the concrete properties. If justified, cores may be extracted for testing, and conduct an investigation into the cause for non-conformance. The investigation may include statistical analysis of the test data collected to date; appropriateness of the pre-defined QAL based on statistical analysis of production data; the impact of the non-conforming material on the structure strength; and recommendations for concrete production process improvements, mitigation, or remediation, as appropriate.

Conduct investigations into non-conforming materials at the Contractor's expense. The Contractor is responsible for the investigation and making written recommendations to adequately mitigate or remediate the non-conforming material. The Contracting Officer may accept, accept with

reduced payment, require mitigation, or require removal and replacement of non-conforming material at no additional cost to the Government.

1.8.5 Test Reports

Identify Concrete Test Reports by a sequential report identification code. Ensure each report identifies the placement date, placement location, weather, name of testing technician, time of sampling, batch ticket number, fresh concrete test results, and hardened concrete test results.

1.8.5.1 Concrete Mixture Requirements

- a. Submit copies of test reports showing that the mixture has been successfully tested to produce concrete with the properties specified and that mixture will be suitable for the job conditions. Submit test reports along with the concrete mixture proportions. Obtain approval before concrete placement.
- b. Fully describe the processes and methodology whereby mixture proportions were developed and tested and how proportions will be adjusted during progress of the work to achieve, as closely as possible, the designated levels of relevant properties.

1.8.5.2 Aggregates

Obtain aggregate samples in accordance with ASTM D75/D75M that are representative of the materials to be used for the project. Submit test results for aggregate quality in accordance with ASTM C33/C33M, and the combined gradation curve proposed for use in the work and used in the mixture qualification. Submit results of all tests during progress of the work in tabular and graphical form as noted above, describing the cumulative combined aggregate grading and the percent of the combined aggregate retained on each sieve. Submit test results performed within 12 months of submittal date.

1.8.5.3 Portland Cement

Portland cement, ground granulated blast furnace (GGBF) slag, and pozzolan will be accepted on the basis of manufacturer's certification of compliance, accompanied by mill test reports showing that the material in each shipment meets the requirements of the specification under which it is furnished. Ensure mill test reports are no more than 1 month old, prior to use in the work. Ensure no cementitious material is used until acceptance has been provided. Cementitious material may be subjected to check testing by the Government from samples obtained at the mill, at transfer points, or at the project site. If tests prove that a cementitious material that has been delivered is unsatisfactory, promptly remove the material at Contractor's expense from the site. Retest cementitious material that has not been used within 6 months after testing at the Contractor's expense. The materials will be rejected if test results are not satisfactory. Submit test results in accordance with ASTM C150/C150M portland cement.

1.8.5.4 Testing During Construction

During construction, the Contractor is responsible for sampling and testing aggregates, cementitious materials, and concrete as specified herein. The Government will sample and test concrete and ingredient

materials as considered appropriate. Provide facilities and labor as may be necessary for procurement of representative test samples. Testing by the Government will in no way relieve the Contractor of the specified testing requirements.

1.8.5.5 Acceptability of Work

The materials and the structure itself will be accepted on the basis of tests made by the Contractor and in compliance with the criteria specified. The Government may make check tests at its expense to validate the results of the Contractor's testing. Testing performed by the Government will in not relieve the Contractor from the specified testing requirements.

PART 2 PRODUCTS

2.1 CEMENTITIOUS MATERIALS

Cementitious materials must be portland cement or cement blended with supplementary cementing materials. New submittals are required when the cementitious materials change sources or types.

Provide cementitious materials meeting the requirements of the applicable specification, and as modified herein. Provide mill certificates and test results conducted within six-months of the submittal date as part of the concrete mixture qualification submittal.

Provide a single manufacturer of cementitious material for each type of cement and supplementary cementing materials supplied to the project.

2.1.1 Portland Cement

Provide portland cement conforming to ASTM C150/C150M, Type II or V, low alkali including false set requirements with tri-calcium aluminates (C3A) content less than 10 percent and a maximum cement-alkali content of 0.80 percent Na₂Oe (sodium oxide equivalent). When HVFA mixtures are specified, they should be blended with Type II portland cement.

ASTM C150/C150M cements may be combined with supplementary cementing materials in the concrete mixture.

2.1.2 Supplementary Cementitious Materials (SCM) Content

Ensure the concrete mix contains supplementary cementing materials whether or not the aggregates are found to be reactive in accordance with the paragraph AGGREGATES.

2.2 AGGREGATES

Comply with ASTM C33/C33M Class 4S, except as modified.

- a. Provide gradation of individual aggregate sizes using standard concrete aggregate sieves.
- b. Limit aggregate reactivity per the paragraph AGGREGATES.
- c. Where a size designation is indicated, that designation indicates the nominal maximum size of the coarse aggregate.

- d. Conduct aggregate tests within 12 months from the date of concrete mixture submittal.

2.3 WATER

Ensure water complies with the requirements of ASTM C94/C94M. Ensure water is free from injurious amounts of oils, acids, alkalis, salts, and organic materials.

2.4 MATERIALS FOR FORMS

Provide wood, plywood, or steel. Use plywood or steel forms where a smooth form finish is required. Ensure lumber is square edged or tongue-and-groove boards, free of raised grain, knotholes, or other surface defects.

Plywood: APA PS 1, B-B concrete form panels or better. Ensure steel form surfaces do not contain irregularities, dents, or sags.

2.4.1 Form Ties and Form-Facing Material

- a. Provide a form tie system that does not leave mild steel after break-off or removal any closer than 2 inches from the exposed surface. Do not use wire alone. Ensure form ties and accessories do not reduce the effective cover of the reinforcement.
- b. Ensure form-facing material are structural plywood or other material that can absorb air and some of the high water-cementitious materials ratio surface paste that may be trapped in pockets between the form and the concrete. Maximum reuse is three times. Provide forms with a form treatment to prevent bond of the concrete to the forms. Use a controlled permeability form liner in strict accordance with the manufacturer's recommendations.

2.5 REINFORCEMENT

2.5.1 Reinforcing Bars

ACI 301 unless otherwise specified and shall meet the strength and ductility requirements.

2.6 ACCESSORY MATERIALS

2.6.1 Joint Sealants

2.6.1.1 Horizontal Surfaces

Horizontal surfaces are defined as all surfaces with a 3 percent maximum slope.

2.6.1.2 Vertical Surfaces

Vertical surfaces are defined as all surfaces with a slope greater than 3 percent.

PART 3 EXECUTION

3.1 FORMS

- a. Provide formwork with clean-out openings to permit inspection and removal of debris. Ensure formwork is gasketed or otherwise rendered sufficiently tight to prevent leakage of paste or grout under heavy, high-frequency vibration. Use a release agent that does not cause surface dusting. Limit reuse of plywood to no more than three times. Reuse may be further limited if it is found that the pores of the plywood are clogged with paste so that the wood does not absorb air and some of the high water-cementitious materials ratio paste that may be trapped in pockets between the form and the concrete.
- b. Comply with ACI 301. Concrete for footings may be placed in excavations without forms upon inspection and approval. Excavation width shall be a minimum of 4 inches greater than indicated. Set forms rigidly, mortar-tight, and true to line and grade. Chamfer above grade exposed joints, edges, and external corners of concrete 0.75 inch unless otherwise indicated. Ensure forms submerged in water are watertight.
- c. Patch form tie holes with a no shrink patching material in accordance with the manufacturer's recommendations and subject to approval.

3.1.1 Removal of Forms and Supports

After placing concrete, ensure forms remain in place for the time periods specified in ACI 347R, except for concrete placed underwater, otherwise forms remain in place a minimum of 48 hours. Prevent concrete damage during form removal.

3.1.1.1 Special Requirements for Reduced Time Period

Forms may be removed earlier than specified if ASTM C39/C39M test results of field-cured samples from a representative portion of the structure or other approved and calibrated non-destructive testing techniques show that the concrete has reached a minimum of 85 percent of the design strength.

3.1.2 Reshoring

Do not allow construction loads to exceed the superimposed load that the structural member, with necessary supplemental support, is capable of carrying safely and without damage. Reshore concrete elements where forms are removed prior to the specified time period. Do not permit elements to deflect or accept loads during form stripping or reshoring. Forms on columns, walls, or other load-bearing members may be stripped after 2 days if loads are not applied to the members. After forms are removed, reshore slabs and beams over 10 feet in span and cantilevers over 4 feet for the remainder of the specified time period in accordance with paragraph REMOVAL OF FORMS AND SUPPORTS. Perform reshoring operations to prevent subjecting concrete members to overloads, eccentric loading, or reverse bending. Ensure reshoring elements have the same load-carry capabilities as original shoring and are spaced similar to original shoring. Firmly secure and brace reshoring elements to provide solid bearing and support.

3.2 PLACING MISCELLANEOUS MATERIALS

ACI 301. Remove rust, scale, oil, grease, clay, or foreign substances

from all elements to be placed with the concrete. Repair all visible damage. Inspect and verify proper reinforcement grade, quantity, spacing, and clearance requirements prior to concrete placement. Inspect placed steel reinforcing for coating damage prior to placing concrete. Repair all visible damage.

3.2.1 Coated Reinforcing

For coated bars, record coating lot on each shipping notice and carefully identify and retag bar bundles from bending plant. Provide systems for handling coated bars that have padded contact areas, nylon slings, etc., to keep bars free of dirt and grit. Carefully handle and install bars to minimize job site patching including lifting and supporting bundled coated bars with strong back, multiple supports, or platform bridge to prevent sagging and abrasion. When possible, assemble reinforcement as tied cages prior to final placement into the forms. Bundling bands shall be padded where in contact with bars. Do not drop or drag bars or bundles. Store coated bars both in shop and in field, aboveground, on wooden or padded cribbing with adequate protective blocking between layers. Schedule deliveries of coated bars to the job site to avoid the need for long term storage. Protect from direct sunlight and weather. Bars to be stored longer than 12 hours at the job site shall be covered with opaque polyethylene sheeting or other suitable equivalent protective material.

3.2.2 Construction Joints

Locate joints to least impair strength. Continue reinforcement across joints unless otherwise indicated. Final joint locations are subject to Government approval or substantiating calculations from the Contractor.

3.3 BATCHING, MEASURING, MIXING, AND TRANSPORTING CONCRETE

ASTM C94/C94M, ACI 301, and ACI 304R, except as modified herein. Conduct batching equipment such that the concrete ingredients are consistently measured within the following tolerances: 1 percent for cement and water, 2 percent for aggregate, and 3 percent for admixtures. Furnish mandatory batch tickets imprinted with mix identification, batch size, batch design and measured weights, moisture in the aggregates, and time batched for each load of ready mix concrete. When a pozzolan is batched cumulatively with the cement, batch after the cement has entered the weight hopper.

3.3.1 Measuring

Make measurements at intervals as specified in paragraphs SAMPLING and TESTING.

Adjust batch proportions to replicate the mixture design using methods provided in the approved quality assurance plan. Base the adjustments on results of tests of materials at the batch plant for use in the work. Maintain a full record of adjustments and the basis for each.

3.3.2 Mixing

Comply with ASTM C94/C94M and ACI 301.

3.3.3 Transporting

Comply with ACI 304R.

3.4 PLACING CONCRETE

Comply with ACI 304R. Place concrete as soon as practicable after the forms, reinforcement, and inserts have been inspected and approved. Do not place concrete when weather conditions prevent proper placement and consolidation; in uncovered areas during periods of precipitation; or in standing water. Prior to placing concrete, remove dirt, construction debris, water, snow, and ice from within the forms. Deposit concrete as close as practicable to the final position in the forms. Do not exceed a free vertical drop of 3 feet from the point of discharge. Place concrete in one continuous operation from one end of the structure towards the other or lifts for vertical construction.

3.4.1 Cold Weather

Comply with ACI 306R. Do not allow concrete temperature to decrease below 50 degrees F. Obtain approval prior to placing concrete when ambient temperature is below 40 degrees F or when concrete is likely to be subjected to freezing temperatures within 24 hours. Halt placement of concrete whenever the ambient temperature drops below 40 degrees F. If the ambient temperature is less than 50 degrees F ensure the temperature of the concrete when placed is not less than 50 degrees F or more than 75 degrees F. Heating of the mixing water or aggregates may be necessary to regulate the concrete placing temperature. An accelerating admixture may be used when the ambient temperature is below 50 degrees F. Provide covering and other means for maintaining the concrete at a temperature of at least 50 degrees F for not less than 7 days after placing, and at a temperature above freezing for the remainder of the curing period.

3.4.2 Hot Weather

If necessary, cool ingredients before mixing or use other suitable means to control concrete temperature and prevent rapid drying of newly placed concrete. Shade the fresh concrete as soon as possible after placing. Start curing when the surface of the fresh concrete is sufficiently hard to permit curing without damage. If the evaporation rate exceeds 0.1 pound of water per square foot per hour, fog spray the exposed concrete surfaces until active moist curing is applied. Provide water hoses, pipes, spraying equipment, and water hauling equipment, where job site is remote to water source, to maintain a moist concrete surface throughout the curing period. Provide burlap cover or other suitable, permeable material with fog spray or continuous wetting of the concrete when weather conditions prevent the use of either liquid membrane curing compound or impervious sheets. For vertical surfaces, protect forms from direct sunlight and add water to top of structure once concrete is set.

3.4.3 Prevention of Plastic Shrinkage Cracking

During weather with low humidity, and particularly with high temperature and appreciable wind, develop and institute measures to prevent plastic shrinkage cracks from developing. If plastic shrinkage cracking occurs, halt further placement of concrete until protective measures are in place to prevent further cracking. In addition to the protective measures, further protect concrete placement by erecting shades and windbreaks and by applying fog sprays of water, the addition of monomolecular films, or wet covering. When such water treatment is stopped, commence curing procedures immediately. Suggest the methods and materials to remove or repair areas affected by plastic shrinkage cracks, have reviewed by the agency's Subject Matter Expert in Concrete Materials, prior to approval.

Do not trowel over or fill cracks with cement slurry.

3.5 VERTICAL SURFACE FINISHES

3.5.1 Defects

Repair formed surfaces by removing minor honeycombs, pits greater than one square inch surface area or 0.25 inch maximum depth, or otherwise defective areas. Provide edges perpendicular to the surface and patch with non-shrink grout. Patch tie holes and defects when the forms are removed. Concrete with extensive honeycomb including exposed steel reinforcement, cold joints, entrapped debris, separated aggregate, or other defects that affect the serviceability or structural strength will be rejected, unless correction of defects is approved. Obtain approval of corrective action prior to repair. Ensure the surface of the concrete does not vary more than the allowable tolerances of ACI 347R. Ensure exposed surfaces are uniform in appearance and finished to a smooth form finish unless otherwise indicated.

