

MILITARY DEPARTMENT
OFFICE OF THE ADJUTANT GENERAL
10601 Bear Hollow Drive
Rancho Cordova, California 95670



**Invitation for Bid (IFB)
Notice to Prospective Bidders
IFB No. 130515 - Underground Storage Tank Removal
Barstow Armory - Barstow, CA**

7/16/2026

You are invited to review and respond to this IFB. In submitting your bid, you must comply with these instructions. In addition to those programs and preferences that are specified in this solicitation, Prospective Contractors are encouraged to consider programs and preferences that are available, such as those for the use of small businesses, disadvantaged businesses, disabled veteran businesses, and other businesses covered by State and Federal programs and preferences.

The DVBE Participation Program applies, and a five percent (5%) goal is required for this IFB. The DVBE Incentive Program may also apply to this IFB. See **Section 4, Special Programs, Disabled Veteran Business Enterprise (DVBE) Program Requirement**, in this IFB for requirements.

As required by Government Code 14838, the California Military Department (CMD) is committed to meeting the State's 25 percent (25%) Small Business (SB) participation goal. Certified SBs, Micro Businesses (MB), and contractors willing to commit to subcontracting a minimum of 25 percent (25%) of their net bid price to certified SBs or MBs are encouraged to submit bids. See **Section 4, Special Programs, Small Business (SB) or Microbusiness (MB) Preference**, in this IFB for requirements.

In the opinion of CMD, this IFB is complete and without need of explanation. However, if you have questions, or should you need any clarifying information, the contact person for this IFB is:

Robert Hawkins
California Military Department
10601 Bear Hollow Drive
Rancho Cordova, CA 95670
Robert.Hawkins@cmd.ca.gov

Please note that no *verbal* information given will be binding upon the State unless such information is issued in writing as an official addendum.

Technical questions regarding this solicitation will be addressed, in writing, and in accordance with the Questions and Answers portion of this IFB. See **Section 3, Key Actions Dates** for more details.

Robert Hawkins
Contracting Administrator

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1. Purpose and Description of Services

- a. Contractor agrees to provide to CMD **Underground Storage Tank Removal** services, as described herein:

Contractor shall provide all materials, labor, bonds, licenses, insurance, equipment, tools, permits, taxes, transportation, and fees to remove and dispose of existing 2,000 gallon and 6,000 gallon diesel fuel Underground Storage Tanks (UST), piping and appurtenances.

Contractor shall have 365 calendar days to complete the work.

2. Bidder Minimum Qualifications

- a. The Prime Bidder must be either an individual or firm currently licensed to do business in California and provide proof of such as required in **Attachment 1 – Required Attachment Checklist**.
- b. The Prime Bidder must have a business license or incorporation papers for their respective State showing that their company is in good standing in that state, if the Prime Bidder's base of operation is located outside the State of California and provide proof of such as required in **Attachment 1 – Required Attachment Checklist**.
- c. Pursuant to Public Contract Code section 2010, a person that submits a bid or proposal to [...] a state agency with respect to any contract in the amount of \$100,000.00 shall complete the **Attachment 10 – California Civil Rights Laws**.
- d. The Prime Contractor shall possess a **B - General Building Contractor and/or a D-40 Service Station Equipment And Maintenance Contractor License** issued by the California Contractors State Licensing Board (CSLB).
- e. Failure of Bidder to sufficiently provide any or all of the minimum qualifications, in the opinion of CMD, will result in the Bidder's bid deemed non-responsive.
- f. By submitting its bid, Bidder certifies, under penalty of perjury, that its Contractors State License Board (CSLB) license is in a classification appropriate to the work to be undertaken as identified in the **Attachment 12 – Sample Standard Agreement, Exhibit A, Scope of Work**. This requirement has also been added in the **Attachment 12 – Sample Standard Agreement, Exhibit E**. Refer to **Section 3, Bid Requirements and Information, Contractor's License**, for submittal requirements.
- g. Failure of Bidder to sufficiently provide any or all of the minimum qualifications, in the opinion of CMD, will result in the Bidder's bid deemed non-responsive.

3. Bid Requirements and Information

a. Key Action Dates

It is recognized that time is of the essence. All bidders are hereby advised of the following schedule and will be expected to adhere to the required dates and times.

Event	Date	Time (PST)
IFB published on Cal eProcure	7/16/2026	2:00 PM
Mandatory Pre-Bid Job Walk	7/23/2026	1:00 PM
Request for Information (RFI) Submission Deadline	8/6/2026	5:00 PM
Bid Submission Deadline	8/27/2026	2:00 PM
Public Bid Opening	8/27/2026	2:15 PM

b. Mandatory Pre-Bid Job Walk

- i. A mandatory pre-bid job walk is scheduled at 1:00 PM on 7/23/2026 for the purpose of viewing the site. Arrive at least 15 minutes early and bring business cards.
- ii. Designated Meeting Location:
 1. Barstow Armory – 1601 Armory Road, Barstow, CA 92311
 - a. Please park in the parking lot at the armory. The meeting point will be at the Flag Pole.
- iii. Failure to arrive at the designated meeting location by the scheduled start time may result in disqualification from submitting a bid. All prospective bidders must comply with current federal requirements, such as the acceptable identification, vehicle registration and insurance, when accessing federal facilities.
- iv. In the event a potential prime contractor is unable to attend the mandatory pre-bid walk-through, an authorized representative may attend on their behalf. The representative may only sign-in for one (1) company. Subcontractors may not represent a potential prime contractor at a mandatory pre-bid walkthrough. No bid will be accepted unless the bidder or their authorized representative was in attendance.

c. Request for Information (RFI) Period

- i. Potential Bidders who attended the mandatory pre-bid job walk may submit written questions regarding the project by 8/6/2026. All questions should be emailed in writing to Robert.Hawkins@cmd.ca.gov. NO QUESTIONS will be entertained after 8/6/2026.
- ii. Written questions must include: the individual's name, firm name, complete address and must reference **IFB No. 130515**.
- iii. Written responses to all questions will be collectively compiled and posted to the Cal eProcure website (<https://caleprocure.com/pages/index.aspx>). It is the responsibility of the Bidder to access the website for any changes or addenda that may be posted. Refer to this **IFB, Section 3, A, Key Action Dates**, for the schedule of events and dates/times.

d. Costs Included in Bid Rates

Bid prices/rates shall include the cost of employer payments to or on behalf of employees, subsistence, travel, compensation insurance premiums, unemployment contributions, social security taxes, contract bond premiums, and any other taxes or assessments, including but not limited to, sales and use taxes required by law or otherwise and no additional allowance

will be paid unless separate payment provisions in the Agreement should specifically provide otherwise.

e. Employment of undocumented Workers

No State agency or department, as defined in California Public Contract Code Section 10335.7, that is subject to this code, shall award a public works contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a Public Works Agreement, who has, in the preceding five (5) years, been convicted of violating a State or Federal law regarding the employment of undocumented workers (Pub. Cont. Code Section 6101).

f. State General Prevailing Wage Rates

The predetermined general prevailing wage rates published by the Director of Industrial Relations may be obtained via the Internet: <https://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. It is the bidder's responsibility to use the correct classification determination published by the Department of Industrial Relations.

g. Postconsumer Content Certification

Your signature affixed hereon and dated on the Bid/Bidder Certification Sheet, Attachment 2 shall signify that you are aware of the recycle materials, goods, and supplies program requirements of Public Contract Code Sections 12200 and 12205, and that the Recycled-Content Certification will be required for the successful contractor. The awarded bidder will be required to complete a Postconsumer-Content Certification (CalRecycle 74) and provide the form with the signed Agreement. An incomplete form or failure to provide a completed form will result in cancellation of the Agreement. The Postconsumer-Content Certification (CalRecycle 74 form) may be downloaded from CalRecycle's website: <https://calrecycle.ca.gov/>.

h. Mandatory Organic Waste Recycling

The Contractor generating organic waste or commercial solid waste shall arrange for the recycling services required by this section in a manner that is consistent with State and local laws and requirements, including a local ordinance or local jurisdiction's franchise agreement, applicable to the collection, handling, or recycling of organic waste and commercial solid waste. This requirement does not modify, limit or abrogate the Contractors right to sell or donate its recyclable organic waste materials consistent with the requirements of Public Resources Code Sections 42649.8 et seq.

i. Motor Carrier Permit Requirements

- i. Contractor is responsible for determining whether California Vehicle Code Sections 34601 and 34620 require Contractor to have a valid Motor Carrier Permit (MCP) issued by the Department of Motor Vehicles (DMV) in order for Contractor to lawfully perform any part or aspect of the work described in Exhibit A, Scope of Work, and, if California Vehicle Code Sections 34601 and 34620 do require same for any part or aspect of such work, Contractor must have a valid MCP(s) issued from the DMV for

its services as a Motor Carrier of Property under this Agreement. Contractor shall pay any required fees necessary to obtain and maintain in good standing during the entire term of this Agreement the any such required MCP(s).

- ii. The MCP(s), if any, required for the Contractor's Motor Carriers of Property under California Vehicle Code Sections 34601 and 34620 shall be on file with the Contractor for the duration of this Agreement. Upon request of CMD, the Contractor must immediately provide to CMD a copy of the required MCP(s), if any.

j. Contractor Registration Program

- i. No Contractor or Subcontractor may be listed on a bid proposal for a public works contract unless registered with the Department of Industrial Relations (DIR), pursuant to Labor Code Section 1725.5 with limited exceptions from this requirement for bid purposes only under LC Section 1771.1(a)).
- ii. No Contractor or Subcontractor may be awarded a public works contract or commercial service contract requiring prevailing wages, unless registered with DIR pursuant to Labor Code Section 1725.5.
- iii. CMD will verify each of the registration numbers prior to contract award. Bidders that do not possess the required DIR registration will be deemed non-responsive and rejected from further consideration in the solicitation process.

k. Contractor's License

Bidder must have, at time of bid submittal and for the duration of the contract, a valid, current B - General Building Contractor license issued by the Contractors State License Board (CSLB), for the type of work to be performed. Bidder shall obtain, pay for and maintain, in good standing, all necessary licenses and permits to accomplish the work. Bidders will be considered non-responsive unless proper licensing requirements are met. An invalid license will result in rejection of the bid. Positive verification of a valid license issued by the CSLB will be performed by CMD (reference Business and Professions Code Section 7028.15).

l. Subcontractors

Bidder may subcontract portions of the work as defined in the attached Sample Standard Agreement. Bidder shall perform on the site, and with its own organization, work equivalent to at least twenty percent (20%) of the total amount of work to be performed under the contract. If subcontractors are used, complete the Bidder Declaration (GSPD-05-105), Attachment 5. Bidder must ensure that the subcontractor(s) will have all necessary licenses, permits, and/or certifications to accomplish its portion of the work. Failure of a subcontractor(s) to have the proper licenses, permits, and/or certifications, shall be cause for rejection of bid. The Bidder Declaration can also be downloaded at <https://www.documents.dgs.ca.gov/dgs/fmc/GS/PD/GSPD05-105.pdf>.

m. Non-Collusion Declaration for Public Works

Bidder must submit, as described herein, a non-collusion declaration for Public Works. The non-collusion declaration is attached to this IFB as Attachment 11. Failure to submit a complete declaration shall result in rejection of the bid.

n. Bonds

- i. **If the proposed bid amount exceeds \$24,999.99, the contractor must submit a bid bond in the amount of at least 10% of the bid amount with the bid packet utilizing a bond form provided by the Surety.**
- ii. **The bid bond must include the IFB No.130515 and must identify the owner as:**

**California Military Department
IFB No. 130515
10601 Bear Hollow Drive
Rancho Cordova, California 95670-6350**

- iii. Prior to the commencement of performance, the contractor must obtain and provide to the State, a payment bond, on Standard Form 807, when the contract involves a public works expenditure (labor/installation costs) in excess of \$24,999.99. Such bond shall be in a sum not less than one hundred percent (100%) of the contract price. Forms shall be provided to the contractor. The contractor shall ensure the payment bond remains in full force and effect during execution of the contracted work, the guarantee period and through such time that all subcontractors and suppliers are paid in full by the contractor.
- iv. If the contract amount is less than \$25,000.00, and a subsequent change order or contract amendment causes the total amount of the contract to exceed \$24,999.99, then a payment bond will be required in the amount of one hundred percent (100%) of the new contract total amount.
- v. If the contract amount exceeds \$9,999.99 and progress payments will be made, a performance bond in the amount of 100% of the contract amount must be submitted by the successful bidder at the time signed contracts are returned to the California Military Department. The contractor shall ensure the performance bond remains in full force and effect during execution of the contracted work and guarantee period.
- vi. Bonds must be issued by a California-admitted surety (CCP § 995.311.).

o. Insurance

- i. The bidder, who receives the Agreement award, must provide a Certificate of Insurance providing proof of insurance to the California Military Department within ten (10) working days from the date of notification of award. Refer to the Sample Standard Agreement Exhibit F for the applicable and specific Insurance requirements and coverage limits.
- ii. The insurance carrier shall provide an endorsement for the additional insured statement as follows:

CMD, State of California, its officers, agents, and employees shall be included as additional insured, but only with respect to work performed for the State of California under this Agreement.

- iii. The additional insured endorsement must accompany the certificate of insurance.
- iv. Available Coverages/Limits
- v. In the event the insurance coverages obtained by the Contractor is broader in scope than, and/or the limits are higher than, those required under the contract, all such broader coverage and/or higher limits available to the Contractor shall also be available and applicable to the State.
- vi. In the case of Contractor and/or Permittee's utilization of subcontractors to complete the contracted scope of work, contractor and/or Permittee shall include all subcontractors as insured under Contractor and/or Permittee's insurance or supply evidence of insurance to The State equal to policies, coverages and limits required of Contractor and/or Permittee.

p. California Civil Rights Laws

Any person that submits a bid or proposal to, or otherwise proposes to enter into or renew a contract with, a state agency with respect to any contract in the amount of one hundred thousand dollars (\$100,000.00) or more shall certify, under penalty of perjury, at the time the bid or proposal is submitted or the contract is renewed, that they satisfy all of the conditions set forth in California Public Contract Code Section 2010 and they shall execute the California Civil Rights Laws Certification, as Attachment 10, completed, signed, and returned with its bid or proposal.

q. Darfur Contracting Act

- i. The Darfur Contracting Act, Public Contract Code Section 10475-10481, applies to any company that currently or within the previous three (3) years has had business activities or other operations outside of the United States. The Act was passed by the California Legislature and signed into law by the Governor to preclude State agencies generally from contracting with "scrutinized" companies that do business in the African nation of Sudan (of which the Darfur region is a part), for the reasons described in Public Contract Code Section 10475. All bidders shall complete the Darfur Contracting Act Certification, Attachment 6, and submit with the proposal.
- ii. If your company has not, within the previous three (3) years, had any business activities or other operations outside of the United States, complete Option 1 on the Darfur Contracting Act Certification form.
- iii. A scrutinized company is a company doing business in Sudan as defined in Public Contract Code Section 10476. Scrutinized companies are ineligible to, and cannot bid on, or submit a bid or proposal for an Agreement with a State agency for goods or services. (Pub. Cont. Code Section 10477(a)).
- iv. Therefore, Public Contract Code Section 10478(a) requires a company that currently has (or within the previous three (3) years has had business activities or other operations outside of the United States to certify that it is not a "scrutinized" company when it submits a bid or proposal to a State agency.

- v. A scrutinized company may still; however, submit a bid or proposal for an Agreement with a State agency for goods or services if the company first obtains permission from the Department of General Services according to the criteria set forth in Public Contract Code Section 10477(b).

r. Iran Contracting Act

- i. Pursuant to the Iran Contracting Act of 2010 (Pub. Cont. Code Sections 2200 et seq., hereinafter “the Act”), persons identified on the list established under Public Contract Code Section 2202.5 (hereinafter “List”) are ineligible to bid on, submit a proposal for, enter into, or renew any contract with the State for goods or services of one million dollars or more.
- ii. Any person who submits a bid or proposal must complete and submit to CMD with its bid proposal, the Iran Contracting Act Verification Form, Attachment 7, certifying that it is not on the most current List unless the person is exempted from the certification requirement by Public Contract Code Section 2203(c) or (d). If claiming an exemption, the person shall provide written evidence that supports an exemption under Public Contract Code Section 2203(c) or (d) with its bid or proposal. The Iran Contracting Act Verification Form can also be downloaded at <https://www.dgs.ca.gov/-/media/Divisions/PD/PTCS/OPPL/SCM/SCM-Link-Docs/Iran-Contracting-Act.pdf>.
- iii. Any person, for a contract that is exempt from bidding or is renewed, or for whom a contract is otherwise awarded by the State, must complete and submit to CMD the Iran Contracting Act Verification Form, certifying that it is not on the most current List, before the contract has been executed by the parties, unless the person is exempted from the certification requirement by Public Contract Code Section 2205(c) or (d). If claiming an exemption, the person shall provide written evidence that supports an exemption under Public Contract Code Section 2203(c) or (d), before execution of the contract.

s. Submission of Bid

- i. All bids must be submitted to CMD by date and time shown in Section 3, Bid Requirements and Information, Item a) Key Action Dates.
- ii. Bids **MUST** be submitted electronically.
- iii. Electronic Submissions
 - 1. Electronic bid submittals shall be sent to PWC@cmd.ca.gov and shall include Robert Hawkins at Robert.Hawkins@cmd.ca.gov as a copied recipient.
 - 2. All bid documents will be in an attachment (as one PDF). If any bid information is in the body of the email, it shall be rejected. Bids submitted via links to cloud storage services or file-sharing drives will not be accepted.
 - 3. Subject line must include the IFB No. 130515, Underground Storage Tank Removal and Contractor Business Name.

4. The bid submission email inbox is ONLY for bid submissions, contact the Contracting Administrator directly with contract questions and/or to receive confirmation that their bid was received.

iv. **Late bids will not be considered.**

- v. All bids shall include the documents identified in Required Attachment Checklist, Attachment 1. Bids with incomplete documents or not including the proper "required attachments" shall be deemed non-responsive. A non-responsive bid is one that does not meet the basic bid requirements.
- vi. All documents requiring a signature must bear an original signature of a person authorized to bind the bidding firm.
- vii. Bids must be submitted for the performance of all the services described herein. Any deviation from the work specifications will not be considered and will cause a bid to be rejected.
- viii. A bid may be rejected if it is conditional or incomplete, or if it contains any alterations of form or other irregularities of any kind. The State may reject any or all bids and may waive an immaterial deviation in a bid. The State's waiver of immaterial deviation shall in no way modify the IFB document or excuse the bidder from full compliance with all requirements if awarded the agreement.
- ix. Costs for developing bids and in anticipation of award of the agreement are entirely the responsibility of the bidder and shall not be charged to the State of California.
- x. An individual who is authorized to bind the bidder contractually shall sign Bid/Bidder Certification Sheet, Attachment 2. The signature should indicate the title or position that the individual holds in the firm. An unsigned bid may be rejected.
- xi. A bidder may modify a bid after its submission by withdrawing its original bid and resubmitting a new bid prior to the bid submission deadline. Bidder modifications offered in any other manner, oral or written, will not be considered.
- xii. A bidder may withdraw its bid by submitting a written withdrawal request to the State, signed by the bidder or an authorized agent. A bidder may thereafter submit a new bid prior to the bid submission deadline. Bids may not be withdrawn without cause subsequent to bid submission deadline.
- xiii. The awarding agency may modify the IFB prior to the date fixed for submission of bids by the issuance of an addendum to all parties who received a bid package.
- xiv. The awarding agency reserves the right to reject all bids. The agency is not required to award an agreement.
- xv. Before submitting a response to this solicitation, bidders should review, correct all errors and confirm compliance with the IFB requirements.
- xvi. Where applicable, bidder should carefully examine work sites and specifications. Bidder shall investigate conditions, character, and quality of surface or subsurface

materials or obstacles that might be encountered. No additions or increases to the agreement amount will be made due to a lack of careful examination of work sites and specifications.

- xvii. The State does not accept alternate contract language from a prospective Contractor. A bid with such language will be considered a counter proposal and will be rejected. The State's General Terms and Conditions (GTC) are not negotiable. The GTC may be viewed at Internet site <https://www.dgs.ca.gov/OLS/Resources/Page-Content/Office-of-Legal-Services-Resources-List-Folder/Standard-Contract-Language>.
- xviii. No oral understanding or agreement shall be binding on either party.
- xix. Bidder must complete and submit to the awarding agency Payee Data Record, STD 204, Attachment 8, to determine if the Contractor is subject to state income tax withholding pursuant to California Revenue and Taxation Code Sections 18662 and 26131. This form can be found on the Internet at <https://www.documents.dgs.ca.gov/dgs/FMC/PDF/Std204.pdf>. No payment shall be made unless a completed STD 204 has been returned to the awarding agency.
- xx. Bidder must sign and submit to the awarding agency, Contractor Certification Clauses (CCC), Attachment 9, which can be found on the Internet at: <https://www.dgs.ca.gov/-/media/Divisions/OLS/Resources/CCC-042017.pdf>.

t. Bid Opening

- i. Bid openings will be held virtually on Microsoft Teams.
- ii. To attend the bid opening, contact Robert Hawkins at Robert.Hawkins@cmd.ca.gov in advance to request a Microsoft Teams meeting invitation. Requests submitted on the day of the bid opening may not be received or processed in time to allow participation.

u. Evaluation and Selection

- i. After the time of bid opening, each bid will be checked for the presence or absence of required information in conformance with the submission requirements of this IFB.
- ii. The State will evaluate each bid to determine its responsiveness to the published requirements.
- iii. Bids that contain false or misleading statements, or which provide references, which do not support an attribute or condition claimed by the bidder, may be rejected.
- iv. Award if made, will be to the lowest responsive responsible bidder.
- v. The State reserves the right to require the apparent lowest responsive and responsible bidder to participate in a bid verification meeting prior to award of the contract. The purpose of this meeting is to review and confirm the bidder's pricing, scope understanding, and compliance with all bid requirements. Failure or refusal to

participate in the bid verification meeting, or inability to satisfactorily verify the bid, may result in the bid being deemed non-responsive and rejected.

- vi. In the event of a tie bids, the award will be determined by a coin toss. The coin toss will be held in the State Agency's headquarters area office. This is a public event, which the bidders will be invited to attend. The selection of the Contractor will be at the sole discretion of the State.

v. Award and Protest

- i. When the evaluation has been completed and a contractor has been selected, the awarding agency shall post a notice of intent to award in a place accessible by the general public, including any Internet site identified in the IFB within 5 to 10 business days after the bid opening date.
- ii. State Contracting Manual Volume 1, 6.03 Protest Exclusions: F - The contract award is for a type of contract not subject to the protest procedures. This category includes public works contracts awarded under the State Contract Act (PCC §10100 et seq.); contracts for professional architecture or engineering services under GC § 4525; contracts awarded under GC §§ 14838.5 and 14838.7.

w. Disposition of Bids

- i. Upon bid opening, all documents submitted in response to this IFB will become the property of the State of California and will be regarded as public records under the California Public Records Act (Government Code Section 6250 et seq.) and subject to review by the public.

x. Standard Conditions of Service

- i. After award of the Agreement and execution of the Agreement, should the Contractor fail to commence work within five (5) working days after notification of the starting date, or suspend work for a period of five (5) continuous working days after work has begun, CMD may provide five (5) calendar days written notice, posted at the job site or mailed to the Contractor, to timely prosecute and complete the work or the Agreement may be terminated and liquidated damages assessed for administrative costs for re-bidding the work or awarding the work to another Contractor. In addition, that Contractor shall be liable to CMD for the difference between the Contractor's bid price and the actual cost of performing the work by the second low bidder or by another Contractor.
- ii. All performance under the Agreement shall be completed on or before the termination date of the Agreement.

y. Antitrust Provisions

- i. The Contractor offers and agrees and will require all of his other subcontractors and suppliers to agree to assign to the awarding body all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 USC section 15) or under the Cartwright Act [Chapter 2, commencing with section 16700, of Part 2 of Division 7 of the Business and Professions Code] arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The

assignment made by the contractor and all additional assignments made by the subcontractors and suppliers shall be deemed to have been made and will become effective at the time the awarding body tenders final payment to the Contractor without further acknowledgment or the necessity of tendering to the awarding body any written assignments.

- ii. If an awarding body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Government Code Sections 4550-4554, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, on demand, recover from the public body any portion of the recovery, including treble damages, and attributable overcharges that were paid by the assignor but were not paid by the public body as a part of the bid price, less the expenses incurred in obtaining that portion of the recovery. On demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under Government Code Sections 4550-4554 if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action.
- z. If the bidder is awarded the Agreement and refuses to sign the Agreement presented for signature within 10 business days of receipt, (not including Saturdays, Sundays, and legal holidays) and manner required, the bidder will be liable to CMD for actual damages resulting to CMD therefrom or 10 percent (10%) of the amount bid, whichever is less.
- aa. Loss Leader usage is prohibited in this solicitation: It is unlawful for any person engaged in business within this State to sell or use any article or product as a "loss leader" as defined in California Business and Professions Code Section 17030. "Loss Leader" means any article or product sold at less than cost: a) where the purpose is to induce, promote or encourage the purchase of other merchandise; or b) where the effect is a tendency or capacity to mislead or deceive purchasers of prospective purchasers; or c) where the effect is to divert trade from or otherwise injure competitors.
- bb. No oral understanding or agreement shall be binding on either party.

4. Special Programs

a. Disabled Veteran Business Enterprise (DVBE) Program Requirement

- i. DVBE Participation Program with Goals:
 - 1. The required DVBE participation goal for this IFB is five percent (5%). The resultant Agreement is financed with State funds and subject to Public Contract Code Section 10115 et seq., Military and Veterans Code Section 999 et seq., and Title 2, California Code of Regulations, Sections 1896.60 (2 CCR Section 1896.60) et seq., that provides contracting opportunities for qualified DVBEs certified by the DGS. The DVBE Incentive Program may also apply.
 - 2. Bidder shall complete and submit the Bid/Bidder Certification Sheet Attachment 2; Bidder Declaration (GSPD-05-105), Attachment 5, and, as applicable, the Disabled Veteran Business Enterprise Declarations (DGS PD

843), Attachment 4. Bidder shall complete or collect DGS PD 843(s) when the following situations occur:

- a. Bidder is DVBE (prime) Contractor.
 - b. Bidder subcontracts with any DVBE firm. Bidder collects and submits with its bid package a completed and signed DGS PD 843 from each of the DVBE subcontractor(s) listed on the GSPD-05-105.
3. Failure to provide required DVBE information will result in the bid being rejected as non-responsive. For each certified DVBE subcontractor listed on the Bidder Declaration, GSPD-05-105, the bidder may submit a copy of the quotes from each DVBE as Attachment 5, "Quotes from SB/DVBE Subcontractors", as proof of commitment.
4. Additional references: <https://www.dgs.ca.gov/PD-OSDS>.

ii. DVBE Incentive Program

1. The DVBE Incentive Program applies to this solicitation. It is separate from the DVBE Participation Program and was established in Military and Veterans Code Sections 999 et seq., and Title 2, California of Regulations, Sections 1896.99 (2 CCR Section 1896.99) et seq., to encourage bidders to partner with DVBE subcontractors. A dollar cap of \$100,000 is set for all combined incentives and preferences. The incentive is used only for evaluation purposes to arrive at the successful bidder and does not alter the amounts of the actual bid. Any responsive and responsible bidder with the confirmed DVBE participation per the Tables in paragraph 3 below is eligible to receive the incentive. Bidders who are not responsive and responsible regardless of the amount of DVBE participation are not eligible to receive the incentive.
2. CMD will apply an incentive to bids proposing the utilization of DGS certified DVBE firms identified on the Bidder Declaration (GSPD-05-105). Information provided on the GSPD-05-105 shall be verified by CMD prior to the award of the Agreement. The incentive amount is equal to a percentage of the lowest responsive and responsible bid based on the amount of DVBE participation in the bid being evaluated per the Tables below.
3. Tables for IFB (Low Price Method)

Required 5% Goal

Verified DVBE Participation	DVBE Incentive Amount
7.00% or more	5%
6.50% - 6.99%	4%
6.00% - 6.49%	3%
5.50% - 5.99%	2%
5.01% - 5.49%	1%

4. When applying the DVBE Incentive, an NSB shall not displace an award to a DGS Certified Small Business.

5. Additional information: <https://www.dgs.ca.gov/PD-OSDS>.

b. Small Business (SB) or Microbusiness (MB) Preference

- i. Government Code Section 14835 et seq. requires that a five percent (5%) preference be given to contractors who qualify as a certified SB or MB. References to a SB shall also include MB. The rules and regulations of this law, including the definition of a SB for the delivery of services, are contained in Title 2, California Code of Regulations, Section 1896 (2 CCR Section 1896) et seq.
- ii. To claim the SB preference, your firm must have its principal place of business located in California and be certified by the California Department of General Services (DGS), Office of Small Business and DVBE Services (OSDS). The preference amount may not exceed fifty thousand dollars (\$50,000) for any bid. If prospective Contractor is claiming the five percent (5%) SB preference, complete Section 14 of the Bid/Bidder Certification Sheet Attachment 2.
- iii. Pursuant to Government Code Section 14838 and 2 CCR Section 1896, if a bidder is not a certified SB, but wishes to be eligible for the five percent (5%) non-small business (NSB) preference, the bidder must subcontract at least twenty five percent (25%) of its net bid price to one or more certified SBs. If bidder is claiming the five percent (5%) NSB preference, complete the Bidder Declaration, GSPD-05-105, which can be downloaded at <https://www.documents.dgs.ca.gov/dgs/fmc/GS/PD/GSPD05-105.pdf>. Bidder shall list the names of all certified SB firms being claimed for credit on the GSPD-05-105 form. For each certified SB subcontractor listed, the bidder shall submit a copy of the quotes from each SB (on the SB's company letterhead) as Attachment 5, "Quotes from SB/ DVBE Subcontractors."
 1. This preference shall not be awarded to a noncompliant bidder and shall not be used to achieve any applicable minimum requirements.
 2. Certified SB bidder(s) shall have precedence over NSB bidders in the application of SB preference(s).
 3. SB preferences may not be applied to any bid deemed non-responsive with the solicitation instructions or from a non-responsible bidder.
 4. Questions regarding the certification approval process or SB program should be directed to OSDS at the contact information found on their website.

5. Additional references are at <https://www.dgs.ca.gov/PD-OSDS>.

c. Commercially Useful Function

- i. It is the law. All California-certified Small Businesses (SB) and Disabled Veteran Business Enterprise (DVBEs) doing business with the state must perform a Commercially Useful Function (CUF). Performing CUF is a critical requirement for all California-certified firms - SB and DVBE - that do business with the state (Government Code Section 14837 and Military and Veterans Code Section 999).

- ii. More information can be found on Department of General Services website:
<https://www.dgs.ca.gov/PD/Resources/Page-Content/Procurement-Division-Resources-List-Folder/Commercially-Useful-Function-for-Certified-Firms>.

d. CMD Advocates

CMD Small Business and Disabled Veteran Business Enterprise Advocates are available to answer questions regarding the SB/DVBE Programs and Incentives and to help identify possible SB/DVBE vendors. CMD ADVOCATES: Advocate@cmd.ca.gov.

5. Executive Order N-6-22 – Russia Sanctions

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. “Economic Sanctions” refers to sanctions imposed by the U.S. government in response to Russia’s actions in Ukraine, as well as any sanctions imposed under state law. By submitting a bid or proposal, Contractor represents that it is not a target of Economic Sanctions. Should the State determine Contractor is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for rejection of the Contractor’s bid/proposal any time prior to contract execution, or, if determined after contract execution, shall be grounds for termination by the State.

6. Required Attachments (Attachments 1 – 12):

Attachment 1 – Required Attachment Check List

Bidder's Company Name:

A complete bid or bid package will consist of the items identified below.

<u>Attachment</u>	<u>Attachment Name/Description</u>
_____ Attachment 1	Required Attachment Checklist
_____ Attachment 2	Bid/Bidder Certification Sheet
_____ Attachment 3	Rate Sheet
_____ Attachment 4	Disabled Veteran Business Enterprise Declarations (DGS PD 843) * https://www.documents.dgs.ca.gov/dgs/fmc/gsp/pd/pd_843.pdf
_____ Attachment 5	Bidder Declaration (GSPD-05-105) * https://www.documents.dgs.ca.gov/dgs/fmc/GS/PD/GSPD05-105.pdf
_____ Attachment 6	Darfur Contracting Act Certification
_____ Attachment 7	Iran Contracting Act Verification Form https://www.dgs.ca.gov/-/media/Divisions/PD/PTCS/OPPL/SCM/SCM-Link-Docs/Iran-Contracting-Act.pdf
_____ Attachment 8	Payee Data Record (STD 204) https://www.documents.dgs.ca.gov/dgs/FMC/PDF/Std204.pdf
_____ Attachment 9	Contractor Certification Clauses (CCC 04/2017) https://www.dgs.ca.gov/-/media/Divisions/OLS/Resources/CCC-042017.pdf
_____ Attachment 10	California Civil Rights Laws Attachment * https://www.documents.dgs.ca.gov/dgs/FMC/DGS/OLS004.pdf
_____ Attachment 11	Non-Collusion Affidavit
_____ Additional Required Information:	The Prime Bidder must be either an individual or firm currently licensed to do business in California. 1. The Prime Bidder has a business license or incorporation papers for their respective State showing that their company is in good standing in that state, if the Prime Bidder's base of operation is located outside the State of California. 2. The Prime Bidder and their subcontractors shall possess required license(s) issued by the California Contractors State Licensing Board (CSLB) and be registered with the Department of Industrial Relations (DIR). 3. Prime Bidder shall provide a bid bond with their bid packet.*

* If applicable

Attachment 2 – Bid/Bidder Certification Sheet

This Bid/Bidder Certification Sheet must be signed and returned along with all the "required attachments" as an entire package in duplicate with original signatures/electronic signature. The bid must be transmitted in accordance with IFB instructions.

- A. Our all-inclusive bid is submitted as detailed in **Attachment 3, Rate Sheet**.
 B. All required attachments are included with this certification sheet.
 C. I have read and understand the DVBE participation requirements and have included documentation demonstrating that I have met the participation goals.
 D. The signature affixed hereon and dated certifies compliance with all the requirements of this bid document. The signature below authorizes the verification of this certification.

An Unsigned Bid/Bidder Certification Sheet May Be Cause for Rejection

1. Company Name	2. Telephone Number ()	2a. Fax Number ()
3. Address		
Email Address		
Indicate your organization type:		
4. ☐ Sole Proprietorship	5. ☐ Partnership	6. ☐ Corporation
6a. ☐ L.L.C. Limited Liability Corporation		
Indicate the applicable employee and/or corporation number:		
7. Federal Employee ID No. (FEIN)		8. California Corporation No.
9. Indicate applicable license and/or certification information:		
10. Bidder's Name (Print)		11. Title
12. Signature		13. Date:
14. Are you certified with the Department of General Services, Office of Small Business and DVBE Certification as:		
California Small Business Enterprise Yes ☐ No ☐ If yes, enter certification number:		Disabled Veteran Business Enterprise Yes ☐ No ☐ If yes, enter certification number:
NOTE: A copy of your Certification is required to be included if either of the above items is checked "Yes". Date application was submitted to OSBCR, if an application is pending:		

Attachment 2 – Completion Instructions for Bid/Bidder Certification Sheet

Complete the numbered items on the Bid/Bidder Certification Sheet by following the instructions below.

Item Numbers	Instructions
1, 2, 2a, 3	Must be completed. These items are self-explanatory.
4	Check if your firm is a sole proprietorship. A sole proprietorship is a form of business in which one (1) person owns all the assets of the business in contrast to a partnership and corporation. The sole proprietor is solely liable for all the debts of the business.
5	Check if your firm is a partnership. A partnership is a voluntary agreement between two (2) or more competent persons to place their money, effects, labor, and skill, or some or all of them in lawful commerce or business, with the understanding that there shall be a proportional sharing of the profits and losses between them. An association of two (2) or more persons to carry on, as co-owners, a business for profit.
6, 6a	Check if your firm is a corporation. A corporation is an artificial person or legal entity created by or under the authority of the laws of a state or nation, composed, in some rare instances, of a single person and his successors, being the incumbents of a particular office, but ordinarily consisting of an association of numerous individuals. Or a Limited Liability Corporation.
7	Enter your federal employee tax identification number.
8	Enter your corporation number assigned by the California Secretary of State's Office. This information is used for checking if a corporation is in good standing and qualified to conduct business in California.
9	Complete, if applicable, by indicating the type of license and/or certification that your firm possesses and that is required for the type of services being procured.
10, 11, 12, 13	Must be completed. These items are self-explanatory.
14	If certified as a California Small Business, place a check in the "Yes" box, and enter your certification number on the line. If certified as a Disabled Veterans Business Enterprise, place a check in the "Yes" box and enter your service code on the line. If you are not certified to one (1) or both, place a check in the "No" box. If your certification is pending, enter the date your application was submitted to OSBCR.

Attachment 3 – Rate Sheet

Contractor agrees to provide to CMD **Underground Storage Tank Removal** services, as described herein:

Contractor shall provide all materials, labor, bonds, licenses, insurance, equipment, tools, permits, taxes, transportation, and fees to Remove and dispose of existing 2,000 gallon and 6,000 gallon diesel fuel Underground Storage Tanks (UST), piping and appurtenances.

Description of Services	Total
Underground Storage Tank Removal (Base Project All-inclusive Cost)	\$
Total Lump Sum (Written)	

In the event of a discrepancy between the written bid amount and the numerical (dollar) bid amount, the written amount shall govern and be considered the official bid amount.

Submitted by: _____ Date: _____

Contact Name / Title:	
Company Name:	
Company Address:	
Telephone Number:	
Fax Number:	
E-Mail Address:	

The total costs indicated above will be used solely for computing the cost as a fair and equitable formula to determine the low bidder and is not binding on the contracting agency. However, the actual costs quoted above by the bidder shall be binding for the term of the Agreement. Small Business and Disabled Veteran Business Enterprise incentives will also be applied to determine the lowest bid.

Addendum Acknowledgement (Please initial for Addenda published on Cal eProcure)

Addendum #1 _____	Addendum #4 _____	Addendum #7 _____
Addendum #2 _____	Addendum #5 _____	Addendum #8 _____
Addendum #3 _____	Addendum #6 _____	Addendum #9 _____

Failure to acknowledge the published addendum on Cal eProcure may result in the bid being deemed non-responsive.

Attachment 4 – Disabled Veteran Business Enterprise Declarations (DGS PD 843)

Bidders who are disabled veteran (DV) owner(s) and DV manager(s) of a Disabled Veteran Business Enterprise must complete Disabled Veteran Business Enterprise Declarations (DGS PD 843) when a DVBE Contractor or subcontractor will provide materials, supplies, services or equipment and include it with the bid response.

The DGS PD 843 Disabled Veteran Business Enterprise Declarations form can be found at:
https://www.documents.dgs.ca.gov/dgs/fmc/gp/pd/pd_843.pdf

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Attachment 5 – Bidder Declaration Form (GSPD-05-105)

All bidders must complete the Bidder Declaration Form (GSPD-05-105) and include it with the bid response.

The Bidder Declaration Form can be found at:

<https://www.documents.dgs.ca.gov/dgs/fmc/GS/PD/GSPD05-105.pdf>

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Attachment 6 – Darfur Contracting Act Certification

Pursuant to Public Contract Code section 10478, if a bidder or proposer currently or within the previous three years has had business activities or other operations outside of the United States, it must certify that it is not a "scrutinized" company as defined in Public Contract Code section 10476.

Therefore, to be eligible to submit a bid or proposal, please complete only one of the following three paragraphs (via initials for Paragraph # 1 or Paragraph # 2, or via initials and certification for Paragraph # 3):

1. _____ We do not currently have, or we have not had within the previous three
Initials years, business activities or other operations outside of the United States.

OR

2. _____ We are a scrutinized company as defined in Public Contract Code section
Initials 10476, but we have received written permission from the Department of
General Services (DGS) to submit a bid or proposal pursuant to Public
Contract Code section 10477(b). A copy of the written permission from
DGS is included with our bid or proposal.

OR

3. _____ We currently have, or we have had within the previous three years,
Initials business activities or other operations outside of the United States, but
+ certification we certify below that we are not a scrutinized company as defined in
below Public Contract Code section 10476.

CERTIFICATION For# 3.

I, the official named below, CERTIFY UNDER PENALTY OF PERJURY that I am duly authorized to legally bind the prospective proposer/bidder to the clause listed above in # 3. This certification is made under the laws of the State of California.

<i>Proposer/Bidder Firm Name (Printed)</i>		<i>Federal ID Number</i>
<i>By (Authorized Signature)</i>		
<i>Printed Name and Title of Person Signing</i>		
<i>Date Executed</i>	<i>Executed in the County and State of</i>	

YOUR BID OR PROPOSAL WILL BE DISQUALIFIED UNLESS YOUR BID OR PROPOSAL INCLUDES THIS FORM WITH EITHER PARAGRAPH # 1 OR# 2 INITIALED OR PARAGRAPH# 3 INITIALED AND CERTIFIED.

Attachment 7 – Iran Contracting Act Verification Form

Bidders must complete the Iran Contracting Act Verification Form Attachment and include it with the bid response.

The Iran Contracting Act Verification Form Attachment is available at the following website:

<https://www.dgs.ca.gov/-/media/Divisions/PD/PTCS/OPPL/SCM/SCM-Link-Docs/Iran-Contracting-Act.pdf>

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Attachment 8 – Payee Data Record (STD 204)

All bidders must complete the Payee Data Record (STD 204) and include it with the bid response.

The Payee Data Record (STD 204) is available at the following website:

<https://www.documents.dgs.ca.gov/dgs/FMC/PDF/Std204.pdf>

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Attachment 9 – Contractor Certification Clauses (CCC 04/2017)

All bidders must complete the Contractor Certification Clauses form (CCC 04/2017) and include it with the bid response.

The Contractor Certification Clauses Form (CCC 04/2017) is available at the following website:

<https://www.dgs.ca.gov/-/media/Divisions/OLS/Resources/CCC-042017.pdf>

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Attachment 10 – California Civil Rights Laws Attachment

All bidders must complete the California Civil Rights Laws Attachment and include it with the bid response.

The California Civil Rights Laws Attachment is available at the following website:

<https://www.documents.dgs.ca.gov/dgs/FMC/DGS/OLS004.pdf>

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Attachment 11 – Non-Collusion Affidavit

**TO BE EXECUTED BY BIDDER AND
SUBMITTED WITH BID FOR PUBLIC WORKS**

STATE OF CALIFORNIA

County of _____

The undersigned declares:

I am the _____ of _____, the party making the foregoing bid.

The bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation. The bid is genuine and not collusive or sham. The bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid. The bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or to refrain from bidding. The bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder. All statements contained in the bid are true. The bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof, to effectuate a collusive or sham bid, and has not paid, and will not pay, any person or entity for such purpose.

Any person executing this declaration on behalf of a bidder that is a corporation, partnership, joint venture, limited liability company, limited liability partnership, or any other entity, hereby represents that he or she has full power to execute, and does execute, this declaration on behalf of the bidder.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct and that this declaration is executed on _____, at _____, _____.
Date City State

Signature of Bidder

Attachment 12 – Sample Standard Agreement

Reset Form

Print Form

SCO ID: 8940-XXXXX

STATE OF CALIFORNIA - DEPARTMENT OF GENERAL SERVICES

STANDARD AGREEMENT

STD 213 (Rev. 04/2020)

AGREEMENT NUMBER

XXXXX

PURCHASING AUTHORITY NUMBER (If Applicable)

MIL - 8940

1. This Agreement is entered into between the Contracting Agency and the Contractor named below:

CONTRACTING AGENCY NAME

California Military Department

CONTRACTOR NAME

2. The term of this Agreement is:

START DATE

Month XX, 20XX

THROUGH END DATE

Month XX, 20XX

3. The maximum amount of this Agreement is:

Written Amount (\$XXX,XXX.XX)

4. The parties agree to comply with the terms and conditions of the following exhibits, which are by this reference made a part of the Agreement.

Exhibits	Title	Pages
Exhibit A	Scope of Work	XX
Exhibit B	Budget Detail and Payment Provisions	XX
Exhibit C *	General Terms and Conditions (02/2025)	*
+ - Exhibit D	General Conditions of Public Works Contract	XX
+ - Exhibit E	Special Contract Provisions	XX
+ - Exhibit F	Insurance Liability Section	XX
+ - Attachment 1	Project Manual	XX
+ - Attachment 2	Plans/Drawings	XX
+ - Attachment 3	Rate Sheet	XX
+ - Attachment 4	Bidder Declaration Form (GSPD-05-105)	XX

Items shown with an asterisk (*), are hereby incorporated by reference and made part of this agreement as if attached hereto.

These documents can be viewed at <https://www.dgs.ca.gov/OLS/Resources>

IN WITNESS WHEREOF, THIS AGREEMENT HAS BEEN EXECUTED BY THE PARTIES HERETO.

CONTRACTOR

CONTRACTOR NAME (if other than an individual, state whether a corporation, partnership, etc.)

CONTRACTOR BUSINESS ADDRESS

CITY

STATE

ZIP

PRINTED NAME OF PERSON SIGNING

TITLE

CONTRACTOR AUTHORIZED SIGNATURE

DATE SIGNED

**California Military Department
10601 Bear Hollow Drive
Rancho Cordova, CA**

Scope of Work

Barstow Field Maintenance Shop
1601 Armory Rd.
Barstow, CA, 92311
20 May 2026

SCOPE

Remove two underground storage tanks

Contractor is responsible for, but is not limited to, providing all labor, materials, and equipment necessary to Remove and dispose of existing 2,000 gallon and 6,000 gallon diesel fuel Underground Storage Tanks (UST), piping and appurtenances. Existing Concrete anchor slabs and straps for tanks to abandon in place IAW regulations. Demolish concrete pad within limits shown, demolish and remove existing concrete fuel island, remove existing fuel pumps remove existing fuel pumps disconnect and remove existing light pole and associated fixture, provide traffic-rated pull box, min 10" x 17" with base, remove existing metal poles, remove existing air and water equipment, remove existing bollards remove existing water line within limits of concrete pad demolition cut and cap existing water line for UST removal. Replace water line, cap remaining underground conduit and abandon in place. Any materials that are suitable for recycling shall be recycled. Accomplish all work in accordance with the drawings and specifications contained herein. Accomplish all work in accordance with California Building Codes (2025 Editions). Perform the above-mentioned work at the Barstow Field Maintenance Shop at 1601 Armory Rd., Barstow, CA, 92311.

Contractor will have 365 Calendar Days from notice to proceed to complete this project.

An approved Safety Plan with appointment letters for Site Superintendent, Quality Control and Site Safety Officer are required as submittals. Material submittals for all materials are required. Site Superintendent and Safety Officer (can be one person) or an approved alternate are required to be on site at all time that work is being performed.

All work shall comply with trade standards local, State of California, and federal regulations. Project will also comply with applicable UBC/CBC codes and UFCs. The following UFC's listed below will be followed:

UFC 1-200-01 GENERAL BUILDING REQUIRMENTS
DOD INST 6055.1 AND APPLICABLE CALIFORNIA OCCUPATIONAL SAFETY AND HEALTH
ADMINISTRATION (CAL-OSHA) SAFETY AND HEALTH STANDARDS.

Contractor shall possess a current and in good standing California License Board issued either a B-General or a D-40 Service Station Equipment And Maintenance Contractor License.

By submitting a bid, the contractor confirms that all quantities have been verified and that the quantities used in preparing this bid are the actual quantities of the work to be accomplished

under the contract.

Material submittals for all materials are required.

Contractor to reference the SOW, Specifications and/or Drawings. All materials to be installed per manufacturer's instructions.

Contractor, employees and sub-contractors shall comply with Real ID Act. The Contractor shall be registered and participate with the Department of Industrial Relations (DIR) electronic certified payroll reporting (eCPR) for contracts over \$1,000.

BACKGROUND: Barstow Field Maintenance Shop no longer operates as a strategic fueling point. Due to lack of use the two underground storage tanks need to be removed.

LOCATION: Work site is located at the Barstow Field Maintenance Shop at 1601 Armory Rd., Barstow, CA, 92311.

PRINCIPLE FEATURES: Work performed shall include the following items:

Contractor is responsible for, but is not limited to, providing all labor, materials, and equipment necessary to Remove and dispose of existing 2,000 gallon and 6,000 gallon diesel fuel Underground Storage Tanks (UST), piping and appurtenances. Existing Concrete anchor slabs and straps for tanks to abandon in place IAW regulations. Demolish concrete pad within limits shown, demolish and remove existing concrete fuel island, remove existing fuel pumps remove existing fuel pumps disconnect and remove existing light pole and associated fixture, provide traffic-rated pull box, min 10" x 17" with base, remove existing metal poles, remove existing air and water equipment, remove existing bollards remove existing water line within limits of concrete pad demolition cut and cap existing water line for UST removal. Replace water line, cap remaining underground conduit and abandon in place. Any materials that are suitable for recycling shall be recycled. Accomplish all work in accordance with the drawings and specifications contained herein. Accomplish all work in accordance with California Building Codes (2025 Editions). Perform the above-mentioned work at the Barstow Field Maintenance Shop at 1601 Armory Rd., Barstow, CA, 92311.

Any materials that are suitable for recycling shall be recycled.

Accomplish all work in accordance with the drawings and specifications contained herein.

Accomplish all work in accordance with California Building Codes (2022 Editions).

Perform the above-mentioned work at the Barstow Field Maintenance Shop at 1601 Armory Rd., Barstow, CA, 92311

CLOSE OUT AND WARRANTY:

Contractor shall provide a two-year workmanship warranty that covers the labor, skill, and installation process. Plus a Material/Product Warranty provided by the manufacturer that covers the physical materials or products used.

Provide as-built drawing(s) identifying existing underground utility locations within the project footprint.

GENERAL NOTES:

Per "The Federal Facilities Act 1992" the contracted work shall conform to the applicable local building codes, and ordinances, and regulations listed in the contract specifications, or on the construction documents (plans), and required by the local building authorities. The governing codes, rules, and regulations are collectively referred to as "The Codes". The Contractor shall report any inconsistencies, conflicts, or omissions that may be discovered, to the Project Manager for interpretation prior to performing the work.

Contractor shall be responsible for making him/herself familiar with all surface utilities, pipes and structures, within the Limits of Construction. Contractor shall take sole responsibility for cost incurred due to damage and replacement of said utilities.

The Contractor shall field verify all conditions and dimensions of the job site and report all discrepancies and/or unusual conditions to the Project Manager prior to finalized bids or commencement of any construction.

The Contractor must obtain *any* required permits, bonds, special inspections and tests from the building department as required prior to the start of construction, unless noted otherwise. This shall include all fees and comply with governing authorities requirements for construction and inspections.

This project will be performed on government property and prevailing wages apply.

The Contractor shall provide a named Field Superintendent and a list of all subcontractors to be used and submit the list to the Project Manager within 10 working days upon award of the contract.

The assigned Field Superintendent shall be present whenever scheduled work is to occur.

The Contracting Officer is the only person who can approve a change in subcontractor.

The Contractor shall notify the Project Manager in writing of anticipated mobilization with prospective construction schedule notating keystone events and critical path, 10 working days in advance.

The Contractor (if necessary) to provide temporary services including barricade construction, power, lighting, and telephone, shall coordinate 10 working days prior to their installation and use with the Project Manager. The Contractor shall remove temporary services prior to completion and clean space as specified in the project.

Contractor shall not willfully proceed with construction as designed when it is obvious that unknown obstructions and/or differences exist that may not have been known during design. Such conditions shall be immediately brought to the attention of the Project Manager.

The Contractor shall assume full responsibility for all revisions due to a failure to give notification.

The Contractor shall maintain required documents and up-to-date Construction Documents at job site.

The Contractor shall assume sole and complete responsibility for job site condition during the course of this project including the safety of all personnel and properties. This requirement shall apply continuously and not to be limited to normal work hours.

The Contractor shall provide public protection as necessary and required by governing agencies. (ADA, ICBO, UBC, UFC, UMC, UPC, NEC & NFPA)

The Project Manager, Assistant Project Manager, DPW, and inspectors from pertinent agencies shall be permitted access to the job site at all times during normal working hours.

Details are intended to show the intent of the design. Minor modification may be required to suit the field dimensions or conditions, and such modifications shall be included as part of the work of the contract. Notification of all parties is required.

The Contractor shall maintain handbook, operating manuals, paperwork, and keys in an organized manner and within a safe place. These shall be turned over to the Project Manager along with certificate of occupancy, lien waivers, warranties, and guarantees upon completion of said contract.

Contractor will notify the Project Manager of anticipated final inspection date 5 working days in advance in writing.

Administrative Requirements

Collaboration Software

1. SUMMARY

- a. Contractor shall utilize web-based construction project management collaboration software commonly known as **Procore** (www.procore.com) to submit, track, distribute and fully collaborate on project documentation and action items. Wherein this specification references Procore it shall mean the California Military Department (CMD) Procore account.
- b. The intent of utilizing a web-based construction management application is to reduce cost and schedule risk, improve quality and safety, and maintain a healthy team dynamic by improving information flow, reducing non-productive activities, reducing rework and decreasing turnaround times.

2. SOFTWARE USAGE (including but not limited to)

a. Daily Log

- i. Using the Daily log tool within Procore, Contractor shall provide a separate daily log entry for the Superintendent, Site Safety and Health Officer and Quality Control team (as defined elsewhere in this contract). Should contractor already have an established process for documenting Daily work activities, Safety and QCM, the CMD may, at its sole discretion, permit the use of some or all

of the contractors' reports provided they are uploaded daily into Procore Daily log tool as directed by the Department.

- ii. Contractor shall upload pictures daily when work is performed. A reasonable number of pictures shall be taken to illustrate the work of the project but in any event no less than 10 photos daily, if work is interior and exterior there shall be 10 of each area of work. Photos shall be made available to the entire project team, loaded directly into the Procore platform, using the "Photos" tool and provided relevant naming convention to permit search features at a later date. These uploads shall be in addition to those required in the Section 01 30 00 (if addressed) and elsewhere in the contract.

b. Directory

- i. Contractor shall input and update (as required) the Procore project directory to include all key project team members. As directed by the CMD, subcontractors may not be required to participate within the Procore project. Should CMD require participation of subcontractors withing Procore, participation will be at no additional cost or expense.

c. Deficiency Tracking

- i. Contractor shall respond promptly to deficiencies and observations identified in PROCORE and do so in accordance with the terms and conditions of this contract.

d. Documents

- i. Contractor will, as directed by the Department, utilize the Procore "Documents" storage location for miscellaneous project documents. Contractor shall not upload documents unless directed by the Department. Documents loaded shall have a naming convention of title/subject to permit search functions of the Procore system.
- ii. Contractor shall use proper version control and check out files, without compromising access to all previous revisions.

e. Drawings

- i. Project Drawings will be located in the Drawings tool of Procore. Any drawing revisions will be made in Procore and it shall be contractors' sole responsibility to stays abreast of any changes including contract modifications. Contractor shall, as directed by the Department, maintain the contractually required "as built" drawings in the Procore.

f. Invoicing

- i. If requested by the Department, the Contractor shall utilize Procore

Invoicing tool for invoice submission. Invoicing shall be submitted as further defined in this contract using AIA forms uploaded as attachments to each submission.

g. Inspections

- i. Contractor shall utilize the Procore platform as directed by CMD for all project inspection requests. Inspection process shall be as defined elsewhere the contract documents.

h. Meetings

- i. Contractor shall utilize Procore Meetings tool to create, edit and post meeting minutes. Prior Meeting minutes shall remain accessible through the duration of the project. At the sole discretion of the department, the contractor may be permitted to utilize existing meeting practices if they meet the intent of the government, in which case contractor shall ensure a record copy of any such meeting is posted in Procore as directed by the department.
- ii. Contractor will record and distribute meeting minutes and action items via the Meetings tool within the Procore software.

i. Mobile Accessibility

- i. Contractor shall provide at least one mobile (Apple or Android) tablet or computer (phone is not acceptable) with the Procore App installed for the use of Contractor's team for the duration of the project. Contractor is responsible for ensuring a reliable internet connection for the device.

j. Photos

- i. Contractor shall utilize Procore Photos tool or other tools as directed to upload and view photos from web and mobile.
- ii. Contractor shall utilize Procore to markup or comment on photos to clarify the intent of RFI's etc.

k. Punchlist

- i. All punch list items will be managed through the Procore software.
- ii. Contractor shall utilize Procore to create and manage punch list items utilizing mobile products and link them to specific locations on the drawings.
- iii. Punchlist items will be created by the Contractor while walking with the CMD and applicable consultants.
- iv. Contractor shall utilize Procore to distribute punch list items and to mark them as resolved with photographic proof of resolution as required.
- v. Unless otherwise agreed in writing, Punchlist Items may not be closed while a representative from the CMD or applicable

consultant acting on behalf of CMD is not present.

I. Requests for Information (RFIs)

- i. Contractor shall utilize the RFI tool within Procore to create and process RFIs with assignees, due dates and attachments.
- ii. Contractor shall fully complete the RFI tool request form, posting the RFI to the drawing(s) and link all relevant specifications, photos, etc. in the Procore RFI tool whenever submitting RFI's to the CMD. Failure to do so will result in rejection of the review and be deemed a review by the CMD as defined elsewhere in the contract documents.
- iii. If project includes design, drawings will be provided to the CMD in accordance with the following requirements:

<https://support.procore.com/faq/how-can-i-improve-the-accuracy-of-ocr-on-my-drawings>

m. Schedule

- i. Contractor shall provide native files as required by Procore and as defined elsewhere in the contract documents. Procore accepts typical scheduling software such as Microsoft Project, Primavera P3, or Primavera P6.

n. Specifications

- i. Project Specifications will be uploaded into Procore. Any project revisions will be made in Procore and it shall be the contractors' sole responsibility to stay abreast of any changes including contract modifications.

o. Submittals

- i. Contractor shall maintain the submittal register in Procore of all submittals as directed by the CMD.
- ii. Contractor shall submit all submittals through the Procore "Submittals" tool utilizing the multi-step approval workflows predefined by the CMD and in accordance with the terms provided elsewhere in the contract documents.
- iii. Contractor shall fill out the submittals completely. A failure to do so will result in automatic rejections and be deemed a "review" as provided elsewhere in the contract.

3. TECHNOLOGY

- a. Contractor shall have PDF and the Microsoft suite software as they are a requirement of Procore. Attachments to RFIs, Submittals, Meetings, etc. should be uploaded in PDF as required by Procore.

4. TRAINING AND SUPPORT

- a. Contractor shall designate a minimum of one primary and one backup staff person to administer the contractors' Procore responsibilities of this project. Those personnel will be trained as defined below and shall not rely on the CMD staff for training.
- b. The Contractor shall ensure adequate training of all staff utilizing the Procore software. Selected staff must complete all required training necessary to fully function in the system and on this project. Training is offered in the form of self-paced learning videos as well as interactive webinars. Training is free and can be found at:

<https://education.procore.com/page/procore-certification-general-contractor-client>

- c. The contractor shall host a kickoff meeting with the CMD and applicable team members at the beginning of the project to discuss how the software will be used, routing & naming protocols, etc. Project Subcontractors should not be part of the Procore platform unless otherwise directed by the Department.

