

PUBLIC WORKS CONTRACT (Informal Bid)

Ord Military Community Building 4468 Emergency Generator Replacement Project (DPW-17017)

THIS AGREEMENT, hereinafter referred to as the "Agreement", made and entered into this 26 day of JUNE 2018, by and between the CITY OF MONTEREY, a municipal corporation, hereinafter referred to as the "City", and BAY CITY ELECTRIC WORKS hereinafter referred to as the "Contractor";

WITNESSETH:

WHEREAS, the City has awarded a contract to the Contractor for performing the work hereinafter described in accordance with the City's Plans and Specifications and Contractor's proposal;

NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. **SCOPE OF WORK.** The Contractor shall perform all of the work and furnish all labor, materials, equipment and transportation necessary for the Ord Military Community Building 4468 Emergency Generator Replacement Project. Work is to be as set out in the Plans and Specifications on file in the Office of the City Engineer and as in the Contractor's Proposal attached hereto, dated April 25, 2018, in an amount not to exceed **Eighty Three Thousand Two Hundred Ninety Six Dollars and Ten Cents (\$83,296.10)** plus a sum of up to 10% for such contingencies as the City Manager, or his designee, deems appropriate.
2. **TIME OF PERFORMANCE.** The work under this contract shall commence within **fourteen (14) calendar days from the effective date of the Notice to Proceed and shall be completed on or before the expiration of One Hundred Twenty (120) working days** from the effective date of the Notice to Proceed.
3. If any provision in this Agreement is held by a court of competent jurisdiction to be invalid, void, or unenforceable, the remaining provisions will continue in full force without being impaired or invalidated in any way.
4. Contractor agrees that in the performance of this Agreement, it will comply with all applicable state, federal and local laws, codes and regulations. This Agreement shall be governed by and construed in accordance with the laws of the State of California and the City of Monterey.
5. In accordance with the provisions of Sections 1725.5, 1771.1, 1771.3, and 1771.4 of the Labor Code, this project is subject to compliance monitoring and enforcement by the Department of Industrial Relations. A contractor or subcontractor shall not be qualified to bid on, be listed in a bid proposal, subject to the requirements of Section 4104 of the Public Contract Code, or engage in the performance of any contract for public work, as defined by that chapter of the Labor Code, unless currently registered and qualified to perform public work pursuant to Section 1725.5 of the Labor Code. It is not a violation of this section for an unregistered contractor to submit a bid that is authorized by Section 7029.1 of the Business and Professions Code or by Section 10164 or 20103.5 of the Public Contract Code, provided the contractor is registered to perform public work pursuant to Section 1725.5 at the time the contract is awarded.
6. This Agreement shall consist of this Public Works Contract document and the following items, all of which are on file in the office of the City Clerk and are incorporated herein and made a part hereof by reference:
 - A. Plans and Specifications
 - B. Accepted Proposal
 - C. Performance Bond
 - D. Payment Bond (labor and materials)
 - E. Non-Collusion Declaration
 - F. Debarment and Suspension Certification

IN WITNESS WHEREOF, said Contractor and said City have hereunto set their hands, all on the day and year first above written.

CITY OF MONTEREY:

By: _____

City Manager, or his designee

BAY CITY ELECTRIC WORKS

By: _____

Rod Lee, President

PUBLIC WORKS CONTRACT (Informal Bid)

Ord Military Community Building 4468 Emergency Generator Replacement Project (DPW-17017)

THIS AGREEMENT, hereinafter referred to as the "Agreement", made and entered into this 25 day of June, 2018, by and between the CITY OF MONTEREY, a municipal corporation, hereinafter referred to as the "City", and BAY CITY ELECTRIC WORKS hereinafter referred to as the "Contractor";

WITNESSETH:

WHEREAS, the City has awarded a contract to the Contractor for performing the work hereinafter described in accordance with the City's Plans and Specifications and Contractor's proposal;


NOW, THEREFORE, IT IS AGREED AS FOLLOWS:

1. **SCOPE OF WORK.** The Contractor shall perform all of the work and furnish all labor, materials, equipment and transportation necessary for the Ord Military Community Building 4468 Emergency Generator Replacement Project. Work is to be as set out in the Plans and Specifications on file in the Office of the City Engineer and as in the Contractor's Proposal attached hereto, dated May 17, 2018, in an amount not to exceed **Eighty Three Thousand Two Hundred Ninety Six Dollars and Ten Cents (\$83,296.10)** plus a sum of up to 10% for such contingencies as the City Manager, or his designee, deems appropriate.
2. **TIME OF PERFORMANCE.** The work under this contract shall commence within **fourteen (14) calendar days from the effective date of the Notice to Proceed and shall be completed on or before the expiration of One Hundred Twenty (120) working days** from the effective date of the Notice to Proceed.
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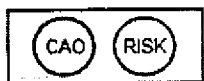
IN WITNESS WHEREOF, said Contractor and said City have hereunto set their hands, all on the day and year first above written.

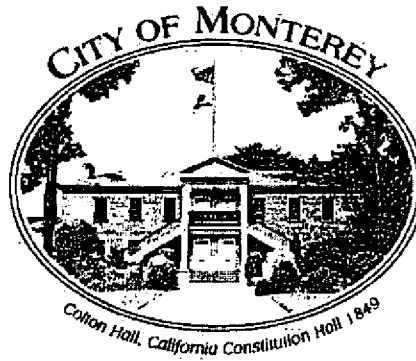
CITY OF MONTEREY:

BAY CITY ELECTRIC WORKS

By: 
City Manager, or his designee

By: _____
Rod Lee, President





CITY OF MONTEREY
DEPARTMENT OF PLANS AND PUBLIC WORKS

SPECIFICATIONS

FOR

**ORD MILITARY COMMUNITY
B4468 EMERGENCY GENERATOR REPLACEMENT (DPW-17017)**



TECHNICAL SPECIFICATIONS APPROVED BY:

Garrett Otto, PE. E20833

ENGINEER

DATE: 1/26/18



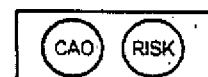
APPROVED FOR CONSTRUCTION:

CITY ENGINEER

DATE: 1-26-18

Master Specification Revision: 11/20/2017

Project Specification Revision:



**ORD MILITARY COMMUNITY
B4468 EMERGENCY GENERATOR REPLACEMENT (DPW-17017)**

PART IV: SPECIAL PROVISIONS

GENERAL

The work, in general, consists of for furnishing all labor, materials, tools, equipment and incidentals for the installation of new emergency generator and associated appurtenances for Building 4468. The work shall include, but not be limited to, In general, the work consists of, but is not limited to, removal of existing emergency generator, furnishing and installation of 60KW dual fuel generator, 400A ATS (Automatic Transfer Switch) modification to existing switchboard busing, new conduits and feeder circuit, extension of existing natural gas and propane piping and miscellaneous work and necessary tie-in for a complete in place and operational emergency generator.

Hazardous material abatement will be completed by others and it will be completed before the installation of the new emergency generator and associated appurtenances. Hazardous material survey report is included in the appendices for information. Contractor shall notify the Engineer immediately and stop work at the location if hazardous material is encountered during installation of the emergency generator.

PLANS AND SPECIFICATIONS

A component in one Contract part applies as if appearing in each. The parts are complementary and describe and provide for a complete work. The work embraced herein shall be done in accordance with the appropriate provisions of the Standard Specifications insofar as the same may apply, and in accordance with the specifications and plans. In case of conflict between the Standard Specifications, Standard Plans, and these Special Provisions and the Plans, the order of precedence shall be as follows:

Special Provisions shall take precedence over Plans and the Plans shall take precedence over Standard Specifications and Standard Plans.

CONTRACT BONDS

For Bid Bond requirements, see Part I, Bid Bond, of these Specifications.

The Contractor, at the time of signing and executing the contract, shall execute and file with the City a performance bond to the satisfaction and approval of said City, in a sum of not less than one hundred percent (100%) of the amount of the contract conditional upon the faithful performance of the contract. For additional information, see Guarantees elsewhere in these specifications.

The Contractor, at the time of signing and executing any contract in excess of twenty-five thousand dollars (\$25,000), shall execute and file with the City a payment bond (public works labor and materials bond) to the satisfaction and approval of said City, in a sum of one hundred percent (100%) of the amount of the contract in accordance with Civil Code §9550 et seq.

Please refer to Part III, Page 3, for sample bond forms.

The surety shall be an admitted carrier in California with a valid surety license and possess a minimum rating from A. M. Best Company of A-VII. The Surety and /or co-sureties must be listed as an acceptable surety on federal bonds by the United States Department of the Treasury, subject to the maximum amount shown in the listing. If co-sureties are used, their bonds shall be on a joint and several basis.

Notwithstanding the above, the Contractor may substitute adequate securities for any bond called for under the provisions of these Specifications as set forth in Public Contracts Code Section 22300. Alternate security substitutions shall be submitted to the City no later than ten (10) days after written notice that a contract has been awarded to the contractor to allow processing and escrow agreement for in lieu security.

The Contractor shall submit the contract with his signature affixed thereto, required bonds or evidence of insurance that conforms to the contract within fifteen (15) calendar days after Agreement # Ag-7218 - Page 3 of 147



contract has been awarded to him.

The Contractor shall maintain the performance bond in full force and effect during the guarantee period for the purpose of insuring that said repairs or replacements will be made, or may, at the Contractor's option, replace said performance bond for a similar bond in the amount of twenty percent (20%) of the total contract amount, including adjustments, or the original performance bond, whichever is greater.

TIME LIMITS

Within fifteen (15) calendar days after written notice that a contract has been awarded (Notice of Award), the Contractor shall submit two (2) signed original contracts, required bonds or alternative security, evidence of insurance that conforms to the contract, and City of Monterey Business License or evidence of application for said license.

A Notice to Proceed will be issued upon receipt of the foregoing documents. The Contractor shall begin work within fourteen (14) calendar days after the effective date of the Notice to Proceed.

The Contractor shall diligently prosecute the contract to completion on or before the expiration of **120 working days** from the effective date of the Notice to Proceed. This timeline includes equipment procurement.

LICENSES AND PERMITS

Prior to the execution of any contractual agreements, the successful Bidder shall obtain a City of Monterey Business License, and all applicable permits (except Coastal Zone Conservation permits) for construction.

SITE INSPECTION

It shall be the Contractor's responsibility to inspect the site and become thoroughly familiar with all aspects of the work to be done.

The submission of a bid shall be conclusive evidence that the Bidder has investigated the site and is thoroughly satisfied as to the conditions to be encountered, as to the character, quality, and scope of the work to be performed; the quantity of materials to be furnished; and as to all the requirements of these specifications.

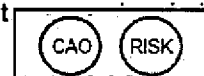
It shall be the Contractor's responsibility to be aware of surface and subsurface drainage conditions that may exist at the site. The Contractor is further responsible for work necessary to rectify any resulting drainage problems; labor, materials, equipment, and incidentals necessary to achieve the solution shall be borne by the Contractor.

SUBMITTALS

The review of submittals and approval thereof by the City does not relieve the Contractor from compliance with the requirements and intentions of the plans and specifications to which the submittals pertain.

Submittal Format:

1. Contractor shall submit individually bound copies of all submittals and revised submittals to the City's construction manager. A minimum of two (2) copies shall be submitted unless otherwise directed. Submittal submission may be done in pdf form via email.
2. All submittals shall have a cover sheet containing the following:
 - a. Submittal date, submittal number and submittal revision number (as applicable),
 - b. City project name,
3. Each submittal item shall clearly identify the specification section(s) and paragraph(s) for which the submittal item pertains to.
4. Contractor is not guaranteed a specific review time period. If Contractor requires a quick submittal turnaround of specific submittal items, Contractor must indicate which submittal items require a quick turnaround by attaching a memo to the submittal indicating such and the requested turnaround. The City shall make every effort to meet the requested review period.



5. Contractor shall place orders for all materials or equipment in time to prevent any delays to the construction schedule or project completion. If any materials or equipment are not ordered in a timely fashion, any additional charges made by equipment manufacturers and/or suppliers to complete the manufacturer and/or delivery in time to meet the construction schedule or project completion, together with any special handling charges shall be borne by the Contractor.

Submittal Content and Product Data:

1. Contractor shall review and accept submittals prior to submission.
2. Submittals shall contain all required information such as shop drawings, product data, etc.
3. Each submittal item shall be identified by manufacturer, brand name, trade name, model number, size, rating and additional information as is necessary to properly identify and verify the materials and equipment. The phrase "as specified" is not considered sufficient.
4. Where possible, submittal information shall be limited to the specific item being submitted. In the event multiple materials or equipment are described in one submittal, Contractor shall clearly identify the pertinent information being submitted on.
5. Accessories, controls, finish, etc. not required to be submitted or identified with the submittal shall be furnished and installed as specified.

PROTECTION OF PRIVATE PROPERTY

Private property grounds and facilities, if damaged or removed because of the Contractor's operations, shall be restored or replaced to same or better than the original condition and located in the same position and alignment as is reasonably possible. Contractor shall comply with the applicable portions of Section 5-1.36, "Property and Facility Preservation", Section 7-1.05, "Indemnification", and Section 7-1.06, "Insurance" of the Standard Specifications.

CONSTRUCTION QUALITY CONTROL

Definitions

Quality Management (QM) - All control and assurance activities instituted to achieve the product quality established by the contract requirements.

Contractor Quality Control (CQC) - The construction contractor's system to manage, control, and document contractor's, suppliers', and subcontractor's activities to comply with contract requirements.

Contractor Responsibility

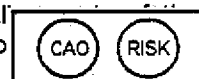
General: The Contractor shall establish and maintain an effective quality control system in compliance with the Plans and Specifications. The quality control system shall consist of plans, procedures, and organization necessary to provide materials, equipment, workmanship, fabrication, construction, and operations which comply with contract requirements. The system shall cover construction operations both onsite and offsite, and shall be keyed to the proposed construction sequence.

The Quality Control Plan

Quality Control Plans and Procedures.

The Contractor will be required to prepare a Quality Control Plan. This plan shall include, as a minimum, the following:

1. A description of the quality control procedures, including a chart showing lines of authority and acknowledgement that the Contractor shall implement the control system for all work specified and shall report to the project manager or someone higher in the Contractor



2. The name, qualifications, duties, responsibilities, and authorities of each person assigned a QC function.
3. A copy of the letter to the Engineer signed by an authorized official of the firm which describes the responsibilities and delegates the authority to implement the QC plan shall be furnished.
4. Procedure for scheduling and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents.
5. Control testing procedures for each specific case. Note that in the case of federally-funded projects, QA/QC testing must be performed by the city by a Caltrans-certified lab.
6. Reporting procedures including proposed reporting formats.

QC Plan Implementation

1. Preconstruction Conference. During the pre-construction conference, a mutual understanding of the CQC system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's management with the Engineer's inspection. Minutes of the conference shall be prepared by City staff, and be signed by both the Contractor and the Engineer. The minutes shall become a part of the contract file. There may also be occasions when subsequent conferences will be called to reconfirm mutual understandings.
2. General. After issuance of the Notice to Proceed, and prior to the start of construction, the Contractor shall furnish, for acceptance by the Engineer, the Contractor Quality Control (CQC) Plan with which he proposes to implement the requirements of Contract Clause entitled "Construction Quality Control". The plan shall identify personnel, procedures, instructions, records, and forms to be used. If the Contractor fails to submit an acceptable QC plan within the time herein prescribed, the Engineer may refuse to allow construction to start if an acceptable interim plan is not furnished.
3. Control of Materials, Tests, and Inspections. As listed below, and noted elsewhere in the specifications but not limited to the following items, the Quality Control Plan will include the dates for the Contractor to furnish certificates for product, or product test compliance; shop drawings or catalog cuts and requests for inspection or review.

a. Tests and Inspections:
Generator (start up and commissioning)

b. Materials and Materials Certification:
Generator
Automatic Transfer Switch (ATS)
Conductors
Conduit
Metal Door

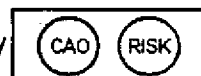
c. Daily Reports

The Contractor shall provide copies of daily reports which describe the work performed, weather conditions, personnel and equipment on site, and quality control activities performed.

The Contractor will not be paid for work prior to Engineer reviewing and accepting daily reports for the period of time payment is requested.

4. Acceptance of Plan. Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Engineer reserves the right to require the Contractor to make changes in the CQC plan and operations as necessary to obtain the quality specified.

5. Notification of Changes. After acceptance of the QC plan, the Contractor shall notify



writing

of any proposed change. Proposed changes are subject to acceptance by the Engineer.

6. Testing and Certification. The Contractor shall pay for all tests and inspections as required by the Plans and Specifications. The Contractor shall furnish certification of materials being used, upon request of the Engineer, without additional charge.

GUARANTEE

Materials and labor guarantees shall be per Part III of these specifications. All warranty shall be to the satisfaction of the City. Final payment will not be released without submission of warranties. Any materials installed in Army Buildings (with City of Monterey approval) shall issue warranty (if exists) to the United States Army prior to formal acceptance of work, and deliver to the City of Monterey, Engineering Division Office.

REGULATIONS

The Contractor and all subcontractors shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work, safety and hiring/employment practices. Nothing in the Plans and Specifications shall be construed to permit work not conforming to the regulations and codes set forth herein which include, but are not limited to the following:

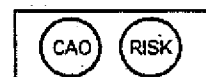
1. Americans with Disabilities Act (ADA) accessibility and employment standards. In the event of conflicting federal and state standards, the standard that provides greater access will take precedence.
2. Monterey City Code, as amended,
3. California Building Code, latest edition as adopted by the City of Monterey (2016 Edition),
4. California Electrical Code, latest edition as adopted by the City of Monterey (2016 Edition),
5. California Mechanical Code, latest edition as adopted by the City of Monterey (2016 Edition),
6. California Plumbing Code, latest edition as adopted by the City of Monterey (2016 Edition),
7. California Green Building Standards Code, latest edition as adopted by the City of Monterey,
8. California Historic Building Code, latest edition as adopted by the City of Monterey,
9. California Occupational Safety and Health Administrative Code, latest edition,
10. California Government Code Section 4216, Protection of Underground Infrastructure,
11. National Fire Protection Associations NFPA 1 Fire Code, latest edition,
12. The California Labor Code,
13. Federal Water Pollution Control Act (Clean Water Act), and,
14. Porter-Cologne Water Quality Control Act (California Water Code Section 13000 et seq.).

PUBLIC SAFETY AND PROTECTION OF THE WORK

The Contractor shall furnish, erect and maintain such fences, barricades, guards, lights and other devices as are necessary to prevent accidents and avoid damage to the construction work or injury to the public. No separate payment shall be made for such work. If in the opinion of the Engineer, adequate barricades or warning devices are not maintained by the Contractor, the City may furnish and erect same and charge the Contractor therefor. Attention is directed to Sections 7-1.03 "Public Convenience" and 7-1.04, "Public Safety", of the Standard Specifications published by the State of California Department of Transportation.

INDEMNIFICATION AND HOLD HARMLESS

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To the fullest extent permitted by law, Contractor agrees to indemnify, investigate, defend (at Contractor's sole cost and expense and with legal counsel reasonably approved by City), protect and hold harmless, the City of Monterey, its officials, officers, employees, agents, and representatives from and against any and all claims [including, without limitation, claims for bodily injury or death (including but not limited to Contractor, persons employed by Contractor, persons acting on behalf of Contractor, and third parties) or damage to property], demands, obligations, losses, damages, actions, causes of action, suits, judgments, fines, penalties, liabilities, defense costs, and expenses (including, without limitation, reasonable attorneys' fees, disbursements, and court costs, and all other professional, expert, or Contractors' fees and costs) of every kind or nature arising out of or in connection with or relating to any work or activities of Contractor (or Contractor's contractors or subcontractors, if any) conducted under this Agreement or arising out of the failure on Contractor's part to perform their obligations under this agreement. Except as provided by law, the indemnification provisions stated above shall apply regardless of the existence or degree of fault of the City, except for those claims which arise out of the active negligence, sole negligence, or willful misconduct of the City of Monterey.

Notwithstanding the provisions of the above paragraph, Contractor agrees to assume all risk and to indemnify and hold harmless the City from and against any and all claims, demands, defense costs, liability, expense, or damages of any kind or nature arising out of or in connection with damage to or loss of any property belonging to Contractor or Contractor's employees, contractors, representatives, patrons, guests, or invitees.