3.5.2 Formed Surfaces

3.5.2.1 Tolerances

Comply with ACI 117 and as indicated.

3.5.2.2 As-Cast Rough Form

Provide for surfaces not exposed to public view. Patch holes and defects and level abrupt irregularities. Remove or rub off fins and other projections exceeding 0.25 inch in height.

3.5.2.3 As-Cast Form

Provide form facing material producing a smooth, hard, uniform texture on the concrete. Arrange facing material in an orderly and symmetrical manner and keep seams to a practical minimum. Support forms as necessary to meet required tolerances. Material with raised grain, torn surfaces, worn edges, patches, dents, or other defects that will impair the texture of the concrete surface can not be used. Patch tie holes and defects and completely remove fins.

3.6 CURING AND PROTECTION

Comply with ACI 301 and ACI 308.1 unless otherwise specified. Prevent concrete from drying by misting surface of concrete. Begin curing immediately following final set. Avoid damage to concrete from vibration created by blasting, pile driving, movement of equipment in the vicinity, disturbance of formwork or protruding reinforcement, by rain or running water, adverse weather conditions, and any other activity resulting in ground vibrations. Protect concrete from injurious action by sun, rain, flowing water, frost, mechanical injury, tire marks, and oil stains. Do not allow concrete to dry out from time of placement until the expiration of the specified curing period. Do not use membrane-forming compound on surfaces where appearance would be objectionable, on any surface to be painted, where coverings are to be bonded to the concrete, or on concrete to which other concrete is to be bonded. If forms are removed prior to the expiration of the curing period, provide another curing procedure specified herein for the remaining portion of the curing period. Provide moist curing for those areas receiving liquid chemical sealer-hardener or

epoxy coating.

Furnish ASTM C39/C39M test results to verify the anticipated rate of strength development for the proposed concrete design mixture. Submit an increased curing period and minimum time to strip formwork based upon the reduced rate of strength development.

3.7 FIELD QUALITY CONTROL

3.7.1 Fresh Concrete Properties

For each concrete mixture, take samples in accordance with ASTM C172/C172M, test and record the slump, and temperature. If the slump deviates from the previous batch by more than 1 inch, determine the air content. Adjustment of air content and/or slump with chemical admixture is permitted provided the water to cementitious material ratio is not exceeded.

3.7.1.1 Slump Tests

ASTM C143/C143M. Take concrete samples during concrete placement. The maximum slump may be increased as specified with the addition of an approved high range water reducing (HRWR) admixture provided that the water-cementitious ratio is not exceeded. Perform tests at commencement of concrete placement, when test cylinders are made, and for each batch (minimum) or every 50 cubic yards (maximum) of concrete. If concrete does not pass slump test, adjust using a HRWR and test every concrete batch until two consecutive batches meet slump without adjustment.

3.7.1.2 Temperature Tests

- a. Test the concrete delivered and the concrete in the forms. Perform tests in hot or cold weather conditions below 50 degrees F and above 80 degrees F for each batch (minimum) or every 50 cubic yards (maximum) of concrete, until the specified temperature is obtained, and whenever test cylinders and slump tests are made.

3.7.1.3 Air Content Tests

ASTM C173/C173M. Perform tests at commencement of concrete placement each day, when test cylinders are made, or concrete does not pass slump test.

3.7.1.4 Unit Weight Test

ASTM C138/C138M. Take concrete samples during concrete placement. Perform tests at commencement of concrete placement, when test cylinders are made.

3.7.2 Hardened Concrete Properties one set of specimens for each shift, not to exceed 10 hours.

Cast and cure specimens in accordance with ASTM C172/C172M, ASTM C31/C31M, and applicable requirements of ACI 306R.

For each sample set, record the date and time sampled, the batch ticket code, cylinder ID code the location of placement, and fresh concrete properties; ASTM C143/C143M for slump and ASTM C138/C138M unit weight.

For each sample, cast four 6 by 12 inch cylinder specimens for strength testing.

In the event quality acceptance test results fail to meet the quality acceptance criteria, the entire lot is considered non-conforming material, Refer to the paragraph REPAIR, REHABILITATION and REMOVAL.

3.7.2.1 Compressive Strength Tests

ACI 214R tests for strength - conduct strength tests of concrete during construction in accordance with the following procedures:

- a. Test cylinders in accordance with ASTM C39/C39M. Test two cylinders at 7 days, and two cylinders at 28 days.
- b. If the average strength test results are less than the specified strength (f'_c) extract three core samples from the structure in accordance with ASTM C42/C42M, from the area that correlates to the low test results. Ensure these extracted cores do not contain steel reinforcing. Repair core holes with non-shrink grout. Match color and finish of adjacent concrete. For concrete not meeting strength criteria, prepare a remediation strategy for the review.
- c. Provide strength test reports within 2 days of test completion.
- d. Conduct compressive test per every 50 cubic yard of production concrete.

3.7.3 Core Samples and Compressive Strength Testing

Obtain and test cores in accordance with ASTM C42/C42M.

Test the cores, after moisture conditioning, in accordance with ASTM C42/C42M.

Acceptance criteria for cylinder compressive strength are provided in paragraph ACCEPTANCE OF CONCRETE STRENGTH.

Take at least three representative cores from each member or area of concrete in place that is considered potentially strength deficient. Impair the strength of the structure as little as possible. If, before testing, extracted cores show evidence of having been damaged subsequent to or during removal from the structure, take replacement cores.

Fill core holes with low slump concrete or mortar of a strength equal to or greater than the original concrete.

The Contracting Officer will evaluate and validate core tests in accordance with the specified procedures.

3.7.4 Acceptance of Concrete Strength

3.7.4.1 Standard Molded and Cured Strength Specimens

Base the acceptance of concrete strengths on averages of results from three consecutive compressive strength tests. When the averages of all sets of three consecutive compressive strength test results exceed the field test strength (f_{cr}), and no individual strength test falls below f_{cr} by more than 500 psi, the strength of the concrete is satisfactory. These criteria also apply when accelerated strength testing is specified unless another basis for acceptance is specified.

3.7.4.2 Non-Destructive Tests

Non-destructive tests may be used when permitted to evaluate concrete where standard molded and cured cylinders have yielded results not meeting the criteria.

3.7.4.3 Extracted Core Tests

When the average compressive strengths of the representative cores are greater than 0.85 fcr and if no single core is less than 0.75 fcr, the strength of concrete is satisfactory.

-- End of Section --

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SECTION 35 31 26

JETTIES
08/19

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction Plan; G

Stone Source Quality Control Plan; G

Jetty Crest Haul Road Material Sieve Analysis Test Results; G

SD-02 Shop Drawings

Aids To Navigation; G

SD-06 Test Reports

Stone Gradation Reports; G

Stone Quality Testing Results; G

SD-07 Certificates

Stone Sources; G

Gradation Compilation; G

Waybills And Delivery Tickets; G

Scale Tickets and/or Records Of Weights; G

CONSTRUCTION TOLERANCES

Do not deviate from the lines and grades shown by more than the tolerances listed below for the finished surface and stone layer thickness. Tolerances are measured perpendicular to the indicated neatlines. Extreme limits of the tolerances given are not to be continuous in any direction for more than five times the nominal stone dimension nor for an area greater than 100 square feet of the structure surface.

NEATLINE TOLERANCES		
MATERIAL	ABOVE NEATLINE (inches)	BELOW NEATLINE (inches)

Armor	24	12
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The intention is that the work be built generally to the required elevations, slope and grade and that the outer surfaces be even and present a neat and uniform appearance. Remove or rework placed material not meeting these limits as directed. Payment will not be made for excess material which the Contracting Officer or delegated representative permits to remain in place.

PART 2 PRODUCTS

2.1 MATERIALS

2.1.1 Definitions

2.1.1.1 Angular Stone

Stone which is obtained from bedrock deposits and is angular in shape.

2.1.2 General

The Contractor must make all arrangements, pay all royalties, and secure all permits for the procurement, furnishing and transporting of stone. All stone must be durable material as approved by the Contracting Officer or delegated representative. In case an unlisted source is to be used, the Contractor must show that an adequate quantity of material is available and provide quality test data. Stone must be of a suitable quality to ensure permanence in the structure and in the climate in which it is to be used. The Contractor must vary the quarrying, processing, loading and placing operations to produce the sizes and quality of stone specified. If stone being furnished by the Contractor does not fully meet all the requirements of these specifications, the Contractor must furnish, at no additional cost to the Government, other stone meeting the requirements of these specifications.

2.1.3 Stone Sources

2.1.3.1 Source Authorization

Before any stone is produced from a source for completion of the work under this contract, the source of stone must be authorized by the Contracting Officer or delegated representative. Source Authorization of a stone source must not be construed as a waiver of the right of the Government to require the Contractor to furnish stone which complies with these specifications. Materials produced from localized areas, zones or strata will be rejected when such materials do not comply with the specifications.

2.1.3.2 Source Selection

The Contractor must determine the source or sources and availability of materials meeting the stone specifications given in this contract, subject to the Contracting Officer or delegated representative approval. Stone may be furnished from any of the sources listed in this section or from any source proposed by the Contractor and accepted by the Contracting Officer or delegated representative, subject to the conditions herein stated. The Contractor must designate in writing at least ten (10) days in advance of

placement the listed source or sources from which he proposes to furnish stone. It is the Contractor's responsibility to determine that the stone source or combination of sources selected is capable of providing the quality, quantities, and gradation needed and at the rate needed to maintain the scheduled progress of the work. If the Contractor proposes to furnish stone from a source not currently listed within this section, the Contractor must so designate in writing at least 30 days in advance of placement. The Government will conduct a quarry investigation and evaluate the quality test data, provided by the Contractor, to determine whether acceptable stone can be produced from the proposed source. The Contractor must submit laboratory test results not more than 4 years old that meet the test requirements given in paragraph: Stone Quality Testing Requirements.

Satisfactory service records on other work may be provided to the Contracting Officer or delegated representative as supplemental data. If this source for stone so designated by the Contractor is not accepted for use by the Contracting Officer or delegated representative, the Contractor may not propose other non-listed sources but must furnish the stone from a source or sources listed in this section at no additional cost to the Government.

2.1.3.3 Source Documentation

Authorization of a proposed non-listed stone source will be based on test results and/or service records. In general, current Corps of Engineers test results must be required as outlined in paragraph: Stone Quality Testing Requirements below. In special cases, however, the Contracting Officer or delegated representative may elect to use either past Corps of Engineers test results, test results from other agencies or private laboratories, or service records. The service record of the stone must be of stone of a similar size and must have been placed in a similar thickness and exposed to weathering under similar conditions as are anticipated for this contract, and must have satisfactorily withstood such weathering for a minimum of ten (10) years. The Contracting Officer or delegated representative has the option to elect to have representative samples taken and tested.

2.1.3.4 Potential Stone Sources

a. On the basis of information and data available to the Government, stone meeting the quality requirements of these specifications has been produced from the sources listed herein:

Quarry Name	Nearest City
Mountain Gate	Redding, California
R. Brown	Willow Creek, California
San Rafael	San Rafael, California
Catalina Island	Avalon, California

b. Listing of a stone source is not to be construed as to current or future availability of the source, authorization of all materials from the source, nor as a waiver of inspection and testing of the source. Stone produced from any listed source must meet all the requirements set forth in these specifications. Listing of a stone source is also not to be construed as an indication that the source can produce the total quantity of stone required for the project. Stone may be furnished from other sources designated by the Contractor and authorized by the Contracting

Officer or designated representative subject to the conditions stated herein.

2.1.3.5 Stone Source Inspection

The stone source must be inspected and approved prior to source authorization. Contractor must ensure that a qualified material lab technician and a representative of the quarry are present for the inspection. Government will select the samples to be collected for quality testing in accordance with paragraph Stone Quality.

2.1.4 Stone Quality

2.1.4.1 Quality Compliance Testing

a. Collect a minimum of four stone samples from each proposed stone source and quarry. Perform the complete list of stone quality evaluation tests twice for each rock-type lithology. The complete list of stone quality evaluation tests are referred to as the full suite. The full suite of stone quality evaluation tests are presented in a table under paragraph Stone Quality Testing Requirements.

b. During the stone source inspection, collect all stone samples at each stone source with samples selected and approved by the Contracting Officer or delegated representative. The laboratory technician from the USACE Material Testing Center (MTC) approved laboratory is required to collect and ship all samples to the approved laboratory at the Contractor's expense. Perform sample selection and collection on the same date.

c. On average, one to two separate rock types exist at typical stone sources. A stone source may require between two to eight stone quality evaluation tests because of varying lithologies.

d. Each stone sample must consist of 300 pounds each of representative stone from the proposed stone source. The quarry/stone source faces and the stockpiles to be used for the project must be examined and sampled.

e. Acceptance of the stone source is based on the results of the stone quality evaluation tests. Submit the Stone Quality Testing Results for all collected samples in one comprehensive report a minimum of 30 days before initial placement.

2.1.4.2 Materials Testing Laboratory

Perform the full suite of stone quality evaluation tests using a materials laboratory that is currently validated by the MTC, as specified in Section 01 45 00.00 10 QUALITY CONTROL, paragraph Testing Laboratories, and that meets the following requirements:

a. Within the past two years, has successfully performed the full suite of stone quality tests.

b. All stone quality tests, results and reporting are supervised and stamped by a California state registered Civil Engineer or Geologist, with a minimum of two years working experience in stone quality testing and petrography analysis.

2.1.4.3 Stone Source Quality Control

a. Submit the Stone Source Quality Control Plan (QC Plan) a minimum of 10 days in advance of the stone source inspection meeting. The QC Plan must include, at a minimum:

- (1) Schedule for the stone source inspection.
- (2) Contractor's QC inspection procedure covering production of the stone throughout the duration of the project.
- (3) Contact and coordination details.
- (4) Description of quarrying methods and means for preparing the stone source for this project

b. The QC Plan must include an example Daily Stone Quality Control (QC) Inspection Report. The Stone Source QC Inspection Report must include, at a minimum, the following information:

- (1) Name and location of stone source.
- (2) Name of the project stone size/category being inspected (i.e. A-15 Armor stone, A-7 Armor stone, etc.).
- (3) Daily colored photographs of stone being inspected.
- (4) Photographs of rejected stone and rejected stone stockpile. Rejected stone is to be documented, marked with a red "X" and shown in a photograph.
- (5) Inspection results of quality of stone.

c. Perform daily stone quality inspections during stone production and submit the Stone QC Inspection report signed by an authorized CQC Personnel as specified in Section 01 45 00.00 10 QUALITY CONTROL. Include visual examination for cracks, fractures, seams and defects during the daily stone quality inspections. If, by visual examination, it is determined that 1 percent or more of the stone produced contains hairline cracks, then all stone produced by the means and measures which caused the fractures must be rejected.