5. PROCEDURES

- a. RFIs and Submittals
 - i. The Contractor will be responsible for submitting all RFIs and Submittals through the Procore software tools and assigning them to the appropriate parties using predetermined workflows. All data fields shall be filled out completely and routed as defined in the project kickoff/Job Start meeting.
 - ii. All project team members including Architects / Engineers / Consultants etc. are responsible for posting all responses to these items via the Procore software, including uploading all relevant attachments.
 - iii. The Contractor will, as directed by CMD, distribute responses to all affected subcontractors and confirm agreement with the response by "close and distribute" action on the item.
- b. Construction Documentation
 - i. The Contractor will construct pursuant to Drawings, Specifications and Documents in the software and ensure that the current version of all applicable construction documentation is available to the entire team within Procore software.
 - ii. The Contractor will ensure that all RFIs which modify the current drawings are posted/linked to the drawings and available in the Procore software immediately upon response from the department.

6. COST

- a. The Contractor's bid proposal shall be inclusive of full utilization of the Procore software costs. The program is hosted by the CMD and no adjustment to the contract will be made for utilization.

QUALIFICATIONS:

Contractor: Company specializing in performing the work, will have a current and valid B-General or a D-40 service station maintenance contractor license issued by the State of California, Consumer Affairs, Contractor State License Board (CLSB).

SUBMITTALS:

The Contractor shall submit for approval all necessary residual equipment for the operation of the completed project, after award of contract, including all manufacturer's catalogs and specifications to the Project Manager.

Submit product data for all materials used in the work for this project Thirty (30) working days prior to mobilization.

MATERIALS/EQUIPMENT:

Unless otherwise specified all materials and equipment used will be as specified in this scope of work and on the approved drawing (plans) and **follow the Made in America ACT.**

All materials shall be new and equipment in use for this contract shall be in good & safe working order.

Unless noted otherwise on the construction documents (plans) or in the contract specifications as being N.I.C. or existing; all items, materials, etc., and the installation of same are part of the contract defined by the construction documents (plans) and contract specifications.

PRE-CONSTRUCTION CONFERENCE:

Convene a minimum of five (5) working days prior to commencement of work.

Review requirements for preparation and installation procedures, coordinating and scheduling required with related work and conditions that could possibly interfere with successful performance of the work.

Personnel clearance issues will be discussed and finalized at the pre-construction meeting

HOURS OF OPERATION:

Onsite work under this contract shall be accomplished between 8:00 AM and 4:30 PM, Monday through Friday, except on Federal and State holidays, unless otherwise approved by Project Manager.

Physical work of contract shall commence within 10 (ten) days of receipt of Notice to Proceed and be complete no more than 365 working days after work starts.

All work shall be performed in such a manner that there will be minimum interruption or interference with the proper execution of government business.

SECURITY REGULATIONS:

Unless otherwise directed by the entrance gate officer and/or Contract Manager, the Contractor, Contractor's employees and subcontractors shall enter the facility through the main entrance.

In order to maintain facility safety and security, periodic fire prevention inspections and site searches may become necessary and Contractor must furnish keys to facility authorities to access all locked areas on the worksite. The State shall in no way be responsible for Contractor's loss due to fire.

Due to security procedures, the Contractor, Contractor's employees, and subcontractors may be delayed at the facility vehicle/pedestrian gates. Any loss of time checking in and out of the facility gates shall be borne by the Contractor.

Contractor, Contractor's employees and subcontractors shall observe all security rules and regulations and comply with all instructions given by facility authorities.

Contractor, Contractor's employees and subcontractors shall not cause undue interference with the operations of the facility.

GATE CLEARANCE:

Contractor and Contractor's employee(s) and/or subcontractor(s) must be cleared prior to entry onto base. Minimum 3 days prior to entry onto base, Contractor to provide Project Manager names of all personnel entering base for security clearance and security approval for entry.

Possession of the following is required for entry onto base:

Current vehicle registration.

Proof of vehicle insurance.

One of the following identifications:

FEDERALLY ISSUED IDENTIFICATION

- a. U.S. Passport
- b. U.S. Passport Card
- c. PIV or Federally-issued Personal Identification Verification – Interoperable (PIV-I) Cards
- d. Driver's License issued by the U.S. Department of State
- e. Border Crossing Card (Form DSP-150)
- f. DHS "Trusted Traveler" Cards (Global Entry, NEXUS, SENTRI, FAST)
- g. U.S. Military ID (all members of the U.S. Armed Forces [including retirees and

dependent ID card holders]) and veterans. (Visit the Department of Defense's Common Access Card website for more information)

h. Veterans Health Identification Card issued by the U. S. Department of Veterans Affairs

i. U.S. Permanent Resident Card (Form I-551)

j. U.S. Certificate of Naturalization or Certificate of Citizenship (Form N- 550)

k. Employment Authorization Document issued by DHS (Form I-766)

l. U.S. Refugee Travel Document or other travel document or evidence of immigration status issued by DHS containing a photograph (Permit to Re- enter Form I-327 and Refugee Travel Document Form I-571)

m. Transportation Worker Identification Credential (TWIC)

n. Merchant Mariner Card issued by DHS/United States Coast Guard (USCG)

STATE-ISSUED IDENTIFICATION

a. A REAL ID Driver's License issued by a state that meets the REAL ID standards

b. State prisoner identification cards

c. Interim Driver's License issued by a state that meets the REAL ID standards or has an extension

d. Native American Tribal Photo ID

e. Foreign government-issued passport

f. PIV-I cards (issued by non-Federal Government entities)

EXECUTION:

Verify that surfaces and site conditions are ready to receive work.

Contractor shall coordinate with Contract Manager prior to all electrical clearances in an effort to minimize customer interruptions.

Contractor shall verify that the system has been inspected by the CM in accordance with the intent of contract.

Contractor shall schedule with CM for work-in-progress inspection at beginning of work, 50% of work, and at completion of the work.

Contractor shall promptly schedule with CM a final inspection, to certify that materials installed comply in all respects with the requirements of this specification; and were installed in strict accordance with Federal, State, and Local regulations as well as manufacturer's instructions/requirements for the specified system.

Workmanship:

1 All work shall be accomplished with personnel who are thoroughly skilled in the demolition and installation and reconnection of specified materials; with all workmanship done in such a manner as to fulfill the requirements of the drawings and specifications.

2 The Contractor shall maintain a competent foreman, English speaking, to continuously supervise the work, with authority to discard unsuitable materials and remove unsatisfactory workmen from the project.

3 Certify this requirement to the Contract Officer Representative in writing.

All work of others that is damaged in the execution of work under this contract shall be replaced or restored to the original condition by Contractor at the Contractor's expense.

DELIVERY, STORAGE, and HANDLING:

Material shall be delivered to job site in new, dry, manufacturers' original unopened containers with seals and labels intact, clearly showing catalog number, product description approved inspection agency label, where and by whom manufactured and in quantities sufficient to assure continuous work.

Assure that materials are kept clean, and away from excessive heat, cold and moisture; do not remove labels or tear off protective covering until ready for use and inspected by the Project Manager. Unless otherwise specified by material manufacturer storage and handling instructions, store all materials in an enclosed area where temperature is above 50 degrees and below 90 degrees Fahrenheit.

Material shall not be stored directly on the ground or improved surface.

ENVIRONMENTAL REQUIREMENTS:

Do not install material during unsuitable weather when ambient temperature per manufacturer's instructions.

COORDINATION:

The Contractor shall be responsible for any coordination with other subcontractors as required to accomplish construction operations.

QUALITY ASSURANCE:

Regulatory Requirements:

Where the cited references contain more than one detail for a specific purpose, the most stringent condition shall govern.

Field inspections will be performed, with emphasis on the manufacturer's requirements.

Deficiencies identified during field inspections shall be corrected within two (2) working days, and will be inspected at Final Inspection.

Notification to all concerned parties must be received not less than one (1) business day prior to required attendance.

CLEAN UP:

The Contractor shall clean up all debris and discarded materials resulting from the operations of the day, prior to the completion of each workday.

Broom clean exterior surface adjacent to premises (paths and walkways used during construction).

Remove all stickers, glues, adhesives, and clean all surfaces prior to acceptance.

DISPOSITION OF MATERIALS:

All materials to be handled, transported, and disposed of in accordance with all applicable Federal, State, and Local regulations. Materials to be placed in proper containers and trucked off – site to an approved landfill. No open burning will be allowed.

Contractor shall make own arrangements for disposal of debris or other waste material away from Camp Roberts at own expense and assume total responsibility for proper disposal of all materials in accordance with local, State and Federal regulations.

Debris from project will be removed daily, and at no time allowed to block any thoroughfare. Premises shall be cleaned to satisfaction of the Project Manager.

WARRANTIES:

Contractor shall provide a two-year workmanship warranty that covers the labor, skill, and installation process. Plus a Material/Product Warranty provided by the manufacturer that covers the physical materials or products used.

SAFETY REQUIREMENTS:

Accident Prevention:

In order to provide safety controls for protection to the life and health of employees and other people, for prevention of damage to property, materials, supplies and equipment and for avoidance of work interruption of this contract, the Contractor shall comply with all applicable OSHA laws, etc.

The Contractor will maintain and provide an accurate record of: exposure data, all accidents resulting in death, traumatic injury, occupational disease and damage to property, materials, supplies, and equipment incident to work performed under this contract.

The Contractor shall provide an exact copy of the record within 24 hours, upon request of the Project Manager for the length of the contract and its warranty period.

Occupational Safety and Health Administration:

Safety standards set forth by OSHA shall be maintained and followed by the Contractor, subcontractor(s) and work crews at all times.

Fire Prevention:

Contractor shall comply with the California Fire Code, Current Edition.

Rules of Safety:

All rules of safety that are or may be imposed upon the Contractor by Federal, State or Municipal Code, CALOSHA and the applicable Army regulations shall be effectively carried out in the performance of the contract.

The Contractor shall be responsible for safety precautions during construction.

Contractor shall comply with all building and safety codes and shall report any non-compliance of these specifications or manufactured installation procedures to Project Manager prior to beginning work.

The Contractor shall complete Form 3394 and submit to the Project Manager within three (3) calendar days of an accident involving personal injury or property damage.

POLLUTION ABATEMENT:

The contractor shall comply with all Federal, State and Local environmental laws and regulations.

The contractor shall avoid any disposal practices that will place the Government a controversial position with Local and Federal environmental agencies.

CLOSE OUT & INVOICES:

All invoices must be submitted to the Project Manager and the Contract Manager for verification before they can be processed by the Military Department. Contractor can only bill for work that is complete and once a month.

Perform the above-mentioned work at the Barstow Field Maintenance Shop at 1601 Armory Rd., Barstow, CA, 92311.

The contractor shall provide **two (2) full and accurate hardcopy sets of as-built drawings** per Project Manual Sections 01 33 00 and 01 70 00, for the work accomplished by all trades for this contract marked up in a neat and understandable manner, submitted to the PM upon completion of the work and prior to issuance of a Certificate of Completion.

Contractor will have 365 Calendar Days to complete the project.

Required PPE for Job Walk includes Hard Hat, reflective/high visible vest/shirt and work boots.

An approved Quality Control and Safety Plan with appointment letters for Site Superintendent, Quality Control and Site Safety Officer are required as submittals. Material submittals for all materials are required. Site Superintendent, Safety Officer and Quality Control or an approved alternate are required to be on site, at all times, while work is being performed, EM 385-1-1 will be adhered to at all times.

All work shall comply with trade standards local, State of California, and Federal regulations. Project will also comply with applicable UBC/CBC codes and UFCs.

This scope works in concert with the project manual, the more stringent requirements shall apply. Bidding of this scope shall include prevailing wages, payment, bid bond and performance bond.

Any materials that are suitable for recycling shall be recycled.

Accomplish all work in accordance with the drawings and specifications contained herein.

Accomplish all work in accordance with California Building Codes (2022 Editions).

END OF SCOPE

EXHIBIT B
(Budget Detail and Payment Provisions)

1. INVOICING AND PAYMENT

- a. For services satisfactorily completed in accordance with the terms and conditions stated herein, and upon receipt and approval of the invoice(s), the State agrees to compensate the Contractor for actual expenditures incurred in accordance with the specified as follows: attached hereto as Attachment 3 – Rate Sheet and made a part of this Agreement.
- b. Contractor shall submit, in arrears, not more frequently than once a month, and no less than quarterly, an invoice to CMD for cost incurred pursuant to the agreement. In addition, each invoice shall contain the following information:
- c. Each Invoice shall include:
 - i. The agreement number 130515
 - ii. The dates or time-period which the invoiced costs were incurred.
 - iii. Description of service, quantity, rate, and total for the current invoice.
 - iv. Certified Small Business or DVBE #, if applicable.
- d. Invoice(s) shall be submitted electronically to J8-PWR@cmd.ca.gov.
- e. Contractor shall submit a copy of the Prime Contractor's [DVBE Subcontracting Report form \(STD 817\)](#) for verification by CMD Project Manager with final invoice.
- f. Contractor agrees to certify on Prime Contractor's Certification DVBE Subcontractor Report, Form STD 817, that DVBE subcontractor participation under this agreement is in compliance with the goals specified at the time of award of contract or with any subsequent amendment. If for this Contract the Contractor made a commitment to achieve the DVBE participation goal, the Department will withhold \$10,000.00 from the final payment, or the full final payment if less than \$10,000.00, until the Contractor complies with the certification requirements of Military and Veterans Code Section 999.5. A Contractor that fails to comply with the certification requirement shall, after notice, be allowed to cure the defect. Notwithstanding any other law, if, after at least 15 calendar days but not more than 30 calendar days from the date of notice, the prime contractor refuses to comply with the certification requirements, the department shall permanently deduct \$10,000.00 from the final payment, or the full payment if less than \$10,000.00. The Contractor shall provide proof of payment for the work performed by the DVBE subcontractor(s) upon Department's request.

2. BUDGET CONTINGENCY CLAUSE

- a. It is mutually agreed that if the Budget Act of the current year and/or any subsequent years covered under this Agreement does not appropriate sufficient funds for the program, this Agreement shall be of no further force and effect. In this event, the State shall have no liability to pay any funds whatsoever to Contractor or to furnish any other considerations under this Agreement and Contractor shall not be obligated to perform any provisions of this Agreement.
- b. If funding for any fiscal year is reduced or deleted by the Budget Act for purposes of this program, the State shall have the option to either cancel this Agreement with no liability occurring to the State or offer an agreement amendment to Contractor to reflect the reduced amount.

3. CONTRACTS FUNDED IN WHOLE/IN PART BY THE FEDERAL GOVERNMENT

- a. It is mutually understood between the parties that this contract may have been written before ascertaining the availability of congressional appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays which would occur if the contract were executed after that determination was made.
- b. This contract is valid and enforceable only if sufficient funds are made available to the State by the United States Government for each Fiscal Year of the agreement for the purposes of this program. In addition, this contract is subject to any additional restrictions, limitations, or conditions enacted by the Congress or any statute enacted by the Congress which may affect the provisions, terms, or funding of this contract in any manner.
- c. It is mutually agreed that if the Congress does not appropriate sufficient funds for the program, this contract shall be amended to reflect any reduction in funds.
- d. The department has the option to void the contract under the 30-day cancellation clause or to amend the contract to reflect any reduction of funds.

4. PROMPT PAYMENT CLAUSE

- a. Payment will be made in accordance with, and within the time specified in, Government Code Chapter 4.5, commencing with Section 927.
- b. Pursuant to Public Contract Code Section 10262, Contractor shall pay its Subcontractor(s) within seven (7) calendar days from receipt of each payment made to Contractor by CMD.
- c. Failure of Contractor adhering to Public Contract Code Section 10262 may result in termination of this Agreement per Public Contract Code Section 10253 and disciplinary action by the Contractors State License Board may be implemented.
- d. Any subcontract entered into as a result of this Agreement shall contain all the provisions of this clause.

END OF EXHIBIT B

EXHIBIT D
(General Conditions of Public Works Contract)

1. GENERAL

The following general conditions apply to Standard Agreements and informal Contracts alike. They refer briefly to provisions of the State of California Labor Code, Business and Professions Code, and the State Contract Act, all provisions of which are applicable in full.

2. BIDDING REQUIREMENTS AND CONDITIONS

- a. Examination of Plans, Specifications and Site of the Work:
 - i. Contractor's Responsibility: The bidder shall carefully examine the work site and the plans and specifications. The bidder shall investigate and become satisfied with the site conditions to be encountered, the character, quality and quantity of surface, and subsurface materials or other obstacles to be overcome, the work to be performed, materials to be furnished, and as to all requirements of the proposal, plans, and specifications of the contract hereinafter referred to as the "Work".
 - ii. Responsibility for Utilities: The Contractor shall be responsible for payment of all costs of the work required by the existence or proximity of utilities encountered in performing the work, including without limitation, repair of any damage and or exploratory excavation required. If during the course of the work the Contractor encounters utility installations which are not shown or indicated in the plans or in the specifications, or which are found in a location substantially different from that shown in the contract documents, the contractor must promptly notify the State in writing.
- b. Discrepancies or Errors: If omissions or discrepancies are found in the plan and specifications prior to the date of bid opening, bidders are required to submit a written request for clarification to the State. Any clarification will be given in the form of addendum to all bidders if time permits. Otherwise, in figuring the work, bidders shall consider that any discrepancies or conflict between drawings and specifications shall be governed by Article 5-E.
- c. Proposal Forms: The Military Department will furnish to each bidder a standard proposal form (rate sheet) which, when filled out and executed, shall be submitted as the bid. Bids not presented on forms so furnished may be disregarded. All proposals shall give the prices proposed, both in writing and figures, and shall be signed by the bidder or a duly authorized representative, with his address. Proposals made by an individual, shall include the bidder's name and post office/ mailing address; if made by partnership, the name and post office/ mailing address of the partnership, and the signature of one or more partners must be shown: if made by a corporation, the proposal shall show the name of the state of incorporation, the name of the corporation and the title of the person who signs on behalf of the corporation along with evidence of authority to sign.
- d. List of Subcontractors: Each bid shall have listed therein the name and address of each subcontractor to whom the bidder proposes to subcontract portions of the work in an amount in excess of one-half of one percent (1/2 of 1%) of the total bid, in accordance with Chapter 2, Division 5, Title 1, of the Government Code.
- e. Rejection of Irregular Proposals: Proposals may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, erasures, or irregularities of any kind.
- f. Withdrawal of Proposals: Any bid may be withdrawn at any time prior to the time fixed in the public notice for the opening of bids, provided that a request in writing, executed by the bidder or his

duly authorized representative, for the withdrawal of such bid is filed with the Military Department by e-mail. The withdrawal of a bid shall not prejudice the right of a bidder to file a new bid within the time specified. This article does not authorize the withdrawal of any bid after the time fixed in the public notice for the opening of bids.

- g. Public Opening of Proposals: Proposals will be opened publicly and read at the time and place indicated in the Invitation for Bidders. Bidders or their authorized agents and the general public are invited to be present.
- h. Competitive Bidding:
 - i. If more than one proposal is offered by an individual, partnership, corporation, association, or any combination thereof, under the same or different names, all such proposals may be rejected. A party who has quoted prices on materials or work to a bidder as a supplier or subcontractor is not thereby disqualified from quoting prices to other bidders.
 - ii. All bidders are put on notice that any collusive agreement fixing the prices to be bid so as to control or affect the awarding of this contract is in violation of the competitive bidding requirements of the State Contract Act and may render void any contract let under such circumstances.

3. AWARDS AND EXECUTION OF CONTRACT

- a. Award of Contract: The right is reserved to reject any and all proposals. The award of the contract, if awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. If the lowest responsible bidder refuses or fails to execute the contract, the Military Department may award the contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the contract, the Military Department may award the contract to the third lowest responsible bidder and so on and so forth. The Military Department will make the award of the contract on the date of the determination of the successful bidder.
- b. Contract Bonds:
 - i. Prior to the commencement of performance, the contractor must obtain and provide to the State, a payment bond, on Standard Form 807, when the contract involves a public works expenditure (labor/installation costs) in excess of \$24,999.99. Such bond shall be in a sum not less than one hundred percent (100%) of the contract price. Forms shall be provided to the contractor. The contractor shall ensure the payment bond remains in full force and effect during execution of the contracted work, the guarantee period and through such time that all subcontractors and suppliers are paid in full by the contractor.
 - ii. If the contract amount is less than \$25,000.00, and a subsequent change order or contract amendment causes the total amount of the contract to exceed \$24,999.99 then a payment bond will be required in the amount of one hundred percent (100%) of the new contract total amount.
 - iii. If the contract amount exceeds \$9,999.99 and progress payments will be made, a performance bond in the amount of 100% of the contract amount must be submitted by the successful bidder at the time signed contracts are returned to the Military Department. The contractor shall ensure the performance bond remains in full force and effect during execution of the contracted work and guarantee period.

- iv. If the proposed bid amount exceeds \$24,999.99, the contractor must submit a bid bond in the amount of at least 10% of the bid amount with the Proposal Form utilizing a bond form provided by the Surety.
- v. Bonds must be issued by a California-admitted surety. (CCP § 995.311.)
- c. Execution of Contract:
 - i. The contract shall be signed by the successful bidder and returned within 10 business days of receipt, not including Saturdays, Sundays, and legal holidays, together with the contract bonds. No contract shall be binding upon the State until the contractor receives a fully executed contract signed and approved by the Military Department.
 - ii. Contractor shall not begin work without the Notice to Proceed. If the contractor begins work prior to contract approval and receipt of the "Notice to Proceed", the contractor's sole remedy shall be to seek payment by filing with the Victim Compensation Board. The state has no legal obligation to the contractor until the contract is approved and "Notice to Proceed" has been issued.
- d. Failure to Execute Contract: Failure to sign a contract and file acceptable bonds as provided herein within the required time mentioned above in paragraph C-1, shall be just cause for the annulment of the award. If the successful bidder refuses or fails to sign the contract, the Military Department may award the contract to second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the contract, the Military Department may award the contract to the third lowest bidder. Bidder who refuses to execute the contract may be held liable for additional costs to the State and/or claims against any bid bond.
- e. When submittals are required for a project, the Government shall absorb the cost of review for the original submittal request and one re-submission for each submittal. For any additional reviews the contractor will be charged for the Project Manager's and Architect/Engineer's review time at a cost of \$100.00 per hour. Payment will be due as determined in the sole discretion by the Procurement and Contracting Officer and will not be prorated in less than one-hour increments.
- f. When Request for Information (RFI)s are submitted on a project, the Government shall absorb the cost of review for the original RFI and one clarification. For any additional RFIs regarding the same or similar issue, the contractor will be charged for the Project Manager's and Architect/Engineer's review time at a cost of \$100.00 per hour. Payment will be due as determined in the sole discretion by the Procurement and Contracting Officer and will not be prorated in less than one-hour increments.
- g. Americans With Disabilities Act (ADA): By signing the contract, the Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.

4. LEGAL, RELATIONS, AND RESPONSIBILITY

- a. Regulations and Protection:
 - i. The contractor shall keep informed of and comply with and cause all of his agents and employees to observe and comply with all prevailing Federal and State laws, and all rules and regulations issued made pursuant to said Federal and State laws, which in any way affect the conduct of the work of this contract.

- ii. The contractor shall obtain and pay for all permits and licenses required for excavating or other work on or in public streets, road or sidewalks, and shall comply with all laws in connection therewith. If any conflict arises between provisions of the plans and specifications and any such law the contractor shall notify the State at once in writing. The contractor shall protect and indemnify and defend the State or any of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such law or regulation by the contractor or its agents or employees.
 - iii. Neither the State nor the contractor is subject to municipal, county, or district laws, rules or regulations pertaining to building permits or regulating the design or construction of buildings upon State property.
 - iv. The contractor shall be responsible for and provide and maintain all proper temporary walks, roads, guards, railings, lights, warning signs, and take precaution at all times to avoid injury or damage to any person or any property, and upon completion of the work, or at proper times as directed by the PM, shall restore the premises and adjacent property to proper condition.
 - v. The contractor shall protect adjoining property and nearby buildings, including State buildings, State roads, and public streets or roads, from dust, dirt, debris, or other nuisance arising out of the contractor's operations or storage practices. Sprinkling or other effective methods acceptable to the State shall control dust.
 - vi. No advertising by the contractor will be permitted in or about the work except by written order of the State.
- b. Laws to be Observed:
- i. Labor Discrimination: Attention is directed to Section 1735 of the Labor Code, which reads as follows: "No discrimination shall be made in the employment of persons upon public works because of race, color, or religion of such persons and every contractor for public works violating this section is subject to all the penalties for violation of this chapter".
 - ii. Labor Code Certifications:
 - 1. The contractor certifies "I am aware of the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code and I will comply with such provisions before commencing the performance of the work of this contract."
 - 2. It is hereby mutually agreed that the contractor shall forfeit to the state a penalty of fifty dollars for each calendar day, or portion thereof, for each worker paid by him or her, or subcontractor under him or her, less than the prevailing wage so stipulated and in addition the contractor further agree to pay to each worker the difference between the actual amount paid for each calendar day, or portion thereof, and the stipulated prevailing wage rate for the same. This provision shall not apply to properly, registered apprentices.
 - 3. It is further agreed that the maximum hours a worker is to be employed is limited to eight hours a day and 40 hours a week and the contractor shall forfeit, as a penalty to the state, twenty-five dollars for each worker employed in the execution of the contract for each calendar day during which a worker is required or permitted

to labor more than eight hours in any calendar day or more than 40 hours in any calendar week, in violation of Labor Code Sections 1810-1815, inclusive. Work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay, as provided in Labor Code Section 1815.

4. The wage rates set forth are the minimum that may be paid by the contractor. Nothing herein contained shall be construed as preventing the contractor from paying more than the minimum rates set forth. No extra compensation whatsoever will be allowed by the State due to inability of the contractor to hire labor at the minimum rates, nor for any necessity for payment by the contractor of subsistence, travel time, overtime, or other added compensations, all of which possibilities are elements to be considered and ascertained to the contractor's own satisfaction in preparing his bid.
 5. Travel and subsistence payments shall be paid to each worker needed to execute the work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Labor Code Section 1773.8.
 6. Each contractor and subcontractor shall comply with the Labor Code section 1776 regarding record keeping.
 7. In accordance with the provisions of Section 1773 of the Labor Code, the Director of the Department of Industrial Relations has ascertained the generally prevailing rate of wages applicable to the County in which the work is to be done on this contract. Included therein are employer payments for health and welfare, vacation, pension, apprenticeship or other authorized training programs, and similar purposes. Holidays shall be as defined in the collective bargaining agreement applicable to the classification(s) employed on the project.
 8. Copies of the General Prevailing Wage rate for the applicable labor classification(s) are available at the web site for the State of California, Department of Industrial Relations-Division of Labor Statistics and Research at www.dir.ca.gov/DLSR.
 9. By signing the contract, the contractor swears under penalty of perjury that no more than one final un-appealable finding of contempt of court by a federal court has been issued against the contractor with the immediately preceding two-year period because of the contractor's failure to comply with an order of a federal court which orders the contractor to comply with an order of the Nation Labor Relations Board.
 10. Properly registered apprentices may be employed in the prosecution of the work. Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he or she is employed and shall be employed only at the work of the craft or trade to which he or she is registered. The contractor and each subcontractor must comply with the requirements of Labor Code Section 1777.5 and any related regulations regarding the employment of registered apprentices.
- iii. Registration of Contractors: All businesses or individuals, who construct, offer to construct, or alter any building, highway, road, parking facility, railroad, excavation, or other structure

in California must be licensed by the California Contractors State License Board (CSLB) if the total cost (labor and materials) of one or more contracts on the project is \$1,000.00 or more. Contractors, including subcontractors, specialty contractors, and persons engaged in the business of home improvement must be licensed before submitting bids. Licenses may be issued to individuals, partnerships, corporations, or joint ventures.

- iv. Responsibility for Damage: Neither the State of California, The Adjutant General, nor any officer or employee of the Military Department shall be accountable in any manner, for any loss or damage that may happen to the work or any part thereof, or for any of the materials or other things used or employed in performing the work, or for injury to any person or persons, either worker or the public, for damage to property from any cause which might have been prevented by the contractor, or any contractor's employee against all of which injuries or damages to persons and property the contractor having control over such work must properly guard. The contractor shall be responsible for any liability imposed by law for any damage to any person or property resulting from defects or obstructions or from any cause whatsoever during the progress of the work or at any time before the completion and final acceptance. The contractor shall indemnify and save harmless the State of California, the Adjutant General, and all officers and employees of the Military Department from all units or actions of every name, kind and description, brought for, or on account of any injuries or damages received or sustained by any person or persons, by or from the contractor, or any contractor's employee or agents, in the construction of the work or by or in consequence of any negligence in guarding the same, in improper materials used in its construction, or by or on account of any act or omission of the contractor or contractor's agents.
- v. Occupancy by the State Prior to Acceptance:
 - 1. The State reserves the right to occupy all or any part of the project prior to completion of the entire contract, upon written notice to the contractor. In such event, the contractor will be relieved of responsibility for any injury or damage to such part as may result from such occupancy and use by the State.
 - 2. Such occupancy does not constitute waiver of any rights or acceptance by the State either of the complete work or of any portion thereof, nor will it relieve the contractor of full responsibility for correcting defective work or materials found at any time before the formal written acceptance of the entire contract or during the full guaranty period after such acceptance, as specified in Article 7C.
- vi. Contractor's Responsibility for Work:
 - 1. Until the written acceptance of the Work, the contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part of the work by the action of the elements or from any other cause whether arising from execution or from the non-execution of the work.
 - 2. The contractor shall immediately rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance and shall bear the expense thereof. In case of suspension of work any cause whatsoever, the contractor shall be responsible for the work as above specified and shall also be responsible for all materials, and shall properly store them if necessary, and shall provide suitable drainage and erect temporary structures when necessary.

- vii. No Personal Liability: Neither the Adjutant General, nor any other officer or authorized employees of the Military Department shall be personally responsible as an individual for any liability arising under the contract.
- viii. Fair Employment Practices:
 - 1. The contractor will not willfully discriminate against any employee or applicant for employment because of race, color, religion, ancestry, sex, age, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color religion, ancestry, sex, age, or national origin. Such action shall include, but not be limited to, the following: Employment upgrading, transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the awarding authority setting forth the provisions of this Fair Employment Practices Section.
 - 2. The contractor will send to each labor union or representative of workers with which there is an existing collective bargaining agreement or other contract. A Notice to Labor Unions, to be provided by the awarding authority, advising the said labor union or worker's representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 - 3. The contractor will permit access to its record of employment, employment advertisements, application forms, and other pertinent data and records by the Fair Employment Practices Commission, the awarding authority or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract.
 - 4. A finding of willful violation of the Fair Employment Practices section of this contract or of the Fair Employment Practices Act shall be regarded by the awarding authority as a basis for determining that the contractor is not a "responsible bidder" as to any future contracts for which such contractor may submit bids for revoking the contractor's pre-qualification rating, if any, and for refusing to establish, re-establish or renew a prequalification rating for the contractor.
 - 5. The awarding authority shall deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practice Commission that it has investigated and determined that the contractor has violated the Fair Employment Practices Act and has issued an order under Labor Code Section 1426 or obtained an injunction under Labor Code Section 1429.
 - 6. Upon receipt of such written notice from the Fair Employment Practices Commission, the awarding authority shall notify the contractor that unless they demonstrate to the satisfaction of the awarding authority within a stated period of time that the violation has been corrected, the contractor's pre-qualification rating will be revoked at the expiration of such period.
 - 7. The contractor agrees, that should the awarding authority determine that the contractor has not complied with the Fair Employment Practices section of this

contract, then pursuant to Labor Code Section 1735 and 1775, the contractor shall, as a penalty to the awarding authority, forfeit, for each calendar day or portion thereof, for each person who was denied employment as a result of such noncompliance, the penalties provided in the Labor Code for violation of prevailing wage rates. Such monies may be recovered from the contractor. The awarding authority may deduct any such damages from any monies due the contractor from the State of California.

8. Nothing contained in this Fair Employment Practices Section shall be construed in any manner or fashion so as to prevent the awarding authority of the State of California from pursuing any other remedies that may be available at law.
9. Nothing contained in this Fair Employment Practices Section shall be construed in any manner or fashion so as to require or permit the hiring of an employee not permitted by the National Labor Relations Act.

10. Standards for Affirmative Compliance:

- a. Prior to award of the contract, the contractor shall certify to the awarding authority that the contractor has or will meet the following standards for affirmative compliance, which shall be evaluated in each case by the awarding authority.
- b. The contractor shall provide evidence, as required by the awarding authority, that the contractor has notified all supervisors, foremen and other personnel officers in writing of the content of the anti-discrimination clause and their responsibilities under it.
- c. The contractor shall provide evidence, as required by the awarding authority, that he/she has notified all sources of employee referrals (including unions, employment agencies, advertisements, Department of Employment) of content of the anti-discrimination clause.
- d. Personally, or through an authorized representative(s), the contractor shall, through negotiations with the unions with whom he/she has agreements, attempt to develop an agreement, which will:
 - i. Spell out responsibilities for non-discrimination in hiring, referral, upgrading and training.
 - ii. Otherwise implement an affirmative anti-discrimination program in terms of the union's specific areas of skill and geography, to the end that qualified minority workers will be available and given an equal opportunity for employment.
- e. The contractor shall notify the contracting agency of opposition to the anti-discrimination clause by individuals, firms or organizations during the period of its pre-qualification.

11. Employment of undocumented aliens: No state agency or department, as defined in Public Contract Code § 10357, that is subject to this code, shall award a public works contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a public works contract, who has, in the preceding five years,

been convicted of violating a state or federal law regarding the employment of undocumented aliens. See Public Contract Code § 6101.

12. Antitrust Claims: The contractor offers and agrees and will of his/her other subcontractors and suppliers to agree to assign to the awarding body all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 USC § 15) or under the Cartwright Act (Chapter 2 [commencing with § 16700] of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The assignment made by the contractor and all additional assignments made by the subcontractors or suppliers shall be deemed to have been made and will become effective at the time the awarding body tenders final payment to the contractor without further acknowledgment or the necessity of tendering to the awarding body any written assignments.
13. If an awarding body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Government Code sections 4550-4554, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, on demand, recover from the public body any portion of the recovery, including treble damages and attributable overcharges that were paid by the assignor but were not paid by the public body as a part of the bid price, less the expenses incurred on obtaining that portion of the recovery. On demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under Government sections 4550-4554 if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action
14. The contractor will include the provisions of the foregoing paragraphs 1 through 13 in every subcontract, so that such provisions will be binding upon each subcontractor.

ix. Workers Compensation

1. The contractor will be required to secure the payment of compensation to his employees in accordance with provisions of Labor Code Section 3700.
2. Travel and subsistence payments shall be paid to each worker needed to execute the work, as such travel and subsistence payments as defined in the applicable collective bargaining agreements tiled in accordance with Labor Code Section 1773.8.
3. Patents: The contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the work, and agrees to indemnify and save harmless the State of California, The Adjutant General, and all duly authorized representatives, from all suits at law, or actions of every nature for, or on account of the use of any patented materials, equipment, devices, or processes.

x. CONFLICT OF INTEREST

1. Current State Employees:

- a. No State officer or employee shall engage in any employment, activity, or enterprise from which the officer or employee receives compensation or has a financial interest, and which is sponsored or funded by any State Agency, unless the employment, activity, or enterprise is required as a condition of regular State employment.
- b. No State officer or employee shall contract on his or her own behalf as an independent contractor with any State Agency to provide goods or services.

2. Former State employees:

- a. For the two-year period from the date, he or she left State employment, no former State officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements, or any part of the decision-making process relevant to the contract while employed in any capacity by any State Agency.
- b. For twelve-month period from the date he or she left State employment, no former State officer or employee may enter into a contract with any State agency if he or she was employed by that State agency in a policy-making position in the same general subject area as the proposed contract within the twelve-month period prior to his or her leaving State service. (PCC 10410 and 10411 et seq.)

5. PERFORMANCE, PROSECUTION AND PROGRESS OF WORK

- a. The Prime Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty percent (20%) of the total amount of work to be performed under the contract. The Prime Contractor shall provide at all times sufficient competent labor, materials, and equipment to properly carry on the work and to ensure completion within the time agreed.
- b. Limitation on Work Site and Premises:
 - i. The "work site" or "job site" is defined as the area of actual construction and the areas immediately adjacent thereto, as shown on the plans or as specified. The "Premises" is defined as the area of State-owned property which surrounds the job site, limited by the property lines thereat. In some cases, the premises may coincide with the job site.
 - ii. The contractor shall limit construction operations to the work site unless otherwise shown on the plans or specifications. The contractor shall perform no operations of any nature over or on the premises except such operations as are specifically authorized in the plans or specifications, or as otherwise authorized in writing by the Military Department.
- c. Accident Prevention: Precautions shall be exercised at all times for the protection of persons (including employees) and property. The contractor shall install adequate safety guards and protective devices for any and all equipment and machinery, whether used in the work or permanently installed as part of the work. The contractor shall comply with all applicable laws relating to safety precautions, including the safety regulations of the Division of Industrial Safety, Department of Industrial Relations, of the State of California.
- d. Interpretation of Contract Requirements: The contract documents are intended to be consistent, and to describe and to provide for a complete scope of work. Any requirement occurring in one

document is binding as though occurring in all the contract documents. However, in the event of conflict or discrepancies therein, then the priorities stated below shall govern:

- i. Addendum: An Addendum shall govern over all other contract documents. Subsequent addendum's issued shall govern over prior addendum's only to the extent specified.
- e. Specifications and Drawings: The contractor shall keep on the work site a copy of the drawings, specifications and any amendments and/or RFI responses and shall at all times give the Procurement and Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of differences between drawings and specifications, the specifications shall govern. In any case of difference in the figures, in the drawings, or in specifications, the matter shall be promptly submitted to the Procurement and Contracting Officer who shall promptly make a determination in writing. Any adjustment by the contractor without this determination shall be at the contractor's sole risk and expense. The Procurement and Contracting Officer shall furnish from time to time such detail drawing and other information, as he/she may consider necessary, unless otherwise provided.
- f. Clarification and Additional Instructions: Should any discrepancies, omission or apparent errors, be found in the contract documents, or should any question arise concerning interpretation or clarification of the contract documents, or if it appears that the work to be done or any matters relative thereto are not sufficiently detailed or explained in the contract documents, then, before proceeding with the work affected, the contractor shall immediately notify the Military Department in writing through the Project Manager and request interpretation, clarification or furnishing of additional detailed instructions concerning the work. All such questions shall be resolved within a reasonable time by the Military Department, whose decision thereon shall become final. Should the contractor proceed with the work affected without giving such notice and time for Military Department response, the contractor may be required by the Military Department to then remove and replace or adjust said work at the contractor's sole cost and expense. The contractor shall be responsible for any damage, defect or added cost resulting from this action.
- g. Product and Standards:
 - i. Product Designation: When descriptive catalogue designations, including product brand name, or model number are referred to in the contract documents, such designations shall be considered as being those found in industry publications of current issue at date of first IFB.
 - ii. Standards Incorporated by Reference: When standards of the State or Federal Government, trade societies, or trade associations are referred to in the contract documents by specific date of issue, these shall be considered a part of this contract. When such references do not bear a date of issue, the current published edition at date of first invitation to bid shall be considered as part of this contract.
- h. Materials, Articles, and Equipment: Materials, articles and equipment furnished shall be new. When the contract documents indicate or require that materials, articles, or equipment are to be furnished but the quality or kind thereof is not specified, shown or indicated, the contractor shall furnish materials, article, or equipment at least equal to the class or quality of similar materials, articles, and equipment which are specified, shown or otherwise indicated. No-claim for additional compensation based on the State's failure to specify or indicate the class, type or quality of materials, articles or equipment will be recognized in any event, unless the contractor makes a clear showing that the contractor could not determine the class, type or quality of materials, articles, and/or equipment.

- i. Socio-Economic Programs: (Buy Clean California Act (MM19-01))
 - i. Beginning January 1, 2019, awarding authorities will request successful bidders for public works contracts to submit current facility-specific Environmental Product Declarations (EPDs) for all eligible materials.
 - ii. Awarding authorities are those identified in PCC § 3501 (a) and state agencies granted authority to work on public works projects under MM 18-01. Eligible materials subject to the EPD requirement are structural steel, carbon steel rebar, flat glass, and mineral wool board insulation.
 - iii. Project bid specifications must require that facility specific EPDs are compliant to ISO 14025 and applicable Product Category Rules located on the Department of General Services (DGS) Buy Clean California Act website.
- j. Submittal of Shop Drawings and Product Data: The contractor shall submit to the State one (1) electronic and one (1) hard copy of shop drawings and product data for all work for which submittals are specifically required, an electronic copy will be returned to the contractor. All submittals shall be fully identified as to project, agency, locations, work order, contract numbers, and the contractor's firm name. Shop drawings for construction means drawings, submitted to the State by the construction contractor, subcontractor, or any lower tier subcontractor pursuant to a construct, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The State may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.
- k. Brand or Trade Names and Alternatives: For convenience in designation on the plans or in the specifications, certain materials, articles, or equipment may be designated by a brand or a trade name of the manufacturer together with catalogue designation or other identifying information. Such designation is for descriptive purposes only and does not mean that a particular product has any preference, or that an approved alternative product may not be used. The use of an alternative material, article, or equipment, which is of equal quality and of the required characteristics for the purpose intended, will be permitted if approved by the State in writing. Contractor shall be allowed a period of 35 days after award of the contract in which to submit data substantiating a request for substitution of an equal item, which determination will be by the sole discretion of the Procurement and Contracting Officer.
- l. Conduct of Work:
 - i. The State reserves the right to do other work in connection with the project or adjacent thereto by contract or otherwise, and the contractor shall at all times conduct its work so as to impose no hardship on the State or others engaged in the work, nor to cause any unreasonable delay or hindrance thereto.
 - ii. The contractor shall indemnify, defend, and hold the State harmless for any claims against the State arising from the Contractor's failure to conduct, adjust, correct, and coordinate its work with the work of others engaged in the work.
 - iii. All construction equipment, including tools, plant, temporary construction elevators, hoist, scaffolding, false work, forms, and centering required for prosecution of the work of this contract, and all labor, power, and signals required for the installation, operation, and maintenance of such equipment shall be provided by the contractor. The contractor shall obtain all necessary measurements for the work and shall check dimensions, levels, and construction lay out and supervise the construction, for correctness of all of which he shall be responsible. Where work of one trade joins or is on other work, there shall be no

discrepancy when same is completed. In engaging work with other materials, marring or damaging some will not be permitted. Should improper work of any trade be covered by another and such improper work results in damage or defects, the whole work affected shall be made good without additional cost to the State. The contractor must anticipate relation of all parts of the work and at the proper time furnish and set anchorage, blocking, or bedding as required.

- iv. Materials, articles, and equipment shall be furnished in ample quantities and at such times as to insure uninterrupted progress of the work. They shall be so stored and protected to ensure the preservation of their quality, appearance, and suitability for the work. When stored they shall be so located as to facilitate prompt inspection, and so as to avoid interference with the work of others. The CMD may accommodate the storage of material, but in no event shall the CMD have an obligation to do so. In the event material are stored on site it shall be the contractor's sole responsibility for security of said materials and contractor shall not be compensated for materials except as provided below.
- m. Inspection of Records: The contractor agrees that the California Military Department, or the Bureau of Audits or its designated representative, shall have an absolute right of access to all of the contractor's records, files, documents, accounts, and financial affairs as deemed necessary for the purposes of conducting an audit to determine compliance with terms and conditions of this contract. The contractor shall provide the auditor(s) with any relevant information requested without unnecessary delay and, on reasonable notice, permit access to its premises during normal business hours for the purpose of interviewing staff and inspecting and copying such books, records, accounts, and other material as warranted to conduct the audit. The contractor further agrees to maintain such records for a period of three years after final payment is made on this contract or three years after resolution of all issues that may arise as a result of any litigation, claim, negotiation, or audit related to the contract, whichever is later. The state agrees to treat as confidential any proprietary information obtained as a part of any such audit.
- n. Samples and Tests:
 - i. Whenever the contract documents require tests of materials, articles, equipment or other work, the contractor at its expense shall perform all such tests under the supervision of and provide the results to the Military Department. However, the State may test any portion of the work, at its option, any time during the progress of the work, and shall pay the cost thereof. Unless otherwise directed, all samples for testing will be taken by the Project Manager from the material, articles or equipment delivered, or from work performed, and test will be under the supervision of, or directed by, and at such places as may be convenient to the State.
 - ii. Materials, articles, and equipment requiring tests shall be delivered in ample time before intended use to allow for testing, and none may be used/installed before receipt of written approval by the State. Samples that are of value after testing or review shall remain the property of the State.
- o. Rejection: Should any portion of the work done, or any materials delivered fail to comply with requirements of the contract, such work or materials shall be rejected and shall immediately be made satisfactory to the State by the contractor, at no additional expense to the State. Any materials that are rejected shall immediately be removed from the premises at the contractor's expense.
- p. Preservation and Cleaning: The contractor having control of the work site shall clean up the work at the end of each day as it progresses. At frequent intervals and at all times when directed, the contractor shall remove and dispose of accumulations of old forms, rubbish, and debris of all

kinds. At the completion of the project, the entire work site including the surrounding premises shall be cleared of tools, false work, equipment, rubbish, etc., and ready for acceptance.

q. Labor:

- i. The contractor shall observe strictly that each and every kind of work shall be performed by worker, laborers, or mechanics specially skilled in the class of work required and that workmanship shall be of the best, regardless of the quality of material. Prior to commencement of any work, contractor shall furnish as photographic identification of all staff proposed to work on the site, organized by company or as directed by the Project Manager. Identification shall be provided in electronic copy with a hard copy in a binder for retainage on the site by the appropriate on-site POC. As directed by the Project Manager at the job start meeting on a daily basis the contractor shall make available to the on-site POC a list of staff working on any given day.
- ii. Any agent or employee of the contractor who the State deems incompetent or disorderly shall be promptly removed from the work by the contractor upon written notice from the State and shall not be re-employed on the contract worker premises.

r. Subcontracting:

- i. This contract is subject to the provisions of Chapter 2, Division 5, Title 1, commencing with Section 4100 of the Government Code, which prohibits the subcontracting of the whole or any part of this contract to subcontractors other than those named in the contractor's original proposal.
- ii. The contractor shall be responsible for all work performed under this contract, and no subcontractor will be recognized as such. All persons engaged in the work will be considered as employees of the contractor.
- iii. The contractor shall give personal attention to the fulfillment of this contract and shall keep the work under its control. When any subcontractor fails to prosecute a portion of the work in a manner satisfactory to the State, the contractor shall remove such subcontractor immediately upon written request of the State and shall not thereafter be employed on the work.
- iv. Although the specification sections of this contract may be arranged according to various trades general grouping of work, the contractor is not obligated to sublet the work in such manner. The State will not arbitrate disputes among subcontractors or between the contractor and one or more subcontractors concerning responsibility for performing any part of the work.

1. Substitutions of SBs and DVBEs

- a. DVBE Subcontractors shall be used per the California Code of Regulations (CCR), Title 2, Section 1896.70 unless a substitution is approved in writing by CMD. A DVBE Subcontractor shall be replaced by another DVBE to perform the work originally stated. The substitution shall maintain, at minimum, the level of participation goal stated in the bid. CCR Title 2, Section 1896.73.
- b. SB Subcontractor shall be replaced per regulations set by CCR Title 2, Section 1896.10.

- c. Contractor shall simultaneously notify the CMD SB/DVBE Advocate at Advocate@cmd.ca.gov.

- s. Time of Work and Damage:

- i. The State will designate the starting day of the contract on which the contractor shall immediately begin and diligently coordinate the work to completion. The period of performance start date will be the job start meeting date which the Contractor and the Project Manager shall conduct within 7 days after receipt of the fully executed contract.
 - ii. By signing the job start letter, the contractor obligates himself to perform the work completely and satisfactorily on or before the expiration date to be determined from the number of working days stated in the agreement or by stipulated date of completion, plus such days as may be subsequently allowed by the State through amendments.
 - iii. The contractor shall not be assessed with liquidated damages nor the cost of engineering the inspection during any delay in the completion of the work caused by acts of God, fire, flood, epidemics, quarantine restrictions, freight embargo. Contractor shall notify the State in writing of the causes of delay within five (5) days from the beginning of any such delay.

- t. Project Management

- i. Contractors may be required to fully participate in the utilization of the CMD Project Management Software commonly referred to as Procore, which specific requirements are further outlined in the contract. This participation shall include but is not limited to Submittals, Daily Logs, Contract Management, RFI's, Drawings, Addenda's, Bulletins, ASI's, Transmittals, Inspections, Inspection Requests, Observations, Punch Lists, As-Builts, Photos, Specifications and any Other Documents that are necessary and pertinent to the efficient and complete performance of the proposed project.

6. CHANGES IN THE WORK

- a. Requests for Changes:

- i. The State reserves the right to order in writing, changes, alterations, omissions, or additions in the plans and specifications, at any time prior to the formal completion and acceptance of the work without in any way voiding the contract, and the contractor must comply with such order. The contractor may also request changes in the work.
 - ii. Any change or deviation from the contract plans and specifications made without authority in writing from the Military Department's Procurement and Contracting Officer in the form of an amendment to the original contract will be the sole responsibility of the contractor. Except where otherwise expressly provided in these articles, no such changes shall be made nor adjustment in compensation recognized unless the contractor receives an executed contract amendment prior to making the changes. In cases whereby State property will be damaged during the stoppage of work, the contractor may proceed on a written commitment by the Military Department's Procurement and Contracting Officer.
 - iii. The contractor shall be entitled to additional compensation for any change requiring labor, materials, or equipment over and above that originally required for the contract work, while any such change resulting in lesser quantities thereof shall entitle the State to a reduction in the contract price.

- iv. Changed work shall be performed completely and in accordance with the original contract drawings and specifications except for the deviations specifically called for by the change order. Materials used on changed work shall be as specified in the original contract documents insofar as they do not conflict with the conditions set forth in the change order. All changed work will be prosecuted by the contractor with due diligence, and with an efficiency of labor and equipment at least equal to that exercised as to the rest of the work of the contract. All changed work shall be warrantied as stipulated in 7D.
- b. Changed Work, Time Adjustments:
 - i. For any change in the work, the contractor shall be entitled only to such adjustment in time for which completion of the entire work is delayed due to performance of the changed work. Each estimate for a change in the work submitted by the contractor shall state the amount of extra time that he considers should be allowed for making the requested change. Failure to request extra time when submitting such estimates shall constitute a waiver of the right to subsequently claim any adjustment in the time for final completion based upon such changed work.
 - ii. If agreement is reached as to the adjustment in compensation for the performance of changed work, but agreement is not reached as to the time adjustment for such work, then the contractor shall proceed with the work at the agreed price, reserving to the contractor the right to further pursue his claim for the time adjustment.
 - iii. Contractor hereby agrees that compensation for any change work shall be marked up by the Prime contractor no more than 5% for any subcontractor work and no more than 15% for any self-performed work.
- c. Supplementary Agreements: As to certain changes in the basic scope of the work, a supplementary agreement shall be executed at the option of the State, such agreement to be executed in the manner of the original agreement, to which the change shall be attached and become a part. The bonds required by Article 3B shall be furnished with such supplementary agreement, covering any increased amount of the contract due to the change.

7. ACCEPTANCE AND PAYMENTS

- a. Acceptance: The contracted work shall be accepted by the Military Department when the project is completed in accordance with the contract documents, to the full satisfaction of the California Military Department.
- b. Progress Payments: Military Department policy provides that public works projects which allow the contractor 30 working days or more to complete and are estimated to exceed \$30,000.00 in value are eligible for progress payments. The contractor may request progress payments during performance of the contracted work. If authorized by the Military Department Procurement and Contracting Officer, progress payments shall not exceed 95% of the value of the completed work unless otherwise stipulated in 23B.
- c. Final Payment: Final payment will not be made to the contractor until such time as all punch list items have been completed and the Military Department is in receipt of all expressed manufacturer's warranties compliance with section 23 and the Project Manager has accepted all required administrative documents. Upon written acceptance of the contractor's work by the Military Department, the Project Manager shall complete a Contract/Contractor Evaluation Form (Office of Adjutant General Form 4) and forward to the Military Department Contracting Section for final review and approval. Approved Contract/Contractor Evaluation Forms shall be forwarded

to the Military Department Accounts Payable Section where the Contract/Contractor Evaluation Form and the contractor's invoice shall be processed for payment.

d. Guarantee:

- i. The contractor hereby unconditionally guarantees that the Work will be done in accordance with the requirements of the contract, and further guarantees the work of the contract to be and remain free of defects in workmanship and materials for a minimum period of one year from the date of acceptance of the contract, unless a longer guarantee period is specifically called for elsewhere in the contract documents. The date of the completed Work shall be defined as the date said Work is accepted in writing by the PM and this date shall be the start of the contractor's warranty period. The contractor hereby agrees to repair or replace any and all work, together with any other adjacent work which may be displaced in so doing, that may prove to be not in accordance with the requirements of the contract or that may be defective in its workmanship or material within the guarantee period specified, without any expense or obligation whatsoever to the State of California, ordinary wear and tear and unusual abuse or neglect excepted.
- ii. Contract bonds will remain in full force and effect during the guarantee period. Contractor shall not be relieved of this bond requirement whatsoever.

8. LIQUIDATED DAMAGES

- a. The Military Department will designate the starting date of the contract on which the contractor shall immediately begin and thereafter diligently prosecute the work to completion. The Contractor obligates himself/herself to complete the work within the number of working days or on the fixed date established by the Military Department.
- b. The parties agree that if the work is not completed and accepted by the Military Department within the time established by the contract document and mutually agreed to by the contractor and the Project Manager prior to the start of work and any time extension agreed to in writing by the Military Department, additional costs will be incurred by the Military Department. These costs include the hourly time spent each day by the Project Manager, Project Engineer, Procurement and Contracting Officer, and the Judge Advocate General.
- c. The contractor agrees to compensate the Military Department \$1,360.00 per calendar day for each and every day's delay in finishing the work beyond the time prescribed. If the contractor fails to pay such liquidated damage the Military Department shall have the unilateral authority to and will deduct the amount thereof from any money due or that may become due the contractor under this contract.

9. WORKING HOURS

- a. The work site shall be available for contractor's activities for 8 hours per day Monday through Friday, work hours shall be 8 am to 4 pm, however at the sole discretion of the Project Manager actual work schedule may be adjusted. The site will not be available for contractor's activities on weekends, or on State or Federal holidays.

10. CONTRACTS FUNDED IN WHOLE/IN PART BY FEDERAL GOVERNMENT

- a. It is mutually understood between the parties that this contract may have been executed before ascertaining the availability of congressional appropriation of funds, for the mutual benefit of both parties, in order to avoid program and fiscal delays which would occur if the contract were executed after that determination was made.

- b. This contract is valid and enforceable only if the United States Government makes sufficient funds available to the State for each fiscal year of the contract. In addition, this contract is subject to any additional restrictions, limitations, or conditions enacted by the Congress or any statute enacted by the Congress, which may affect the provisions, terms or funding of this contract in any manner.
- c. It is mutually agreed that if the Congress does not appropriate sufficient funds for the program, this contract shall be amended to reflect any reduction in funds.
- d. The department has the option to void the contract under the "30-day" cancellation clause or to amend the contract to reflect any reduction of funds.

11. STANDARD CALIFORNIA NON-DISCRIMINATION CLAUSE-CONSTRUCTION CONTRACT SPECIFICATIONS (Government Code, Section 12990): See the last two pages of this Section.

12. FORCED, CONVICT, AND INDENTURED LABOR

Contractor certifies, by submitting a bid, that no foreign-made equipment, materials, or supplies furnished to the State pursuant to the contract/agreement will be produced in whole or in part by forced labor, convict labor, or indentured labor. The contractor agrees to comply with the requirements of Public Contract Code, Section 6108.

PART 11 FEDERAL STATUTES, RULES, AND REGULATIONS

13. RELATIONSHIP OF THE FEDERAL GOVERNMENT

This contract may be funded in part by the Federal Government. The Federal Government is not a party to this contract, as a condition to receiving and expending Federal funds, there are certain rights of Federal inspection, Federal approval of contract changes and modifications, and Federal approval of settlements or dispute actions that the Federal Government will exercise prior to authorization of Federal funds. Therefore, no inspection or acceptance, change, modification, settlement, dispute claim payment, or dispute action will be considered binding until the required Federal approval is obtained. The chief, National Guard Bureau, or its designated representative, is the approval authority. This paragraph does not abrogate any rights conferred on the Federal Government by law or other clause required due to the use of Federal funding.

14. CHANGES AND EXTRAS

The Procurement and Contracting Officer may at any time, in writing and without notice to the sureties; order extras or make changes in the drawings and/or specifications of this contract, providing such extras or changes are within the general scope thereof. If any such extra or change causes an increase or decrease in the amount due under this contract, or in the time required for its performance, an equitable adjustment shall be made, and the contract shall be modified in writing. Federal Funding support for any change or extra is subject to prior approval by the Chief, National Guard Bureau, or his duly authorized representative. Any claim of the contractor for adjustment under this clause must be asserted in writing within 30 days after the date of receipt by the contractor of the notification extra or change. Provided, however, that the Procurement and Contracting Officer, decides that the facts justify such action, may receive and act upon any such claim asserted at any time prior to the date of the final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in the Clause 19 hereof entitled DISPUTES. Nothing provided in this clause, however, shall excuse the contractor from diligently proceeding with the prosecution of the work as changed. Except as otherwise herein provided, no charge for any extra work or material will be allowed.

15. CHANGED CONDITIONS

The Contractor shall promptly, and before such conditions are disturbed, notify the Procurement and Contracting Officer in writing of (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract. The Procurement and Contracting Officer shall promptly investigate the conditions, and if he/she finds that such conditions do so materially differ and cause an increase or decrease in the cost of (or the time required for), performance of this contract, an equitable adjustment shall be made, and the contract modified in writing. Federal funding support to any change or extra is subject prior approval by the chief, National Guard Bureau, or his duly authorized representative. Any claim of the contractor for adjustment hereunder shall not be allowed unless he has given notice as required above. The Procurement and Contracting Officer, however, may if he determines the facts so justify, consider and adjust any such claim asserted before the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in Clause 19 hereof entitled Disputes.

16. SUPENSION OF WORK

- a. The Procurement and Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Procurement and Contracting Officer determines appropriate for the convenience of the Government.
- b. If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted
 - i. by an act of the Procurement and Contracting Officer in the administration of this contract, or
 - ii. by the Procurement and Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.
- c. A claim under this clause shall not be allowed
 - i. for any costs incurred more than 20 days before the Contractor shall have notified the Procurement and Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and
 - ii. unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

17. STOP WORK ORDER

- a. The Procurement and Contracting Officer may, at any time, by written order to the Contractor, require the Contractor to stop all, or any part, of the work called for by this contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the

parties may agree. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Within a period of 90 days after a stop-work order is delivered to the Contractor, or within any extension of that period to which the parties shall have agreed, the Procurement and Contracting Officer shall either—

- i. Cancel the stop-work order; or
 - ii. Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.
- b. If a stop-work order issued under this clause is canceled or the period of the order or any extension thereof expires, the Contractor shall resume work. The Procurement and Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if—
 - i. The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and
 - ii. The Contractor asserts its right to the adjustment within 30 days after the end of the period of work stoppage; provided, that, if the Procurement and Contracting Officer decides the facts justify the action, the Procurement and Contracting Officer may receive and act upon a proposal submitted at any time before final payment under this contract.
- c. If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Procurement and Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.
- d. If a stop-work order is not canceled and the work covered by the order is terminated for default, the Procurement and Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop work order.

18. CHANGES

(a) The Procurement and 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 facilities, equipment, materials, services, or site; 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 Procurement and Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Procurement and 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 Procurement and 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 Procurement and 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 Procurement and Contracting Officer a written statement describing the general nature and amount of 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.