Contractor further agrees to indemnify City for damage to or loss of City property arising out of or in connection with Contractor's work associated with this Agreement or arising out of any act or omission of Contractor or any of Contractor's employees, agents, contractors, representatives, patrons, guests, or invitees, excepting such damage or loss arising out of the negligence of the City.

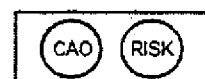
INSURANCE

Contractor shall procure and maintain for the duration of the contract, and for five years thereafter, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by the Contractor, his agents, representatives, employees, or subcontractors.

MINIMUM SCOPE AND LIMITS OF INSURANCE

Coverage shall be at least as broad as:

1. **Commercial General Liability (CGL):** Insurance Services Office Form CG 00 01 covering CGL on an "occurrence" basis, including products and completed operations, property damage, bodily injury and personal & advertising injury with limits no less than **\$5,000,000** per occurrence. If a general aggregate limit applies, either the general aggregate limit shall apply separately to this project/location (**ISO CG 25 03 or 25 04**) or the general aggregate limit shall be twice the required occurrence limit.
2. **Automobile Liability:** Insurance Services Office Form Number CA 0001 covering Code 1 (any auto), with limits no less than **\$5,000,000** per accident for bodily injury and property damage.
3. **Workers' Compensation** insurance as required by the State of California, with Statutory Limits, and Employers' Liability insurance with a limit of no less than **\$1,000,000** per accident for bodily injury or disease.
4. **Builder's Risk (Course of Construction)** insurance utilizing an "All Risk" (Special Perils) coverage form, with limits equal to the completed value of the project and no coinsurance penalty provisions.
5. Contractor may submit evidence of Builder's Risk insurance in the form of Course of Construction coverage. Such coverage shall name the Entity as a loss payee as their interest may appear.
6. If the project does not involve new or major reconstruction, at the option of the Entity, an Installation Floater may be acceptable. For such projects, a Property Installation Floater shall be obtained that provides for the improvement, remodel, modification, alteration, conversion or adjustment to existing buildings, structures, processes, machinery and equipment. The Property Installation Floater shall provide property damage coverage for any building, structure, machinery or equipment damaged, impaired, broken, or destroyed during the performance of the Work, including during transit, installation, and testing at the Entity's site.
7. **Surety Bonds** as described in Part III.



If the contractor maintains **broader coverage and/or higher limits** than the minimums shown above, the Entity requires and shall be entitled to the **broader coverage and/or higher limits** maintained by the contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the Entity.

SELF-INSURED RETENTIONS

Self-insured retentions must be declared to and approved by the Entity. At the option of the Entity, either the contractor shall cause the insurer shall reduce or eliminate such self-insured retentions as respects the Entity, its officers, officials, employees, and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the Entity guaranteeing payment of losses and related investigations, claim administration, and defense expenses. **The policy language shall provide, or be endorsed to provide, that the self-insured retention may be satisfied by either the named insured or Entity.**

OTHER INSURANCE PROVISIONS

The insurance policies are to contain, or be endorsed to contain, the following provisions:

1. **The Entity, its officers, officials, employees, and volunteers are to be covered as additional insureds** on the CGL policy with respect to liability arising out of with respect to liability arising out of work or operations performed by or on behalf of the Contractor including materials, parts, or equipment furnished in connection with such work or operations and automobiles owned, leased, hired, or borrowed by or on behalf of the Contractor. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance (at least as broad as ISO Form CG 20 10, CG 11 85 or **both CG 20 10, CG 20 26, CG 20 33, or CG 20 38; and CG 20 37** forms if later revisions used).
2. For any claims related to this project, the **Contractor's insurance coverage shall be primary insurance coverage at least as broad as ISO CG 20 01 04 13** as respects the Entity, its officers, officials, employees, and volunteers. Any insurance or self-insurance maintained by the Entity, its officers, officials, employees, or volunteers shall be excess of the Contractor's insurance and shall not contribute with it.
3. Each insurance policy required by this clause shall provide that coverage shall not be canceled, except with notice to the Entity.

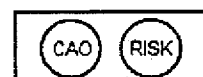
CLAIMS MADE POLICIES -

If any coverage required is written on a claims-made coverage form:

1. The retroactive date must be shown, and this date must be before the execution date of the contract or the beginning of contract work.
2. Insurance must be maintained and evidence of insurance must be provided for at least five (5) years after completion of contract work.
3. If coverage is canceled or non-renewed, and not replaced with another claims-made policy form with a retroactive date prior to the contract effective, or start of work date, the Contractor must purchase extended reporting period coverage for a minimum of five (5) years after completion of contract work.
4. A copy of the claims reporting requirements must be submitted to the Entity for review.
5. If the services involve lead-based paint or asbestos identification/remediation, the Contractor's Pollution Liability policy shall not contain lead-based paint or asbestos exclusions. If the services involve mold identification/remediation, the Contractor's Pollution Liability policy shall not contain a mold exclusion, and the definition of Pollution shall include microbial matter, including mold.

ACCEPTABILITY OF INSURERS

Insurance is to be placed with insurers with a current A.M. Best rating of no less than A: VII, unless otherwise acceptable to the Entity.



WAIVER OF SUBROGATION

Contractor hereby agrees to waive rights of subrogation which any insurer of Contractor may acquire from Contractor by virtue of the payment of any loss. Contractor agrees to obtain any endorsement that may be necessary to affect this waiver of subrogation. **The Workers' Compensation policy shall be endorsed with a waiver of subrogation** in favor of the Entity for all work performed by the Contractor, its employees, agents and subcontractors.

VERIFICATION OF COVERAGE

Contractor shall furnish the Entity with original certificates and amendatory endorsements, or copies of the applicable insurance language, effecting coverage required by this contract. All certificates and endorsements are to be received and approved by the Entity before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The Entity reserves the right to require complete, certified copies of all required insurance policies, including endorsements, required by these specifications, at any time.

SUBCONTRACTORS

Contractor shall require and verify that all subcontractors maintain insurance meeting all the requirements stated herein, and Contractor shall ensure that Entity is an additional insured on insurance required from subcontractors. For CGL coverage subcontractors shall provide coverage with a format least as broad as CG 20 38 04 13.

SPECIAL RISKS OR CIRCUMSTANCES

Entity reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other circumstances.

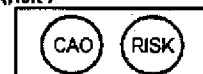
RESOLUTION OF CONSTRUCTION CLAIMS – ALL CONTRACTOR CLAIMS

Applies to ALL Contractor Claims for Time Extension, Payment Not Expressly Provided for, and Payment of Disputed Amounts (Public Contract Code §9204)

1. The following provisions applies to contracts entered into on or after January 1, 2017.
2. In accordance with Section 9204 of the California Public Contract Code, this Section applies to any claim by a contractor in connection with a public works project for:
 - a. A time extension, including, without limitation, for relief from damages or penalties for delay assessed by the City under a contract for a public works project.
 - b. Payment by the City of money or damages arising from work done by, or on behalf of, the contractor pursuant to the contract for a public works project and payment for which is not otherwise expressly provided or to which the claimant is not otherwise entitled.
 - c. Payment of an amount that is disputed by the City.
3. Upon receipt of a claim pursuant to this section:
 - a. The City shall conduct a reasonable review of the claim and, within a period not to exceed 45 days, shall provide the claimant a written statement identifying what portion of the claim is disputed and what portion is undisputed. Upon receipt of a claim, the City and a contractor may, by mutual agreement, extend the time period provided in this subdivision.
 - b. The claim shall be in writing, include reasonable documentation to substantiate the claim as specified in subsection d below, and be accompanied by the following certification:

"CONTRACT PROVISION REQUIRING PERSONAL CERTIFICATION OF ALL CLAIMS"

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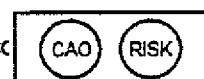
(MUST BE AN OFFICER) OF _____ (GENERAL Contractor), DECLARE UNDER PENALTY OF PERJURY UNDER THE LAWS OF THE STATE OF CALIFORNIA, AND DO PERSONALLY CERTIFY AND ATTEST THAT: I HAVE THOROUGHLY REVIEWED THE ATTACHED CLAIM FOR ADDITIONAL COMPENSATION AND/OR EXTENSION OF TIME, AND KNOW ITS CONTENTS, AND SAID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

- c. Claims must be filed on or before the date of final payment. Nothing herein is intended to extend the time limit or supersede notice requirements otherwise provided by Contract for the filing of claims.
- d. The claim must include actual cost documentation, including hours of work performed, equipment operation costs, and labor and overhead costs, which should be established at a standard percentage. Any overhead costs listed when paid, shall provide full and complete payment for any and all overhead, including jobsite overhead, home office overhead, as well as additional costs arising from disruption, re-sequencing or acceleration. Contractor shall provide prompt notification of any disagreement in quantities of work performed along with a detailed accounting by means of a schedule update demonstrating any delays incurred.
- e. If the City needs approval from the City Council to provide the claimant a written statement identifying the disputed portion and the undisputed portion of the claim, and the City Council body does not meet within the 45 days or within the mutually agreed to extension of time following receipt of a claim sent by registered mail or certified mail, return receipt requested, the City shall have up to three days following the next duly publicly noticed meeting of the City Council after the 45-day period, or extension, expires to provide the claimant a written statement identifying the disputed portion and the undisputed portion.
- f. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the City issues its written statement. If the City fails to issue a written statement, paragraph 5 of this section shall apply.

4. Following City's written response:

- a. If the claimant disputes the City's written response, or if the City fails to respond to a claim issued pursuant to this section within the time prescribed, the claimant may demand in writing an informal conference to meet and confer for settlement of the issues in dispute. Upon receipt of a demand in writing sent by registered mail or certified mail, return receipt requested, the City shall schedule a meet and confer conference within 30 days for settlement of the dispute.
- b. Within 10 business days following the conclusion of the meet and confer conference, if the claim or any portion of the claim remains in dispute, the City shall provide the claimant a written statement identifying the portion of the claim that remains in dispute and the portion that is undisputed. Any payment due on an undisputed portion of the claim shall be processed and made within 60 days after the City issues its written statement. Any disputed portion of the claim, as identified by the contractor in writing, shall be submitted to nonbinding mediation, with the City and the claimant sharing the associated costs equally. The City and claimant shall mutually agree to a mediator within 10 business days after the disputed portion of the claim has been identified in writing. If the parties cannot agree upon a mediator, each party shall select a mediator and those mediators shall select a qualified neutral third party to mediate with regard to the disputed portion of the claim. Each party shall bear the fees and costs charged by its respective mediator in connection with the selection of the neutral mediator. If mediation is unsuccessful, the parts of the claim remaining in dispute shall be subject to applicable procedures outside this section.
- c. For purposes of this section, mediation includes any nonbinding process, including, but not limited to, neutral evaluation or a dispute review board, in which an independent third party or board assists the parties in dispute resolution through negotiation or by issuance of an evaluation. Any mediation utilized shall conform to the timeframes in this section.

d. Unless otherwise agreed to by the City and the contractor in writing, the mediation cost shall be split equally between the City and the contractor.



this section shall excuse any further obligation under Section 20104.4 to mediate after litigation has been commenced.

- e. This section does not preclude the City from requiring arbitration of disputes under private arbitration or the Public Works Contract Arbitration Program, if mediation under this section does not resolve the parties' dispute.

5. Failure by the City to respond to a claim from a contractor within the time periods described in this subdivision or to otherwise meet the time requirements of this section shall result in the claim being deemed rejected in its entirety. A claim that is denied by reason of the City's failure to have responded to a claim, or its failure to otherwise meet the time requirements of this section, shall not constitute an adverse finding with regard to the merits of the claim or the responsibility or qualifications of the claimant.

6. Amounts not paid in a timely manner as required by this section shall bear interest at 7 percent per annum.

7. If a subcontractor or a lower tier subcontractor lacks legal standing to assert a claim against a City because privity of contract does not exist, the contractor may present to the City a claim on behalf of a subcontractor or lower tier subcontractor. A subcontractor may request in writing, either on his or her own behalf or on behalf of a lower tier subcontractor, that the contractor present a claim for work which was performed by the subcontractor or by a lower tier subcontractor on behalf of the subcontractor. The subcontractor requesting that the claim be presented to the City shall furnish reasonable documentation to support the claim. Within 45 days of receipt of this written request, the contractor shall notify the subcontractor in writing as to whether the contractor presented the claim to the City and, if the original contractor did not present the claim, provide the subcontractor with a statement of the reasons for not having done so.

8. A waiver of the rights granted by this section is void and contrary to public policy, provided, however, that (1) upon receipt of a claim, the parties may mutually agree to waive, in writing, mediation and proceed directly to the commencement of a civil action or binding arbitration, as applicable; and (2) the City may prescribe reasonable change order, claim, and dispute resolution procedures and requirements in addition to the provisions of this section, so long as the contractual provisions do not conflict with or otherwise impair the timeframes and procedures set forth in this section.

RESOLUTION OF CONSTRUCTION CLAIMS – CLAIMS UNDER \$375,000

Applies to claims under \$375,000 for Time Extension, Payment Not Expressly Provided for, and Payment of Disputed Amounts (California Public Contract Code §20104 et seq.)

1. In addition to the provisions of California Public Contract Code §9204 set forth in Section Q above which applies to all construction claims for: a) a time extension; b) payment of money or damages arising from work done by, or on behalf of, the Contractor pursuant to this Contract which is not otherwise expressly provided for or the Contractor is not otherwise entitled; and c) payment of an amount that is disputed by the City, the following provisions shall also apply to said construction claims of three hundred seventy-five thousand dollars (\$375,000) or less.

2. If, following the meet and confer conference set forth in Section Q.4.a. above, the claim or any portion remains in dispute, the Contractor may file a claim pursuant to Chapter 1 (commencing with Section 900) and Chapter 2 (commencing with Section 910) of Part 3 of Division 3.6 of Title 1 of the Government Code. For purposes of those provisions, the running of the period of time within which a claim must be filed shall be tolled from the time Contractor submits its written claim pursuant to subdivision (a) until the time the claim is denied, including any period of time utilized by the meet and confer conference.

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

- a. Responsive pleadings, the court shall submit the matter to nonbinding mediation unless waived by mutual stipulation of both parties. The mediation process shall provide for the selection within fifteen (15) days by both parties of a disinterested third person as mediator, shall be commenced within thirty (30) days of the submittal, and shall be concluded within fifteen (15) days from the commencement of the mediation unless a time requirement is extended upon a good cause showing to the court.



- b. If the matter remains in dispute, the case shall be submitted to judicial arbitration pursuant to Chapter 2.5 (commencing with Section 1141.10) of Title 3 of Part 3 of the Code of Civil Procedure, notwithstanding Section 1141.11 of that code. The Civil Discovery Act of 1986 (Article 3 (commencing with Section 2016) of Chapter 3 of Title 3 of Part 4 of the Code of Civil Procedure) shall apply to any proceeding brought under this subdivision consistent with the rules pertaining to judicial arbitration.
- c. In addition to Chapter 2.5 (commencing with Section 1141.10 of Title 3 of Part 3 of the Code of Civil Procedure (A) arbitrators shall, when possible, be experienced in construction law, and (B) any party appealing an arbitration award who does not obtain a more favorable judgment shall, in addition to payment of costs and fees under that chapter, also pay the attorney's fees on appeal of the other party.
- d. The City shall not fail to pay money as to any portion of a claim which is undisputed except as otherwise provided in this Contract.
- e. In any suit filed under Section 20104.4 of the California Public Contract Code, the City shall pay interest at the legal rate on any arbitration award or judgment. The interest shall begin to accrue on the date the suit is filed in a court of law.

PRE-CONSTRUCTION CONFERENCE

Prior to the beginning of any work on this project, a pre-construction conference shall be held at Presidio of Monterey Building 271 Conference Room. The date and time of this conference shall be established by the Contractor contacting that office at 831-646-3921 not less than forty-eight (48) hours in advance of the meeting date and time.

An itemized list of materials and equipment the Contractor proposes to use on the project shall be submitted to the City prior to or during the preconstruction conference.

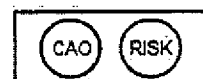
A preliminary project timeline shall be submitted to the City prior to or during the preconstruction conference.

LIQUIDATED DAMAGES

Unless stated otherwise in the Specifications, it is agreed by the parties to the contract that in case all the work called for under the contract is not completed before or upon the expiration or the time limit as set forth in these specifications, damage will be sustained by the City of Monterey and that it is and will be difficult or impossible to ascertain and determine the actual damage which the City will sustain in the event of and by reason of such delay; and it is therefore agreed that the Contractor will pay to the City of Monterey the sum of one thousand five hundred (\$1,500.00) per day for each and every day's delay beyond the time prescribed to complete the work or the actual damages ascertained, whichever will be greater; and the Contractor agrees to pay such liquidated damages as herein provided; and in case the same are not paid, agrees that the City of Monterey may deduct the amount thereof from any money due or that may become due the Contractor under the contract.

It is further agreed that, in case the work called for under the contract is not finished and completed in all parts and requirements within the time specified, the City shall have the right to extend the time for completion of the contract or not, as may seem best to serve the interest of the City; and if it decides to extend the time limit for the completion of the contract, it shall further have the right to charge to the Contractor, his heirs, assigns or sureties, and to deduct from the final payment of the work, all or any part, as it may deem proper, of the actual cost of engineering, inspection, superintendence and other overhead expenses during the period of such extension, except that the cost of final measurements and preparation of final estimate shall not be included in such charges.

The contractor shall not be assessed with liquidated damages nor the cost of engineering and inspection during any delay in the completion of the work caused by Acts of God or of the public enemy, fire, floods, epidemics, quarantine restrictions, strikes, freight embargoes and unusually severe weather or delays of subcontractors due to such causes; provided that the Contractor shall within ten (10) days from the beginning of any such delay notify the Engineer in writing of the causes of delay, who shall ascertain the facts and the extent of delay, and his findings of the facts thereon shall be final and conclusive. "Unusually severe weather" means that which is considered outside the normal average for the Monterey area as determined by historical weather records. The Contractor will not receive a time extension for normal or below normal precipitation.



CONSTRUCTION PROCEDURE

An outline of the proposed construction procedure shall be submitted by the Contractor to the Engineer for review and shall obtain his approval before beginning work. The Engineer will be especially interested in:

1. Minimizing any interruption to use of driveways (no more than 4 hour interruption). Any interruption more than 4 hours shall be prearranged with the Engineer. Residence occupant shall be notified with a written notice a minimum of five (5) business days in advance.
2. Adjacent property owners shall be notified with a written notice a minimum of three (3) business days in advance of any construction impacts. Engineer will be responsible for the notification; Contractor shall coordinate with the Engineer a minimum of one week in advance.
3. Minimizing any interruption to building operations and parking lots. Contractor shall notify the Engineer a minimum of one week in advance of any interruptions to building operations and parking lots.
4. Minimizing any hazard to the general public.
5. Proper handling of hazardous materials.
6. All work will occur between 7 am and 7 pm unless otherwise approved in writing.
7. Contractor shall notify the Engineer a minimum of twenty-four (24) hours in advance of concrete placement for checking and acceptance of forms by the Engineer prior to concrete placement. Mitigation of concrete placement done without acceptance of forms by the Engineer prior to concrete placement shall be the sole responsibility of the Contractor. The costs of such mitigation shall be borne by the Contractor.

Traffic control requirements cited elsewhere in these Specifications must be considered in the construction procedure submitted to the Engineer.

TRAFFIC CONTROL

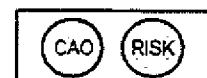
Pursuant to the authority contained in Vehicle Code Section 591, the City has determined that within those areas that are within the limits of the project and are open to traffic, the Contractor shall comply with all the requirements set forth in Divisions 11, 12, 13, 14 and 15 of the Vehicle Code. In accordance with the statement in Vehicle Code Section 591, this section shall not relieve the Contractor or any person from the duty of exercising due care. The Contractor shall take all necessary precautions for safe operation of the Contractor's equipment and the protection of the public from injury and damage from the Contractor's equipment.

Traffic control shall conform to the provisions of Section 12, "Temporary Traffic Control" of the Standard Specifications and the 2014 California Manual on Uniform Traffic Control Devices (CA MUTCD) as adopted by Caltrans.

A Traffic Control Plan (TCP) shall be submitted to the Engineer for approval prior to construction and must be applicable to existing site conditions. Contractor shall notify all emergency services, affected residences, affected businesses, and the Engineering Division Office (831) 646-3921 a minimum of three (3) business days in advance as to proposed closures and alternate routes available.