2.1.4.4 Stone Quality Testing Requirements

a. Subject stone to such tests as are necessary to demonstrate to the satisfaction of the Contracting Officer or delegated representative that the materials are acceptable for use in the work. At a minimum, the stone must meet the following full suite of test requirements:

Test	Test Method	Requirement
Petrographic Analysis	ASTM C295/C295M	Good quality and acceptable for use a stone protection
Wetting and Drying	ASTM D5313	No fracturing

Test	Test Method	Requirement
Specific Gravity (Bulk SSD)	ASTM C127	2.65 minimum
Absorption	ASTM C127	2.0% maximum
Magnesium Sulfate Soundness	ASTM C88	10% max loss
Abrasion Loss	ASTM C535	20% max loss after 500 revolutions

b. All stone samples tested for Specific Gravity, Absorption, Magnesium Sulfate Soundness and Abrasion must be collected as a composite sample with a size range graded from approximately 3 to 4 inches diameter and have a combined total weight of approximately 150 pounds, in lieu of the size gradation and weights given in the ASTM C535, ASTM C88 and ASTM C127. In addition to the above tests, subject the stone to a petrographic and X-ray diffraction analysis, in accordance with ASTM C295/C295M. The stone must not contain any expansive clays.

c. Specific Testing Procedures

(1) Wetting and drying test. Perform this test using all procedures according to ASTM D5313 and in accordance with the following specific procedures:

(a) Entire sample must be carefully examined and four representative test specimen slabs selected and produced. The specimen slabs must be large enough to produce four separate cut slabs, each a minimum of 2-1/4 inches thick, with a minimum total surface area of 25 square inches on the slab side. The slab must not be less than 5 inches length per side.

(b) The test samples must be color photographed four times to show all surface features, before each slab is produced. After the slabs are produced and prior to performing the first cycle of the test, the slabs must be individually photographed to show all surface features and then examined under a low-power microscope of at least 20X magnification. All visible surface features must be noted and recorded. A length scale must be included and shown in all color photographs of slabs.

(c) Subject the slabs to a maximum of thirty cycles of wetting and drying. Two of the four slabs must be soaked in fresh tap water with 0.5 percent ethyl alcohol added by mass; the remaining two slabs must be soaked in salt water, in accordance with ASTM D1141, if a source of nearby natural salt water is not available.

(d) At intervals of every four cycles, the slabs must again be individually color photographed and examined with the low-power microscope to check for openings or movement of fractures, disintegration, spalling, splitting, flaking along edges, swelling of clays, softening of rock surfaces, heaving of micaceous minerals, breakdown of matrix material, and any other evidence of weakness developing in the rock. Observation or worsening of any of the aforementioned flaws must be recorded and the cycle at which they are first observed must be included.

(e) After thirty cycles, the slabs and chunks must again be examined, and all changes must be noted and recorded. The test slabs, together with all

particles broken-off during the test, must be oven-dried, weighed, and color photographed. The test may be terminated prior to the completion of thirty cycles, if the mass of the largest remaining fragment of the slab amounts to less than half of the mass of the original slab specimen.

(2) Weakening and loss of individual surface particles is permissible, unless bonding of the surface grains softens and causes general disintegration of the surface material.

(3) The test procedure for Petrographic and X-ray Diffraction is performed according to ASTM C295/C295M, except for the following:

(a) Prepare a color, magnified photograph of each stone type using a microscope, and identify the individual minerals within the stone by labels and arrows, upon the photograph.

b) Develop a very detailed macroscopic and microscopic description of the stone, to include all the mineral constituents, individual sizes, their approximate percentages, and mineralogical histories. Include a description of stone hardness, texture, weathering, and durability factors.

(c) Present a written summary of the suitability of stone for use as stone protection, based on the Petrographic and X-ray tests and the results of ASTM C535, in the final laboratory report on stone quality

(4) Provide a minimum of two color photographs for each individual stone quality test. Take one of the two photos prior to commencement of each test, and the other after completion of any of each test. Include a suitable length scale in each color photograph. Label each photo "prior to testing" and "after testing" as appropriate. Label each photo with the name of the test and the name of the sample.

(5) Test procedure for LA Abrasion test. Perform this test using all procedures according to ASTM C535, but the following specific procedures for LA Abrasion testing must be performed: The entire sample must be run for 500 revolutions on rock particles in the size range graded from approximately 3 to 4 inches in diameter.

2.1.4.5 Stone Acceptance Criteria

a. All stone is subject to approval. The Contracting Officer or delegated representative will perform visual inspections and measurements of the stone at any point, including before and during delivery to the job site and up to and including placement.

b. If, by visual examination, it is determined that 4 percent or more of the stone produced contains hairline cracks, then all stone produced by the means and measures which caused the fractures must be rejected. Observed deviations of gradation, weight or quality of stone from the specified requirements or stone considered by the Contracting Officer or delegated representative to be questionable will lead to the stone being rejected and re-sampling and re-testing will be required.

(1) Detrimental hairline cracks are defined as being a minimum width of 4 mil (0.1 mm) and are seen continuously running along one-third the dimension of at least two sides of the stone.

c. Additional sampling and testing of the stone, including the type and quantity of sampling, is at the discretion of the Contracting Officer or

delegated representative. Acceptance of any stone does not constitute acceptance of all stone from a source. All accepted stone must be as follows:

- (1) Accepted by the Contracting Officer or delegated representative from an authorized source.
- (2) Of the same lithology as the original stone from which test results or quarry records were taken as a basis for authorization of the source.
- (3) Sound, durable, hard, and free of laminations, weak cleavages, undesirable weathering, or blasting or handling-induced fractures which subtend more than 1/3 of the total circumference of the stone along the plane of fracturing and which would tend to increase its deterioration from natural causes and hairline cracks that are detrimental.
- (4) Of such character that the stone will not disintegrate from the action of air, water, or the conditions of handling and placing.
- (5) Clean and free from earth, clay, refuse, or adherent coatings.
- (6) Meet all the prescribed stone acceptance criteria and pass all stone quality tests.

2.1.4.6 Stone Source Demonstration Stockpile

a. Following submittal of the Contractor's Stone Source Quality Control (QC) Plan and selection of a source, but prior to the Government's approval of a source, make arrangements to provide a pre-production demonstration stockpile for each stone source according to each specific stone gradation class for the project. Submit notification and schedule Government inspection of demonstration stockpile. All stockpiles must be evaluated for quality and gradation by the Contracting Officer or delegated representative. The stockpile will contain 32 stones and must be located at the source of the stone and be shaped in windrow fashion.

b. Place stones with a size range greater than 8 tons in a single layer with 5 foot of clear space around each stone. Turn individual stones as directed to accommodate the inspection. All stones placed in the demonstration stockpiles must be representative of the overall quality of materials in the source and should not consist of the best specimens, unless it is reasonable to determine that the source will provide the required amount of stone of the applicable size range with a degree of quality no less than that existent in the demonstration stockpile.

c. The Contracting Officer or delegated representative will inspect stone in the stockpiles according to the stone quality and gradation criteria of these specifications. An entire stockpile will be rejected if more than 8 percent of the stones in the stockpile are rejected. If a stockpile is rejected, prepare a replacement stockpile for re-evaluation by the Contracting Officer or delegated representative and revise and resubmit the Stone Source QC Plan. If the replacement stockpile is rejected, the stone source will be rejected for the corresponding size range that is rejected.

d. Stockpiles of representative reject stones from the demonstration stockpile(s) must be marked with a red "X" and set aside to a separate stockpile. The Contractor may choose a replacement stone source if a first or second stockpile is found to be unacceptable. Replacement of the

stockpiles or stone sources will be at no additional cost to the Government and with no change in submittal schedule or time of completion of project.

2.1.5 Quarry Operations

a. Conduct quarry operations in a manner that produces stone conforming to the requirements specified. Producing the stone may involve selective quarrying, handling, processing, blending, and loading as necessary.

b. Any stone found to not meet the minimum acceptance criteria as specified in paragraph Stone Acceptance Criteria must be marked with a red "X" and set aside in a stockpile separate from the acceptable stone to be used in the work.

2.1.6 Proportional Dimension Limitations

A flat and elongated piece of stone is defined as having a ratio of width to thickness or length to width greater than 3:1. Use ASTM D4791 as a guide to perform the test. Not more than 10 percent of the stones within a gradation range are to have an aspect ratio greater than 2.5:1 and no stones are to have an aspect ratio greater than 3:1.

2.1.7 Gradation

2.1.7.1 General

a. All new stone must meet the gradation requirements as specified both at the source and as delivered to the project. Stone not meeting the required grading due to segregation or degradation during placement will be rejected. If test results indicate that stone does not meet the required gradation, the hauling operation will be stopped immediately and will not resume until processing procedures are adjusted and a gradation test is completed showing gradation requirements are met. All gradation tests are at the expense of the Contractor.

b. New armor stone furnished for repair of the north jetty head section is designated "A-15 class armor stone". A-15 designation indicates a median stone weight of 15 tons.

c. New armor stone furnished for repair of the north jetty trunk section and south jetty trunk section is designated "A-7 class armor stone". A-7 designation indicates a median stone weight of 7 tons.

d. New armor stone furnished for repair of the north jetty revetment section is designated "A-4 class armor stone". A-4 designation indicates a median stone weight of 4 tons.

2.1.7.2 Gradation Compilation

a. Provide proof of gradation compliance by specifying the individual weights of each armor stone for each barge or truck/load. If truck or rail is used to move stone from a quarry to a barge loading area, this same documentation (total number of stones and individual weight of each stone) must be supplied for each truck or rail load or stockpile prior to loading of any barge. Paint the weight on all stones.

b. Use a scale to weigh each individual stone from each stone gradation class. Add together individual stone weights and obtain total weight from

each class. Record individual and total weight for each stone class separately from other stone class types. Submit results in a Stone Gradation Report prior to stone being placed.

c. Measure and determine the greatest and least dimension of each stone larger than 2 tons or 36 inches, if the stone is determined to be elongated, with an aspect ratio of 2 to 1, based on visual estimates.

d. Report the proportional dimension characteristics for each stone weighed that is greater than 2.5 to 1 and 3 to 1 ratios. No more than 20 percent of the total weight of stone per stone gradation class can be greater than 2.5 to 1 ratio. No more than 5 percent of the total weight of stone per gradation class can be greater than a 3 to 1 ratio.

2.1.7.3 Stone Gradation Testing

a. If at any time the Contracting Officer or delegated representative determines that weight determination of the stones is necessary on any barge load or other delivery unit, this action will constitute a formal gradation test. All formal gradation tests must be at the expense of the Contractor and conducted in accordance with ASTM D5519, Test Method A.

b. Perform a formal gradation testing on samples selected in the presence of the Contracting Officer or delegated representative. Testing may be performed by the Contractor, subject to approval by the Contracting Officer or delegated representative. Testing must be supervised by a California registered Civil Engineer or geologist, experienced in rock gradation testing.

c. Plot the gradation results on gradation curves, all data points representative of the stone must be between the boundary limits, as defined by smooth curves drawn through specified grading limits and plotted on a mechanical analysis diagram. The individual grading curves must not exhibit abrupt changes in slope, denoting skip-grading or scalping of certain sizes. If gradation test results show that stone does not meet the required gradation, the hauling and/or barging and placement operations will be stopped immediately and will not resume until processing procedures are adjusted and a passing gradation test is completed, showing that gradation requirements are met.

2.1.7.4 Stone Gradation Reports

Submit Stone Gradation Reports for the initial gradation tests. Submit stone gradation reports following gradation testing performed at the direction of the Contracting Officer or delegated representative. The stone test gradation reports contain the following:

a. Date of test and sample location.

b. Size of sample in pounds and, where applicable, dimensions of the area sampled.

c. The greatest dimension and least dimension, of each stone larger than 36 inches or 2 tons, if the stone is determined to be elongated, with an aspect ratio of 1:1.5 based on visual estimates.

d. Weight of material not measured in c) above.

e. Weight of each stone larger than 36 inches or 2 tons.

f. Gradation plot.

g. The type of stone gradation class tested (i.e. A-15 Armor stone)

h. Calculate the percent by weight of stone with a greatest dimension of 2-1/2 or more times the least dimension.

2.1.7.5 Gradation of A-18 Armor Stone

New armor stone is required for the repair of portions of the existing armor layer on the north jetty and south jetty. A-18 armor stone must be quarried, angular stone reasonably well distributed within the limits specified below.

Weight of Individual Pieces (ton)	Percent Smaller (by weight)
20	80-100
18	30-80
15	5-30
3	0-5

The following A-18 armor stone table provides the required weights of individual armor stones in tons of 2,000 pounds based upon the unit weight per cubic foot of acceptable stone furnished. Procured jetty stone with a unit weight different than what is provided on the following table is acceptable as long as the minimum unit weight listed on the gradation tables and stone requirements outlined in this specification are met.

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
165	3	15	18	20	6.0
166	3	15	18	20	5.9
167	3	14	17	19	5.9
168	3	14	17	19	5.8
169	3	14	17	19	5.8
170	3	13	16	18	5.7
171	3	13	16	18	5.7
172	3	13	16	18	5.6

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
173	3	13	15	17	5.5
174	3	13	15	17	5.5
175	3	13	15	17	5.4
176	2	12	14	16	5.4
177	2	12	14	16	5.4
178	2	12	14	16	5.3
179	2	12	14	16	5.3
180	2	11	13	14	5.2
181	2	11	13	14	5.2
182	2	11	13	14	5.1
183	2	11	13	14	5.1
184	2	10	12	13	5.0
185	2	10	12	13	5.0
186	2	10	12	13	5.0
187	2	10	12	13	4.9
188	2	9	11	12	4.9
189	2	9	11	12	4.8
190	2	9	11	12	4.8
191	2	9	11	12	4.8
192	2	9	11	12	4.7
193	2	8	10	11	4.7
194	2	8	10	11	4.7
195	2	8	10	11	4.6
196	2	8	10	11	4.6

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
197	2	8	10	11	4.5
198	2	8	10	11	4.5
199	2	8	9	10	4.5
200	2	8	9	10	4.4

2.1.7.6 Gradation of A-15 Armor Stone

New armor stone is required for the repair of portions of the existing armor layer on the north jetty and south jetty. A-15 armor stone must be quarried, angular stone reasonably well distributed within the limits specified below.