19. DISPUTES

Except as otherwise specifically provided in this contract, any dispute concerning a question of fact arising under this contract, which is not disposed of by mutual agreement, shall be decided by the California Military Department Procurement and Contracting Officer (PCO), who shall reduce any decision to writing and send a copy to the contractor by certified mail-return receipt requested, to the address shown herein. The contractor shall have the right to appeal the PCO's decision, which must be exercised within thirty (30) days of service of the PCO's written decision. The contractor's appeal must be in writing to the California Military Department Director, The Adjutant General of California (TAG). TAG, at their discretion, may grant the appeal and conduct a hearing pursuant to the Administrative Procedures Act or refer the appeal to the Office of Administrative Hearings (OAH). If a decision is made to use the services of OAH, each side shall equally share OAH costs. If TAG denies the appeal or if no action is taken on the appeal within thirty (30) days of CMD's receipt of the appeal, CMD shall issue a Notice of Right to Sue to contractor. An individual at the rank of Colonel (O-6) or above may be designated by TAG to resolve appeals under this contract. Pending final decision of a dispute hereunder, the contractor shall proceed diligently with the performance of the contract and in accordance with the Procurement and Contracting Officer's decision.

20. TERMINATION FOR CONVENIENCE OF THE GOVERNMENT

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Procurement and Contracting Officer determines that a termination is in the Government's interest. The Procurement and Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Procurement and Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Procurement and Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Procurement and Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Procurement and Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Procurement and Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Procurement and Contracting Officer, any property of the types referred to in subparagraph (6) above; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Procurement and Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Procurement and Contracting Officer.

(c) After expiration of the plant clearance period which means the period beginning on the effective date of contract completion or termination and ending 90 days (or such longer period as may be agreed to) after receipt by the Procurement and Contracting Officer of acceptable inventory schedules for each property classification. The Contractor may submit to the Procurement and Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Procurement and Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Procurement and Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(d) After termination, the Contractor shall submit a final termination settlement proposal to the Procurement and Contracting Officer in the form and with the certification prescribed by the Procurement and Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Procurement and Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Procurement and Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Procurement and Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(e) Subject to paragraph (d) above, the Contractor and the Procurement and Contracting Officer may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (e) or paragraph (f) below, exclusive of costs shown in subparagraph (f)(3) below, may not exceed the total contract price as reduced by (a) the number of payments previously made and (2) the contract price of work not terminated. The contract shall be amended, and the Contractor paid the agreed amount. Paragraph (f) below shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(f) If the Contractor and the Procurement and Contracting Officer fail to agree on the whole amount to be paid because of the termination of work, the Procurement and Contracting Officer shall pay the Contractor the amounts determined by the Procurement and Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (e) above:

(1) The contract price for completed supplies or services accepted by the Government (or sold or acquired under subparagraph (b)(9) above) not previously paid for, adjusted for any saving of freight and other charges.

(2) The total of—

(i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (f)(1) above;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (i) above; and

(iii) A sum, as profit on subdivision (i) above, determined by the Procurement and Contracting Officer is in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Procurement and

Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(3) The reasonable costs of settlement of the work terminated, including—

(i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;

(ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and

(iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.

(g) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Procurement and Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (f) above, the fair value, as determined by the Procurement and Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer. (h) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Procurement and Contracting Officer under paragraph (d), (f), or (k), except that if the Contractor failed to submit the termination settlement proposal within the time provided in paragraph (d) or (k), and failed to request a time extension, there is no right of appeal. If the Procurement and Contracting Officer has made a determination of the amount due under paragraph (d), (f), or (k), the Government shall pay the Contractor (1) the amount determined by the Procurement and Contracting Officer if there is no right of appeal or if no timely appeal has been taken, or (2) the amount finally determined on an appeal.

(i) In arriving at the amount due the Contractor under this clause, there shall be deducted—

(1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract.

(2) Any claim which the Government has against the Contractor under this contract; and

(3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.

(k) If the termination is partial, the Contractor may file a proposal with the Procurement and Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Procurement and Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Procurement and Contracting Officer.

(l) (1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract if the Procurement and Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the State of California. Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Procurement and Contracting Officer because of the circumstances.

(m) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Procurement and Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

21. DEFAULT FIXED-PRICE CONSTRUCTION

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to

complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if-

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include-

(i) Acts of God or of the public enemy,

(ii) Acts of the Government in either its sovereign or contractual capacity,

(iii) Acts of another Contractor in the performance of a contract with the Government,

(iv) Fires,

(v) Floods,

(vi) Epidemics,

(vii) Quarantine restrictions,

(viii) Strikes,

(ix) Freight embargoes,

(x) Unusually severe weather, or

(xi) Delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Procurement and Contracting Officer), notifies the Procurement and Contracting Officer in writing of the causes of delay. The Procurement and Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Procurement and Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Procurement and Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been issued for the convenience of the Government.

(d) The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

22. TERMINATION FOR DEFAULT-DAMAGES OR DELAY-TIME EXTENSIONS

- a. If the contractor refuses or fails to prosecute the work, or any separable part thereof, with such diligence as will insure its completion within the time specified in this contract, or any extension thereof, or fails to complete said work within such time, the State may, by written notice to the contractor, terminate his right to proceed with the work or such part of the work as to which there has been delay. In such event the State may take over the work and prosecute the same to completion, by contract or otherwise, and the contractor and his sureties shall be liable to the State for any excess cost occasioned the State thereby, and for liquidated damages for delay, as fixed in the specifications or accompanying papers, until such reasonable time as may be required for final completion of the work; or if liquidated damages are not so fixed, any actual damages occasioned by such delay. If the contractor's right to proceed is so terminated, the State may take possession of and utilize in completing the work such materials, appliances, and plant as may be on the site of the work and therefore necessary.
- b. If the State does not terminate the right of the contractor to proceed, as provided in subparagraph (A) hereof, the contractor shall continue the work, in which event he and his sureties shall be liable to the State, in the amount set forth in the specifications or accompanying papers, for the

fixed, agreed, liquidated damages for each calendar day of delay until the work is completed or accepted: or if liquidated damages are not so fixed, any actual damages occasioned by such delay.

- c. The right of the contractor to proceed shall not be terminated, as provided in subparagraph (A) hereof, not the contractor charged with liquidated or actual damages, as provided in subparagraph (B), because of any delays in the completion of the work due to causes beyond his control which could not reasonably have been anticipated and were without his fault or negligence, including, but not restricted to, acts of God, acts of the public enemy, acts of the Government or the State (either in its sovereign or contractual capacity), acts of another contractor in the performance of a contract with the State quarantine restrictions, strikes, freight embargoes, or unusually severe weather; or, delays of subcontractors or suppliers due to such unforeseeable causes beyond the control and without the fault or negligence of both the contractor and such subcontractors or suppliers at any tier; provided, that the contractor shall, within 10 days after the beginning of any such delay, unless the Procurement and Contracting Officer shall grant a further period of time prior to the date of final settlement of the contract, notify the Procurement and Contracting Officer in writing of the causes of delay. The Procurement and Contracting Officer shall ascertain the facts as to the extent of the delay and decide whether or not to extend the time for completing the work. When in the Procurement and Contracting Officer's judgment, the findings of fact justify such an extension, and Procurement and Contracting Officer's findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal as provided in the DISPUTES clause hereof.

23. PAYMENTS TO CONTRACTORS

- a. Unless otherwise provided in the specifications, partial payments may be made as the work progresses at the end of each calendar month, or as soon thereafter as practicable, on work completed and approved by the Procurement and Contracting Officer. The Military Department shall make partial payments on materials only once they have been installed not just delivered to the work site.
- b. In making such partial payments there shall be retained five (5) percent on the estimated amount until final completion and acceptance of all work covered by the contract. Provided, however that on completion and acceptance of any separated building, public work, or other division of the contract on which the price is stated separately in the contract, payment may be made in full, including the retained percentage therein, less authorized deductions. The retainage on partial payments of Federal funds shall be determined by the United States Property and Fiscal Officer (USPFO) of the State in conformance with the Defense Acquisition Regulations (DAR).
- c. All material and work covered by partial payments made shall thereupon become the sole property of the State, but this provision shall not be construed as relieving the contractor from the sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, nor as a waiver of the right of the State to require the fulfillment of all of the terms or the contract or such time as the Military Department accepts the entire Work as defined in the contract.
- d. Upon completion and acceptance of all Work required hereunder, and after the contractor shall have furnished the State with a release of all claims against the State arising under and by virtue of this contract, other than such claims, if any, as may be specifically excepted by the contractor from the operation of the release, in stated amount to be set forth therein, the amount due the contractor under this contract will be paid upon the presentation of a properly executed and duly certified voucher. If the contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (41 U.S.C, 15), a release

may also be required of the assignee at the option of the Procurement and Contracting Officer or USPFO of the State.

24. MATERIAL AND WORKMANSHIP

Unless otherwise specifically provided for in the specification, all equipment, materials, and articles incorporated in the work covered by this contract are to be new and of the most suitable grade of their respective kinds for the purpose intended and all workmanship shall be first class. Where equipment, materials, or articles are referred to in the specifications as "equal to" any particular standard, the Procurement and Contracting Officer shall solely decide the question of equality. The contractor shall furnish to the Procurement and Contracting Officer for approval the name of the manufacturer of machinery, mechanical and other equipment, which is contemplated to be incorporated in the work, together with the performance capacities and other pertinent information. When required by the specifications, or when called for by the Procurement and Contracting Officer, the contractor shall furnish to the Procurement and Contracting Officer for approval full information concerning the materials or articles, which is contemplated for incorporation in the work. Samples of materials shall be submitted for approval when so directed. Machinery, equipment, materials, and articles installed or used without such approval shall be at the risk of subsequent rejection. The Procurement and Contracting Officer may in writing require the contractor to remove from the work site such employee as the Procurement and Contracting Officer deems incompetent, careless, insubordinate, or otherwise objectionable, or whose continued employment on the work site is deemed by the Procurement and Contracting Officer to be contrary to the public interest.

25. INSPECTION

- a. Except as otherwise provided in subparagraph (D) hereof, all material and workmanship shall be subject to inspection, examination, and testing by representatives of the Procurement and Contracting Officer at any and all times during manufacture and/or construction (and at any and all places where such manufacture and/or construction are carried on). The State shall have the right to reject defective material and workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be replaced with proper material without charge and the contractor shall promptly segregate and remove rejected material from the premises. No extension of the contract will be granted for rejected work. If the contractor fails to proceed at once with the replacement of rejected material and/or the correction of defective workmanship, the State may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost thereof to the contractor, or the State may terminate the right of the contractor to proceed as provided in Clause 17 of this contract, the contractor and surety being liable for any damage to the same extent as provided in said Clause 17 for termination.
- b. The contractor shall furnish promptly, without additional charge, all reasonable facilities, labor and materials necessary for the safe and convenient inspections and tests that may be required by the Procurement and Contracting Officer or by the USPFO of the State. All inspections and tests by the State shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be as described in the specifications. The contractor will be charged with any additional cost of the inspection when material and workmanship is not ready at the time inspection is requested by the contractor. Compensation shall be in full day increments and no less than that stipulated in 8 C above.
- c. Should it be considered necessary or advisable by the State, or by the representatives of the Chief, National Guard Bureau, at any time before final acceptance of the entire work to make an examination of the work already completed, by removing or tearing out same, the contractor shall on request promptly furnish all necessary facilities, labor, and material to accomplish such inspection. If such work is found to be defective or non-conforming in any material respect due to the fault of the contractor or a subcontractor, the contractor shall bear all the expenses of such

examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to compensate the contractor for the additional services involved in such examination and reconstruction: and, if completion of the work has been delayed thereby, the contractor shall, in addition, be granted a suitable extension of time. Federal funding support of the cost for examination and replacement of satisfactorily completed work that requires removal or that is damaged due to inspection requirements is subject to prior approval by the Chief, National Guard Bureau, or a duly authorized representative.

- d. In the sole discretion of the Military Department inspection of material and finished articles to be incorporated in the work at the site shall be made at the place of production, manufacture, or shipment, whenever the quantity justifies it, unless otherwise stated in the specifications; and such inspection and acceptance shall be in writing, and unless otherwise stated in the specifications, shall be final, except as regards latent defects, departures from specific requirements of the contract and the specifications and drawings made a part thereof, damage or loss in transit, fraud, or such gross mistakes as amount to fraud. Subject to the requirement contained in the preceding sentence, the inspection of material and workmanship for final acceptance as a whole or in part, shall be made at the site. Nothing contained in this paragraph (D) shall in any way restrict the State's rights under any warranty or guarantee.

26. SUPERINTENDENT BY CONTRACTOR

The Job Superintendent must be present anytime work is being performed on the job site. The Job Site Superintendent must be appointed in writing and must have full authority to act on behalf of the prime contractor.

27. UTILITY PERMITS AND RESPONSIBILITY FOR WORK

The contractor shall, without additional expense to the State, obtain all licenses and permits required for the prosecution of the work and pay all charges related to the connection of utility services to existing systems. The contractor shall be responsible for all damages to persons or property that occurs as a result of his/her fault or negligence in connection with the prosecution of the work. The contractor shall take proper safety and health precautions to protect the work, the workers, the public, and the property of others. The contractor shall also be responsible for all materials delivered and work performed until completion and final acceptance, except for any completed unit thereof which therefore may have been finally accepted.

28. OTHER CONTRACTS

The State may undertake or award other contracts for additional work in or around the work areas and the contractor shall fully cooperate with such other contractors and State employees and carefully fit its own work to such additional work as may be directed by the Procurement and Contracting Officer. The contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by State employees.

29. ADDITIONAL BOND SECURITY

If any surety upon any bond furnished in connection with this contract becomes unacceptable to the State, or if any such surety shall fail to furnish reports as to the contractor's financial condition from time to time as requested by the State, the contractor shall promptly furnish such additional security as may be required from time to time to protect the interests of the State or of persons supplying labor or materials in the prosecution of the work contemplated by the contract.

30. COVENANT AGAINST CONTINGENT FEES

The contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business. For breach or violation of this warranty the State shall have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

31. OFFICIALS TO BENEFIT

No member of or delegate to Congress, State Legislation or resident commissioner or State official or employee shall be admitted to any share or part of this contract, or to any benefit that may arise from it; but this provision shall not be construed to extend to this contract if made with a corporation for its general benefit.

32. CONVICT LABOR

In connection with the performance of work under this contract, the contractor agrees not to employ any person undergoing sentence of imprisonment, as provided by Public Law 89-176, September 10, 1965 (18 USC 4082 (c) (2)) and executive order 11755, December 29, 1973.

33. GRATUITIES

- a. The State may, by written notice to the contractor, terminate the right of the contractor to proceed under this contract if it is found, after notice and hearing, by the Secretary or Governor or the duly authorized representative of either, that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the contractor, or any agent or representative of the contractor, to any officer or employee of the State with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending, or the making of any determinations with respect to the performance, of such contract: Provided, that the existence of the facts upon which the Secretary or Governor or the duly authorized representative of either makes such findings shall be in issue and may be reviewed in any competent court.
- b. In the event this contract is terminated as provided in paragraph (A) hereof, the State shall be entitled (1) to pursue the same remedies against the contractor as it could pursue in the event of breach of the contract by the contractor, and (2) as a penalty in addition to any other damages to which it may be entitled by law, to exemplary damages in an amount (as determined by the Secretary or Governor or the duly authorized representative of either) which shall be not less than 3 nor more than 10 times the costs incurred by the contractor in providing any such gratuities to any such officer or employee.
- c. The rights and remedies of the State provided in this Clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

34. COPELAND ("ANTI-KICKBACK") ACT NON-REBATE OF WAGES

The regulations of the Secretary of Labor applicable to contractors and subcontractors (29 CFR, Part 3), made pursuant to the Copeland Act, as amended (40 U.S.C. 276c) and to aid in the enforcement of the Anti-Kickback Act (18 U.S.C. 874) are made a part of this contract by reference. The contractor will comply with these regulations and any amendments or modifications thereof and the prime contractor will be responsible for the submission of affidavits required of subcontractors. The foregoing shall apply except as the Secretary of Labor may specifically provide for reasonable limitations, variations, tolerances, and exemptions.

35. WITHHOLDING OF FUNDS

- a. The Procurement and Contracting Officer may withhold or cause to be withheld from the State prime contractor so much of the accrued payment or advances as may be considered necessary (i) to pay laborers and mechanics, including apprentices, trainees, watchmen, and guards, employed by the contractor or any subcontractor on the work the full amount of wages required by the contract, and (ii) to satisfy any liability of the contractor and any subcontractor for liquidated damages under paragraph (B) of the Clause entitled Contract Work Hours and Safety Standards Act - Overtime Compensation.
- b. If the contractor or any subcontractor fails to pay any laborer, mechanic, apprentice, trainee, watchman, or guard employed or working on the site of the work, all or part of the wages required by the contract, the Procurement and Contracting Officer may, after written notice to the State prime contractor, take such action as may be necessary to cause suspension of any further payments or advances until such violations have ceased.

36. DISPUTES CONCERNING LABOR STANDARDS

Disputes arising out of the labor standards provisions of this contract shall be subject to the Disputes Clause except to the extent such disputes involve the meaning of classification or wage rates contained in the wage determination decision of the Secretary of Labor or the applicability of the labor provisions of this contract which questions shall be referred to the Secretary of Labor in accordance with the procedures of the Department of Labor.

37. SUBCONTRACTS-TERMINATION

The contractor agrees to insert the clauses hereof entitled Prevailing Wage - Labor Code Sections 1775 to 1780 inclusive, provide access to the Payrolls and Basic Records by the Fair Employment Practice Commission, Copeland ("Anti-Kickback") Act-Non-Rebate of Wages, Withholding of Funds and Subcontracts-Termination physically in all subcontracts and the contractor further agrees that a breach of any of the requirements of these Clauses may be grounds for termination of this contract. The term "contractor" as used in such clauses in any subcontract shall be deemed to refer to the subcontractor except in the phrase "prime contractor."

38. EQUAL OPPORTUNITY (See paragraphs 4, B 2 and G 1 through 13; Standard California Nondiscrimination Construction Contract Specifications (GOV. Code Section 12990))

39. CERTIFICATION OF NON-SEGREGATED FACILITIES

(Applicable to contracts, subcontracts, and to agreements with applicants who are themselves performing Federally assisted construction contracts, exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause). By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in the Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis

of race, color, religion or national origin, because of habit, local custom or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause: that he will retain such certifications in his files" and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENT FOR CERTIFICATIONS OF NONSEGREGATED FACILITIES: A certification of Non-segregated Facilities must be submitted prior to award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal opportunity clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually).

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

40. CLEAN AIR AND WATER

(Applicable only if the contract exceeds \$100,000, or the Procurement and Contracting Officer has determined that orders under an indefinite quantity contract in any one year will exceed \$100,000, or a facility to be used has been the subject of a conviction under the Clean Air Act (42 U.S.C. 1857c-8(c)(1)) or the Federal Water Pollution Control Act (33 U.S.C. 1319(c)) and is listed by EPA, or the contract is not otherwise exempt.)

- a. The bidder or offeror certifies as follows:
 - i. Any facility to be utilized in the performance of this proposed contract is (), is not (), listed on the Environmental Protection Agency List of Violating Facilities:
 - ii. The bidder/offeror will promptly notify the Procurement and Contracting Officer, prior to award, or the receipt of any communication from the Director, Office of Federal Activities, U.S. Environment Protection Agency, indicating that any facility which is proposed for use for during the performance of the contract is under consideration to be listed on the EPA List Violating Facilities: and
 - iii. The bidder/offeror will include substantially this solicitation certification, including this paragraph (iii), in every nonexempt subcontract.
- b. The terms used in this clause have the following meanings:
 - i. The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Public Law 91-604).
 - ii. The Term "Water Act" means the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Public Law 92-500).
 - iii. The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive order 11738, an applicable implementation plan as described in section 110(d) of the Clean Air Act (42 U.S.C. 1875c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act 942 U.S.C. 1875c-6(c) or (d)), or an approved implementation procedure under section 112(d) of the Air Act (42 U.S.C. 1875c-7(d)).

- iv. The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharge by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).
- v. The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirement of the Air Act or Water Act and regulations issued pursuant thereto.
- vi. The term "facility" means any building, plant, installation, structure, mine, vessel or other floating craft location, or site of operations, owned, leased, or supervised by a contractor, subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be facility except where the Director, Office of Federal Activities, environmental Protection Agency, determines that independent facilities are co-located in one geographical area.
- vii. The term "nonexempt contract or subcontract" means a contract or subcontract of more than \$100,000 which is not otherwise exempted pursuant to the EPA regulations implementing the Air Act and Water Act (40 CFR 15.5), as further implemented in ASP R 1 -2302.4 or in FPR 1-1.230204 (whichever is applicable) and the procedures of the Department awarding the contract.

41. AUDIT BY DEPARTMENT OF DEFENSE

- a. The contractor will permit access to the contractor's records of employment, employment advertisements, application forms, and other pertinent data and records by the National Guard Bureau Representative, the awarding authority or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract. In addition to employment records, the Contractor will permit access to the following documentation:
- b. Examination of Cost: If this is a cost reimbursement type, incentive, time and materials, labor hour, or price re-determinable contract, or any combination thereof, the contractor shall maintain, and the Procurement and Contracting Officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this contract. Such right of examination shall include inspection at all reasonable times of the contractor's plants, or such parts thereof, as may be engaged in the performance of this contract.
- c. Cost and Pricing Data. If the contractor submitted cost or pricing data in connection with the pricing of this contract or any change or modification thereto, unless such pricing was based on adequate price competition, established catalog of market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the Procurement and Contracting Officer or his representatives who are employees of the State of California (or representatives listed above) shall have the right to examine all books, records, documents and other data of the contractor related to the negotiation, pricing or performance of such contract,

change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted

- d. Reports. If the contractor is required to furnish Contractor Cost Data Reports (CCDR) Contract Fund Status Reports (CFSR), or Cost Performance Reports (CPR) the Procurement and Contracting Officer or his representatives shall have the right to examine books, records, other documents, and supporting materials, for the purpose of evaluating (i) the effectiveness of the contractor's policies and procedures to produce data compatible with the objectives of these reports, and (ii) the data reported.
- e. Availability. The materials described in (B), and (C) above shall be made available at the office of the contractor, at all reasonable times, for inspection, audit, or reproduction, until the expiration of three (3) years from the date of final payment under this contract.
- f. The contractor shall insert a clause containing all the provisions of this Clause, including this paragraph (D), in all subcontracts hereunder, except altered as necessary for proper identification of the contracting parties and the Procurement and Contracting Officer under the State prime contract.

42. SUBCONTRACTOR COST OR PRICING DATA-PRICE ADJUSTMENT

The contractor shall require subcontractors to certify that to the best of their knowledge and belief the cost and pricing data submitted is accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract change of modification.

43. BUY AMERICAN ACT

- a. Agreement: In accordance with the Buy American Act (41 U.S.C. 10a-10d) the contractor agrees that only domestic construction material will be used (by the contractor, subcontractor, and suppliers) in the performance of this contract, except for non-domestic construction material listed in the "Non-domestic Construction Materials" clause, if any, of this contract.
- b. Domestic Construction Material: "Construction material" means any article, material, or supply brought to the construction site for incorporation in the building or work. A non-manufactured construction material is a "domestic construction material" if it has been mined or produced in the United States. A manufactured construction material is a "domestic construction material" if it has been manufactured in the United States and if the cost of its components which have been mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. "Component" means any article, material, or supply directly incorporated in a construction material.
- c. Domestic Component: A component shall be considered to have been "mined, produced, or manufactured in the United States" (regardless of its source in fact) if the article, material, or supply in which it is incorporated was manufactured in the United States and the component is of a class or kind determined by the government to be not mined, produced, or manufactured in the United States in sufficient and reasonable available commercial quantities and of satisfactory quality.
- d. Submittals that are not in compliance with the Buy American Act and provided to the government for approval are invalid and hereby rejected. If the government or its representative inadvertently approves a submittal and materials are installed and finished, the contractor is still "At Fault". Contractors may not be paid for work, rework or material acquisition for materials installed that do not comply with the Buy American Act, even if they were approved by the government. *Exception: The government may issue an exception however that exception must specifically address this

paragraph and release the specified unauthorized material into the contract on a case-by-case basis. An exception will be granted for each piece of material not by phase, trade or the entire project itself.

44. BUY CLEAN CALIFORNIA ACT

In accordance with the Buy Clean California Act, Contractors shall submit current facility-specific Environmental Product Declarations (EPDs) for all eligible materials and ensure EPDs are compliant to ISO 14025 and applicable Product Category Rules located on the Department of General Services (DGS) Buy Clean California Act website located at: <https://www.dgs.ca.gov/PD/Resources/Page-Content/Procurement-Division-Resources-List-Folder/Buy-Clean-California-Act>. Contractors shall collect the data on all structural steel (hot-rolled sections, hollow structural sections, and plate), carbon steel rebar, flat glass, and mineral wool board insulation. The data will be submitted using the attached form the excel sheet you attached, name it and attach it and required as part of the projects close out documents.

45. DEFINITIONS

As used throughout this contract, the following terms shall have the meaning set forth below:

- a. The term "Procurement and Contracting Officer" means the person executing this contract on behalf of the State and any other officer or civilian employee who is properly designated Procurement and Contracting Officer (PCO) and the term includes, except as otherwise provided in this contract, the authorized representative of a Procurement and Contracting Officer acting within the limits of his authority.
- b. The term "Government" means the United States and any Department head thereof,
- c. The term "State" means the State, Commonwealth, or Territory, which is the party to this contract.
- d. The term "Governor" means the Governor of the State or a duly appointed representative (other than the Procurement and Contracting Officer).
- e. The term "USPFO" means the United States Property and Fiscal Officer assigned to the State

46. SITE INVESTIGATION

The contractor acknowledges that the contractor has investigated and is satisfied as to the conditions affecting the work, including but not restricted to not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads, and uncertainties of weather, river stages, tides, or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The contractor further acknowledges that it is satisfied as to the character, quality and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the State, as well as from information presented by the drawings and specifications made a part of this contract. Any failure by the contractor be acquainted with the available information will not relieve the contractor from responsibility for estimating properly the difficulty of cost of successfully performing the work. The State assumes no responsibility for any conclusions or interpretations made by the contractor on the basis of the information made available by the State.

47. PROTECTION OF EXISTING VEGETATION, STRUCTURES, UTILITIES, AND IMPROVEMENTS

- a. The contractor will preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site of work which is not to be removed and which does not unreasonably interfere with the construction work. Care will be taken in removing trees authorized for removal to avoid damage to vegetation to remain in place. Any limbs or branches of trees broken during such operations or by the careless operation of equipment, or by workmen, shall be trimmed with a clean cut and painted with an approved tree pruning compound as directed by the Procurement and Contracting Officer.
- b. The contractor will protect from damage all existing improvements or utilities at or near the site of the work, the location of which to be made known to him/her and will repair or restore any damage to such facilities resulting from failure to comply with the requirements of this contract or the failure to exercise reasonable care in the performance of the work. If the contractor fails or refuses to repair any such damage promptly, the Procurement and Contracting Officer may have the necessary work performed and charge the cost thereof to the contractor.

48. OPERATIONS AND STORAGE AREAS

- a. All operations of the contractor (including storage of materials) upon State premises shall be confined to areas authorized or approved by the Procurement and Contracting Officer. The contractor shall hold and save the State, its officers, and agents free and harmless from liability of any nature occasioned by his operations.
- b. Temporary building (storage sheds, shops, offices, etc.) may be erected by the contractor only with the approval of the Procurement and Contracting Officer and shall be bunt with labor and materials furnished by the contractor without expense to the State. Such temporary buildings and utilities shall remain the property of the contractor and shall be removed by the contractor at the contractor's expense upon the completion of work. With the written consent of the Procurement and Contracting Officer, such buildings and utilities may be abandoned and need not be removed.
- c. The contractor shall, under regulations prescribed by the Procurement and Contracting Officer, use only established roadways or construct and use such temporary roadways as may be authorized by the Procurement and Contracting Officer. Where materials are transported in the prosecution of the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State or local law or regulation. When it is necessary to cross curbing or sidewalks, the contractor shall provide protection against damage and any damaged roads, curbing, or sidewalks shall be repaired by or at the expense of the contractor.

49. MODIFICATION PROPOSALS-PRICE BREAKDOWN

The contractor, in connection with any proposal he/she makes for a contract modification, shall furnish a price breakdown, itemized as required by the Procurement and Contracting Officer. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor equipment, subcontract, and overhead cost, as well as profit, and shall cover all work involved in the modification, whether such work was deleted, added or changed. Any amount claimed for subcontracts shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification shall also be furnished. The proposal, together with the price breakdown and time extension Justification, shall be furnished by the date specified by the Procurement and Contracting Officer.

50. CLEANING UP

The contractor shall at all times keep the construction area, including storage areas used by him, free from accumulations of waste material or rubbish and prior to completion of the work remove any rubbish from the premises and all tools, scaffolding, equipment, and materials not the property of the State. Upon

completion of the construction the contractor shall leave the work and premises in a clean, neat, and workmanlike condition satisfactory to the Procurement and Contracting Officer.

51. INSPECTIONS

The work will be conducted under the general direction of the Procurement and Contracting Officer and is subject to inspection by his appointed inspectors to ensure strict compliance with the terms of the contract. No inspector is authorized to change any provision of the specifications without written authorization of the Procurement and Contracting Officer, nor shall the presence or absence of an inspector relieve the contractor from any requirement of the contract.

52. RECYCLING CERTIFICATION

The Contractor shall certify in writing under penalty of perjury, the minimum, if not exact, percentage of recycled content, both post-consumer waste and secondary waste as defined in the Public Contract Code, Sections 12161 and 12200, in materials, goods, or supplies offered or products used in the performance of this Agreement, regardless of whether the product meets the required recycled product percentage as defined in the Public Contract Code, Sections 12161 and 12200. Contractor may certify that the product contains zero recycled content (PCC 10233, 10308.5, 10354).

53. CHILD SUPPORT COMPLIANCE ACT

For any contract in excess of \$100,000.00, the contractor acknowledges in accordance with, that:

- a. The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and
- b. The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

54. BIOBASED PRODUCT CERTIFICATION

As required by the Farm Security and Rural Investment Act of 2002 and the Energy Policy Act of 2005 (7 U.S.C.8102(c)(3)), the offeror certifies, by signing this offer, that biobased products (within categories of products listed by the United States Department of Agriculture in 7 CFR part 3201, subpart B) to be used or delivered in the performance of the contract, other than biobased products that are not purchased by the offeror as a direct result of this contract, will comply with the applicable specifications or other contractual requirements.

55. AFFIRMATIVE PROCUREMENT OF BIOBASED PRODUCTS UNDER SERVICE AND CONSTRUCTION CONTRACTS

(a) In the performance of this contract, the contractor shall make maximum use of biobased products that are United States Department of Agriculture (USDA)-designated items unless— (1) The product cannot be acquired (i) Competitively within a time frame providing for compliance with the contract performance schedule; (ii) Meeting contract performance requirements; or (iii) At a reasonable price. (2) The product is to be used in an application covered by a USDA categorical exemption (see 7 CFR 3201.3(e)). For example, all USDA-designated items are exempt from the preferred procurement requirement for the following: (i) Spacecraft system and launch support equipment. (ii) Military equipment, i.e., a product or system designed or procured for combat or combat-related missions. (b) Information about this

requirement and these products is available at <http://www.biopREFERRED.gov>. (c) In the performance of this contract, the Contractor shall— (1) Report to <http://www.sam.gov>, with a copy to the Procurement and Contracting Officer, on the product types and dollar value of any USDA-designated biobased products purchased by the Contractor during the previous Government fiscal year, between October 1 and September 30; and (2) Submit this report no later than— (i) October 31 of each year during contract performance and (ii) At the end of contract performance.

56. HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA

(a) "Hazardous material," as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract). (b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract. (c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous. (d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered non-responsible and ineligible for award. (e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Procurement and Contracting Officer and resubmit the data. (f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property. (g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material. (h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows: (1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to— (i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials; (ii) Obtain medical treatment for those affected by the material; and (iii) Have others use, duplicate, and disclose the data for the Government for these purposes. (2) To use, duplicate, and disclose data furnished under this clause, in accordance with paragraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data. (3) The Government is not precluded from using similar or identical data acquired from other sources.

57. RECOVERED MATERIAL CERTIFICATION

As required by the Resource Conservation and Recovery Act of 1976 (42 U.S.C. 6962(c)(3)(A)(i)), the offeror certifies, by signing this offer, that the percentage of recovered materials content for EPA-designated items to be delivered or used in the performance of the contract will be at least the amount required by the applicable contract specifications or other contractual requirements.

58. POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION

- a. Definitions. As used in this clause— "Toxic chemical" means a chemical or chemical category listed in 40 CFR 372.65.

- b. Federal facilities are required to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050), and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).
- c. The Contractor shall provide all information needed by the Federal facility to comply with the following:
 - i. The emergency planning reporting requirements of Section 302 of EPCRA.
 - ii. The emergency notice requirements of Section 304 of EPCRA.
 - iii. The list of Material Safety Data Sheets, required by Section 311 of EPCRA.
 - iv. The emergency and hazardous chemical inventory forms of Section 312 of EPCRA.
 - v. The toxic chemical release inventory of Section 313 of EPCRA, which includes the reduction and recycling information required by Section 6607 of PPA.
 - vi. The toxic chemical and hazardous substance release and use reduction goals of section 2(e) of Executive Order 13423 and of Executive Order 13514.

59. ESTIMATE OF PERCENTAGE OF RECOVERED MATERIAL CONTENT FOR EPA-ESIGNATED ITEMS

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” “Recovered material” means waste materials and by-products recovered or diverted from solid waste, but the term does not include those materials and by-products generated from, and commonly reused within, an original manufacturing process. (b) The Contractor, on completion of this contract, shall— (1) Estimate the percentage of the total recovered material content for EPA-designated item(s) delivered and/or used in contract performance, including, if applicable, the percentage of post-consumer material and (2) Submit this estimate to the Project Manager.

60. WASTE REDUCTION PROGRAM

“Recycling” means the series of activities, including collection, separation, and processing, by which products or other materials are recovered from the solid waste stream for use in the form of raw materials in the manufacture of products other than fuel for producing heat or power by combustion. “Waste prevention” means any change in the design, manufacturing, purchase, or use of materials or products (including packaging) to reduce their amount or toxicity before they are discarded. Waste prevention also refers to the reuse of products or materials. “Waste reduction” means preventing or decreasing the amount of waste being generated through waste prevention, recycling, or purchasing recycled and environmentally preferable products. (b) Consistent with the requirements of section 3(e) of Executive Order 13423, the Contractor shall establish a program to promote cost-effective waste reduction in all operations and facilities covered by this contract. The Contractor’s programs shall comply with applicable Federal, State, and local requirements, specifically including Section 6002 of the Resource Conservation and Recovery Act (42 U.S.C. 6962, et seq.) and implementing regulations (40 CFR Part 247).

61. OZONE-DEPLETING SUBSTANCES

“Ozone-depleting substance,” as used in this clause, means any substance the Environmental Protection Agency designates in 40 CFR Part 82 as— (1) Class I, including, but not limited to, chlorofluorocarbons, halons, carbon tetrachloride, and methyl chloroform; or (2) Class II, including, but not limited to,

hydrochlorofluorocarbons. (b) The Contractor shall label products which contain or are manufactured with ozone-depleting substances in the manner and to the extent required by 42 U.S.C. 7671j (b), (c), and (d) and 40 CFR Part 82, Subpart E, as follows:

WARNING:

Contains (or manufactured with, if applicable) * _____, a substance(s) which harm(s) public health and environment by destroying ozone in the upper atmosphere. * The Contractor shall insert the name of the substance(s).

62. REFRIGERATION EQUIPMENT AND AIR CONDITIONERS

The Contractor shall comply with the applicable requirements of Sections 608 and 609 of the Clean Air Act (42 U.S.C. 7671g and 7671h) as each or both apply to this contract.

63. ENERGY EFFICIENCY IN ENERGY-CONSUMING PRODUCTS

As used in this clause— “Energy-efficient product”— (1) Means a product that— (i) Meets Department of Energy and Environmental Protection Agency criteria for use of the Energy Star trademark label; or (ii) Is in the upper 25 percent of efficiency for all similar products as designated by the Department of Energy’s Federal Energy Management Program. (2) The term “product” does not include any energy consuming product or system designed or procured for combat or combat-related missions (42 U.S.C. 8259b). (b) The Contractor shall ensure that energy-consuming products are energy efficient products (i.e., ENERGY STAR® products or FEMP-designated products) at the time of contract award, for products that are— (1) Delivered; (2) Acquired by the Contractor for use in performing services at a Federally-controlled facility; (3) Furnished by the Contractor for use by the Government; or (4) Specified in the design of a building or work, or incorporated during its construction, renovation, or maintenance. (c) The requirements of paragraph (b) apply to the Contractor (including any subcontractor) unless— (1) The energy-consuming product is not listed in the ENERGY STAR® Program or FEMP; or (2) Otherwise approved in writing by the Procurement and Contracting Officer. (d) Information about these products is available for— (1) ENERGY STAR® at <http://www.energystar.gov/products>; and (2) FEMP at http://www1.eere.energy.gov/femp/procurement/eeep_requirements.html.

64. IEEE 1680 STANDARD FOR THE ENVIRONMENTAL ASSESSMENT OF PERSONAL COMPUTER PRODUCTS

“Computer monitor” means a video display unit used with a computer. “Desktop computer” means a computer designed for use on a desk or table. “Notebook computer” means a portable-style or lap top style computer system. “Personal computer product” means a notebook computer, a desktop computer, or a computer monitor, and any peripheral equipment that is integral to the operation of such items. For example, the desktop computer together with the keyboard, the mouse, and the power cord would be a personal computer product. Printers, copiers, and fax machines are not included in peripheral equipment, as used in this definition. (b) Under this contract, the Contractor shall deliver, furnish for Government use, or furnish for contractor use at a Government-owned facility, only personal computer products that at the time of submission of proposals were EPEAT Bronze registered or higher. Bronze is the first level discussed in Clause 1.4 of the IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products. (c) For information about the standard, see www.epeat.net.

65. AFFIRMATIVE PROCUREMENT OF EPA-DESIGNATED ITEMS IN SERVICE AND CONSTRUCTION CONTRACTS

(a) In the performance of this contract, the Contractor shall make maximum use of products containing recovered materials that are EPA-designated items unless the product cannot be acquired; (1) Competitively within a timeframe providing for compliance with the contract performance schedule; (2) Meeting contract performance requirements; or (3) At a reasonable price. (b) Information about this

requirement is available at EPA's Comprehensive Procurement Guidelines web site <http://www.epa.gov/cpg/>. The list of EPA-designated items is available at <http://www.epa.gov/cpg/products.htm>.

66. COMPLIANCE WITH ENVIRONMENTAL MANAGEMENT SYSTEMS

- a. The Contractor's work under this contract shall conform with all operational controls identified in the applicable agency or facility Environmental Management Systems and provide monitoring and measurement information necessary for the Government to address environmental performance relative to the goals of the Environmental Management Systems.
- b. Bidders must comply with the Buy Clean California Act (BCCA) (Public Contract Code Sections 3500-3505), which states the Department of General Services (DGS), in consultation with the California Air Resources Board (CARB), is required to establish and publish the maximum acceptable Global Warming Potential (GWP) limit for four eligible materials. The BCCA targets carbon emissions associated with the production of structural steel (hot-rolled sections, hollow structural sections, and plate), concrete reinforcing steel, flat glass, and mineral wool board insulation. When used in public works projects, these eligible materials must have a GWP that does not exceed the limit set by DGS.
- c. Contractor agrees to recognize the mandatory standards and policies relating to BCCA and will provide GWP limit compliance of eligible materials using Environmental Products Declarations (EPDs). Maximum acceptable GWP limits were established on January 1, 2022 and can be found in the GWP Limits section Buy Clean California Act.

67. SUSPENSION AND DISBARMENT

By entering in this contract your firm and its principals certifies that it has not been suspended or disbarred from any Federal contracts and does not appear on the Excluded Parties List System (EPLS). In addition, your company certifies that all your organization's subcontractors and its principals have not been suspended or disbarred from any Federal contracts and does not appear on the Excluded Parties List System (EPLS).

68. EXPATRIATE CORPORATIONS

Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of PCC Section 10286 and 10286.1 and is eligible to contract with the State.

69. EXECUTIVE ORDER N-6-22 – RUSSIA SANCTIONS

On March 4, 2022, Governor Gavin Newsom issued Executive Order N-6-22 (the EO) regarding Economic Sanctions against Russia and Russian entities and individuals. "Economic Sanctions" refers to sanctions imposed by the U.S. government in response to Russia's actions in Ukraine, as well as any sanctions imposed under state law. The EO directs state agencies to terminate contracts with, and to refrain from entering any new contracts with, individuals or entities that are determined to be a target of Economic Sanctions. Accordingly, should the State determine Contractor is a target of Economic Sanctions or is conducting prohibited transactions with sanctioned individuals or entities, that shall be grounds for termination of this agreement. The State shall provide Contractor advance written notice of such termination, allowing Contractor at least 30 calendar days to provide a written response. Termination shall be at the sole discretion of the State.

END OF EXHIBIT D

EXHIBIT E
(Special Contract Provisions)

1. Prior to any performance by the Contractor, evidence of insurance must be returned to the California Military Department with the signed contracts. Refer to Exhibit F, for further information regarding State of California insurance requirements.
2. Contractor acknowledges the contract will be signed and returned within 10 business days. No contract will be binding upon the State until the Contractor receives a fully executed contract that is signed and approved by the Military Department.
3. Contractor shall contact the Project Manager (PM) to schedule the job start meeting. The period of performance start date will be the job start meeting date in which the Contractor and the PM shall conduct within 7 days after receipt of the fully executed contract and issuance of the Notice to Proceed.
4. When required, the Contractor shall furnish the California Military Department with a payment bond in the full amount of the agreement, executed by a California-admitted surety (CCP § 995.311.) insurer utilizing the bond form provided by the State. Form can be downloaded here: <https://www.documents.dgs.ca.gov/dgs/fmc/pdf/std807.pdf>.

Payment Bond can be emailed to: PWC@cmd.ca.gov
Subject Line = 130515 | Payment Bond

5. When required, the Contractor shall furnish the California Military Department with a performance bond in the full amount of the agreement, executed by a California-admitted surety (CCP § 995.311.) insurer utilizing a bond form provided by the surety.

Performance Bond can be emailed to: PWC@cmd.ca.gov
Subject Line = 130515 | Performance Bond

- a. Bonds must identify the owner as:
California Military Department
10601 Bear Hollow Drive
Rancho Cordova, California 95670-6350

6. Contractor shall provide the California Military Department with all material submittals specified in the Technical Specifications of this contract within ten (10) working days after the job start meeting date. Thirty-five (35) days will be allowed for submission of data substantiating a request for substitution of an "equal" item.

CONTRACTOR QUALIFICATIONS

The Contractor is licensed by the California Contractors State License Board to perform this type of work. The Contractor possesses the B - General Building Contractor license. Subcontractor(s) may not be added or substituted without the California Military Department Procurement and Contracting Officer (PCO) approval.

END OF EXHIBIT E

EXHIBIT F
(Insurance Liability Section)

Basic Insurance Requirement:

1. General Provisions Applying to All Policies

- a. Coverage term – Coverage needs to be in force for the complete term of the contract. If insurance expires during the term of the contract, a new certificate must be received by the State at least ten (10) days prior to the expiration of this insurance. Any new insurance must still comply with the original terms of the contract.
- b. Policy Cancellation of Termination and Notice of Non-Renewal – Contractor shall provide to the State within five (5) business days following receipt by contractor a copy of any cancellation or non-renewal of insurance required by this contract. In the event the contractor fails to keep in effect at all times the specified insurance coverage, the State may, in addition to any other remedies it may have, terminate this contract upon the occurrence of such event, subject to the provisions of this Contract.
- c. Deductible – Contractor is responsible for any deductible or self-insured retention contained within their insurance program.
- d. Primary Clause – Any required insurance contained in the Contract shall be primary, and not excess or contributory to any other insurance carried by the State.
- e. Insurance Carrier Required Rating – All insurance companies must carry a rating acceptable to the Office of Risk and Insurance Management. If the contractor is self-insured for a portion or all of its insurance, review of financial information including a letter of credit may be required.
- f. Endorsements – Any required endorsement must be physically attached to all requested certificates of insurance and not substituted by referring to such coverage on the certificate of insurance.
- g. Inadequate Insurance – Inadequate of lack of insurance does not negate the contractor's obligations under the Contract.

2. Insurance Requirements

- a. Commercial General Liability – Contractor shall maintain general liability on an occurrence form with limits not less than \$1,000,000 per occurrence and \$2,000,000 aggregate for bodily injury and property damage liability. The policy must include coverage for liabilities arising out of premises operations, independent contractors, products/completed operations, personal & advertising injury, and liability assumed under an insured contract. This insurance shall apply separately to each insured against whom claim is made or suit is brought subject to the Contractor's limit of liability. The policy must include:

Military Department, State of California, its officers, agents, and employees are included as additional insured, but only with respect to work performed under this contract.

This endorsement must be supplied under form acceptable to the Office of Risk and Insurance Management.

In the case of Contractor's utilization of subcontractors to complete the contracted scope of work, contractors shall include all subcontractors as insureds under Contractor's insurance or supply evidence of insurance to the State equal to policies, coverage and limits required of Contractor.

- b. Automobile Liability - Contractor shall maintain motor vehicle liability with limits not less than \$1,000,000 combined single limit per accident.

The same additional insured designation and endorsement required for general liability is to be provided for this coverage.

- c. Workers' Compensation and Employers' Liability – Contractor shall maintain statutory workers' compensation and employers' liability for all its employees who will be engaged in the performance of the contract. Employers' liability limits of \$1,000,000 are required.

When is performed on State owned or controlled property the workers' compensation policy shall contain a waiver of subrogation in favor of the State. The waiver of subrogation endorsement shall be provided.

3. Terms of Policy (breakdown in accordance with the above requirements):

- a. Minimum limit of coverage of the policy shall be:

- (1) Vehicle Liability (BI & PD): \$1,000,000 per occurrence
- (2) Public Liability: \$1,000,000 per occurrence / \$2,000,000 Aggregate
- (3) Workers Compensation: Statutory

- b. State shall not be responsible for premiums or assessments on the policy.
- c. The Military Department, The State of California, its officers, agents, and employees are included as additional insured, but only with respect to work performed under this contract.
- d. The Certificate Holder section of the COI shall include the following language:

California Military Department
10601 Bear Hollow Drive
Rancho Cordova, California 95670-6350
Reference: Agreement Number 130515

NOTE: THE ENDORSEMENT SHEET MUST INCLUDE THE LANGUAGE AS WRITTEN IN PARAGRAPH c. ABOVE.

Certificate of Insurance can be emailed to: PWC@cmd.ca.gov
Subject Line = 130515 | Insurance Certificate

The above certifications must be provided to the Military Department upon request of the Military Department's Procurement and Contracting Officer and emailed to the address above.

END OF EXHIBIT F



CALIFORNIA MILITARY DEPARTMENT CA Facilities Engineering

Barstow National Guard Armory FMS Underground Storage Tanks Removal Project

**1601 Armory Road, Barstow, CA
PROJECT MANUAL**

100% Design Submittal

SECTION 00 01 10

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CERTIFICATIONS PAGE

PROJECT TITLE: Barstow FMS 2 UST Removal

AGENCY: California Military Department, 10601 Bear Hollow Dr, Rancho Cordova, CA

LOCATION: 1601 Armory Road, Barstow, CA

PROJECT NUMBER: 12670676

PROJECT DIRECTOR: Colonel Kevin J. Desmond
California Military Department

		
ENGINEER	CALIFORNIA STATE FIRE MARSHAL	

SECTION 01 28 00

CHANGES IN THE WORK

PART 1 GENERAL

1.1 SUMMARY

- A. Changes in the Plans and Specifications, requested in writing by the Contractor, which do not materially affect the Work and which are not detrimental to the Work or to the interests of the Agency, may be granted by the Contracting Officer's Representative (COR). Nothing herein shall be construed as granting a right to the Contractor to demand acceptance of such changes.
- B. The CMD may change the Plans and Specifications, character of the work, or quantity of work provided the total arithmetic dollar value of all such changes, both additive and deductive, does not exceed 25 percent of the contract price. Should it become necessary to exceed this limitation, the change shall be by written Supplemental Agreement between the Contractor and the CMD, unless both parties agree to proceed with the change by change order.
- C. Change Orders shall be in writing and shall state the dollar value of the change or establish the method of payment, any adjustment in the Contract time of completion, and when negotiated prices are involved, shall provide for the Contractor's signature indicating acceptance.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION

3.1 CHANGE ORDERS

- A. No cost change orders:
 - 1. Contract Documents are complementary; therefore, before starting each portion of Work, carefully study and compare various Drawings, Specifications and any other Contract Documents, coordination drawings, shop drawings, prior correspondence or documentation relative to that portion of Work, as well as information furnished by CMD.
 - 2. Contractor and Subcontractors shall evaluate and take field measurements of any existing conditions related to that portion of Work and shall observe any conditions at site affecting Work.
 - 3. Contractor and subcontractors acknowledge that all documents pertaining to Work has been examined, have examined character of site and any existing conditions, and are satisfied with nature of Work, and all other matters which can in any way affect Work.
 - 4. In event of inconsistency between portions of Contract Documents or within Contract Documents; provide better quality or greater quantity of Work, and comply with more stringent requirement, either or both in accordance with Architect's interpretation.
 - 5. Any errors, inconsistencies or omissions discovered in Contract Documents shall be reported promptly to Architect as a properly prepared and timely Request for Information (RFI).
 - 6. Contractor and Subcontractors are not required to ascertain Contract Documents are in

CHANGES IN THE WORK

accordance with applicable laws, statutes, ordinances, codes, and rules and regulations, unless they bear upon construction means, methods, techniques or safety and health precautions, but any nonconformity discovered by or made known shall be reported promptly as a RFI.

7. If Contractor or Subcontractor fail to give such notice, and knowingly proceeds with Work affected by errors or omissions in Contract Documents, Contractor shall correct any such errors, inconsistencies, or omissions at no additional cost.

B. Contractor's and Subcontractor's Responsibilities:

1. When interpretation, clarification or explanation of portion of Construction Documents is needed by Contractor, Subcontractor, Vendor or Supplier, the request shall be processed through Contractor:
 - a. Review request for completeness, quality, proper referencing to drawing or specification section and reason submitted.
 - b. If request is not acceptable it shall be sent back to submitter with comments regarding reason for being returned.
 - c. Make every attempt to validate, resolve or respond to RFI by thoroughly researching and reviewing Contract Documents and field conditions.
 - d. Respond to RFI accordingly if review of RFI discloses a response or is related to coordination of construction or other issue not related to Contract Documents.
 - e. If unable to respond to request, it shall be restated in clear, concise, correct, complete and easily understood manner, and rewritten if necessary, additional information included if necessary, and only then submitted to Architect for response.
2. Request for interpretation, clarification or explanation of Contract Documents shall be submitted to CMD in writing:
 - a. List specific Contract Documents reviewed when seeking information being requested.
 - b. Reference all applicable Contract Drawings by sheet number, section, detail, room number, door number, etc., Specifications by section and paragraph number, and reference any other relevant documents.
 - c. The field titled "Regarding" on attached RFI form must be clear for future reference in reports or correspondence.
 - d. Clearly state request and provide Contract Document references and any additional information needed so request can be fully understood, including sketches, photos or other reference material.
 - e. Fully assess issues, suggest any reasonable solutions and include various factors, including potential costs, schedule impacts, if any, and recommendations which will aid in determining a solution or response. If a reasonable solution cannot be suggested, a statement to that effect should be so stated.
 - f. Indicate reason request is being submitted.
 - g. Any critical RFI's requiring a rapid response shall clearly indicate such with an explanation as to why RFI is critical.
 - h. Priority for responses shall be indicated when multiple RFI's are submitted within short period of time.
3. Copies of responses to RFI's shall be distributed to all parties affected.
4. A response to RFI shall not be considered a notice to proceed with a change that may revise the Contract Sum or Contract Time, unless authorized by CMD in writing.
5. If response to RFI is determined incomplete, it shall be resubmitted with reason response is unacceptable and any necessary additional information within five (5) days of time of receipt of response to RFI.

6. If determined or believed that additional cost or time is involved because of clarifications, interpretations or instructions issued by Architect in response to a RFI, resubmit RFI within five (5) days of receipt of response with reason and alternate solution or suggestion for performing work at no additional cost. If no other solution is possible or desirable, submit Claim in accordance with the Contract Documents with in twenty-one (21) days of receipt of response to the RFI.
- C. RFI Submittal Format:
1. Request for information shall be submitted to Architect on RFI form provided at end of this section, or form provided by Architect in electronic text file format, or in similar format acceptable to Architect:
 - a. RFI's shall be assigned unique numbers in sequential order (1, 2, 3, 4, etc.).
 - b. A resubmitted RFI or a previously answered RFI requiring revising or further clarification shall be submitted using original RFI number proceeded by ".1" to indicate revision one of RFI (i.e.: RFI No. 34.1 for revision 1 to RFI No. 34).
 - c. RFI form shall be electronically filled out and emailed to Architect's designated representative in text file format. Attachments shall be in electronic text or PDF file format. Photo attachments may be in JPG format.
- D. Architect's Response to Request for Information (RFI):
1. Clarifications, interpretations and decisions of Architect in response to RFI will be consistent with intent of and reasonably inferable from Contract Documents, and will be in writing, and if determined to be necessary by Architect, will be provided in form of drawings and other attachments or both.
 2. When making such interpretations and initial decisions, Architect will endeavor to secure faithful performance by both CMD and Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith.
 3. Architect's decisions on matters related to aesthetic effects will be final if consistent with intent expressed in Contract Documents.
 4. Architect will not undertake to settle differences between Contractor, Subcontractors, trades suppliers, fabricator or manufacturer, or act as arbiter as to which Subcontractor, trade, supplier or manufacturer is to furnish or install various items indicated or required.
 5. Architect shall provide responses to RFI's with reasonable promptness, but will endeavor to respond within twenty-one (21) days from date of receipt:
 - a. If multiple RFI's are submitted on same day or within a five (5) day period, review time may be extended by mutual agreement of parties
 - b. Architect will provide a written response to RFI if Architect believes response only involves an interpretation, clarification, supplemental information or orders a minor change in Work not involving an adjustment in Contract Sum or extension of Contract Time, and is not inconsistent with intent of Contract Documents, and shall be binding.
 - c. If Architect believes response may result in a change to Contract Sum or Contract Time, response will indicate that a change document will be issued for the response, and appropriate change document will be issued indicating changes to Contract Documents.
 - d. Architect will provide any additional or supplemental drawings, specifications or other information as Architect may deem necessary to facilitate response.
 6. Architect may return RFI without response for following reasons:
 - a. Unclear.
 - b. Incomplete.
 - c. Detailed information not provided.
 - d. Is related to construction means, methods or techniques.

- e. Is related to health or safety measures.
 - f. Is due to Contractor's lack of adequate coordination
 - g. Is considered a "Substitution Request."
 - h. Is due to non-conformance.
 - i. Response is required by another party.
- E. If requested information is available from careful study and comparison of Contract Documents, field conditions, other CMD-provided information, coordination drawings, or prior Project correspondence or documentation, Architect may invoice CMD as a change in services for costs involved in Architect's review, analysis, responding and processing of such RFI:
- 1. Contractor shall reimburse CMD for such costs.

END OF SECTION

SECTION 01 33 00

SUBMITTAL PROCEDURES

PART 1 GENERAL

1.1 SUMMARY

A. Submittal Information

1. The Project Manager may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections. Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.
2. Units of weights and measures used on all submittals are to be the same as those used in the contract drawings.

B. Project Type

1. The Contractor's Quality Control (CQC) System Manager are to check and approve all items before 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.
2. The Contractor and the Designer of Record (DOR), if applicable, are to check and approve all items before 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.

C. Submission of Submittals

1. Schedule and provide submittals requiring Government approval before acquiring the material or equipment covered thereby. Pick up and dispose of samples not incorporated into the work in accordance with manufacturer's Safety Data Sheets (SDS) and in compliance with existing laws and regulations.

1.2 DEFINITIONS

A. Submittal Descriptions (SD)

1. SD-01 Preconstruction Submittals
 - a. Submittals that are required prior to or commencing with the start of work on site. Submittals that are required prior to or at the start of construction (work) or the next major phase of the construction on a multiphase contract.
 - b. Preconstruction Submittals include schedules and a tabular list of locations, features, and other pertinent information regarding products, materials, equipment, or components to be used in the work.
Certificates of Insurance Surety Bonds

SUBMITTAL PROCEDURES

List of Proposed Subcontractors
Submittal Register
Schedule of Values Report

2. SD-02 Shop Drawings
 - a. Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.
 - b. 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.
 - c. Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.
3. SD-03 Product Data
 - a. 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.
 - b. Samples of warranty language when the contract requires extended product warranties.
4. SD-04 Samples
 - a. Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.
 - b. Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.
 - c. Field samples and mock-ups constructed on the project site establish standards ensuring work can be judged. Includes assemblies or portions of assemblies that are to be incorporated into the project and those that will be removed at conclusion of the work.
5. SD-06 Test Reports
 - a. 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. Unless specified in another section, testing must have been within three years of date of contract award for the project.
 - b. Report that includes findings of a test required to be performed on an actual portion of the work or prototype prepared for the project before shipment to job site.
 - c. Report that 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.
 - d. Investigation reports Daily logs and checklists
 - e. Final acceptance test and operational test procedure
6. SD-07 Certificates
 - a. Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that the product, system, or material meets specification requirements. Must be dated after award of project contract and clearly name the project.
 - b. 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.
 - c. Confined space entry permits
 - d. Text of posted operating instructions SD-08 Manufacturer's Instructions
 - e. Preprinted material describing installation of a product, system or material, including

special notices and (SDS) concerning impedances, hazards and safety precautions.

7. SD-08 Manufacturer's Field Reports
 - a. Documentation of the testing and verification actions taken by manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and state the test results; and indicate whether the material, product, or system has passed or failed the test.
 - b. Factory test reports.
8. SD-9 Operation and Maintenance Data
 - a. Data provided by the manufacturer, or the system provider, including manufacturer's help and product line documentation, necessary to maintain and install equipment, for operating and maintenance use by facility personnel.
 - b. Data required by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item.
 - c. Data incorporated in an operations and maintenance manual or control system.
9. SD-10 Closeout Submittals
 - a. Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.
 - b. 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.

B. Approving Authority

1. Office or designated person authorized to approve the submittal.

C. Work

1. As used in this section, on-site and off-site construction required by contract documents, including labor necessary to produce submittals, construction, materials, products, equipment, and systems incorporated or to be incorporated in such construction. In exception, excludes work to produce SD-01 submittals.

1.3 SUBMITTAL CLASSIFICATION

A. Government Approved (G)

1. Government approval is required for extensions of design, critical materials, variations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Government.
2. Government approval is required for any variations from the Solicitation or the Accepted Proposal and for other items as designated by the Government.

1.4 FORWARDING SUBMITTALS REQUIRING GOVERNMENT APPROVAL

A. O&M Data

1. Submit data specified for a given item within 30 calendar days after the item is delivered to the contract site. In the event the Contractor fails to deliver O&M data within the time limits specified, the Project Manager may withhold from progress payments 50 percent of the price of the items to which such O&M data apply.