The following shall be incorporated into the Traffic Control Plan:

1. Two (2) travel lanes shall be open during non-working hours.
2. At least one (1) travel lane shall remain open during working hours. Flag persons or other appropriate traffic control devices as approved by the Engineer shall be used during periods of one-way travel.
3. Access to driveways shall be left open unless work is actually being performed in areas fronting the driveway. All driveways shall be accessible during non-working hours. See Construction Procedure elsewhere in these specifications.
4. No trench shall be left open during non-working hours.



5. Parking restrictions will be acceptable when and where needed. (All require prior approval of the Engineer).

The following requirements apply to Traffic Control Plans:

1. All Traffic Control Plans shall follow the CA MUTCD Chapter 6. Examples may be found at: <http://www.dot.ca.gov/hq/traffops/engineering/mutcd/pdf/camutcd2014/Part6.pdf>
2. The contractor shall submit a TCP using legible lettering. Show location and dimensions of the work zone, lanes, tapers, parking and any staging areas.
3. Label streets and proposed traffic control area. Show all nearby streets with street names to assure proper orientation.
4. Show all affected sidewalks, crosswalks, bike lanes, driveways and intersections in the construction work zone including areas affected by taper transition.
5. If a sidewalk or path is obstructed, contractor must then submit an ADA compliant pedestrian detour plan in accordance with the CA MUTCD chapter 6D and the Public Rights-of-Way Accessibility Guidelines (PROWAG). Please refer to: <http://dot.ca.gov/hq/traffops/engineering/control-devices/pdf/PedBrochure.pdf>
6. Label all taper lengths and widths, delineator spacing and sign spacing. Indicate location of construction signs, barricades and delineators.
7. Show all parking restriction zones and signs, as appropriate. Telephone the Parking Division Office (831.646.3953) if restricting parking in time-limit or metered zones. Temporary "NO PARKING" signs shall be posted seventy-two (72) hours prior to commencing work.
8. Indicate on the TCP the duration of the construction work, including dates and times.
9. Indicate on the TCP the Contractor's name, address and telephone number. Include the Contractor's during and after hours Representative's contact information (name, telephone number).
10. It is the Contractor's responsibility to assure that all Traffic Control Plans (TCP) and traffic control devices are in compliance with the 2014 CA MUTCD as adopted by Caltrans.

Traffic Control Plans shall contain the following notes:

1. Minimum width of temporary traffic lanes is ten (10) feet clear (from delineator or cone base, not center).
2. The City Traffic Engineer or his representative has the authority to make any field changes to assure public safety.
3. All traffic control devices shall be removed from view when not in use. Signs shall not be facing traffic when not in use.
4. Spacing of channelizing devices shall not exceed twenty-five (25) feet.
5. Any road closure also requires notification be provided to the City of Monterey Fire Department and Police Department. Notifications may be made at the non-emergency telephone number, 831.646.3914.
6. All temporary traffic delineation (delineators and cones) used shall be a minimum of thirty-six (36) inches tall. Retroreflective bands are required for night time traffic.
7. Any work that disturbs normal traffic signal operations shall be coordinated with the Signal Traffic Technician.
8. The Contractor is responsible for restoring the road back to satisfactory condition in to paving striping, markings, signs and traffic signal loop detectors within five

completion of work at affected intersections or road segments.

9. Any work that created an undue safety risk or creates severe congestion may be shut down by the City Traffic Engineer, his representative, Field Inspector or Police Department personnel.

The Contractor is to notify residences and/or businesses a minimum of three (3) business days in advance of closing access to any driveways or providing any detours or changes in on-street parking. Notifications shall be in writing.

Contractor shall provide all labor and facilities required for safe and expeditious handling of traffic during the course of construction. Contractor shall provide all flaggers, signs, delineators, and barricades required for traffic control and shall modify or remove same at appropriate times. The Engineer shall be the sole judge as to the adequacy of the Contractor's traffic control measures. If such measures are found to be inadequate by the Engineer, the City may furnish and install same and charge the Contractor therefor.

The Contractor shall, at his own expense, construct and maintain in good condition, such detours, detour bridges and temporary crossings for use by the public as deemed necessary or expedient by the Engineer for the proper execution of the work.

The Contractor shall designate a representative who can be reached immediately (24 hours per day) in the event of traffic control device failures.

REMOVAL OF OBSTRUCTIONS

The Contractor shall remove and dispose of all structures, debris or other obstructions of any character to the construction called for in the plans, specifications, and as required by the Engineer.

If archeological items or hazardous wastes are discovered during construction operations, the Contractor shall cease operations in those areas and the Contractor shall immediately notify the Engineer.

The Contractor shall remove and dispose of all trees designated for removal as shown on the plans, designated by the specifications and as required by the Engineer for the proper completion of the work. See Tree Protection Requirements elsewhere in these specifications.

UNDERGROUND UTILITIES

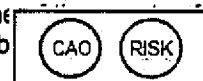
Contractor shall locate all underground obstructions and utilities, (electric, gas, water lines, etc.). Prior to any trenching operation, Contractor shall pothole underground obstructions and utilities that appear to be in conflict with the new construction. The Plans show the approximate location of underground facilities in the project area as they have been provided to the City. Repair of damage to any utility line shown on the Plans with reasonable accuracy shall be made at the Contractor's expense. However, the City shall fairly compensate the Contractor for costs of locating and repairing damage not due to failure of the Contractor to exercise reasonable care, and removing or relocating such facilities not indicated or in a location different from that indicated on the Plans and Specifications with reasonable accuracy, and for equipment on the project necessarily idled during such work. Contractor shall not be assessed liquidated damages for delay in completion of the project when such delay was caused by the failure of the City or utility company to provide for removal or relocation of such utility facilities. Contractor shall notify all utility companies of trenching operations forty-eight (48) hours in advance to enable the utility companies to take any action they deem appropriate.

UTILITY COMPANY COORDINATION

Contractor shall coordinate construction activities with the utility companies as required and shall adjust the construction schedule to accommodate utility relocation as necessary.

CONTRACT PLANS AND SPECIFICATIONS

The Contractor will be supplied with five sets of plans and specifications at no expense. One set is to be used for the purpose of recording record (as-built) conditions. Additional sets will be provided upon request.



at the cost of reproduction. The work shall conform to the contract plans and specifications, all of which form a part of the contract documents and are available in the office of the City Engineer, City Hall, Monterey, California.

DUST CONTROL

The Contractor shall minimize dust generation from the jobsite and shall spray the site with water or dust palliative as required, in accordance with Section 14-9, "Air Quality", of the Standard Specifications.

CONNECTION TO EXISTING UTILITIES

The City shall permit the Contractor to use available existing utilities at the City's expense, excluding telephone; however, if the Contractor chooses to make use of said utilities, Contractor shall assume full responsibility for any changes made by Contractor related thereto, and for any consequences caused thereby. Upon completion of the work, Contractor shall remove any modifications to existing utilities made by Contractor, and shall restore existing utilities to conditions existing at time of award.

SANITARY FACILITIES

Contractor may provide his/her own portable sanitary facilities on-site, for the duration of the work. Coordinate location(s) with the Engineer. Existing City-owned sanitary facilities may be used.

INSPECTION OF WORK

It is the responsibility of the contractor to call for all required inspections within the required time lines. The City of Monterey reserves the right to perform random inspections at any time.

The Engineer shall at all times have access to the work during construction, and shall be furnished with every reasonable facility for ascertaining full knowledge respecting the progress, workmanship and character of materials used and employed in the work.

Whenever the work provided and contemplated by the contract shall have been satisfactorily completed and the final cleanup performed, the Engineer will make the final inspection.

RECORD DRAWINGS

A set of marked-up prints, clear, legible, and made with standard drafting tools and indicating all changes, added work, and deviations from the design and reflecting the record (As-Built) condition of the work must be received before the work is considered complete. Existing utilities exposed during construction are to be located, including invert or top elevation, and shown on the Record (As-Built) drawings.

The Record (As-Built) Drawings shall be completed for the Engineer's acceptance before final payment and Notice of Completion on this contract will be made.

MILITARY INSTALLATION SECURITY REQUIREMENTS AND POLICIES

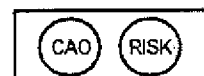
JOBSITE SECURITY REQUIREMENTS

Contractor shall comply with all installation security requirements. The Presidio of Monterey, SATCOM, DMDC Building and Camp Roberts have a strict Entrance Security System that requires random searches of all vehicles. Every effort will be made to provide timely access, but may not always be possible. Cost for any security delays shall be ancillary to the project and no additional compensation shall be approved.

VEHICLES

Contractor personnel utilizing Contractor-owned or privately owned vehicles on Military Installations shall possess a valid State driver's license, vehicle registration and proof of insurance. Contractor shall have clearly identified vehicles with the name of the Contractor prominently displayed on both sides of the vehicle while working on an installation. Contractor shall adhere to installation parking policy.

ACCESS LIST AND OTHER PERSONNEL



Contractor shall submit a list of all personnel working on the project within seven (7) calendar days after notice that a contract has been awarded to him. Contractor shall submit a completed Application For Installation Access, POM Form 7 (see Appendices) to the City for processing. List all personnel for inclusion on the base access roster to permit extended access to the Military Installation (two or more days). An electronic version of POM Form 7 may be obtained from the City. Processing of the completed application generally takes approximately two weeks to complete. Personnel not included on the Access Roster (or without a DBIDS card) must follow daily gate access procedures, which can delay access onto the installation, especially during peak morning periods or if sponsors are not available for verification of access.

Contractor shall ensure that their employees shall observe and comply with the Army policies, regulations, and procedures concerning fire, safety, environmental protection, sanitation, security, traffic, park gratuities, flag courtesy, "off limits" areas, and possession of firearms or other lethal weapons. Contractor's personnel shall be legal residents or citizens of the United States and shall be able to clearly communicate in the English language. Contractor shall ensure the Contractor's personnel do not present an appearance, such as would embarrass the Command or residents of POM, and that their conduct shall not reflect discredit upon the installation or the Department of the Army. The Contractor shall remove from the job site any employee for reasons of misconduct or security. The removal of such a person shall not relieve the Contractor of the requirements to provide personnel to perform adequate and timely service. The Contractor shall not hire off-duty or former Government employees whose employment would result in a conflict with the Joint Ethics Regulations DOD 5500.7-R. Contractor shall notify City of Monterey of any changes on the working status of key personnel immediately in writing for review and approval.

USAG OPERATIONS SECURITY (OPSEC) PROGRAM:

All Department of Defense contractors are required to complete a mandatory OPSEC training on an annual basis. Contractors and personnel working inside the Presidio of Monterey, Ord Military Community, DMD C Building and SATCOM shall review attached, Appendix F, USAG Operations Security (OPSEC) Training and iWatch Army Training. Contractor will certify its personnel by completing the Certificate of Training. Certificate of Training shall be submitted together with POM Form 7 to the Engineer seven days after notice that a contract has been awarded to the Contractor.

PROTECTION OF GOVERNMENT PROPERTY

Government property grounds and facilities, if damaged or removed because of the Contractor's operations, shall be restored or replaced to same or better than the original condition and located in the same position and alignment as is reasonably possible.

ENVIRONMENTAL PROTECTION PLAN (EPP) AND CONSTRUCTION AND DEMOLITION (C&D) DEBRIS MANAGEMENT PLAN:

Contractor shall review and complete the Environmental Protection Plan (EPP) and the Construction and Demolition Debris Waste Management Plan. The EPP and C&D shall be submitted to the Engineer fourteen (14) calendar days after notice that a contract has been awarded as part of the submittal. Final C&D with recycling and or disposal tags shall be submitted after completion of the project. EPP and C&D are as shown in Appendix D and E. Electronic copies of the forms are available upon request from the Engineer.

ENVIRONMENTAL/POLLUTION PREVENTION REQUIREMENTS

Contractor shall comply with all air pollution and environmental control rules, regulations, ordinances and statutes that apply to the project and any work performed pursuant to the contract. Additionally, City Code Chapter 31.5 Storm Water Management Section 31.5-12. Prohibition of Illegal Discharges, states,

"No person or entity shall discharge or cause to be discharged into the municipal Storm Drain System or waters of the state any materials, including but not limited to Pollutants or waters containing any Pollutants that cause or contribute to a violation of applicable water quality standards, other than storm water..."

Regardless of project size, the Contractor shall submit a site-specific Erosion and Sediment Water Pollution Prevention Plan for City review and approval prior to start of work. The Contractor shall submit a copy of the Erosion and Sediment Water Pollution Prevention Plan to the City of Monterey.



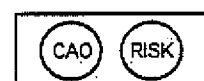
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implement and properly maintain storm water best management practices (BMPs) during construction to prevent discharges of pollutants, and including trash, to local drainages and waterways. Contractor shall comply with all water quality regulations in Monterey Municipal Code Chapter 31.5 Storm Water Management, and City Phase II Storm Water Permit requirements as prescribed by the State Water Resources Control Board (SWRCB) and Central Coast Regional Water Quality Control Board (RWQCB) regulations for the prevention of construction site discharges of pollutants, illicit discharges, and enforcement of prohibited and illicit discharges. The contractor shall employ at all times storm water runoff controls and BMPs at the site, including but not limited to erosion prevention, sediment controls, site stabilization, good housekeeping practices, proper materials storage, handling, and waste management, and similar pollution prevention measures to prevent dumping or illegal discharges during construction into the street and/or storm drain system. Storm water management and control practices shall result in the following outcomes on all construction sites, regardless of size:

- Protection of storm drain inlets and adjacent waterways must be implemented at all times to prevent illicit discharges of sediment, construction debris and fluids, and waste of any kind;
- No release of hazardous substances, such as oils, paints, thinners, fuels, and other chemicals; if such a spill occurs that may threaten local water quality, contractor must call 911 immediately and notify City Public Works staff;
- Minimization of site disturbance shall be kept to that portion necessary for construction only, and perimeter controls shall be implemented at all times during all weather conditions;
- Soil stabilization of graded areas shall be in place at all times where construction activities have temporarily and/or permanently ceased;
- No deposit of mud, soil, sediment, concrete washout, trash, dewatering, or other similar construction-related material or waste shall occur on or into public rights of way, private streets, or into the City's storm water system and related natural resources, either by direct deposit, dropping, discharge, erosion, or tracking by construction vehicles. Any such discharge shall be cleaned-up promptly if an immediate threat to water quality exists, or if not immediate, at the end of the current work shift or workday in which the deposit occurred, whichever comes first;
- No runoff from graded areas or stockpile areas shall contain sediments and/or pollutants. Stockpiles shall be adequately and securely covered to avoid contact with rainfall and wind to prevent soil and stockpile movement by water and/or wind;
- Runoff containing sediments shall be captured in secondary containment structures and either treated to remove sediments prior to discharge or infiltrated in the soil on-site;
- No exposure of graded areas and stockpile areas to storm water run-on shall occur. Run-on shall be controlled by diversion structures such as dikes, secondary containment, or stockpile covers; and,
- All hard-surfaced areas are to be swept regularly and free of dirt and construction debris such that the surface of the pavement is clearly visible at all locations, and construction entrance/exist(s) shall be adequately stabilized to prevent tracking of soil/sediment from reaching streets/paved surfaces and drainage pathways.

Best management practices (BMPs) are required to be illustrated in construction Plans and employed on all construction sites as applicable to the construction activity and shall provide for, and not be limited to: inlet protections, perimeter protections, erosion prevention and soil control measures, soil stabilization measures, spill prevention and discharge control measures; solid waste containment; concrete waste management; proper vehicle and equipment cleaning, fueling, and maintenance; and proper materials management and storage. Detailed procedures to accomplish these protections can be found through the California Storm Water Quality Association's *Construction BMP Handbook Portal*, U.S. EPA *Construction BMP Database and Factsheets*, *Caltrans Storm Water Quality Manuals and Handbooks*, and the *Erosion and Sediment Control Field Manual* by San Francisco Bay Regional Water Quality Control Board. Referenced documents are available for viewing at the City of Monterey Public Works Office at City Hall.

Activities to be performed by Contractor include, but are not limited to:



- Development and submittal of an Erosion and Sediment Control Plan or Storm Water Pollution Prevention Plan for City review and approval prior to construction start.
- At all times, Contractor shall implement and maintain the temporary and permanent vegetation (if any), erosion and sediment control measures, and other protective BMP measures in good and effective operating condition by performing routine inspections to determine condition and effectiveness of BMPs, restoration needs for destroyed vegetative cover, and by repair of erosion, sediment, and other protective measures.
- Contractor shall inspect the following areas at least once every seven (7) calendar days, unless otherwise necessary based on current weather conditions or as directed by City inspector, and always within 24 hours prior to and after any predicted storm:
 - Inlet protections and perimeter controls;
 - Vehicle entry and exist locations;
 - Vehicle parking and storage areas;
 - Disturbed areas of the construction site,
 - Areas that have not been finally stabilized,
 - Areas used for storage of materials that are exposed to wind or precipitation,
 - Equipment and staging areas that are exposed to wind or precipitation; and,
 - All waste storage and handling devices and areas.

Where sites have been finally stabilized, such inspection shall be conducted at least once every month.

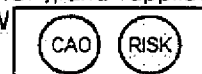
- Areas noted above shall be inspected for proper BMP implementation and necessary BMP maintenance, as well as evidence of, or the potential for:
 - Erosion, or
 - Sediments entering waterways or the drainage system, or
 - Pollutants entering waterways or the drainage system.

Erosion and sediment control measures shall be observed and maintained to ensure that they are operating correctly. Discharge locations or points shall be inspected regularly to ascertain whether erosion control measures are effective in preventing sedimentation and subsequent degradation of receiving water quality in violation of receiving water quality standards. Vehicle entry and exist locations shall be inspected for evidence of offsite sediment and pollutant tracking and need for cleanup and improved BMP protection measures

- Deficiencies observed during inspections shall be noted and rectified before the end of the workday.

Additionally, the Contractor shall comply with the State Water Resources Control Board's Construction General Permit (CGP), as applicable to the project. Projects subject to the CGP include those that disturb one or more acres of soil, are less than one acre and are part of a common plan of development or sale, or applicable Linear Underground/Overhead Projects, and are required to obtain coverage under the State's CGP for Discharges of Storm Water associated with Construction Activity Construction General Permit Order 2009-0009-DWQ, and subsequent amendments thereto. Construction activities subject to this permit include clearing, grading, and disturbances to the ground such as stockpiling, or excavation, but do not include regular maintenance activities performed to restore the original line, grade, or capacity of the facility. Application for CGP coverage is made by the Contractor through a Notice of Intent (NOI) to the SWRCB and involves much interaction with the applicable RWQCB as CGP regulator. The Contractor shall develop and supply the City with NOI and associated Storm Water Pollution Prevention Plan (SWPPP) for review and records purposes.

CGP coverage requires the development and implementation of a SWPPP. The SWPPP contents are mandated by the SWRCB and are subject to change, and typically contain site map(s) which shows the construction site perimeter, existing and proposed buildings, lots, roadways, storm water collection and discharge points, general topography both before and after construction, and drainage patterns across the project. The SWPPP must illustrate the placement of BMPs for the construction project and list pollution prevention BMPs the discharger will use to protect storm water runoff. Additionally, applicable SWPPPs must contain a visual monitoring program and a chemical monitoring program for "non-visible" pollutants to be implemented. All SWPPPs must be developed by a Qualified SWPPP Developer (QSD) and implemented by a Qualified SWPPP Practitioner (QSP), and supplied to the City for review and comment. Additional CGP information can be found at the State Water Resources Control Board's CGP website.



http://www.waterboards.ca.gov/water_issues/programs/stormwater/constpermits.shtml

Construction site storm water management and control measures shall be implemented year-round regardless of "season". All construction site BMPs shall be implemented at the appropriate level for the construction activity at hand and in a proactive manner during all seasons while construction is ongoing.

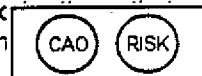
In addition to inspections performed by the City, the City's Environmental Compliance Division representative may perform periodic site monitoring visits to ensure the contractor complies with the requirements specified herein. The City shall provide copies of the completed site monitoring reports to the Contractor. In the event work is found non-compliant, a follow up site monitoring visit will be conducted to ensure non-compliant items have been corrected to the satisfaction of the City. If non-compliant items are not properly addressed prior to the follow up site monitoring visit, the costs associated with additional follow up site monitoring visits shall be deducted from the Contractor's final payment.

TREE PROTECTION REQUIREMENTS

The following guidelines are established pursuant to Section 37-2.5 of the Monterey City Code, which states:

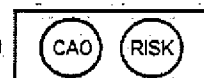
All public or private construction projects requiring acquisition of a building permit shall comply with the tree protection guidelines established by the City in order to safeguard and protect any trees affected by said construction.