Weight of Individual Pieces (ton)	Percent Smaller (by weight)
18	80-100
15	30-80
12	5-30
3	0-5

The following A-15 armor stone table provides the required weights of individual armor stones in tons of 2,000 pounds based upon the unit weight per cubic foot of acceptable stone furnished. Procured jetty stone with a unit weight different than what is provided on the following table is acceptable as long as the minimum unit weight listed on the gradation tables and stone requirements outlined in this specification are met.

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
165	3	12	15	18	5.6
166	3	12	15	18	5.5
167	3	11	14	16	5.5
168	3	11	14	16	5.4
169	3	11	14	16	5.4

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
170	3	10	13	15	5.3
171	3	10	13	15	5.3
172	3	10	13	15	5.2
173	3	10	13	15	5.2
174	2	10	12	14	5.1
175	2	10	12	14	5.1
176	2	10	12	14	5.0
177	2	10	12	14	5.0
178	2	9	11	13	5.0
179	2	9	11	13	4.9
180	2	9	11	13	4.9
181	2	9	11	13	4.8
182	2	8	10	12	4.8
183	2	8	10	12	4.7
184	2	8	10	12	4.7
185	2	8	10	12	4.7
186	2	8	10	12	4.6
187	2	8	10	12	4.6
188	2	7	9	11	4.6
189	2	7	9	11	4.5
190	2	7	9	11	4.5
191	2	7	9	11	4.4
192	2	7	9	11	4.4
193	2	7	9	11	4.4

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
194	2	6	8	9	4.3
195	2	6	8	9	4.3
196	2	6	8	9	4.3
197	2	6	8	9	4.2
198	2	6	8	9	4.2
199	2	6	8	9	4.2
200	2	6	8	9	4.2

2.1.7.7 Gradation of A-7 Armor Stone

A-7 armor stone must be quarried, angular stone reasonably well distributed within the limits specified below.

Weight of Individual Pieces (ton)	Percent Smaller (by weight)
10	80-100
7	30-80
4	5-30
2	0-5

The following A-7 armor stone table provides the required weights of individual armor stones in tons of 2,000 pounds based upon the unit weight per cubic foot of acceptable stone furnished. Procured jetty stone with a unit weight different than what is provided on the following table is acceptable as long as the minimum unit weight listed on the gradation tables and stone requirements outlined in this specification are met.

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
165	2	4	7	10	4.4
166	1	4	7	10	4.3
167	1	4	7	10	4.3

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
168	1	4	7	10	4.3
169	1	4	7	10	4.2
170	1	4	7	10	4.2
171	1	4	7	10	4.1
172	1	3	6	9	4.1
173	1	3	6	9	4.1
174	1	3	6	9	4.0
175	1	3	6	9	4.0
176	1	3	6	9	4.0
177	1	3	6	9	3.9
178	1	3	6	9	3.9
179	1	3	6	9	3.9
180	1	3	6	9	3.8
181	1	3	5	7	3.8
182	1	3	5	7	3.8
183	1	3	5	7	3.7
184	1	3	5	7	3.7
185	1	3	5	7	3.7
186	1	3	5	7	3.6
187	1	3	5	7	3.6
188	1	3	5	7	3.6
189	1	3	5	7	3.5
190	1	3	5	7	3.5
191	1	3	5	7	3.5

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
192	1	2	4	6	3.5
193	1	2	4	6	3.4
194	1	2	4	6	3.4
195	1	2	4	6	3.4
196	1	2	4	6	3.4
197	1	2	4	6	3.3
198	1	2	4	6	3.3
199	1	2	4	6	3.3
200	1	2	4	6	3.3

2.1.7.8 Gradation of A-4 Armor Stone

A-4 armor stone must be quarried, angular stone reasonably well distributed within the limits specified below.

Weight of Individual Pieces (ton)	Percent Smaller (by weight)
7	100
5	50-80
3	30-50
1	0-5

The following A-4 armor stone table provides the required weights of individual armor stones in tons of 2,000 pounds based upon the unit weight per cubic foot of acceptable stone furnished. Procured jetty stone with a unit weight different than what is provided on the following table is acceptable as long as the minimum unit weight listed on the gradation tables and stone requirements outlined in this specification are met

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
165	1	3	5	7	3.3

Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
166	1	3	5	7	3.3
167	1	3	5	7	3.2
168	1	3	5	7	3.2
169	1	3	5	7	3.2
170	1	3	5	7	3.2
171	1	3	5	7	3.1
172	1	3	5	7	3.1
173	1	3	5	7	3.1
174	1	3	5	7	3.0
175	1	3	5	7	3.0
176	1	3	5	7	3.0
177	1	3	5	7	3.0
178	1	3	5	7	2.9
179	1	3	5	7	2.9
180	1	3	5	7	2.9
181	1	3	5	7	2.9
182	1	3	5	7	2.8
183	1	3	5	7	2.8
184	0.7	2	3	5	2.8
185	0.7	2	3	5	2.8
186	0.7	2	3	5	2.7
187	0.7	2	3	5	2.7
188	0.7	2	3	5	2.7
189	0.7	2	3	5	2.7

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Stone Unit Weight (pcf)	0% to 5% (by total quantity wt. shown in tons)	5% to 30% (by total quantity wt. shown in tons)	30% to 80% (by total quantity wt. shown in tons)	80% to 100% (by total quantity wt. shown in tons)	D50 (ft)
190	0.7	2	3	5	2.7
191	0.7	2	3	5	2.6
192	0.7	2	3	5	2.6
193	0.7	2	3	5	2.6
194	0.7	2	3	5	2.6
195	0.7	2	3	5	2.6
196	0.7	2	3	5	2.5
197	0.7	2	3	5	2.5
198	0.7	2	3	5	2.5
199	0.7	2	3	5	2.5
200	0.7	2	3	5	2.5

2.1.7.9 Weight Verification

Provide a visual sample palette that is representative of the weight distribution amongst all of the stone gradation classes required in the specifications. This sample palette must be located on the project site and be visible to aid the Contracting Officer or delegated representative in determining the onsite gradation of stone during continuous Quality Assurance Inspections. Mark each stone with its measured weight in tons such that the marked weight of every stone is clearly visible.

2.1.7.10 Gradation of Existing Stones

North Jetty Gradation:

Station	Armor Stone Range	Weight (ton)
54+68	7 to 12 tons	9
53+75	3 to 6 tons	9
53+25	3 to 6 tons	4.5
52+75	3 to 6 tons	4.5
52+50	3 to 6 tons	4.5

Station	Armor Stone Range	Weight (ton)
49+80	1 to 2 tons	1.5
48+39	50 lbs to 2 tons	1.5
46+75	50 lbs to 2 tons	1.5
39+34	50 to 1500 lbs	1.5

South Jetty Gradation:

Station	Armor Stone Range	Weight (ton)
25+54	7 to 12 tons	9
25+00	3 to 12 tons	9
24+75	3 to 12 tons	4.5
20+40	500 lbs to 6 tons	4.5
12+48	50 lbs to 2 tons	N/A

2.1.8 Rejected Stone

New stone of unsuitable quality and/or size distribution, as required by these specifications, will be rejected. Any rejected stone must be promptly removed from the project at no expense to the Government. Any portions of the work covered by these specifications containing rejected stone will be considered incomplete.

PART 3 EXECUTION

3.1 CONSTRUCTION PLAN

Submit a Construction Plan indicating the methods and equipment proposed to conduct all construction related operations. Submit the plan to the Contracting Officer or delegated representative for approval, at least 30 days prior to start of construction operations and also include, as a minimum, the following information:

- a. Project schedule showing the order of all rock placement operations, and the anticipated dates of completion of the salient features of the work. Submit the project schedule and progress updates in accordance with Section 01 32 01.00 10 PROJECT SCHEDULE.
- b. Layout of all cranes, vessels, barges, buoys, anchors, and ancillary equipment.
- c. Staging area layout and operation.
- d. Method and equipment for transporting and placing material at the work site, and equipment that will be utilized on the work site.

- e. All barge names, dimensions, and capacities.
- f. Methods for access, i.e. roads, water access, and any excavation required.
- g. Lighting plan for night work.
- h. A copy of the Daily Report Form to be used for construction operations.

3.1.1 Aids to Navigation

Submit shop drawings of the aids to navigation for the North and South jetties.

3.2 MOBILIZATION AND DEMOBILIZATION

Mobilization and demobilization includes (but is not limited to) transporting all land and marine plant and items of attendant equipment to the work site, Contractor's staging area preparation, protection of existing facilities, repair to any facilities damaged, Contractor furnished boat access, as-built drawings, and obtaining and complying with all permits (local, state, federal). Upon completion of all phases of the work, remove the plant and equipment from the site.

3.3 STONE DELIVERY

3.3.1 Waybills and Delivery Tickets for Truck or Rail Transport

Submit copies of delivery tickets during the progress of the work. Furnish scale tickets for each load of material weighed. Include tare weight, identification mark of each vehicle weighed, date, time, and location of the loading. Furnish a master log of all vehicle loading for each day of loading operation. Submit the master log of loadings, certified waybills and/or certified tickets as part of the Daily Report of Operations. For each progress payment request, furnish written certification that the material recorded on the submitted certified tickets was actually used in the construction covered by the Contract.

3.3.2 Scale Tickets and Records for Barge Transportation

Submit copies of Scale Tickets and/or Records of Weights, including displacement weight date, for each load of stone delivered to the site. Load each barge with only one gradation class. Prior to the commencement of work, submit the barge physical dimensions and weights and barge volume displacement charts for each barge intended for use for approval. The displacement chart(s) for each barge must be certified by a marine surveyor or naval architect (naval architecture analysis) within the previous five years. With each scale ticket and/or record include the gross, rate, dunnage, and net weight of stone. The weight of dunnage for each load will be determined, recorded, and certified by the Contracting Officer or delegated representative. The deliveries and numbered scale tickets and/or records must be recorded on an approved system to maintain delivery control. Copies of scale tickets and/or records must accompany each load of stone and a copy be submitted as part of the Daily Report of Operations.

3.3.3 Stockpiling

Keep from excessive stockpiling of stone within the Contractor's staging and storage area. Only maintain sufficient quantity of stone to allow placement work to continue with limited or no downtime. Stockpiling of stone is allowed prior to start of the jetty repair work.

3.4 PLACEMENT OF STONE

3.4.1 Unsatisfactory Materials

Unsatisfactory materials include timbers, rubble concrete, refuse or other discarded marine equipment. Remove all unsatisfactory materials within the reaches for construction, unless otherwise directed. Dispose all materials in accordance with the requirements of Section 01 57 19 TEMPORARY ENVIRONMENTAL CONTROLS, including any applicable local requirements.

3.4.2 Armor Stone

Place armor stone in the locations and at the thickness shown without deviating from the lines and grades shown. Perform final shaping of the slope concurrently with the initial placement of the stone. Select stones and set in contact with each other so that the interstices between adjacent stones is as small as the character of the stone will permit. Interlock stones with adjacent stones by rotating and setting them for maximum contact based on their angular shapes. Face to face contacts are required between a stone and adjacent stones. The long axis of each stone must be perpendicular to the axis of the structure and slope downward toward the center of the structure. Begin placement at the bottom of the slope. Place stones in a manner to avoid displacing underlying materials or placing undue impact force on underlying material that would cause the breaking of stones. Dropping of armor stone is not permitted. The equipment used in placing the stone must be suitable for handling materials of the sizes required including the ability to place the stone over its final position before release and if necessary pick up and reposition the stone. Dragline buckets and skips are not permitted for placement of armor stone. Moving stone by drifting or manipulating down the slope is not permitted. The finished work must be a well distributed mass, free of pockets of either smaller or larger stone, having a minimum of voids and with the maximum interlocking of stones.

3.4.3 Reset Existing Stone

The work consists of moving and resetting existing stone on the seaward side, channel side, and crest of the structures. "Existing Stone" is defined as stone that varies between approximately 5 to 25 tons. Existing stone smaller than 5 tons is considered an incidental part of the work. Remove, salvage, and reset existing stone as needed to achieve the required interlocking with newly placed stone. Move and reset existing stone in accordance with the applicable portions of paragraph, Armor Stone. Temporary storage may be necessary between lifting and final placing. All reset stone must meet the same placement requirements as new stone. A stone that breaks or splits or shatters during handling is considered a rejected stone and is to be removed from the site at the Contractor's expense. Dropping of stone is not permitted. Existing stones are exempt from all quality or proportion or gradation requirements in this specification.

3.4.4 Use of Barges Near the Jetties

There could be rocks underwater near the North and South jetties. The contractor must exercise caution when using barge spuds near the jetties.

3.4.5 Placement of Toe Stone

Refer to the typical toe stone placement detail in the drawings. All placed toe stone must weigh the 40% to 60% gradation or greater for each stone type. Firmly key in toe stone with existing and new armor stone ensuring face to face contact with adjacent stones, and not face to point or point to point contact. The toe stone must be well seated and securely placed within the existing jetty surface by embedding the new toe stone a half stone dimension below the existing jetty surface. Place toe stone to take advantage of the tides as much as possible to provide the greatest visibility of the completed jetty toe and tie-in to the existing jetty slope. Depths of toe stone placement vary. Efforts must be taken to achieve a side slope as close to design side slopes as possible. Survey each toe stone and submit the x,y,z coordinates

3.4.6 Spotter

Utilize at least one spotter for each piece of placement equipment to aid in stone placement at all times except for times when unsafe working conditions exist. The spotters and stone placement operator must maintain visual and radio contact during placing operations. The spotter must be physically capable of working on the jetty and must have experience working in the marine environment. Spotters must be trained and familiar with survey equipment and grade checking to verify real-time stone placement is within specified grade tolerances. All spotters must wear head protection rated ANSI Z89.1-2014 Type 1 Class C, when working on the jetty.