1.5 PREPARATION

A. Transmittal Form

1. Transmit each submittal, except sample installations and sample panels to the office of the approving authority using the transmittal form prescribed by the Project Manager. Include all information prescribed by the transmittal form and required in paragraph Identifying Submittals.
2. Use the submittal transmittal forms to record actions regarding samples. Use the transmittal form for submitting both Government-approved and information-only submittals. Submit in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. Properly complete the 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.

B. Identifying Submittals

1. The Contractor's [Quality Control Manager] [approving authority] must prepare, review and stamp submittals, including those provided by a subcontractor, before submittal to the Government.
2. Identify submittals, except sample installations and sample panels, with the following information permanently adhered to or noted on each separate component of each submittal and noted on transmittal form. Mark each copy of each submittal identically, with the following:
 - a. Project title and location
 - b. Construction contract number
 - c. Dates of the drawings and revisions
 - d. Name, address, and telephone number of Subcontractor, supplier, manufacturer, and any other Subcontractor associated with the submittal.
 - e. Section number of the specification by which submittal is required
 - f. Submittal description (SD) number of each component of submittal
 - g. For a resubmission, add alphabetic suffix on submittal description, for example, submittal 18 would become 18A, to indicate resubmission
 - h. Product identification and location in project.

C. Submittal Format

1. Format for SD-02 Shop Drawings
 - a. Provide shop drawings not less than 8 1/2 by 11 inches nor more than 30 by 42 inches, except for full-size patterns or templates.
 - b. Prepare drawings to accurate size, with scale indicated, unless another form is required. Ensure drawings are suitable for reproduction and of a quality to produce clear, distinct lines and letters, with dark lines on a white background.
 - c. Include the nameplate data, size, and capacity on drawings. Also include applicable federal, military, industry, and technical society publication references.
 - d. Dimension drawings, except diagrams and schematic drawings. Prepare drawings demonstrating interface with other trades to scale. Use the same unit of measure for shop drawings as indicated on the contract drawings. Identify materials and products for work shown.
 - e. Present shop drawings sized 8 1/2 by 11 inches as part of the bound volume for submittals. Present larger drawings in sets. Submit an electronic copy of drawings in PDF format.
 - 1) Drawing Identification

- a) Include on each drawing the drawing title, number, date, and revision numbers and dates, in addition to information required in paragraph IDENTIFYING SUBMITTALS.
 - b) Number drawings in a logical sequence. Each drawing is to bear the number of the submittal in a uniform location next to the title block. Place the Government contract number in the margin, immediately below the title block, for each drawing.
 - c) Reserve a blank space on the right-hand side of each sheet for the Government disposition stamp.
- 2. Format of SD-03 Product Data
 - a. Present product data submittals for each section as a complete, bound volume. Include a table of contents, listing the page and catalog item numbers for product data.
 - b. Indicate, by prominent notation, each product that is being submitted; indicate the specification section number and paragraph number to which it pertains.
 - 1) Product Information
 - a) Supplement product data with material prepared for the project to satisfy the submittal requirements where product data does not exist. Identify this material as developed specifically for the project, with information and format as required for submission of SD-07 Certificates.
 - b) Provide product data in metric dimensions. Where product data are included in preprinted catalogs with English units only, submit metric dimensions on separate sheet.
 - c) Provide product data in units used in the Contract documents. Where product data are included in preprinted catalogs with another unit, submit the dimensions in contract document units, on a separate sheet.
 - 2) Standards
 - a) Where equipment or materials are specified to conform to industry or technical-society reference standards of such organizations as the American National Standards Institute (ANSI), ASTM International (ASTM),
 - b) National Electrical Manufacturer's Association (NEMA), Underwriters Laboratories (UL), or Association of Edison Illuminating Companies (AEIC), submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance.
 - c) In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Project Manager. State on the certificate that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.
 - 3) Data Submission
 - a) Collect required data submittals for each specific material, product, unit of work, or system into a single submittal that is marked for choices, options, and portions applicable to the submittal. Mark each copy of the product data identically. Partial submittals will [not] be accepted for expedition of the construction effort.
 - b) Submit the manufacturer's instructions before installation.
- 3. Format of SD-04 Samples
 - a. Sample Characteristics
 - 1) Furnish samples in the following sizes, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately the same size as specified:

- b. Sample of Equipment or Device: Full size.
 - c. Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.
 - d. Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.
 - e. Sample of Linear Devices or Materials: 10 inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.
 - f. Sample Volume of Nonsolid Materials: Pint. Examples of nonsolid materials are sand and paint.
 - g. Color Selection Samples: 2 by 4 inches. Where samples are specified for selection of color, finish, pattern, or texture, submit the full set of available choices for the material or product specified. Sizes and quantities of samples are to represent their respective standard unit.
 - h. Sample Panel: 4 by 4 feet.
 - i. Sample Installation: 100 square feet.
 - 1) Sample Incorporation
 - a) Reusable Samples: Incorporate returned samples into work only if so specified or indicated. Incorporated samples are to be in undamaged condition at the time of use.
 - b) Recording of Sample Installation: Note and preserve the notation of any area constituting a sample installation, but remove the notation at the final clean-up of the project.
 - 2) Comparison Sample
 - a) Samples Showing Range of Variation: Where variations in color, finish, pattern, or texture are unavoidable due to nature of the materials, submit sets of samples of not less than three units showing extremes and middle of range. Mark each unit to describe its relation to the range of the variation. When color, texture, or pattern is specified by naming a particular manufacturer and style, include one sample of that manufacturer and style, for comparison.
- 4. Format of SD-05 Design Data
 - a. Provide design data and certificates on 8 1/2 by 11 inch paper. Provide a bound volume for submittals containing numerous pages.
 - 5. Format of SD-06 Test Reports
 - a. Provide reports on 8 1/2 by 11 inch paper in a complete bound volume.
 - b. By prominent notation, indicate each report in the submittal. Indicate the specification number and paragraph number to which each report pertains.
 - 6. Format of SD-07 Certificates
 - a. Provide design data and certificates on 210 by 297 mm 8 1/2 by 11 inch paper. Provide a bound volume for submittals containing numerous pages.
 - 7. Format of SD-08 Manufacturer's Instructions
 - a. Present manufacturer's instructions submittals for each section as a complete, bound volume. Include the manufacturer's name, trade name, place of manufacture, and catalog model or number on product data. Also include applicable federal, military, industry, and technical-society publication references. If supplemental information is needed to clarify the manufacturer's data, submit it as specified for SD-07 Certificates.
 - b. Submit the manufacturer's instructions before installation.
 - 1) Standards
 - a) Where equipment or materials are specified to conform to industry or technical-society reference standards of such organizations as the ANSI, ASTM, NEMA, UL, or AEIC, submit proof of such compliance. The label

SUBMITTAL PROCEDURES

or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Project Manager. State on the certificate that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.

8. Format of SD-09 Manufacturer's Field Reports
 - a. Provide reports on 210 by 297 mm 8 1/2 by 11 inch paper in a complete bound volume.
 - b. By prominent notation, indicate each report in the submittal. Indicate the specification number and paragraph number to which each report pertains.
 9. Format of SD-10 Operation and Maintenance Data (O&M)
 - a. Comply with the requirements specified in Section 01 78 23 OPERATION AND MAINTENANCE DATA for O&M Data format.
 10. Format of SD-11 Closeout Submittals
 - a. When the submittal includes a document that is to be used in the project or is to become part of the project record, other than as a submittal, do not apply the Contractor's approval stamp to the document itself, but to a separate sheet accompanying the document.
 - b. Provide data in the unit of measure used in the contract documents.
 - c. Provide all dimensions in administrative submittals in metric. Where data are included in preprinted material with English units only, submit metric dimensions on separate sheet.
- D. Source Drawings for Shop Drawings
1. Source Drawings
 - a. The entire set of source drawing files (DWG) will not be provided to the Contractor. Request the specific Drawing Number for the preparation of shop drawings. Only those drawings requested to prepare shop drawings will be provided. These drawings are provided only after award.
- E. Terms and Conditions
1. 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 is 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 its 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.
 2. These electronic source drawing files are not construction documents. Differences may exist between the source drawing files and the corresponding construction documents. The Government makes no representation regarding the accuracy or completeness of the electronic source drawing files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. The Contractor is responsible for determining if any conflict exists. 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.

3. Use of these source drawing files does not relieve the Contractor of the 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 indication of ownership (seals, logos, signatures, initials and dates).
- F. Electronic File Format
1. Provide submittals in electronic format, with the exception of material samples required for Samples items. In addition to the electronic submittal, provide 2 hard copies of the submittals.
 2. 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, and coordinate the file naming convention with the Project Manager. Electronic files must be of sufficient quality that all information is legible. Use PDF as the electronic format, unless otherwise specified or directed by the Project Manager. Generate PDF files from original documents with bookmarks so that the text included in the PDF file is searchable and can be copied. If documents are scanned, optical character resolution (OCR) routines are required. Index and bookmark files exceeding 30 pages to allow efficient navigation of the file. When required, the electronic file must include a valid electronic signature or a scan of a signature.
 3. E-mail electronic submittal documents smaller than 10MB to an e-mail address as directed by the Project Manager. Provide electronic documents over 10 MB on an optical disc or through an electronic file sharing system such as the AMRDEC SAFE Web Application located at the following website: <https://safe.amrdec.army.mil/safe/>.

1.6 QUANTITY OF SUBMITTALS

- A. Number of SD-01 Shop Drawing Copies
1. Submit 3 copies of submittals of shop drawings requiring review and approval by a QC organization. Submit 3 copies of shop drawings requiring review and approval by the Project Manager.
- B. Number of SD-02 Product Data Copies
1. Submit in compliance with quantity requirements specified for shop drawings.
- C. Number of SD-03 Test Report Copies
1. Submit in compliance with quantity and quality requirements specified for shop drawings, other than field test results that will be submitted with QC reports.
- D. Number of SD-04 Certificate Copies
1. Submit in compliance with quantity requirements specified for shop drawings.
- E. Number of SD-05 Manufacturer's Instructions Copies
1. Submit in compliance with quantity requirements specified for shop drawings.
- F. Number of SD-06 Manufacturer's Field Report Copies
1. Submit in compliance with quantity and quality requirements specified for shop drawings other than field test results that will be submitted with QC reports.
- G. Number of SD-10 Operation and Maintenance Data Copies
1. Submit 3 copies of O&M data to the Project Manager for review and approval.

SUBMITTAL PROCEDURES

- H. Number of SD-11 Closeout Submittals Copies
 - 1. Unless otherwise specified, submit two sets of administrative submittals.

1.7 PROJECT SUBMITTAL REGISTER

- A. A sample Project Submittal Register showing items of equipment and materials for when submittals are required by the specifications is provided as "Appendix A - Submittal Register."
- B. Submittal Management
 - 1. Prepare and maintain a submittal register, as the work progresses. Use an electronic submittal register program furnished by the Government. Do not change data that is output in columns (c), (d), (e), and (f) as delivered by Government; retain data that is output in columns (a), (g), (h), and as approved. As an attachment, provide a submittal register showing items of equipment and materials for which submittals are required by the specifications. 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.
 - 2. Thereafter, the Contractor is to track all submittals by maintaining a complete list, including completion of all data columns and all dates on which submittals are received by and returned by the Government.

1.8 VARIATIONS

- A. Variations from contract requirements require Project Manager approval pursuant to contract Clause FAR 52.236-21 Specifications and Drawings for Construction, and will be considered where advantageous to the Government.
- B. Considering Variations
 - 1. Discussion of variations with the Project Manager before submission will help ensure that functional and quality requirements are met and minimize rejections and resubmittals. When contemplating a variation that results in lower cost, consider submission of the variation as a Value Engineering Change Proposal (VECP).
 - 2. Specifically point out variations from contract requirements in transmittal letters. Failure to point out variations may cause the Government to require rejection and removal of such work at no additional cost to the Government.
- C. Proposing Variations
 - 1. When proposing variation, deliver a written request to the Project Manager, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to Government. Include the DOR's written analysis and approval. 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.
 - 2. Clearly mark the proposed variation in all documentation.
- D. Warranting that Variations are Compatible
 - 1. When delivering a variation for approval, the Contractor warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.
- E. Review Schedule Extension
 - 1. In addition to the normal submittal review period, a period of 14 **working** days will be allowed for the Government to consider submittals with variations.

SUBMITTAL PROCEDURES

2. Schedule and submit concurrently product data and shop drawings covering component items forming a system or items that are interrelated. Submit pertinent certifications 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. The Contractor is responsible for additional time required for Government reviews resulting from required resubmittals. The review period for each resubmittal is the same as for the initial submittal.
 - b. Submittals required by the contract documents are listed on the submittal register. If a submittal is listed in the submittal register 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 Project Manager does not relieve the Contractor of supplying submittals required by the contract documents but that have been omitted from the register or marked "N/A."
 - c. Resubmit the submittal register and annotate it monthly with actual submission and approval dates. When all items on the register have been fully approved, no further resubmittal is required. Project Manager review will be completed within 14 working days after the date of submission.
- F. Reviewing, Certifying, and Approving Authority
1. The QC Manager is responsible for reviewing all submittals and certifying that they are in compliance with contract requirements. The approving authority on submittals is the QC Manager unless otherwise specified. At each "Submittal" paragraph in individual specification sections, a notation "G" following a submittal item indicates that the Project Manager is the approving authority for that submittal item. Provide an additional copy of the submittal to the Government Approving authority

1.9 GOVERNMENT APPROVING AUTHORITY

- A. When the approving authority is the Project Manager, the Government will:
1. Note the date on which the submittal was received from the QC manager.
 2. Review submittals for approval within the scheduling period specified and only for conformance with project design concepts and compliance with contract documents.
 3. Identify returned submittals with one of the actions defined in paragraph REVIEW NOTATIONS and with comments and markings appropriate for the action indicated.
 4. Upon completion of review of submittals requiring Government approval, stamp and date submittals. 1 copy of the submittal will be retained by the Project Manager and 1 copy of the submittal will be returned to the Contractor.
- B. Review Notations
1. Submittals will be returned to the Contractor with the following notations:
 - a. Submittals marked "approved" or "accepted" authorize proceeding with the work covered.
 - b. Submittals marked "approved as noted" or "approved, except as noted, resubmittal not required," authorize proceeding with the work covered provided that the Contractor takes no exception to the corrections.
 - c. Submittals marked "not approved," "disapproved," or "revise and resubmit" indicate incomplete submittal or noncompliance with the contract requirements or design concept. Resubmit with appropriate changes. Do not proceed with work for this item until the resubmittal is approved.

- d. Submittals marked "not reviewed" indicate that the 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.
- e. Submittals marked "receipt acknowledged" indicate that submittals have been received by the Government. This applies only to "information-only submittals" as previously defined.

1.10 DISAPPROVED SUBMITTALS

- A. Make corrections required by the Project Manager. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications, give notice to the Project Manager as required in the contract.
- B. The Contractor is responsible for the dimensions and design of connection details and the construction of work. Failure to point out variations may cause the Government to require rejection and removal of such work at the Contractor's expense.
- C. If changes are necessary to submittals, make such revisions and resubmit in accordance with the procedures above. No item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

1.11 APPROVED SUBMITTALS

- A. The Project Manager's approval 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. The design, general method of construction, materials, detailing, and other information appear to meet the Solicitation and Accepted Proposal.
- B. Approval or acceptance by the Government for a submittal does not relieve the Contractor of the responsibility for meeting the contract requirements or for any error that may exist, because under the Quality Control (QC) requirements of this contract, the Contractor is responsible for ensuring information contained within each submittal accurately conforms with the requirements of the contract documents.
- C. After submittals have been approved or accepted by the Project Manager, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.12 APPROVED SAMPLES

- A. 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, provide assurance 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.
- B. Match the approved samples for materials and equipment incorporated in the work. If requested, approved samples, including those that may be damaged in testing, will be returned to the Contractor, at its expense, upon completion of the contract. Unapproved samples will also be returned to the Contractor at its expense, if so requested.

- C. 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 as that material.
- D. The Government reserves the right to disapprove any material or equipment that has previously proved unsatisfactory in service.
- E. Samples of various materials or equipment delivered on the site or in place may be taken by the Project Manager for testing. Samples failing to meet contract requirements will automatically void previous approvals. Replace such materials or equipment to meet contract requirements.

1.13 WITHHOLDING OF PAYMENT

- A. Payment for materials incorporated in the work will not be made if required approvals have not been obtained. No payment for materials incorporated in the work will be made unless all required DOR approvals or required Government approvals have been obtained.
- B. No payment will be made for any materials incorporated into the work for any conformance review submittals or information-only submittals found to contain errors or deviations from the Solicitation or Accepted Proposal.

1.14 STAMPS

- A. Certify the submittal data as follows: "I certify that the above submitted items had been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as otherwise stated.

____NAME OF CONTRACTOR ____

SIGNATURE OF CONTRACTOR

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01 35 26

CMD SAFETY SPECIFICATIONS

CMD Amended 6-2022)

PART 1 GENERAL

1.1 REFERENCES

A. Governmental safety requirements

1. 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 A10.22	(2007; R 2017) Safety Requirements for Rope-Guided and Non-Guided Workers' Hoists
ASSP A10.34	(2001; R 2012) Protection of the Public on or Adjacent to Construction Sites
ASSP A10.44	(2014) Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations
ASSP Z244.1	(2016) The Control of Hazardous Energy Lockout, Tagout and Alternative Methods
ASSP Z359.0	(2012) 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	(2017) 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	(2011) Qualification and Verification Testing of Fall Protection Products
ASSP Z359.11	(2014) Safety Requirements for Full Body Harnesses
ASSP Z359.12	(2009) 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

ASME INTERNATIONAL (ASME)

ASME B30.3	(2016) 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 B30.23	(2011) Personnel Lifting Systems Safety Standard for Cableways, Cranes, Derricks, Hoists, Hooks, Jacks, and Slings
ASME B30.26	(2015; INT Jun 2010 - Jun 2014) Rigging Hardware ASTM INTERNATIONAL (ASTM)
ASTM F855	(2015) Standard Specifications for Temporary Protective Grounds to Be Used on De-energized Electric Power Lines and Equipment

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 1048	(2003) Guide for Protective Grounding of Power Lines
IEEE C2	(2017; Errata 1-2 2017; INT 1 2017) National Electrical Safety Code NATIONAL

FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10	(2018; TIA 18-1) Standard for Portable Fire Extinguishers
NFPA 51B	(2014) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70	(2017; ERTA 1-2 2017; TIA 17-1; TIA 17-2; TIA 17-3; TIA 17-4; TIA 17-5; TIA 17-6; TIA 17-7; TIA 17-8; TIA 17-9; TIA 17-10; TIA 17-11; TIA 17-12; TIA 17-13; TIA 17-14; TIA 17-15; TIA 17-16; TIA 17-17) National Electrical Code
NFPA 70E	(2018; TIA 18-1; TIA 81-2) Standard for Electrical Safety in the Workplace
NFPA 241	(2019) Standard for Safeguarding Construction, Alteration, and Demolition Operations
NFPA 306	(2019) Standard for the Control of Gas Hazards on Vessels

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	1910.147 The Control of Hazardous Energy (Lock Out/Tag Out)
29 CFR	1910.333 Selection and Use of Work Practices
29 CFR	1915 Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 CFR	1915.89 Control of Hazardous Energy (Lockout/Tags-Plus)
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 02-01-056	(2014) Inspection Procedures for Accessing Communication Towers by Hoist

CMD SAFETY SPECIFICATION

CPL 2.100	(1995) Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146
CPL 02-01-056	(2014) Inspection Procedures for Accessing Communication Towers by Hoist
CPL 2.100	(1995) Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146

1.2 DEFINITIONS

A. Competent Person (CP)

1. 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.

B. Competent Person, Confined Space

1. 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.

C. Competent Person, Cranes and Rigging

1. 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.

D. Competent Person, Excavation/Trenching

1. 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.

E. Competent Person, Fall Protection

1. The CP, Fall Protection, is a person meeting the competent person requirements as defined in EM 385-1-1 Appendix Q and in accordance with ASSP Z359.0, who has been designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the fall protection program, who through training, knowledge and experience in fall protection and rescue systems and equipment, is capable of identifying, evaluating and addressing existing and potential fall hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

F. Competent Person, Scaffolding

1. The CP, Scaffolding is a person meeting the competent person requirements in EM 385-1-1 Appendix Q and designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the scaffolding program. The CP for Scaffolding has enough training, knowledge and experience in scaffolding to correctly identify, evaluate and address existing and potential hazards and also has the authority to take prompt corrective measures with regard to these hazards. CP qualifications must be documented and include experience on the specific scaffolding systems/types being used, assessment of the base material that the scaffold will be erected upon, load calculations for materials and personnel, and erection and dismantling. The CP for scaffolding must have a documented, minimum of 8-hours of scaffold training to include training on the specific type of scaffold being used (e.g., mast- climbing, adjustable, tubular frame), in accordance with EM 385-1-1 Section 22.B.02.
- G. Competent Person (CP) Trainer
1. A competent person trainer as defined in EM 385-1-1 Appendix Q, who is qualified in the material presented, and who possesses a working knowledge of applicable technical regulations, standards, equipment and systems related to the subject matter on which they are training Competent Persons. A competent person trainer must be familiar with the typical hazards and the equipment used in the industry they are instructing. The training provided by the competent person trainer must be appropriate to that specific industry. The competent person trainer must evaluate the knowledge and skills of the competent persons as part of the training process.
- H. High Risk Activities
1. High Risk Activities are activities that involve work at heights, crane and rigging, excavations and trenching, scaffolding, electrical work, and confined space entry.
- I. High Visibility Accident
1. A High Visibility Accident is any mishap which may generate publicity or high visibility.
- J. Load Handling Equipment (LHE)
1. 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).
- K. Medical Treatment
1. 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 physician or registered personnel.
- L. Near Miss
1. 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).
- M. Operating Envelope
1. 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.

N. Qualified Person (QP)

1. 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.

O. Qualified Person, Fall Protection (QP for FP)

1. A QP for FP is a person meeting the requirements of EM 385-1-1 Appendix Q, and ASSP Z359.0, with 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.

P. USACE Property and Equipment

1. Interpret "USACE" property and equipment specified in USACE EM 385-1-1 as Government property and equipment.

Q. Load Handling Equipment (LHE) Accident or Load Handling Equipment Mishap

1. 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.
2. two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment,
3. 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

1. Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval.
2. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
3. SD-01 Preconstruction Submittals Accident Prevention Plan (APP); G SD-06 Test Reports Monthly Exposure Reports 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) Confined Space Entry Permit Hot Work Permit, Certificate of Compliance License Certificates

1.4 MONTHLY EXPOSURE REPORTS

- A. Provide a Monthly Exposure Report and attach to the monthly billing request. 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

- A. 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, and local 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

A. Personnel Qualifications

1. Site Safety and Health Officer (SSHO)

- a. Provide an SSHO that meets the requirements of EM 385-1-1 Section 1. The SSHO may also serve as the Superintendent or Quality Control however, at no time may one person serve 3 roles. The SSHO must ensure that the requirements of 29 CFR 1926.16 are met for the project.
- b. Provide a Safety oversight team that includes a minimum of one
- c. (1) 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.
- d. 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) Additional Site Safety and Health Officer (SSHO) Requirements and Duties
 - 2) The Additional SSHO may also serve as the Quality Control Manager or

2. Competent Person Qualifications

- a. 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).
- b. 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 for information in consultation with the Safety Office.
- c. Competent Person for Confined Space Entry
 - 1) Provide a Confined Space (CP) Competent Person who meets the requirements of EM 385-1-1, Appendix Q, and herein. The CP for Confined Space Entry must supervise the entry into each confined space in accordance with EM 385-1-1, Section 34. Since this work involves operations that handle combustible or hazardous materials, this person must have the ability to understand and follow through on the air sampling, Personal Protective Equipment (PPE), and instructions of a Marine Chemist, Coast Guard authorized persons, or Certified Industrial Hygienist. Confined space and enclosed space work must comply

with NFPA 306, OSHA 29 CFR 1915, Subpart B, "Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment," or as applicable, 29 CFR 1910.147 for general industry.

- d. Competent Person for Scaffolding
 - 1) Provide a Competent Person for Scaffolding who meets the requirements of EM 385-1-1, Section 22.B.02 and herein.
- e. Competent Person for Fall Protection
 - 1) 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.
- 3. Qualified Trainer Requirements
 - a. 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.
 - b. Instructors are required to:
 - 1) Prepare class presentations that cover construction-related safety requirements.
 - 2) Ensure that all attendees attend all sessions by using a class roster signed daily by each attendee. Maintain copies of the roster for at least five (5) years. This is a certification class and must be attended 100 percent. In cases of emergency where an attendee cannot make it to a session, the attendee can make it up in another class session for the same subject.
 - 3) Update training course materials whenever an update of the EM 385-1-1 becomes available.
 - 4) Provide a written exam of at least 50 questions. Students are required to answer 80 percent correctly to pass.
 - 5) Request, review and incorporate student feedback into a continuous course improvement program.
- 4. Crane Operators/Riggers
 - a. 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.

B. Personnel Duties

- 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 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 conference, pre-work meetings including preparatory and Initial 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.
- C. Superintendent, QC Manager, and SSHO are subject to dismissal if the above duties are not being effectively carried out. If 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.
- D. Meetings
 - 1. Preconstruction Conference
 - a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the preconstruction conference. 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 at the conference 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'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.
 - 2. Safety Meetings
 - a. 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.
 - b. Conduct meetings at least once a month for all supervisors on the project location. The SSHO, supervisors, foremen, or CDSOs 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 on request. Notify the Contracting Officer of all scheduled meetings 7 calendar days in advance.

1.7 ACCIDENT PREVENTION PLAN (APP)

- A. 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 Government Designated Authority (GDA) 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. Once reviewed and accepted by the Contracting Officer, 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, 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 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.

B. Names and Qualifications

1. 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; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; and personal protective equipment and clothing to include selection, use and maintenance.

C. Plans

1. Provide plans in the APP in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:
 - a. Confined Space Entry Plan
 - 1) 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
 - 2) 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.)
 - b. Standard Lift Plan (SLP)
 - 1) 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 3 months.
2. Critical Lift Plan - Crane or Load Handling Equipment
 - a. 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:
 - 1) Lifts over 50 percent of the capacity of barge mounted mobile crane's hoist.
 - 2) 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.
 - 3) For lifts with anticipated binding conditions.
 - 4) When erecting cranes.
 - b. Critical Lift Plan Planning and Schedule
 - 1) Critical lifts require detailed planning and additional or unusual safety precautions. Develop and submit a critical lift plan to the Contracting Officer 30 calendar days prior to critical lift. Comply with load testing requirements in accordance with EM 385-1-1, Section 16.F.03.
3. Lifts of Personnel
 - a. 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.
4. Multi-Purpose Machines, Material Handling Equipment, and Construction Equipment Lift Plan
 - a. 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.
5. Fall Protection and Prevention (FP&P) Plan
 - a. The plan must comply 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).

6. Rescue and Evacuation Plan
 - a. 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.
7. Hazardous Energy Control Program (HECP)
 - a. Develop a HECP in accordance with EM 385-1-1 Section 12, 29 CFR 1910.147, 29 CFR 1910.333, 29 CFR 1915.89, ASSP Z244.1, and ASSP A10.44. Submit this HECP as part of the Accident Prevention Plan (APP). Conduct a preparatory meeting and inspection with all effected personnel to coordinate all HECP activities. Document this meeting and inspection in accordance with EM 385-1-1, Section 12.A.02. Ensure that each employee is familiar with and complies with these procedures.
8. Excavation Plan
 - a. Identify the safety and health aspects of excavation, and provide and prepare the plan in accordance with EM 385-1-1, Section 25.A and Section 31 00 00 EARTHWORK.
9. Occupant Protection Plan
 - a. Identify the safety and health aspects of lead-based paint removal, prepared in accordance with Section 02 83 00 LEAD REMEDIATION.
10. Asbestos Hazard Abatement Plan
 - a. Identify the safety and health aspects of asbestos work, and prepare in accordance with Section 02 82 00 ASBESTOS REMEDIATION.
11. Site Demolition Plan
 - a. Identify the safety and health aspects, and prepare in accordance with Section 02 41 00 DEMOLITION AND DECONSTRUCTION and referenced sources.

1.8 ACTIVITY HAZARD ANALYSIS (AHA)

- A. 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. 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. 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.
- B. 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. AHA Management
 - a. 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.
 2. AHA Signature Log
 - a. 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

- A. Safety Bulletin Board
1. 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, 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. Additional items required to be posted include:
 - a. Confined space entry permit.
 - b. Hot work permit.
- B. Safety and Occupational Health (SOH) Deficiency Tracking System
1. 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

- A. 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

- A. 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

A. Mishap Notification

1. Notify the Contracting Officer 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 as soon as practical but not more than 4 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.
2. 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.

B. Accident Reports

1. 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 within 5 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.
2. Near Misses: report all "Near Misses" to the GDA, using local mishap reporting procedures, within 24 hrs. The Contracting Officer will provide the Contractor the required forms. Near miss reports are considered positive and proactive Contractor safety management actions.
3. 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 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. The Contracting Officer will provide a blank copy of the accident report form.

C. LHE Inspection Reports

1. Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.
- D. Certificate of Compliance and Pre-lift Plan/Checklist for LHE and Rigging
 1. 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.
 2. Develop a Standard Lift Plan (SLP) in accordance with EM 385-1-1, Section
 3. 16.H.03 using Form 16-2 Standard Pre-Lift Crane Plan/Checklist for each lift planned. Submit SLP to the Contracting Officer for approval within 15 calendar days in advance of planned lift.

1.13 HOT WORK

A. Permit and Personnel Requirements

1. Submit and obtain a written permit prior to performing "Hot Work" (i.e. welding or cutting) or operating other flame-producing/spark producing devices, from the Fire Division. A permit is required from the Explosives Safety Office for work in and around where explosives are processed, stored, or handled. **CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE**
2. **A PERMIT IS ISSUED.** Provide at least two 20 pound 4A:20 BC rated extinguishers for normal "Hot Work". The extinguishers must be current inspection tagged, and contain an approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch must be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.
3. When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Division phone number. **REPORT ANY FIRE, NO MATTER HOW SMALL, TO THE RESPONSIBLE FIRE DIVISION IMMEDIATELY.**

B. Work Around Flammable Materials

1. Obtain permit approval from a NFPA Certified Marine Chemist for "HOT WORK" within or around flammable materials (such as fuel systems or welding/cutting on fuel pipes) or confined spaces (such as sewer wet wells, manholes, or vaults) that have the potential for flammable or explosive atmospheres.
2. Whenever these materials, except beryllium and chromium (VI), are encountered in indoor operations, local mechanical exhaust ventilation systems that are sufficient to reduce and maintain personal exposures to within acceptable limits must be used and maintained in accordance with manufacturer's instruction and supplemented by exceptions noted in EM 385-1-1, Section 06.H

1.14 CONFINED SPACE ENTRY REQUIREMENTS

- A. Confined space entry must comply with Section 34 of EM 385-1-1, OSHA 29 CFR 1926, OSHA 29 CFR 1910, OSHA 29 CFR 1910.146, and OSHA Directive CPL 2.100. Any potential for a hazard in the confined space requires a permit system to be used.
- B. Entry Procedures
 1. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. Comply with EM 385-1-1, Section 34 for entry

- procedures.
 - 2. Hazards pertaining to the space must be reviewed with each employee during review of the AHA.
 - C. Forced Air Ventilation
 - 1. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its action level.
 - D. Rescue Procedures and Coordination with Local Emergency Responders
 - 1. Develop and implement an on-site rescue and recovery plan and procedures. The rescue plan must not rely on local emergency responders for rescue from a confined space.
- 1.15 SEVERE STORM PLAN
- A. In the event of a severe storm warning, the Contractor must:
 - 1. Secure outside equipment and materials and place materials that could be damaged in protected areas.
 - 2. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.
 - 3. Ensure that temporary erosion controls are adequate.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 CONSTRUCTION AND OTHER WORK

- A. 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.
- B. 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:
 - 1. Hard Hat
 - 2. Long Pants
 - 3. Appropriate Safety Shoes
 - 4. Appropriate Class Reflective Vests

C. Worksite Communication

1. 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.

D. Hazardous Material Exclusions

1. 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
2. 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, 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 approval. Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

E. Unforeseen Hazardous Material

1. 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 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 UTILITY OUTAGE REQUIREMENTS

- A. Apply for utility outages at least (5) days in advance. At a minimum, the written request must include the location of the outage, utilities being affected, duration of outage, any necessary sketches, and a description of the means to fulfill energy isolation requirements in accordance with
- B. EM 385-1-1, Section 11.A.02 (Isolation). Some examples of energy isolation devices and procedures are highlighted in EM 385-1-1, Section
- C. 12.D. In accordance with EM 385-1-1, Section 12.A.01, where outages involve Government or Utility personnel, coordinate with the Government on all activities involving the control of hazardous energy.
- D. These activities include, but are not limited to, a review of HECF and HEC procedures, as well as applicable Activity Hazard Analyses (AHAs). In accordance with EM 385-1-1,

Section 11.A.02 and NFPA 70E, work on energized electrical circuits must not be performed without prior government authorization. Government permission is considered through the permit process and submission of a detailed AHA. Energized work permits are considered only when de-energizing introduces additional or increased hazard or when de-energizing is infeasible.

3.3 OUTAGE COORDINATION MEETING

- A. After the utility outage request is approved and prior to beginning work on the utility system requiring shut-down, conduct a pre-outage coordination meeting in accordance with EM 385-1-1, Section 12.A. This meeting must include the Prime Contractor, the Prime and subcontractors performing the work, the Contracting Officer, and the Installation representative. All parties must fully coordinate HEC activities with one another. During the coordination meeting, all parties must discuss and coordinate on the scope of work, HEC procedures (specifically, the
- B. lock-out/tag-out procedures for worker and utility protection), the AHA, assurance of trade personnel qualifications, identification of competent persons, and compliance with HEC training in accordance with EM 385-1-1, Section 12.C. Clarify when personal protective equipment is required during switching operations, inspection, and verification.

3.4 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

- A. Provide and operate a Hazardous Energy Control Program (HECP) in accordance with EM 385-1-1 Section 12, 29 CFR 1910.333, 29 CFR 1915.89, ASSP A10.44, NFPA 70E, and paragraph HAZARDOUS ENERGY CONTROL PROGRAM (HECP).
 - 1. Safety Preparatory Inspection Coordination Meeting with the Government or Utility
 - 2. For electrical distribution equipment that is to be operated by Government or Utility personnel, the Prime Contractor and the subcontractor performing the work must attend the safety preparatory inspection coordination meeting, which will also be attended by the Contracting Officer's Representative, and required by EM 385-1-1, Section 12.A.02.
 - 3. The meeting will occur immediately preceding the start of work and following the completion of the outage coordination meeting. Both the safety preparatory inspection coordination meeting and the outage coordination meeting must occur prior to conducting the outage and commencing with lockout/tagout procedures.
 - 4. Lockout/Tagout Isolation
 - a. Where the Government or Utility performs equipment isolation and lockout/tagout, the Contractor must place their own locks and tags on each energy-isolating device and proceed in accordance with the HECP. Before any work begins, both the Contractor and the Government or Utility must perform energy isolation verification testing while wearing required PPE detailed in the Contractor's AHA and required by EM 385-1-1, Sections 05.I and 11.B. Install personal protective grounds, with tags, to eliminate the potential for induced voltage in accordance with EM 385-1-1, Section 12.E.06.
 - 5. Lockout/Tagout Removal
 - a. Upon completion of work, conduct lockout/tagout removal procedure in accordance with the HECP. In accordance with EM 385-1-1, Section 12.E.08, each lock and tag must be removed from each energy isolating device by the authorized individual or systems operator who applied the device. Provide formal notification to the Government (by completing the Government form if provided by Contracting Officer's Representative), confirming that steps of de-energization and

lockout/tagout removal procedure have been conducted and certified through inspection and verification. Government or Utility locks and tags used to support the Contractor's work will not be removed until the authorized Government employee receives the formal notification.

3.5 FALL PROTECTION PROGRAM

- A. 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.
- B. Training
 - 1. 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. 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.
- C. Fall Protection Equipment and Systems
 - 1. 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.
 - 2. 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,
 - 3. ASSP Z359.14, and ASSP Z359.15.
 - 4. Additional Personal Fall Protection
 - a. 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.
 - b. Personal Fall Protection Harnesses
 - 1) 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. All full body harnesses must be equipped 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.

D. Fall Protection for Roofing Work

1. Implement fall protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.
 - a. Low Sloped Roofs:
 - 1) For work within 6 feet of an edge, on a roof having a slope less than or equal to 4:12 (vertical to horizontal), protect personnel from falling by use of personal fall arrest/restraint systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized. Provide in accordance with 29 CFR 1926.500.
 - 2) For work greater than 6 feet from an edge, erect and install warning lines in accordance with 29 CFR 1926.500 and EM 385-1-1, Section L.

E. Horizontal Lifelines (HLL)

1. 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.

F. Guardrails and Safety Nets

1. 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.

G. Rescue and Evacuation Plan and Procedures

1. 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 comply with the requirements of EM 385-1-1, ASSP Z359.2, and ASSP Z359.4.

3.6 WORK PLATFORMS

A. Scaffolding

1. Provide employees with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Comply with the following requirements:
 - a. Scaffold platforms greater than 20 feet in height must be accessed by use of a

scaffold stair system.

- b. Ladders commonly provided by scaffold system manufacturers are prohibited for accessing scaffold platforms greater than 20 feet maximum in height.
- c. An adequate gate is required.
- d. Employees performing scaffold erection and dismantling must be qualified.
- e. Scaffold must be capable of supporting at least four times the maximum intended load, and provide appropriate fall protection as delineated in the accepted fall protection and prevention plan.
- f. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward.
- g. Special care must be given to ensure scaffold systems are not overloaded.
- h. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material are prohibited. The first tie-in must be at the height equal to 4 times the width of the smallest dimension of the scaffold base.
- i. Scaffolding other than suspended types must bear on base plates upon wood mudsills (2 in x 10 in x 8 in minimum) or other adequate firm foundation.
- j. Scaffold or work platform erectors must have fall protection during the erection and dismantling of scaffolding or work platforms that are more than 6 feet.
- k. Delineate fall protection requirements when working above 6 feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

B. Elevated Aerial Work Platforms (AWPs)

- 1. Workers must be anchored to the basket or bucket in accordance with manufacturer's specifications and instructions (anchoring to the boom may only be used when allowed by the manufacturer and permitted by the CP).
- 2. Lanyards used must be sufficiently short to prohibit worker from climbing out of basket. The climbing of rails is prohibited. Lanyards with built-in shock absorbers are acceptable. Self-retracting devices are not acceptable. Tying off to an adjacent pole or structure is not permitted unless a safe device for 100 percent tie-off is used for the transfer.
- 3. Use of AWPs must be operated, inspected, and maintained as specified in the operating manual for the equipment and delineated in the AHA. Operators of AWPs must be designated as qualified operators by the Prime Contractor. Maintain proof of qualifications on site for review and include in the AHA.

3.7 EQUIPMENT

A. Material Handling Equipment (MHE)

- 1. 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.
- 2. 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
- 3. 29 CFR 1910, Subpart N.
- 4. Operators of forklifts or power industrial trucks must be licensed in accordance with OSHA.

B. Load Handling Equipment (LHE)

1. 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 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 comply with OSHA, ASME B30.9 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
 - f. ASME B30.22 as applicable.
 - g. 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.
 - h. Inspect, maintain, and recharge portable fire extinguishers as specified in NFPA 10, Standard for Portable Fire Extinguishers.
 - i. All employees must keep clear of loads about to be lifted and of suspended loads, except for employees required to handle the load.
 - j. Use cribbing when performing lifts on outriggers.
 - k. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.
 - l. 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.
 - m. Maintain inspection records in accordance with 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.
 - n. 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.

- o. Certify that all LHE operators have been trained in proper use of all safety devices (e.g. anti-two block devices).
 - p. 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.
 - C. Machinery and Mechanized Equipment
 - 1. Proof of qualifications for operator must be kept on the project site for review.
 - a. 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.
 - D. Base Mounted Drum Hoists
 - 1. Operation of base mounted drum hoists must comply with EM 385-1-1 and ASSP A10.22.
 - 2. Rigging gear must comply with applicable ASME/OSHA standards.
 - 3. When used to hoist personnel, the AHA must include a written standard operating procedure. Operators must have a physical examination in accordance with EM 385-1-1 Section 16.B.05 and trained, at a minimum, in accordance with EM 385-1-1 Section 16.U and 16.T. The base mounted drum hoist must also comply with OSHA Instruction CPL 02-01-056 and ASME B30.23.
 - 4. Material and personnel must not be hoisted simultaneously.
 - 5. Personnel cage must be marked with the capacity (in number of persons) and load limit in pounds.
 - 6.
 - 7. Construction equipment must not be used for hoisting material or personnel or with trolley/tag lines. Construction equipment may be used for towing and assisting with anchoring guy lines.
- 3.8 EXCAVATIONS
- A. Soil classification must be performed by a competent person in accordance with 29 CFR 1926 and EM 385-1-1.
 - B. Utility Locations
 - 1. Provide a third party, independent, private utility locating company to positively identify underground utilities in the work area in addition to any station locating service and coordinated with the station utility department.
 - C. Utility Location Verification
 - 1. Physically verify underground utility locations, including utility depth, by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within 3 feet of the underground system.
 - D. Utilities Within and Under Concrete, Bituminous Asphalt, and Other Impervious Surfaces
 - 1. Utilities located within and under concrete slabs or pier structures, bridges, parking

areas, and the like, are extremely difficult to identify. Whenever contract work involves chipping, saw cutting, or core drilling through concrete, bituminous asphalt or other impervious surfaces, the existing utility location must be coordinated with station utility departments in addition to location and depth verification by a third party, independent, private locating company. The third party, independent, private locating company must locate utility depth by use of Ground Penetrating Radar (GPR), X-ray, bore scope, or ultrasound prior to the start of demolition and construction. Outages to isolate utility systems must be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the Contractor from meeting this requirement.

3.9 ELECTRICAL

- A. Perform electrical work in accordance with EM 385-1-1, Appendix A, Sections 11 and 12.
- B. Conduct of Electrical Work
 - 1. As delineated in EM 385-1-1, electrical work is to be conducted in a
 - 2. de-energized state unless there is no alternative method for accomplishing the work. In those cases, obtain an energized work permit from the Contracting Officer. The energized work permit application must be accompanied by the AHA and a summary of why the equipment/circuit needs to be worked energized. Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut.
 - 3. Attach temporary grounds in accordance with ASTM F855 and IEEE 1048. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator is allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method.
 - 4. When working in energized substations, only qualified electrical workers are permitted to enter. When work requires work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves and electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA. Ensure that each employee is familiar with and complies with these procedures and 29 CFR 1910.147.
- C. Qualifications
 - 1. Electrical work must be performed by QP personnel with verifiable credentials who are familiar with applicable code requirements.
 - 2. Verifiable credentials consist of State, National and Local Certifications or Licenses that a Master or Journeyman Electrician may hold, depending on work being performed, and must be identified in the appropriate AHA. Journeyman/Apprentice ratio must be in accordance with State, Local requirements applicable to where work is being performed.
- D. Arc Flash
 - 1. Conduct a hazard analysis/arc flash hazard analysis whenever work on or near energized parts greater than 50 volts is necessary, in accordance with NFPA 70E.
 - 2. All personnel entering the identified arc flash protection boundary must be QPs and properly trained in NFPA 70E requirements and procedures.

3. Unless permitted by NFPA 70E, no Unqualified Person is permitted to approach nearer than the Limited Approach Boundary of energized conductors and circuit parts. Training must be administered by an electrically qualified source and documented.
- E. Grounding
1. Ground electrical circuits, equipment and enclosures in accordance with NFPA 70 and IEEE C2 to provide a permanent, continuous and effective path to ground unless otherwise noted by EM 385-1-1.
 2. Check grounding circuits to ensure that the circuit between the ground and a grounded power conductor has a resistance low enough to permit sufficient current flow to allow the fuse or circuit breaker to interrupt the current.
- F. Testing
1. Temporary electrical distribution systems and devices must be inspected, tested and found acceptable for Ground-Fault Circuit Interrupter (GFCI) protection, polarity, ground continuity, and ground resistance before initial use, before use after modification and at least monthly. Monthly inspections and tests must be maintained for each temporary electrical distribution system and signed by the electrical CP or QP.

END OF SECTION

SECTION 01 35 43
ENVIRONMENTAL PROCEDURES

PART 1. GENERAL

1.1. SUMMARY

- A. Section Includes
 - 1. Potential Pollutants.
 - 2. Storm water pollution protection plans.
 - 3. Spill prevention and control.
 - 4. Temporary containment removal.
 - 5. Non-storm water management.
 - 6. Cultural Resources
- B. Related Sections
 - 1. Section 01 30 00 – Administrative Requirements.
 - 2. Section 01 74 19 - Construction Waste Management and Disposal.
 - 3. Other Sections: Equipment and materials that may contain potential site pollutants.

1.2. POTENTIAL POLLUTANTS

- A. Identify potential pollutants that are used in the Work.
- B. Certain potential pollutants are identified in Attachment A, immediately following this Section.

1.3. SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Hazardous Material Clean Up and Solid Waste Management Data: List the employees trained in emergency spill cleanup procedures and indicate the training procedures for employees and subcontractors in spill prevention and cleanup and solid waste management.
- C. Concrete Waste Management Data: Indicate concrete washout areas and the procedures to train employees and subcontractors in proper concrete waste management.

1.4. PRECONSTRUCTION CONFERENCE

- A. In accordance with Section 01 30 00 Administrative Requirements.
- B. Review delivery routes, storage areas, spill prevention and clean up procedures, and training procedures.

1.5. DELIVERY, STORAGE, AND HANDLING

- A. Keep an accurate, current inventory of materials containing potential pollutants, delivered and stored onsite.

- B. Use personnel trained in spill prevention and emergency spill clean up procedures to unload and store materials containing potential pollutants.
- C. Store construction raw materials containing potential pollutants off the ground in designated areas in secondary containment structures or surrounded by earth berms away from storm drain inlets, waterways, and drainage paths. Store chemicals in their original labelled containers. Cover the materials with plastic tarps when not in use.
 - 1. Store hazardous waste and materials in sealed containers; protect from vandalism. Place in areas that will be paved and surround the areas with earth berms.
 - 2. Store reactive, ignitable, or flammable liquids in accordance with fire codes.
 - 3. Store materials in a covered area during wet weather.
 - 4. Small amounts of material may be secondarily contained in “bus boy” trays or concrete mixing trays.
- D. Remove and dispose of residual materials and contaminated soil after construction is complete.

PART 2. PRODUCTS - NOT USED

PART 3. EXECUTION

3.1. STORM WATER POLLUTION PROTECTION PLAN (SWPPP)

- A. It is incumbent upon the Contractor to prepare a SWPPP to implement for the project and comply with the NPDES General Permit.
- B. The Contractor and its subcontractors shall perform all necessary pollution prevention work to comply with the SWPP and the Permits for any Work performed on the Project Site. Any person or group who violates any condition of the Permits may be subject to substantial penalties in accordance with State and Federal law. The Contractor is encouraged to advise each of its employees and subcontractors working on this Project of the requirements of the Permits and SWPPP. A copy of the Permits and SWPPP will be available for review during the bidding period and the Facility Representative’s site office during construction.

3.2. SPILL PREVENTION AND CONTROL

- A. Use secondary containment devices such as drain pans or drop cloths at all areas when fueling, removing, or changing fluids.
- B. Place a stockpile of spill cleanup materials where it will be readily accessible.
- C. Use personnel trained in emergency spill cleanup procedures.
- D. Clean up leaks and spills immediately, in accordance with waste management regulations.
- E. Clean up spills on paved surfaces with minimal water usage. Clean small spills with cloths and larger spills with absorbent material. Immediately send used hazardous cleanup cloth material to a certified laundry or remove and dispose as hazardous waste, in accordance with waste management regulations.
- F. Do not hose down or bury dry material spills.

3.3. TEMPORARY CONTAINMENT REMOVAL

- A. Remove all temporary containment structures, devices and equipment when directed by Facility Representative. Clean and repair damage caused by installation and use of temporary work.

3.4. NON-STORM WATER MANAGEMENT

- A. Minimize the use of water sprayed for dust control and irrigation, to avoid causing runoff and erosion.
- B. Remove sediment from dewatering operations using sediment basins. Filter sediment from sediment basins with a sump pit and perforated standpipe, wrapped in filter fabric, or a floating suction hose.

3.5. DISCHARGE WATER, USED FOR FLUSHING AND DISINFECTION, INTO ONSITE DETENTION BASINS OR TEMPORARY EARTHEN BASINS. INADVERTENT DISCOVERY OF CULTURAL OR ARCHAEOLOGICAL OR HUMAN REMAINS

- A. In accordance with Standard Operating Procedures (SOP) 4 and 11 of the CAARNG Integrated Cultural Resources Management Plan, workers/soldiers shall monitor their ground disturbing activities (all activities that alter the existing state of the ground surface) for the unearthing of previously unknown items of archaeological, historic, or cultural interest (e.g. human remains, artifacts, fossils, etc.). If any such items are unearthed or exhumed, all ground disturbing activities shall cease and the Environmental Office contacted immediately (Camp Roberts: 805-238-8332, Camp San Luis Obispo: 805-594-6537, all other sites 916-854-1474). No further ground disturbance shall proceed without prior authorization from the Environmental Office that the CAARNG has complied with all regulatory requirements pertaining to the resources discovered. (National Historic Preservation Act (NHPA), Native American Graves Protection and Repatriation Act (NAGPRA), California Health and Safety Code Section 7050.5[b]).
- B. If any such items are discovered at other CMD locations, all ground disturbing activities shall cease. Notify the Facility Representative immediately. No further ground disturbance shall proceed without prior authorization from the Facility Representative when it is determined that the CAARNG has complied with all regulatory requirements pertaining to the discovered resources.

END OF SECTION

SECTION 01 35 43 - ATTACHMENT A

PARTIAL LIST OF POTENTIAL POLLUTANTS

- 1.1 Contractor shall identify the pollutants present during construction and take the necessary measures to restrict their entry into the natural drainage system, based on the (NPDES applicable laws, codes and regulations.
- 1.2 Potential pollutants that may be used at the site and that have the potential to enter the storm water drainage system are included in the list below. This is not intended to be a complete list of categories, products and pollutants.
- 1.3 CONSTRUCTION SITE POTENTIAL POLLUTANTS

CATEGORY	PRODUCT, ACTIVITY	POLLUTANTS
Adhesives	Adhesives, Glues Resins, Epoxy Synthetics Calks, Sealers, Putty, Sealing Agents Coal Tars (Naptha, Pitch)	Phenolics, Formaldehydes Phenolics, Formaldehydes Asbestos, Phenolics, Formaldehydes Benzene, Phenols, Naphthalene
Cleaners	Polishes, (Metal, Ceramic, Tile) Etching Agents Cleaners, Ammonia, Lye, Caustic Sodas Bleaching Agents Chromate Salts	Metals Metals Acidity/Alkalinity Acidity/Alkalinity Chromium
Plumbing	Solder (Lead, Tin), Flux (Zinc Chloride) Pipe Fitting (Cut Shavings) Galvanized Metals	Lead, Copper, Zinc, Tin Copper Zinc
Electrical	Wiring	Copper, Lead
Painting	Paint Thinner, Acetone, MEK, Stripper Paints, Lacquers, Varnish, Enamels Turpentine, Gum Spirit, Solvents Sanding, Stripping Paints (Pigments), Dyes	VOC's Metals, Phenolics, Mineral Spirits VOC's Metals Metals
Woods	Sawdust Particle Board Dusts Treated Woods	BOD Formaldehyde Copper, Creosote
Floors & Walls	Flashing Drywall Tile Cutting (Ceramic Dusts)	Copper, Aluminum Dusts Minerals
Remodeling & Demolition	Insulation Venting Systems	Asbestos Aluminum, Zinc

CATEGORY	PRODUCT, ACTIVITY	POLLUTANTS
Air Conditioning & Heating	Insulation Coolant Reservoirs	Asbestos Freon
Yard O&M	Vehicle and Machinery Maintenance Gasoline, Oils, Additives Marking Paints (Sprays) Grading, Earth Moving Portable Toilets Fire Hazard Control (Herbicides) Wash Waters	Oils and grease, Coolants Benzene & Derivatives, Oils & Grease Vinyl Chloride, Metals Erosion (Sediments) BOD, Disinfectants (Spills) Sodium Arsenite, Dinitro Rodenticides, Insecticides, Herbicides, Concrete, Oils, Greases
Landscaping & Earthmoving	Planting, Plant Maintenance Excavation, Tilling Solid Wastes (Trees, Shrubs) Exposing Natural Lime or Other Mineral Deposits Soils Additives Revegetation of Graded Areas	Pesticides, Herbicides, Nutrients Erosion (Sediments) BOD Acidity/Alkalinity, Metals Aluminum Sulfate, Sulfur Fertilizers
Materials Storage	Waste Storage (Used Oils, Solvents, Etc.) Hazardous Waste Containment Raw Material Piles	Spills, Leaks Spills, Leaks Dusts, Sediments

Note: VOC = Volatile Organic Compounds.

BOD = Biochemical Oxygen Demand due to the use of oxygen by decomposing materials.

END OF SECTION 01 35 43 - ATTACHMENT A

SECTION 01 41 00

REGULATORY REQUIREMENTS

PART 1. GENERAL

1.1. SUMMARY

- A. Section Includes
 - 1. Submittals.
 - 2. Quality assurance.
 - 3. Regulatory requirements.
 - 4. Field quality control.
- B. Related Sections
 - 1. Section 01 33 23 - Product Data and Samples.

1.2. SUBMITTALS

- A. Submit under provisions of Section 01 33 00.
- B. Submit certification of inspection confirming approval by authority having jurisdiction when required by individual Section.
- C. Submit the following directly to enforcing authorities when required by individual Section:
 - 1. Product data.
 - 1. Design data.
 - 2. Test reports.
 - 3. Certificates.
 - 4. Manufacturer's Instructions.
 - 5. Manufacturer's Field Reports.
 - 6. Operation and Maintenance Data.
 - 7. Guarantee.
 - 8. Other items indicated.

1.3. QUALITY ASSURANCE

- A. Perform work in accordance with specific standards indicated. Maintain one copy of each document on site.

1.4. REGULATORY REQUIREMENTS

- A. Conform to applicable codes, except conform to more stringent requirements of the Drawings and Specifications.
- B. Applicable codes include, but are not limited to:
 - 1. The California Building Standards Code, also known as the California Code of Regulations (CCR), Title 24.
 - a. CBC - 2022 California Building Code: California Code of Regulations (CCR), Title 24, Part 2. CBC was adopted in 2020, and is based on the 2018 International Building

REGULATORY REQUIREMENTS

- Code (IBC) with California Amendments.
 - b. CMC - 2022 California Plumbing Code: California Code of Regulations (CCR), Title 24, Part 2. CBC was adopted in 2020, and is based on the 2018 International Building Code (IBC) with California Amendments.
 - c. CPC - 2022 California Building Code: California Code of Regulations (CCR), Title 24, Part 2. CBC was adopted in 2020, and is based on the 2018 International Building Code (IBC) with California Amendments.
 - d. CEC - 2022 California Electrical Code: California Code of Regulations (CCR), Title 24, Part 3. CEC was adopted in 2020, and is based on 2018 National Electrical Code (NEC) with California Amendments.
 - e. For copies of the California Building Standards Code or the California Amendments only, contact Building News Inc. (BNI) at (310) 202-7775, or International Code Council (ICC) at (800) 786-4452 or (888) 422-7233.
- 2. ANSI/ASHRAE/IES Standard Regulations 90.1 2016.
 - 3. Unified Facilities Code 04 -010-01 DOD Minimum Antiterrorism Standards for Buildings December 12, 2018.

PART 2. PRODUCTS

Not Used

PART 3. EXECUTION

3.1. FIELD QUALITY CONTROL

- A. When required by individual Section, arrange for enforcing authority to witness indicated Observations, Testing and Inspections.

END OF SECTION

SECTION 01 45 00.10 20

CMD Amended June 2022

QUALITY CONTROL FOR MINOR CONSTRUCTION

PART 1 GENERAL

1.1 REFERENCES

- A. 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.
 - 1. U.S. ARMY CORPS OF ENGINEERS (USACE)
 - 2. EM 385-1-1 (2014) Safety -- Safety and Health Requirements Manual
 - 3. ASTM D3740 (2012a) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Using Design and Construction
 - 4. ASTM E329 (2018) Standard Specification for Agencies Engaged in Construction Inspection, Testing, or Special Inspection

1.2 SUBMITTALS

- A. Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:
 - 1. SD-01 Preconstruction Submittals
 - 2. QC Plan; G-BO (Governments Building Official)

1.3 INFORMATION FOR THE CONTRACTING OFFICER

- A. Prior to commencing work on construction, the Contractor can obtain a single copy set of the current report forms from the Contracting Officer. The report forms will consist of the Contractor Production Report, Contractor Production Report (Continuation Sheet), Contractor Quality Control (CQC) Report, CQC Report (Continuation Sheet), Preparatory Phase Checklist, Initial Phase Checklist, Rework Items List, and Testing Plan and Log.
- B. Deliver the following to the Contracting Officer:
 - 1. CQC Report: Original and one copy, by 10:00 AM the next working day after each day that work is performed;
 - 2. Contractor Production Report: Original and one copy by 10:00 AM the next working day after each day that work is performed;
 - 3. Preparatory Phase Checklist: Original attached to the original CQC Report and one copy attached to each copy;
 - 4. Initial Phase Checklist: Original attached to the original CQC Report and one copy attached to each copy;
 - 5. Field Test Reports: One copy, within two working days after the test is performed, attached to the CQC Report;
 - 6. QC Meeting Minutes: One copy, within two working days after the meeting; and
 - 7. QC Certifications: As required by the paragraph entitled "QC Certifications."

1.4 QC PROGRAM REQUIREMENTS

- A. Establish and maintain a QC program as described in this section. The QC program consists of a QC Manager, a QC plan, a Coordination and Mutual Understanding Meeting, QC meetings, three phases of control, submittal review and approval, testing, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this contract. The QC program must cover on-site and off-site work and must be keyed to the work sequence. No work or testing may be performed unless the QC Manager is on the work site.
- B. Preliminary Work Authorized Prior to Acceptance
 - 1. The only work that is authorized to proceed prior to the acceptance of the QC plan is mobilization of storage and office trailers, temporary utilities, and surveying. Written consent is provide by the contracting officer to mobilize prior to acceptance.
- C. Acceptance
 - 1. Acceptance of the QC plan is required prior to the start of construction. The Contracting Officer reserves the right to require changes in the QC plan and operations as necessary, including removal of personnel, to ensure the specified quality of work. The Contracting Officer reserves the right to interview any member of the QC organization at any time in order to verify the submitted qualifications.
- D. Notification of Changes
 - 1. Notify the Contracting Officer, in writing, of any proposed change, including changes in the QC organization personnel, a minimum of seven calendar days prior to a proposed change. Proposed changes must be subject to the acceptance by the Contracting Officer.

1.5 QC ORGANIZATION

- A. QC Manager
 - 1. Duties
 - a. Provide a QC Manager at the work site to implement and manage the QC program. In addition to implementing and managing the QC program, the QC Manager may perform the duties of SSHO. The QC Manager is required to attend the Coordination and Mutual Understanding Meeting, conduct the QC meetings, perform the three phases of control, perform submittal review and approval, ensure testing is performed and provide QC certifications and documentation required in this contract. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by others.
 - 2. Qualifications
 - a. An individual with a minimum of 5 years combined experience as a superintendent, inspector, QC Manager, project manager, or construction manager on similar size and type construction contracts which included the major trades that are part of this contract with the technical competency and ability to inspect the work of others. The individual must be familiar with the requirements of the EM 385-1-1 and have experience in the areas of hazard identification and safety compliance.