1. These Tree Protection Guidelines apply to all "Protected Trees" in the City of Monterey, defined as:
 - a. trees located on a vacant private parcel that are more than two inches (2") in diameter when measured at a point four feet six inches (4' - 6") above the tree's natural grade; and,
 - b. trees located on a private, developed parcel that are more than six inches (6") in diameter when measured at a point four feet six inches (4' - 6") above the tree's natural grade.
2. These standards do not apply to unprotected trees or trees previously approved for removal.
3. All cut, fill, and/or building foundations shall be located a minimum of 4.0 times the diameter of the tree away from the outside edge of the trunk of all trees scheduled for preservation. However, the minimum distance permitted shall be 6' - 0", away from the outside edge of the trunk for all trees of a trunk diameter less than 2' - 0". The diameter of a tree shall be measured at four feet six inches (4' - 6") above the surrounding grade [Diameter at Standard Height (DSH)].
4. All Protected Trees shall be marked with a spot of paint, or flagging and temporarily fenced during construction. The marking serves to notify City inspectors and workers that the tree is to be fenced at all times during construction. Fencing and marking shall be installed prior to the issuance of building or grading permits and shall be located at the edge of the root zone. The root zone is determined to be that area located out a distance 15 times the trunk diameter in all directions. At no time shall the fencing be located closer than 3' - 0" from the outside edge of the trunk or further than 3' - 0" away from the approved building wall line, foundation, retaining wall, or grade cut, whichever provides the greater distance from the tree trunk. Tree Protection Fencing (TPF) shall consist of 6' tall chain link on all commercial projects and four (4) feet tall plastic snow fencing on residential projects and shall be rigidly supported and maintained during all phases of construction. Fenced areas shall not be used for material stockpile, storage, vehicle parking, or dumping of materials, chemicals, or garbage. Fenced areas shall be maintained in a natural condition and not compacted. Removal of fencing shall only be approved by the City Forester.
5. Prior to the start of construction, all Monterey Pine trees scheduled for preservation shall have the lower 8' - 0", sprayed with Astro or Dragnet and then wrapped with plastic to reduce the potential for infestation by Red Turpentine Beetles. The plastic wrap and spray are used to control beetle attacks and shall remain on the tree throughout the construction period.
6. Utility and drain lines shall be located outside the TPA (Tree Protection Area) root zone of all trees scheduled for preservation. In cases where alternative routes are not available, utility conduit, pipe, wire and drain lines shall be tunneled under major roots. Major roots are determined to be two (2) inches in diameter. In no case shall utility lines be permitted within 4.0 times the diameter of the tree.



trunk of any trees involved with construction unless the City Forester has approved with specific conditions in advance of work starting.

7. Projects that involve properties with several trees and proposed developments may require the owner or contractor to hire a private Certified Arborist to inspect and monitor the construction work to guarantee that the tree protection guidelines are enforced and that the trees to remain are not damaged, or negatively impacted during any phases of work.
8. All approved construction work within the root zone of trees scheduled for preservation shall observe the following minimum tree protection practices:
 - a. Hand trenching at point or line of grade cuts closest to the trunk to expose major roots 2" in diameter or larger. In cases where rock or unusually dense soil prevents hand trenching, mechanical equipment may be approved by the City Forester, provided that work is closely supervised to prevent tearing or other damage to major roots.
 - b. Exposed major roots shall be cut with a saw to form a smooth surface and avoid tears or jagged edges.
 - c. Absorbent tarp or heavy cloth fabric shall be placed over new grade cuts where roots are exposed and secured by stakes. 2" to 4" of compost or woodchip mulch shall be spread over the tarp to prevent soil moisture loss. The tarp should be thoroughly wetted at least twice per week to insure constant moisture levels until backfilling occurs. In very dry climate conditions, additional watering may be required to maintain a constant moisture level. This program of watering shall be maintained through all phases of construction including delays and other periods of inactivity.
 - d. Decks located within the root zone of trees scheduled for preservation shall be of post and beam construction to eliminate any need for root pruning or removal.
 - e. On-grade patios or paving that cover more than one-third of the feeder zone of pine trees or oak trees shall be constructed of permeable materials that allow aeration and water penetration. Patios and paving shall be combined with any other non-permeable surface or structure for purposes of calculating the one-third coverage standard. A maximum 80% compaction for permeable surfaces shall be allowed. The paving design shall specify this restriction.
 - f. Planting beneath trees scheduled for preservation shall take into consideration watering requirements of the tree to prevent damage from over or under watering. Planting beneath native oak trees are of special concern and should be avoided. At a minimum, all new irrigation should be directed away from the trunks of oak trees. Installing lawn or other planting that requires frequent watering insures a slow death for oak trees due to their sensitivity to over watering and susceptibility to oak root fungus. Over-watering may also damage native pines.
9. Failure to comply with these Tree Protection Standards is punishable by civil penalty, including citation and fines.
10. All Tree Protection devices must be in place prior to issuance of a Building Permit. Please contact the City Forester, at 831.646.3860 for inspection to confirm Tree Protection or with any general tree preservation questions.
11. Chapter 37, Preservation of Trees and Shrubs, is available at www.monterey.org or <http://www.codepublishing.com/ca/monterey>
12. These Tree Protection guidelines shall also apply to the following trees:
 - a. Trees located on a vacant public parcel that are more than two inches (2") in diameter when measured at a point four feet six inches (4'-6") above the tree's natural grade; and,
 - b. Trees located on a public developed parcel that are more than six inches (6") in diameter when measured at a point four feet six inches (4'-6") above the tree's natural grade; and,



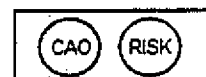
measured at a point four feet six inches (4'-6") above the tree's natural grade.

PMSA PROJECT CLOSE OUT

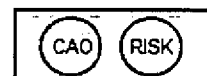
All punch list items shall be completed within 20 working days from the final walk inspection. Substantial completion and acceptance letter will be issued after satisfactory completion of punch list items.

Contractor shall complete and submit close out documents, warranties, as built drawings, C&D with disposal or recycling tags, maintenance and operation manuals, keys and other deliverables within 20 working days from the issuance of the substantial completion and acceptance letter. Delay in submission of all close out documents shall be subject to liquidated damages as described elsewhere in these specifications.

Final and/or retention invoices shall be submitted within 10 working days from the acceptance of all close out documents.



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ORD MILITARY COMMUNITY
B4468 EMERGENCY GENERATOR REPLACEMENT (DPW-17017)

TECHNICAL SPECIFICATIONS

SECTION 16010
GENERAL ELECTRICAL REQUIREMENTS

GENERAL

1.01 DESCRIPTION

A. Work Included:

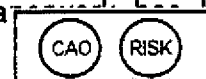
Materials, installation, start-up of the electrical system complete with dual fuel engine generator, auto-transfer switch, and all equipment specified and shown on the Contract Drawings.

1.02 REGULATORY AGENCIES AND STANDARDS

- A. Regulatory Agencies: Installation, materials, equipment and workmanship shall conform to the latest provisions of the following agencies:
1. National Fire Protection Association Standard 70 - National Electrical Code.
 2. Occupational Safety and Health Act (OSHA).
 3. Uniform Building Code (UBC).
 4. Local authorities having lawful jurisdiction pertaining to the work required.
 5. California Code of Regulations (CCR), Title 24, Part 3, California Electrical Code.
- B. Underwriters' Laboratories, Inc. (UL): Materials, appliances, equipment and devices shall conform to the applicable UL standards.
- C. Standards: Where referenced in these Specifications or on the Drawings, the publications and standards of the following organizations apply:
1. American Society of Testing and Materials (ASTM).
 2. National Electrical Manufacturers Association (NEMA).
 3. National Fire Protection Association (NFPA).
 4. American National Standards Institute (ANSI).
 5. Institute of Electrical and Electronics Engineers (IEEE).
 6. Insulated Power Cable Engineers Association (IPCEA).
 7. International Electrical Testing Association, Inc. - Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems (NETA ATS).

1.03 UTILITY COMPANY COORDINATION

- A. The Contractor shall coordinate and perform all work required for service by Pacific Gas and Electric (PGE). Application for service has been
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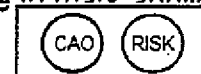


initiated by Owner. Make any service and installation agreements that the utility company may require.

- B. Furnish and install electric service entrance equipment in accordance with the serving utility's requirements. Coordinate with the serving utility to ensure timely connection by the utility. Obtain utility company approval of service entrance and metering equipment shop drawings prior to starting fabrication.

1.04 SUBMITTALS

- A. The Contractor shall coordinate submittals with the work so that the project will not be delayed. No extension of time will be allowed because of failure to properly schedule submittals.
- B. Submit operation and maintenance manuals.
- C. Submit shop drawings for all equipment and materials within 30 days after contract drawings approved. Separate sub-sections by either tab dividers or separately bound booklets. Each section submittal shall be complete, with shop drawings provided for all components. Partial shop drawings for specification sections shall be rejected.
 - 1. Shop drawings shall be computer generated and in pdf format.
 - 2. Provide shop drawings for generator, auto transfer switch, exhaust system layout, and intake ducting layout.
 - 3. Contractor shall submit detailed shop drawings for any proposed changes to the design documents.
- D. Shop drawings returned to the contractor with a "Revise as Noted and Resubmit" status shall be resubmitted within fifteen (15) days.
- E. Submit shop drawings for review at least 20 days before reviewed drawings will be required for commencing the work.
- F. The following submittals should be assembled and delivered in separate submittals:
 - 1. Engine Generator
 - 2. Automatic Transfer Switch
 - 3. Conduits, Pull Boxes, Handholes, Cable and Wiring Devices
 - 4. Grounding
- G. Each submittal shall be bound in clear, legible, searchable pdf.
 - 1. Each submittal shall be appropriately labeled with the project name, contract number, equipment supplier's name, specification section(s), and major material contained therein.
 - 2. Field equipment shop documents, panel equipment shop documents, drawings, and bill of materials shall be grouped under separate sections. Shop documents shall be ordered in the same sequence as their corresponding Contract specification subsection. Failure to mark applicable



products and to cross out non-applicable products shall cause rejection of the entire submittal.

3. Data summary sheets shall be provided to sub tab all shop documents for each individual piece of equipment. Data summary sheets shall be on blue paper.

The data summary sheets shall have the following information:

- a. Product identification; name used herein and on the Contract Drawings.
- b. The manufacturer's model number, part number or other designation. This shall include the specific numbers of all options.
- c. Tag number per the Drawings.

- H. Do not commence any work until the required submittals are approved by Engineer.

1.05 OPERATION AND MAINTENANCE MANUALS

- A. Submit Operation and Maintenance Manuals. The manuals shall describe the equipment and meet all the requirements in the Special Provisions and include the following:

1. Operating instructions and start-up procedures including receiving and installation requirements.
2. Maintenance instructions listing preventive and corrective maintenance procedures. Corrective maintenance procedures shall identify the most probable failures and the appropriate repairs. Test measurement levels shall be referenced to specific test points on the installed equipment.
3. Spare parts data shall be furnished for each item of material and equipment specified. The data shall include a complete list of parts and supplies, with current unit prices and source of supply. A list and itemized price breakdown of spare parts recommended for stocking shall be furnished. The parts selected shall be those, in the manufacturer's judgment, will be involved in the majority of maintenance difficulties encountered.
4. A table listing the tag number, manufacturer and manufacturer's model number shall be provided to summarize the Bill of Material.
5. Control schematics, ladder diagrams and interconnection drawings.
6. Catalog cuts and technical manuals for all components of the system.
7. Originals of all guarantees and warranties issued for the various items of equipment, showing all dates of expiration.
8. Originals of all factory and field test results.
9. Final as-builts of all shop drawings, incorporating manufacturing and field changes. All drawings will be by 11x17 inch sheet size and also electronic format, AutoCAD on CD.
10. For items referenced under AutoCAD Record Drawings included in this Specification, provide a CD with files as required in "AutoCAD Record Drawings."
11. All catalog cut information, warranties, testing results and technical manuals shall be provided on CD in PDF format, in addition to hardcopy.
12. Operation and maintenance manuals to be delivered and approved prior to final approval and project completion.



1.06 RECORD DRAWINGS

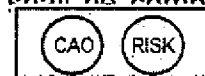
- A. During progress of job, keep up-to-date one set of electrical drawings stamped with "As-Built". Dimension from the following readily obtained base lines:
1. Exact location, type and function of concealed control equipment and devices.
 2. Exact elevation and locations and size of underground conduits.
 3. Show the dimensions, location and routing of electrical work which will become concealed.
- B. Maintain "As-Built" drawings weekly in conjunction with the actual progress of installation. Accurate progress drawings shall be available on site for examination by the Owner's representative.
- C. At completion of the project, deliver "As-Built" drawings to the Owner's representative.
- D. The Contractor shall guarantee the accuracy of the "As-Built" record drawings, and the AutoCAD record drawings for a period of one year after the Owner has accepted the project. During this time, the Contractor shall bear all costs associated with correcting deficiencies and inaccuracies of these Drawings. During this time, the Contractor shall also bear all costs necessary to field investigate any deficiencies, or inaccuracies and field trace wires if required by Project Engineer.

1.07 CONSTRUCTION PROGRESS NOTIFICATION

- A. Provide written notification to Engineer one week prior to the start of the following construction events. Acceptable delivery methods for this notification shall include hand delivery at the weekly construction meeting, or by mail or by fax.
1. Installation of underground work. Obtain Inspector's approval prior to backfill. The Inspector may direct uncovering of any work not so approved.
 2. Modification of Switchboard.
 3. Scheduled start date for field test and startup.

1.08 ELECTRICAL SUPERVISION

- A. Provide the electrician supervisor services at the job site for the man-days and requirements listed below, travel time excluded, at no extra cost to the Owner:
1. Three man-days to assist the Owner's Representative in the start up and verification of system operation.
 2. Additional time as required to attend construction meetings when either:
 - a. Electrical submittals are being reviewed.
 - b. Electrical work, testing, or startup is being done.
 3. Additional time as required to maintain and update the field copy of the "As Built" drawings at least on a weekly basis when electrical work is being done. Each weekly update to the "As-Built" drawings shall be completed prior to the weekly construction meeting.

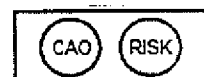


MATERIALS**2.01 GENERAL**

- A. Similar materials and equipment shall be the product of a single manufacturer.
- B. Provide and install equipment and materials shown on the Drawings and as specified unless noted as "Not in Contract", "Future" or as "Existing to Remain". Provide only products which are new, undamaged and in the original cartons or containers.
- C. Materials and equipment shall be the standard products of manufacturers regularly engaged in the production of such material and shall be the manufacturer's current design.
- D. Materials and equipment shall be suitable for storage, installation and operation in an ambient of 0°C to 40°C except where more stringent conditions are stated in individual equipment specifications.
- E. Factory finished electrical equipment, wireways and panels with manufacturer's standard primer and enamel topcoats, unless stated otherwise in the individual equipment specifications. Provide 1 pint of the equipment manufacturer's touch-up paint.
- F. Concrete housekeeping pads are required for the Electric Equipment lineup. Housekeeping pads shall be 3 inches above finished grade, 6 inches longer on sides and 3 inches in front, than the supported equipment, unless otherwise shown on drawings.

2.02 TESTING LABORATORY APPROVALS

- A. Electrical materials and equipment shall be listed, certified or found acceptable by a recognized testing laboratory. Results of tests and inspections by the testing laboratory shall be submitted for review and approval to the local authorities having jurisdiction upon request. In testing the equipment, the following shall be considered:
 - 1. Suitability for installation and use in conformity with the provisions of the NEC.
 - 2. Mechanical strength and durability, including, for parts designed to enclose and protect other equipment, the adequacy of the protection thus provided.
 - 3. Wire bending and connection space.
 - 4. Electrical insulation.
 - 5. Heating effects under normal conditions of use and also under abnormal conditions likely to arise in service.
 - 6. Arcing effects.
 - 7. Classification by type, size, voltage, current capacity and specific use.
 - 8. Other factors which contribute to the practical safeguarding of persons using or likely to come in contact with the equipment.



- B. Recognized testing laboratories are as follows:
 - 1. Underwriters Laboratories, Inc. (UL).
 - 2. Electrical Testing Laboratories (ETL).
 - 3. Other testing laboratories will be acceptable if approved in writing by the local authorities having lawful jurisdiction.
- C. Provide the testing laboratory label on equipment material and devices.

2.03 WARRANTY

- A. Equipment materials and installation shall be guaranteed for a period of one year after the date of final acceptance of the work by the Owner. Repair or remove and replace any and all work that is found to be defective in workmanship and/or materials within said one year periods, without expense whatsoever to the Owner.
- B. Respond to repairs within 48 hours after notice from the Owner.
- C. Warranties, Guarantees, Certificates, etc: Shall be furnished for all equipment and materials under this Division, and shall be properly filled out as of date of acceptance and delivered to the Owner.
- D. The Owner reserves the right to perform maintenance with their own staff, as necessary to meet Owner operational requirements, without voiding warranties.

2.04 NAMEPLATES

- A. Nameplates shall be fabricated from black-letter, white-face laminated plastic phenolic engraving stock, Formica type ES-1, or equal. Each shall be fastened securely using fasteners of stainless steel screws, screwed into inserts or tapped holes as required, or attached by adhesive cement glue. Engraved characters shall be block style with no characters smaller than 1/8-inch high. All electrical equipment shall have a nameplate attached. This applies to exterior conduits, pullboxes, splice boxes, manholes, MCCs, control panels, transformers, switches, etc. Exterior conduits shall have phenolic tags adhesive epoxied to the interior of manholes. Interior conduits shall have stainless steel stamped tags with stainless steel tie wire. Every conduit shall be labeled, both ends.

PART 1 - EXECUTION

3.01 INSTALLATION

- A. Terminate wires and cables at the proper termination point per the manufacturer's recommendations. The Drawings indicate connections for typical equipment only. If the equipment or connections are different from what is shown, provide the modifications necessary for a safe and properly operating installation in accordance with the equipment manufacturer's recommendations.

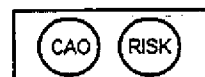


- B. The Drawings diagrammatically indicate the desired location and arrangement of outlets, conduit runs, equipment and other items. Verify field conditions to determine exact location based on physical size and arrangement of equipment, finished elevations and obstructions.
- C. Work or equipment not indicated or specified which is necessary for the complete and proper operation of the Electrical systems shall be accomplished without additional cost or delays to the Owner.

3.02 DEMONSTRATION OF COMPLETE ELECTRICAL SYSTEMS

- A. Demonstration of the functionality of the systems shall not be construed as acceptability of the complete system. Acceptance will only be made on satisfactory demonstration of the functionality of the system as a whole.
- B. If, in the opinion of the Engineer, test results show improper adjustment, operation, or performance of any equipment, the Contractor shall remedy the situation at no additional cost.

END OF SECTION



**SECTION 16060
GROUNDING**

GENERAL

1.01 DESCRIPTION

- A. Work Included: Grounding
- B. Related Work:
 - 1. Section 16010: General Electrical Requirements
 - 2. Section 16123: Wire and Cables

1.02 SUBMITTALS

- A. Submit material list and catalog cuts for all grounding materials and equipment. Indicate size, material and manufacturer.

1.03 OPERATION AND MAINTENANCE MANUALS

- A. Include test results as part of the Operation and Maintenance Manuals in accordance with Section 01330.

MATERIALS

1.04 PERFORMANCE REQUIREMENTS

- A. Grounding System Resistance: 25 ohms

1.05 GENERAL

- A. Materials shall comply with Section 16010.

1.06 GROUND RODS

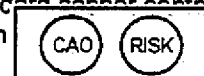
- A. Provide copper-clad steel, 3/4-inch diameter, minimum 10 feet long, with hardened steel points.

1.07 GROUND CONNECTORS

- A. Products shall be listed and labeled as grounding connectors for the materials used.
- B. Above ground installations: Mechanical and/or compression type connectors.
- C. Below ground installations: Compression type connectors only.

1.08 GROUND CONDUCTORS

- A. Underground ground conductors not in conduit shall be annealed bare standard copper conforming to ASTM B8. Size shall be #3/0 copper minimum unless noted otherwise on Agreement # Ag-7218 - Page 32 of 147



- B. Ground conductors in conduit shall comply with Section 16123 for Power Wire and have green insulation.

1.09 GROUND WELLS

- A. Ground wells shall be as shown on plans traffic rated cover, inscribed "GROUND".