3.5 JETTY CREST HAUL ROAD

- a. Provide and maintain a jetty haul road on the jetty crest for travel on the jetty by trucks and equipment as required. The jetty haul road constructed by the Contractor must have sufficient quarry shotrock or road building material to prevent damage to the existing armor stone in areas not being repaired and protect new armor stone placed within the repair areas. Protect newly constructed areas of the jetty with haul road material, rubber mats, tires, or other approved devices prior to any equipment access. Construct the jetty crest haul road with two basic types of material:
 - (1) Large "chinking" stone to fill large voids in the jetty stone or to provide shoulder support.
 - (2) Smaller quarry material to provide a "driving" layer having sufficient thickness and strength to support heavy equipment and protect existing jetty stones.
- b. The haul road must have no more than 12 percent fines by weight (i.e. no more than 12 percent of the material passing the No. 200 U.S. Standard Sieve Size) as determined by ASTM C136/C136M or AASHTO T 27. Submit jetty crest haul road material sieve analysis test results at least 60 days prior to placing jetty crest haul road material.
- c. Locate and construct the jetty haul road in a manner to minimize

disturbance to the existing jetty grade/surface in areas outside of the repair limits. Existing jetty crest stone above the repair design elevation must remain in place unless stone needs to be moved to provide construction equipment access or appropriate installation of new jetty stone. Existing jetty stone that is moved must be used to fill the design template provided it meets applicable size and quality specifications, stone that does not meet size and/or quality specifications must be removed from the jetty and placed as directed by the COR. Evenly distribute any suitable displaced stone not used in the repair template or used to fill holes in the crest on the existing finished side slopes of the jetty and interlock as appropriate without disturbing the existing slope stone. Make appropriate provisions for placing a sufficient thickness of haul road material to provide for a level roadway. Jetty haul road material must not be placed on portions of the jetty requiring repairs until after repairs are completed, unless approved by the COR. Accomplish work in a manner that does not create unstable areas that can initiate a cascading slope failure. The haul road is not required to be removed at the end of the contract. Where turnouts are to be constructed, end dumping of stone is permitted but only after the underlying required cross section has been constructed to meet paragraph STONE PLACEMENT. Minimize the number of turnouts necessary to allow the construction operations to be carried out. All turnouts on the jetty constructed by the Contractor must be removed by the end of the Contract.

- d. Install reflective markers along the jetty crest haul road every 50 feet so equipment operators have visibility of the haul road during all weather conditions.

-- End of Section --

Attachments to 01 33 00

SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION

Moss Landing Jetty Repair Project

CONTRACTOR

ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION REVIEW WORK	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY				MAILED TO CONTR/	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01 11 00	SD-01 Preconstruction Submittals														
			Surveying Equipment	3.1.2	G												
		01 14 00	SD-01 Preconstruction Submittals														
			List of Contact Personnel	1.2.1													
		01 22 00	SD-01 Preconstruction Submittals														
			Scale Certification	1.3.1.2	G												
		01 30 00	SD-01 Preconstruction Submittals														
			View Location Map	1.2													
		01 32 01.00 10	SD-01 Preconstruction Submittals														
			Preliminary Project Schedule	3.4.1	G												
			Initial Project Schedule	3.3.4	G												
			Periodic Schedule Updates	3.2.2	G												
			Project Scheduler Qualifications	1.3	G												
		01 33 00	SD-01 Preconstruction Submittals														
			Submittal Register	1.8	G												
		01 35 26	SD-01 Preconstruction Submittals														
			Accident Prevention Plan (APP)	1.7	G												
			SD-06 Test Reports														
			Monthly Exposure Report	1.4													
			Notifications and Reports	1.12													
			Accident Reports	1.12.2	G												
			LHE Inspection Reports	1.12.3													
			SD-07 Certificates														
			Crane Operators/Riggers	1.6.1.4													
			Standard Lift Plan	1.7.2.2	G												
			Critical Lift Plan	1.7.2.3	G												

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						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01 35 26	Activity Hazard Analysis (AHA)	1.8													
			Certificate Of Compliance	1.12.4													
		01 45 00.00 10	SD-01 Preconstruction Submittals														
			Contractor Quality Control(CQC) Plan	3.2	G												
		01 50 00	SD-01 Preconstruction Submittals														
			Construction Site Plan	1.3	G												
			Traffic Control Plan	3.4.1	G												
			Haul Road Plan	2.2.1	G												
		01 57 19	SD-01 Preconstruction Submittals														
			Stormwater Pollution Prevention Plan	3.2.1.1	G												
			Stormwater Notice of Intent	3.2.1.2	G												
			Spill Prevention and Control Plan	1.8.10	G												
			Environmental Protection Plan	1.8	G												
			Environmental Manager Qualifications	1.7.4	G												
			Preconstruction Survey	1.7.1													
			Erosion And Sediment Control	1.7.5													
			Inspector Certification														
			Letter Of Acknowledgement	1.9													
			SD-06 Test Reports														
			Laboratory Analysis	3.7.1.1.2													
			Inspection Reports	3.2.1.3													
			Monthly Solid Waste Disposal Report	1.11.1													

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						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION	DATE RCD FROM CONTR	DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION	DATE RCD FRM APPR AUTH	
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01 57 19	SD-07 Certificates														
			Employee Training Records	1.7.5	G												
			SD-11 Closeout Submittals														
			Waste Determination	3.7.1	G												
			Documentation														
			Disposal Documentation for	3.7.3.6	G												
			Hazardous and Regulated Waste														
			Waste Disposal Documentation	3.7.2.1	G												
			Report														
			As-Built Topographic Survey	3.2.1.5													
			Stormwater Pollution Prevention	3.2.1.4	G												
			Plan Compliance Notebook														
			Stormwater Notice of Termination	3.2.1.5	G												
			Regulatory Notifications	1.7.2	G												
		01 57 19.13 43	SD-01 Preconstruction Submittals														
			Biological Monitor Qualifications	1.3	G												
			Biological Monitoring Plan	3.1.1	G												
			SD-06 Test Reports														
			Data Sheet	3.1.1													
			SD-11 Closeout Submittals														
			Marine Mammal Reports	3.1.2	G												
		01 58 00	SD-02 Shop Drawings														
			Sign Legend Orders	1.2.1	G												
		01 78 00	SD-11 Closeout Submittals														
			As-Built Drawings	3.1	G												
		03 31 30	SD-01 Preconstruction Submittals														

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Moss Landing Jetty Repair Project

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ACTIVITY NO	TRANSMITTAL NO	SPEC SECT	DESCRIPTION ITEM SUBMITTED	PARAGRAPH	GOVT CLASSIFICATION OR A/E REVIEWER	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/ DATE RCD FROM CONTR	APPROVING AUTHORITY				MAILED TO CONTR/ DATE RCD FRM APPR AUTH	REMARKS
						SUBMIT	APPROVAL NEEDED BY	MATERIAL NEEDED BY	ACTION CODE	DATE OF ACTION		DATE FWD TO OTHER REVIEWER	DATE RCD FROM OTH REVIEWER	ACTION CODE	DATE OF ACTION		
(a)	(b)	(c)	(d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		03 31 30	Concrete Curing Plan	1.8.2.2													
			Concrete Qualification Program	1.7.4	G												
			Concrete Quality Control Program	1.6	G												
			Concrete Placement and Compaction	1.8.2.4													
			Curing Concrete Elements	1.8.2.1													
			Form Removal Schedule	1.8.2.3													
			Laboratory Qualifications	1.6.2	G												
			Quality Control Personnel Qualifications;	1.6.1	G												
			SD-02 Shop Drawings														
			Formwork	1.8.1.1													
			SD-03 Product Data														
			Aggregates	1.8.5.2	G												
			SD-05 Design Data														
			Concrete Mixture Requirements	1.8.5.1	G												
			Mixture Designs	1.8.2.7													
			SD-06 Test Reports														
			Aggregates	1.8.5.2													
			Cement	1.8.5.3													
			Concrete Mixture Proportions	1.7.1													
			Concrete Test Reports	1.8.5													
			Fresh Concrete Properties	1.7.4.1													
			Hardened Concrete Properties	1.7.4.2													
			Water	2.3													
			SD-07 Certificates														

CONTRACT NO.

TITLE AND LOCATION

Moss Landing Jetty Repair Project

CONTRACTOR

[illegible]

Attachments to Section 01 35 26

Attachment 1

Worker's Compensation Claims

SOLICITATION

WORKER'S COMPENSATION CLAIMS
(EM385-1-1, Section 2)

Issuing Office: CESP-ET-CO-SF

Contract Name: _____

Date: _____

Contract No. _____

Contract Completion: ☐ 50%

☐ 100%

Contractor:

☐

PRIME TIME:

☐

SUB NAME:

LISTINGS OF CLAIMS

NONE ☐

1. _____

2. _____

3. _____

4. _____

CERTIFIED BY (Compensation Insurance Carrier):

CLARIFICATION: Above listing is true and correct to the best of my knowledge.

SIGNED: _____

Title

***** SAFETY PAYS*****

SOLICITATION

Attachment 2

**SUMMARY GUIDE FOR COMPLETING USACE CONTRACTOR MONTHLY
SUMMARY RECORD OF INJURIES/ILLNESSES & WORK HOUR EXPOSURE
(SAFETY EXPOSURE REPORT)**

SOLICITATION

Summary Guide for Completing USACE Contractor Monthly Summary Record of Injuries/Illnesses & Work Hour Exposure

In accordance with the provisions of EM 385-1-1, Section 01 Program Management, Paragraph 01.D Accident Reporting and Recording, sub-paragraphs 01.D.05, you (the Prime Contractor) shall provide a monthly record of all exposure and accident experience incidental to the work (this includes exposure and accident experience of the Prime Contractor and its sub-contractor(s)). At a minimum, these records shall include exposure work hours and a record of occupational injuries and illnesses that include the data elements listed below. Definitional criteria for each data element is found in 29 CFR Part 1904. Most of this information can be obtained from the Contractor's OSHA 300 Log.

If the Contractor injuries/illnesses and/or work hour exposure changes after the record is submitted to USACE, Contractor shall provide a revised report to the GDA. In addition, the contractor must complete the USACE ENG Form 3394, Report of Accident Investigation for all recordable accidents. Definitions for recordable accidents are the same as found in 29 CFR Part 1904 and provided below. This monthly report shall be submitted to the GDA within the time limit and in a manner (electronic, hardcopy) established by the GDA. Unless otherwise specified by the GDA, this form shall be submitted by close of business on the 10th day of the following month.

How do I determine the Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) code for the prime, sub, and supply contractors?

You determine the SIC code by using the Standard Industrial Classification Manual and the the NAIC code by using the North American Industry Classification System Manual. Both codes are products of the Executive Office of the President, Office of Management and Budget. You may contact your nearest OSHA office or State agency for help in determining your SIC or NAIC code.

Recordable Injuries/Illness which must be included in the Record

Contractor must keep records of fatalities, injuries, and illnesses that are:

- Work related

- New case

- Meet 1 or more of the recording requirements listed below:

 - Death

 - Days away from Work after the date of injury

 - Restricted work or transfer to another job

 - Medical Treatment beyond first aid

 - Loss of consciousness

Needlestick injuries and cuts from sharps that are contaminated with another person's blood or other potentially infectious material.

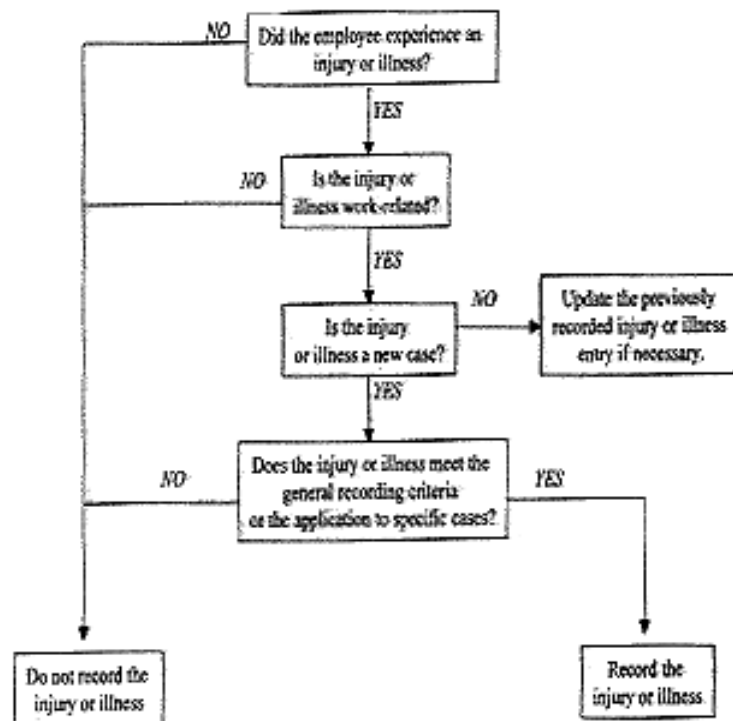
Medical removal under medical surveillance requirements of an OSHA Standard

Occupational hearing loss if the employee has experienced a work-related STS in hearing in one or both ears and the employee's total hearing level is 25 dB or more above audiometric zero in same ear(s) as the STS.

Work-related tuberculosis Cases

How do I decide whether a particular injury or illness is recordable?

The decision tree for recording work-related injuries and illnesses below shows the steps involved in making this determination.



When is an injury/illness considered work-related?

An injury/illness is considered work-related if an event or exposure in the work environment caused or contributed to the condition or significantly aggravated a preexisting condition. Work relatedness is presumed for injuries and illnesses resulting from events or exposures occurring in the workplace, unless an exception specifically applies. See 29 CFR Part 1904.5(b)(2) for exceptions.

Land Based Activities

The work environment for USACE contractors is defined as the physical location of the project site(s).

Marine Activities

For marine activity accident reporting only, the contractor's responsibility for reporting work-related accidents extends to the following personnel and equipment:

1. Prime Contractor and subcontractor personnel and equipment (P&E) performing work in direct support of the contracted activity. This includes:
 - a. Contractor P&E that have reported on-station in a contract-defined work area to begin work under project-funded pay or subcontract status.
 - b. Contractor P&E at all sites leased or used during contract work for storage, staging, anchorage, transiting, or deposit of materials.
 - c. Contractor P&E during mobilization or demobilization under terms of the contract.
2. Service and supply vendors when they come under the direct operational control of a prime or subcontractor vessel master or project superintendent, such as:
 - a. When making final approach to make up to Contractor vessels/plant
 - b. While their vessels are made up to Contractor vessels, structures, or equipment.
 - c. During delivery of materials or on-board a vessel.
 - d. When casting off and navigating away from Contractor vessels/plant.

What is medical treatment?

Medical treatment includes managing and caring for a patient for the purpose of combating disease or disorder. The following are not considered medical treatments and are NOT recordable:

Visits to a doctor or health care professional solely for observation or counseling;
Diagnosis procedures, including administering prescription medications that are used solely for diagnostic purposes; and
Any procedure that can be labeled first aid.

What is First Aid?

First aid means only those treatments specifically listed in 1904.7. They are:

Using non-prescription medication at non-prescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes);

Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment);

Cleaning, flushing or soaking wounds on the surface of the skin;

Using wound coverings such as bandages, Band-Aids™, gauze pads, etc.; or using butterfly bandages or Steri-Strips™ (other wound closing devices such as sutures, staples, etc., are considered medical treatment);

Using hot or cold therapy;

Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes);

Using temporary immobilization devices while transporting an accident victim (*e.g.*, splints, slings, neck collars, back boards, etc.).