3. Construction Quality Management Training
 - a. In addition to the above experience and education requirements, the QC Manager must have completed the course Construction Quality Management for Contractors and will have a current certificate.
 - B. Alternate QC Manager Duties and Qualifications
 1. Designate an alternate for the QC Manager to serve in the event of the designated QC Manager's absence. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a calendar year.
The qualification requirements for the Alternate QC Manager must be the same as for the QC Manager.
- 1.6 QC PLAN

- A. Submit a QC plan within 15 calendar days after receipt of Notice of Award.
 1. Requirements
 - a. Provide, for acceptance by the Contracting Officer, a QC plan submitted in a three-ring binder that covers both on-site and off-site work and includes the following with a table of contents listing the major sections identified with tabs.
 - 1) QC ORGANIZATION: A chart showing the QC organizational structure and its relationship to the production side of the organization. The QC Manager must report to an officer of the firm and not be subordinate to the Project Superintendent or the Project Manager. The QC Manager, Project Superintendent and Project Manager must work together effectively. Although the QC Manager is the primary individual responsible for quality control, all individuals will be held responsible for the quality of work on the job.
 - 2) NAMES AND QUALIFICATIONS: In resume format, for each person in the QC organization. Include the CQM for Contractors course certification required by the paragraph entitled "Construction Quality Management Training".
 - 3) DUTIES, RESPONSIBILITY AND AUTHORITY OF QC PERSONAL: Of each person in the QC organization.
 - 4) OUTSIDE ORGANIZATIONS: A listing of outside organizations such as architectural and consulting engineering firms that will be employed by the Contractor and a description of the services these firms will provide.
 - 5) APPOINTMENT LETTERS: Letters signed by an officer of the firm appointing the QC Manager and Alternate QC Manager and stating that they are responsible for managing and implementing the QC program as described in this contract. Include in this letter the QC Manager's authority to direct the removal and replacement of non-conforming work.
 - 6) SUBMITTAL PROCEDURES AND INITIAL SUBMITTAL REGISTER: Procedures for reviewing, approving and managing submittals. Provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to approval.
 - 7) TESTING LABORATORY INFORMATION: Testing laboratory information required by the paragraphs "Accredited Laboratories" or "Testing Laboratory Requirements", as applicable.
 - 8) TESTING PLAN AND LOG: A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test,

- the frequency, and the person responsible for each test.
- 9) PROCEDURES TO COMPLETE REWORK ITEMS: Procedures to identify, record, track and complete rework items.
 - 10) DOCUMENTATION PROCEDURES: Use Government formats.
 - 11) LIST OF DEFINABLE FEATURES: A Definable Feature of Work (DFOW) is a task, which is separate and distinct from other tasks, has the same control requirements and work crews. The list must be cross-referenced to the Contractor's Construction Schedule and the specification sections. For projects requiring a Progress Chart, the list of definable features of work must include but not be limited to all items of work on the schedule. For projects requiring a Network Analysis Schedule, the list of definable features of work must include but not be limited to all critical path activities.
 - 12) PROCEDURES FOR PERFORMING THREE PHASES OF CONTROL: For each DFOW provide Preparatory and Initial Phase Checklists. Each list must include a breakdown of quality checks that will be used when performing the quality control functions, inspections, and tests required by the contract documents. The preparatory and initial phases must be conducted with a view towards obtaining quality construction by planning ahead and identifying potential problems.
 - 13) PERSONNEL MATRIX: Not Applicable.
 - 14) PROCEDURES FOR COMPLETION INSPECTION: See the paragraph entitled "COMPLETION INSPECTIONS".
 - 15) TRAINING PROCEDURES AND TRAINING LOG: Not Applicable.

1.7 COORDINATION AND MUTUAL UNDERSTANDING MEETING

- A. During the Pre-Construction conference meeting and prior to the start of construction, discuss the QC program required by this contract. The purpose of this meeting is to develop a mutual understanding of the QC details, including documentation, administration for on-site and off-site work, and the coordination of the Contractor's management, production and the QC personnel. At the meeting, the Contractor will be required to explain how three phases of control will be implemented for each DFOW. Contractor's personnel required to attend must include the QC Manager, project manager, and superintendent. Minutes of the meeting will be prepared by the QC Manager and signed by both the Contractor and the Contracting Officer. The Contractor must provide a copy of the signed minutes to all attendees. Repeat the coordination and mutual understanding meeting when a new QC Manager is appointed.

1.8 QC MEETINGS

- A. After the start of construction, the QC Manager must conduct QC meetings once every week at the work site with the superintendent and the foreman responsible for the ongoing and upcoming work. The QC Manager must prepare the minutes of the meeting and provide a copy to the Contracting Officer within two working days after the meeting. As a minimum, the following must be accomplished at each meeting:
 1. Review the minutes of the previous meeting;
 2. Review the schedule and the status of work and rework;
 3. Review the status of submittals;
 4. Review the work to be accomplished in the next two weeks and documentation required;
 5. Resolve QC and production problems (RFIs, etc.);
 6. Address items that may require revising the QC plan; and
 7. Review Accident Prevention Plan (APP).

1.9 THREE PHASES OF CONTROL

- A. The three phases of control must adequately cover both on-site and off-site work and must include the following for each DFW.
- B. Preparatory Phase
 - 1. Notify the Contracting Officer at least two work days in advance of each preparatory phase. Conduct the preparatory phase with the superintendent and the foreman responsible for the definable feature of work. Document the results of the preparatory phase actions in the daily CQC Report and in the QC checklist. Perform the following prior to beginning work on each definable feature of work:
 - a. Review each paragraph of the applicable specification sections;
 - b. Review the contract drawings;
 - c. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
 - d. Review the testing plan and ensure that provisions have been made to provide the required QC testing;
 - e. Examine the work area to ensure that the required preliminary work has been completed;
 - f. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;
 - g. Review the APP and appropriate Activity Hazard Analysis (AHA) to ensure that applicable safety requirements are met, and that required Safety Data Sheets (SDS) are submitted; and
 - h. Discuss specific controls used and the construction methods and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each DFW.
- C. Initial Phase
 - 1. Notify the Contracting Officer at least two work days in advance of each initial phase. Conduct the Initial Phase with the foreman responsible for that DFW. Observe the initial segment of the work to ensure that it complies with contract requirements. Document the results of the Initial Phase in the daily CQC Report and in the QC checklist. Perform the following for each DFW:
 - a. Establish the quality of workmanship required;
 - b. Resolve conflicts;
 - c. Ensure that testing is performed by the approved laboratory; and
 - d. Check work procedures for compliance with the APP and the appropriate AHA to ensure that applicable safety requirements are met.
- D. Follow-Up Phase
 - 1. Perform the following for on-going work daily, or more frequently as necessary, until the completion of each DFW and document in the daily CQC Report and in the QC checklist:
 - a. Ensure the work is in compliance with contract requirements;
 - b. Maintain the quality of workmanship required;
 - c. Ensure that testing is performed by the approved laboratory;
 - d. Ensure that rework items are being corrected; and
 - e. Assure manufacturers representatives have performed necessary inspections, if required.

- E. Additional Preparatory and Initial Phases
 - 1. Additional preparatory and initial phases must be conducted on the same DFOW if the quality of on-going work is unacceptable, if there are changes in the applicable QC organization, if there are changes in the on-site production supervision or work crew, if work on a DFOW is resumed after substantial period of inactivity, or if other problems develop.
 - F. Notification of Three Phases of Control for Off-Site Work
 - 1. Notify the Contracting Officer at least two weeks prior to the start of the preparatory and initial phases.
 - G. SUBMITTAL REVIEW AND APPROVAL
 - 1. Procedures for submission, review, and approval of submittals are described in Section 01 33 00 SUBMITTAL PROCEDURES.
- 1.10 TESTING
- A. Except as stated otherwise in the specification sections, perform sampling and testing required under this contract.
 - B. Accreditation Requirements
 - 1. Construction materials testing laboratories must be accredited by a laboratory accreditation authority and will be required to submit a copy of the Certificate of Accreditation and Scope of Accreditation. The laboratory's scope of accreditation must include the appropriate ASTM standards (i.e.; E 329, C 1077, D 3666, D 3740, E 543) listed in the technical sections of the specifications. Laboratories engaged in Hazardous Materials Testing must meet the requirements of OSHA and EPA. The policy applies to the specific laboratory performing the actual testing, not just the "Corporate Office."
 - a. Laboratory Accreditation Authorities
 - 1) Laboratory Accreditation Authorities include the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology, the American Association of State Highway and Transportation Officials (AASHTO), International Accreditation Services, Inc. (IAS), U. S. Army Corps of Engineers Materials Testing Center (MTC), the American Association for Laboratory Accreditation (A2LA), the Washington Association of Building Officials (WABO) (Approval authority for WABO is limited to projects within Washington State), and the Washington Area Council of Engineering Laboratories (WACEL) (Approval authority by WACEL is limited to projects within the NAVFAC WASH and Public Works Center Washington geographical area).
 - C. Capability Check
 - 1. The Contracting Officer retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this contract.
 - D. Test Results
 - 1. Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify the Contracting Officer immediately.
 - 2. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS"

or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results must be signed by a testing laboratory representative authorized to sign certified test reports.

3. Furnish the signed reports, certifications, and other documentation to the Contracting Officer.

1.11 QC CERTIFICATIONS

A. Contractor Quality Control Report Certification

1. Each CQC Report must contain the following statement: "On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report."

B. Invoice Certification

1. Furnish a certificate to the Contracting Officer with each payment request, signed by the QC Manager, attesting that as-built drawings are current and attesting that the work for which payment is requested, including stored material, is in compliance with contract requirements.

C. Completion Certification

1. Upon completion of work under this contract, the QC Manager must furnish a certificate to the Contracting Officer attesting that "the work has been completed, inspected, tested and is in compliance with the contract."

1.12 COMPLETION INSPECTIONS

A. Punch-Out Inspection

1. Near the completion of all work or any increment thereof established by a completion time stated in the Contract clause "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the QC Manager must conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications.
2. Include in the punch list any remaining items of the "Rework Items List", which were not corrected prior to the Punch-Out inspection. The punch list must include the estimated date by which the deficiencies will be corrected. A copy of the punch list must be provided to the Contracting Officer. The QC Manager or staff must make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor must notify the Government that the facility is ready for the Government "Pre-Final Inspection".

B. Pre-Final Inspection

1. The Government and QC manager will perform this 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. The QC Manager must ensure that all items on this list are corrected prior to notifying the Government that a "Final" inspection with the customer can be scheduled. Any items noted on the "Pre-Final" inspection must be corrected in a timely manner and must be accomplished before the contract completion date for the work or any particular increment thereof if the project is divided into increments by separate completion dates.

C. Final Acceptance Inspection

1. The QC Manager, the superintendent, or other Contractor management personnel and the Contracting Officer will be in attendance at this inspection. Additional Government personnel may be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the "Pre-Final Inspection". Notice must be given to the Contracting Officer at least 14 days prior to the final inspection. The notice must state that all specific items previously identified to the Contractor as being unacceptable will be complete 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 to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause "Inspection of Construction".

1.13 DOCUMENTATION

- A. Maintain current and complete records of on-site and off-site QC program operations and activities. The forms identified under the paragraph "INFORMATION FOR THE CONTRACTING OFFICER" must be used. Reports are required for each day work is performed. Account for each calendar day throughout the life of the contract. Every space on the forms must be filled in. Use N/A if nothing can be reported in one of the spaces. The superintendent and the QC Manager must prepare and sign the Contractor Production and CQC Reports, respectively. The reporting of work must be identified by terminology consistent with the construction schedule. In the "remarks" section in this report which will contain pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site. For each remark given, identify the Schedule Activity No. that is associated with the remark.
- B. Quality Control Validation
 1. Establish and maintain the following in a series of three ring binders. Binders must be divided and tabbed as shown below. These binders must be readily available to the Government's Quality Assurance Team during all business hours.
 - a. All completed Preparatory and Initial Phase Checklists, arranged by specification section.
 - b. All milestone inspections, arranged by Activity/Event Number.
 - c. A current up-to-date copy of the Testing and Plan Log with supporting field test reports, arranged by specification section.
 - d. Copies of all contract modifications, arranged in numerical order. Also include documentation that modified work was accomplished.
 - e. A current up-to-date copy of the Rework Items List.
 - f. Maintain up-to-date copies of all punch lists issued by the QC Staff on the Contractor and Sub-Contractors and all punch lists issued by the Government.
- C. As-Built Drawings
 1. The QC Manager is required to review the as-built drawings, required by Section 01 78 00 CLOSEOUT SUBMITTALS, are kept current on a daily basis and marked to show deviations, which have been made from the Contract drawings. Ensure each deviation has been identified with the appropriate modifying documentation, e.g. PC number, modification number, RFI number, etc. The QC Manager must initial each deviation or revision. Upon completion of work, the QC Manager must submit a certificate attesting to the accuracy of the as-built drawings prior to submission to the Contracting Officer.

1.14 NOTIFICATION ON NON-COMPLIANCE

- A. The Contracting Officer will notify the Contractor of any detected non-compliance with the foregoing requirements. The Contractor must take immediate corrective action. If the contractor fails or refuses to correct the non-compliant work, the Contracting Officer will issue a non compliance notice. Such notice, when delivered to the Contractor at the work site, must be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor must make no part of the time lost due to such stop orders the subject of claim for extension of time, for excess costs, or damages.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 COMPLETION INSPECTIONS

A. PROCEDURES FOR INSPECTION

1. All Inspections including Special Inspections will be requested by the contractors QC manager to the governments Inspector of Record(IOR)/QA. Inform the IOR no less then 48 hours prior to the time inspection is requested via the system of record used to manage the project(Procore, Bim360, Email etc). QC shall perform quality control inspection prior to requesting inspection from the government. The following documents shall accompany all inspection requests to be valid.
 - a. Map and location of the work that is to be inspected
 - b. Preparatory Phase Checklist
 - c. Initial Phase Checklist
 - d. Pictures of the work (a reasonable amount to illustrate the work)
 - e. Specification sections for the work being inspected
 - f. A written and signed inspection request on company letterhead from the QC stating "the work has been completed, was inspected and is in compliance with the contract documents"

END OF SECTION

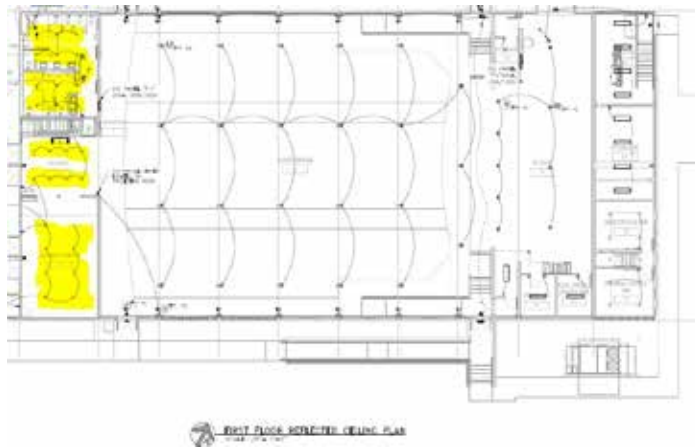
Company Letterhead

From: QC Name
(Today's Date)

Date:

TO: CA Mil Dept.- IOR Name Request inspection on: Date / Time

Details: Request government inspection of the rough electrical lighting located in the front lobby, restrooms, and outer lobby. Work to be inspected is highlighted on the map below.



Below are photographs of the work to be inspected

Photo 1

Photo 2

Photo 3

Specification section attached

Preparatory Phase checklist attached

Initial Phase checklist attached

gcm
gcm
gcm

Electrical Subcontractor verifies work is ready for inspection _____Signature_____

“QC Verification statement:” The work has been completed, was inspected and is in compliance with the contract documents _____Signature_____

PREPARATORY PHASE CHECKLIST		SPEC SECTION	DATE
(CONTINUED ON SECOND PAGE)			
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES ☐ NO ☐		
	NAME	POSITION	COMPANY/GOVERNMENT
SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES ☐ NO ☐ IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____		
	ARE ALL MATERIALS ON HAND? YES ☐ NO ☐ IF NO, WHAT ITEMS ARE MISSING? _____		
MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES ☐ NO ☐ IF NO, WHAT ACTION IS TAKEN? _____		
SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____		
	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____		
PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE. IF NOT, WHAT ACTION IS TAKEN? _____		

TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM. _____
	WHEN REQUIRED? _____
	WHERE REQUIRED? _____
	REVIEW TESTING PLAN. _____
	HAS TEST FACILITIES BEEN APPROVED? _____
SAFETY	ACTIVITY HAZARD ANALYSIS APPROVED? YES ☐ NO ☐
	REVIEW APPLICABLE PORTION OF EM 385-1-1. _____
MEETING COMMENTS	COMMENTS DURING MEETING.
OTHER ITEMS OR REMARKS	OTHER ITEMS OR REMARKS:
QC MANAGER _____ DATE _____	

INITIAL PHASE CHECKLIST		SPEC SECTION	DATE
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED ____ HOURS IN ADVANCE: YES ☐ NO ☐		
	NAME	POSITION	COMPANY/GOVERNMENT
PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS, AND SUBMITTALS.		
	COMMENTS: _____		
PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?		
WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP. WHERE IS WORK LOCATED? _____		
	IS SAMPLE PANEL REQUIRED? YES ☐ NO ☐		
	WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES ☐ NO ☐		
	(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE) _____		
RESOLUTION	RESOLVE ANY DIFFERENCES.		
	COMMENTS: _____		
CHECK SAFETY	REVIEW JOB CONDITIONS USING EM 385-1-1 AND JOB HAZARD ANALYSIS		
	COMMENTS: _____		
OTHER	OTHER ITEMS OR REMARKS		
_____ QC MANAGER _____ DATE			

CONTRACTOR QUALITY CONTROL REPORT (ATTACH ADDITIONAL SHEETS IF NECESSARY)				DATE REPORT NO	
PHASE	CONTRACT NO			CONTRACT TITLE	
PREPARATORY	WAS PREPARATORY PHASE WORK PREFORMED TODAY? YES ☐ NO ☐				
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.				
	Schedule Activity No.	Definable Feature of Work			Index #
INITIAL	WAS INITIAL PHASE WORK PREFORMED TODAY? YES ☐ NO ☐				
	IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.				
	Schedule Activity No.	Definable Feature of Work			Index #
FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES ☐ NO ☐				
	WORK COMPLIES WITH SAFETY REQUIREMENTS? YES ☐ NO ☐				
	Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present			
REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)			REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)		
Schedule Activity No.	Description		Schedule Activity No.	Description	
REMARKS (Also Explain Any Follow-Up Phase Checklist Item From Above That Was Answered "NO"), Manuf. Rep On-Site, etc.					
Schedule Activity No.	Description				
On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.					
AUTHORIZED QC MANAGER AT SITE				DATE	

REWORK ITEMS LIST

Contract No. and Title: Enter Contract # and Title Here

Contractor: Enter Contractor's Company Name Here

[illegible]

TESTING PLAN AND LOG

[illegible]

RESPONSIBILITIES/AUTHORITY OF THE QC MANAGER

1. Appointing letter to the QC manager shall detail his/her authority and responsibility to act for the contractor and outline his/her duties, responsibilities and authority. He/she shall have no job-related responsibilities other than QC unless specifically permitted in the specification.
2. He/she shall be on the site at all times during progress of the work, with complete authority to take any action necessary to ensure conformance with the contract requirements. In the event of his/her absence, approved backup shall be on the site.
3. Authority to immediately stop any segment of work which does not comply with the contract plans and specifications and direct the removal and replacement of any defective work.
4. Conduct daily inspection of work performed for compliance with plans and specifications.
5. Certify daily that all materials and equipment delivered/installed in the work comply with contract plans and specifications. Certify daily that all work performed on the construction site and off the construction site conforms to plans and specifications. Report any deficiencies and remedial action planned and taken.
6. Supervise and coordinate the inspection and tests made by the members of the Quality Control Organization, including subcontractors.
7. Assure QC staff is adequate to meet its responsibilities.
8. Maintain a copy of the Building Official approved QC Plan on file at the jobsite complete with up-to-date approved revisions/filled-in log of submittals. Maintain at the jobsite an up-to-date QC Submittal Register (provided in the specification) showing the status of all submittals required by the contract.
9. Maintain at the jobsite a testing plan showing status of all tests required by the contracts. Ensure that all tests required are performed and report the results of same. Indicate whether test results show the item tested conforms to contract requirements or not.
10. Authority to remove any individual from the site who fails to perform his/her work in a skillful and workmanlike manner or his/her work does not comply with the contract plans and specifications.
11. QC manager does not have authority to deviate from plans and specifications without prior approval, in writing, from the ROICC.
12. Ensure that the contractor's Quality Control Organization is adequately staffed with qualified personnel to perform all the detailed inspections and testing specified in the plans and specifications.
13. Maintain at the jobsite the up-to-date QC Rework Items List.

SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

PART 1 GENERAL

1.1 REFERENCES

- A. 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 WATER WORKS ASSOCIATION (AWWA)

AWWA C511 (2017) Reduced-Pressure Principle Backflow Prevention Assembly

**FOUNDATION FOR CROSS-CONNECTION CONTROL AND
HYDRAULIC RESEARCH (FCCCHR)**

FCCCHR List (continuously updated) List of Approved Backflow Prevention Assemblies

FCCCHR Manual (10th Edition) Manual of Cross-Connection Control

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

1.2 SUBMITTALS

- A. Government approval is required for all submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submit the following in accordance with Section 01 33 00 Submittal Procedures:

1.3 CONSTRUCTION SITE PLAN

- A. Prior to the start of work, submit 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.
- B. 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.

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

PART 2 PRODUCTS

2.1 TEMPORARY SIGNAGE

A. Warning Signs

1. 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

A. Barricades

1. Erect and maintain temporary barricades to limit public access to hazardous areas. 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 barricades will be required. Securely place barricades clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night.
2. Polyethylene Mesh Safety Fencing:
 - a. 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.
3. Chain Link Panel Fencing:
 - a. Temporary panel fencing must be galvanized steel chain link panels [6] [8] 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.
4. Post-Driven Chain Link Fencing:
 - a. 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.
 - b. 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.
5. 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. Gate must remain locked when construction personnel are not present.

2.3 EMPLOYEE PARKING

- A. Construction contract employees will park privately owned vehicles in an area designated by the Contracting Officer. This area will be within reasonable walking distance of the

construction site. Employee parking must not interfere with existing and established parking requirements of the government installation.

2.4 TEMPORARY BULLETIN BOARD

- A. Locate the bulletin board at the project site in a conspicuous place easily accessible to all employees, as approved by the Contracting Officer.

2.5 AVAILABILITY AND USE OF UTILITY SERVICES

A. Temporary Utilities

- 1. 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. Coordinate with Project Manager to see in the Facility has available power.
 - a. Water:
 - 1) Make connections to existing facilities to provide water for construction purposes. Water used maybe be furnished by the Government coordinate with Project Manager.
 - b. Sanitation
 - 1) Provide and maintain within the construction area minimum field-type sanitary facilities approved by the Contracting Officer 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 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.
 - 2) Provide toilet/sanitation and temporary sewer facilities in accordance with Occupational Safety and Health Administration standard 1926.51. Ventilate the units to control odors and fumes and empty and clean them at least once a week or more often if required by the Contracting Officer. Provide self-closing doors. The exterior of the unit shall match the base standard color. Locate the facility behind the construction fence or out of the public view.
 - c. Telephone
 - 1) Make arrangements and pay all costs for telephone facilities desired.

2.6 TRAFFIC PROVISIONS

A. Maintenance of Traffic

- 1. Conduct operations in a manner that will not interfere in any way with traffic on site except with written permission of the Contract.
- 2. Conduct work so as to minimize obstruction of traffic.
- 3. Provide, erect, and maintain, at contractors expense, lights, barriers, signals, passageways, detours, and other items, that may be required by the Life Safety Signage, overhead protection authority having jurisdiction.

2.7 CONTRACTOR'S TEMPORARY FACILITIES

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

A. Safety Systems

1. Protect the integrity of any installed safety systems or personnel safety devices. Obtain prior approval from Contracting Officer 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.

B. Administrative Field Offices

1. Provide and maintain administrative field office facilities within the construction area at the designated site. Government office and warehouse facilities will [not] be available to the Contractor's personnel.

C. Storage Area

1. 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 away from the vicinity of the construction site but within the installation 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.
2. 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.
3. Supplemental Storage Area
 - a. Upon request, and pending availability, the Contracting Officer will designate another or supplemental area for the use and storage of trailers, equipment, and materials. This area may not be in close proximity of the construction site but will be within the installation boundaries.
 - b. The area will be maintained in a clean and orderly fashion and secured if needed to protect supplies and equipment. Utilities will not be provided to this area by the Government.

D. Appearance of Trailers

1. Trailers which are rusted, have peeling paint or are otherwise in need of repair will not be allowed on Installation property. Trailers must present a clean and neat exterior appearance and be in a state of good repair.

E. Trailers or Storage Buildings

1. Trailers or storage buildings will be permitted, where space is available, subject to the approval of the Contracting Officer. The trailers or buildings shall be in good condition, free from visible damage rust and deterioration, and meet all applicable safety requirements. Trailers shall be roadworthy and comply with all appropriate state and local vehicle requirements. Failure to maintain storage trailers or buildings to these standards may result in the removal of non-complying units at the Contractor's expense. A sign not smaller than 600 by 600 mm 24 by 24 inches shall be conspicuously placed on the trailer depicting the company name, business phone number, and emergency phone number. Trailers must be anchored to resist high winds and must meet applicable state or local standards for anchoring mobile trailers. Coordinate anchoring with EM 385-1-1 Section 04.

F. Maintenance of Storage Area

1. Keep fencing in a state of good repair and proper alignment. Grassed or unpaved areas, which are not established roadways, and will be traversed with construction equipment or other vehicles, will be covered with a layer of gravel as necessary to prevent rutting and the tracking of mud onto paved or established roadways, should the Contractor elect to traverse them with construction equipment or other vehicles. 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.
2. Cut grass (or annual weeds) within the construction and storage sites to a maximum 4 inch height at least once a week during the growing season, whether or not area is visible to the public to assist in rodent control. Trim the grass around fences at time of grass cutting. Maintain grass or weeds on stockpiled earth as described above.

G. Security Provisions

- a. Provide adequate outside security lighting at the temporary facilities. The Contractor will be responsible for the security of its own equipment.

H. Storage Size and Location

1. The open site available for storage must be confined to the indicated operations area within 1,000 feet of the operations area or as indicated.

I. Weather Protection of Temporary Facilities and Stored Materials

1. Take necessary precautions to ensure that roof openings and other critical openings in the building are monitored carefully. Take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday.
2. Ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.
3. Building and Site Storm Protection
 - a. When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby Government property. Precautions must include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work when storms of lesser intensity pose a threat to the work or any nearby Government property.

2.8 PLANT COMMUNICATIONS

- A. Whenever the individual elements of the plant are located so that operation by normal voice between these elements is not satisfactory, install a satisfactory means of communication, such as telephone or other suitable devices and make available for use by Government personnel.

2.9 TEMPORARY PROJECT SAFETY FENCING

- A. 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.

2.10 DUMPSTERS

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS

- A. Equip dumpsters with a secure cover and paint the standard installation color. Keep dumpster closed, except when being loaded with trash and debris. Locate dumpsters behind the construction fence or out of the public view. Empty site dumpsters at least once a week, or as needed to keep the site free of debris and trash. If necessary, provide 55 gallon trash containers painted the darker installation color to collect debris in the construction site area. For large demolitions, large dumpsters without lids are acceptable, but must not have debris higher than the sides before emptying.

2.11 CLEANUP

- A. 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 any salvageable materials resulting from demolition activities within the fenced area described above or at the supplemental storage area.
- B. Neatly stack stored materials not in trailers, whether new or salvaged.

2.12 RESTORATION OF STORAGE AREA

- A. Upon completion of the project remove the bulletin board, signs, barricades, haul roads, and any other temporary products from the site. After removal of trailers, materials, and equipment from within the fenced area, remove the fence.
- B. Restore areas used during the performance of the contract to the original or better condition.
- C. Remove gravel used to traverse grassed areas and restore the area to its original condition, including top soil and seeding as necessary.

END OF SECTION

SECTION 01 55 00

FINAL FACILITY CLEANING

PART 1 GENERAL

1.1. SUMMARY

- A. Section Includes: Contract closeout requirements including:
 - 1. Final cleaning.

1.2. FINAL CLEANING

- A. Perform final cleaning prior to inspections for final acceptance.
- B. Use cleaning materials which are recommended by manufacturers of surfaces to be cleaned.
- C. Prevent scratching or otherwise damaging surfaces being cleaned.
- D. Broom clean exterior paved surfaces and rake clean other surfaces of site work.
 - 1. Armory yards and grounds to clean be kept clean and weeds abated.
- E. Clean grease, mastic, adhesives, dust, dirt, stains, fingerprints, paint, blemishes, sealants, plaster, concrete, and other foreign materials from sight-exposed surfaces, and fixtures and equipment.
- F. Remove non-permanent protection and labels.

1.3. WASTE DISPOSAL

- A. Arrange for and dispose of surplus materials, waste products, and debris off-site.
 - 1. Prior to making disposal on private property, obtain written permission from Facility Representative of such property.
- B. Do not create unsightly or unsanitary nuisances during disposal operations.
- C. Maintain disposal site in safe condition and good appearance.
- D. Complete leveling and cleanup prior to final acceptance of the Work.

1.4. TOUCH-UP AND REPAIR

- A. Touch-up or repair finished surfaces on equipment, fixtures, and installations that have been damaged prior to inspection for final acceptance.

PART 2 PART 2 PRODUCTS

Not Used.

GHD Inc.
12670676

California Military Department
Barstow FMS 2 UST

PART 3 PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01 74 19

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 GENERAL

1.1 SUMMARY

- A. Section includes
 - 1. Administrative and procedural requirements for the following:
 - a. Salvaging nonhazardous demolition and construction waste.
 - b. Recycling nonhazardous demolition and construction waste.
 - c. Disposing of nonhazardous demolition and construction waste.
- B. Related Sections
 - 1. Section 01 30 00 – Administrative Requirements.

1.2 REFERENCES

- A. ASTM E1609- 2010 - Standard Guide for Development and Implementation of a Pollution Prevention Program.

1.3 DEFINITIONS

- A. Class III Landfill: A landfill that accepts non-hazardous waste such as household, commercial, and industrial waste, including construction, remodeling, repair, and demolition operations.
- B. Chemical Waste: Includes petroleum products, bituminous materials, salts, acids, alkalis, herbicides, pesticides, organic chemicals and inorganic wastes, and other similar materials.
- C. Clean: Untreated and unpainted; not contaminated with oils, solvents, caulk, or similar.
- D. Construction Waste: Building and site improvement materials and other solid waste resulting from construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- E. Debris: Includes both combustible and noncombustible wastes, such as leaves and tree trimmings that result from construction or maintenance and repair work, and other similar materials.
- F. Deconstruction: The process of removing existing building materials from renovation and demolition projects for the purposes of reuse and recycling in as an efficient and safe manner as possible.
- G. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.

- H. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- I. Divert: Using material for any purpose other than disposal in a landfill.
- J. Inert Fill: A permitted facility that accepts inert waste such as asphalt and concrete exclusively.
- K. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- L. Rubbish: Includes both combustible and noncombustible wastes, such as paper, boxes, glass, crockery, metal and lumber scrap, tin cans, bones, and other similar materials.
- M. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- N. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.
- O. Sanitary Wastes
 - 1. Garbage: Refuse and scraps resulting from preparation, cooking, distribution, or consumption of food, or other similar materials.
 - 2. Sewage: Domestic sanitary sewage.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for salvage/recycling of a minimum of 75 percent by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials. Materials, including the following:
 - 1. Demolition Waste
 - a. Wood studs.
 - b. Wood joists.
 - c. Plywood and oriented strand board.
 - d. Wood trim.
 - e. Structural and miscellaneous steel.
 - f. Rough hardware.
 - g. Roofing.
 - h. Insulation (including fiberglass, rigid polystyrene but excluding polyisocyanurate).
 - i. Metal studs.
 - j. Gypsum board.
 - k. Acoustical tile and panels.
 - 2. Construction Waste
 - a. Untreated lumber.
 - b. Wood sheet materials (plywood, oriented strand board, and medium density fiberboard).
 - c. Wood trim.
 - d. Metals.
 - e. Concrete.
 - f. Roofing.

- g. Insulation (including fiberglass, rigid polystyrene but excluding polyisocyanurate).
- h. Packaging: Regardless of salvage/recycle goal indicated above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
 - 1) Paper.
 - 2) Cardboard.
 - 3) Boxes.
 - 4) Plastic sheet and film.
 - 5) Polystyrene packaging.
 - 6) Wood crates and pallets.
 - 7) Plastic pails.
 - 8) Beverage containers.

1.5 ACTION SUBMITTALS

- A. Construction Waste Management Plan (CWMP): Submit 1 copy of plan within 30 calendar days of date of the Notice to Proceed and prior to any waste removal.

1.6 INFORMATIONAL SUBMITTALS

- A. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
- B. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
- C. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- D. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
- E. Qualification Data: For waste management coordinator.

1.7 QUALITY ASSURANCE

- A. Facility representative will act waste coordinator.
- B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
- C. Waste Management Review: Conduct review at Project Site in accordance with Section 01 31 19“”. Review methods and procedures related to waste management including, but not limited to, the following:
 - 1. Review and discuss CWMP including responsibilities of waste management coordinator.
 - 2. Review requirements for documenting quantities of each type of waste and its disposition.
 - 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 - 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.
 - 5. Review waste management requirements for each trade.

1.8 CONSTRUCTION WASTE MANAGEMENT PLAN (CWMP)

- A. General: Develop a CWMP according to ASTM E1609 and requirements of this Section. Plan shall consist of waste identification, waste reduction work plan. Distinguish between demolition and construction waste.
- B. Waste Identification: Indicate anticipated types and quantities of demolition construction waste generated by the Work. Use Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
 - 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 - 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 - 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 - 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, telephone number, and a copy of the permit or license of each landfill and incinerator facility. The permit or license shall indicate the type or class of waste accepted.
 - 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location on Project Site where materials separation will be located.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement the approved CWMP. Provide handling, containers, storage, signage, transportation, and other items as required to implement the CWMP during the entire duration of the Contract.
 - 1. Comply with Section 01 50 00 “”for operation, termination, and removal requirements.
- B. Waste Management Coordinator: Engage a waste management coordinator to be responsible for implementing, monitoring, and reporting status of the CWMP.
- C. Training: Train workers, subcontractors, and suppliers on proper waste management procedures as appropriate for the Work occurring at Project site.
 - 1. Distribute the CWMP to Project Manager within 10 working days of submittal return.
 - 2. Distribute the CWMP to entities when they first begin work on site. Review the CWMP procedures and locations established for salvage, recycling, and disposal.

3. Provide information and training updates throughout the construction process as needed to facilitate understanding and participation.
- D. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Designate and label specific areas on Project Site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.
 2. Comply with Section 01 50 00 “”for controlling dust and dirt, environmental protection, and noise control.

3.2 SALVAGING DEMOLITION WASTE

- A. Salvaged Items for Reuse in the Work: Salvage items for reuse and handle as follows:
 1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until installation.
 4. Protect items from damage during transport and storage.
 5. Install salvaged items to comply with installation requirements for new materials and equipment. Provide connections, supports, and miscellaneous materials necessary to make items functional for use indicated.
- B. Salvaged Items for Sale and Donation: Not permitted on Project Site.
- C. Salvaged Items for Facility’s Use:
 1. Clean salvaged items.
 2. Pack or crate items after cleaning. Identify contents of containers.
 3. Store items in a secure area until delivery to Facility.
 4. Transport items to Facility’s storage area on-site designated by Facility Representative.
 5. Protect items from damage during transport and storage.

3.3 RECYCLING DEMOLITION AND CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Contractor.
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Locate containers and/or bins in areas designated in the CWMP. Separate recyclable waste by type at Project site to the maximum extent practical according to the approved CWMP.
 1. Provide appropriately marked containers or bins for controlling recyclable waste until they are removed from Project Site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
 2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste off Facility property and transport to recycling receiver or processor.

3.4 RECYCLING DEMOLITION WASTE

- A. Wood Materials: Sort and stack members according to type. Separate lumber, engineered wood products, panel products, and treated wood materials.
- B. Metals: Separate metals by type.
 1. Structural Steel: Stack members according to size, type of member, and length.
 2. Remove and dispose of bolts, nuts, washers, and other rough hardware.
- C. Roofing: Separate organic and glass-fiber asphalt shingles and felts. Remove and dispose of nails, staples, and accessories.
- D. Acoustical Ceiling Panels and Tile: Stack large clean pieces on wood pallets and store in a dry location if quantity warrants it.

3.5 RECYCLING CONSTRUCTION WASTE

- A. Packaging
 1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
 2. Polystyrene Packaging: Separate and bag materials.
 3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
 4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.
- B. Wood Materials
 1. Clean Cut-Offs of Lumber: Stack by size.
 2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

3.6 DISPOSAL OF WASTE

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

END OF SECTION

SECTION 01 78 00
CLOSE-OUT SUBMITTALS

PART 1 GENERAL

- 1.1 SUMMARY
 - A. Section includes
 - 1. Close-out submittals, including as-builts; record drawings, specifications, and product data; and warranties.
 - B. Related Sections
 - 1. 01 33 00 - Submittals
 - 2. Divisions 2 through 44 Sections for specific requirements of the Work in those Sections.
- 1.2 ITEMS SUBMITTED TO ARCHITECT FOR REVIEW PRIOR TO DISTRIBUTION TO FACILITY REPRESENTATIVE:
 - A. Marked-up copies of Contract Drawings.
 - B. Newly prepared Drawings.
 - C. Marked-up copies of Specifications, addenda and Change Orders.
 - D. Record information on Work that is recorded only schematically, when part of record documents.
 - E. Complete set of RFI's.
- 1.3 ITEMS DELIVERED DIRECTLY TO FACILITY REPRESENTATIVE:
 - A. Orders (Construction Change Directives).
 - B. Marked-up copies of Shop Drawings.
 - C. Marked-up Product Data submittals.
 - D. Record Samples.
 - E. Field records for variable and concealed conditions.
 - F. Copies of change orders, submittal, substitutions, warranties and other forms that are part of this Project.
- 1.4 SUBMITTALS
 - A. Record Drawings: Comply with the following:
 - 1. Review required content with CA Military Dept. prior to submittal.
 - 2. Completed Submittal: Submit one set of marked-up Record Prints

- B. Record Specifications: Submit one copy of Project's Specifications, including addenda and contract modifications.
- C. Record Product Data: Submit one copy of each Product Data submittal. Where Record Product Data is required as part of operation and maintenance manuals, submit marked-up Product Data as an insert in manual instead of submittal as Record Product Data.

1.5 WARRANTIES

- A. Submittal Time: Submit written warranties on request of Architect for designated portions of the Work where commencement of warranties other than date of Substantial Completion is indicated.
- B. Partial Occupancy: Submit properly executed warranties within [15] days of completion of designated portions of the Work that are completed and occupied or used by CA Military Dept. during construction period by separate agreement with Contractor.
- C. Organize warranty documents into an orderly sequence based on the table of contents of the project manual.
 - 1. Bind warranties and bonds in heavy-duty, 3-ring, vinyl-covered, loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2 x 11-inch documents.
 - 2. Provide heavy paper dividers with plastic-covered tabs for each separate warranty. Mark tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product and the name, address, and telephone number of Installer.
 - 3. Identify each binder on the front and spine with the type or printed title "WARRANTIES", Project name, and name of Contractor.

PART 2 PRODUCTS

2.1 RECORD DRAWINGS

- A. Record Prints: Maintain one set of blue- or black-line white prints of the Contract Drawings and Shop Drawings.
 - 1. Preparation: Mark Record Prints to show the actual installation where installation varies from that shown originally. Require individual or entity who obtained record data, whether individual or entity is Installer, subcontractor, or similar entity, to prepare the marked-up Record Prints.
 - a. Give particular attention to information on concealed elements that would be difficult to identify or measure and record later.
 - b. Accurately record information in an understandable drawing technique.
 - c. Record data as soon as possible after obtaining it. Record and check the markup before enclosing concealed installations.
 - 2. Content: Types of items requiring marking include, but are not limited to, the following:
 - a. Dimensional changes to Drawings.
 - b. Revisions to details shown on Drawings.
 - c. Changes made by Change Order or Construction Change Directive.
 - d. Changes made following Architect's written orders.
 - e. Details not on the original Contract Drawings.
 - f. Field records for variable and concealed conditions.

CLOSE-OUT SUBMITTALS

- g. Record information on the Work that is shown only schematically.
 - 3. Mark the Contract Drawings or Shop Drawings, whichever is most capable of showing actual physical conditions, completely and accurately. If Shop Drawings are marked, show cross-reference on the Contract Drawings.
 - 4. Mark record sets with erasable, red-colored pencil. Use other colors to distinguish between changes for different categories of the Work at same location.
 - 5. Mark important additional information that was either shown schematically or omitted from original Drawings.
 - 6. Note Construction Change Directive numbers, alternate numbers, Change Order numbers, and similar identification, where applicable.
 - 7. Accompany submittal with certification that each document as submitted is complete and accurate.
- B. Record Prints: Provide one set of Drawings.
- C. Newly Prepared Record Drawings: Prepare new Drawings instead of preparing Record Drawings where A/E determines that neither the original Contract Drawings nor Shop Drawings are suitable to show actual installation.
- 1. New Drawings may be required when a Change Order is issued as a result of accepting an alternate, substitution, or other modification.
 - 2. Consult A/E for proper scale and scope of detailing and notations required to record the actual physical installation and its relation to other construction. Integrate newly prepared Record Drawings into Record Drawing sets; comply with procedures for formatting, organizing, copying, binding, and submitting.
- D. Format: Identify and date each Record Drawing; include the designation "PROJECT RECORD DRAWING" in a prominent location.
- 1. Record Prints: Organize Record Prints and newly prepared Record Drawings into manageable sets. Bind each set with durable paper cover sheets. Include identification on cover sheets.
 - 2. Identification: As follows:
 - a. Project name.
 - b. Date.
 - c. Designation "PROJECT RECORD DRAWINGS."
 - d. Name of Architect and Construction Manager.
 - e. Name of Contractor.

2.2 RECORD SPECIFICATIONS

- A. Preparation: Mark specifications to indicate the actual product installation where installation varies from that indicated in Specifications, addenda, and contract modifications. Information shall be sufficient for Owner's personnel to maintain facility.
- 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 - 2. Mark copy with the proprietary name and model number of products, materials, and equipment furnished, including substitutions and product options selected.
 - 3. Record the name of manufacturer, supplier, Installer, and other information necessary to provide a record of selections made.
 - 4. For each principal product, indicate whether Record Product Data has been submitted in operation and maintenance manuals instead of submitted as Record Product Data.

5. Note related Change Orders, Record Product Data, and Record Drawings where applicable.

2.3 RECORD PRODUCT DATA

- A. Preparation: Mark Product Data to indicate the actual product installation where installation varies substantially from that indicated in Product Data submittal.
 1. Give particular attention to information on concealed products and installations that cannot be readily identified and recorded later.
 2. Include significant changes in the product delivered to Project site and changes in manufacturer's written instructions for installation.
 3. Note related Change Orders, Record Specifications, and Record Drawings where applicable.

2.4 MISCELLANEOUS RECORD SUBMITTALS

- A. Assemble miscellaneous records required by other Specification Sections for miscellaneous record keeping and submittal in connection with actual performance of the Work. Bind or file miscellaneous records and identify each, ready for continued use and reference.

PART 3 EXECUTION

3.1 RECORDING AND MAINTENANCE

- A. Recording: Maintain one copy of each submittal during the construction period for Project Record Document purposes. Post changes and modifications to Project Record Documents as they occur; do not wait until the end of Project.
- B. Maintenance of Record Documents and Samples: Store Record Documents and Samples in the field office apart from the Contract Documents used for construction. Do not use Project Record Documents for construction purposes. Maintain Record Documents in good order and in a clean, dry, legible condition, protected from deterioration and loss. Provide access to Project Record Documents for Architect's and Construction Project Manager's reference during normal working hours.

END OF SECTION

SECTION 02 24 53

FIELD SCREENING FOR CONTAMINATED SOILS

PART 1 GENERAL

1.1 SUMMARY

- A. Sections Includes:
 - 1. Field screening of potentially contaminated soils and groundwater using an Organic Vapor Meter (OVM).
- B. Related Sections:
 - 1. Section 02 41 00 - Demolition
 - 2. Section 02 65 00 – Underground Storage Tank Removal

1.2 REFERENCES

- A. CCR, Title 14, Division 7, Chapter 3, Article 5.6, Section 17361 – Definitions.
- B. CCR, Title 22, Division 1, Chapter 11, Article 1, Section 66261.1 – Purpose and Scope.
- C. CCR Title 8, Division 1, Chapter 4, Subchapter 7, Group 16, Article 109, Section 5192 – Hazardous Waste Operations and Emergency Response.

1.3 DEFINITIONS

- A. For the purpose of this project, three types of materials may be encountered during excavation, as defined below:
 - 1. Non-contaminated: Clean soil or groundwater that does not contain levels of toxic compounds above background levels and does not exhibit an odor or visual discrepancy (such as discoloration or debris, etc.) to indicate otherwise.
 - 2. Contaminated: Soil or water that exhibits an odor or visual discrepancy as defined above, or that contains designated or non-hazardous concentrations of toxic compounds above background levels, or when a real-time vapor monitoring instrument reading exceeds zero and accurately registers organic vapors, or as defined in CCR, Title 14, Division 7, Chapter 3, Article 5.6, Section 17361.
 - 3. Hazardous Waste: Soil or water that meets the definition of hazardous or extremely hazardous waste, as defined in CCR, Title 22, Division 1, Chapter 11, Article 1, Section 66261.1 [Hazardous wastes are not expected to be encountered on this project.]

1.4 RESPONSIBILITIES

- A. Contractor
 - 1. Safety: At all times, the Contractor is solely and completely responsible for conditions of the jobsite, including the safety of all persons (including Contractor and subcontractor employees) and property during performance of the Work. This requirement must apply continuously and not be limited to normal working hours.
- B. Contractor's Environmental Coordinator:
 - 1. Oversee field screening activities to monitor for the presence of contaminated materials.

FIELD SCREENING FOR CONTAMINATED SOILS

2. Monitoring:
 - a. Observe and document excavated/removed soils/groundwater to identify those materials as potentially non-contaminated, contaminated, or hazardous.
 - b. Use an OVM to monitor excavated soils for the presence of petroleum hydrocarbons or volatile organic compounds (VOCs).
 - c. Document any observations or OVM readings that exceed the limits specified in Article 1.3, Definitions.
 - d. Notify the CMD Representative immediately if unexpected contaminated soil or groundwater are encountered, and comply with Section 02 65 00.

1.5 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 and 01 33 23.
- B. Project Specific Safety and Health Plan (PSSHP)
 1. Submit a limited PSSHP at least 45 days prior to excavating any soil.
 2. Establish, in detail, the protocols necessary for the anticipation, recognition, identification, and control of petroleum hydrocarbons, VOCs, metals contaminated soil/water and biosolids mixed with trash and razor blades or hazardous wastes.
 3. PSSHP must specifically address employee safety during excavation, transportation, and sampling of all contaminated materials.
 4. PSSHP must be approved and stamped by a Certified Industrial Hygienist and must comply with all applicable requirements of CCR Title 8.
 5. If unanticipated contaminants are encountered during the project, change the PSSHP as necessary and submit changes within five days to the CMD Representative, after contaminants are discovered.
 6. Unforeseen Hazardous Materials: Include procedures to follow if the Contractor finds containers with unknown contents or other suspect items that may be dangerous to human health or the environment upon disturbance within the trenching or grading. Procedure must include cordoning off and avoiding the containers and notifying the Site Supervisor immediately so as to avoid any potential risks to personnel, equipment, or the environment related to potential spills or contamination.
 7. Hospital Route Map: Include a Hospital Route Map in the PSSHP and post in the construction zone, highlighting the route, and giving written directions to the nearest emergency hospital or facility.
 8. Personnel Protection: Furnish appropriate personal safety equipment and protective clothing to personnel. Safety equipment and protective clothing must be kept clean and well maintained.
 9. Record Keeping Requirements: Keep a log of field OVM readings and station numbers where field OVM tests were conducted and submit a copy to the CMD Representative weekly.

1.6 QUALIFICATIONS

- A. Contractor's Environmental Coordinator: Designate an OSHA HAZWOPER (CCR Title 8, Division 1, Chapter 4, Subchapter 7, Group 16, Article 109, Section 5192) trained environmental coordinator who has at least two years of direct experience specializing in the recognition and testing of soil and groundwater contamination.
 1. Qualifications of Contractor's Environmental Coordinator must be submitted at least 15 days prior to the start the Work.

- B. Excavator Operator: An excavator operator with current OSHA HAZWOPER (CCR Title 8, Division 1, Chapter 4, Subchapter 7, Group 16, Article 109, Section 5192) training will excavate all contaminated soils in any excavation.

PART 2 PRODUCTS

2.1 ORGANIC VAPOR METER

- A. Provide an OVM and operator, under the direction of Contractor's Environmental Coordinator, in areas where organic vapor screening is required.
 - 1. Supply the necessary field testing supplies to screen for petroleum hydrocarbon contaminants of concern (including and their constituents).

PART 3 EXECUTION

3.1 FIELD SCREENING

- A. Prior to loading or disposing of any excess soil, field screen soils for visual, odoriferous and volatile organic contamination within 100 feet of boring [list borings individually] and as directed below, and any other areas that exhibit an odor or visual discrepancy (such as discoloration or debris, etc.) via the Field Screening Method, as described below,
 - 1. Contractor's Environmental Coordinator will collect soil to be screened for contaminants from the excavator bucket, approximately 6 inches beneath the exposed surface. The samples will consist of an undisturbed "clod" of soil. The sample will be collected with clean disposable nitrile (or more protective) gloves and decontaminated containers. The samples will be placed in a sealed container such as a new freezer Ziploc baggy or a laboratory-provided brass sleeve or glass jar with lid. Record 20-second readings and log all readings from the headspace after chemicals in the soil have been allowed to volatilize in a warm area for at least 10 minutes.
 - 2. Collect a screening sample at a rate of one sample per truckload, when odors or visual discrepancies are present.
 - 3. Record the soil sample station number, depth and OVM measurement on a form and submit to the CMD Representative weekly.
- B. Also, initiate field screening if, during the course of construction, there is any indication that contamination is present.
 - 1. If petroleum or solvent organic compounds are expected, use an OVM, but screen all stained or odoriferous soils when encountered.
 - 2. Use colorimetric detector tubes (Drager or similar) to identify specific contaminants of concern.
- C. If field-screening equipment is not available, collect laboratory samples, contract, and submit to a state-certified laboratory for 24-hour analysis of the potential contaminants of concern. Soils will not be reused in trench areas with known or suspected contamination until they are shown to be clean, or approved for reuse by the Regional Water Quality Control Board (RWQCB) or San Bernardino County Fire Department's Unified Program Agency (CUPA).
- D. Keep a three day supply of Level "C" personal protective equipment available for Contractor's trained personnel and two CMD personnel, or subcontract with a HAZWOPER subcontractor to be called upon if odors or visual discrepancies are present.

- E. If an odor or visual discrepancy is recognized, stop excavating and notify the CMD Representative for direction, for all further activities associated with contaminated materials.

END OF SECTION

SECTION 02 41 00

DEMOLITION

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. General requirements for utility/site demolition, utility disconnection, salvage/protection of existing utilities.
- B. Related Sections:
 - 1. Section 02 65 00 – Underground Storage Tank Removal.
 - 2. Section 31 25 00 - Erosion and Sedimentation Controls.

1.2 ENVIRONMENTAL REQUIREMENTS

- A. Burning is not permitted.
- B. Refer to Section 31 25 00 for specific erosion and sediment control requirements, including dust control.
- C. Refer to Section 02 65 00 for other requirements related to removal and disposal of existing underground storage tanks and appurtenances.
- D. Storm water containment and treatment must be required to meet all Local, State, and Federal regulations.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 00.
- B. Submit plan for debris removal and disposal. An approved demolition procedure submittal must be prepared and available at least 14 days prior to the start of demolition. The procedures must provide for safe conduct of the Work, careful removal/abandonment/salvage and disposition of materials and equipment, protection of facilities which are to remain undisturbed, coordination with existing facilities to remain in service, and timely disconnection of utility services. The procedures must include a detailed description of the methods and equipment to be used for each part of the operation, and the sequence of operation.
- C. The Contractor must provide written authorization from disposal site owner where material must be disposed.
- D. Submit safety plan.
- E. Submit geophysical survey report.
- F. Submit utility disconnect plan. The Contractor must have an approved utility disconnect plan at least 14 days prior to the start of the disconnect work. The plan must demonstrate the Contractor's methods and sequencing to ensure that utilities to each structure or utility have

been disconnected as required. The Contractor must also advise the California Military Department (CMD) Representative in writing at least 72 hours in advance of the time of any deactivation of or connection to existing utilities, which are to be removed, abandoned, modified, or connected to the new work.

- G. Submit utility disconnect certifications.

1.4 DEMOLITION, SALVAGE, ABANDONMENT, AND REMOVAL COORDINATION

- A. Prior to the submittal of bids, the Contractor must conduct a comprehensive survey of the facilities to verify the scope of the Work, the extent of the utilities, and the physical sequencing constraints.
- B. The Contractor must carefully coordinate the extent of the demolition in areas where existing utilities must be reconnected to new facilities where existing facilities must remain operational, and where vegetation/plants/trees and curb/gutter must be restored.
- C. The Contractor must erect and maintain fence, barricades, other devices, and warning signs around the construction perimeter throughout the construction period. The Contractor must remove all devices and structures at the completion of the Work.
- D. While the Work is being performed, the Contractor must provide adequate access to all Barstow National Guard personnel, CMD Representatives, other Contractors, and utility personnel for routine operation and maintenance.
- E. The Contractor must coordinate all demolition, removal, abandonment, and salvage with the CMD Representative.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.1 PREPARATION

- A. Determine with the CMD Representative existing vegetation life, utilities, structures, fencing and elements to remain in addition to that identified in the plans.
- B. Protect existing buildings, fencing, utilities, roads, and improvements that are to remain. The Contractor must provide temporary chain link fencing within 10 feet of the limits of Work.
- C. Protect existing trees, shrubbery and other vegetation that is to remain. The Contractor must provide protective orange fabric fencing around all trees to remain within the limits of Work and up to 50 feet outside of the limits of Work.
- D. Before beginning any cutting, trenching or demolition work, the Contractor must carefully inspect the existing facilities and examine the Contract Documents to determine the extent of the Work. The Contractor must take all necessary precautions to prevent damage to existing facilities which are to remain in place and/or in operation. The Contractor must carefully coordinate the Work of this Section with all other work and must provide shoring, sheeting, bracing, and supports as required. The Contractor must ensure that structural elements are not overloaded and must be responsible for increasing structural supports or adding new supports

as may be required as a result of any cutting, removal, or demolition work performed under any part of this Contract. The Contractor must remove all temporary protection when the Work is complete or when so authorized by the CMD Representative.

- E. The Contractor must carefully consider all bearing loads and capacities for placement of equipment and materials on site. In the event of any questions as to whether an area to be loaded has adequate bearing capacity, the Contractor must determine the case prior to the placement of such equipment or material.

3.2 DEMOLITION

- A. Perform demolition work in accordance with the Site Preparation Plan and the Contract Documents. Disposal of all materials must be performed in compliance with all applicable Local, State, and Federal codes, regulations, and requirements.
- B. Demolish and remove designated items. Remove all underground utilities. Utility removal must extend to the limits shown on the drawings. All abandoned utilities beyond the removal area must be capped or plugged with concrete per the Contract Documents. Utilities shown to be reinstalled on the plans after removal of underground storage tanks shall be cut and capped where indicated on the plans.
- C. Dispose of designated items at an approved off-site location.
- D. Clean up, re-grade and prepare area as required.
- E. Provide temporary erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways and drainages, according to requirements of authorities having jurisdiction. Install erosion and sediment control measures in accordance with Section 31 25 13.
- F. Concrete pavement, asphalt pavement, concrete curb and gutter must be removed as necessary to perform the specified Work. The limits of removal must be sawcut prior to breaking the portion to be removed. Care must be taken not to damage the existing items/ features that are determined to remain.
- G. Openings in water-bearing structures such as manholes and concrete boxes must be made with care not to damage the remaining structure. Edges must be sawcut prior to breaking the portion to be removed. All gaps must be sealed with nonshrink grout to be watertight. Reinforcement must be as required, or as shown in the Contract Documents. In all locations where the surface of the grout will be exposed to view, the nonshrink grout must be recessed to approximately 1/2 inch back of the exposed surface and the recessed area filled with cement mortar grout.

3.3 UTILITY DISCONNECTION

- A. Coordinate with the CMD representative for the isolation of the project site utilities from overall site utilities. Contractor must coordinate to eliminate the loss of utility service, including gas, electric, telephone, water, sewer or storm drainage, to active areas of the overall site utilities and ancillary facilities.
- B. If existing natural gas lines are present, the utility disconnect plan must include the Contractor's plan to ensure natural gas lines have been removed or abandoned and purged of natural gas. The Contractor is cautioned that the natural gas line removal and purging process is dangerous

and precautions must be exercised. The Contractor is also cautioned that the natural gas line to the facility must stay in operation 24 hours per day and the Contractor must consider this when preparing their plan.

C. Disconnect Certification

1. Electric: Contractor must submit certification for every electric line to be removed either shown on the plans or discovered during the Work has been permanently isolated from the electrical grid. Certification must be performed and signed by a journeyman electrician.

3.4 GEOPHYSICAL SURVEY

- A. Prior to performing Work, the Contractor must perform a geophysical survey in all areas of Work within existing improvements to locate unknown active or abandoned utilities or underground structures within the project site. The Contractor must engage a person or entity with a minimum of two years professional experience in geophysical location to conduct a geophysical survey of all Work areas with existing improvements within the project site. The survey must include full coverage with the following locating equipment:
 1. EM61
 2. M-SCOPE/EM31
 3. Ground penetrating radar
 4. Linetracer (60 Hz RF)
- B. Areas to have full geophysical survey include, but are not limited to, the area shown to be demolished in the plans.
- C. The investigation must identify the location of known and unknown utilities within the project site. All located utilities whether shown on the plans or not must be potholed to identify the type, location, size and material type. Results of the geophysical investigation and potholing report must be submitted to the CMD representative for review and approval.
- D. Any unknown underground utility located must be immediately brought to the attention of the CMD representative. The Contractor must coordinate with CMD to determine if a conflict exists and how it should be resolved. Utility conflicts must be resolved prior to any work which may be affected by the conflict.

3.5 REPAIR TO DAMAGE

- A. Any damage to remaining road improvements, utility poles, building elements to remain, and other existing facilities to remain as caused by the Contractor's operations must be repaired at the Contractor's expense.
- B. Damaged items must be repaired or replaced with new materials as required to restore damaged items or surfaces, equal or better pre-construction condition, as approved by the CMD Representative.