EXECUTION

1.10 GROUND ELECTRODE

- A. Bond the metallic piping system to the grounding system in accordance with NEC Article 250. Bond all structural steel, water pipes, rebar mats and as shown on the Drawings for a complete ground electrode system.

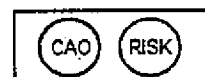
1.11 EQUIPMENT GROUNDING

- A. Connect the ground buses of panelboards, switchboards, and motor control centers to the ground bus within the main service switchboard with a grounding conductor.
- B. Install insulated throat grounding bushings on all conduits. Ground raceways and non-current carrying parts of electrical equipment in accordance with NEC Article 250. Use the metallic conduit system for equipment and enclosure grounding in addition to the grounding conductor installed in each conduit. Grounding as part of the conduit system shall be in addition of any ground conductors shown on the drawings. Connect each conduit grounding bushing to the equipment ground bus with a ground conductor sized in accordance with NEC Article 250.

1.12 FIELD TESTING

- A. Before placement of sidewalks, landscape and paving, measure the resistance of each electrode to ground using a ground resistance tester. Perform the test not less than two days after the most recent rainfall and in the afternoon after any ground condensation (dew) has evaporated. Submit readings as part of System Ground Test defined in Section 16031.
- B. After all individual ground electrode readings have been made, interconnect ground grid as required and measure the system's ground resistance at the Switchboard/MCC ground bus and at each ground electrode.
- C. Do not energize the electrical power system unless the system ground resistance is less than 25 ohms at all points tested. For system ground resistance greater than 25 ohms and for individual electrode ground resistance of 25 ohms or more, notify the Engineer.
- D. Inspect and test in accordance with NETA ATS, Section 7.13.

END OF SECTION



**SECTION 16111
RACEWAYS, BOXES AND FITTINGS**

GENERAL

1.1 DESCRIPTION

- A. Work Included:
 - 1. Raceways
 - 2. Boxes
 - 3. Fittings
 - 4. Supporting Devices
- B. Related Work:
 - 1. Section 16010: General Electrical Requirements
 - 2. Section 16060: Grounding

1.2 SUBMITTALS

- A. Submit material list and catalog cuts for devices and materials. PART 2 -

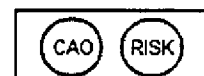
PRODUCTS

2.1 GENERAL

- A. Raceways, boxes and fittings shall comply with Section 16111.

2.2 RIGID STEEL CONDUIT AND FITTINGS

- A. Material:
 - 1. Rigid Steel Conduit and Fittings: ANSI C80.1 and UL-6, hot dipped galvanized after threading.
- B. Fittings:
 - 1. Locknuts: Steel or malleable iron.
 - 2. Bushings: Threaded, grounding type, malleable iron, with 105°C rated plastic insulated throat. Provide grounding type bushings on all rigid steel conduits. Plastic bushings with a temperature rating of 105°C may be used for PVC conduits or conduits containing 24 VDC circuits.



3. Box Connectors for Exterior, Damp and Wet Locations: Provide watertight threaded hubs consisting of sealing fitting with tapered conduit thread, neoprene O-ring, and 105°C rated insulating throat with grounding and bonding lug.
4. Couplings: Threaded, hot-dipped galvanized after fabrication.
5. Conduit Seals:
 - a. Drain and breather: Stainless steel.
 - b. Fiber and sealing compound: UL listed for use with the sealing fitting.

2.3 RIGID NONMETALLIC CONDUIT (PVC) AND FITTINGS

- A. Material: Polyvinyl chloride (PVC), 90°C rise rating, conforming to NEMA TC-2 and UL-651.
- B. Conduit, Excluding Elbows, Risers, or Bends: Schedule 40 PVC.
- C. Elbows, Risers, or Bends: Rigid nonmetallic conduit for elbows, risers, or bends are not acceptable. Refer to Part 3, Conduit Usage Schedule.
- D. Couplings, adapters, bell ends, expansion couplings, elbows and turns of 30° degrees shall be factory made to NEMA standards TC-2 and TC-3.
- E. Joint Cement: As recommended by manufacturer as suitable for the climate, furnished with instructions to achieve watertight joints.

2.4 Electric Metallic Tubing (EMT):

- A. Meet requirements of NEMA C80.3 and UL 797.
- B. Material: Hot-dip galvanized with chromated and lacquered protective layer.

2.5 LIQUIDTIGHT FLEXIBLE CONDUIT AND FITTINGS

- A. Conduit: Single strip steel, hot dipped galvanized prior to conduit fabrication with overall PVC jacket. Conform to UL-360.
- B. Fittings: Hot-dip or mechanically galvanized with insulated throat, locknut and sealing ring.

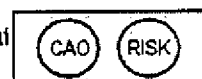
2.6 CONDUIT BODIES

- A. Provide threaded - hub cast ferrous or aluminum boxes. Provide with open type neoprene gaskets and matching cast ferrous covers, secured with at least two captive Type 304 stainless steel screws.

2.7 JUNCTION AND PULL BOXES

- A. General: Construct of 12-gauge steel for boxes larger than 30" wide by 30" high, and 14 gage for smaller boxes. Provide factory made standard sizes and shop fabricate when non-standard size boxes are shown. Comply with UL and NEMA standards. Use where conduit bodies are not practical.

B. Interior, exposed dry locations NEMA 1 pull boxes hot-dipped galvanized at
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accordance with ASTM 123.

- C. Outdoor and wet locations or where indicated as weatherproof. Where located outdoors, in wet locations, or indicated as weatherproof and where threaded-hub cast boxes and fittings are not practical, provide pull boxes constructed of code-gauge steel, prime coated, and finish with two coats of rust-resistant paint. Color shall match surrounding décor. Install cover with Type 304 stainless-steel bolts. Provide NEMA 3R construction.

2.8 SUPPORTING DEVICES

A. Channel and Channel Conduit Clamps

1. **Steel Channel:** Steel channel 1-5/8 inches wide by 1-5/8 inches or 3-1/4 inches high by 12-gauge metal thickness conforming to ASTM A570, Grade 33. Hot-dip galvanize channels after fabrication per ASTM A123. Provide fittings and two piece U shaped conduit clamps formed from ASTM A570 Grade 33 Steel and hot-dipped galvanized after fabrication in accordance with ASTM 123. Provide Unistrut P1000HG for 1-5/8 inch channel, Unistrut P1001HG for 3-1/4 inch channels or equivalent.

Non-Metallic Channel: Glass-reinforced polyester or vinylester channel 1-5/8 inches wide by 1-5/8 or 3-1/4 inches high with 100% ultra-violet surface veil. Provide with two-piece U shaped polyurethane conduit clamps, glass fiber reinforced polyurethane fittings and vinylester-threaded rods. Provide Aickinstrut Inc., or equivalent.

1. **Stainless Steel Channel:** Provide stainless steel channel 1-5/8 inches wide by 1-5/8 inches by 12-gauge thickness, or as noted on Drawings.

B. Anchor bolts and Screws

1. **Materials:**
- Indoor, Dry Locations:** Anchor bolts and screws shall be ASTM A307 galvanized steel. Nuts shall be hex, ASTM A563 galvanized steel.
 - Outdoor, Wet or Corrosive Areas:** Anchor bolts and screws shall be Type 316 ASTM A276 stainless steel. Nuts shall be hex Type 316 stainless steel, ASTM A194, Grade SM, or ASTM F594, Type 316 stainless steel.

2. Types:

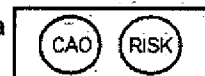
- Concrete:** epoxy adhesive anchor bolts.

C. Conduit Clamps:

- Beam Clamps:** Malleable iron, electro galvanized finish.
- Conduit Clamps:** Malleable iron with hot dipped galvanized finish.
- Clamp Backs:** Malleable iron with hot dipped galvanized finish.
- PVC Coated Clamps:** Same as above except with .40 mil PVC coating.

2.9 UNDERGROUND PULL BOXES

- A. **General:** Provide precast concrete units complying with ASTM C858 with a Agreement # Ag-7218 - Page 36 of 147



A-16. Dimensions indicated on drawings are inside box dimensions. Provide units manufactured by Associated Concrete Products, Brooks Products, Jensen Precast or equivalent.

- B. Handholes: Refer to drawings for size. Provide handholes with concrete bolt down covers in unpaved areas and with flush mounted cast iron traffic covers with bolt downs and lifting hook in paved areas.
- C. Concrete pull boxes and vaults: Provide with pull-in iron, hot-dipped galvanized cover with hot-dipped galvanized frame, and two galvanized cable racks with porcelain blocks on each of the two longest sides. Provide parkway rated covers in non-traffic areas and AASHTO H-20 traffic rated covers in traffic areas. Refer to Drawings for size. Secure covers with two stainless steel pentahead bolts to stainless steel insert nuts. After cables have been pulled and inspected, seal box between cover and frame with a mastic compound similar to Permagum, Dukaseal, or equivalent.

1 For pullboxes 2 feet by 3 feet and larger provide end hinged, torsion spring opening assist type cover assemblies. Provide single leaf assemblies for 2 feet by 3 feet pullboxes. Provide double leaf assemblies for pullboxes larger than 2 feet by 3 feet.

- D. Cover Identification: engrave or bead weld handhole and pullbox covers to indicated services within pullbox as follows:

	<u>Service</u>	<u>Identification</u>
E.	Power	Electric General
	Area Lighting	Lighting Telephone
	Telephone	
	Ground Rods	Ground

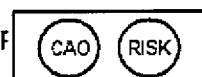
- F. Joint Sealing Compound: Provide joint sealing compound conforming to Federal Specification SS-S-002.10. Provide Associated Concrete Products Quickseal or equivalent.

EXECUTION

3.1 CONDUIT AND SUPPORT USAGE SCHEDULE

- A. General: Install the following types of conduits, fittings and supports in locations listed, unless otherwise noted in the drawings.
- B. Interior Exposed
 - 1. Material: Galvanized rigid steel.
- C. Exterior Exposed
 - 1. Material: Galvanized rigid steel.
- D. Embedded in Concrete (excluding transitions through wetwell walls and equipment pads and all elbows, which shall be PVC coated rigid steel conduit):
 - 1. Material: Galvanized rigid steel.
- E. Underground Direct Burial, or Below Concrete Slabs:

1. Material (Excluding elbows, risers and bends): Rigid non-metallic F



2. Bends, elbows, and risers shall be made with PVC coated rigid steel conduit using threaded adapters.
- F. Final connections to instruments (pressure switches, valve limit switches etc.)
 1. Material: Liquid-tight flexible conduit and galvanized rigid steel fittings and galvanized rigid steel fittings and supports.
 2. Length: Minimum three feet conduit lengths for conduits 3 inches or larger. Minimum two feet for remaining conduit sizes. Maximum six-foot length.

3.2 RACEWAY FILL

- A. The conductor fill for all conduits shall be based on Annex C of the NEC, THW conductors or as shown on the Drawings, whichever is larger. The intent of this requirement is to furnish larger diameter conduit than the NEC Code requires for specific cable insulation. Compute the maximum conduit fill using NEC requirements for type THW conductors (or larger if applicable), although the actual wiring may be with conductors having smaller cross-sections.

3.3 BENDS

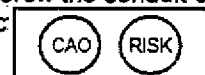
- A. Provide no more than three (3) 90-degree conduit bends or the equivalent number of smaller radius bends in any conduit run between boxes or equipment.
- B. Length of Run: 300 feet maximum, less 100 feet for each equivalent 90-degree bend.

3.4 CONDUIT INSTALLATION, GENERAL

- A. Conduit runs are shown schematically. Install concealed unless specifically noted on Drawings. Supports, pull boxes, junction boxes, and other ancillary equipment are not usually shown. Provide pull boxes and junction boxes where shown.
- B. Run exposed conduits parallel and perpendicular to surface or exposed structural members and follow surface contours as much as practical to provide a neat appearance.

Make bends and offsets so that the inside diameter of conduit is not effectively reduced. Unless otherwise indicated, keep the legs of a bend in the same plane and the straight legs of offsets parallel.

- C. Cap all conduits immediately after installation to prevent entrance of foreign matter.
- D. Do not use diagonal runs except for concealed areas or when specifically shown in the drawings.
- E. Treat all threaded joints of rigid steel conduit with T&B Kopr-Shield before installing fittings, except where conduit is run in dry locations.
- F. Conduit Terminations:
 1. The ends of all rigid steel conduit or PVC coated rigid steel conduit shall be cut square, field reamed, all burrs removed and cleaned for pulling wire.
 2. Install conduits squarely to the box when terminating with locknuts and provide one locknut outside the box and one locknut and bushing inside the box. Install locknuts with dished side against the box. When terminating in threaded hubs, screw the conduit or fitting tight into the hub so that the end bears against the fire protec



3. When chase nipples are used, install the raceway and coupling square to the box and tighten the chase nipple leaving no exposed threads.
4. Duct seal all conduits within Switchgear/MCC and SCADA Panel that are routed to exterior locations. Do not route conduits below or within concrete footing except to cross footing at 90-degree angles.

3.5 GROUNDING

- A. Provide grounding in accordance with Section 16060.
- B. Use grounding bushings for all rigid steel conduits. Bond to equipment frame and grounded conductor.
- C. Provide a grounding conductor in flexible and liquid tight flexible conduit, size conforming to NEC Article 250 -Equipment Grounding Conductors.

3.6 CONDUITS EMBEDDED IN CONCRETE AND BELOW SLABS

Install conduits and sleeves passing through slabs, walls, columns or beams so as not to impair the strength of construction. Secure conduit to prevent sagging or shifting during concrete pour.

3.7 CONDUIT PENETRATIONS

- A. Unless otherwise indicated, dry-pack with nonshrink grout around raceways, which penetrate concrete block, masonry and concrete walls above grade, floors, or ceilings.
- B. Maintain the integrity of all damp-proofing and water proofing membranes that are penetrated by raceways and boxes.
- C. Nonshrink grout shall conform to the Corps of Engineers specification for Nonshrink Grout, CRD-621-88 and to these Specifications. Use a nongas-liberating type, cement base, premixed product requiring only the addition of water for the required consistency.

3.8 DAMAGED CONDUITS

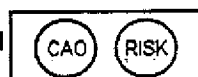
- A. Replace all conduits that are damaged.
- B. Replace crushed or clogged conduit or any conduit whose inner surface is damaged or not smooth.
- C. Repair cuts, nicks or abrasions in the zinc coating of galvanized conduit with galvanizing repair stick, Enterprise Galvanizing "Galvabra" or equivalent.

3.9 EMPTY CONDUITS

- A. Provide 1,250-pound strength, 1/4-inch diameter braided yellow polypropylene pull cord in empty conduits.
- B. Provide a waterproof label on each end of the pull cords to indicate the destination of the other end in addition to conduit labels.

3.10 OUTLETS FOR GENERAL WIRING

- A. Use multi-gang boxes and device plates where several devices are located



general area. Obtain back box requirements for systems provided under other sections and provide them per those requirements.

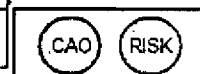
3.11 UNDERGROUND PULL BOXES

- A. Set handholes and pull boxes level on a crushed rock base 18 inches thick with horizontal dimensions same as bottom of handhole plus 12 inches all around. Crushed rock shall be 3/4-inch maximum size, 1/4" minimum size. Set units parallel or perpendicular with adjacent structures. Seal pull box joints located between box cover, extension and bottom with joint sealing compound.
- B. Install covers flush within finished paved or concrete surfaces. In unfinished areas, install covers one inch (1") above finished grade.
- C. Prior to project completion, clean out debris and dirt in pull boxes with concrete bottoms.

3.12 UNDERGROUND CONDUITS

- A. Provide 30-inch-minimum cover at finished grade for direct burial underground conduit. Provide 3-inch-minimum sand above and below conduit.
- B. Provide 30-inch minimum cover at finished grade above top of concrete for concrete-encased duct banks. Provide 2-inch minimum separation between conduits and 3-inch minimum concrete encasement around conduits. Extend the concrete encasement under any floor slabs or equipment mounting pads to the point of raceway termination. After the concrete envelope has set, pull a bristle brush through each raceway to remove debris. Underground conduits shall be concrete encased unless shown as direct buried on the Drawings.
- C. Where other utility piping systems are encountered or being installed along a raceway route, maintain a 12-inch-minimum vertical separation between raceways and other systems at crossings. Maintain a 12-inch-minimum separation between raceways and other systems in parallel runs. Do not place raceways over valves or couplings in other piping systems. Refer conflicts with these requirements to the Engineer for instructions before further work is done.
- D. Thoroughly clean conduits before laying. During construction and after completion, the conduit ends shall be kept plugged to prevent water from washing mud into the manholes or pull boxes.
- E. Terminate conduit in end bells in manholes and pull boxes and enter at right angles to the wall.
- F. Place conduit separators every 4 feet on centers and securely anchor to prevent movement.
- G. Backfill, Non-paved Areas: Use native backfill, compacted in 6-inch layers to 90 percent relative compaction. Final backfill elevation shall match existing.
- H. Backfill, Paved Areas Use clean imported sand having the following gradation:

Sieve Size	Percent Passing By Weight
3/8 inch	100
No. 4	75 - 100
No. 30	12 - 50
No. 100	5 - 20



No. 200	0 - 15
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Imported sand shall be free from organic material, trash, debris and rubbish.

1. Compact trench backfill by manual methods. Water flooding or jetting is not permitted.

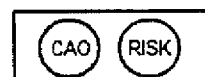
3.13 WARNING TAPES

- A. Bury warning tapes approximately 12 inches below grade, above all underground conduits and duct banks. Align parallel to and within 3 inches of the centerline of the conduit or duct bank.
- B. Warning tape shall be yellow, 6-inch minimum width. Utilize tape made of material resistant to corrosive soil. Use tape with printed warning that an electric circuit is located below the tape. Manufacturers and types: ITT Blackburn Type YT, Griffolyn Co., Terra-Tape, or equivalent.

3.14 ADJUSTING AND CLEANING

- A. Upon completion of installation of raceways and boxes, inspect interiors of raceways and boxes; clear all blockages and remove burrs, dirt, and vacuum clean any construction debris.

END OF SECTION



SECTION 16123 WIRES AND CABLES

GENERAL

1.01 DESCRIPTION

- A. Work Included:
 - 1. Wires and cables, 600 volts and less
- B. Related Work:
 - 1. Section 16010: General Electrical Requirements

1.02 SUBMITTALS

- A. Submit shop drawings in accordance with Section 16010.
- B. Submit catalog cuts and material list for each conductor type. Indicate insulation material, conductor material, voltage rating, manufacturer and other data pertinent to the specific cable, such as shielding type, number of pairs and applicable standards.

MATERIALS

2.01 GENERAL

- A. Wires and cables shall comply with Section 16010.

2.02 POWER WIRE

- A. Conductor material: Class B stranded, soft annealed copper per ASTM B-3.
- B. Insulation: THHN, 600-volt insulated, color coded per Part 3: Identification.
- C. Minimum conductor size: No. 12 AWG.

2.03 CONDUCTOR CONNECTOR/SPLICES

- A. Aboveground Dry and Damp Locations, #10 AWG and Smaller: Wire nuts, 3M "Scotchlock", Ideal "Super Nut", Buchanan "B-Cap", or equivalent.
- B. Aboveground Dry and Damp Locations, #8 AWG and Larger:
 - 2. Use one piece, standard length barrel, copper compression splice. Provide Thomas and Betts two way connectors, Burndy "Hylink", Teledyne "Penn-Union Penn Crimps" or equivalent.
- C. In-ground Handholes and Pull Boxes, #10 AWG and smaller: As specified above plus sealing with individual sealing packs of Scotchcast 400 Resin or equivalent.
- D. In-ground Handholes and Pull Boxes, #8 AWG and Larger: Splice and terminate conductors by means of compression connectors and compression terminal lugs. Do not use split bolt type connectors. After initial set has been taken, retighten all pressure type connectors and lugs. Insulate all splices, joints, and free ends of conductors. Splice kits shall be used such that the splice is made watertight.

2.04 PULLING COMPOUND

- A. Use only cable pulling compound that is approved by the manufacturer of the cable as being compatible with cable insulation and jacket materials.