Drilling of a fingernail or toenail to relieve pressure, or draining fluid from a blister;

Using eye patches;

Removing foreign bodies from the eye using only irrigation or a cotton swab;

Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs or other simple means;

Using finger guards;

Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes); or

Drinking fluids for relief of heat stress.

How do you decide if the case involved restricted work?

Restricted work activity occurs when, as the result of a work-related injury/illness, an employer or health care professional keeps, or recommends keeping, an employee from doing the routine functions of his or her job or from working the full workday that the employee would have been scheduled to work before the injury or illness occurred.

How do you count the number of days of restricted work activity on the number of days away from work?

Count the number of CALENDAR days the employee was on restricted work activity or was away from work as a result of the recordable injury/illness. Do not count the day on which the injury/illness occurred in this number. Begin counting days from the day after the incident occurs. If a single injury/illness involving both days away from work and days of restricted work activity, enter the total number of days for each. You may stop counting days of restricted work activity or days away from work once the total of either or the combination of both reaches 180 days.

What if the outcome changes after the record is submitted to the GDA?

If the outcome or extent of injury/illness changes after the record has been submitted to the GDA, the record should be revised and resubmitted to the GDA on or before the date the subsequent monthly record is to be submitted.

What is an Injury?

An injury is any wound or damage to the body resulting from an event in the work environment.

Examples: Cuts, puncture, laceration, abrasion, fracture, bruise, contusion, chipped tooth, amputation, insect bite, electrocution, or a thermal, chemical, electrical, or radiation burn. Sprain and strain injuries to muscles, joints, and connective tissues are classified as injuries when they result from a slip, trip, fall or other similar accidents.

What is an Illness?

Skin diseases or disorders

Skin diseases or disorders are illnesses involving the worker's skin that are caused by work exposure to chemicals, plants, or other substances.

Examples: Contact dermatitis, eczema, or rash caused by primary irritants and sensitizers or poisonous plants; oil acne; friction blisters, chrome ulcers; inflammation of the skin.

Respiratory conditions

Respiratory conditions are illnesses associated with breathing hazardous biological agents, chemicals, dust, gases, vapors, or fumes at work.

Examples: Silicosis, asbestosis, pneumonitis, pharyngitis, rhinitis, or acute congestion; farmer's lung, beryllium disease, tuberculosis, occupational asthma, reactive airways dysfunction syndrome (RADS), chronic obstructive pulmonary disease (COPD), hypersensitivity pneumonitis, toxic inhalation injury, such as metal fume fever, chronic obstructive bronchitis, and other pneumoconiosis.

Poisoning

Poisoning includes disorders evidenced by abnormal concentrations of toxic substances in blood, other tissues, other bodily fluids, or the breath that are caused by the ingestion or absorption of toxic substances into the body.

Examples: Poisoning by lead, mercury, cadmium, arsenic, or other metals; poisoning by carbon monoxide, hydrogen sulfide, or other gases; poisoning by benzene, benzol, carbon tetrachloride, or other organic solvents; poisoning by insecticide sprays, such as parathion or lead arsenate; poisoning by other chemicals, such as formaldehyde.

Hearing loss

Noise-induced hearing loss is defined for recordkeeping purposes as a change in hearing threshold relative to the baseline audiogram of an average of 10 dB or more in either ear at 2,000, 3,000, and 4,000 hertz, and the employee's totally hearing level is 25 decibels (dB) or more above audiometric zero (also averaged at 2,000, 3,000, and 4,000 hertz) in the same ear(s).

All other illnesses

All other occupational illnesses.

Examples: Heatstroke, sunstroke, heat exhaustion, heat stress and other effects of environmental heat; freezing, frostbite, and other effects of exposure to low temperatures; decompression sickness; effects of ionizing radiation (isotopes, x-rays, radium); effects of nonionizing radiation (welding flash, ultra-violet rays, lasers); anthrax; bloodborne pathogenic diseases, such as AIDS, HIV, hepatitis B or hepatitis C; brucellosis; malignant or benign tumors; histoplasmosis; coccidioidomycosis.

How do you determine the total hours worked by all employees?

Land Based Activities

Include hours prime and sub-contractor employees worked on the project work site by salaried, hourly, part-time, and seasonal workers, as well as hours worked by other workers subject to the day-to-day supervision by prime and sub-contractor employees (example: temporary help services workers). Also include the hours worked by supply contractor employees associated with materials, services, or equipment provided by suppliers (example: concrete supply drivers and helpers delivering concrete for placement on the work site, dump truck drivers while on site delivering or removing materials, other supply contractor employees who are performing an on-site service) while on the project work site.

Marine Activities

For marine activity reporting only, the contractor's responsibility for reporting work-related hours of exposure extends to the following personnel and equipment:

1. Prime Contractor and subcontractor personnel and equipment (P&E) performing work in direct support of the contracted activity. This includes:
 - a. Contractor P&E that have reported on-station in a contract-defined work area to begin work under project-funded pay or subcontract status.
 - b. Contractor P&E at all sites leased or used during contract work for storage, staging, anchorage, transiting, or deposit of materials.
 - c. Contractor P&E during mobilization or demobilization under terms of the contract.

2. Service and supply vendors when they come under the direct operational control of a prime or subcontractor vessel master or project superintendent, such as:
 - a. When making final approach to make up to Contractor vessels/plant.
 - b. While their vessels are made up to Contractor vessels, structures, or equipment.
 - c. During delivery of materials or on-board a vessel.
 - d. When casting off and navigating away from Contractor vessels/plant.

Do not include vacation, sick leave, holidays, or any other non-work time, even if employees were paid for it. If the contractor keeps records of only hours paid or if the contractor has employees who are not paid by the hour (salaried employees), estimate the hours that the employees actually worked on the project.

If this number isn't available, you can use this optional worksheet to estimate it.

Optional Worksheet

_____	Find the number of all prime and sub-contractor full-time employees on the project site as defined above for both land based and marine activities for the month.
X _____	Multiply by the number of work hours for a full-time employee in a month.
_____	This is the number of full-time hours worked.
+_____	Add the number of any overtime hours as well as the hours worked by other employees (part-time, temporary, seasonal, supply contractors, etc.)
_____	Round the answer to the next highest whole number. Write the rounded number in the Monthly Exposure Hours blank.

USACE Summary of Contractor Work-Related Injuries and Illnesses



Month Submitted
US Army Corps of Engineers

Year

Review the Record o verify that the entries are complete & accurate before completing this summary
Using the Record, count the individual entries you made for each category. Then write the totals
below, making sure you've added the entries from every page of the record. If you had no cases write
"0". This summary is a cumulative record of the injury/illness experience for the year

Number of Cases

Total number of deaths	Total number of cases with days away from work	Total number of cases with job transfer or restriction	Total number of other recordable cases
0	0	0	0
(G)	(H)	(I)	(J)

Number of Days

Total days of job transfer or restriction	Total days away from work
0	0
(K)	(L)

Injury and Illness Types

Total number of...	(1) Injury	(2) Skin Disorder	(3) Respiratory Condition	(4) Poisoning	(5) Hearing Loss	(6) All other illnesses
(M)	0	0	0	0	0	0

Establishment information

Establishment name

Street

City

State

Zip

Industry description (e.g., Manufacture of motor truck trailers)

Standard Industrial Classification (SIC), if known (e.g., SIC 3715)

or

North American Industrial Classification (NAICS) if known (e.g. 336212)

Employment information

Annual average number of employees

Total hours worked by all employees last year

USACE PRIME CONTRACTOR

Monthly Record of Work-Related Injuries/Illnesses & Exposure

in accordance with the provisions of EM 385-1-1, Section 01 Program Management, Paragraph 01.D Accident Reporting and Recording, sub-paragraphs 01.D.05, you (the Prime Contractor) shall provide a monthly record of all exposure and accident experience incidental to the work (this includes exposure and accident experience of the Prime Contractor and its sub-contractor(s)). As a minimum these records shall include exposure work hours and a record of occupational injuries and illnesses that include the data elements listed below. Definitional criteria for each data element is found in 29 CFR Part 1904. If the maintenance of OSHA 300 Logs are required by OSHA, most of this information can be obtained from those logs. If data on log provided below is revised after it is submitted to USACE, Contractor shall provide a revised report to the GDA. You must complete the USACE ENG Form 3394, Report of Accident Investigation Report for all recordable accidents. If you're not sure whether a case is recordable, call your local Safety and Occupational Health Office for help.

US Army Corps of Engineers

Month

Year

USACE Command
Contractor Name
Contract Number
Project Title
City
State
USACE Office Overseeing Work

[illegible]

Attachments to 01 58 00

It is the policy of the Corps to operate and maintain jetties, groins, and breakwaters to aid navigation and to protect shorelines in a manner that does not enhance or encourage recreational or other public use unless a nonfederal entity has sponsored recreation.

Authority

As described in Engineer Pamphlet 1130-2-520, Chapter 3, Protection of Public Health and Safety at Jetties, Groins and Breakwaters, the Division Commander may select one of three alternative approaches as described in this section to meet minimum health and safety needs, including the placement of Danger, Restricted and Warning signs at Corps maintained jetties, groins and breakwaters. The determination of which alternative or combination of alternatives to select is based upon site-specific rationale.

Program Implementation

At each location, the district or project office should analyze and select one of the below listed alternative approaches to safety marking the area or structure.

No Action: This “do nothing” alternative provides the lower end of a range of options and may be appropriate for instances where the district considers that negligible safety hazards exist or public access is not readily provided.

Post Danger Signs: Under this alternative, Danger signs would be posted, regularly inspected and replaced as often as necessary to inform and alert the public of hazardous conditions related to the jetty, groin or breakwater. This alternative provides safety information for public visitors while not encouraging public use of these structures. Because recreational use of jetties, groins and breakwaters is normally not encouraged, this alternative should be carefully considered before being selected.

Deny Entry or Access: This alternative is to be employed normally. Consideration should be given to the extent of public use and determination of potential hazards. Installation of a fence, barricade or other suitable construction that precludes entry or access onto jetties, groins and breakwaters on an individual project basis, may be necessary in dealing with a particularly dangerous jetty, groin or breakwater.

Evaluation Criteria

Conditions at each structure will need to be evaluated on a site-by-site basis to determine what restrictions, warnings, or type of access may be allowed at a particular structure.

The evaluation of each structure should be carefully formulated against locally developed criteria. Once an approach is defined, a sign plan and appropriate controls and maintenance systems must be developed to implement and support the plan.

Listed below are criteria that may be used to determine what level of control is implemented at a location to restrict or allow access.

Restrict Access: Because these facilities were not built for recreational use, they do not include the standard provisions for public safety such as guardrails, wide or smooth walkways, or the availability of lifesaving equipment. To this end, access should be allowed only when the following conditions are not considered to be extreme.

a) Water subject to sudden rise and cresting over the structure during storm conditions.

b) Strong currents, violent turbulence or air-entrainment on either side of the structure would prohibit someone from treading water until they are rescued.

c) Dangerous breaks in the structure, sharp, unprotected drops, unsafe pavement, or possible slippery surface conditions.

d) Length of the structure is so long that safe egress under storm conditions is not possible.

e) Winter season access is unsafe because of icing, waves cresting over structure, or other hazardous environmental conditions.

f) Water above a normal level may dictate access limitations.

g) No nearby electronic communications, emergency medical services or related lifesaving equipment within a reasonable time or distance zone.

h) History of severe accidents on the structure that could be avoided if access were prohibited.

i) No local assistance provided for costs associated with recreation related uses of the structure.

Allow Access: Access to a structure is allowed only when it is determined to be appropriately safe for the general public. Listed below are the conditions under which public access may be allowed.

a) The adjacent water conditions are determined to be safe for use within the posted limitations and cautionary warnings.

b) Policed and managed by cost share sponsor.

c) Available for use within the posted recreation season.

d) Access allowed out to, but not beyond a certain point.

e) Structure has appropriate guardrails, safe walking surfaces and good maintenance of these systems as to not entrap the public or falsely create the appearance of safety.

f) Access to communications equipment and medical services within proximity to the structure.

Sign Types

The signs used to restrict access or identify a danger will follow Corps standards for white on red Danger and Restricted Area signs. The signs used to alert the public of a potential hazard will follow Corps standards for black on Lemon Yellow Warning signs. For a description of Safety Signs and their application, refer to page 2-13 through 2-16 of this manual.

Prohibition Symbol signs as specified in Section 8, may also be used when signing jetty and breakwater structures where appropriate.

Sign Format

Signs on jetties and breakwaters use the standard grid formats as shown in Section 7. The typeface is Helvetica Bold and follows Corps standard letter- and word-spacing, Appendix D, page D-9.

Aids to Navigation

It is the responsibility of the Coast Guard to properly mark all jetties, dikes, groins and breakwaters for navigation purposes.

All Corps safety signs used on or around jetties, groins and breakwaters are to be used in conjunction with the United States Coast Guard Aids to Navigation. Generally the signs placed by the Corps are intended for viewers approaching these structures from land, not water, and should not conflict with Aids to Navigation (see Section 15).

Weather and Vandalism

Signs mounted on structures are subject to accelerated wear and damage by harsh weather conditions and are frequently defaced through malicious acts. The design, selection of materials and mounting of these signs should be such that these problems will be minimized.

Maintenance

Once signs are placed on or around a navigation structure, they must be inspected and maintained on a routine schedule that minimizes the chance that the sign will be damaged beyond usefulness. For general maintenance planning and procedures refer to Appendix C.

Materials and Sign Fabrication

The materials generally specified for normal Corps recreation project signing may not be adequate because of harsh environmental or weather conditions or because of presence of excessive vandalism. Where these conditions require, alternate material specifications may be used. The fabrication and material specifications should use heavier gauge materials for both sign panel and posts with welded construction to overcome actions that destroy normal structures. Most sign faces that are defaced or destroyed can be resurfaced in the field at minimal cost. Although the initial cost will be higher for these types of installations, the long term benefits should outweigh this one-time investment.

Since jetty and breakwater signs are intended for pedestrian viewing, smaller panels that are less easily vandalized may be used, or where possible be mounted beyond the normal reach of visitors. The welded construction will limit access to mechanical hardware for purposes of tampering.

Placement

Place jetty or breakwater safety signs on the structure or in close visual proximity to the access point. The function is to identify dangerous conditions on or around the structures. The signs may be placed for viewing from land-side or water-side depending on viewers' approach and conditions identified. The sign is mounted on the bank facing away from the water's edge or as a double face sign mounted perpendicular to the bank. As a land-viewed sign, it is preferable that several smaller signs be placed closer to the viewer in series, instead of one overly large sign viewed from a greater distance.