END OF SECTION

SECTION 02 65 00

UNDERGROUND STORAGE TANK REMOVAL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Perform work and provide material and equipment as shown on Drawings and as specified or indicated in this Section of the Specifications. Completely coordinate work of this Section with related specifications sections.
2. Give notices, file plans, obtain permits and licenses, pay fees and back charges, and obtain necessary approvals from authorities having jurisdiction as required to perform work in accordance with all legal requirements and with the Contract Documents.
3. In general, the work of this Section includes furnishing labor, equipment, and materials necessary to perform the excavation, trenching, and ancillary work associated with the removal of fuel piping, underground storage tanks (UST), transition sump pits, UST-related electrical conduit, related communications and security equipment, canopies, and all other related utilities specified or indicated in the Contract Documents.

B. Related Sections:

1. Section 02 24 53 – Field Screening for Contaminated Soils.
2. Section 02 41 00 - Demolition
3. Section 26 05 00 – Common Work Results for Electrical
4. Section 26 05 19 – Low-Volt Power Conductors and Cables
5. Section 31 20 00 – Earthwork.
6. Section 31 25 00 – Erosion and Sedimentation Controls
7. Section 32 11 23 – Aggregate Base Courses.
8. Section 32 12 16 – Asphalt Paving.
9. Section 33 71 19 – Electircal Manholes and Handholes

1.2 REFERENCES

A. American Institute of Steel Construction, Inc. (AISC): Manual of Steel Construction Allowable Stress Design (latest edition).

B. American Petroleum Institute (API) RP 1604 – Closure of Underground Petroleum Storage Tanks:

1. API STD 2015 – Safe Entry and Cleaning of Petroleum Storage Tanks.
2. API RP 2016 – Guidelines and Procedures for Entering and Cleaning Petroleum Storage Tanks.
3. API RP 2003 – Protection Against Ignitions Arising Out of Static, Lightning, and Stray Currents.

C. National Fire Protection Association:

1. NFPA 30 – Flammable and Combustible Liquids Code.
2. NFPA 30A – Code for Motor Fuel Dispensing Facilities and Repair Garages.
3. NPFA 70 – National Electric Code.

4. NFPA 70E – Standard for Electrical Safety in the Workplace.
 5. NFPA 329 – Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases.
- D. Underwriters Laboratories Inc.:
1. UL 913 – Intrinsically Safe Apparatus and Associated Apparatus for Use in Class I, II, and III, Division 1, Hazardous Locations.
- E. United States (US) Environmental Protection Agency (EPA):
1. Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, Publication SW-846.
 2. 40 CFR 280 – Technical Standard and Corrective Action Requirements for Owners and Operators of USTs.
- F. United States Occupational Health and Safety Administration (OSHA):
1. 29 CFR 1910 – Occupational Safety and Health Standards.
 2. 29 CFR 1926 – Safety and Health Regulations for Construction.
- G. State of California Department of Industrial Relations, Division of Occupational Safety and Health (DOSH):
1. Title 8 California Code of Regulations (CCR) Chapters 3.2, 3.3, 3.5 and 4, including General Industrial Safety Orders (GISO) and Construction Safety Orders (CSO).
- 1.3 SUBMITTALS
- A. Submit in accordance with Section 01 33 00.
- B. Approved Permit for Permanent UST Closure by CUPA.
- C. Documentation in writing to substantiate Contractor's required five years' experience.
- 1.4 CLOSEOUT SUBMITTALS
- A. Comply with pertinent provisions of Section 01 78 00.
- B. Provide UST Closure Documentation and Reporting in accordance with requirements in this Section.
- C. Provide documentation (including weight tickets) off all materials disposed of and recycled, per the approved Construction Waste Management Plan (CWMP).
- 1.5 QUALITY ASSURANCE
- A. Qualifications: Use adequate numbers of skilled, licensed individuals who are thoroughly trained and experienced in the installation and testing of the specified systems and who are completely familiar with the requirements and the methods needed for proper performance of the work of this Section.
- B. Materials and Equipment must be manufactured, installed, and tested as specified in latest editions of applicable publications, standards and ruling of:
1. Local and State building, plumbing, mechanical, electrical, fire and health department codes, as applicable.

2. National Fire Protection Association
 3. Occupational Safety and Health Act
 4. Factory Mutual Association
 5. Underwriter's Laboratories
 6. American Petroleum Institute
- C. The most recent editions of applicable specifications and publications of the following organizations form part of the Contract Documents:
1. American National Standards Institute
 2. American Society of Mechanical Engineers
 3. National Electric Manufacturers Association
 4. American Society for Testing of Materials.
 5. American Welding Society
 6. Manufacturers Standardization Society of the Valve and Fitting Industry (MSS).

1.6 PERMITS AND NOTIFICATIONS

- A. The Contractor is responsible for all permits and notifications required by Federal, State and CUPA, including, but not limited to, the following:
1. Environmental Health Services (EHS) of CUPA.
 2. Office of the State Fire Marshal (OSFM).
- B. The Contractor must also provide the CMD with the information required to update the Unified Program Forms Facility Information and Tank Information for submittal electronically through the California Environmental Reporting System (CERS) Business Portal.
- C. Copies of all submissions and permits/registrations received must be provided as part of the closeout documentation.
- D. The Contractor must make all required tank removal notifications as required by regulation, within the timeframe required, prior to beginning tank removal activities. At a minimum, notifications must be made to the CMD and CUPA.

1.7 QUALIFICATIONS

- A. UST Removal: Company specializing in performing Work of this section with minimum five years' documented experience.
- B. The Contractor must employ the services of an environmental professional to direct the collection of environmental samples, prepare the UST Closure Report, and perform related work.
- C. Comply with the requirements for health and safety personnel training and certification outlined in "HEALTH AND SAFETY" article in this section.

1.8 GENERAL CONDITIONS

- A. Disposition of Utilities:
1. Adequately protect from damage all active utilities and remove or relocate only as indicated, specified, or directed.

2. Report inactive and abandoned utilities encountered in excavating and grading operations to the CMD. Remove, drain, clean, inert, plug and/or cap as directed by the CMD.
 3. Provide a minimum of a 48-hour notice to the CMD and receive written notice to proceed before interrupting any utility.
- B. Document that all underground utilities have been clearly marked. The Contractor is responsible for notifying Underground Service Alert at least 48 hours prior to invasive groundwork or change in invasive groundwork areas.
1. The Contractor is also responsible for providing a private utility locator to identify all underground structures and maintaining the utility mark-out with the appropriate utility location service for the duration of the project.
 2. Additionally, locate all underground fuel piping prior to beginning work.
 3. Contractor is responsible for checking for utility boxes that may contain trace wire terminations for underground plastic piping and employing trace wire, as part of their private utility location.
- C. Stockpiling of soil and other excavated materials will be permitted on-site within the designated project areas provided the stockpiles are constructed and maintained in a manner that does not create a foreign object damage risk or adversely affect any other ongoing construction or operation at the site. Soil and debris will be segregated to facilitate disposal or recycling.
1. Petroleum-contaminated soil (as determined from screening, staining, or odor) must be segregated from clean excavation spoils. Petroleum-contaminated soil must be stockpiled in accordance with all applicable regulations.
- D. During windy or wet conditions and at the conclusion of each day's work period, cover and secure covering over all excavated material to prevent it from becoming saturated or being displaced by wind or rain.
1. Anchor all sides of covering as required to hold the covering firmly in place.
 2. In all cases, provide additional measures as necessary to prevent erosion, sedimentation, and wind-borne displacement of excavated materials from their stockpiled location.
- E. Before beginning any work specified in this Section, the Contractor must make certain that all applicable soil erosion and sediment control requirements are compiled with and the proper authorities have been informed of the construction schedule.
- F. The Contractor is responsible for providing temporary utilities for the duration of the project in accordance with Section 01 50 00.

1.9 ENVIRONMENTAL REQUIREMENTS

- A. Comply with Section 01 35 43.
- B. Work must comply with all applicable environmental regulations and those of other governing agencies in their most recent version that are applicable. It is the Contractor's responsibility to know, understand, and abide by all such regulations and requirements.

1.10 FIELD MEASUREMENTS

- A. Verify field measurements prior to removal.

- B. Conduct a thorough survey of interferences associated with the work scope prior to removal. Report interference issues to the CMD prior to beginning removal activities.

1.11 COORDINATION

- A. The Contractor must coordinate UST removal with the facility and with CUPA as required by State or Local codes and regulations.

1.12 WARRANTY

- A. The Contractor must be responsible, at the Contractor's expense, for addressing all comments or rejected submittals related to the UST closure process, including resubmissions as required.
- B. The Contractor must warranty all restoration work for a period of one year from Project Completion.

1.13 HEALTH AND SAFETY

- A. All on-site Contractor and Sub-Contractor personnel must have completed OSHA 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) training, including required annual re-certifications. At least one Contractor representative with HAZWOPER Supervisory training will be on site during all HAZWOPER site work.
- B. All on-site Contractor and Sub-Contractor personnel must have completed OSHA 10-Hour General Construction Safety Training.
- C. The Contractor must have an OSHA and state compliant, company-wide, health and safety program that must be submitted to the CMD for approval prior to beginning work.
- D. An OSHA and state compliant, site-specific, Health and Safety Plan (HASP) must be prepared and available on-site for each tank removal project.
- E. HASP must be compliant with Section 02 24 53.
- F. Conduct and document daily, on-site, meetings before beginning work each day.
- G. Comply with 29 CFR 1910, 29 CFR 1926 at all times during the project. API Recommended Practices 1604 2016 and API Publication 2015 must be strictly followed during all removal activities. Concrete (including existing and new pads, and UST "deadman anchors") cutting, breaking, grinding, debris stockpiling, and loadout must conform to OSHA's Small Entity Compliance Guide for the Respirable Crystalline Silica Standard for Construction.
- H. Fire Safety / Flammability Hazards:
 - 1. The Contractor must strictly follow safety procedures associated with maintaining a non-hazardous atmosphere in and around the tank throughout the procedure. Strict adherence to API recommended practice/publications 1604, 2015, 2016 is required.
 - 2. Eliminate all potential sources of ignition from the project limits (i.e., smoking materials, non-explosion proof electrical, and internal combustion equipment).
 - 3. Prevent discharge of static electricity during venting of flammable vapors by minimizing agitation and static producing movement, if possible, by providing a conductive path for

- the continuous, safe discharge of electricity by either bonding or grounding equipment and vehicles.
4. Prevent the accumulation of vapors at ground level and in the excavations.
 5. Refer to API Recommended Practice 2003 for required precautionary measures to ensure vapor-free working conditions.
 6. The Contractor must use a combustible gas indicator (CGI) to periodically check for hazardous vapor concentrations in the work area. All CGI readings must be recorded and provided to the on-site health and safety supervisor upon request. Open flame and spark-generating equipment must not be used in the vapor hazard area. Electrical equipment used in this area must be explosion-proof and approved for use in potentially explosive atmospheres. Smoking is strictly prohibited at all times.
- I. Secure the excavation area from all pedestrians and vehicular traffic using temporary chain-link fencing, minimum 6-foot high, supported with precast concrete ballasts on grade.
1. Such fencing may only be opened or moved to the extent needed to allow equipment access when the excavation area is being actively worked on and is attended and monitored.
 2. Do not leave open excavations without completely securing the perimeter with a locked, secure fence at the end of each workday.
 3. Restrict access to larger project area using traffic barricades and caution tape.
 4. Where specified, coordinate with additional temporary security fencing required by Section 01 50 00 – Temporary Facilities and Controls.
- J. Contractor must designate and furnish an on-site Qualified Person for Excavation Safety.

PART 2 PRODUCTS

2.1 EARTHWORK AND RESTORATION

- A. Backfill Materials:
1. Backfill materials must be imported satisfactory material complying with Section 31 20 00.
 2. Base course materials for asphaltic pavement must comply with Section 32 12 16 as appropriate for the restoration or new surface.
 3. Materials must meet the requirements of Section 31 20 00.

PART 3 EXECUTION

3.1 REMOVAL SCOPE – UNDERGROUND TANK SYSTEMS

- A. The Contractor must provide comprehensive tank closure services, including professional environmental oversight of the tank removal, determination of local tank removal requirements, determination of sample requirements, communications with regulatory agencies, characterization and segregation of removed soils, oversight of sampling, and closure reporting.
- B. The Contractor is responsible for the removal of UST system equipment, including but not limited to:
1. Tanks.

2. Piping.
 3. Pumps/dispensers.
 4. Cover pad/drive pad.
 5. Dispenser island including associated water/air hose reels and lighting.
 6. Electrical conduits and wiring.
 7. Communications/fuel management/monitoring systems.
 8. Bottom pad or “deadman” anchors.
- C. Recycle UST System components and overlying pavement in accordance with an approved CWMP and in compliance with Section 01 74 19.
- D. The Contractor shall recycle all applicable concrete materials and provide CMD Environmental staff with weight tickets and associated costs.
- E. CMD reserves the right to retain any equipment and materials for their exclusive use.
- 3.2 ASSOCIATED ELECTRICAL, COMPRESSED AIR, AND WATER LINES
- A. Prior to conducting tank removal work, all associated electrical wiring must be disconnected. All power supply and control/communication wires must be deenergized and then physically disconnected at the first aboveground termination point in the associated shop building. All such termination points must be tagged out to prevent reconnection.
- B. Electrical conduits must be removed to the edge of the concrete pad removal area:
1. Each electrical conduit must be traced and marked at both the excavation and aboveground ends with a secure, unique identifier for later re-use.
 2. Prevent soil or other debris from entering conduits and securely cap for later tie-in.
 3. Refer to Contract Drawings and Specifications (Division 26) for information on re-use of conduits, and aboveground electrical appurtenances, including associated junction boxes, raceways, switchboxes, and monitoring console.
- C. Prior to conducting tank removal work, the associated underground compressed air and water lines from the building to the dispenser island must be properly capped for later tie-in to existing equipment to remain as shown on plans.
- D. Comply with additional requirements listed in Section 26 05 00, Section 26 05 19, and Section 33 71 19.
- 3.3 REMOVAL OF OVERLYING STRUCTURES AND SOIL OVERBURDEN
- A. Comply with Section 02 41 00 and Section 31 20 00.
- B. Remove aboveground equipment at fuel island:
1. Fuel dispensers.
 2. Air and water hose reels (retain for re-use).
 3. Light fixture.
 4. All other associated equipment not listed above.
- C. Saw cut concrete as needed to facilitate complete removal of:
1. Raised concrete fuel island.
 2. Entire associated concrete drive/parking pad.

3. Entire concrete cover pad over USTs.
 4. USTs and associated piping.
 5. All other associated equipment not listed above.
- D. Concrete and backfill materials above the UST tank tops and associated piping must be carefully removed prior to tank cleaning and removal. The Contractor must excavate with extreme caution and avoid puncturing the tank, its associated piping, and any tank hold-down stays. The Contractor shall remove fill materials directly above the tank top by hand using spark-free tools as required.
- E. Excavate fill materials present above tanks and piping. Comply with Section 31 20 00.
- F. Excavate to expose and access tank top appurtenances. Then conduct excavation along sides of tanks as needed for safe lifting and removal after tank cleaning, piping removal, and vapor purging procedures are complete.
- G. The Contractor must provide the services of a qualified professional to direct the identification, segregation, stockpiling, and sampling of contaminated soils.
- H. Screen excavated fill materials/soil using an approved OVM in accordance with Section 02 24 53, and appropriately segregate potential petroleum-impacted materials.
- I. Stockpile soil at the designated areas shown on the Drawings, or as otherwise directed by CMD representatives:
1. Place all soil on temporary underlayment of heavy-duty (minimum 20-mil) plastic sheeting with at least six feet of overlap between sheets.
- J. Keep soil stockpiles covered, except when stockpiles are actively worked:
1. Cover with heavy-duty (minimum 6-mil) plastic sheeting with at least 6 feet of overlap between sheets.
 2. Secure cover with a system of tethered weights.
 3. Provide straw bales or other approved BMPs around perimeter of stockpiles.
- K. If concrete “deadman” anchors, or a concrete bottom pad or tie-down pad is present beneath the tank, such items must be removed after tank removal and prior to conducting the Preliminary Site Assessment activities described herein.
- L. Recycle removed concrete and metal in accordance with Section 01 74 19 and an approved CWMP. Contractor must provide any sampling and laboratory testing (e.g., lead paint) required by the recycling facility. Contractor is responsible for all costs associated with recycling.

3.4 PREPARATION OF UNDERGROUND TANKS AND APPURTENANCES

- A. Remaining Fuel Removal:
1. Contractor must remove useable fuel remaining in tanks in accordance with all applicable Federal, State and local requirements. All efforts must be made to recycle or reuse fuel rather than dispose of it as waste.
- B. Decontamination:

1. The interior of the tanks and interstitial spaces must be decontaminated by triple rinsing with pressurized water or steam to remove residual hazardous materials. All product and vent lines are to be water flushed into the tank. The Contractor decontaminating the tank is to have a copy of their decontamination procedure on file with CUPA.
2. The rinsing and removal of the rinseate is to be documented on the Tank Disposal Tracking Form of CUPA.
3. Prior to air purging, any remaining liquids must be pumped from the tank so that less than eight gallons of liquid remain in the tank.
4. Explosion-proof or air-driven pumps must be used when removing product and residues from the UST. If a vacuum truck is used, the truck must be located outside the vapor hazard area and must be properly grounded.
5. Disconnect and remove all product lines, pumps, dispensers, fill drop tubes and related appurtenances (except vent lines as noted below). Carefully drain and collect residual fuel for proper disposal and avoid drippage or spills. Contractor must avoid spillage when disconnecting and draining product piping. Any soil impacted by spillage must be excavated immediately and properly disposed at an approved disposal facility at the Contractor's expense. A release to soil resulting from Contractor's closure activities, must be reported on the State Water Resources Control Board's (SWRCB's) "UST Site – Unauthorized Release/Contamination Report" as described in Subsection 3.6 (M).
6. All bottom water, rinseate, sludge, and residual fuels from the decontamination process must be transported under hazardous waste manifest by a licensed hazardous waste transporter to a permitted hazardous waste facility for recovery and recycling. CMD will provide its site-specific EPA Generator ID Number for this purpose.

C. Purging and Inerting:

1. The tank must be purged through a vent pipe that discharges at least 10 feet above ground level. The vent lines must remain attached to the tanks until the EHS or CUPA inspector arrives to authorize the removal. No emission must result in any odors detectable at or beyond the property line. No emission must endanger the health, safety, comfort or repose of any person.
2. The Contractor must use a CGI that measures lower explosive limit (LEL) to ensure the tank(s) have been decontaminated. Readings must be obtained from the bottom, middle, and top of the tank at each end. A maximum 5 percent LEL reading is to be reached for the tank to be considered decontaminated.
3. The LEL level must be noted on the tank tracking form issued with the tank removal permit. The Contractor must have documentation of training in the use of the CGI on file with the EHS of San Bernardino County, and a record of monthly equipment calibration on site.
4. The tank must be inerted before removal by displacement using an inert gas, such as carbon dioxide. If a liquid or gas inerting agent is to be used, the dispensing device must be electrically grounded to the tank. Readings must be obtained from the bottom, middle, and top of the tank at each end. The oxygen level must be verified to be below 10 percent.

3.5 REMOVAL OF UNDERGROUND TANKS AND APPURTENANCES

A. Removal of Vent Pipes for USTs:

1. Vent pipes shall be disconnected only after authorization by CUPA or EHS.
2. Remove tank vent pipes from the tanks to the outer edge of the concrete pad removal area.
3. Remove any aboveground portions of vent pipes to within 18 inches of grade level.
4. Remove all underground vent piping.

- B. Disconnect tank hold-down straps, if present.
- C. Provide tank removal/lifting equipment with a rated lifting capacity adequate to safely lift the weight of the tanks and remaining fluid in tanks onto the transport vehicle without dragging them or otherwise causing an unsafe condition. The use of a backhoe or excavator to lift the tanks out of the excavation is not allowed.
- D. All tanks are to be marked at the site of removal, with the permit number and any number assigned by the CUPA conspicuously spray-painted on the side of each tank.
 - 1. The Tank Disposal (tracking) Form (provided with the removal permit) is to accompany the tank to its final destination.
 - 2. The recycling facility accepting the tank is to sign and return the tracking form to CUPA.
 - 3. The Contractor is responsible for ensuring that this form is returned within 14 calendar days of the tank removal.
 - 4. All tanks shall be tracked, for proper decontamination and disposal, in this manner.
- E. Tanks must be transported off-site on the same calendar day that they are removed from the excavation.
- F. Tanks and piping must be delivered to a qualified scrap/recycling facility for scrap metal recovery. The recycling facility must provide written documentation of receipt and destruction of the tanks, referencing the tank capacities and removal permit number.
- G. With the exception of fuel dispensers, which the Contractor shall return to owner, the Contractor must not reuse, sell or barter for reuse, or give away for reuse, any of the equipment or materials removed from the site.
- H. The Contractor must recycle all metals in accordance with Section 01 74 19 and an approved Certified Waste Management Professional (CWMP). All lighting materials must be disposed of in accordance with Federal, State, and Local regulations.
- I. Any tanks that are cut on site are to be certified as suitable for hot work by a NFPA-certified Marine Chemist, or Professional Engineer (special inspector) trained and qualified to provide this assessment. All hot work on tanks is subject to OSFM written approval.

3.6 PRELIMINARY SITE ASSESSMENT

- A. A preliminary site assessment will be used to determine whether contamination may exist in the environment due to unauthorized releases from underground tanks, dispensers, and associated pipelines. This also represents the minimum verification required to show that there has been no significant soil contamination resulting from a discharge around the tank system. Sampling is to be conducted as described herein.
- B. The Contractor's qualified environmental professional must supervise the collection of soil samples as required to meet preliminary site assessment requirements. Sample collection must comply with Federal, State and local environmental guidelines and requirements, and must include samples in the tank excavation, piping trenches, and under dispensers, as required.
- C. Samples are to be obtained at the time of tank removal.

- D. All samples are to be obtained by personnel knowledgeable of EPA sampling procedures under SW846. Personnel/companies retrieving samples are to have a written copy of their sampling protocol on file with CUPA.
 - E. All samples must be analyzed by a State-certified hazardous waste laboratory.
 - F. Discrete samples must be analyzed for constituent's representative of the substance(s) stored, and to meet all federal, state and local requirements.
 - G. At a minimum, all soil samples must be analyzed for:
 - 1. Total Petroleum Hydrocarbons (TPH) as gasoline.
 - 2. TPH as diesel.
 - 3. Benzene, toluene, ethylbenzene, total xylenes (BTEX).
 - 4. Methyl tertiary-butyl ether (MTBE).
 - H. All soil samples must be analyzed on a 48-hour rush turnaround at Contractor's cost.
 - I. A minimum of four soil samples must be retrieved from beneath each tank. Collect samples from under-tank locations approximately 1/3 of the way in from each tank end, at two and six feet below the tank bottom.
 - J. Soil samples must be retrieved from areas below pipelines extending from the tank and below dispenser islands. Samples must be retrieved for every 20 linear feet of fuel pipeline, at two and six feet below the piping. Samples must also be retrieved directly under each dispenser area at two and six feet below the soil surface.
 - K. The Contractor must provide equipment to collect soil for sampling from the required locations and depths (e.g., approximately 18 to 20 feet below grade level).
 - L. If the Contractor believes that these sampling requirements are not feasible, an alternate sampling plan is to be submitted to CMD and CUPA, including a detailed explanation of the reasons that sampling cannot be done at the required locations and depths. Alternate sampling must be approved by CMD and CUPA prior to sampling.
 - M. A confirmed release to soil from the UST system, or resulting from Contractor's closure activities, must be reported on the State Water Resources Control Board's (SWRCB's) "UST Site – [Unauthorized Release/Contamination Report](#)" form, most current water board's revision:
 - 1. Contractor must complete the form, and submit to CMD representative by close of business on the day of release. CMD will review, sign, and submit the executed form.
 - 2. The form must be completed using the following CMD information, to be provided by the CMD representative:
 - a. Responsible Party (CMD) contact person name.
 - b. Responsible Party (CMD) contact person phone number.
 - c. Responsible Party (CMD) address.
- 3.7 CONTINGENCY OVEREXCAVATION OF PETROLEUM-IMPACTED SOIL
- A. The Contractor must be prepared to over-excavate at Contractor's cost per provisions of this specification (beyond the amount of soil that needs to be removed as part of the base tank removal and Preliminary Site Assessment) and stockpile petroleum-impacted soil from beneath

or around the USTs. Removal of additional soil will be determined by Contractor and approved by a CMD representative and must be conducted only after written CMD authorization.

- B. The Contractor must be prepared to excavate and dispose of over-excavated petroleum-impacted soil.
- C. The Contractor must provide the services of a qualified professional to direct the identification, segregation, stockpiling, and sampling of contaminated soils.
- D. Screen and appropriately segregate excavated soil using an approved OVM in accordance with Section 02 24 53 and as directed by the CMD Representative.
- E. Stockpile soil at the designated areas shown on the Drawings, or as otherwise directed by CMD representatives. Petroleum-contaminated soil (as determined from screening, staining, or odor) must be segregated from clean excavation spoils. At a minimum:
 - 1. Place all soil on temporary underlayment of heavy-duty (minimum 20-mil) plastic sheeting with at least six feet of overlap between sheets.
 - 2. Cover with heavy-duty (minimum 6-mil) plastic sheeting with at least six feet of overlap between sheets.
 - 3. Secure cover with a system of tethered weights.
 - 4. Provide straw bales around perimeter of stockpiles.
- F. Petroleum-contaminated soil must be handled and stockpiled in accordance with local air quality control district Rules and other applicable regulations:
 - 1. Verify with CUPA or the RWQCB if additional requirements will apply to any soil which:
 - a. Registers 50 parts per million by volume (ppmv) or greater of VOC concentration (without vapor suppression) measured as hexane at a distance of three inches above the surface with an OVM, or
 - b. Contains VOCs and has been identified for decontamination or disposal by the designated lead agency.
 - 2. Soil with 1,000 ppmv or greater of VOC concentration is subject to further requirements provided in local requirements of CUPA or RWQCB.
- G. Collect soil samples from the walls and/or floor of the over-excavation limits as directed by a CMD Representative, and in accordance with the sample collection procedures described in this section.
- H. Analyze soil samples from the walls and/or floor of the over-excavation limits in accordance with the sample analysis procedures in this section, or as otherwise directed by a CMD Representative.
- I. The Contractor's provided unit price (per sample) bid for sampling of the over-excavation limits must cover all costs associated with sample collection/packaging, laboratory analysis, and reporting.
- J. The Contractor's provided unit price (per ton) bid for over-excavation must cover all costs associated with excavation, screening, segregation, and proper stockpiling.
- K. The Contractor's provided unit price (per ton) bid for proper disposal of over-excavated petroleum-impacted soil (licensed Class II or III facility) must cover all costs for sampling/profiling, landfill approval loading, transport, and disposal. This item will include

only soil with petroleum constituent concentrations (as determined by laboratory analysis) above the designated landfill's, or other disposal facility's, limits for acceptance of clean soil materials.

- L. The Contractor's provided unit price (per ton) bid for proper disposal of over-excavated soil "not impacted" by petroleum must cover all costs for sampling/profiling, landfill approval, loading, transport, and disposal. Soil "not impacted" will include only soil with petroleum constituent concentrations (as determined by laboratory analysis) below the designated landfill's, or other disposal facility's, limits for acceptance of clean soil materials. This soil would be suitable for use as landfill alternative daily cover (ADC), or as non-contaminated soil.
- M. The Contractor's provided unit price (per ton) bid for over-excavation backfill must cover all costs associated with purchase of backfill materials, placement, compaction, and testing in accordance with "RESTORATION" Article in this section. Backfill must be satisfactory imported soil in accordance with specification Section 31 20 00.
- N. The Contractor's provided unit price (per square foot) bid for additional repaving needed as a result of over-excavation must cover all costs associated with preparation, placement, and compaction of pavement.

3.8 RESTORATION

- A. Unless otherwise directed, all excavated backfill materials (previous import and/or native soil) must be replaced with approved imported backfill material.
- B. Excavated Backfill Disposal Associated with Base Tank Removal:
 - 1. The disposal of all excavated soil not impacted by petroleum hydrocarbons (as determined by laboratory analysis) must be included in the Contractor's fixed bid price for the work. Soil "not impacted" includes soil with petroleum constituent concentrations (as determined by laboratory analysis) within the designated landfill or other disposal facility limits for acceptance of clean soil materials.
 - 2. The Contractor's provided unit price (per ton) bid for proper disposal of petroleum-impacted soil (as determined by laboratory analysis) to licensed Class II or III facility must cover all costs for sampling/profiling, landfill approval, loading, transport, and disposal as described in subsection 3.7. This item include applies to petroleum-impacted soil that is to be excavated as part of the base tank removal and restoration work (i.e., not over-excavation work).
 - 3. All removal of petroleum-impacted backfill from the site must be authorized by and coordinated with CMD.
- C. The Contractor must backfill the tank excavation and piping trenches after the UST system has been removed and after laboratory sample results indicate that no contamination is present.
- D. Preparation of UST System Excavations:
 - 1. The total completed depth of the UST excavation must be cut level and tamped by equipment bucket prior to commencing backfill. Potholes from soil sampling shall be excavated to remove slough, backfilled and compacted.
- E. Backfill of UST System Excavations:

1. The excavation shall be backfilled with imported satisfactory material as defined in specification Section 31 20 00, and approved by the independent third party inspector.
2. Place and compact fill in not to exceed 8-inch lifts compacted to a minimum of 90 percent relative compaction based on ASTM D1557, comply with all other requirements for backfilling and compaction in specification Section 31 20 00 and as shown on the plans.
3. Provide compaction testing and documentation by a third party inspector in compliance with Section 01 45 00.

F. Asphaltic Concrete (AC) Restoration Paving:

1. Prior to repaving work, provide clean full depth sawcut edges at least 36" from the outside edges of the excavation work.
2. See drawings for pavement and aggregate base thickness.
3. Construct aggregate base course in accordance with specification 32 11 23.
4. Construct AC paving in accordance with specification Section 32 12 16.

3.9 STORMWATER POLLUTION PREVENTION

- A. Prior to commencing work, prepare a SWPPP and ensure compliance with Section 01 35 43.
- B. Keep soil stockpiles covered to prevent sediment runoff, except when stockpiles are actively worked:
 1. Cover with heavy-duty (minimum 6-mil) plastic sheeting with at least six feet of overlap between sheets.
 2. Secure cover with a system of tethered weights.
 3. Provide straw bales around perimeter of stockpiles.
- C. The Contractor must grade the construction area to provide surface water runoff away from the construction activity and/or provide temporary ditches, dikes, swales and other drainage features and equipment as required to maintain dry soils and prevent erosion.
- D. Maintain erosion control measures to prevent sediment from leaving the work area.
- E. Storm and other water must be prevented from flowing into excavations and/or flooding the Project site.

3.10 EXCAVATION STABILITY AND PROTECTION

- A. If needed, provide excavation shoring or perform excavation sloping measures to properly protect personnel, structures, utilities, and all other improvements in compliance with applicable regulations, including "Construction Safety Orders" issued by the state of California and all OSHA requirements. The need for such measures includes but is not limited to any of the following conditions:
 1. It becomes necessary for Contractor or other personnel to enter any excavation deeper than 4 feet to perform any work, including excavation, backfill, sampling, or testing.
 2. Observation of, or reasonable potential for, excavation faces or surrounding soil mass to be subject to slides, caving, undercutting, or other types of failures.
 3. Potential for stability and integrity of structures and other improvements to be compromised by settlement or movement of soils, or changes in soil load on structures and other improvements.
 4. Groundwater encountered in excavation that causes heaving or any of the above conditions.

- B. Structures and utilities located within the excavation area must not be disturbed without prior approval by the CMD. The Contractor must protect all structures and utilities to remain to prevent disruption of facility operations.
- C. Excavated slopes and backfill surfaces must be protected to prevent erosion. Excavation must be performed so that the site, and any areas affecting operations at the site must be continually and effectively drained.
- D. If needed to maintain excavations free of water, provide dewatering/water control in accordance with Section 01 50 00.

3.11 UST CLOSURE DOCUMENTATION AND REPORTING

- A. Tank closure documentation must be submitted to the appropriate regulatory agency as required by State and/or local regulations. Submit agency-required documentation within agency-required timeframes, and provide a copy of all submittals to CMD.
- B. Tank Tracking Form: This form accompanies the USTs to their final destination. The recycling facility accepting the tank is to sign and return the tracking form to CUPA. The Contractor is responsible for ensuring that this form is submitted to CUPA (with a copy to CMD) within fourteen (14) days of the tank removal.
- C. A copy of the uniform hazardous waste manifest for UST residuals and rinseate, signed by the receiving facility must be provided to CUPA and CMD within fourteen (14) calendar days of tank or rinseate removal.
- D. Lab Reports: A complete report of sample analyses must be submitted to CMD and CUPA within three working days after completion of the analysis.
- E. A UST Closure Report must be prepared for submittal to CMD; this requirement is in addition to specific information submittals required by CUPA, EHS, and other permitting agencies.
- F. The UST Closure Report must be prepared with the following minimum components:
 - 1. Site Name and Address.
 - 2. State UST Facility ID.
 - 3. Name and Contact Information for CMD.
 - 4. Name and Contact Information for Contractor and their environmental professional
 - 5. Site Location Map.
 - 6. Site Plan drawn to scale showing the UST area relative to recognizable site features (e.g., buildings, property boundaries), piping runs, excavation boundaries and depths, and soil sample locations and depths.
 - 7. Other relevant UST system observations.
 - 8. Soil Descriptions, including observations of stained or odorous soil, and soil screening results.
 - 9. Complete laboratory analytical report including chain-of-custody documentation.
 - 10. Tabular presentation of sample IDs, depths, and analytical results for each constituent.
 - 11. Complete, approved UST removal permit from CUPA
 - 12. Approved grading permit (If applicable).
 - 13. Any and all other permits required for UST removal.
 - 14. Tank Tracking Form from CUPA, signed by facility accepting tanks, piping, and other equipment.

15. Hazardous waste manifest for UST residuals and rinseate, signed by the receiving facility.
 16. Weigh tickets from licensed disposal facilities for all project clean excavated soil.
 17. Weigh tickets for all piping and appurtenances, concrete debris, and asphaltic concrete debris that were disposed of or recycled.
 18. Non-hazardous manifests, signed by the receiving facility, for transport and disposal of petroleum-contaminated excavated soil.
 19. Log of CGI required readings obtained after vapor purging the USTs; and Oxygen Meter readings obtained after inserting the USTs.
 20. Labeled digital and printed photographs (a minimum of 25) clearly depicting:
 - a. Exposed tank system components (tank, piping, sumps, etc.) prior to removal.
 - b. Tank system components after removal/ready for disposal.
 - c. Tank excavation after UST and piping removal.
 - d. Ends of grouted vent lines after abandonment in place.
 - e. Progression of tank excavation backfill work.
- G. UST Closure Report Submittal and Review Requirements: A draft Report must be submitted to the CMD for review within thirty (30) calendar days of physical tank removal. After CMD has had the opportunity to review and comment, a final version of the report addressing CMD comments must be issued to the CMD along with a cover letter describing any transmittal to regulatory agencies.

END OF SECTION

SECTION 26 05 00

COMMON WORK RESULTS FOR ELECTRICAL

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:

1. Basic Electrical Requirements, materials and methods common to multiple electrical systems, specifically applicable to all Sections in Division 26.

1.2 REFERENCES

- A. CEC - California Electrical Code, Part 3, CCR Title 24 and [2007] California Fire Code, Part 9, CCR Title 24.
- B. NEMA ICS-6 - Industrial Control and Systems: Enclosures.

1.3 DEFINITIONS

- A. The meaning of words must be as defined in the CEC Article 100, Definitions, unless defined otherwise in an individual section.
- B. Exercise Yard: The area surrounded by housing units and associated support buildings to the fence connecting the buildings including the exterior of these buildings.
- C. Exposed Fasteners:
 1. Fasteners not completely concealed within building construction.
 2. Fasteners which may be accessed and removed, without the prior removal of other fasteners designated as "tamper proof" or "security".
- D. Exposed Locations: All locations are considered exposed, except the following;
 1. Mechanical and electrical rooms.
 2. Areas above suspended ceilings, behind access panels, and within pipe and duct chases.
 3. Roofs.
 4. Control rooms, however control consoles are considered exposed.
 5. Within fences around equipment pads at distances greater than 4 feet from fence.
- E. Secured Perimeter System: System comprised of double fencing, gates, towers, lighting, and electronic detection system.
- F. The following specification development organizations are referenced throughout the various specification sections of Division 26:
 1. AASHTO - American Association of State Highway and Transportation Officials.
 2. ADAAG - Americans with Disabilities Act Accessibility Guidelines
 3. Air Pollution Control District, [] Air Quality Management District
 4. ANSI - American National Standards Institute
 5. AQMD - Air Quality Management District
 6. APCD - Air Pollution Control District

7. ASME - American Society of Mechanical Engineers
8. ASTM - American Society for Testing and Materials
9. CBC - California Building Code
10. CCR - California Code of Regulations Title 24. State Chapters.
11. CEC - California Electrical Code
12. CFC - California Fire Code
13. CMC - California Mechanical Code
14. CSA - Canadian Standards Association
15. EIA - Electronic Industries Association
16. FCC - Federal Communications Commission.
17. FM - Factory Mutual.
18. FS - Federal Specifications
19. ICEA - Insulated Cable Engineers Association
20. IEC - International Electrotechnical Commission
21. IEEE - Institute of Electrical and Electronic Engineers
22. IETA - International Electrical Testing Association
23. ISA - Instrument Society of America
24. ISO - International Organization for Standardization
25. MIL - Military Specifications
26. NACE - National Association of Corrosion Engineers
27. NECA - National Electrical Contractor's Association
28. NEMA - National Electrical Manufacturing Association
29. NETA - International Electrical Testing Association
30. NFPA - National Fire Protection Association
31. NIST - National Institute of Standards and Technology
32. OSHA - Occupational Safety and Health Administration
33. SMACNA - Sheet Metal and Air Conditioning Contractors National Association, Inc.
34. UL - Underwriters Laboratories

1.4 SYSTEM DESCRIPTION

- A. Performance Requirements
 1. Furnish and install all materials to provide functioning systems in compliance with performance requirements specified, and any modifications required by reviewed shop drawings and field coordinated drawings.

1.5 SUBMITTALS

- A. Submit under provisions of Section 01 33 00 - Submittal Procedures.
- B. Product Data
 1. Submit product data grouped to include complete submittals of related systems, products, and accessories in a single submittal.
 2. Quantity of Submittals Required
 - a. Submit six copies of product data.
 - b. Five copies will be returned.
 - c. If comments are required, comment sheet(s) will be returned with each copy.
 - d. One copy will be retained by the Engineer.
- C. Shop Drawings

1. Submit shop drawings grouped to include complete submittals of related systems, products, and accessories in a single submittal.
 2. Submit a composite drawing for each cell chase, including the coordinated layout of all other trades' distinct components and detailing the intended electrical installation.
 3. Quantity of Submittals Required:
 - a. Submit one reproducible transparency and one print.
 - b. Upon review, transparency will be annotated and returned. Print will be retained by Engineer.
 - c. Copies of this transparency will serve as record copies for Architect and Engineer.
 - d. Additional prints will not be reviewed nor returned.
 4. Corrections or comments made on the shop drawings during review do not relieve the Contractor from compliance with requirements of the drawings and specifications. Shop drawing checking by the Engineer is only for review of general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for:
 - a. Confirming and correlating all quantities and dimensions.
 - b. Selecting fabrication processes and techniques of construction.
 - c. Coordinating his work with all other trades.
 - d. Performing his work in a safe and satisfactory manner.
 - e. Provide equipment that can be installed in the available space with all code clearances. This must be coordinated prior to ordering any equipment.
- D. Samples
1. Submit as directed by the architect and as required in each specification section.
- E. Quality Control/Control Submittals
1. Submit material control record procedures for approval. Submit records during the project upon request by the CMD Representative. Submit at the end of the project for record.
- 1.6 QUALITY ASSURANCE
- A. Regulatory Requirements
1. Conform to CEC.
 2. Furnish products listed and classified by UL or other independent laboratory acceptable to CMD Representative as suitable for purpose specified and shown when a listing is available for the type of product.
- 1.7 DELIVERY, STORAGE, AND HANDLING
- A. Deliver, store, handle and protect products under provisions of Section 01 65 00 - Product Delivery Requirements.
- B. Maintain material control records for all products for traceability to manufacturer and order number. Have records available for inspection by CMD Representative.
- C. Store material and equipment in an environment similar to the final installation environment.
- D. Store and handle material and equipment in accordance with manufacturers' recommendations.

1.8 PROJECT CONDITIONS

- A. Electrical plan drawings show only general locations of equipment, devices, and raceway, unless specifically dimensioned.
- B. Install Work in locations shown on Drawings, unless prevented by Project conditions.
- C. Prepare and submit drawings showing proposed rearrangement of Work to meet Project conditions, including changes to Work specified in other Sections. Obtain permission of CMD Representative before proceeding.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install equipment to permit easy access for normal operation and maintenance to pull boxes in accordance with CEC Article 110, Requirements for Electrical Installation.
- B. Coordinate electrical work with CMD Representative and work of other trades to avoid conflicts, errors, delays, and unnecessary interference with operation of the plant during construction.
- C. Check and coordinate the approximate locations of electrical stub-ins, equipment, and other electrical system components shown on Drawings for conflicts with openings, structural members, and components of other systems and equipment having fixed locations. In the event of conflicts, notify the CMD Representative in writing. The CMD Representative's decision must govern. Make modifications and changes required to correct conflicts.

3.2 FIELD QUALITY CONTROL

3.3 ADJUSTING

- A. Inspect all equipment and put in good working order.

3.4 CLEANING

- A. Clean work under provisions of Section 01 35 43 - Environmental Procedures.
- B. Clean all items.

3.5 PROTECTION

- A. Protect finished installation under provisions of Section 01 35 43 - Environmental Procedures.
- B. Prior to installation, store items in clean, dry, indoor locations. Store in clean, dry, indoor, heated locations items subject to corrosion under damp conditions, and items containing electrical insulation, such as transformers, conductors, motors, and controls. Energize all

space heaters furnished with equipment. Provide temporary heating, sufficient to prevent condensation, in transformers, switchgear, switchboards, motors, and motor control centers which do not have space heaters.

- C. Following installation, protect materials and equipment from corrosion, physical damage, and the effects of moisture on insulation. When equipment intended for indoor installation is installed at the Contractor's convenience in areas where it is subject to dampness, moisture, dirt, or other adverse atmosphere until completion of construction, ensure that adequate protection from these atmospheres is provided that is acceptable to the CMD Representative. Cap conduit runs during construction with manufactured seals. Keep openings in boxes or equipment closed during construction. Energize all space heaters furnished with equipment.

3.6 PUTTING SYSTEMS IN OPERATION - START UP

- A. Operate all remaining systems in good working order for a period of 5 consecutive days, at time period agreed to by CMD Representative, prior to inspection.

END OF SECTION

SECTION 26 05 19

LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES (600V AND BELOW) GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Wiring connectors and connections.
- B. Related Sections:
 - 1. Section 26 05 00 - Common Work Results for Electrical.

1.2 REFERENCES

- A. UL 486A-486B - Wire Connectors.
- B. UL 510 - Polyvinyl Chloride, Polyethylene and Rubber Insulating Tape.

1.3 SUBMITTALS

- A. Submit under provisions of Section 01 33 00 - Submittal Procedures.
- B. Certify compliance with CEC Article 110 - Requirements for Electrical Installation.
- C. Quality Assurance/Control Submittals
 - 1. Test Reports
 - a. Submit certified megger test results.

1.4 QUALITY ASSURANCE

- A. QUALIFICATIONS
 - 1. Manufacturer: Company specialized in manufacturing products specified in the Section with a minimum of 5 years' experience.

1.5 PROJECT CONDITIONS

- A. Existing Conditions
 - 1. Where wire and cable routing is not shown, and destination only is indicated, determine exact routing.
- B. Field Measurements
 - 1. Verify that field measurements are as shown on Drawings.

PART 2 PRODUCTS

2.1 WIRING CONNECTORS

- A. Spring Wire Connectors:
 - 1. 3M Model Scotchlok or Hyflex.

2. Buchanan.
 3. Burndy.
 4. Elastimold.
 5. Ideal Model Wingnut or Wirenut.
 6. Thomas & Betts.
- B. Compression Connectors:
1. Type with prestressed insulation to equal insulation of wire being installed.
 2. Conform to UL 486A-486B.
- C. Power Conductors Splicers:
1. Blackburn.
 2. Burndy “Hylug”.
 3. Ilsco.
 4. O.Z. Gedney.
- D. Insulating Tape.
1. Conform to UL 510.
- E. Cable Ties.
1. Scotchflex #760.
 2. Thomas & Betts “Tyrap”.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Site Verifications of Conditions
1. Verify that interior of building has been protected from weather.
 2. Verify that mechanical work likely to damage wire has been completed.
 3. Verify conduit and raceway systems are completed.

3.2 INSTALLATION

- A. Install products in accordance with manufacturer’s instructions.
- B. Connections;
1. Neatly train and lace wiring inside boxes, equipment, and panelboards.
 2. Clean conductor surfaces before installing lugs and connectors.
 3. Make splices, taps, and terminations to carry full capacity of conductors with no perceptible temperature rise.
 4. Use copper split bolt connectors for copper conductor splices and taps, 6 AWG and larger. Tape uninsulated conductors and connectors with electrical tape to 150 percent of insulation rating of conductor.
 5. Use solderless pressure connectors with insulating covers for copper conductor splices and taps, 8 AWG and smaller.
 6. Use insulated spring wire connectors with plastic caps for copper conductor splices and taps, 10 AWG and smaller.

3.3 FIELD QUALITY CONTROL

- A. Inspect wire for physical damage and proper connection.
- B. Measure tightness of bolted connections and compare torque measurements with manufacturer's recommended values.
- C. Verify continuity of each branch circuit conductor.
- D. Megger test and record all feeder conductors.
 - 1. Replace conductors failing test.
 - 2. Test replaced conductors in same manner.

END OF SECTION

SECTION 31 20 00

EARTHWORK

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Site Grading.
 - 2. Excavation, filling, and compacting.
 - 3. Scarifying and recompaction.
- B. Related Documents and Sections:
 - 1. Section 01 35 43 – Environmental Procedures.
 - 2. Section 01 45 00 – Quality Control.
 - 3. Section 01 50 00 – Temporary Facilities.
 - 4. Section 02 24 53 – Field Screening for Potentially Contaminated Soils.
 - 5. Section 02 65 00 – Underground Storage Tank Removal
 - 6. Section 31 25 00 – Erosion and Sedimentation Control.

1.2 REFERENCES

- A. ASTM References:
 - 1. ASTM D422 – Test Method for Particle-Size Analysis of Soils.
 - 2. ASTM D1557 – Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort (56,000 ft-lbf/ft³ (2,700 kN-m/m³)).
 - 3. ASTM D2216 – Test Method for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass.
 - 4. ASTM D2488 – Standard Practice for Description and Identification of Soils (Visual-Manual Procedure).
 - 5. ASTM D2974 – Test Methods for Moisture, Ash, and Organic Matter of Peat and Other Organic Soils.
 - 6. ASTM D6938 – Test Method for In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth).
- B. Caltrans Testing Methods:
 - 1. #206 – Specific Gravity and Absorption of Coarse Aggregate.
 - 2. #217 – Sand Equivalent.
 - 3. #229 – Durability Index.
 - 4. #301 – Test for Resistance “R” Value.
- C. Caltrans Standard Specifications, current edition.

1.3 DEFINITIONS

- A. Structural Fill Areas:
 - 1. Fill areas within vertical planes located five feet outside the perimeter of each building; or one foot outside the outermost edge of the surface of roadways, parking areas,

sidewalks, concrete traffic slabs, or their shoulders unless specifically indicated otherwise on the drawings.

2. Areas where fill depth extends greater than 3 feet above the original ground surface.
 3. Areas where fill is placed on slopes steeper than six horizontal to one vertical (6:1).
 4. Utility trench backfill.
- B. Nonstructural Areas – Graded areas for landscaping, including concrete walkways less than four feet wide, berms, and all other areas not defined as a structural fill or as storm water detention basin.
- C. Influence Areas – Areas within planes sloped downward and outward at an angle of 45 degrees from the horizontal from:
1. The outermost edge of structural fill areas; or
 2. The bottom, outer edge of building perimeter foundations; or
 3. The outermost edge at the surface of roadways or shoulder; or
 4. The exterior edge at the spring line of pipes and culverts.
- D. Unclassified Excavation – Nature of materials to be encountered is not identified or described.
- E. Free from organic material – no visible wood or roots larger than one inch in diameter and all representative samples must contain no more than five percent by weight organic material when tested in accordance with ASTM D2974.

1.4 DESCRIPTION

- A. Provide materials, services and equipment required for rough and finish grading of the site; restoration of underground storage tank excavation and removal to grade to include excavating and recompact or replacing existing soils to requirements shown on the Contract Documents; densification and stabilization of site soils; rock crushing; and dewatering.
1. Verify shrinkage characteristics of imported soils and existing soils to be reused.
 2. CMD will not be responsible for additional costs associated with variations in shrinkage factors and related earthwork quantities.
 3. CMD makes no representation regarding the balance of cut and fill earthwork on the site. The Contractor is responsible for the calculation of cut and fill required and available, for the cost of obtaining fill required, and for the cost of disposal of surplus.
- B. Excavations, filling, and fill and backfill material must have the approval of CMD's Representative. Work must be performed only under the general observation and, where required, the detailed inspection and testing by the Contractor's Environmental Coordinator and the Engineer.

1.5 SUBMITTALS

- A. Submit, under provisions of Division 01, product data and certificates of compliance for all products and materials proposed to be used under this section
- B. Storm Water Pollution Prevention Plan (SWPPP) in accordance with requirements in Section 01 35 43.

- C. Survey Data for Completed Grading: Submit supporting survey data indicating that completed grading conforms to Contract requirements. Submit drawings showing “as-built” elevations marked on the grading plans; include coordinates of each shot.
- D. Construction staging plan detailing means, materials, and staging of the work.
- E. Samples, product data, and certification for imported materials.
- F. Fill Samples: Submit 50 lb sample of each type of fill to CMD’s testing laboratory.
- G. Excess Soils Disposal Plan. Dispose of excess soils offsite. See Section 02 6500 Underground Storage Tank Removal.

1.6 QUALITY ASSURANCE

- A. CMD will employ and pay for the services of an independent testing laboratory to perform specified testing per CCR Title 24, and any other testing specifically indicated in the Contract Documents to verify compliance with the Contract Documents.
- B. When relative compaction, moisture content, or other material tests indicate that the specified requirements have not been achieved, that portion of the Work must be reworked until the required density, moisture content, or other material property has been attained. Re-testing to show compliance will be at the Contractor’s expense.
- C. Where soil material is required to be compacted to a percentage of maximum density, the maximum density at optimum moisture content will be determined in accordance with ASTM D 1557. Field density in-place tests will be performed in accordance with ASTM D 6938, or by such other means acceptable to the Engineer.

1.7 STORAGE AND HANDLING

- A. Cover and protect earth materials stockpiled for use from erosion and contamination.

1.8 ENVIRONMENTAL CONDITIONS

- A. Weather: Protect bearing surfaces under foundations. Should bearing surfaces become softened, excavate to solid bearing and backfill with fill materials as approved by the CMD Representative, to elevations indicated.
- B. No fill material is to be placed, spread, or rolled if weather conditions increase the moisture content above permissible limits. When work is interrupted by rain, the earthwork operations must stop and not be resumed until conditions allow for fill material to be placed within permissible moisture content limits..

PART 2 PRODUCTS

2.1 MATERIALS

- A. Structural Fill

1. Fill material for structural fill areas may be native materials obtained from onsite excavations, free from contamination, organic and inorganic debris. Particle size must not exceed 3 inches in any dimension.
 2. Imported materials used in structural fill areas must be predominantly granular, have a maximum Expansion Index less than 20, and a maximum particle size of 3 inches. When used in pavement areas, imported materials must also have a minimum R-value of 25.
 3. Representative samples of material to be used for structural fill must be tested to determine the maximum density, optimum moisture content, and classification of the soil.
 4. During earthwork operations, soil types other than those identified and/or analyzed in the Geotechnical Report for the project may be encountered. CMD's Representative will determine the use or disposal of these soils.
- B. Berms, Embankments, or Stormwater Detention Basin Material
1. Native, on-site, fine grained materials or imported materials may be used. These materials must be free of organic or other deleterious matter and must not contain lumps or stones larger than 3 inches in maximum dimension. The materials must have a minimum of 30 percent passing the No. 200 sieve and have a plasticity index greater than 20 and less than 30. The use of on-site materials must be approved by the CMD Representative prior to excavation.
- C. Fill Material for Influence Areas
1. Must meet the criteria for Structural Fill described in 2.1.A, described above.
- D. Drain Rock
1. Conform to Section 68 of the Caltrans Standard Specifications, Class 2 permeable. Material may be obtained and used from on-site excavation with the approval of the CMD Representative.
- E. Sand
1. Material with 100 percent passing a 3/8 inch sieve, at least 90 percent passing a No. 4 sieve, and a sand equivalent value not less than 30.
- F. Filter Fabric
1. Filter fabric must be a pervious sheet of polyester, polyethylene, nylon, or polypropylene filaments, non-woven, and formed into a uniform pattern. The fabric must have the following minimum properties when measured in accordance with the referenced standard:
 - a. Grab tensile strength, ASTM D1682 140 lbs
 - b. Trapezoidal tear, ASTM D2263 70 lbs
 - c. Mullen Burst, ASTM D751 200 psi
 - d. Permeativity 50 gpm/sf
 2. The filter fabric must be finished so that the filaments will retain their relative position with respect to each other. The edges of fabric must be finished to prevent the outer material from pulling away from the fabric.
- G. Rock (Riprap) Slope Protection (RSP)
1. Rock riprap must be angular and well graded rocks in accordance with Section 72 of the Caltrans Standard Specifications, Facing Class. Rock encountered during site grading

operations may be utilized for Rock Slope Protection as approved by the CMD Representative. Rounded rock is not allowed.

2. Grouted riprap must be in accordance with section 72-5 of the Caltrans Standard Specifications.
3. Rock slope protection fabric, if used, must be in accordance with Section 88 of the Caltrans Standard Specifications.

H. Aggregate Base

1. Aggregate base must be crushed rock aggregate base material meeting the requirements of Section 26 of the Caltrans Standard Specifications for Class 2 Aggregate Base, ¾-inch maximum.

I. Topsoil

1. Topsoil material may be selected excavated, crushed material, graded, free of roots, rocks larger than 2 inches, subsoil, debris, and large weeds. Excavated soil from on-site grading operations may be used for topsoil with the approval of the CMD Representative.

J. Steel Plate

1. When steel plate bridging is provided in-lieu of backfill and temporary asphalt, it must conform to Section 602.1 of the Caltrans Encroachment Permit Manual, with the following minimum thicknesses:

<u>Trench Width</u>	<u>Minimum Plate Thickness</u>
10"	1/2"
1'-11"	3/4"
2'-7"	7/8"
3'-5"	1-1/4"
5'-3"	[]

2. For spans greater than 5 feet 3 inches, a structural design must be prepared by a civil engineer registered with the State of California.

PART 3 EXECUTION

3.1 PREPARATION

- A. Should indicated conditions conflict with actual conditions and contours, notify the CMD Representative and await directions before proceeding. Commencement of work indicates acceptance of existing conditions.
- B. Contractor must protect adjacent property and existing improvements and structures as necessary to prevent undermining, caving of cuts, and miscellaneous damage. Protect structures, utilities, sidewalk, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- C. Excavate for structures to the lines and grades shown or as required to accomplish the construction. Perform all excavation regardless of the type, nature, or condition of the material encountered. The method of excavation used is optional; however, no heavy

equipment must be operated within 5 feet of existing structures or newly completed construction, except as approved. Excavation that cannot be accomplished without endangering the present or new structures must be performed with hand tools.

- D. Excavations and trenches must be properly sheeted, shored, braced and/or sloped to support adjacent earth banks, structures, construction materials, and equipment and to provide safe working conditions. No trench, pit, or other excavation is to remain open longer than is necessary to expeditiously carry out the work.

3.2 SITE PREPARATION

- A. Material with concentrations of organics greater than 5 percent, as determined by ASTM D2974, must be removed or placed in non-structural areas. Strippings must not be used within embankment, structural, or pavement fills and must be spread in the designated excess fill disposal area shown on the Drawings.

3.3 REMOVAL OF WATER

- A. Perform dewatering activities in accordance with Section 01 50 00 – Temporary Facilities and Controls.
- B. At all times, provide and maintain means and devices to remove and dispose of water entering excavations until backfill is complete.
- C. Attention is directed to the Geotechnical Investigation Report referenced in Section 00 31 00 – Available Project Information. Groundwater conditions and the limitations of the geotechnical information are described in that report.
- D. Verify groundwater elevations in areas where its presence is likely to impact construction activities.
- E. Determine means and methods and perform dewatering as needed to establish a stable structure base. Additional dewatering and/or other measures may be necessary to prevent flotation or disturbance of underground structures.
- F. Dewatering facilities must be installed and functioning prior to excavation below groundwater levels in order to avoid heave of the excavation bottom and/or wall instability. Sufficient time must be planned between dewatering and excavation to allow for drawdown of groundwater surfaces to below the lowest adjacent excavation.
- G. Water disposal must comply with Federal, State, and local requirements including the approved Storm Water Pollution Prevention Plan (SWPPP) for the project.

3.4 EXCAVATION

- A. Excavation method must be approved by the CMD Representative prior to commencement of the Work. Explosives may not be used unless specifically authorized.
- B. Excavate and remove earth material per specified requirements within the areas scheduled for subgrade recompaction.

- C. Extend areas to be recompacted a minimum lateral distance of 5 feet beyond building foundations, or a lateral distance sufficient to include the foundation Influence Area at the depth of required recompaction, whichever is greater.
- D. Excavate to solid bearing based on depths or elevations indicated on the Contract Documents. Do not carry excavations deeper than the elevation shown or established by the CMD Representative. Excavations carried below the established grade lines must be replaced with approved, compacted, structural fill material at the Contractor's expense. Over-excavations under footings must be filled with structural fill. Cuts below grade must be corrected by similarly cutting adjoining areas and creating a smooth transition. The Contractor must bear all costs for correcting over-excavated areas.
- E. If solid bearing is not achieved at indicated elevations because of naturally occurring conditions, overexcavate per CMD direction. Overexcavation to a depth of 1 foot beyond the specified excavation depths will not be considered extra work, and must be performed by the contractor at no additional cost. Costs for overexcavation in excess of one foot will be paid by contract change order at the agreed price.
- F. Excavations for footings and slabs-on-grade must not disturb the materials below the bottom of the excavation. Trim bottoms to required lines and grades and provide a solid base to receive concrete. Bottom of excavated areas must be free of loose materials, debris, and water before concrete is placed.
- G. Differing Site Conditions:
 - 1. When excavating trenches or mass excavation, Contractor shall notify CMD Representative promptly and before disturbing existing soil conditions if:
 - a. The Contractor believes that the material may be hazardous waste, as defined in Section 25117 of the Health and Safety Code that is required to be removed to a Class I, Class II, or Class III disposal site in accordance with provisions of existing law.
 - b. The subsurface or latent physical conditions differ from those shown or described in the Contract Documents.
 - c. The physical conditions differ materially from those ordinarily encountered in work similar to that being performed for the Contract.
 - 2. CMD Representative will inspect condition and provide direction to the Contractor.
 - 3. CMD Representative will respond regarding any Change to the Contract per Section 00 72 07 Changes.