2.05 CONDUCTOR TAGS

- A. Wire identification - all wires, field and internal to equipment, shall be identified with heat shrinkable machine printed sleeve markers or clip-on markers covered with clear plastic heat shrinkable tubing. Hand lettered wire labels are not acceptable and shall be replaced at the Contractor's expense. All wires that are electrically the same (connected to common termination points) and do not pass through a contact or other switching device shall have the same wire identification. The wire labeling code for each end of the same wire shall be identical. Tubing shall be sized for the wire and shrunk into place with the properly sized heat gun. The wire identification code for field and panel wiring shall be the number/letter designated on the "elementary" (schematics) and "loop" diagrams. Wire labels shall be T&B SM series, Raychem Thermofit TMS or approved equal.

2.10 ELECTRICAL TAPE/SHRINKABLE INSULATORS

- A. Vinyl Tape: 7 mil, 600 volt rated, flame retardant, hot and cold weather resistant vinyl tape conforming to UL 510. Provide 3M Super 33+ Scotch vinyl tape or equivalent.
- B. Vinyl Tape for Color Coding: 7 mil, 3/4" wide, hot and cold weather resistant vinyl tape conforming to UL 510. Provide 3M 35 Scotch vinyl tape or equivalent.
- C. Vinyl Mastic: 90 or 125 mil self fusing, rubber based insulating vinyl mastic laminated to PVC. Provide 3M 2200 or 2210 or equivalent
- D. Rubber Tape: EPR rubber, 90 degrees C continuous rated. Provide 3M 130C Scotch Tape or equivalent.
- E. Varnished Cambric Type: Adhesive backed, 9-mil, bias cut cotton tape, coated with yellow insulating varnish.
- F. Shrinkable Insulators: Provide heat or cold shrinkable insulator tubing. Provide Thomas and Belts "Shrink-Kon" heat shrink insulators, 3M thick wall heat shrinkable cable sleeves, 3M 8420 series cold shrink cable sleeves or equivalent.

EXECUTION

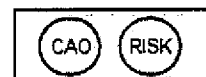
3.01 WIRE INSTALLATION

- A. Install wiring and cable in conduit unless otherwise noted.
- B. To reduce pulling tension in long runs, coat cables with pulling compound.
- C. Remove debris and moisture from the conduits, boxes and cabinets prior to cable installation.
- D. Group conductors in panelboards, motor control centers, cabinets, pull boxes and switchboard wireways; tie with plastic ties; and fan out to terminals.
- E. Terminate phase conductors A, B and C reading left to right, front to back or top to bottom looking into the front of the equipment.
- F. Install control wire and instrument cable between devices without splices.

3.02 IDENTIFICATION (EXTERNAL TO SCADA PANEL)

- A. Color Coding of Power Wire: Provide color coding throughout the entire network of feeders and circuits (600 volts and below) as follows:

	240/120	208/120	480/277
<u>Phase</u>	<u>Volts</u>	<u>Volts</u>	<u>Volts</u>
Phase A	Black	Black	Brown
Phase B	Red	Red	Orange



Phase C	---	Blue	Yellow
Neutral	White	White	Gray
Ground	Green	Green	Green

- B. Conductors used for 24 VDC shall be blue. Conductors designated, as foreign voltage shall be yellow.
- C. Conductors No. 10 AWG and smaller shall have factory color-coding with solid color insulation.
- D. Conductors No. 8 AWG and larger shall have factory color coding with solid color insulation or shall have black insulation with on-site application of colored tape at conductor terminations and at splices.
- E. Control wires shall have colored insulation. Provide separate color codes for each wire in conduit that has up to seven wires. Conduits with more than seven wires shall have at least seven types of colored insulation.
- F. Tagging of Conductors: Tag control wires and instrument cable in panels, pullboxes, handholes, wireways and at control devices. Tag control wires and instrument cables with wire numbers as shown on the shop drawing submittals or contract drawings. Tag power wires in pullboxes, handholes and wireways with motor control center or panelboard number and circuit numbers. In panelboards, tag conductors with circuit numbers one inch from termination at circuit breaker.

3.03 WIRE SPLICING AND CONNECTING

- A. Tighten electrical connections and terminals, including screws and bolts, in accordance with manufacturer's published torque tightening values. Where manufacturer's torquing requirements are not indicated, tighten connectors and terminals to comply with tightening torques specified in UL 486A and UL 486B, or NETA Standards.
- B. Retighten bolt-type connectors 24 to 48 hours after initial installation and before taping.
- C. Insulate splices with tape or shrinkable insulators. Tape connections as follows: Step 1 - apply a minimum of 4 layers of varnished cambric tape. Step 2 - apply a minimum of six layers of rubber tape half-lapped. Step 3 - apply a minimum of six layers of vinyl tape half-lapped.

3.04 INSULATION RESISTANCE TESTS (CIRCUITS BELOW 600 VOLTS)

- A. Perform insulation resistance test for each feeder and motor circuit prior to energizing.
- B. Inspect and test in accordance with NETA ATS, Section 7.3.
- C. Perform insulation resistance test of all systems up to 600V. Each complete circuit, including the feeder and everything connected thereto, shall be tested and shall have an insulation resistance between conductors and between each conductor and ground of not less than 2,000,000 ohms (2 megohms). All circuits which do not pass this test shall be inspected for grounds; and if required, the Contractor shall replace the wires or cables and repeat the test until insulation resistance of 2 megohms is obtained.

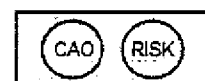
END OF SECTION

SECTION 16620 ENGINE GENERATOR

GENERAL

1.1 SUMMARY

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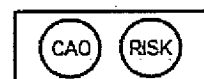
- A This section includes the following items from a single supplier:
1. Engine Generator Set.
- B Products Furnished or Supplied but not installed
1. Exhaust silencer
 2. Exhaust flexible connection
- C Related Requirements
1. It is the intent of this specification to secure an engine-driven generator set that has been prototype tested, factory built, production-tested, and site-tested together with all accessories necessary for a complete installation as shown on the plans and drawings and specified herein.
 2. Any exceptions to the published specifications shall be subject to the approval of the engineer and submitted minimum 10 days prior to the closing of the bid with a line by line summary description of all the items of compliance, any items that have been omitted or have been taken exception to, and a complete description of all deviations.
 3. It is the intent of this specification to secure a generator set system that has been tested during design verification, in production, and at the final job site. The generator set will be a commercial design and will be complete with all of the necessary accessories for complete installation as shown on the plans, drawings, and specifications herein. The equipment supplied shall meet the requirements of the National Electrical Code and applicable local codes and regulations.
 4. All equipment shall be new and of current production by an international, power system manufacturer of generators, transfer switches, and paralleling switchgear. The manufacturer shall be a supplier of a complete and coordinated system. There will be single-source responsibility for warranty, parts, and service through a factory-authorized representative with factory-trained technicians.

1.2 SUBMITTALS

- A Product Data
1. The submittal shall include prototype test certification and specification sheets showing all standard and optional accessories to be supplied; schematic wiring diagrams, dimension drawings, and interconnection diagrams identifying by terminal number each required interconnection between the generator set, the transfer switch, and the remote annunciator panel if it is included elsewhere in these specifications.
- B Shop Drawings
- C Informational Submittal
1. Certificates
 - a The generator set shall be listed to UL 2200 or submitted to an independent third party certification process to verify compliance as installed.
 - b The generator set shall be IBC Certified as meeting the required maximum seismic design acceleration level per the International Building Code 2000/2003 or 2006 for the specific job site. The generator shall be analyzed or shake tested by a third party, accompanied by a Certificate of Compliance, and include a seismic label on the generator set (per Section 1702 of the IBC Code). Seismic certified generators shall be installed per the specific seismic instructions provided by the manufacturer.
 2. Test and Evaluation Reports
 3. Manufacturer's Instruction
 4. Manufacturer's Report
 5. Qualification Statement
- D Closeout Submittal
1. Maintenance Contracts
 2. Operation And Maintenance Data
 3. Warranty Documentation

E Maintenance Material Submittals

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1.3 Quality Assurance

A Regulatory Agency

1. The generator set shall conform to the requirements of the following codes and standards:
 - a CSA C22.2, No. 14-M91 Industrial Control Equipment.
 - b EN50082-2, Electromagnetic Compatibility-Generic Immunity Requirements, Part 2: Industrial.
 - c EN55011, Limits and Methods of Measurement of Radio Interference Characteristics of Industrial, Scientific and Medical Equipment.
 - d IEC8528 part 4, Control Systems for Generator Sets.
 - e IEC Std 61000-2 and 61000-3 for susceptibility, 61000-6 radiated and conducted electromagnetic emissions.
 - f IEEE446 Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications.
 - g NFPA 70, National Electrical Code, Equipment shall be suitable for use in systems in compliance to Article 700, 701, and 702.
 - h NFPA 99, Essential Electrical Systems for Health Care Facilities.
 - i NFPA 110, Emergency and Standby Power Systems. The generator set shall meet all requirements for Level 1 systems. Level 1 prototype tests required by this standard shall have been performed on a complete and functional unit. Component level type tests will not substitute for this requirement.
2. Qualifications
 - a The equipment shall be produced by a manufacturer who is ISO 9001 certified for the design, development, production and service of its complete product line.
 - b The power system shall be produced by a manufacturer who has produced this type of equipment for a period of at least 10 years and who maintains a service organization available twenty-four hours a day throughout the year.
3. Manufacturers
 - a The power system shall be furnished by a single manufacturer who shall be responsible for the design, coordination, and testing of the complete system. The entire system shall be installed as shown on the plans, drawings, and specifications herein.
 - b Design based on Kohler.

1.4 Delivery, Storage, and Handling

- A Delivery and Acceptance Requirements
- B Storage and Handling Requirements
- C Packaging Waste Management

1.5 Field or Site Conditions

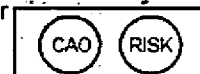
A Ambient Conditions

1. Engine- generator set shall operate in the following conditions without any damage to the unit or its loads.
 - a Ambient Temperature: 104 °F
 - b Altitude : 1000 ft
 - c Relative Humidity: 95%

1.6 Warranty or Bond

A Manufacturer's Warranty

1. The generator set shall include a standard warranty covering one (5) year or 2000 hours, whichever occurs first, to guarantee against defective material and workmanship in accordance with the manufacturer's published warranty from the date of initial startup.
2. The generator set manufacturer and its distributor shall maintain a 24-hour parts and service organization. This organization shall regularly engage in maintenance contract programs to perform preventive maintenance and service on equipment similar to that specified. A service agreement shall be available and shall include system operation under simulated operating conditions; adjustment to the generator set, transfer switch, and switchgear controls as required, and certification in the owner's maintenance log of repairs made and function on all systems.



PRODUCTS

2.1 Equipment

A Equipment

1. The generator set shall be a Kohler model 60REZGB with a 4P10X alternator or approved equal. It shall provide 75.00 kVA and 60.00 kW when operating at 120/208 volts, 60 Hz, 0.80 power factor. The generator set shall be capable of a 130°C Standby rating while operating in an ambient condition of less than or equal to 104 °F and a maximum elevation of 1000 ft above sea level. The standby rating shall be available for the duration of the outage.

B Engine

1. The engine shall be equipped with the following:
 - a. Electronic isochronous governor capable of 0.5% steady-state frequency regulation
 - b. 12-volt positive-engagement solenoid shift-starting motor
 - c. Automatic battery charging alternator with a solid-state voltage regulation
 - d. Positive displacement, full-pressure lubrication oil pump, cartridge oil filters, dipstick, and oil drain
 - e. Dry-type replaceable air cleaner elements for normal applications
 - f. The engine shall be naturally aspirated and fuel by Natural Gas with a backup of LP vapor fuel.
 - g. The engine shall be liquid-cooled
2. The engine shall be EPA certified from the factory
3. The engine shall be approved by Monterey Bay Air Resources District
4. The generator must accept rated load in one-step.

C Cooling System

1. The engine shall be liquid-cooled by a closed loop, unit mounted radiator rated to operate the generator set at full load at an ambient temperature of 50 degrees C (122 degrees F). The radiator fan and other rotating engine parts shall be guarded against accidental contact.

D Standard Air Cleaner

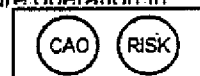
1. The air cleaner shall provide engine air filtration which meets the engine manufacturer's specifications under typical operating conditions.

E Battery

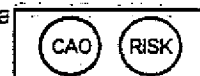
1. Each genset requires a maintenance free BCI group 24 battery which must meet the engine manufactures' specifications for the ambient conditions specified in Part 1 Project Conditions and shall comply with the NFPA requirements for engine cranking cycles. This battery shall be rated according to SAE Standards J-537 with a minimum cold cranking amp of 650 amps and a minimum reserve capacity of 120 Minutes at 80F. The battery plates shall be constructed of a Calcium-Lead alloy to provide long waterless operation and extended battery life. The battery must contain a handle to aid in lifting and the case must be constructed of polypropylene to resist breakage and extend service life.
2. Battery rack and battery cables capable of holding the manufacturer's recommended batteries shall be supplied.

F Controller

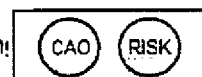
1. Decision-Maker® 3000 Generator Set Controller
 - a. The generator set controller shall be a microprocessor based control system that will provide automatic starting, system monitoring, and protection. The controller system shall also provide local monitoring and remote monitoring. The control system shall be capable of PC based updating of all necessary parameters, firmware, and software.
 - b. The controller shall be mounted on the generator set and shall have integral vibration isolation. The controller shall be prototype and reliability tested to ensure operation in the conditions encountered.



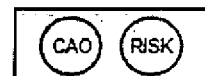
2. Codes and Standards
 - a. The generator set controller shall meet NFPA 110 Level 1 requirements and shall include an integral alarm horn as required by NFPA.
 - b. The controller shall meet NFPA 99 and NEC requirements.
 - c. The controller shall be UL 508 listed.
3. Applicability
 - a. The controller shall be a standard offering in the manufacturer's controller product line.
 - b. The controller shall support 12-volt and 24-volt starting systems.
 - c. The controller's environmental specification shall be: -40°C to 70°C operating temperature range and 5-95% humidity, non-condensing.
 - d. The controller shall mount on the generator or remotely within 40 feet with viewable access.
4. Controller Buttons, Display and Components
 - a. The generator set controller shall include the following features and functions:
 1. Push button Master Control buttons. The buttons shall be tactile-feel membrane with an indicator light to initiate the following functions:
 - a. Run Mode: When in the run mode the generator set shall start as directed by the operator.
 - b. Off/Reset Mode: When in the Off/Reset mode the generator set shall stop, the reset shall reset all faults, allowing for the restarting of the generator set after a shutdown.
 - c. Auto Mode: When in Auto the mode the generator set shall be ready to accept a signal from a remote device.
 2. Emergency Stop Switch. The remote stop switch shall be red in color with a "mushroom" type head. Depressing the stop button will immediately stop the generator set and lockout the generator set for any automatic remote starting.
 3. Push Button/Rotary Selector dial. This dial shall be used for selection of all Menus and sub-menus. Rotating the dial moves you through the menus, pushing the dial selects the menu and function/features in that menu. Pushing the button selects the feature/function and sub-menus.
 4. Digital Display. The digital display shall be alphanumeric, with 2 lines of data and approximately 24 characters. The display shall have back lighting for ease of operator use in high and low light conditions. The display shall display status of all faults and warnings. The display shall also display any engine faults. While the generator set is running, the display shall scroll all-important information across the screen for ease of operator use. The scroll can be stopped by pushing the rotary dial. The display shall fall asleep when the generator set is not running and will wake-up when the generator set starts or the rotary dial is depressed.
 5. Fault Light. The controller shall have an annunciator fault light that glows red for faults and yellow for warnings. These faults and warnings shall be displayed in the digital display. The fault light will also glow yellow when not in AUTO.
 6. Alarm Horn. The controller shall provide an alarm horn that sounds when any faults or warnings are present. The horn shall also sound when the controller is not in the AUTO mode.
 7. Alarm Silence/Lamp Test Button. When this button is depressed, it shall test all controller lamps. This button will also silence the alarm horn when the unit is not AUTO.
 8. USB Connection. The controller shall have a USB connection on the face of the controller. This connection shall allow for updating of all software and firmware. This port shall also allow for all servicing of generator set parameters, fault diagnostics and viewing of all controller information via use a laptop computer.
 9. Dedicated user inputs. The controller shall have dedicated inputs for remote emergency stop switch, remote 2-wire star for transfer switch and auxiliary shutdown.
 10. The controller shall have auto resettable circuit protection integrated



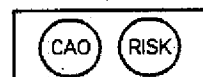
5. System Controller Monitoring and Status Features and Functions
 - a. The generator controller shall display and monitor the following engine and alternator functions and allow adjustments of certain parameters at the controller:
 1. Overview menu
 - a. Active shutdowns and warnings shall be displayed if present and without the need of operator interface
 - b. Engine runtime with total hours
 - c. Average line to line voltage
 - d. Coolant temperature
 - e. Fuel level or pressure
 - f. Oil pressure
 - g. Battery voltage
 - h. Software version
 - i. Frequency
 - j. Average current
 2. Engine metering menu.
 - a. Engine speed
 - b. Oil pressure
 - c. Coolant temperature
 - d. Battery voltage
 3. Generator metering menu.
 - a. Total power in VA
 - b. Total power in W
 - c. Rated power % used
 - d. Voltage L-L and L-N for all phases
 - e. Current L1, L2, L3
 - f. Frequency
 4. Generator set information.
 - a. Generator set model number
 - b. Generator set serial number
 - c. Controller set number
 5. Generator set run time.
 - a. Engine run time total hours
 - b. Engine loaded total hours
 - c. Number of engine starts
 - d. Total energy in kW
 6. Generator set system
 - a. System voltage
 - b. System frequency 50/60Hz
 - c. System phase, single/three phase
 - d. Power rating kW
 - e. Amperage rating
 - f. Power type standby/prime
 - g. Measurement units, metric/English units adjustable
 - h. Alarm silence, always or auto only
 7. Generator set calibration, the following are adjustable at the controller.
 - a. Voltage L-L and L-N all phases
 - b. Current L1, L2, L3
 - c. Reset all calibrations
 8. Voltage regulation, +/-0.5% regulation, the following is adjustable at the controller.
 - a. Voltage Adjustable +/- 10%
 9. Digital and Analog Inputs and outputs
 - a. Displays settings and status
 10. Event Log
 - a. Stores event history, up to 1000 events
6. Controller Engine control features and functions
 - a. Automatic restart - the controller has automatic restart feature that initiates the start routine and re-crank after a failed start attempt.
 - b. Cyclic cranking - the controller shall have programmable cyclic cranking.