Illustrated below is a schematic plan showing both an improved and an unimproved jetty, and an unconnected breakwater.

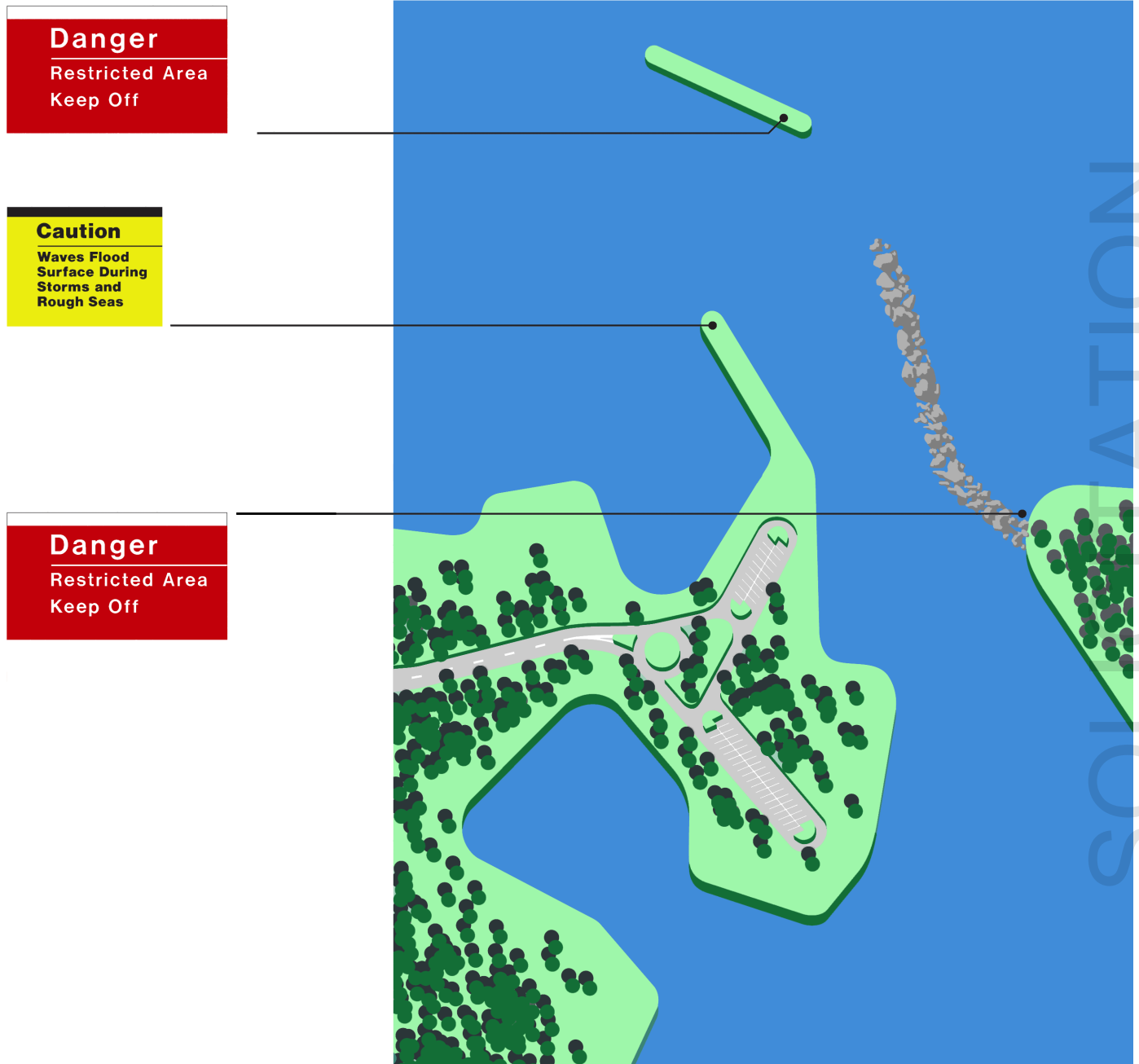
Access to the freestanding breakwater at the mouth of the harbor is not allowed,

and is appropriately marked around the perimeter with "Danger: Restricted Area, Keep Out" signs.

The jetty on the right is also designated as a restricted area, and has been signed accordingly because conditions on the

jetty are very unsafe.

The jetty extending out into the water on the left side of the diagram is adjacent to a state park and is considered safe enough for controlled recreational use during the recreation season.



If access is prohibited onto a structure for purposes of maintaining reasonable public safety, signs and appropriate fences and barricades may be limited to the structure's access points. Once public access has been restricted, all signage and physical barriers should be maintained. Shown below are the

various signs that may be used for this purpose. If the structure is too dangerous to allow access, the restrictive signs are Danger signs, not Warnings.

Signs are placed to clearly notify that access is not allowed. They should be sized for easy reading from an appropri-

ately safe distance. A sign that is undersized relative to viewing requirements may not be seen as needed. Conversely, an overly large sign can unnecessarily overwhelm an area. To properly size signs for a location, refer to the Viewing Distance Guide on page 2-6.

The sign background color is red retroreflective sheeting with white retroreflective legend, overbar and rule. Sign to use the standard grid formats as shown in Section 7.

The typeface for WDA-24 and WRE-24 below is Helvetica Bold and follows Corps standard letter- and word-spacing, Appendix D, page D-9.



WDA-24

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WDA-24	2"	32.25"x18"	Engineered	WTW-3/5/6	36"	RD/WH
WDA-24	3"	48.5"x27"	Engineered	WTW-3/5/6	36"	RD/WH

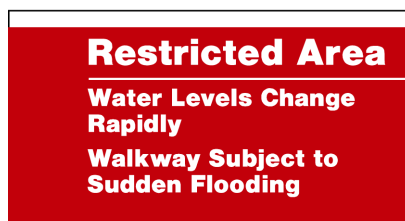
For viewing from water. For larger sizes refer to standard Grid 1 in Section 7.

The typeface for WDA-25 is Helvetica Medium and follows Corps standard letter- and word-spacing for waterway signs.



WDA-25

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WDA-25	2"	33"x19"	Engineered	WTW-3/5/6	36"	RD/WH
WDA-25	3"	49.5"x28.5"	Engineered	WTW-3/5/6	36"	RD/WH



WRE-24

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WRE-24	2"	46.625"x25"	Engineered	WTW-3/5/6	36"	RD/WH
WRE-24	3"	69.875"x37.5"	Engineered	WTW-3/5/6	36"	RD/WH

If the public is permitted to use a jetty or breakwater for recreation purposes, they are instructed that they are proceeding at their own risk (see 14-49). If the Corps allows public access, specific hazards or dangerous conditions must also be marked in such a way that the public is not endangered or unaware of the nature of the hazard-

ous condition. For this purpose, standard Corps Danger signs are provided in Section 7 and on pages 14-20 through 14-27 of this section. Additional Danger signs are shown below for use on jetties and breakwaters.

Some prohibitions may more appropriately be signed using Prohibition Symbol signs

(see Section 8), while only using the standard Danger signs where they are necessary.

Signs are sized for easy reading from an appropriately safe distance. To properly size signs for a location, refer to the Viewing Distance Guide on page 2-6.

The sign background color is red retroreflective sheeting with white retroreflective legend, overbar and rule. Sign to use the standard grid formats as shown in Section 7.

The typeface is Helvetica Bold and follows Corps standard letter- and word-spacing, Appendix D, page D-9.

These signs are intended for relatively short viewing distances. If a long structure is to be signed, use smaller signs more frequently rather than a few larger signs. Place an appropriate number of signs to adequately identify the hazard without over-signing the structure. However, balance is required because if there are too many signs, viewers may disregard the most important ones.

The Danger, Caution, and Warning signs used in this manual cannot be changed without HQUSACE approval. For all signs listed below, identical legends are approved as both Danger and Warning signs.

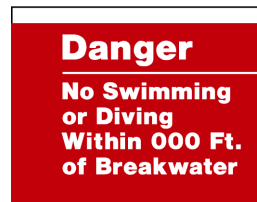
WDA-28 (right) and WWA-21 on page 14-50.

Determination of whether a Danger or Warning sign is to be used will be made by the project manager after considering the conditions and severity of the hazard. Please refer to the discussion of safety signs in Section 2, pages 2-13 through 2-15.



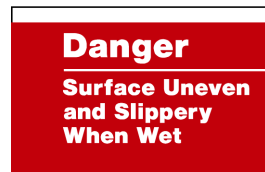
WDA-26

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WDA-26	2"	32.75"x23"	Engineered	WTW-3/5/6	36"	RD/WH
WDA-26	3"	49.125"x34.5"	Engineered	WTW-3/5/6	36"	RD/WH



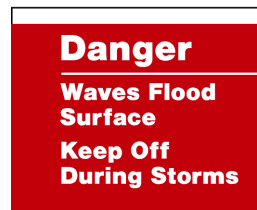
WDA-27

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WDA-27	2"	30.5"x24"	Engineered	WTW-3/5/6	36"	RD/WH
WDA-27	3"	45.75"x36"	Engineered	WTW-3/5/6	36"	RD/WH



WDA-28

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WDA-28	2"	32.75"x21"	Engineered	WTW-3/5/6	36"	RD/WH
WDA-28	3"	49.25"x31.5"	Engineered	WTW-3/5/6	36"	RD/WH



WDA-29

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WDA-29	2"	30.125"x25"	Engineered	WTW-3/5/6	36"	RD/WH
WDA-29	3"	45.125"x37.5"	Engineered	WTW-3/5/6	36"	RD/WH

At locations where public access is allowed, Warning or Caution signs are used on jetties and breakwaters to call attention to a potential hazard or a hazard capable of resulting in injury or damage. In some instances, the hazards may be those associated with Danger signs but

are of a significantly less magnitude to warrant only using a Warning sign.

Shown below are a group of Warning signs specified for use on jetties and breakwaters on a site specific basis.

Signs should be sized for easy reading from an appropriately safe distance. To properly size signs for a location, refer to the Viewing Distance Guide on page 2-6.

The sign background color is Lemon Yellow retroreflective sheeting with black nonreflective legend, overbar and rule. Sign to use the standard grid formats as shown in Section 7.

The typeface is Helvetica Bold and follows Corps standard letter- and word-spacing, Appendix D, page D.9.

For viewing from water. For larger sizes refer to waterway sign specifications on pages B. 13 through B. 13-13.

The Danger, Caution, and Warning signs used in this manual cannot be changed without HQUSACE approval. For all signs below, identical legends are approved as both Danger and Warning signs.

- WWA-21 (above) and sign WDA-28 on page 14-49.

- WWA-22 (right) and DNG-12 in Section 7.

- WWA-23 (below) and WDA-31 on page 14-21.

Determination of whether a Danger or Warning sign is to be used will be made by the project manager after considering the conditions and severity of the hazard. Please refer to the discussion of safety signs in Section 2, pages 2-13 through 2-15.



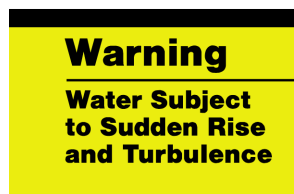
WWA-21

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-21	2"	32.75"x21"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-21	3"	49.125"x31.5"	Engineered	WTW-3/5/6	36"	LY/BK



WWA-22

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-22	2"	26.375"x26"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-22	3"	39.5"x39"	Engineered	WTW-3/5/6	36"	LY/BK



WWA-23

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-23	2"	32.375"x21"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-23	3"	48.5"x31.5"	Engineered	WTW-3/5/6	36"	LY/BK



WWA-24

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-24	2"	24.625"x21"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-24	3"	37"x31.5"	Engineered	WTW-3/5/6	36"	LY/BK

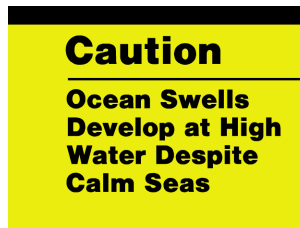
The sign background color is Lemon Yellow retroreflective sheeting with black nonreflective legend, overbar and rule. Sign to use the standard grid formats as shown in Section 7.

The typeface is Helvetica Bold and follows Corps standard letter- and word-spacing, Appendix D, page D.9.

The Danger, Caution, and Warning signs used in this manual cannot be changed without HQUSACE approval. For all cases below, identical legends are approved as both Danger and Warning signs.

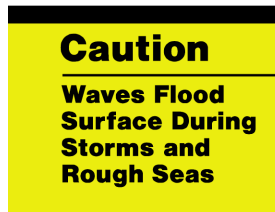
WWA-30 (right) and sign WDA-23 on page 14-21.

Determination of whether a Danger or Warning sign is to be used will be made by the project manager after considering the conditions and severity of the hazard. Please refer to the discussion of safety signs in Section 2, pages 2-13 through 2-15.



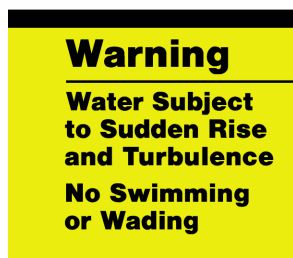
WWA-25

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-25	2"	32.5"x24"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-25	3"	48.75"x36"	Engineered	WTW-3/5/6	36"	LY/BK



WWA-26

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-26	2"	31.375"x24"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-26	3"	47"x36"	Engineered	WTW-3/5/6	36"	LY/BK



WWA-30

Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
WWA-30	2"	32.375"x28"	Engineered	WTW-3/5/6	36"	LY/BK
WWA-30	3"	48.5"x42"	Engineered	WTW-3/5/6	36"	LY/BK

Two symbols have been developed to communicate specific hazards of jetties and breakwaters. They have been formatted as slat signs or symbol signs. These signs may be placed near the entry to jetties or breakwaters.

The use of symbols in regions that contain diverse populations where multilingual barriers exist is an effective way of conveying a message and eliminates the need for separate signs for each language.

The sign background color is Lemon Yellow retroreflective sheeting with black nonreflective legend and symbol. Sign to use the standard grid formats for symbol and slat signs as shown in Section 8.

The typeface is Helvetica Bold and follows Corps standard letter- and word-spacing.



HS-001



HS-002

Deadly Waves at Any Time
HS-001



Jetty Unsafe for Walking
HS-002



The use of signs to identify Corps managed or supervised design, construction, and rehabilitation projects - both for military and civil works - is an important part of efforts to keep the public informed of Corps work. For this purpose, a construction project sign package has been adopted. This package consists of two signs: one for project identification and the other to show on-the-job safety performance of the contractor.