3.5 EXISTING BUILDING PADS PREPARED BY OTHERS

- A. Areas indicated to receive slab-on-grade construction on building pads prepared by others are subject to the following, unless directed otherwise by the CMD Representative:
 - 1. Scarify to a minimum 6-inch depth.
 - 2. Moisture condition to at or near the optimum moisture content.
 - 3. Recompact to a minimum of [90] percent relative compaction per ASTM D 1557.

3.6 PLACING STRUCTURAL FILL OR INFLUENCE AREA FILL

- A. Following excavation, exposed soil surfaces under all buildings, structural concrete pads, pavement areas, and horizontal areas beyond the structure footprint including at-grade or cut portions, must be scarified to a depth of 8 inches, moisture conditioned to at or near the

- optimum moisture content, and recompacted to a minimum of [90] percent relative compaction based on ASTM D 1557.
- B. Backfilling must consist of placing and compacting structural fill material in excavations to the finish grades indicated in the Contract documents. Backfilling must not proceed until each specific location is approved by CMD Representative.
 - C. If areas to receive backfill that are not suitable due to excessive moisture, instability, unsuitable materials, or other reasons as determined by the CMD Representative, backfill must not be placed until the area has been properly prepared. Base preparation methods must be approved by the CMD Representative and may include overexcavation, aeration, recompaction or other methods as necessary. Overexcavation to a depth of 1 foot beyond the specified excavation depths will not be considered extra work, and must be performed by the contractor at no additional cost. Excavation depths beyond 1 foot may be compensable, extra work, as agreed with the CMD Representative.
 - D. Fill composed of native or import soil must be brought to grade in level lifts not exceeding 6 inches in compacted thickness. After each layer has been placed, mixed, and spread evenly, it must be compacted to a minimum of [90] percent relative compaction based on ASTM D1557.
 - E. If material is too dry, add water to raise moisture content to near the optimum moisture content. If material is too wet, disc, scarify or otherwise aerate, as required, to dry to near the optimum moisture content. "Puddling" or "soaking" will not be permitted.
 - F. Spread each layer evenly and thoroughly mix each layer during the spreading to insure uniformity of material and moisture in each layer.
 - G. Cut/Fill slopes must be graded to the slopes shown on the Drawings. Fill slopes must be overbuilt and then cut back to finished grade. Track-walking may be utilized to stabilize the finished surface of slopes.
 - H. Work that has been suspended by weather, scheduling or for any other reason, must be protected against the effects of such weather or other conditions. Grading which has been considered acceptable, but which has been subsequently damaged must be re-worked to meet the requirements of the Contract Documents.
 - I. Slopes must be re-dressed as required to mitigate any erosion that may occur prior to establishment of the erosion control mitigation measures. Exterior slopes must be roughened by track walking or with a serrated slope bar.

3.7 COMPACTION

- A. Compact areas not accessible to heavy equipment with pneumatic hand tampers or other small compaction equipment.
- B. Hydraulic or jetting compaction methods are not to be utilized.
- C. Compact all materials as specified herein utilized equipment that is appropriate for the materials being compacted.

- D. Contractor must allow for and accommodate the CMD Representative to perform compaction testing.

3.8 SAWCUTTING

- A. Existing asphalt concrete or Portland cement concrete to be removed must be sawcut along a neat, straight line to a depth of [] feet. Removal of existing asphalt concrete or Portland Cement concrete must be performed in such a manner as to prevent chipping or spalling of the existing asphalt concrete or Portland Cement concrete that is to remain in place.

3.9 GRADE TOLERANCES

- A. The subgrade below base and subbase of the various pavement structural section types indicated in the Contract Documents must not vary by more than 0.10 foot above or below the grade determined from the Contract Documents. The subgrade below asphalt must not vary by more than 0.05 foot above or below the grade determined from the Contract Documents.
- B. The elevation of building pads must not vary by more than 0.05 foot above or below the grade determined from the Contract Documents.
- C. The average plane of excavation and embankment slopes equal to or steeper than six horizontal to one vertical (6:1) must conform to the slopes indicated in the Contract Documents. No point on the completed slopes is to vary from the designated slopes by more than 0.5 foot measured at right angles to the slope.
- D. The average plane of excavation and embankment slopes flatter than six horizontal to one vertical (6:1) must conform to the slopes indicated in the Contract Documents. No point on the completed slopes is to vary from the designated slopes by more than 0.1 foot measured at right angles to the slope.
- E. The average flow line grade of ditches and swales must conform to the grades determined from the Contract Documents, must be free draining, and must not vary from the designated grade by more than 0.10 foot above or below.
- F. Finished grades in all other areas must not vary from the grades indicated in the Contract Documents by more than 0.1 foot above or below. Rough interim grades established prior to finish site grading operations must not vary from the grades indicated in the Contract Documents by more than 0.2 foot above or below.

3.10 DISPOSAL OF EXCESS EXCAVATION

- A. Dispose of excess excavated materials to the on-site locations designated for excess fill disposal indicated in the Contract Documents or as directed by the CMD Representative. Leave the disposal areas in a neat, uniformly graded, free draining condition or as indicated on the plans. Provide erosion control measures as required to prevent silt runoff.

3.11 SETTLEMENT

- A. Excessive settlement in backfill, fill, or in structures built over the backfill or fill, which may occur within the guarantee period will be considered to be caused by improper compaction

methods and must be corrected at the Contractor's expense. Structures damaged by settlement must be restored to their original condition by the Contractor at no cost to CMD.

3.12 FILTER FABRIC

- A. Surfaces to receive filter fabric must be prepared to a relatively smooth condition and be free of obstructions. The fabric must be placed in accordance with the manufacturers recommendations. Drain rock placed over the fabric must be placed so the fabric is not punctured and must completely cover the fabric. The fabric must overlap a minimum of 12 inches on sloping surfaces and the upper panel must overlap the lower.

3.13 ROCK (RIP RAP) SLOPE PROTECTION

- A. Rock riprap must be so placed as to provide a minimum of voids. The larger rocks must be placed in the toe course and on the outside surface of the slope protection surface. Local surface irregularities must not vary from the design grades by more than 1 foot measured at right angles to the slope.
- B. All rock slope protection must be installed per Method "A" in accordance with section 72-2.03 of the Caltrans Standard Specifications.
- C. Grouted riprap must be installed in accordance with section 72-5.04 of the Caltrans Standard Specifications for placement of concrete.
- D. Rock slope protection fabric must be installed in accordance with section 72-2.025 of the Caltrans Standard Specifications.

3.14 FIELD QUALITY CONTROL

- A. CMD will retain the services of an independent testing agency to perform field quality control tests.
- B. In general, the frequency of testing must be as follows. Testing may be modified by the CMD Representative as necessary.

<u>Test Method</u>	<u>Cubic Yards Placed</u>
1. Laboratory Testing	
a. Moisture-Density Relationships (Compaction) – ASTM D1557	20,000 ^a
b. Grain Size Analysis – ASTM D422	35,000 ^a
c. Atterberg Limits – ASTM D4318	35,000 ^a
2. Field Testing	
a. Nuclear Gauge Density Testing – ASTM 6938	2,000 ^b
^a Testing must be performed more frequently if soils vary, i.e., at least one test per soil type.	
^b One or more tests per day must be performed when the rate of fill placement is between 1 and 2,000 cubic yards per day. A minimum of one test for each 2,000 square feet on the finished subgrade surface in structural building pad areas must be performed.	

- C. If tests indicate Work does not meet specified requirements, CMD Representative will notify Contractor who must proceed to correct the deficient work and request a retest. Costs for retesting must be paid for by the Contractor.

END OF SECTION

SECTION 31 25 00

EROSION AND SEDIMENTATION CONTROLS

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Erosion and sediment control measures.
- B. Related Documents and Sections:
 - 1. Section 01 35 43 – Environmental Procedures.
 - 2. Section 31 20 00 – Earthwork.

1.2 REFERENCES

- A. ASTM A116 – Metallic-Coated Steel Woven Wire Fence Fabric.
- B. ASTM A615 – Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.
- C. ASTM A702 – Steel Fence Posts and Assemblies, Hot Wrought.
- D. ASTM D4632 – Test Method for Grab Breaking Load and Elongation of Geotextiles.
- E. ASTM D1682 – Test Methods for Breaking Loading and Elongation of Textile Fabrics.
- F. CTM 206 – Test for Specific Gravity and Absorption of Course Aggregate.
- G. CTM 229 – Durability Index.

1.3 DESCRIPTION

- A. Provide materials, services, and equipment required for controlling pollutants in storm water runoff associated with construction activity.
- B. Perform SWPPP requirements in accordance with Section 01 35 43 – Environmental Procedures.
- C. Water Quality – Measures must be provided to prevent siltation of streams, rivers, lakes and bays etc.; avert instream degradation due to turbidity and pollutant load; and prevent toxic materials from leaving the construction site.
- D. Existing System – Methods must be provided to prevent construction sediment from entering existing drainage facilities or [other watercourses].
- E. Adjacent Properties – Methods must be employed to prevent any damage to adjacent public and private properties.

- F. Areas requiring protection must include all areas disturbed by demolition, site preparation, or earthwork. Other areas including access roads, staging areas, and other areas potentially disturbed by the Contractor's activities must be protected.
- G. Maintain fences, fiber rolls, straw mulch, [dikes, check dams, sediment basins detention basins,] and other erosion control features provided under this Bid Package.

1.4 SUBMITTALS

- A. Submit, under provisions of Division 01 33 00 – Submittal Procedure, product data and certificates of compliance for all materials proposed to be used under this section.
- B. Modifications to the SWPPP must be made in accordance with the requirements of Section 01 35 43 – Environmental Procedures.

1.5 SCHEDULE

- A. Construct erosion control measures early in the project, but no later than the start of excavation or hard demolition.
- B. Stake grading areas after receiving the Notice to Proceed and before any grading operations have taken place.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Silt Fence Filter Fabric:
 - 1. A pervious sheet of synthetic polymer composed of at least 85 percent by weight ethylene, propylene, amide, ester or vinylidene yarn, woven or non-woven, and containing stabilizers and/or inhibitors to resist deterioration by heat, water, and ultraviolet light.
 - 2. Fabric must conform to the following criteria:
 - a. Equivalent Opening Size (U.S. Standard Sieve): 70 to 100 range.
 - b. Tensile Strength: ASTM D1682, Method G; Minimum 200 pounds.
- B. Silt Fence Posts:
 - 1. Redwood, cedar, or Douglas fir, cut from sound timber, free from unsound knots, or other defects which render them unfit structurally.
 - 2. Metal posts; ASTM A702, Class B steel with anchor plate. Metal posts must be minimum length of 5 feet.
- C. Wire Fence Fabric for Silt Fences:
 - 1. ASTM A116, Class 1; 39 inches wide, consisting of nine horizontal wires with vertical stays spaced 6 inches apart; top and bottom wires 10 gauge, remaining wires 12-1/2 gauge.
- D. Fiber Rolls:
 - 1. Prefabricated rolls of straw, flax or similar material.
 - 2. Rolled tubes of erosion control blanket/mat:

- a. Roll length of erosion control blanket/mat into a tube of minimum 8 inch diameter.
 - b. Bind roll at each end and every 4 feet along length of roll with jute-type twine.
- E. Aggregate for Stabilized Construction Entrance:
 1. Asphalt concrete grindings must not be used.
 2. Aggregate must be 2 to 4 inches in size, washed, well-graded gravel or crushed rock conforming to the following quality requirements:

<u>Test</u>	California <u>Test Method</u>	<u>Requirement</u>
Apparent Specific Gravity	206	2.5 min
Absorption	206	4.2% max.
Durability Index	229	52 min.
- F. Straw bales must be machine baled clean rice straw free of seed from noxious weeds using standard baling wire or string.

PART 3 EXECUTION

3.1 LIMITS OF WORK

- A. Confine soil disturbance, grading and machinery access to the construction areas shown on the Contract Documents.
- B. No payments will be made for additional Work or damages caused by the Contractor's performance of the Work, either inside or outside the State property.

3.2 SILT FENCES

- A. On slopes, construct the fence to follow the contours as closely as possible. In small swales, curve the fence upstream at the sides to direct the flow toward the middle of the fence.
- B. Cut filter fabric from a continuous roll to avoid the use of joints. When joints are necessary, splice fabric only at a support post, with minimum 6-inch overlap, both ends securely fastened to the post.
- C. Space posts a maximum of ten feet apart; place securely into the ground, with a minimum buried depth of 12 inches for steel, three feet for wood.
- D. Excavate a trench approximately six inches wide and six inches deep along the line of posts and upslope from the barrier.
- E. Staple or wire filter fabric to the fence, and extend into the trench as shown on the Contract Documents. Extend fabric approximately 36 inches above the original ground surface.
- F. Backfill the trench and compact soil over the toe of the filter fabric.
- G. Remove the silt fence at the completion of construction per direction from the CMD Representative.

3.3 FIBER ROLLS

EROSION AND SEDIMENTATION CONTROLS

- A. Locate fiber rolls on level contours spaced as follows:
 - 1. Slope inclination of 4:1 (H:V) or flatter: Fiber Rolls are to be placed at a maximum interval of 20 feet. Slope inclination between 4:1 and 2:1 (H:V): Fiber Rolls are to be placed at a maximum interval of 15 feet.
 - 2. Slope inclination 2:1 (H:V) or greater: Fiber Rolls are to be placed at a maximum interval of 10 feet.
 - 3. Fiber Rolls at the toe of slopes greater than 5:1 (H:V) are to be a minimum of 20-inch diameter or installations achieving the same protection (i.e. stacked smaller diameter fiber rolls, etc.).
 - B. Turn the ends of the fiber roll up-slope to prevent runoff from going around the roll.
 - C. Stake fiber rolls into a 2 to 4 inch deep trench with a width equal to the diameter of the fiber roll.
 - D. Drive stakes at the end of each fiber roll and spaced 4 feet maximum on center.
 - E. Use wood stakes with a nominal classification of 0.75 inches by 0.75 inches and minimum length of 24 inches.
 - F. If more than one fiber roll is placed in a row, the rolls should be overlapped, not abutted.
- 3.4 STRAW BALE DIKE
- A. Bales must be placed in a row with ends tightly abutting. Place loose straw between adjacent bales to close voids. Each bale must be anchored with two #4 rebar conforming to ASTM A615, Grade 40.
- 3.5 STABILIZED CONSTRUCTION ENTRANCE PAD
- A. Provide one stabilized construction entrance pad located on the primary construction road servicing the site. Maintain the entrance pad in a condition that will prevent tracking mud or flowing of sediment onto public right-of-ways.
 - B. Stabilized construction entrance must be minimum 50 feet long and 30 feet wide. Provide adequate turning radii at the entrance for construction vehicles. Aggregate depth must be a minimum of 12 inches, or as directed by the CMD representative [and Geotechnical Engineer], designed for the heaviest vehicles and equipment used.
 - C. Provide periodic top dressing with additional rock as conditions demand; repair and clean out trapped sediment. Remove any sediment spilled, dropped, washed or tracked onto public rights-of-way, through street sweeping or vacuuming.
 - D. Clean vehicle and equipment wheels to remove any retained sediment prior to entrance onto public rights-of-way. When washing is used to prevent tracking, wash on an area stabilized with crushed stone that drains into an approved sediment trap or sediment basin. Prevent sediment from entering any storm drain, ditch, or watercourse through use of sand bags, gravel, boards, or other methods as approved by the CMD Representative.
- 3.6 WIND EROSION / AIR POLLUTION CONTROL

- A. Prevent wind erosion and air pollution by wetting down or applying other approved dust control measures to the work site. Control the generation of dust which could violate State and Local air pollution control standards, damage on-site/off-site facilities, and/or impact crops growing on adjacent properties.
- B. Apply water or other dust control measures to common areas that will be used by all Bid Package Contractors. Coordinate dust control Work performed under this contract with the dust control work of other Bid Package Contractors.

3.7 WATER POLLUTION CONTROL

- A. Comply with laws, rules, and regulations of the State of California, U.S. Army Corps of Engineers, and the Environmental Protection Agency prohibiting the pollution of lakes, oceans, bays, wetlands, streams, or river waters from the placing or dumping of refuse, construction materials, soils, or debris. In the event of a conflict, the most stringent requirement must govern.

3.8 EQUIPMENT MAINTENANCE

- A. Perform equipment repairs and maintenance including lubrication and fueling at sites approved by the CMD Representative.

3.9 EMERGENCY TREATMENT

- A. In the event of precipitation during construction which produces contaminated runoff from the project site, Immediately provide additional erosion control measures such as check dams, temporary sediment basins, or other controls as necessary to prevent site runoff. Coordinate additional erosion control activities and measures with the CMD Representative.

3.10 MAINTENANCE

- A. Inspect all silt fences, dikes, and other erosion control features immediately after each precipitation event that produces runoff at the erosion control installation and at least daily during prolonged events. Make required repairs to restore the erosion control function immediately.
- B. Inspect local roads to the site and roads adjacent to the construction entrance(s), daily. Sweep or vacuum daily to remove visible sediment and prior to forecasted rain events.
- C. Maintain erosion control features throughout project construction. Unless shown or specified to be removed, leave all erosion control features in good condition.
- D. Remove sediment deposits that exceed one-third the height of the barriers.
- E. Dispose of sediment deposits on-site at a location shown on the Contract Documents and acceptable to the CMD Representative. Leave the disposal area in a neat free draining condition.

END OF SECTION

SECTION 32 11 23

AGGREGATE BASE COURSES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Aggregate Base.
- B. Related Sections:
 - 1. Section 01 33 00 – Submittal Procedures.
 - 2. Section 31 20 00 – Earthwork.

1.2 REFERENCES

- A. ASTM D1557 – Standard Test Methods for Laboratory Compaction Characteristics of Soil Using Modified Effort.
- B. CTM 217 – Sand Equivalent.
- C. CTM 229 – Durability Index.
- D. CTM 301 – Resistance “R” Value of Treated and Untreated Bases, Subbases and Basement Soils (Stabilometer).
- E. Caltrans Standard Specifications latest edition.

1.3 SUBMITTALS

- A. Submit in accordance with Section 01 33 00 – Submittal Procedures.
- B. Submit Certificate of Product Compliance indicating conformance of Aggregate Base material with Caltrans Standard Specifications requirements for Class 2, Aggregate Base.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Aggregate Base must be $\frac{3}{4}$ inch maximum, Class 2 and must conform to the provisions of Section 26, “Aggregate Bases,” of the Caltrans Standard Specifications. Aggregate Base must be free from organic matter and other deleterious substances, and must be capable of being compacted to form a firm and stable base.

PART 3 EXECUTION

3.1 GENERAL

- A. Verify that subgrade is to the correct line, grade, and required compaction immediately prior to placing base material. Subgrade must conform to specified compaction requirements and elevation tolerances and must be free of loose or extraneous materials.
- B. Obtain approval from the CMD Representative prior to placing aggregate base.
- C. Schedule work during favorable weather conditions.

3.2 PLACING AGGREGATE BASE

- A. Aggregate Base must be delivered as uniform mixture and spread free from pockets of coarse or fine material.
- B. When Aggregate Base is placed, moisture content must be sufficient to obtain the required compaction. Supplement with sprayed water as required to achieve compaction. Moisture must be uniformly distributed throughout the material.
- C. Maximum compacted thickness of any one layer must not exceed 6 inches. Begin compaction of each layer as soon after spreading as practicable. Continue compaction until a minimum of 95 percent relative compaction, ASTM D1557, has been achieved.
- D. Each layer must be placed and compacted to the specified density before a succeeding layer is placed.
- E. The finished surface must be trimmed and shaped to produce a smooth, uniform surface. The entire work area must be left in a neat condition and ready for placement of paving as shown on the Contract Documents.

3.3 FIELD QUALITY CONTROL

- A. CMD will conduct compaction testing on each lift and at least one test for every 300 square feet of paving, or as directed by the CMD Representative. Compaction testing will be performed in accordance with ASTM D1557.

END OF SECTION

SECTION 32 12 16
ASPHALT PAVING

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Asphalt concrete (AC) paving.
- B. Related Sections:
 - 1. Section 31 20 00 – Earthwork.
 - 2. Section 32 11 23 – Aggregate Base Course.

1.2 REFERENCES

- A. ASTM C29 – Test Method for Bulk Density (“Unit Weight”) and Voids in Aggregate.
- B. ASTM C88 – Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate.
- C. ASTM C131 – Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Los Angeles Machine.
- D. ASTM C136 – Test Method for Sieve Analysis of Fine and Coarse Aggregates.
- E. ASTM F778 – Test Methods for Gas Flow Resistance Testing of Filtration Media.
- F. ASTM D461 – Test Methods for Felt.
- G. ASTM D1075 – Standard Test Method for Effect of Water on Compressive Strength of Compacted Bituminous Mixtures.
- H. ASTM D1188 – Test Method for Bulk Specific Gravity and Density of Compacted Bituminous Mixtures Using Coated Samples.
- I. ASTM D2041 – Test Method for Theoretical Maximum Specific Gravity and Density of Bituminous Paving Mixtures.
- J. ASTM D2172 – Test Methods for Quantitative Extraction of Bitumen from Bituminous Paving Mixtures.
- K. ASTM D2475 – Standard Specifications for Felt
- L. ASTM D2726 – Test Method for Bulk Specific Gravity and Density of Non-Absorptive Compacted Bituminous Mixtures.
- M. ASTM D2950 – Test Method for Density of Bituminous Concrete in Place by Nuclear Methods.

- N. ASTM D3776 – Test Methods for Mass Per Unit Area (Weight) of Fabric.
- O. ASTM D4632 – Test Method for Grab Breaking Load and Elongation of Geotextiles.
- P. ASTM D5444 – Test Method for Mechanical Size Analysis of Extracted Aggregate.
- Q. Asphalt Institute Specification Series No. 1 (SS-1), Fifth Edition.
- R. California Department of Transportation (Caltrans) Standard Specifications, latest edition.

1.3 SUBMITTALS

- A. Submit in accordance with Sections 01 33 00 – Submittal Procedures.
- B. Prior to producing any mixture for use in paving, submit mix design and source of mix. Indicate the following in mix design:
 - 1. Gradation of each aggregate constituent to be used in mixture.
 - 2. Proportion of each constituent to be used to produce combined gradation of aggregate within limits specified.
 - 3. ASTM bulk specific gravity of each aggregate constituent.
 - 4. Measured maximum specific gravity of mix at optimum asphalt content determined in accordance with ASTM D2041.
 - 5. Properties of mix for at least four different asphalt contents other than optimum, two of which will be below optimum and two of which will be above optimum.
 - 6. Percent of asphalt lost due to absorption by aggregate.
 - 7. Temperature of water when discharged from mixer.
 - 8. Bitumen percentage based on the total weight of mix.
 - 9. Other information pertinent to design of mix.
- C. Submit Testing Laboratory Reports for all tests used to develop each job mix formula to the CMD Representative.
- D. Submit Certificate of Compliance from testing laboratory for aggregates.
- E. Submit Certificate of Compliance for each carload (or equivalent) of bitumen shipped to the mixing plant for use on the project.

1.4 DESCRIPTION

- A. Provide materials, services, and equipment required for asphalt paving and overlay work.
- B. Asphalt concrete paving materials and methods of construction must have the approval of the CMD Representative. The Work must be done only under the general observation and, where required, under the detailed inspection of the CMD Representative.
- C. Asphalt concrete must be mixed in a central mixing plant and placed on a prepared course in accordance with these Specifications. Conform to lines, grades, thicknesses, and typical cross sections shown on the Drawings.
- D. Each course must be constructed to the depth, typical section, or elevation required by the Contract Documents, and must be rolled, finished, and reviewed before the placement of the next course.

1.5 QUALITY ASSURANCE

- A. CMD will employ and pay for the services of an independent testing laboratory to perform specified testing per CCR Title 24, and any other testing specifically indicated in the Contract Documents to verify compliance with the Contract Documents.

1.6 STORAGE AND HANDLING

- A. Store materials in a bermed area away from drainage courses.
 - 1. Cover materials and equipment when not in use.
 - 2. Place drip pans or absorbent materials under paving equipment when not in use.
- B. Refer to Section 01 35 43 – Environmental Procedures for additional storage requirements.

1.7 ENVIRONMENTAL CONDITIONS

- A. Do not place asphalt concrete when atmospheric temperature is lower than 50 degrees F, when substrate is wet and/or when precipitation is imminent.

PART 2 PRODUCTS

2.1 GENERAL

- A. Asphalt concrete, prepared in a central plant, must be a mixture of aggregate, filler if required, and bituminous material.
- B. Aggregate fractions must be sized, uniformly graded, and combined in such proportions that resulting mixture meets grading requirements of job-mix formula.

2.2 PRODUCTS

- A. Aggregate:
 - 1. As specified in Section 39 of the Caltrans Standard Specifications for Type A hot mix asphalt (HMA) pavement.
- B. Prime Coat:
 - 1. Emulsified asphalt, conforming to Section 94 of the Caltrans Standard Specifications.
- C. Tack Coat:
 - 1. Emulsified steamed-refined paving asphalt, Type SS-1, conforming to Section 94 of the Caltrans Standard Specifications.
- D. Asphalt Concrete Mixture:
 - 1. Asphalt Concrete: Type A, hot mix asphalt (HMA), 1/2-inch gradation as specified in Section 39 of the Caltrans Standard Specifications.
- E. Asphalt Binder:
 - 1. Asphalt binder to be used in the asphalt concrete mixture must be performance grade PG 64-10 as specified in Section 92 of the Caltrans Standard Specifications.

2.3 PAVEMENT REINFORCING FABRIC

- A. Pavement reinforcing fabric must be manufactured from polyester, polypropylene, or polypropylene-nylon material. The fabric must be nonwoven, heat treated on at least one side and must conform to the following:

<u>Property</u>	<u>Specification</u>	<u>Requirement</u>
Weight, oz/yd ²	ASTM D3776	3.0 to 8.0
Grab tensile strength(1 inch grip), lb/min, in each direction	ASTM D4632	90
Elongation at break, %, min.	ASTM D4632	40
Fabric thickness, mils	ASTM D2475/D461	30 to 100

- B. The binder for pavement reinforcing fabric shall be the same asphalt binder used for the hot mix asphalt concrete. Comply with the requirements in Section 39 of the Caltrans Standard Specifications.

PART 3 EXECUTION

3.1 TRANSPORTATION AND SPREADING

- A. Schedule so that spreading and rolling of all mixture prepared for one day's run can be completed during daylight, unless otherwise approved by the CMD Representative and adequate artificial lighting is provided. Hauling over freshly placed material is not permitted until material has been compacted and cooled to atmospheric temperature.
- B. Immediately before placing, underlying course must be cleared off all loose of deleterious material with power blowers, power brooms, or hand brooms.
- C. Mix must be placed at a temperature of not less than 225 degrees F. (107 degrees C.). Moisture content of mix must not exceed 1 percent.
- D. Upon arrival, spread mixture by approved paving machine. Strike off in uniform layer such that, when the Work is completed, it must have required thickness and must conform to the grade and contour indicated. Speed of paver must be controlled to eliminate pulling and tearing of the bituminous material.
- E. In areas where irregularities or unavoidable obstacles make use of mechanical spreading and finishing equipment impractical, mixture may be spread, raked, and luted by hand tools.
- F. Refer to Section 01 35 43 – Environmental Procedures for spill prevention and control.

3.2 COMPACTION

- A. Rolling must continue until all roller marks are eliminated and a density of at least 92 percent of the measured maximum density determined in accordance with ASTM D2041 has been obtained.
- B. Sufficient rollers must be furnished to handle output of mixing plant. Speed of rollers must be sufficiently slow to avoid displacement of hot mixture. Any displacement occurring as a result of reversing roller direction, or from any other cause, must be corrected at once by rakes and fresh mixture.

- C. Roller wheels must be kept properly moistened to prevent adhesion of the mixture, but excessive water will not be permitted. In areas not accessible to the roller, asphalt mixture must be compacted with hot hand tampers.
- D. Any mixture which becomes loose and broken or in any way defective, must be removed and replaced with fresh hot mixture and immediately compacted to conform to surrounding area. Skin patching must not be allowed.

3.3 JOINTS

- A. Joints must be made in such a manner as to ensure a continuous bond between old and new sections. Joints must present same texture, density, and smoothness as other sections of the course.
- B. All joint contact surfaces must be cut vertically and uniform for full course depth, then given a tack coat of liquid bituminous material or emulsified asphalt before placing any fresh mixture against joint in order to provide a watertight seam.
- C. Roller must not pass over the unprotected end of freshly laid mixture except when necessary to form transverse joint. When necessary to form transverse joint, it must be made by means of placing a bulkhead or by tapering the course, in which case the edge must be cut back on a straight line to its full depth.

3.4 PAVEMENT REINFORCING FABRIC

- A. A pavement reinforcing fabric must be placed on existing pavement to be surfaced along sawcut joints when such work is shown on the plans.
- B. Before placing the pavement fabric, an asphalt binder must be applied to the surface to receive the pavement reinforcing fabric at an approximate rate of 0.25 gallon per square yard of surface covered. The exact rate will be determined by the CMD Representative. The binder must be applied to a width equal to the width of the fabric mat plus three inches on each side.
- C. Before applying binder, large cracks, spalls, and chuckholes in existing pavement must be repaired as directed by the CMD Representative.
- D. The fabric must be aligned and placed with no wrinkles that lap. The test for lapping must be made by gathering together the fabric in a wrinkle. If the height of the doubled portion of extra fabric is 1/2-inch or more, the fabric must be cut to remove the wrinkle, then lapped in the direction of paving. Lap in excess of 2 inches must be removed. If manual laydown methods are used, the fabric must be unrolled, aligned, and placed in increments of approximately 30 feet.
- E. Adjacent borders of the fabric must be lapped two to four inches. The preceding roll must lap two to four inches over the following roll in the direction of paving at ends of rolls or at any break. At fabric overlays, both the binder and the fabric must overlap the previously placed fabric by the same amount.
- F. Seating of the fabric with rolling equipment after placing will be permitted. Turning of the paving machine and other vehicles must be gradual and kept to a minimum to avoid damage. A small quantity of asphalt concrete, to be determined by the CMD Representative, may be

spread over the fabric immediately in advance of placing asphalt concrete surfacing in order to prevent fabric from being picked up by construction equipment.

- G. Traffic must not be allowed on the bare reinforcing fabric except at crossing locations where the contractor has placed a small quantity of asphalt concrete over the fabric.
- H. Care must be taken to avoid tracking binder material onto the pavement reinforcing fabric or distorting the fabric during seating of the fabric with rolling equipment. If necessary, exposed binder material must be covered lightly with sand.

3.5 EDGES

- A. While surface is being compacted and finished, the Contractor must carefully trim outside edges of pavement to proper alignment. Edges must be beveled while still hot with the back of a rake or a smoothing iron and thoroughly compacted by tampers or by other satisfactory methods.

3.6 TOLERANCES

- A. Production Mix:
 - 1. Average of all mix tests must fall within requirements specified for job mix formula.
 - 2. Individual field quality assurance tests may fall outside job-mix formula per the following, provided job mix average does not fall outside master grading band:

<u>Material</u>	<u>Tolerance (plus or minus)</u>
Aggregate passing No. 4 sieve or larger	7 percent
Aggregate passing No. 8, 16, 30, and 40 sieves	4 percent
Aggregate passing No. 100 and 200 sieves	2 percent
Bitumen	0.40 percent
Temperature of mix	20 degrees F. (7 degrees C.)

3.7 FINISH SURFACE

- A. Tests for conformity with indicated crown and grade must be made by the Contractor immediately after initial compression. Variations must be corrected by removal or addition of materials and by rolling.
- B. Finished surface must not vary more than 1/4 inch for the surface course when tested with a ten foot straightedge applied parallel with, or at right angles to surface.
- C. After completion of final rolling, smoothness of top course must again be tested; humps or depressions exceeding specified tolerances must be corrected by removing defective work and replacing with new material.
- D. Finished surfaces must not vary from gradeline, elevations, and cross sections shown by more than 1/2-inch (0.04-foot). Contractor must correct pavement areas varying in excess of this amount by removing and replacing defective work. Skin patching not permitted.

3.8 FIELD QUALITY CONTROL

- A. Each day when asphalt concrete is placed at the project site, CMD Representative will perform the following tests at least twice daily on production mix:
 - 1. Bitumen content in accordance with ASTM D2172.
 - 2. Aggregate gradation in accordance with ASTM D5444.
- B. During each day when asphalt concrete is being placed, CMD Representative will perform at least four in-place field compacted density tests for each 1,000 tons of asphalt concrete placed (or a minimum of 4 tests when less than 1,000 total tons per day is placed). In-place density tests will be performed with a nuclear device in accordance with ASTM D2950.
- C. Upon completion of asphalt concrete placement, the CMD Representative will select up to 5 random locations to be cored by the Contractor for pavement thickness verification. The Contractor must provide tools, equipment, and labor to obtain two-inch and larger diameter cores and to patch cored holes to match adjacent pavement. If cored thicknesses are less than indicated design thicknesses, the CMD Representative may reject all or part of paving and the Contractor must take corrective measures as directed to provide acceptable paving. Cores must be immediately turned over to, and become the property of, the CMD Representative.
- D. If any of the quality control tests performed by CMD indicates the Work does not meet specified requirements, the Contractor must be advised and, upon approval of the CMD Representative, proceed to remove and replace the defective work. All work will be retested by CMD at Contractor's expense.

3.9 CLEANING

- A. Remove broken asphalt concrete from the site.

3.10 MAINTENANCE

- A. Except where damaged by trenching by other Contractors, this Work includes maintenance of all asphalt concrete surfaces installed by the Contractor throughout the project. Maintain surfaces in drivable condition throughout project duration and repair areas of settlement and cracked surfaces prior to placement of the final lift of asphalt concrete.

3.11 FINAL LIFT

- A. In general, final lift of pavement must not be constructed until heavy construction traffic has ceased. Perform final lift paving operations following approval by the CMD Representative to proceed. Apply tack coat to existing asphalt concrete surface prior to placing final lift.

END OF SECTION

SECTION 33 71 19

ELECTRICAL MANHOLES AND HANDHOLES

PART 1 GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Precast Concrete Manholes, Handholes, and Pullboxes (MHP) for exterior installation.
- B. Related Sections:
 - 1. Section 26 05 00 – Common Work Results for Electrical.

1.2 DEFINITIONS

- A. Manhole: An access opening or an enclosure (generally subsurface) into which personnel may enter. Manhole opening is used for the purpose of full-physical-access installation, operation, and maintenance.
- B. Handhole: An access opening provided in equipment or enclosure in connection with underground lines, into which personnel reach but do not enter. Handhole opening is used for the purpose of hand-access installation, operation, or maintenance.
- C. Pullbox: A box with a blank cover that is inserted into one or more runs of raceway to facilitate installation (pulling) of the conductors. Pullboxes may also serve the purpose of distributing the conductors.

1.3 SUBMITTALS

- A. Submit in accordance with Sections 01 33 00 – Submittal Procedures and 01 33 23 – Shop Drawings, Product Data, and Samples.
- B. Product Data:
 - 1. Provide dimensions, knockout sizes and locations, materials, and accessories.
- C. Submit documentation confirming compliance with Regulatory Requirements in Section 26 05 00 – Common Work Results for Electrical.

PART 2 PRODUCTS

2.1 PRECAST MANHOLES, HANDHOLES, AND PULLBOXES

- A. Concrete for precast MHP must be 3,000 psi minimum 28-day compressive strength concrete designed for AASHTO H-20 loading. Minimum dimensions are shown on the Contract Documents. Increase these as required by use of extension sections to accommodate the several raceway entrances at their required elevations.

- B. Slope floors toward drain points, leaving no pockets or other nondraining areas. Provide drainage sufficient to maintain the floors in a water free state as follows:
 - 1. Type 3 – Dry Well (for extremely low ground water elevation areas). Provide a 6-inch diameter hole in the floor of the pullbox, excavated to a depth of 2 feet, and filled flush to floor surface with stones of a minimum diameter of 1 inch.
- C. Provide raceway entrances on all four sides, except for communication handholes and pullboxes which are to have entrances on the ends only.
- D. Utilize heavy-duty type frames, suitable for H-20 loading. Provide indented type covers, solid top design, with two drop handles each. On the upper side of each cover, cast or burn by welder, in integral letters not less than 2 inches high appropriate titles, indicate: ELECTRIC HV (for above 600 volts), ELECTRIC LV (for 600 volts and below), or COMMUNICATION. Field stamp covers with MHP numbers as shown on the Contract Documents. Provide covers with locking hold-down bolts and gaskets. Bolts to be pentahead.

PART 3 EXECUTION

3.1 INSTALLATION

- A. Install as indicated on the approved submittals and the Contract Documents.
- B. Do not install MHP until final conduit grading, including field changes, has been determined. Set frames to final grades as required.
- C. Install MHP so that raceways must enter at nearly right angles and as near as possible to one end of a wall, unless otherwise indicated.
- D. Identify the interior of low voltage handholes and pullboxes as being used for NORMAL or EMERGENCY power circuits. Identify by using permanent ink stenciled lettering. Lettering size must be no smaller than 2 inches high.
- E. Install one ground rod in each MHP. Connect all non-current carrying metal parts in MHP and any metallic raceway grounding bushings to this ground rod with copper conductor.

3.2 DUCT BANK/RACEWAY IDENTIFICATION

- A. In each MHP provide a duct bank or raceway identification stating destination of a duct or conduit run.
 - 1. Identification must be made using permanent black ink stenciled in 2-inch-high letters.
 - a. Where ducts/conduits are too close together to permit stenciling, provide mylar key attached to wall.

END OF SECTION

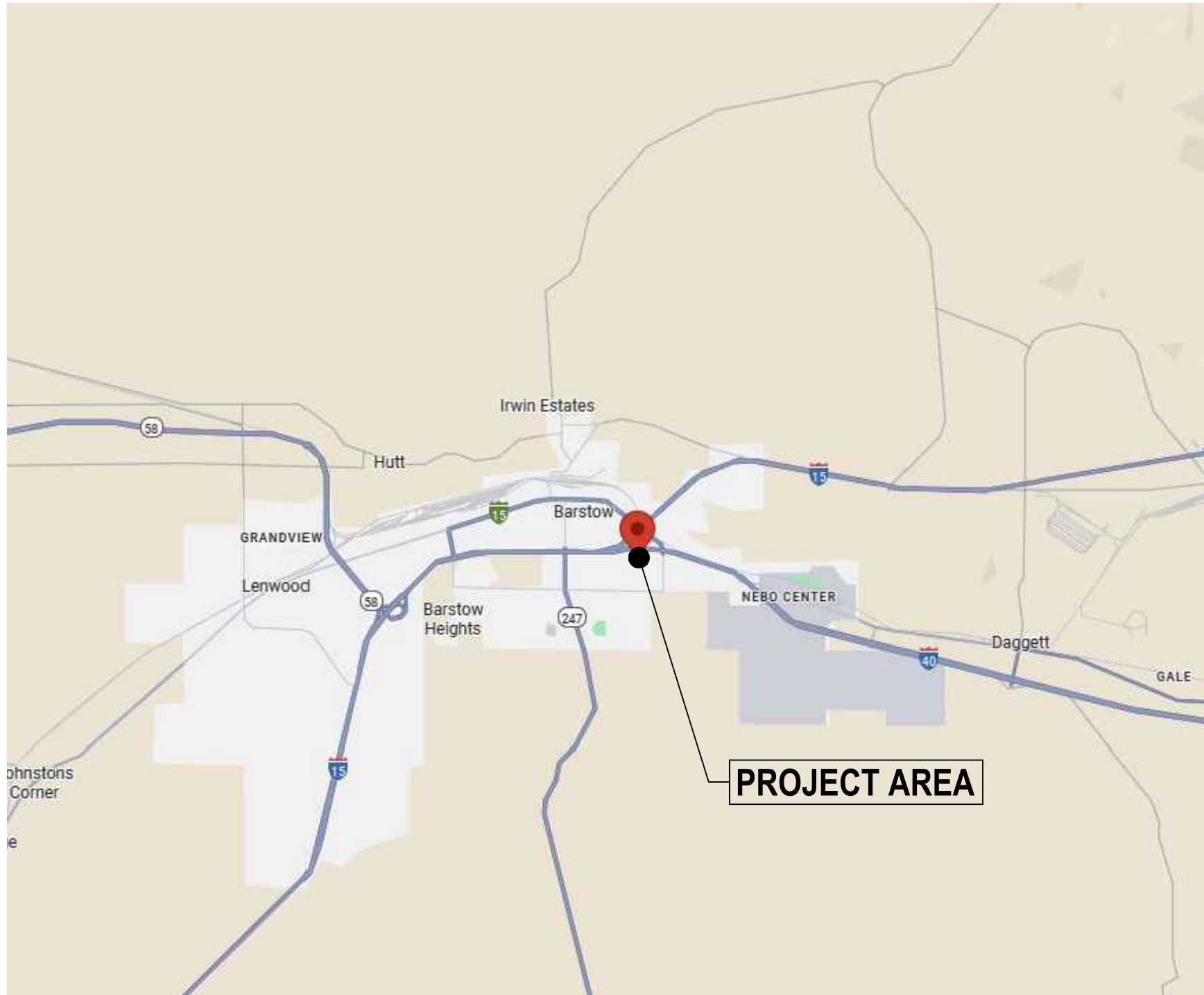
Insert Plans/Drawings



FMS UNDERGROUND STORAGE TANKS REMOVAL PROJECT

1601 ARMORY ROAD, BARSTOW, CA

100% SUBMITTAL
SEPTEMBER 2025



AREA MAP



LOCATION MAP

SCOPE OF PROJECT

THE PROJECT CONSISTS OF THE REMOVAL OF AN EXISTING 2,000-GALLON DIESEL FUEL UST AND 6,000-GALLON DIESEL FUEL UST, UNDERGROUND PIPING AND APPURTENANCES THAT INCLUDE FUEL SUPPLY, VAPOR RETURN, TANK FILL, VAPOR RECOVERY AND VENT RISER PIPING. DEMOLITION AND REMOVAL ALSO INCLUDES A RAISED CONCRETE FUEL ISLAND AND TWO FUEL PUMP DISPENSERS, AIR AND WATER SERVICES TO THE ISLAND, TANK VENT PIPING, STEEL BOLLARDS AND LIGHT STANDARD.

PROJECT CODE INFORMATION

1. APPLICABLE CODES AND STANDARDS
- TITLE 19 CCR, PUBLIC SAFETY, STATE FIRE MARSHAL REGULATIONS
 - TITLE 24 CCR, PART 1 - 2022 CALIFORNIA ADMINISTRATIVE CODE (CAC)
 - TITLE 24 CCR, PART 2 - 2022 CALIFORNIA BUILDING CODE, VOL. 1 & 2 (CBC)
 - TITLE 24 CCR, PART 3 - 2022 CALIFORNIA ELECTRICAL CODE (CEC)
 - TITLE 24 CCR, PART 9 - 2022 CALIFORNIA FIRE CODE (CFC)
 - UNIFIED FACILITIES CRITERIA (UFC) O&M MANUAL: STANDARD PRACTICE FOR FLEXIBLE PAVEMENTS

SHEET INDEX

SHEET NO.	SHEET TITLE
G-001	COVER SHEET
C-001	GENERAL NOTES, LEGEND, AND ABBREVIATIONS
D-101	DEMOLITION SITE PLAN
C-101	SITE RESTORATION PLAN



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T 1 916 782 8688



Matthew K. Weber

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Client
CALIFORNIA MILITARY DEPARTMENT (CMD)
BARSTOW FMS #02

Project
TYPE A&B FMS UNDERGROUND TANK REMOVAL

No.	Issue	Drawn	Approved	Date
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Drawn **A. OCAMPO** Designer **A. OCAMPO**

Drafting Check **M. WEBER** Design Check **M. WEBER**

Project Manager **S. WALSH** Date **SEPTEMBER 2025**

This document shall not be used for construction unless signed and sealed for construction.

Original Size
Arch D
Bar is one inch on original size sheet
0 1"

Project No. **12670676** REV **V0**

Title

COVER SHEET

Sheet No.

G-001

100% SUBMITTAL

1. ALL LABOR, MATERIALS AND WORKMANSHIP SHALL COMPLY WITH THE REQUIREMENTS OF THESE PLANS; 2022 CALIFORNIA BUILDING CODE; OR AS REQUIRED BY CMD AND AUTHORITY HAVING JURISDICTION.

2. THE TYPE, LOCATIONS AND SIZES OF EXISTING UNDERGROUND STRUCTURES AND UTILITIES HAVE BEEN LOCATED IN THE FIELD OR OBTAINED FROM AVAILABLE RECORDS, RESPONSIBLE DILIGENCE HAS BEEN EXERCISED IN LOCATING ALL LINES, BUT THE ENGINEER CAN ASSUME NO RESPONSIBILITY FOR THE COMPLETENESS OR ACCURACY OF ITS DELINEATION NOR THE EXISTENCE OF OTHER BURIED OBJECTS OR UTILITIES ENCOUNTERED BUT NOT SHOWN ON THESE DRAWINGS. THE CONTRACTOR SHALL ASSUME THE SOLE RESPONSIBILITY FOR DETERMINING OR CONFIRMING THE EXACT LOCATIONS OF THESE FACILITIES AND PROTECTING SAME FROM DAMAGE. ALL UTILITY SERVICES AND FACILITIES DAMAGED OR BROKEN BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED IN ACCORDANCE WITH THE REQUIREMENTS OF THE CALIFORNIA MILITARY DEPARTMENT (CMD).

3. THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY AND ALL CONFLICTS BETWEEN THE CONTRACT DOCUMENT AND THE ACTUAL SITE CONDITIONS PRIOR TO COMMENCING WORK IN ANY GIVEN AREA AND ALLOW TIME FOR THE ENGINEER TO ISSUE RESOLUTION TO ANY DISCOVERED CONFLICT. THE CONTRACTOR SHALL CONTINUE WORK IN OTHER AREAS OF THE PROJECT WITHOUT SUCH CONFLICTS UNTIL THE ENGINEER HAS ISSUED RESOLUTION BY CHANGE ORDER OR OTHER PROJECT APPROVED LINES OF COMMUNICATION.

4. UNAUTHORIZED CHANGES AND USES. THE ENGINEER PREPARING THESE PLANS SHALL NOT BE RESPONSIBLE FOR, OR LIABLE FOR, UNAUTHORIZED CHANGES TO OR USES OF THESE PLANS BY OTHERS. THE CONTRACTOR SHALL SUBMIT TO THE ENGINEER ANY PROPOSED MODIFICATIONS AND/OR CHANGES TO THE PLANS AND SPECIFICATIONS IN WRITING WITH SUFFICIENT DETAILED INFORMATION AND TIME TO ALLOW THE ENGINEER TO CONDUCT AN ANALYSIS OF THE PROPOSED CHANGE AND PREPARE A WRITTEN RESPONSE TO THE CONTRACTOR. APPROVED CHANGES AND/OR MODIFICATIONS TO THE PLANS AND SPECIFICATIONS SHALL BE ISSUED BY THE ENGINEER AS CHANGE ORDERS.

5. WRITTEN DIMENSIONS SHALL TAKE PRECEDENCE OVER SCALED DIMENSIONS AND FIELD DIMENSIONS SHALL BE VERIFIED AT THE PROJECT SITE BY CONTRACTOR. ANY DISCREPANCY SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE START OF ANY WORK.

6. THE CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT AT 811, A MINIMUM OF 2 WORKING DAYS PRIOR TO ANY EXCAVATION OR WORK WITHIN THE PROJECT AREA.

7. ALL EARTHWORK AND CONSTRUCTION EQUIPMENT USE SHALL BE EXECUTED IN SUCH A MANNER AS TO COMPLY WITH THE STANDARDS ESTABLISHED BY THE PROJECT SPECIFICATIONS AND SAN BERNARDINO COUNTY AIR POLLUTION CONTROL DISTRICT.

8. ALL EARTHWORK SHALL CONFORM TO PROJECT SPECIFICATION 312000. ALL GRADING WORK SHALL BE OBSERVED AND APPROVED BY THE SOILS ENGINEER. THE SOILS ENGINEER SHALL BE NOTIFIED AT LEAST 48 HOURS BEFORE BEGINNING ANY GRADING.

9. ALL MATERIALS, REQUIRED FOR THE COMPLETE EXECUTION OF THE PROJECT, SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS OTHERWISE NOTED.

10. THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR ARMORY STAFF SAFETY DURING THE CONSTRUCTION PERIOD.

11. THE CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR OR REPLACE ANY EXISTING IMPROVEMENTS OR UNDERGROUND FACILITIES DAMAGED DURING THE CONSTRUCTION PERIOD.

12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY IF EXISTING UTILITIES WITHIN THE PROJECT LIMITS ARE SERVING EXISTING FACILITIES OR NOT. THOSE THAT SERVE EXISTING FACILITIES SHALL BE RELOCATED IN SUCH A MANNER AS TO MAINTAIN UNINTERRUPTED SERVICE. UNAVOIDABLE OUTAGES REQUIRED FOR THE EXECUTION OF THE WORK SHALL BE COORDINATED WITH AND APPROVED BY THE CMD REPRESENTATIVE.

13. IT IS THE CONTRACTOR'S RESPONSIBILITY TO MAINTAIN UTILITY SERVICE TO FACILITIES AT ALL TIMES DURING THE COURSE OF THE PROJECT. THIS MAY REQUIRE TEMPORARY SERVICES OR PHASED RELOCATION OF EXISTING SERVICES DEPENDING ON THE CONTRACTOR'S CONSTRUCTION APPROACH.

14. CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY.

15. ALL HEAVY EQUIPMENT AND ANY INTERNAL COMBUSTION ENGINES SHALL BE FITTED WITH ADEQUATE MUFFLERS. NOISE GENERATING EQUIPMENT, INCLUDING PORTABLE POWER GENERATORS AND AIR COMPRESSORS, SHOULD BE LOCATED AT THE FURTHEST DISTANCE POSSIBLE FROM OCCUPIED RESIDENCES.

16. THE CONTRACTOR SHALL OBTAIN A TRENCH SAFETY PERMIT FROM THE CALIFORNIA DIVISION OF INDUSTRIAL SAFETY PRIOR TO EXCAVATION OF ANY TRENCH OR EXCAVATION GREATER THAN 5- FEET DEEP.

17. CONTRACTOR SHALL PROTECT AND MAINTAIN EXISTING IMPROVEMENTS.

18. ALL TRENCHES AND OPEN EXCAVATIONS SHALL BE PROTECTED ACCORDING TO OSHA STANDARDS. OPEN TRENCH LENGTH SHALL BE LIMITED TO 50 FEET AND COVERED WHEN NOT UNDER CONSTRUCTION PER CMD REQUIREMENTS.

19. ALL TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE CALIFORNIA MANUAL OF TEMPORARY TRAFFIC CONTROL FOR CONSTRUCTION AND MAINTENANCE WORK ZONES. ALL SIGNS SHALL BE APPROPRIATELY CONSTRUCTED WITH REFLECTIVE MATERIAL ON A BACKING OF METAL OR FABRIC (NO WOOD OR PLASTIC ALLOWED) AND SHALL BE MAINTAINED THROUGHOUT CONSTRUCTION TO PROVIDE PROPER VISIBILITY.

20. THE CONTRACTOR SHALL POTHOLE TO VERIFY THE EXACT LOCATION AND DEPTHS OF EXISTING PARALLEL AND CROSSING UTILITIES AT LEAST 5 DAYS PRIOR TO THE WORK AND NOTIFY THE CMD REPRESENTATIVE OF ANY REQUIRED CHANGES FROM THAT SHOWN ON THE PLANS PRIOR TO ANY EXCAVATION. THE CONTRACTOR SHALL EXERCISE CARE WHEN WORKING NEAR EXISTING UTILITIES AND SHALL BE RESPONSIBLE FOR ALL DAMAGE, BREAKS OR LEAKS.

21. THE CONTRACTOR SHALL POTHOLE ALL UTILITY CONNECTION POINTS TO VERIFY SIZE AND MATERIAL TYPE PRIOR TO ORDERING MATERIALS FOR THE WORK. THE CONTRACTOR MAY NEED TO MAKE ADJUSTMENTS, INCLUDING ADAPTERS, COUPLINGS, REDUCERS AND STRUCTURE SIZES TO COMPLETE THE INSTALLATION OF UTILITIES.

22. EXCAVATED SOILS THAT HAVE BEEN IDENTIFIED AS REUSABLE FOR FILL MATERIAL, PER SPECIFICATIONS, SHALL BE STOCKPILED IN A LOCATION SPECIFIED BY THE CMD REPRESENTATIVE. CONTRACTOR SHALL INSTALL AND MAINTAIN APPROPRIATE BMP'S TO PREVENT EROSION AND SEDIMENT TRANSPORT TO DRAIN INLETS OR OFFSITE.

GENERAL ELECTRICAL NOTES

1. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE (NEC) AND 2022 CALIFORNIA ELECTRICAL CODE (CEC).

2. THE CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED TO MAINTAIN SAFETY.

3. PRIOR TO COMMENCING WORK ON EXISTING SYSTEMS OR WHERE EXISTING SYSTEMS REQUIRE TEMPORARY SHUT DOWNS, COORDINATE WITH OWNERS REPRESENTATIVE. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT OR SYSTEMS, PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND DESCRIPTION OF PROPOSED WORK FOR APPROVAL PRIOR TO COMMENCING WORK. WORK ON EXISTING EQUIPMENT SHALL NOT COMMENCE UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE OWNERS REPRESENTATIVE.

4. ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.

5. ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF NEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS AND HAND HOLE.

6. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO CONSTRUCTION.

7. ALL WORK ON OR AROUND UTILITY EQUIPMENT AND FEEDERS SHALL BE COORDINATED WITH THAT UTILITY. ALL WORK ON UTILITY EQUIPMENT SHALL BE TO UTILITY STANDADS AND REQUIREMENTS

SURVEY CONDUCTED ON MAY 30, 2025 BY JE MILLER & ASSOCIATES.

SURVEYOR NOTES:
SURVEYOR IS NOT RESPONSIBLE FOR ANY ITEMS WHICH MAY BE OMITTED FROM THIS MAP DUE TO OBSTRUCTIONS AT TIME OF SURVEY INCLUDING, BUT NOT LIMITED TO, INACCESSIBLE AREAS OR PARKED VEHICLES.

ANY HARDSCAPE AND CONTOURS SHOWN HEREON WITHOUT SURVEY POINT DATA ARE INTERPOLATED BETWEEN THE CLOSEST SHOWN SURVEY POINTS AND SHOULD BE CONSIDERED APPROXIMATE AS ONLY AN INFINITE NUMBER OF FIELD MEASUREMENTS WOULD REPRESENT PRECISE GROUND CONDITIONS.

BASIS OF SURVEY
CITY OF BARSTOW BENCHMARK B-11 2" BRASS CAP AT THE NE COR OF THE INTERSECTION OF ARMORY ROAD AND FOREST AVE. ELEV. 2220.63'

UNDERGROUND UTILITY NOTE
UNDERGROUND UTILITY LINES, IF SHOWN, DEPICT OUR ESTIMATION OF WHERE THE ACTUAL LINES MAY BE LOCATED. THE LINES WERE DETERMINED BY CONNECTING VISIBLE UTILITY APPURTENANCES AND ALSO BY USING PAINTED MARKINGS PLACED BY OTHERS. THE UNDERGROUND UTILITIES MY OR MAY NOT BE AS DEPICTED ON THIS SURVEY. NO LIABILITY IS ACCEPTED FOR ANT DISCREPANCIES, OMISSIONS OR ERRORS WITH REGARD TO SAID UNDERGROUND UTILITY DEPICTIONS ON THIS SURVEY.

BOUNDARY NOTE
BOUNDARY SHOWN HEREON IS A PAPER BOUNDARY. A PROPERTY LINE SURVEY WAS NOT PERFORMED OR REQUESTED AT THE TIME OF TOPOGRAPHIC SURVEY.

EASEMENT NOTE
OWNER OF SAID PROPERTY DID NOT PROVIDE A CURRENT TITLE REPORT, THEREFORE NO RECORDED EASEMENTS ARE PLOTTED ON THIS MAP.

ABC
ABN
AC
ACP
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AGGREGATE BASE COURSE
ABANDONED
ASPHALTIC CONCRETE
ASBESTOS CEMENT PIPE
OVER FLOW
AIR RELEASE / VACUUM VALVE

BACK OF CURB
BOX AND COVER
BRASS CAP FLUSH
BRASS CAP IN HAND HOLE
BLIND FLANGE
BACKFLOW PREVENTION
BENCH MARK
BLOW OFF
BYPASS

CABLE TV
CHECK VALVE
CAST IRON PIPE
CENTER LINE
CONCRETE
CONTINUOUS

DRAIN
DRAINAGE EASEMENT
DEFLECTION
DEGREE
DETAIL
DUCTILE IRON PIPE
DIAMETER
DIFFERENTIAL PRESSURE
DRAWING
DRIVEWAY

EACH
EXISTING
ELECTRIC OR EASEMENT
OR EASTING
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ELBOW
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EXISTING

FLOW CONTROL VALVE
FOUND
FLOW ELEMENT
FINISH FLOOR
FINISH GRADE
FIRE HYDRANT
FLOW INDICATOR TRANSMITTER
FLANGE
FLOWLINE
FIBER OPTIC
FLOW VALVE

GAS
GATE VALVE

HORIZONTAL
HIGH POINT

INSIDE DIAMETER
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IRRIGATION

JOINTS

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MAIN DISTRIBUTION PANEL
MANHOLE
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MONUMENT LINE

NORTHING
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NATURAL GROUND
NOT IN CONTRACT
NUMBER
NOT TO SCALE

ON CENTER
OUTSIDE DIAMETER
OUTFALL
OVERHEAD ELECTRIC
OPERATION AND MAINTENANCE

POINT OF CURVE
PORTLAND CEMENT CONCRETE
PRESSURE INDICATOR
POINT OF REVERSE CURVATURE
PRESSURE REDUCING OR RELIEF VALVE
PRESSURE SUSTAINING VALVE
PUBLIC UTILITY EASEMENT
POTABLE WATER

RIDGE LINE
RADIUS
REDUCER or REDUCING
REQUIRED
RESTRAINT
RIGHT OF WAY
RAW WATER
RIGHT

SANITARY SEWER
STORM DRAIN
STORM DRAIN EASEMENT
SEWER LINE EASEMENT
SECTION
SAMPLE PORT
SIDEWALK
SWITCHBOARD
SIDEWALK EASEMENT
SPECIFICATION
SQUARE
STAINLESS STEEL
STANDARD

TELEPHONE
TOP OF
TOP OF NUT
TIE-POINT
TRANSMISSION WATER MAIN
TAPPING SLEEVE AND VALVE
TYPICAL
UNDERGROUND ELECTRIC
UNDERGROUND
UNKNOWN
UNLESS NOTED OTHERWISE
VALVE
VITRIFIED CLAY PIPE
VERTICAL
VENT
WATER
WATERLINE EASEMENT
WITH
WITHOUT

NOTE:
CONTACT ENGINEER FOR ABBREVIATIONS NOT LISTED.