- c. Engine starting aid - the controller shall have the capability of providing control for an optional engine starting aid.
 - d. The control system shall include time delays for engine start and cool down.
 - e. The control system shall interface with the engine ECM and display engine fault codes and warnings. The ECM shall also include sender failure monitoring to help distinguish between failed senders and actual failure conditions.
 - f. The controller shall monitor and display engine governor functions with include steady state and transient frequency monitoring
7. Controller Alternator control features and functions
- a. Integrated hybrid voltage regulator. The system shall have integral microprocessor based voltage regulator system that provides +/- 5% voltage regulation, no-load to full load with three phase sensing. The system is prototype tested and control variation of voltage to frequency. The voltage regulator shall be adjustable at the controller with maximum +/- 10% adjustable of nominal voltage.
 - b. AC output voltage regulator adjustment. The system shall allow for adjustment of the integral voltage regulator with maximum of +/- 10% adjustment of the system voltage.
 - c. Alternator thermal overload protection. The system shall have integral alternator overload and short circuit protection matched to each alternator for the particular voltage and phase configuration.
 - d. Power metering. The controller digitally displays power metering of kW and kVA.
8. Other control features and functions
- a. Event logging. The controller keeps a record of up to 1000 events, for warning and shutdown faults. This fault information becomes a stored record of systems events and can be reset.
 - b. Historical data logging. The controller total number of generator set successful start shall be recorded and displayed.
 - c. Programmable access. The control system shall include a USB port that gives service technicians the ability to provide software and firmware upgrades. The system shall also be capable of allowing setting of all critical parameters using the service software and a laptop computer. All parameters and setting should be capable to being stored on a laptop
 - d. for future upgrades of printing for analysis.
9. Generator Set Warning, Shutdown Alarm and Status
- a. The generator set shall have alarms and status indication lamps that show non-automatic status and warning and shutdown conditions. The controller shall indicate with a warning lamp and or alarm and on the digital display screen any shutdown, warning or engine fault condition that exists in the generator set system. The following alarms and shutdowns shall exist as a minimum:
 - 1. Engine functions
 - a. Critical high fuel level (alarm)
 - b. ECM communication loss (shutdown)
 - c. ECM diagnostics (alarm & shutdown)
 - d. Engine overspeed (shutdown)
 - e. Engine start aid active
 - f. Engine under speed (shutdown)
 - g. Fuel tank leak (alarm & shutdown)
 - h. High DC battery voltage (alarm)
 - i. High coolant temperature (alarm & shutdown)
 - j. High fuel level (alarm)
 - k. Low DC battery voltage (alarm)
 - l. Low coolant level (shutdown)
 - m. Low coolant temperature (alarm)
 - n. Low cranking voltage (alarm)
 - o. Low engine oil level (alarm & shutdown)
 - p. Low fuel level (alarm & shutdown)
 - q. Low fuel pressure (alarm)
 - r. Low oil pressure (alarm & shutdown)
 - s. No coolant temperature signal (shutdown)
 - t. No oil pressure signal (shutdown)
 - u. Overcrank (shutdown)



- v. Speed sensor fault (alarm)
 - 2. Generator functions
 - a. AC sensing loss over & under current (alarm & shutdown)
 - b. Alternator protection (shutdown)
 - c. Ground fault input (alarm)
 - d. kW overload (shutdown)
 - e. Locked rotor (shutdown)
 - f. Over-frequency (shutdown)
 - g. Over AC voltage (shutdown)
 - h. Under-frequency (shutdown)
 - i. Under AC voltage (shutdown)
 - j. Emergency stop (shutdown)
 - 3. Other General functions
 - a. Battery charger fault (alarm)
 - b. Common fault (shutdown)
 - c. Common warning (alarm)
 - d. Master switch not in auto (alarm)
 - e. Generator running
 - f. Input/Output fault (alarm)
 - 4. The generator set controller shall also be capable of meeting all necessary NFPA 110 level 1 requirements that include several of the above along with; EPS supplying load, Master switch "not in auto", and contacts for local and remote common alarm.
10. Communications
- a. If the generator set engine is equipped with an ECM (engine control module), the controller shall communicate with the ECM for control, monitoring, diagnosis, and meet SAE J1939 standards
 - b. The controller shall have the capability to communicate to a personal computer (Windows based PC compatible) and appropriate application software
 - c. A variety of connections shall be available based on requirements:
 - 1. A single control connection to a PC via USB
 - 2. Internet connection via Ethernet
 - d. Generator and transfer switch controls shall be equipped with communications modules capable of connecting to the same communication network.
- G Generator Overcurrent and Fault Protection
- 1. The generator shall be provided with a factory installed, 80% rated line circuit breaker rated at 300 amperes that is UL489 listed. Line circuit breakers shall be sized for the rated ampacity of the loads served by the breaker per the NEC.
 - 2. The circuit breaker(s) shall incorporate a thermo-magnetic trip unit.
 - 3. Load side lugs shall be provided from the factory. The line circuit breaker shall include auxiliary contacts, shunt trip, undervoltage trip, alarm switch, and overcurrent switch functionality. Load side breaker connections made at the factory shall be separated from field connections.
- H Alternator
- 1. The alternator shall be salient-pole, brushless, with 4 bus bar provision for external connections, self-ventilated, with drip-proof construction and amortisseur rotor windings, and skewed for smooth voltage waveform. The ratings shall meet the NEMA standard (MG1-32.40) temperature rise limits. The insulation shall be class H per UL1446 and the varnish shall be a vacuum pressure impregnated, fungus resistant epoxy. Temperature rise of the rotor and stator shall be limited to 130°C Standby. The Permanent Magnetic Generator (PMG) based excitation system shall be of brushless construction controlled by a digital, three phase sensing, solid-state voltage regulator. The AVR shall be capable of proper operation under severe nonlinear loads and provide individual adjustments for voltage range, stability and volts-per-hertz operations. The Automatic Voltage Regulator (AVR) shall be protected from the environment by conformal coating. The waveform harmonic distortion shall not exceed 5% total RMS measured line-to-line at full rated load.
 - 2. The alternator shall have a maintenance-free bearing, designed for 40000 hour B10 life. The alternator shall be directly connected to the flywheel housing with a semi-flexible coupling between the rotor and the flywheel.



3. The generator shall be inherently capable of sustaining at least 300% of rated current for at least 10 seconds under a 3-phase symmetrical short circuit without the addition of separate current-support devices.
 4. Motor starting performance and voltage dip determinations shall be based on the complete generator set. The generator set shall be capable of supplying 207.00 LRKVA for starting motor loads with a maximum instantaneous voltage dip of 35%, as measured by a digital RMS transient recorder in accordance with IEEE Standard 115. Motor starting performance and voltage dip determination that does not account for all components affecting total voltage dip, i.e., engine, alternator, voltage regulator, and governor will not be acceptable. As such, the generator set shall be prototype tested to optimize and determine performance as a generator set system.
- I. Vibration Isolation
1. Vibration isolators shall be provided between the engine-alternator and heavy-duty steel base.

2.2 Accessories

- A. The generator set shall be supplied with a 6-ampere automatic float/equalize battery charger capable of charging both lead-acid and gel-cell type batteries, with the following features:
 - i. Automatic 3-stage float to equalization charge
 - ii. 1% steady-state voltage regulation from no load to full load over 10% AC input line voltage variation
 - iii. Indicator LED lamps for charge state indication (bulk charge/absorption/float)
 - iv. Ambient temperature operating range: -40°C to 70°C
 - v. Potting for durability and waterproofing
 - vi. Short-circuit and reverse polarity protection
 - vii. UL 1236 listed
 - viii. UL 2200 compliant
 - ix. CSA certified
 - x. Ring terminals for battery connection.
- B. Battery rack and battery cables capable of holding the manufacturer's recommended batteries shall be supplied.
- C. The generator set shall be supplied with a means to manually adjust the speed of the generator.
- D. The generator set shall be furnished with rodent guards to prevent rodent intrusion and protect internal components.
- E. The air cleaner restriction indicator shall indicate the need for maintenance of the air cleaners.
- F. The generator shall be furnished with an externally mounted, recessed, emergency stop switch (break glass, pushbutton style) protected from accidental operation.
- G. The generator set shall be supplied with a common failure relay to provide means of signaling fault and/or shutdown conditions.
 - i. The common failure relay shall remotely signal auxiliary faults, emergency stop, high engine temperature, low oil pressure, overcrank, and over speed via one single-pole, double-throw relay with 10 amps at 120 VAC contacts.
 - ii. The relay contacts shall be gold flashed to allow use of low current draw devices (100ma @ 28VDC min.).
 - iii. Once energized the relay shall remain latched until the system is reset by the main controller switch.
- H. The exhaust piping shall be gas proof, seamless, stainless steel, flexible exhaust bellows and includes the flex exhaust tube and the mounting hardware.
- I. Muffler/Silencer: Critical type, sized as recommended by engine manufacturer and selected with exhaust piping system to not exceed engine manufacturer's engine backpressure requirements.
- J. A radiator duct flange to provide a convenient connection to duct work for the radiator discharge air shall be included.
- K. Supply flexible fuel lines to provide a flexible connection between the engine fuel fittings and the fuel supply tank piping and for the fuel return lines from the injector pump per engine manufacturer's recommendations. Flex line shall have a protective steel wire braid to protect the hose from abrasion.
- L. The generator set shall be provided with a run relay which shall provide a three-pole, double-throw relay with 10-amp/ 250 VAC contacts to indicate that the generator is running. The run relay dry contacts can be used for energizing or de-energizing customer devices while the generator is running (e.g. louvers, indicator lamps, etc.)
- M. **Add Alternate (not shown on drawings) Remote annunciator panel** - The remote annunciator panel shall meet NEPA 110 level 1 requirements and enable remote viewing of the generator

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shall be connected to the generator controller via either network communication wires or via hard wired connections. Options shall be available to provide ATS source availability, contactor position, and loaded or unloaded test for up to four transfer switches. The panel shall have the capability to be either flush-mounted or surface-mounted. The annunciator shall meet UL508 requirements. Block Heater - The block heater shall be thermostatically controlled, 1,500 watt, 110-120 VAC - single phase, to maintain manufacturers recommended engine coolant temperature to meet the start-up requirements of NFPA 99 and NFPA 110, Level 1.

2.3 Source Quality Control

A. Non-Conforming Work

1. To ensure that the equipment has been designed and built to the highest reliability and quality standards, the manufacturer and/or local representative shall be responsible for three separate tests: design prototype tests, final production tests, and site tests.
 - a. *Design Prototype Tests.* Components of the emergency system, such as the engine/generator set, transfer switch, and accessories, shall not be subjected to prototype tests because the tests are potentially damaging. Rather, similar design prototypes and preproduction models shall be subject to the following tests:
 - i. Maximum power (kW)
 - ii. Maximum motor starting (kVA) at 35% instantaneous voltage dip.
 - iii. Alternator temperature rise by embedded thermocouple and/or by resistance method per NEMA MG1-32.6.
 - iv. Governor speed regulation under steady-state and transient conditions.
 - v. Voltage regulation and generator transient response.
 - vi. Harmonic analysis, voltage waveform deviation, and telephone influence factor.
 - vii. Three-phase short circuit tests.
 - viii. Alternator cooling air flow.
 - ix. Torsional analysis to verify that the generator set is free of harmful torsional stresses.
 - x. Endurance testing.
 - b. *Final Production Tests.* Each generator set shall be tested under varying loads with guards and exhaust system in place. Tests shall include:
 - i. Single-step load pickup
 - ii. Safety shutdown device testing
 - iii. Rated Power @ 0.8 PF
 - iv. Maximum power
 - v. Upon request, a witness test, or a certified test record sent prior to shipment.
 - c. *Site Tests.* The manufacturer's distribution representative shall perform an installation check, startup, and building load test. The engineer, regular operators, and the maintenance staff shall be notified of the time and date of the site test. The tests shall include:
 - i. Fuel, lubricating oil, and antifreeze shall be checked for conformity to the manufacturer's recommendations, under the environmental conditions present and expected.
 - ii. Accessories that normally function while the set is standing by shall be checked prior to cranking the engine. These shall include: block heaters, battery chargers, alternator strip heaters, remote annunciators, etc.
 - iii. Generator set startup under test mode to check for exhaust leaks, path of exhaust gases outside the building, cooling air flow, movement during starting and stopping, vibration during operation, normal and emergency line-to-line voltage and frequency, and phase rotation.
 - iv. Automatic start by means of a simulated power outage to test remote-automatic starting, transfer of the load, and automatic shutdown. Prior to this test, all transfer switch timers shall be adjusted for proper system coordination. Engine coolant temperature, oil pressure, and battery charge level along with generator set voltage, amperes, and frequency shall be monitored throughout the test.

EXECUTION

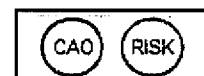
3.1 INSTALLATION

- A Contractor shall install the complete electrical generating system including the indicated shipped-loose accessories and all fuel connections in accordance with the manufacturer's recommendations as reviewed by the Engineer.
- B Contractor shall provide complete conduit infrastructure for power and low voltage/communications wiring to generator system and all accessories.

3.2 STARTUP AND CHECKOUT

- A The supplier of the electric generating plant and associated items covered herein shall provide factory trained technicians to checkout the completed installation and to perform an initial startup inspection to include:
 - i. Provide all required fluids (oil, coolant, lubricants, and fuel) and ancillary equipment for full function of the Emergency Power Supply.
 - ii. Ensuring the engine starts (both hot and cold) within the specified time.
 - iii. Verification of engine parameters within specification.
 - iv. Verify no load frequency and voltage, adjusting if required.
 - v. Test all automatic shutdowns of the engine-generator.
 - vi. Perform a 4 hour load test of the electric plant, per NFPA 110 Section 7.13. Observe and record results of test in the presence of the AHJ / IOR. Provide a portable load bank, cables and connections as required to conform to testing requirements. Correct defects which become evident during this test. Supply fuel for test. Include the complete emergency system (consisting of generator, emergency distribution equipment and automatic transfer switches, and the like) in final test operations. Top off fuel tank at end of test.
 - vii. Include 4 hour on-site meeting / training with Owner's representative prior to final acceptance. Schedule training with Owner (minimum) one week in advance by mutual agreement of Owner and manufacturers representative.

END OF SECTION



**SECTION 16621
AUTO TRANSFER SWITCH**

GENERAL**1.7 SUMMARY**

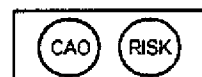
- A This section includes the following items from a single supplier:
 - 1. Automatic transfer switch
- B Related Requirements
 - 1. It is the intent of this specification to secure an automatic transfer switch that has been prototype tested, factory built, production-tested, and site-tested together with all accessories necessary for a complete installation as shown on the plans and drawings and specified herein.
 - 2. Any exceptions to the published specifications shall be subject to the approval of the engineer and submitted minimum 10 days prior to the closing of the bid with a line by line summary description of all the items of compliance, any items that have been omitted or have been taken exception to, and a complete description of all deviations.
 - 3. It is the intent of this specification to secure an automatic transfer switch that has been tested during design verification, in production, and at the final job site. The automatic transfer switch will be a commercial design and will be complete with all of the necessary accessories for complete installation as shown on the plans, drawings, and specifications herein. The equipment supplied shall meet the requirements of the National Electrical Code and applicable local codes and regulations.
 - 4. All equipment shall be new and of current production by an international, power system manufacturer of generators, transfer switches, and paralleling switchgear. The manufacturer shall be a supplier of a complete and coordinated system. There will be single-source responsibility for warranty, parts, and service through a factory-authorized representative with factory-trained technicians.

1.8 SUBMITTALS

- A Product Data
 - 1. The submittal shall include specification sheets showing all standard and optional accessories to be supplied; schematic wiring diagrams, dimension drawings, and interconnection diagrams identifying by terminal number each required interconnection between the generator set, the transfer switch, and the remote annunciator panel if it is included elsewhere in these specifications.
- B Shop Drawings
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- D Closeout Submittals
 - 1. Maintenance Contracts
 - 2. Operation And Maintenance Data
 - 3. Warranty Documentation
- E Maintenance Material Submittals
 - 1. Literature

1.9 Quality Assurance

- A Regulatory Agency
 - 1. The automatic transfer switch shall conform to the requirements of the following codes and standards:
 - a UL 1008 - Standard for Transfer Switch Equipment



- b IEC 947-6-1 Low-voltage Switchgear and Control gear; Multifunction equipment; Automatic Transfer Switching Equipment EN55011, Limits and Methods of Measurement of Radio Interference Characteristics of Industrial, Scientific and Medical Equipment.
 - c NFPA 70 - National Electrical Code
 - d NFPA 99 - Essential Electrical Systems for Health Care Facilities
 - e NFPA 110 - Emergency and Standby Power Systems
 - f IEEE Standard 446 - IEEE Recommended Practice for Emergency and Standby Power Systems for Commercial and Industrial Applications
 - g NEMA Standard ICS 10-2005, Electromechanical AC Transfer Switch Equipment.
 - h EN61000-4-4 Fast Transient Immunity Severity Level 4
 - i EN61000-4-5 Surge Immunity Class 4 (voltage sensing and programmable inputs only)
 - j IEEE 472 (ANSI C37.90A) Ring Wave Test
 - k IEC Specifications for EM/EMC Immunity (CISPR 11, IEC 1000-4-2, IEC 1000-4-3, IEC 1000-4-4, IEC 1000-4-5, IEC 1000-4-6, IEC 1000-4-8, IEC 1000-4-11)
 - l CSA C22.2 No. 178 certification
2. Qualifications
- a The automatic transfer switch shall be produced by a manufacturer who is ISO 9001 certified for the design, development, production and service of its complete product line.
 - b A manufacturer who has produced this type of equipment for a period of at least 10 years and who maintains a service organization available twenty-four hours a day throughout the year shall produce the automatic transfer switch.
3. Manufacturers
- a The automatic transfer switch shall be furnished by a single manufacturer who shall be responsible for the design, coordination, and testing of the complete system. The entire system shall be installed as shown on the plans, drawings, and specifications herein.
 - b The manufacturer shall maintain a national service organization of employing personnel located throughout the contiguous United States. The Service center's personnel must be factory trained and must be on call 24 hours a day, 365 days a year.
 - c The manufacturer shall maintain records of each switch, by serial number, for a minimum of 20 years.
 - d Design based on Kohler

1.10 Warranty or Bond

A Manufacturer's Warranty

- 1. The ATS shall include a standard warranty covering five (5) years to guarantee against defective material and workmanship in accordance with the manufacturer's published warranty from the date of initial startup. Labor and travel charges for the third through the fifth year of the warranty are not included.
- 2. The ATS manufacturer and its distributor shall maintain a 24-hour parts and service organization. This organization shall regularly engage in maintenance contract programs to perform preventive maintenance and service on equipment similar to that specified. A service agreement shall be available and shall include system operation under simulated operating conditions; adjustment to the generator set, transfer switch, and switchgear controls as required, and certification in the owner's maintenance log of repairs made and functional tests performed on all systems.

PART 2 - PRODUCTS

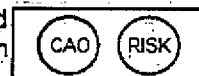
2.1 Equipment

A Equipment

- 1. Furnish and install an automatic transfer switches system(s) with 3-Pole / 4-Wire, Solid Neutral, 400 Amps, 208V/60Hz. Each automatic transfer shall consist of an inherently double throw power transfer switch mechanism and a microprocessor controller to provide automatic operation. All transfer switches and controllers shall be the products of the same manufacturer.

B Manufacturer

- 1. Automatic transfer switches shall be equivalent to Kohler Any Breaker Rated Agreement (KCS) KCB A Page 0605.17 Any alternate shall be submitted for approval to the



at least 10 days prior to bid date. Alternate bids shall include a line-by-line clarification of the specification marked with "D" for deviation; "E" for exception, and "C" for comply.

C Construction

1. The transfer switch shall be electrically operated and mechanically held with double throw construction, and operated by a momentarily energized solenoid-driven mechanism.
2. All transfer switch sizes shall use only one type of main operator for ease of maintenance and commonality of parts.
3. The switch shall be positively locked and unaffected by momentarily outages, so that contact pressure is maintained at a constant value and contact temperature rise is minimized for maximum reliability and operating life.
4. All main contacts shall be silver composition. Switches rated 600 amperes and above shall have segmented, blow-on construction for high withstand and close-on capability and be protected by separate arcing contacts.
5. Inspection of all contacts shall be possible from the front of the switch without disassembly of operating linkages and without disconnection of power conductors. Switches rated 800 amperes and higher shall have front removable and replaceable contacts. All stationary and moveable contacts shall be replaceable without removing power conductors and/or bus bars.
6. Designs utilizing components of molded-case circuit breakers, contactors, or parts thereof, which are not intended for continuous duty, repetitive switching or transfer between two active power sources, are not acceptable.
7. For two and three pole switches, where neutral conductors are to be solidly connected as shown on the plans, a neutral conductor plate with fully rated AL-CU pressure connectors shall be provided.
8. For four pole switches with a switching neutral, where neutral conductors must be switched as shown on the plans, the contactor shall be provided with fully rated switched neutral transfer contacts. Overlapping neutral contacts may be used as an alternative.

D Enclosure

1. The ATS shall be furnished in a NEMA 1 enclosure.
2. All standard door mounted switches and indicating LEDs shall be integrated into a flush-mounted, interface membrane or equivalent in the enclosure door for easy viewing & replacement. The panel shall be capable of having a manual locking feature to allow the user to lockout all membrane mounted control switches to prevent unauthorized tampering. This cover shall be mounted with hinges and have a latch that may be padlocked. The membrane panel shall be suitable for mounting by others when furnished on open type units.