These two signs are to be displayed side by side and mounted for reading by passing viewers. Exact placement location will be designated by the contracting officer's representative.

The panel sizes and graphic formats have been standardized for visual consistency throughout all Corps operations.

Panels are fabricated using HDO plywood or aluminum with dimensional lumber uprights and bracing. The sign faces are nonreflective vinyl.

All legends are to be die-cut or computer-cut in the sizes and typefaces specified and applied to the white panel background following the graphic formats shown on pages 16-2 and 16-3. The Communication Red panel on the left side of the construction project sign with Corps Signature (reverse version) is screen-printed onto the white background.

A display of these two signs is shown on the following two pages. Mounting and fabrication details are provided on page 16-4.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Below are two samples of the Construction Project Identification sign showing how this panel is adaptable for use to identify either military (top) or civil works projects (bottom). The graphic format for this 4'x 6' sign panel follows the legend guidelines and layout as specified below. The large 4'x 4' section of the panel on the right is to be white with black legend. The 2'x 4' section of the sign on the left

with the full Corps Signature (reverse version) is to be screen-printed Communication Red on the white background. The designation of a sponsor in the area indicated is optional with Military or Civil Works construction signs. Signs may list one sponsoring entity. If agreement on a sponsor designation cannot be achieved, the area should be left blank.

This sign is to be placed with the Safety Performance sign shown on the following page. Mounting and fabrication details are provided on page 16-4.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Legend Group 1: One- to two-line description of Corps relationship to project.
Color: White
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

Legend Group 2: Division or District Name (optional). Placed below 10.5" reverse Signature (6" Castle).
Color: White
Typeface: 1.25" Helvetica Regular

Legend Group 2a: One- to three-line identification of Military or Civil Works sponsor (optional). Place below Corps Signature to cross-align with Group 5a-b.
Color: White
Typeface: 1.25" Helvetica Regular
Maximum line length: 19"

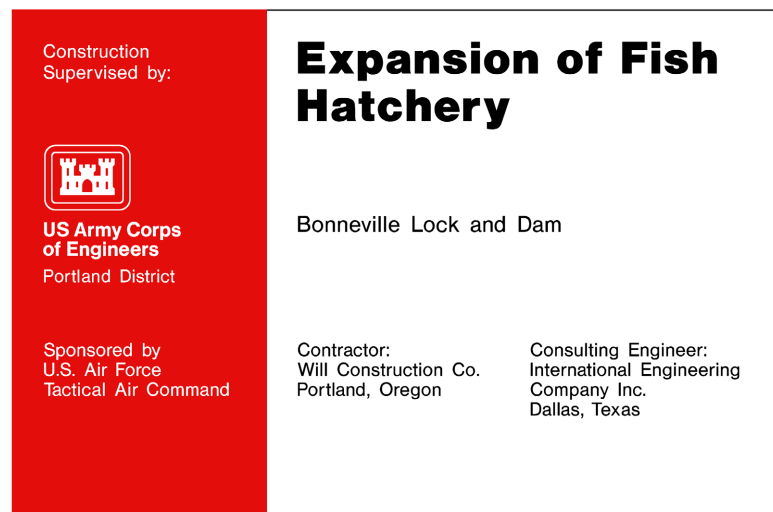
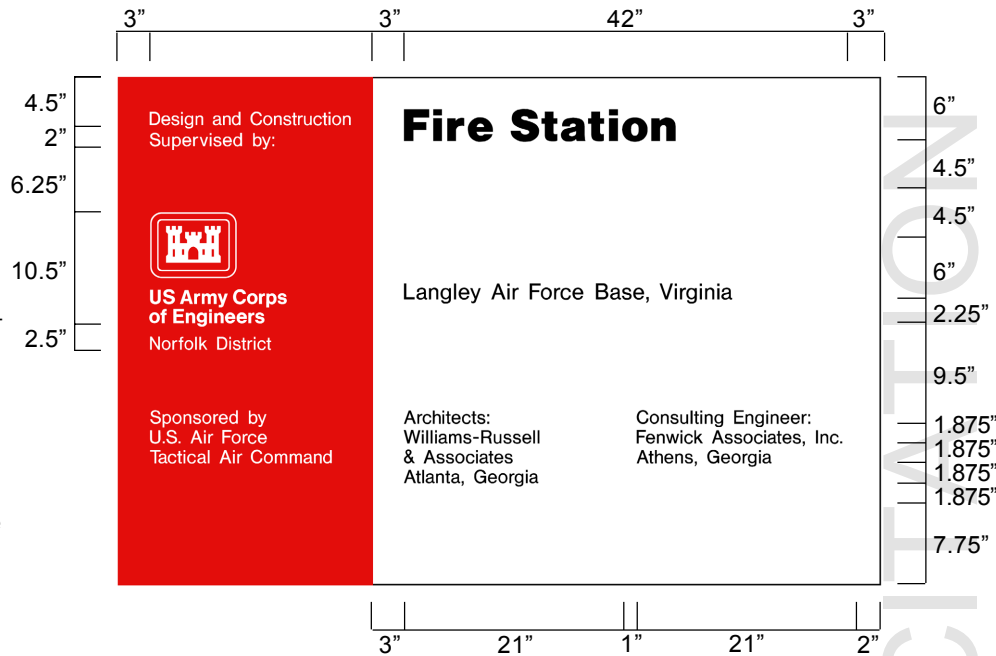
Legend Group 3: One- to three-line project title legend describes the work being done under this contract.
Color: Black
Typeface: 3" Helvetica Bold
Maximum line length: 42"

Legend Group 4: One- to two-line identification of project or facility (civil works) or name of sponsoring department (military).
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Cross-align the first line of Legend Group 4 with the first line of the Corps Signature (US Army Corps) as shown.

Legend Groups 5a-b: One- to five-line identification of prime contractors including: type (architect, general contractor, etc.), corporate or firm name, city, state. Use of Legend Group 5 is optional.
Color: Black
Typeface: 1.25" Helvetica Regular
Maximum line length: 21"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-01	various	4'x6'	4"x4"	HDO-3	48"	WH-RD/BK

Each contractor's safety record is to be posted on Corps managed or supervised construction projects and mounted with the Construction Project Identification sign specified on page 16-2.

The graphic format, color, size and typefaces used on the sign are to be reproduced exactly as specified below. The

title with First Aid logo in the top section of the sign, and the performance record captions are standard for all signs of this type. Legend groups 2 and 3 below identify the project and the contractor and are to be placed on the sign as shown.

Safety record numbers are mounted on individual metal plates and are screw-

mounted to the background to allow for daily revisions to posted safety performance record.

Special applications or situations not covered in these guidelines should be referred to the district Sign Program Manager.

Legend Group 1: Standard two-line title "Safety is a Job Requirement" with 8" (outside diameter) Safety Green first aid logo.
Color: To match Pantone system 347
Typeface: 3" Helvetica Bold
Color: Black

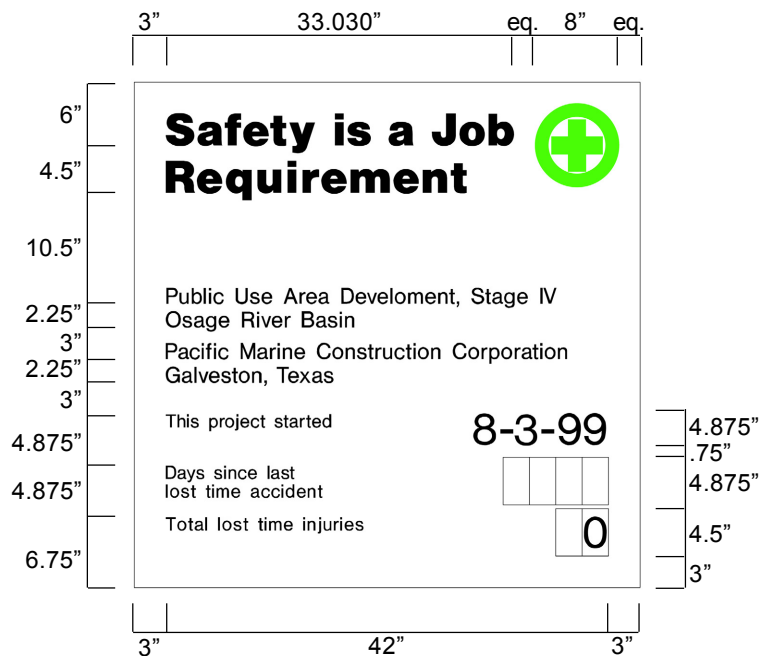
Legend Group 2: One- to two-line project title legend describes the work being done under this contract and name of host project.
Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

Legend Group 3: One- to two-line identification: name of prime contractor and city, state address. Color: Black
Typeface: 1.5" Helvetica Regular
Maximum line length: 42"

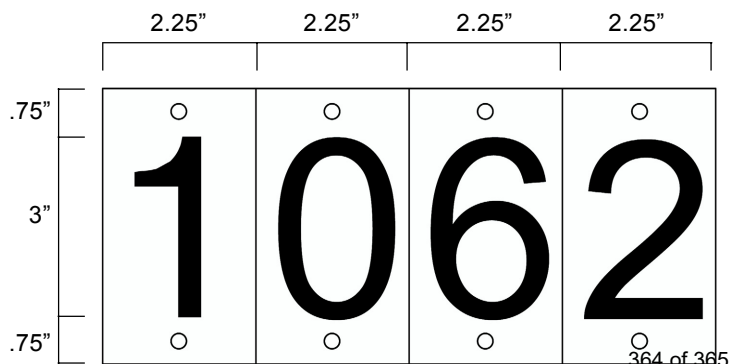
Legend Group 4: Standard safety record captions as shown.
Color: Black
Typeface: 1.25" Helvetica Regular

Replaceable numbers are to be mounted on white .060 aluminum plates and screw-mounted to background.
Color: Black
Typeface: 3" Helvetica Regular
Plate size: 2.5" x 4.5"

All typography is flush left and rag right, upper and lower case with initial capitals only as shown. Letter- and word-spacing to follow Corps standards as specified in Appendix D.



Sign Type	Legend Size (A)	Panel Size	Post Size	Specification Code	Mounting Height	Color Bkg/Lgd
CID-02	various	4'x4'	4"x4"	HDO-3	48"	WH/BK-SG



All Construction Project Identification signs and Safety Performance signs are to be fabricated and installed as described below. The signs are to be erected at a location designated by the contracting officer representative and shall conform to the size, format, and typographic standards shown on pages 16-2 and 16-3. Detailed specifications

for HDO plywood panel preparation are provided in Appendix B.

Shown below the mounting diagram is a panel layout grid with spaces provided for project information. Photocopy this page and use as a worksheet when preparing sign legend orders.

For additional information on the proper method to prepare sign panel graphics, contact the district Sign Program Manager.

The sign panels are to be fabricated from .75" High Density Overlay Plywood. Panel preparation to follow HDO specifications provided in Appendix B.

Sign graphics to be prepared on a white nonreflective vinyl film with positionable adhesive backing.

All graphics except for the Communication Red background with Corps Signature on the project sign are to be die-cut or computer-cut nonreflective vinyl, prespaced legends prepared in the sizes and typefaces specified and applied to the background panel following the graphic formats shown on pages 16-2 and 16-3.

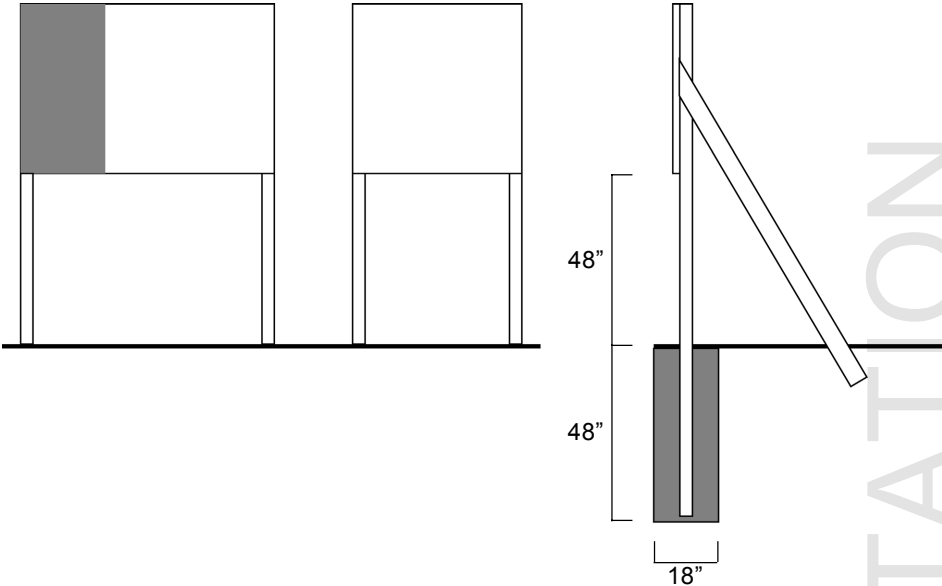
The 2'x 4' Communication Red panel (to match Pantone system 032) with full Corps Signature (reverse version) is to be screen-printed on the white background. Identification of the district or division may be applied under the signature with white cut vinyl letters prepared to Corps standards.

Drill and insert six (6) .375" T-nuts from the front face of the HDO sign panel. Position holes as shown. Flange of T-nut to be flush with sign face.

Apply graphic panel to prepared HDO plywood panel following manufacturers' instructions.

Sign uprights to be structural grade 4" x 4" treated Douglas Fir or Southern Yellow Pine, No.1 or better. Post to be 12' long. Drill six (6) .375" mounting holes in uprights to align with T-nuts in sign panel. Countersink (.5") back of hole to accept socket head cap screw (4" x .375").

Assemble sign panel and uprights. Imbed assembled sign panel and uprights in 4' hole. Local soil conditions and/or wind loading may require bolting additional 2" x 4" struts on inside face of uprights to reinforce installation as shown.



Construction Project Identification Sign
Legend Group 1: Corps Relationship

1. _____
2. _____

Legend Group 2: Division/District Name

1. _____
2. _____

Legend Group 2a: Military/Civil Works Sponsor

1. _____
2. _____

Legend Group 3: Project Title

1. _____
2. _____
3. _____

Legend Group 4: Facility Name

1. _____
2. _____

Legend Group 5: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Legend Group 5b: Contractor/A&E

1. _____
2. _____
3. _____
4. _____
5. _____

Safety Performance Sign

Legend Group 2: Project Title

1. _____
2. _____

Legend Group 3: Contractor/A&E

1. _____
2. _____