LEGEND

POWER POLE

GUY WIRE

ELECTRIC VAULT

ELECTRIC BOX

POST GUARD

SIGN

FIRE HYDRANT

WATER VALVE

HOSE BIB

SANITARY SEWER MANHOLE

SANITARY SEWER CLEANOUT

TELEPHONE RISER OR PEDESTAL

BACKFLOW PREVENTER

LANDSCAPE IRRIGATION CONTROL BOX

GAS METER

POST INDICATOR VALVE

DRAIN INLET

LIGHT POLE

CLEAR AND GRUB

FENCE

 (E) FENCE

BLOCK OR CONCRETE WALL

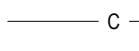
 (E) BLOCK OR CONCRETE WALL

ELEV. N: 1000.00
E: 1000.00

PK NAIL / MISC. SURVEY MARKER

AIR

 (E) AIR LINE

C

 (E) COMMUNICATIONS LINE

E

 (E) ELECTRIC LINE

FW

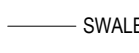
 (E) FIRE WATER LINE

OHE

 (E) OVERHEAD ELECTRIC

S

 (E) SANITARY SEWER LINE

SD

 (E) STORM DRAIN LINE

SWALE

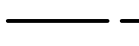
DRAINAGE SWALE

W

 (E) WATERLINE

 (E) FLOW LINE

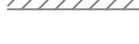
TOP

TOE

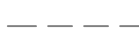
TOE OF SLOPE

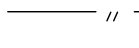
MONUMENT LINE / ¼

PROPERTY LINE

PROPOSED CONTOURS

 (E) CONTOURS

 (E) CONTOURS

 (E) BUILDING

CONCRETE VALLEY GUTTER

 (E) CONCRETE VALLEY GUTTER

EDGE OF CONCRETE PAVEMENT

 (E) EDGE OF PAVEMENT

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Client

CALIFORNIA MILITARY DEPARTMENT (CMD)
BARSTOW FMS #02

1601 ARMORY ROAD
BARSTOW, CA

Project

TYPE A&B FMS UNDERGROUND TANK REMOVAL

No.

Issue

Drawn

Approved

Date

Drawn

A. OCAMPO

Designer

A. OCAMPO

Drafting Check

M. WEBER

Design Check

M. WEBER

Project Manager

S. WALSH

Date

SEPTEMBER 2025

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NONE

Original Size

Arch D

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0 1"

Project No.

12670676

REV V0

Title

GENERAL NOTES, LEGEND, AND ABBREVIATIONS

Sheet No.

C-001

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Sheet 2 of 4

1. ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE (NEC) AND 2022 CALIFORNIA ELECTRICAL CODE (CEC).

2. THE CONTRACTOR SHALL MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED TO MAINTAIN SAFETY.

3. PRIOR TO COMMENCING WORK ON EXISTING SYSTEMS OR WHERE EXISTING SYSTEMS REQUIRE TEMPORARY SHUT DOWNS, COORDINATE WITH OWNERS REPRESENTATIVE. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT OR SYSTEMS, PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND DESCRIPTION OF PROPOSED WORK FOR APPROVAL PRIOR TO COMMENCING WORK. WORK ON EXISTING EQUIPMENT SHALL NOT COMMENCE UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE OWNERS REPRESENTATIVE.

4. ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.

5. ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF NEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS AND HAND HOLE.

6. CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO CONSTRUCTION.

7. ALL WORK ON OR AROUND UTILITY EQUIPMENT AND FEEDERS SHALL BE COORDINATED WITH THAT UTILITY. ALL WORK ON UTILITY EQUIPMENT SHALL BE TO UTILITY STANDADS AND REQUIREMENTS

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BARSTOW FMS #02

Project

TYPE A&B FMS UNDERGROUND TANK REMOVAL

No.	Issue	Drawn	Approved	Date
Drawn	A. OCAMPO	Designer	A. OCAMPO	
Drafting Check	M. WEBER	Design Check	M. WEBER	
Project Manager	S. WALSH	Date	SEPTEMBER 2025	
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Project No.	12670676	REV V0		

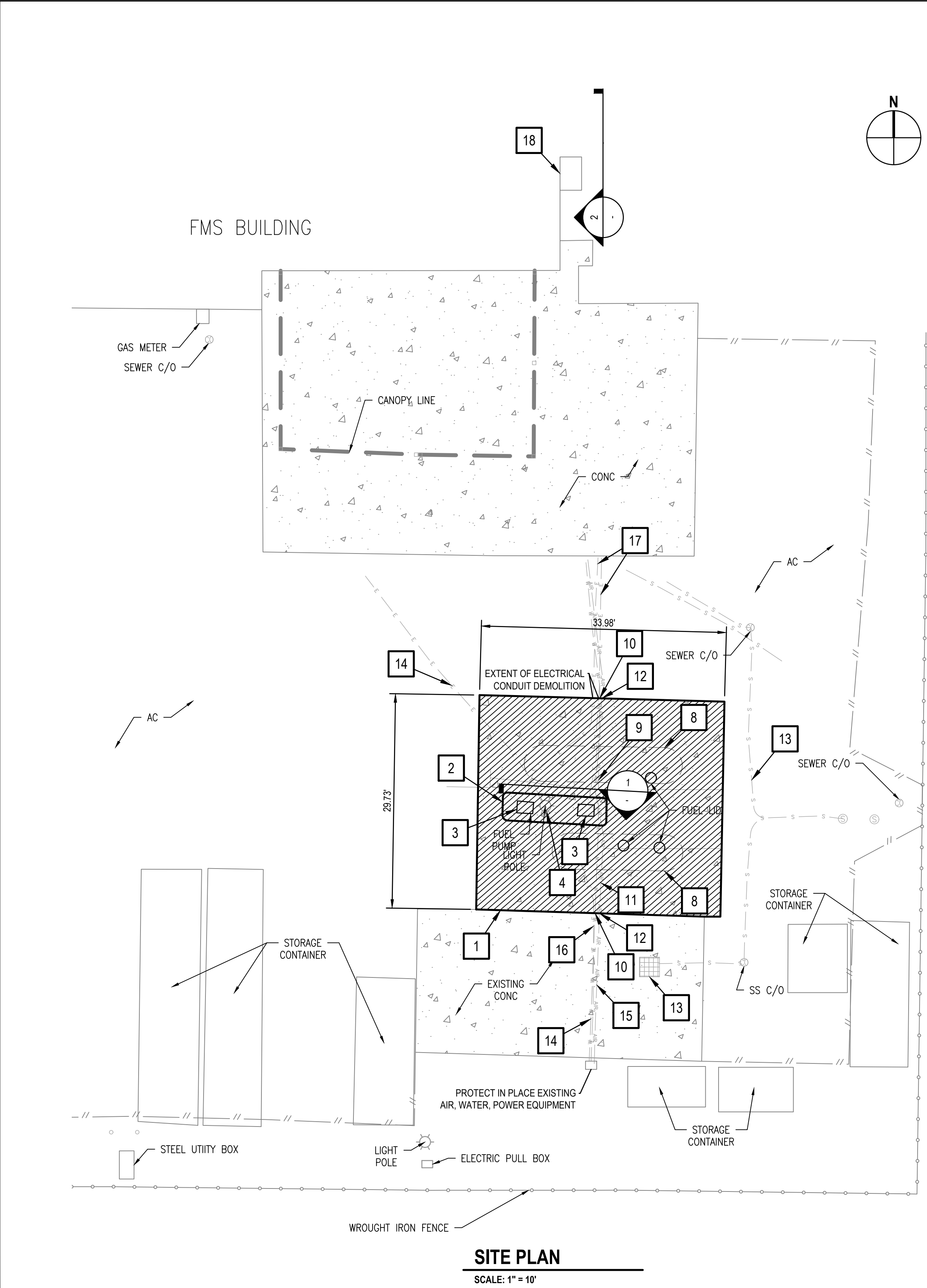
GENERAL NOTES, LEGEND, AND ABBREVIATIONS

Sheet No.

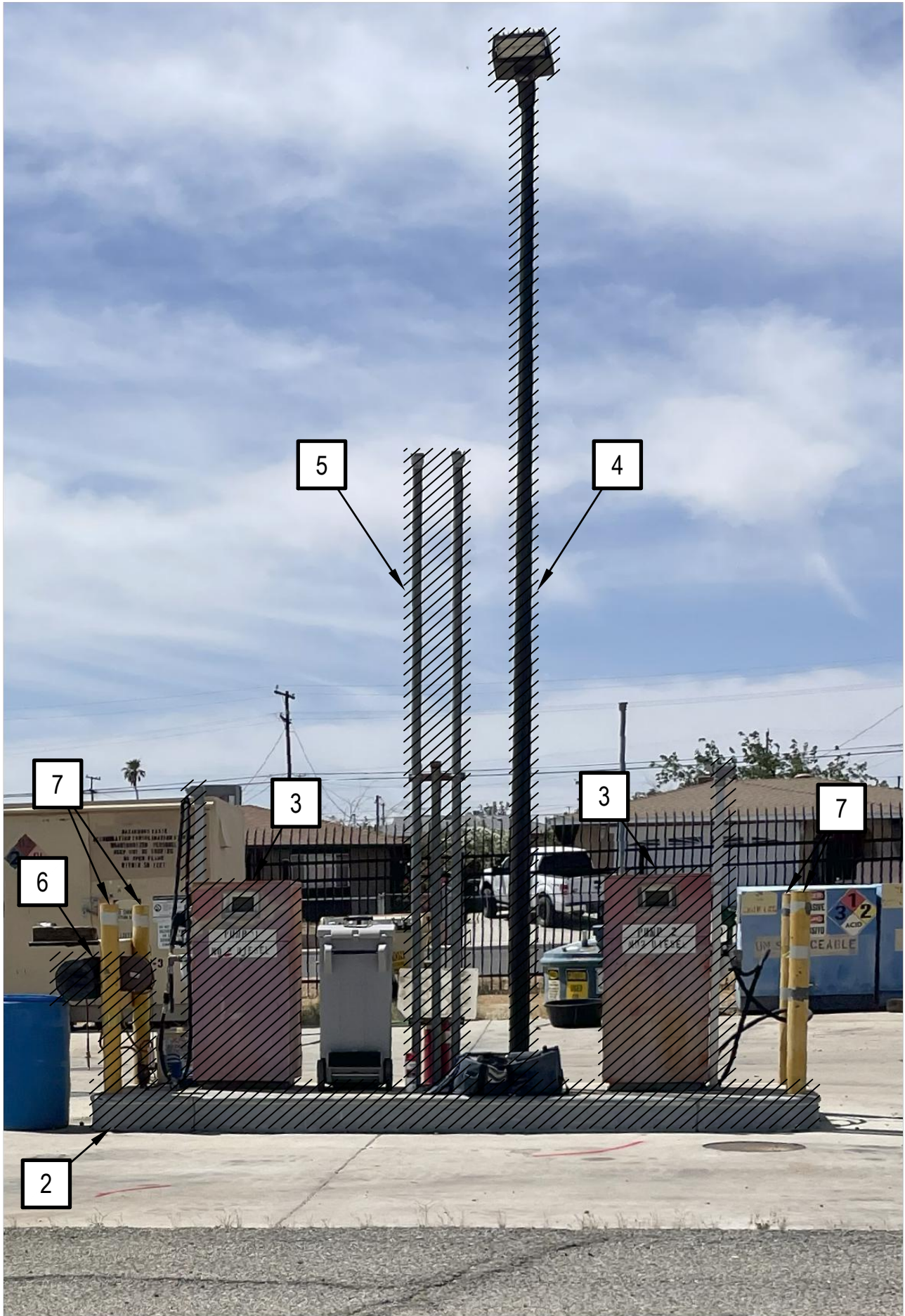
C-001

100% SUBMITTAL

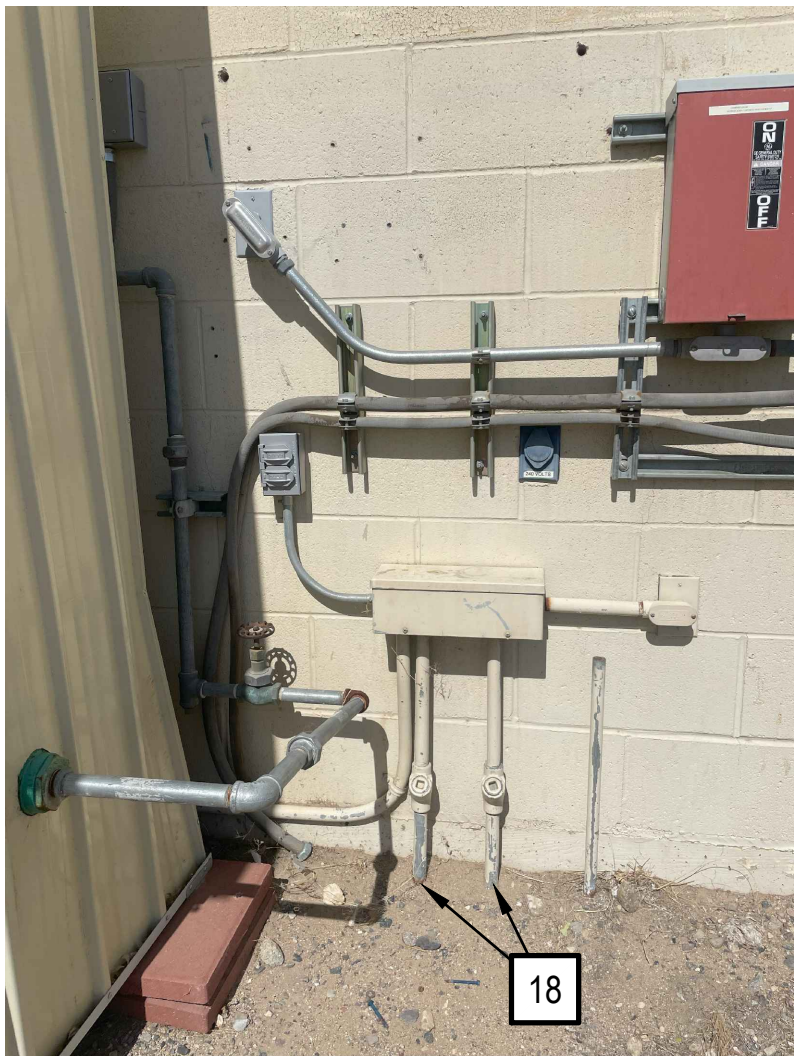
Sheet 2 of 4



SITE PLAN
SCALE: 1" = 10'



1 DEMOLITION
SCALE: NTS



2 DEMOLITION
SCALE: NTS

GENERAL NOTES

- ALL EQUIPMENT TO BE REMOVED THAT HAS ELECTRICAL COMPONENTS, CONDUIT AND WIRING, AND/OR SMALL PIPING CONNECTED TO IT SHALL HAVE THE ELECTRICAL COMPONENTS AND SMALL PIPING REMOVED BACK TO THE SOURCE.
- CONTRACTOR SHALL DEMOLISH EQUIPMENT PER THE SEQUENCING AND CONSTRUCTION CONSTRAINTS IN THE SPECIFICATIONS.
- REMOVE VEEDER ROOT PANEL IN FMS BUILDING.

SHEET KEYNOTES

- DEMOLISH CONCRETE PAD WITHIN LIMITS SHOWN. CONTRACTOR SHALL TAKE CARE TO NOT DAMAGE EXISTING WASH RACK CONCRETE PAD.
- DEMOLISH AND REMOVE EXISTING CONCRETE FUEL ISLAND.
- REMOVE EXISTING FUEL PUMPS.
- DISCONNECT AND REMOVE EXISTING LIGHT POLE AND ASSOCIATED FIXTURE. PROVIDE TRAFFIC-RATED PULL BOX, MIN 10" X 17" WITH BASE AND COVER AND SPLICE LIGHTING POWER CIRCUIT IN BOX TO MAINTAIN CONTINUITY TO FIXTURES THAT REMAIN.
- REMOVE EXISTING METAL POLES.
- REMOVE EXISTING AIR AND WATER EQUIPMENT.
- REMOVE EXISTING BOLLARDS.
- REMOVE AND DISPOSE OF EXISTING 2,000 GALLON AND 6,000 GALLON DIESEL FUEL UNDERGROUND STORAGE TANKS (UST), PIPING AND APPURTENANCES. EXISTING CONCRETE ANCHOR SLABS AND STRAPS FOR TANKS TO ABANDON IN PLACE.
- REMOVE EXISTING WATER LINE WITHIN LIMITS OF CONCRETE PAD DEMOLITION.
- CUT AND CAP EXISTING WATER LINE FOR UST REMOVAL. REPLACE WATER LINE AFTER DEMOLITION TO MAINTAIN SERVICE TO EQUIPMENT THAT REMAIN. SEE SHEET C-101.
- REMOVE EXISTING AIR LINE WITHIN LIMITS OF CONCRETE PAD DEMOLITION.
- CUT AND CAP EXISTING AIR LINE FOR UST REMOVAL. REPLACE AIR LINE AFTER DEMOLITION TO MAINTAIN SERVICE TO EQUIPMENT THAT REMAIN. SEE SHEET C-101.
- PROTECT EXISTING SEWER LINE AND ASSOCIATED CLEANOUTS AND GRATE IN PLACE THROUGHOUT DEMOLITION.
- PROTECT EXISTING WATER LINE NOT ASSOCIATED WITH FUEL ISLAND DEMOLITION IN PLACE THROUGHOUT DEMOLITION.
- PROTECT EXISTING AIR LINE NOT ASSOCIATED WITH FUEL ISLAND DEMOLITION IN PLACE THROUGHOUT DEMOLITION.
- PROTECT EXISTING POWER CIRCUIT(S) AND CONDUIT(S) NOT ASSOCIATED WITH FUEL ISLAND DEMOLITION IN PLACE THROUGHOUT DEMOLITION.
- DISCONNECT AND REMOVE EXISTING POWER AND SIGNAL CIRCUITS TO EXISTING FUEL ISLAND. REMOVE WIRING BACK TO SOURCE PANEL AND MARK EXISTING CIRCUIT BREAKERS SPARE. REMOVE CONDUIT TO THE EXTENT OF THE CONCRETE DEMOLITION. CAP REMAINING UNDERGROUND CONDUIT AND ABANDON IN PLACE.
- DISCONNECT AND REMOVE EXISTING ELECTRICAL WIRING ASSOCIATED WITH DEMOLITION OF FUEL ISLAND IN EXISTING ELECTRICAL CONDUIT BACK TO SOURCE PANEL. LEAVE CONDUIT IN PLACE.



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Client
**CALIFORNIA MILITARY
DEPARTMENT (CMD)
BARSTOW FMS #02**

1601 ARMORY ROAD
BARSTOW, CA

Project
**TYPE A&B FMS UNDERGROUND
TANK REMOVAL**

No.	Issue	Drawn	Approved	Date
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Drawn	A. OCAMPO	Designer	A. OCAMPO	
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Drafting Check	M. WEBER	Design Check	M. WEBER	
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Project Manager	S. WALSH	Date	SEPTEMBER 2025	
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Project No.	12670676	REV V0
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Title

DEMOLITION SITE PLAN

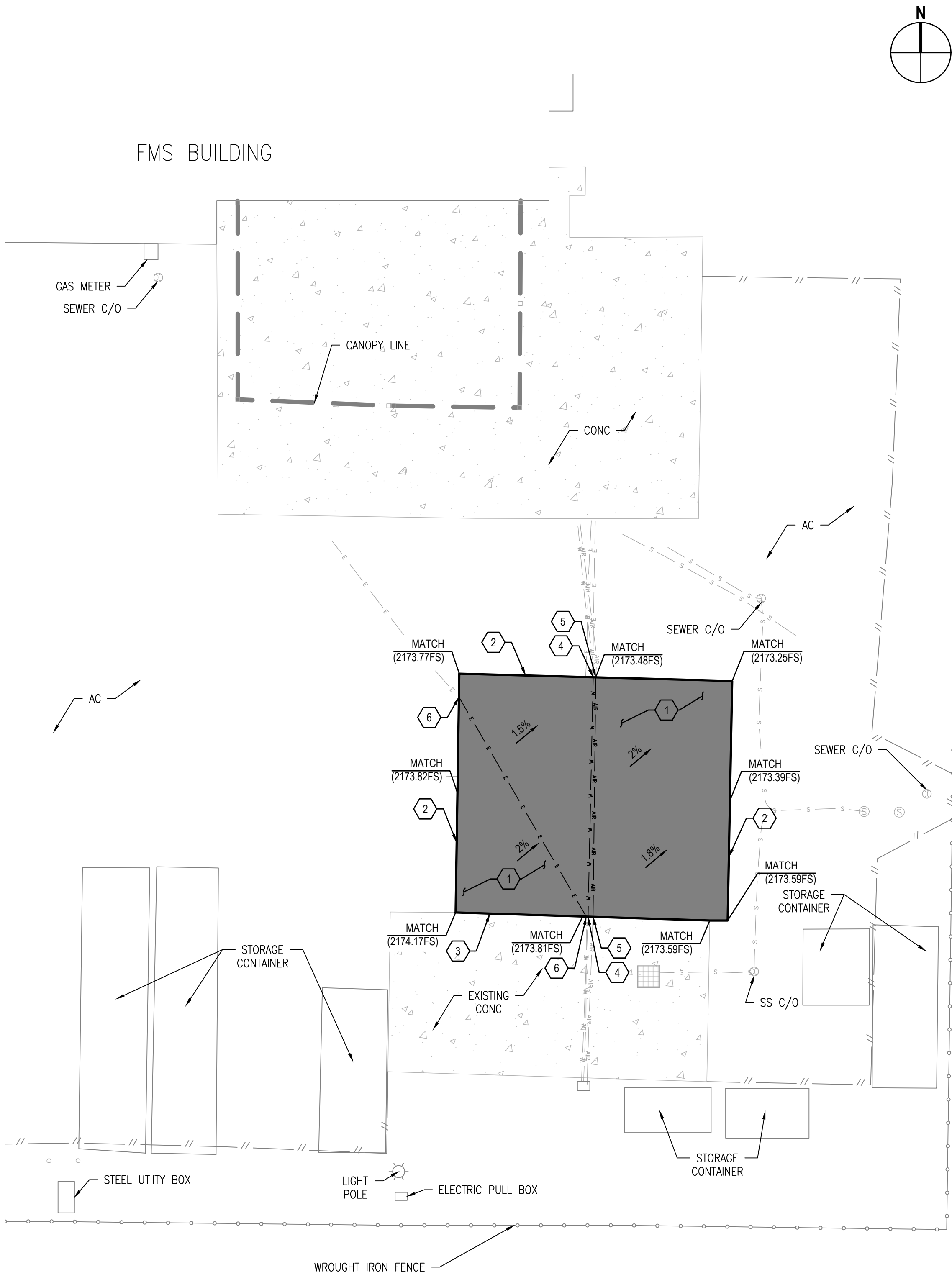
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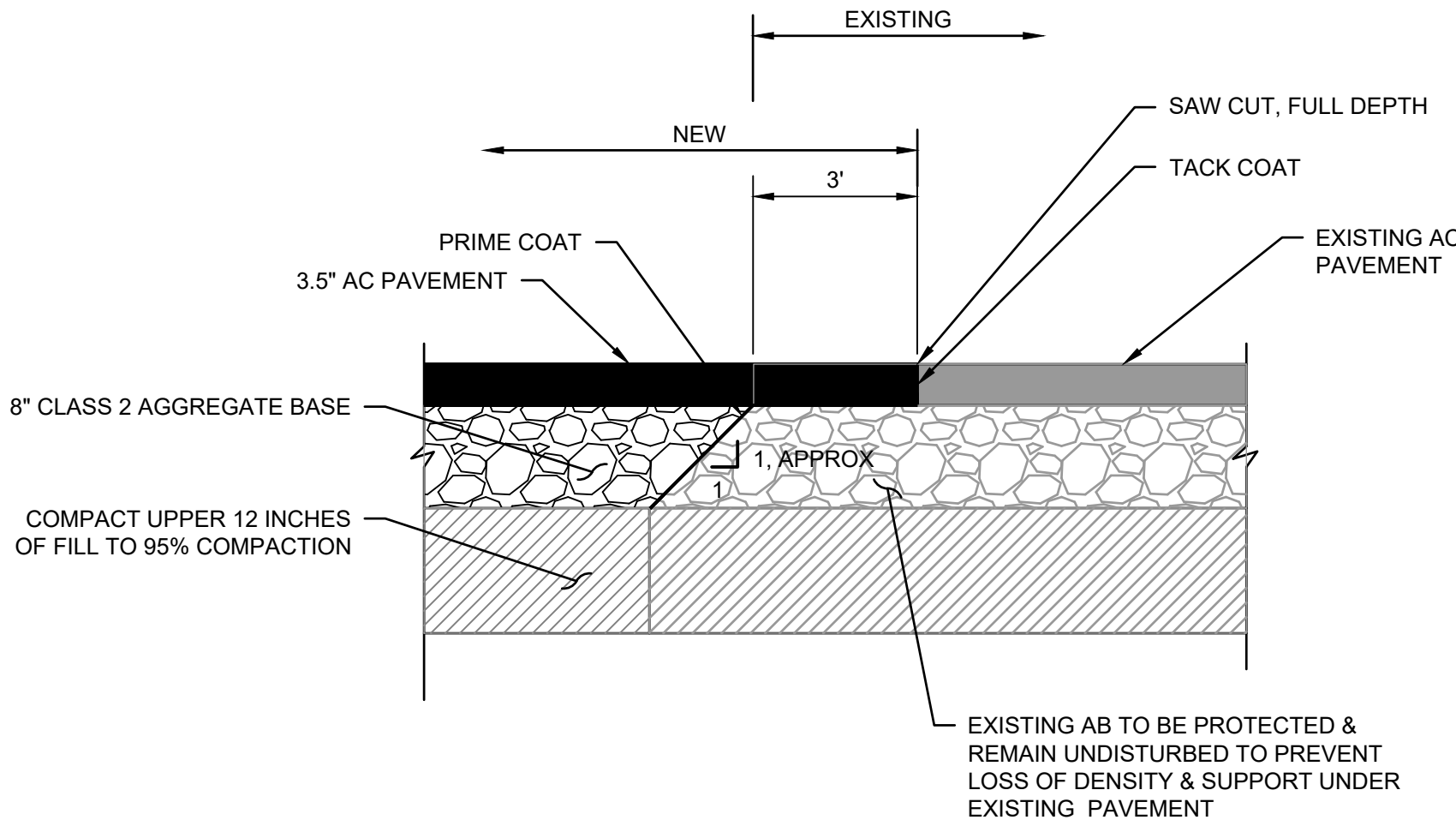
Sheet 3 of 4



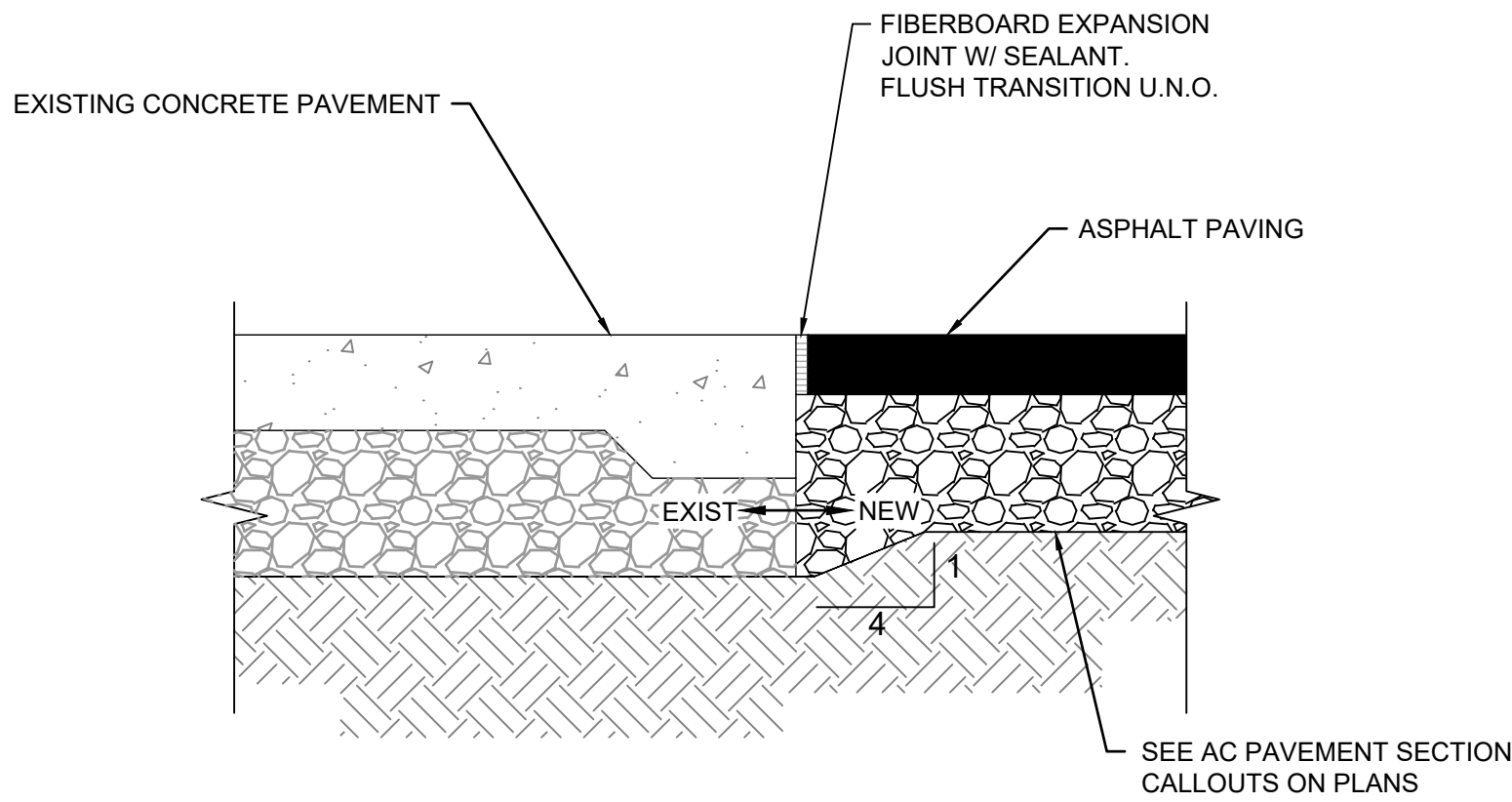
100% SUBMITTAL



SITE PLAN
SCALE: 1" = 10'



1 ASPHALT PAVEMENT JOINT
SCALE: NTS



2 ASPHALT TO EXISTING CONCRETE TRANSITION
SCALE: NTS

GENERAL NOTES

1. INSTALL NEW AIR AND WATER LINES PER CALIFORNIA PLUMBING CODE 2022.

SHEET KEYNOTES

- 1 3.5" AC PAVEMENT OVER 8" CLASS 2 AGGREGATE BASE
- 2 CONSTRUCT ASPHALT PAVEMENT JOINT PER DETAIL 1, THIS SHEET.
- 3 CONSTRUCT ASPHALT TO CONCRETE TRANSITION PER DETAIL 2, THIS SHEET.
- 4 REINSTALL WATER LINE A MINIMUM 3' BELOW FINISH SURFACE TO MAINTAIN SERVICE TO EXISTING EQUIPMENT. SIZE AND MATERIAL TO MATCH EXISTING.
- 5 REINSTALL AIR LINE A MINIMUM 3' BELOW FINISH SURFACE TO MAINTAIN SERVICE TO EXISTING EQUIPMENT. SIZE AND MATERIAL TO MATCH EXISTING
- 6 REINSTALL ELECTRICAL CONDUIT(S) AND WIRING TO MAINTAIN SERVICE TO EXISTING EQUIPMENT. SIZE AND MATERIAL TO MATCH EXISTING.



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Client **CALIFORNIA MILITARY DEPARTMENT (CMD) BARSTOW FMS #02**

Project **TYPE A&B FMS UNDERGROUND TANK REMOVAL**

No.	Issue	Drawn	Approved	Date
Drawn	A. OCAMPO	Designer	A. OCAMPO	
Drafting Check	M. WEBER	Design Check	M. WEBER	
Project Manager	S. WALSH	Date	SEPTEMBER 2025	
This document shall not be used for construction unless signed and sealed for construction.		Scale	NONE	
Original Size		Bar is one inch on original size sheet		
Arch D		0 1"		
Project No.	12670676	REV V0		

Title
SITE RESTORATION PLAN

Sheet No.
C-101



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DIVISION 01 - GENERAL REQUIREMENTS

SECTION 01 45 00

CMD Amended September 2025

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- 1.3 INFORMATION FOR THE CONTRACTING OFFICER
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SECTION 01 45 00

QUALITY CONTROL FOR MINOR CONSTRUCTION

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 -- Safety and Health
Requirements Manual

ASTM D3740 (2012a) Minimum Requirements for Agencies
Engaged in the Testing and/or Inspection of Soil
and Rock as Using Design and Construction

ASTM E329 (2018) Standard Specification for Agencies
Engaged in Construction Inspection, Testing,
or Special Inspection

1.2 SUBMITTALS

Government approval is required for submittals with a "G" or "S" classification. Submittals not having a "G" or "S" classification are for information only. When used, a code following the "G" classification 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

QC Plan; G-BO (Governments Building Official)

1.3 INFORMATION FOR THE CONTRACTING OFFICER

Prior to commencing work on construction, the Contractor can obtain a single copy set of the current report forms from the Contracting Officer. The report forms will consist of the Contractor Production Report, Contractor Production Report (Continuation Sheet), Contractor Quality Control (CQC) Report, CQC Report (Continuation Sheet), Preparatory Phase Checklist, Initial Phase Checklist, Rework Items List, and Testing Plan and Log.

Deliver the following to the Contracting Officer:

- a. CQC Report: Original and one copy, by 10:00 AM the next working day after each day that work is performed;
- b. Contractor Production Report: Original and one copy by 10:00 AM the next working day after each day that work is performed;
- c. Preparatory Phase Checklist: Original attached to the original CQC Report and one copy attached to each copy;
- d. Initial Phase Checklist: Original attached to the original CQC Report and one copy attached to each copy;
- e. Field Test Reports: One copy, within two working days after the test is performed, attached to the CQC Report;
- f. QC Meeting Minutes: One copy, within two working days after the meeting; and
- g. QC Certifications: As required by the paragraph entitled "QC Certifications."

1.4 QC PROGRAM REQUIREMENTS

Establish and maintain a QC program as described in this section. The QC program consists of a QC Manager, a QC plan, a Coordination and Mutual Understanding Meeting, QC meetings, three phases of control, submittal review and approval, testing, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this contract. The QC program must cover on-site and off-site work and must be keyed to the work sequence. No work or testing may be performed unless the QC Manager is on the work site.

1.4.1 Preliminary Work Authorized Prior to Acceptance

The only work that is authorized to proceed prior to the acceptance of the QC plan is mobilization of storage and office trailers, temporary utilities, and surveying. Written consent is provide by the contracting officer to mobilize prior to acceptance.

1.4.2 Acceptance

Acceptance of the QC plan is required prior to the start of construction. The Contracting Officer reserves the right to require changes in the QC plan and operations as necessary, including removal of personnel, to ensure the specified quality of work. The Contracting Officer reserves the right to interview any member of the QC organization at any time in order to verify the submitted qualifications.

1.4.3 Notification of Changes

Notify the Contracting Officer, in writing, of any proposed change, including changes in the QC organization personnel, a minimum of seven calendar days prior to a proposed change. Proposed changes must be subject to the acceptance by the Contracting Officer.

1.5 QC ORGANIZATION

1.5.1 QC Manager

1.5.1.1 Duties

Provide a QC Manager at the work site to implement and manage the QC program.

The QC Manager shall be a stand-alone position and have no other duties.

Exception: Building Official (BO) may allow the QC Manager to share duties with the Superintendent or safety officer on projects with a contract value under one million dollars or on single trade, non-complex projects of any value. However, at no time will one person hold more than two duties. This option is at the discretion of the BO. Contractors may request this option during pre-bid RFI's for bidding purposes.

The QC Manager is required to attend the Coordination and Mutual Understanding Meeting, conduct the QC meetings, perform the three phases of control, perform submittal review and approval, ensure testing is performed and provide QC certifications and documentation required in this contract. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by others.

1.5.1.2 Qualifications

An individual with a minimum of 5 years combined experience as a superintendent, inspector, QC Manager, project manager, or construction manager on similar size and type construction contracts which included the major trades that are part of this contract with the technical competency and ability to inspect the work of others. The individual must be familiar with the requirements of the EM 385-1-1 and have experience in the areas of hazard identification and safety compliance.

1.5.1.3 Construction Quality Management Training

In addition to the above experience and education requirements, the QC Manager must have completed the course Construction Quality Management for Contractors and will have a current certificate.

1.5.2 Alternate QC Manager Duties and Qualifications

Designate an alternate for the QC Manager to serve in the event of the designated QC Manager's absence. The period of absence may not exceed two weeks at one time, and not more than 30 workdays during a calendar year. The qualification requirements for the Alternate QC Manager must be the same as for the QC Manager.

1.6 QC PLAN

Submit a QC plan within 15 calendar days after receipt of Notice of Award.

1.6.1 Requirements

Provide, for acceptance by the Contracting Officer, a QC plan submitted in a three-ring binder that covers both on-site and off-site work and includes the following with a table of contents listing the major sections identified with tabs.

- I. QC ORGANIZATION: A chart showing the QC organizational structure and its relationship to the production side of the organization. The QC Manager must report to an officer of the firm and not be subordinate to the Project Superintendent or the Project Manager. The QC Manager, Project Superintendent and Project Manager must work together effectively. Although the QC Manager is the primary individual responsible for quality control, all individuals will be held responsible for the quality of work on the job.
- II. NAMES AND QUALIFICATIONS: In resume format, for each person in the QC organization. Include the CQM for Contractors course certification required by the paragraph entitled "Construction Quality Management Training".
- III. DUTIES, RESPONSIBILITY AND AUTHORITY OF QC PERSONAL: Of each person in the QC organization.
- IV. OUTSIDE ORGANIZATIONS: A listing of outside organizations such as architectural and consulting engineering firms that will be employed by the Contractor and a description of the services these firms will provide.
- V. APPOINTMENT LETTERS: Letters signed by an officer of the firm appointing the QC Manager and Alternate QC Manager and stating that they are responsible for managing and implementing the QC program as

described in this contract. Include in this letter the QC Manager's authority to direct the removal and replacement of non-conforming work.

- VI. SUBMITTAL PROCEDURES AND INITIAL SUBMITTAL REGISTER: Procedures for reviewing, approving and managing submittals. Provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to approval.
- VII. TESTING LABORATORY INFORMATION: Testing laboratory information required by the paragraphs "Accredited Laboratories" or "Testing Laboratory Requirements", as applicable.
- VIII. TESTING PLAN AND LOG: A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test.
- IX. PROCEDURES TO COMPLETE REWORK ITEMS: Procedures to identify, record, track and complete rework items.
- X. DOCUMENTATION PROCEDURES: Use Government formats.
- XI. LIST OF DEFINABLE FEATURES: A Definable Feature of Work (DFOW) is a task, which is separate and distinct from other tasks, has the same control requirements and work crews. The list must be cross-referenced to the Contractor's Construction Schedule and the specification sections. For projects requiring a Progress Chart, the list of definable features of work must include but not be limited to all items of work on the schedule. For projects requiring a Network Analysis Schedule, the list of definable features of work must include but not be limited to all critical path activities.
- XII. PROCEDURES FOR PERFORMING THREE PHASES OF CONTROL: For each DFOW provide Preparatory and Initial Phase Checklists. Each list must include a breakdown of quality checks that will be used when performing the quality control functions, inspections, and tests required by the contract documents. The preparatory and initial phases must be conducted with a view towards obtaining quality construction by planning ahead and identifying potential problems.
- XIII. PERSONNEL MATRIX: Not Applicable.
- XIV. PROCEDURES FOR COMPLETION INSPECTION: See the paragraph entitled "COMPLETION INSPECTIONS".
- XV. TRAINING PROCEDURES AND TRAINING LOG: Not Applicable.

1.7 COORDINATION AND MUTUAL UNDERSTANDING MEETING

During the Pre-Construction conference meeting and prior to the start of construction, discuss the QC program required by this contract. The purpose of this meeting is to develop a mutual understanding of the QC details, including documentation, administration for on-site and off-site work, and the coordination of the Contractor's management, production and the QC personnel. At the meeting, the Contractor will be required to explain how three phases of control will be implemented for each DFOW. Contractor's personnel required to attend must include the QC Manager, project manager, and superintendent. Minutes of the meeting will be prepared by the QC Manager and signed by both the Contractor and the Contracting Officer. The Contractor must provide a copy of the signed minutes to all attendees. Repeat the coordination and mutual understanding meeting when a new QC Manager is appointed.

1.8 QC MEETINGS

After the start of construction, the QC Manager must conduct QC meetings

State of California Military Department

once every week at the work site with the superintendent and

the foreman responsible for the ongoing and upcoming work. The QC Manager must prepare the minutes of the meeting and provide a copy to the Contracting Officer within two working days after the meeting. As a minimum, the following must be accomplished at each meeting:

- a. Review the minutes of the previous meeting;
- b. Review the schedule and the status of work and rework;
- c. Review the status of submittals;
- d. Review the work to be accomplished in the next two weeks and documentation required;
- e. Resolve QC and production problems (RFIs, etc.);
- f. Address items that may require revising the QC plan; and
- g. Review Accident Prevention Plan (APP).

1.9 THREE PHASES OF CONTROL

The three phases of control must adequately cover both on-site and off-site work and must include the following for each DFOW.

1.9.1 Preparatory Phase

Notify the Contracting Officer at least two work days in advance of each preparatory phase. Conduct the preparatory phase with the superintendent and the foreman responsible for the definable feature of work. Document the results of the preparatory phase actions in the daily CQC Report and in the QC checklist. Perform the following prior to beginning work on each definable feature of work:

- a. Review each paragraph of the applicable specification sections;
- b. Review the contract drawings;
- c. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;
- d. Review the testing plan and ensure that provisions have been made to provide the required QC testing;
- e. Examine the work area to ensure that the required preliminary work has been completed;
- f. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;
- g. Review the APP and appropriate Activity Hazard Analysis (AHA) to ensure that applicable safety requirements are met, and that required Safety Data Sheets (SDS) are submitted; and
- h. Discuss specific controls used and the construction methods and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each DFOW.

1.9.2 Initial Phase

Notify the Contracting Officer at least two work days in advance of each initial phase. Conduct the Initial Phase with the foreman responsible for that DFOW. Observe the initial segment of the work to ensure that it complies with contract requirements. Document the results of the Initial Phase in the daily CQC Report and in the QC checklist. Perform the following for each DFOW:

- a. Establish the quality of workmanship required;
- b. Resolve conflicts;
- c. Ensure that testing is performed by the approved laboratory; and
- d. Check work procedures for compliance with the APP and the appropriate AHA to ensure that applicable safety requirements are met.

1.9.3 Follow-Up Phase

Perform the following for on-going work daily, or more frequently as necessary, until the completion of each DFOW and document in the daily CQC Report and in the QC checklist:

- a. Ensure the work is in compliance with contract requirements;
- b. Maintain the quality of workmanship required;
- c. Ensure that testing is performed by the approved laboratory;
- d. Ensure that rework items are being corrected; and
- e. Assure manufacturers representatives have performed necessary inspections, if required.

1.9.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases must be conducted on the same DFOW if the quality of on-going work is unacceptable, if there are changes in the applicable QC organization, if there are changes in the on-site production supervision or work crew, if work on a DFOW is resumed after substantial period of inactivity, or if other problems develop.

1.9.5 Notification of Three Phases of Control for Off-Site Work

Notify the Contracting Officer at least two weeks prior to the start of the preparatory and initial phases.

1.10 SUBMITTAL REVIEW AND APPROVAL

Procedures for submission, review, and approval of submittals are described in Section 01 33 00 SUBMITTAL PROCEDURES.

1.11 TESTING

Except as stated otherwise in the specification sections, perform sampling and testing required under this contract.

1.11.1 Accreditation Requirements

Construction materials testing laboratories must be accredited by a laboratory accreditation authority and will be required to submit a copy of the Certificate of Accreditation and Scope of Accreditation. The laboratory's scope of accreditation must include the appropriate ASTM standards (i.e.; E 329, C 1077, D 3666, D 3740, E 543) listed in the technical sections of the specifications. Laboratories engaged in Hazardous Materials Testing must meet the requirements of OSHA and EPA. The policy applies to the specific laboratory performing the actual testing, not just the "Corporate Office."

1.11.2 Laboratory Accreditation Authorities

Laboratory Accreditation Authorities include the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology, the American Association of State Highway and Transportation Officials (AASHTO), International Accreditation Services, Inc. (IAS), U. S. Army Corps of Engineers Materials Testing Center (MTC), the American Association for Laboratory Accreditation (A2LA), the Washington Association of Building Officials (WABO) (Approval authority for WABO is limited to projects within Washington State), and the Washington Area Council of Engineering Laboratories (WACEL) (Approval authority by WACEL is limited to projects within the NAVFAC WASH and Public Works Center Washington geographical area).

1.11.3 Capability Check

The Contracting Officer retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this contract.

1.11.4 Test Results

Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify the Contracting Officer immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results must be signed by a testing laboratory representative authorized to sign certified test reports. Furnish the signed reports, certifications, and other documentation to the Contracting Officer.

1.12 QC CERTIFICATIONS

1.12.1 Contractor Quality Control Report Certification

Each CQC Report must contain the following statement: "On behalf of the Contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report."

1.12.2 Invoice Certification

Furnish a certificate to the Contracting Officer with each payment request, signed by the QC Manager, attesting that as-built drawings are current and attesting that the work for which payment is requested, including stored material, is in compliance with contract requirements.

1.12.3 Completion Certification

Upon completion of work under this contract, the QC Manager must furnish a certificate to the Contracting Officer attesting that "the work has been completed, inspected, tested and is in compliance with the contract."

1.13 COMPLETION INSPECTIONS

1.13.1 Punch-Out Inspection

Near the completion of all work or any increment thereof established by a completion time stated in the Contract clause "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the QC Manager must conduct an inspection of the work and develop a punch list of items which do not conform to the approved drawings and specifications. Include in the punch list any remaining items of the "Rework Items List", which were not corrected prior to the Punch-Out inspection. The punch list must include the estimated date by which the deficiencies will be corrected. A copy of the punch list must be provided to the Contracting Officer. The QC Manager or staff must make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor must notify the Government that the facility is ready for the Government "Pre-Final Inspection".

1.13.2 Pre-Final Inspection

The Government and QC manager will perform this 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. The QC Manager must ensure that all items on this list are corrected prior to notifying the Government that a "Final" inspection with the customer can be scheduled. Any items noted on the "Pre-Final" inspection must be corrected in a timely manner and must be accomplished before the contract completion date for the work or any particular increment thereof if the project is divided into increments by separate completion dates.

1.13.3 Final Acceptance Inspection

The QC Manager, the superintendent, or other Contractor management personnel and the Contracting Officer will be in attendance at this inspection. Additional Government personnel may be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the "Pre-Final Inspection". Notice must be given to the Contracting Officer at least 14 days prior to the final inspection. The notice must state that all specific items previously identified to the Contractor as being unacceptable will be complete 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 to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause "Inspection of Construction".

1.14 DOCUMENTATION

Maintain current and complete records of on-site and off-site QC program operations and activities. The forms identified under the paragraph "INFORMATION FOR THE CONTRACTING OFFICER" must be used. Reports are required for each day work is performed. Account for each calendar day throughout the life of the contract. Every space on the forms must be filled in. Use N/A if nothing can be reported in one of the spaces. The superintendent and the QC Manager must prepare and sign the Contractor Production and CQC Reports, respectively. The reporting of work must be identified by terminology consistent with the construction schedule. In the "remarks" section in this report which will contain pertinent information including directions received, problems encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site. For each remark given, identify the Schedule Activity No. that is associated with the remark.

1.14.1 Quality Control Validation

Establish and maintain the following in a series of three ring binders. Binders must be divided and tabbed as shown below. These binders must be readily available to the Government's Quality Assurance Team during all business hours.

- a. All completed Preparatory and Initial Phase Checklists, arranged by specification section.
- b. All milestone inspections, arranged by Activity/Event Number.
- c. A current up-to-date copy of the Testing and Plan Log with supporting field test reports, arranged by specification section.
- d. Copies of all contract modifications, arranged in numerical order. Also include documentation that modified work was accomplished.
- e. A current up-to-date copy of the Rework Items List.
- f. Maintain up-to-date copies of all punch lists issued by the QC Staff on the Contractor and Sub-Contractors and all punch lists issued by the Government.

1.14.2 As-Built Drawings

The QC Manager is required to review the as-built drawings, required by Section 01 78 00 CLOSEOUT SUBMITTALS, are kept current on a daily basis and marked to show deviations, which have been made from the Contract drawings. Ensure each deviation has been identified with the appropriate modifying documentation, e.g. PC number, modification number, RFI number, etc. The QC Manager must initial each deviation or revision. Upon completion of work, the QC Manager must submit a certificate attesting to the accuracy of the as-built drawings prior to submission to the Contracting Officer.

1.15 NOTIFICATION ON NON-COMPLIANCE

The Contracting Officer will notify the Contractor of any detected non-compliance with the foregoing requirements. The Contractor must take immediate corrective action. If the contractor fails or refuses to correct the non-compliant work, the Contracting Officer will issue a non compliance notice. Such notice, when delivered to the Contractor at the

work site, must be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor must make no part of the time lost due to such stop orders the subject of claim for extension of time, for excess costs, or damages.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

COMPLETION INSPECTIONS

PROCEDURES FOR INSPECTION

3.1 All Inspections including Special Inspections will be requested by the contractors QC manager to the governments Inspector of Record(IOR)/QA. Inform the IOR no less then 48 hours prior to the time inspection is requested via the system of record used to manage the project(Procore, Bim360, Email etc). QC shall perform quality control inspection prior to requesting inspection from the government. The following documents shall accompany all inspection requests to be valid.

- a. Map and location of the work that is to be inspected
- b. Preparatory Phase Checklist
- c. Initial Phase Checklist
- d. Pictures of the work (a reasonable amount to illustrate the work)
- e. Specification sections for the work being inspected
- f. A written and signed inspection request on company letterhead from the QC stating "the work has been completed, was inspected and is in compliance with the contract documents"

-- End of Section -

Company Letterhead

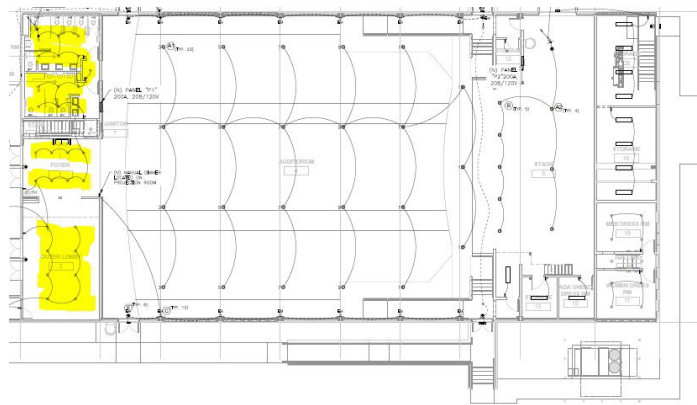
From: QC Name

Date: (Todays Date)

TO: CA Mil Dept.- IOR Name

Request inspection on: Date / Time

Details: Request government inspection of the rough electrical lighting located in the front lobby, restrooms, and outer lobby. Work to be inspected is highlighted on the map below.



FIRST FLOOR REFLECTED CEILING PLAN
SCALE 1/8" = 1'-0"

Below are photographs of the work to be inspected

Photo 1

Photo 2

Photo 3

Specification section attached

Preparatory Phase checklist attached

Initial Phase checklist attached

gcm
gcm
gcm

Electrical Subcontractor verifies work is ready for inspection _____ *Signature* _____

"QC Verification statement:" The work has been completed, was inspected and is in compliance with the contract documents
_____ *Signature* _____

PREPARATORY PHASE CHECKLIST		SPEC SECTION	DATE
(CONTINUED ON SECOND PAGE)			
CONTRACT NO	DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.	INDEX #
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES ☐ NO ☐ NAME _____ POSITION _____ COMPANY/GOVERNMENT _____		
SUBMITTALS	REVIEW SUBMITTALS AND/OR SUBMITTAL REGISTER. HAVE ALL SUBMITTALS BEEN APPROVED? YES ☐ NO ☐ IF NO, WHAT ITEMS HAVE NOT BEEN SUBMITTED? _____		
	ARE ALL MATERIALS ON HAND? YES ☐ NO ☐ IF NO, WHAT ITEMS ARE MISSING? _____		
	CHECK APPROVED SUBMITTALS AGAINST DELIVERED MATERIAL. (THIS SHOULD BE DONE AS MATERIAL ARRIVES.) COMMENTS: _____		
MATERIAL STORAGE	ARE MATERIALS STORED PROPERLY? YES ☐ NO ☐ IF NO, WHAT ACTION IS TAKEN? _____		
SPECIFICATIONS	REVIEW EACH PARAGRAPH OF SPECIFICATIONS. _____		
	DISCUSS PROCEDURE FOR ACCOMPLISHING THE WORK. _____		
	CLARIFY ANY DIFFERENCES. _____		
PRELIMINARY WORK & PERMITS	ENSURE PRELIMINARY WORK IS CORRECT AND PERMITS ARE ON FILE. IF NOT, WHAT ACTION IS TAKEN? _____		

TESTING	IDENTIFY TEST TO BE PERFORMED, FREQUENCY, AND BY WHOM. _____
	WHEN REQUIRED? _____
	WHERE REQUIRED? _____
	REVIEW TESTING PLAN. _____
SAFETY	HAS TEST FACILITIES BEEN APPROVED? _____
MEETING COMMENTS	ACTIVITY HAZARD ANALYSIS APPROVED? YES ☐ NO ☐
	REVIEW APPLICABLE PORTION OF EM 385-1-1. _____
OTHER ITEMS OR REMARKS	COMMENTS DURING MEETING.
QC MANAGER DATE	

INITIAL PHASE CHECKLIST		SPEC SECTION	DATE
CONTRACT NO		DEFINABLE FEATURE OF WORK	SCHEDULE ACT NO.
		INDEX #	
PERSONNEL PRESENT	GOVERNMENT REP NOTIFIED _____ HOURS IN ADVANCE: YES ☐ NO ☐		
	NAME	POSITION	COMPANY/GOVERNMENT
PROCEDURE COMPLIANCE	IDENTIFY FULL COMPLIANCE WITH PROCEDURES IDENTIFIED AT PREPARATORY. COORDINATE PLANS, SPECIFICATIONS, AND SUBMITTALS.		
	COMMENTS: _____		
PRELIMINARY WORK	ENSURE PRELIMINARY WORK IS COMPLETE AND CORRECT. IF NOT, WHAT ACTION IS TAKEN?		
WORKMANSHIP	ESTABLISH LEVEL OF WORKMANSHIP.		
	WHERE IS WORK LOCATED? _____		
	IS SAMPLE PANEL REQUIRED? YES ☐ NO ☐		
	WILL THE INITIAL WORK BE CONSIDERED AS A SAMPLE? YES ☐ NO ☐		
	(IF YES, MAINTAIN IN PRESENT CONDITION AS LONG AS POSSIBLE AND DESCRIBE LOCATION OF SAMPLE) _____		
RESOLUTION	RESOLVE ANY DIFFERENCES.		
	COMMENTS: _____		
CHECK SAFETY	REVIEW JOB CONDITIONS USING EM 385-1-1 AND JOB HAZARD ANALYSIS		
	COMMENTS: _____		
OTHER	OTHER ITEMS OR REMARKS		
QC MANAGER _____ DATE _____			

CONTRACTOR QUALITY CONTROL REPORT				DATE	
(ATTACH ADDITIONAL SHEETS IF NECESSARY)				REPORT NO	
PHASE	CONTRACT NO		CONTRACT TITLE		
PREPARATORY	WAS PREPARATORY PHASE WORK PREFORMED TODAY? YES ☐ NO ☐ IF YES, FILL OUT AND ATTACH SUPPLEMENTAL PREPARATORY PHASE CHECKLIST.				
	Schedule Activity No.	Definable Feature of Work			Index #
INITIAL	WAS INITIAL PHASE WORK PREFORMED TODAY? YES ☐ NO ☐ IF YES, FILL OUT AND ATTACH SUPPLEMENTAL INITIAL PHASE CHECKLIST.				
	Schedule Activity No.	Definable Feature of Work			Index #
FOLLOW-UP	WORK COMPLIES WITH CONTRACT AS APPROVED DURING INITIAL PHASE? YES ☐ NO ☐ WORK COMPLIES WITH SAFETY REQUIREMENTS? YES ☐ NO ☐				
	Schedule Activity No.	Description of Work, Testing Performed & By Whom, Definable Feature of Work, Specification Section, Location and List of Personnel Present			
REWORK ITEMS IDENTIFIED TODAY (NOT CORRECTED BY CLOSE OF BUSINESS)			REWORK ITEMS CORRECTED TODAY (FROM REWORK ITEMS LIST)		
Schedule Activity No.	Description	Schedule Activity No.	Description		
REMARKS (Also Explain Any Follow-Up Phase Checklist Item From Above That Was Answered "NO"), Manuf. Rep On-Site, etc.					
Schedule Activity No.	Description				
On behalf of the contractor, I certify that this report is complete and correct and equipment and material used and work performed during this reporting period is in compliance with the contract drawings and specifications to the best of my knowledge except as noted in this report.					
AUTHORIZED QC MANAGER AT SITE _____				DATE _____	

DATE

REWORK ITEMS LIST

Contract No. and Title: Enter Contract # and Title Here

Contractor: Enter Contractor's Company Name Here

[illegible]

TESTING PLAN AND LOG

[illegible]

RESPONSIBILITIES/AUTHORITY OF THE QC MANAGER

1. Appointing letter to the QC manager shall detail his/her authority and responsibility to act for the contractor and outline his/her duties, responsibilities and authority. He/she shall have no job-related responsibilities other than QC unless specifically permitted in the specification.
2. He/she shall be on the site at all times during progress of the work, with complete authority to take any action necessary to ensure conformance with the contract requirements. In the event of his/her absence, approved backup shall be on the site.
3. Authority to immediately stop any segment of work which does not comply with the contract plans and specifications and direct the removal and replacement of any defective work.
4. Conduct daily inspection of work performed for compliance with plans and specifications.
5. Certify daily that all materials and equipment delivered/installed in the work comply with contract plans and specifications. Certify daily that all work performed on the construction site and off the construction site conforms to plans and specifications. Report any deficiencies and remedial action planned and taken.
6. Supervise and coordinate the inspection and tests made by the members of the Quality Control Organization, including subcontractors.
7. Assure QC staff is adequate to meet its responsibilities.
8. Maintain a copy of the Building Official approved QC Plan on file at the jobsite complete with up-to-date approved revisions/filled-in log of submittals. Maintain at the jobsite an up-to-date QC Submittal Register (provided in the specification) showing the status of all submittals required by the contract.
9. Maintain at the jobsite a testing plan showing status of all tests required by the contracts. Ensure that all tests required are performed and report the results of same. Indicate whether test results show the item tested conforms to contract requirements or not.
10. Authority to remove any individual from the site who fails to perform his/her work in a skillful and workmanlike manner or his/her work does not comply with the contract plans and specifications.
11. QC manager does not have authority to deviate from plans and specifications without prior approval, in writing, from the ROICC.
12. Ensure that the contractor's Quality Control Organization is adequately staffed with qualified personnel to perform all the detailed inspections and testing specified in the plans and specifications.
13. Maintain at the jobsite the up-to-date QC Rework Items List.