2.2 Operation

A Controls

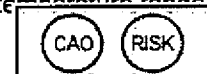
1. LCD display and dynamic button keypad shall be an integral part of the controller for viewing all available data and setting desired operational parameters. Operational parameters shall also be available for viewing and control through the communications interface port or USB. The following parameters shall only be adjustable via a password protected programming on the controller:
 - a Nominal line voltage and frequency
 - b Single or three phase sensing
 - c Operating parameter protection
 - d Transfer operating mode configuration (Standard transition, Programmed transition, or Closed transition)

B Voltage and Frequency

1. Voltage (all phases) and frequency on both the normal and emergency sources shall be continuously monitored. Voltage on both normal and emergency sources and frequency on the emergency sources shall be adjustable with the following pickup, dropout, and trip setting capabilities (values shown as % of nominal unless otherwise specified):

a	Parameter	Dropout/Trip	Pickup/Reset
b	Under voltage	75 to 98%	85 to 100%
c	Over voltage	06 to 135%	95 to 100% of trip
d	Under frequency	95 to 99%	80 to 95%
e	Over frequency	01 to 115%	105 to 120%
f	Voltage unbalance	5 to 20%	3 to 18%

2. Repetitive accuracy of all settings shall be within $\pm 0.5\%$ over an operating temperature range of 20°C to 70°C .



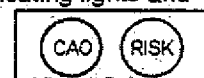
3. An adjustable dropout time for transient voltage and frequency excursions shall be provided. The time delays shall be 0.1 to 9.9 seconds for voltage and .1 to 15 seconds for frequency.
4. Voltage and frequency settings shall be field adjustable in 1% increments either locally with the display and keypad, remotely via the communications interface port or USB.
5. The controller shall be capable of sensing the phase rotation of both the normal and emergency sources. The source shall be considered unacceptable if the phase rotation is not the preferred rotation selected (ABC or BAC). Unacceptable phase rotation shall be indicated on the LCD: the service required LED and the annunciation through the communication protocol and dry contacts. In addition, the phase rotation sensing shall be capable of being disabled, if required.
6. The controller shall be capable of detecting a single phasing condition of a source, even though a voltage may be regenerated by the load. This condition is a loss of phase and shall be considered a failed source.
7. Source status screens shall be provided for both normal & emergency to provide digital readout of voltage on all 3 phases (phase to phase and phase to neutral), frequency, and phase rotation.

C Time Delays

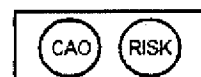
1. An adjustable time delay of 0 to 6 seconds shall be provided to override momentary normal source outages and delay all transfer and engine starting signals. Capability shall be provided to extend this time delay to 60 minutes by providing an external 12 or 24 VDC power supply.
2. A time delay shall be provided on transfer to the emergency source, adjustable from 0 to 60 minutes, for controlled timing of transfer of loads to emergency. A time delay shall be provided on re-transfer to normal. The time delays shall be adjustable from 0 to 60 minutes. Time delay shall be automatically bypassed if the emergency source fails and the normal source is acceptable.
3. A time delay shall be provided on shut down of engine generator for cool down, adjustable from 0 to 60 minutes.
4. A time delay activated output signal shall also be provided to drive external relay(s) for selective load disconnect and reconnect control. The controller shall be capable of controlling a maximum of 9 individual output time delays to step loads on after a transfer occurs. Each output may be individually programmed for their own time delay of up to 60 minutes. Each sequence shall be independently programmed for transferring from normal to emergency and transferring from emergency to normal.
5. All time delays shall be adjustable in 1 second increments.
6. All time delays shall be adjustable by using the display and keypad, with a remote device connected to the communications interface port or USB.
7. Each time delay shall be identified and a dynamic countdown shall be shown on the display. Active time delays can be viewed with a remote device connected to the communications interface port or USB.

D Additional Features

1. The controller shall have 3 levels of security. Level 1 shall allow monitoring of settings and parameters only. The Level 1 shall be capable of restricted with the use of a lockable cover. Level 2 shall allow test functions to be performed and Level 3 shall allow setting of all parameters.
2. The display shall provide for the test functions, allowed through password security. The test function shall be load, no load or auto test. The auto test function shall request an elapsed time for test. At the completion of this time delay the test shall be automatically ended and a retransfer sequence shall commence. All loaded tests shall be immediately ended and retransfer shall occur if the emergency source fails and the normal source is acceptable.
3. A contact closure shall be provided for a low-voltage engine start signal. The start signal shall prevent dry cranking of the engine by requiring the generator set to reach proper output, and run for the duration of the cool down setting, regardless of whether the normal source restores before the load is transferred.
4. Auxiliary contacts shall be provided consisting of a minimum of two contacts, closed when the ATS is connected to the normal source and two contacts closed, when the ATS is connected to the emergency source.
5. LED indicating lights shall be provided; one to indicate when the ATS is connected to the normal source (green) and one to indicate when the ATS is connected to the emergency source (red).
6. LED indicating lights shall be provided and energized by controller outputs. The lights shall provide true source availability of the normal (green) and emergency sources (red), as determined by the voltage, frequency and phase rotation sensing trip and reset settings for each source.
7. A membrane switch shall be provided on the membrane panel to test all indicating lights and display when pressed.



8. Provide the ability to select "commit/no commit to transfer" to determine whether the load should be transferred to the emergency generator if the normal source restores before the generator is ready to accept the load.
9. Terminals shall be provided for a remote contact which opens to signal the ATS to transfer to emergency and for remote contacts which closes to inhibit transfer to emergency and/or retransfer to normal. Both of these inhibit signals can be activated through the keypad, communications interface port or USB. A "not-in-auto" LED shall indicate anytime the controller is inhibiting transfer from occurring.
10. An in-phase monitor shall be a standard feature in the controller. The monitor shall control transfer so that motor load inrush currents do not exceed normal starting currents, and shall not require external control of power sources. The in-phase monitor shall be specifically designed for and be the product of the ATS manufacturer. The in-phase monitor shall be capable of being enabled or disabled from the user interface, communications interface port or USB.
11. A time based load control feature shall be available to allow the prioritized addition and removal of loads based during transfer. This feature may be enabled for either or both sources. The user shall be able to control up to nine loads with independent timing sequences for pre and post transfer delays in either direction of transfer.
12. The controller shall provide 2 inputs for external controls that can be programmed from the following values:
 - a Common fault, Remote test, Inhibit transfer, Low battery voltage, Peak shave, Time delay bypass, Load shed forced to OFF position (Programmed transition only)
13. The controller shall provide two form "C" contact outputs rated for up to 12A @ 240VAC or 2A @ 480VAC that can be programmed from the following values:
 - a Aux switch open, Transfer switch aux contact fault, Alarm silenced, Alarm active, I/O communication loss, Contactor position, Exercise active, Test mode active, Fail to transfer, Fail to acquire standby source, Source available, Phase rotation error, Not in automatic mode, Common alarm, In phase monitor sync, Load bank control active, Load control active, Maintenance mode active, Non-emergency transfer, Fail to open/close, Loss of phase, Over/under voltage, Over/under frequency, Voltage unbalance, Start signal, Peak shave active, Preferred source supplying load, Standby source supplying load
14. The controller shall be capable of expanding the number of inputs and outputs with additional modules.
15. Optional input/output modules shall be furnished which mount on the inside of the enclosure to facilitate ease of connections.
16. Engine Exerciser - The controller shall provide an internal engine exerciser. The engine exerciser shall allow the user to program up to 21 different exercise routines based on a calendar mode. For each routine, the user shall be able to:
 - a Enable or disable the routine
 - b Enable or disable transfer of the load during routine.
 - c Set the start time, time of day, day of week, week of month (1st, 2nd, 3rd, 4th, alternate or every)
 - d Set the duration of the run.
 - e At the end of the specified loaded exercise duration the switch shall transfer the load back to normal and run the generator for the specified cool down period. All loaded exercises shall be immediately ended and retransfer shall occur if the standby source fails. The next exercise period shall be displayed on the main screen with the type of exercise, time and date. The type of exercise and the time remaining shall be display when the exercise is active. It shall be possible of ending the exercise event with a single button push.
17. Date and time - The date shall automatically adjust for leap year and the time shall have the capability of automatically adjusting for daylight saving and standard times.
18. System Status - The controller shall have a default display the following on:
 - a System status
 - b Date, time and type of the next exercise event
 - c Average voltage of the preferred and standby sources
 - d Scrolling through the displays shall indicate the following:
 - i) Line to line and line to neutral voltages for both sources
 - ii) Frequency of each source
 - iii) Load current for each phase
 - iv) Single or three phase operation
 - v) Type of transition
 - vi) Preferred source



- vii) Commit or no commit modes of operation
 - viii) Source/source mode
 - ix) In phase monitor enable/disable
 - x) Phase rotation
 - xi) Date and time
19. Controllers that require multiple screens to determine system status or display "coded" system status messages, which must be explained by references in the operator's manual, are not permissible.
20. Self-Diagnostics - The controller shall contain a diagnostic screen for the purpose of detecting system errors. This screen shall provide information on the status input signals to the controller which may be preventing load transfer commands from being completed.
21. Communications Interface - The controller shall be capable of interfacing, through a standard communications with a network of transfer switches and generators. It shall be able to be connected via an RS-485 serial communication (up to 4000 ft. direct connect or multi-drop configuration). This module shall allow for seamless integration of existing or new communication transfer devices and generators.
22. The transfer switch shall also be able to interface to 3rd party applications using Modbus RTU open standard protocols utilizing Modbus register maps. Proprietary protocols shall not be acceptable.
23. The controller shall contain a USB port for use with a software diagnostic application available to factory authorized personnel for downloading the controller's parameters and settings; exercise event schedules; maintenance records and event history. The application can also adjust parameters on the controller.
24. Data Logging - The controller shall have the ability to log data and to maintain the last 2000 events, even in the event of total power loss. The following events shall be time and date stamped and maintained in a non-volatile memory. The controller shall be able to display up to the last 99 events. The remaining events shall be accessible via the communications interface port or USB.
- a Event Logging
 - i) Data, date and time indication of any event
 - b Statistical Data
 - i) Total number of transfers*
 - ii) Total number of fail to transfers*
 - iii) Total number of transfers due to preferred source failure*
 - iv) Total number of minutes of operation*
 - v) Total number of minutes in the standby source*
 - vi) Total number of minutes not in the preferred source*
 - vii) Normal to emergency transfer time
 - viii) Emergency to normal transfer time
 - ix) System start date
 - x) Last maintenance date
 - xi) * The statistical data shall be held in two registers. One register shall contain data since start up and the second register shall contain data from the last maintenance reset.
25. External DC Power Supply - An optional provision shall be available to connect up to two external 12/24 VDC power supply to allow the LCD and the door mounted control indicators to remain functional when both power sources are dead for extended periods of time. This module shall contain reverse battery connection indication and circuit protection.

E Operation Sequence

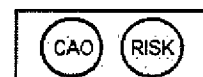
2.3 Source Quality Control

A Test and Inspection

1. Upon request, the manufacturer shall provide a letter certifying compliance with all of the requirements of this specification including compliance with the above codes and standards. The certification shall identify, by serial number(s), the equipment involved. No exceptions to the specifications, other than those stipulated at the time of the submittal, shall be included in the certification.
2. The ATS manufacturer shall be certified to ISO 9001 International Quality Standard and the manufacturer shall have third party certification verifying quality assurance in design/development, production, installation and servicing in accordance with ISO 9001.

EXECUTION

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3.1 INSTALLATION

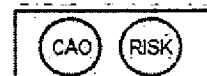
- A Contractor shall install the complete electrical transfer system in conjunction with the electrical generating system in accordance with the manufacturer's recommendations as reviewed by the Engineer.
- B Contractor shall provide complete conduit infrastructure for power and low voltage/communications wiring to generator system and all accessories.

3.2 STARTUP AND CHECKOUT

- A. The contractor shall perform electrical system transfer to emergency generator and back to utility load in conjunction with startup and checkout of electrical generator.

END OF SECTION

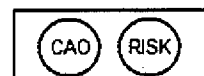
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APPENDIX A: NOT USED



APPENDIX B: FORM 7- INSTALLATION ACCESS APPLICATION**Access Procedures**

All personnel living or working at the Presidio of Monterey & Ord Military Community are required to register in the Biometric Identification System (DBIDS). The BIDS registration office is located in building 616. The hours of operation are Monday through Friday from 0730- 1600 hours, closed the 2nd and 4th Thursday from 1300 – COB, and closed for lunch from 1300 – 1400 hours. All personnel must be registered in BIDS to sponsor guests on to the installation.

Phone: 242-7207

One time guests – If you are sponsoring a one time guest onto the installation the procedure at Force Protection Condition (FPCON) Level Normal through Bravo is as follows:

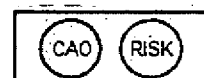
- Guests can be sponsored telephonically or you may escort them without physically signing them in at the gate.
- All guests must have an official photo ID (driver's license, state ID card or passport) in their possession.
- If the guests are operating a vehicle without a DoD decal they must obtain a vehicle pass at the Bolio or Franklin gates. To obtain a vehicle pass visitors must have current vehicle registration, vehicle insurance and valid driver's license.
- Guests are not authorized unaccompanied access unless they are on the access roster and have a vehicle pass or the security officers can telephonically contact the sponsor for verification

Guests 30 days or less – If you are sponsoring a guest onto the installation for more than 1 day, but less than 30 days at Force Protection Condition (FPCOM) Level Normal through Bravo:

- The sponsor may place the guests on the access roster after the sponsor completes an Application for Installation Access (POM Form 7) and forwards it via email to Physical Security branch at PRES.InstallationAccess@conus.army.mil.
- The access application must be forwarded at least 48 hours prior to the access date to allow background checks to be completed.
- Only DoD ID cardholders, to include family members, can sponsor personnel on to the installation
- All guests must have an official photo ID (driver's license, state id card or passport) in their possession. If they are operating a vehicle without a DoD decal they must obtain a vehicle pass at the gate. To obtain a vehicle pass, visitors must have current vehicle registration, vehicle insurance and driver's license.
- Guests are authorized unaccompanied access if they are on the access roster and have a vehicle pass.

Lost or forgotten IDs: Personnel who have lost or forgotten their DoD ID card may be authorized access after a manual check in the BIDS database at the Bolio or Franklin gate verifies registration in BIDS.

Completed POM Form 7 (Application for Installation Access) is available on the Intranet and should be forwarded electronically to PRES.InstallationAccess@conus.army.mil.



**APPLICATION FOR INSTALLATION ACCESS
(FOR U.S. CITIZEN APPLICANTS ONLY)**

DATA REQUIRED BY THE PRIVACY ACT OF 1974

PRINCIPAL PURPOSE: Provide necessary information to determine if applicant meets the access control requirements. Use of Driver's License is necessary to make positive identification of the applicant.

ROUTINE USE: None.

DISCLOSURE IS VOLUNTARY: However, failure to provide information requested may delay or preclude access to the installation.

SECTION I should be completed by the sponsor requesting personnel listed below inclusion to the Installation Access Roster to permit entry to the U.S. Army, Presidio of Monterey, California. Sponsor will be responsible for all actions of their guests while on the installation.

SECTION II is for information on U.S. Citizen applicants.

SECTION I SPONSOR'S INFORMATION

SPONSOR'S LAST NAME, FIRST NAME, MIDDLE INITIAL	SPONSOR'S WORK PHONE (Area Code and Number)	
SPONSOR'S ORGANIZATION		
SPONSOR'S SSN (Verification required in DEERS/DBIDS)	DATE OF BIRTH (MM/DD/YYYY)	CONTRACT EXPIRATION DATE (Contractors only)

PURPOSE OF VISIT (Please provide details in the space provided below)

<input type="checkbox"/> Mission Requirement	<input type="checkbox"/> Other

TYPE OF REQUEST ACCESS ROSTER DBIDS CARD INITIAL REQUEST RENEWAL

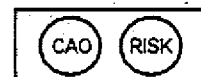
SIGNATURE	DATE:
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SECTION B INFORMATION ON U.S. CITIZEN APPLICANT(S)

1. LAST NAME, FIRST NAME, MIDDLE INITIAL	FULL SSN (Verification required in CLETS)		
DRIVER'S LICENSE NUMBER	ISSUING STATE	DATE OF BIRTH (MM/DD/YYYY)	
DATE OF REQUESTED ACCESS (MM/DD/YYYY)		TIME OF REQUESTED ACCESS	
FROM <input style="width: 40px;" type="text"/>	TO <input style="width: 40px;" type="text"/>	FROM <input style="width: 40px;" type="text"/>	TO <input style="width: 40px;" type="text"/>
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2. LAST NAME, FIRST NAME, MIDDLE INITIAL	FULL SSN (Verification required in CLETS)		
DRIVER'S LICENSE NUMBER	ISSUING STATE	DATE OF BIRTH (MM/DD/YYYY)	
DATE OF REQUESTED ACCESS (MM/DD/YYYY)		TIME OF REQUESTED ACCESS	
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3. LAST NAME, FIRST NAME, MIDDLE INITIAL	FULL SSN (Verification required in CLETS)		
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**APPLICATION FOR INSTALLATION ACCESS
(FOR U.S. CITIZEN APPLICANTS ONLY)**

SECTION II. INFORMATION ON U.S. CITIZEN APPLICANT(S) (Continuation page)			
4. LAST NAME, FIRST NAME, MIDDLE INITIAL		FULL SSN (Verification required in CLETS)	
DRIVER'S LICENSE NUMBER	ISSUING STATE	DATE OF BIRTH (MM/DD/YYYY)	
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5. LAST NAME, FIRST NAME, MIDDLE INITIAL		FULL SSN (Verification required in CLETS)	
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6. LAST NAME, FIRST NAME, MIDDLE INITIAL		FULL SSN (Verification required in CLETS)	
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7. LAST NAME, FIRST NAME, MIDDLE INITIAL		FULL SSN (Verification required in CLETS)	
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8. LAST NAME, FIRST NAME, MIDDLE INITIAL		FULL SSN (Verification required in CLETS)	
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FOR LAW ENFORCEMENT USE ONLY			
DATE NCIC III CONDUCTED		DISQUALIFYING FACTORS <input type="checkbox"/> YES <input type="checkbox"/> NO	
FOR APPROVING AUTHORITY USE ONLY			
<input type="checkbox"/> APPROVED <input type="checkbox"/> DISAPPROVED	PRINTED NAME	SIGNATURE	DATE



**APPLICATION FOR INSTALLATION ACCESS
(FOR NON U.S. CITIZEN APPLICANTS ONLY)**

DATA REQUIRED BY THE PRIVACY ACT OF 1974

PRINCIPAL PURPOSE: Provide necessary information to determine if applicant meets the access control requirements. Use of Driver's License is necessary to make positive identification of the applicant.

ROUTINE USE: None.

DISCLOSURE IS VOLUNTARY: However, failure to provide information requested may delay or preclude access to the installation.

SECTION I should be completed by the sponsor requesting personnel listed below inclusion to the Installation Access Roster to permit entry to the U.S. Army, Presidio of Monterey, California. Sponsor will be responsible for all actions of their guests while on the installation.

SECTION II is for information on Non-U.S. Citizen applicants.

SECTION I. SPONSOR'S INFORMATION

SPONSOR'S LAST NAME, FIRST NAME, MIDDLE INITIAL

SPONSOR'S WORK PHONE (Area Code and Number)

SPONSOR'S ORGANIZATION

SPONSOR'S SSN (Verification required in DEERS/DBIDS)

DATE OF BIRTH (MM/DD/YYYY)

CONTRACT EXPIRATION DATE (Contractors only)

PURPOSE OF VISIT (Please provide details in the space provided below)

Mission Requirement

Other

TYPE OF REQUEST

ACCESS ROSTER

DBIDS CARD

INITIAL REQUEST

RENEWAL

SIGNATURE

DATE

SECTION II. INFORMATION ON NON-U.S. CITIZEN APPLICANT(S)

1. LAST NAME, FIRST NAME, MIDDLE INITIAL

DRIVER'S LICENSE NUMBER

ISSUING STATE

DATE OF REQUESTED ACCESS (MM/DD/YYYY)

FROM

TO

TIME OF REQUESTED ACCESS

FROM

TO

DAYS REQUESTED ACCESS MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY SUNDAY

CITIZENSHIP

COUNTRY OF BIRTH

DATE OF BIRTH (MM/DD/YYYY)

PASSPORT NUMBER

DATE OF ISSUE (MM/DD/YYYY)

PLACE OF ISSUE

VISA NUMBER

DATE OF ISSUE (MM/DD/YYYY)

PLACE OF ISSUE

ALIEN REGISTRATION NUMBER

DATE OF ISSUE (MM/DD/YYYY)

PLACE OF ISSUE

2. LAST NAME, FIRST NAME, MIDDLE INITIAL

DRIVER'S LICENSE NUMBER

ISSUING STATE

DATE OF REQUESTED ACCESS (MM/DD/YYYY)

FROM

TO

TIME OF REQUESTED ACCESS

FROM

TO

DAYS REQUESTED ACCESS MONDAY TUESDAY WEDNESDAY THURSDAY FRIDAY SATURDAY SUNDAY

CITIZENSHIP

COUNTRY OF BIRTH

DATE OF BIRTH (MM/DD/YYYY)

PASSPORT NUMBER

DATE OF ISSUE (MM/DD/YYYY)

PLACE OF ISSUE

VISA NUMBER

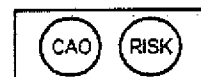
DATE OF ISSUE (MM/DD/YYYY)

PLACE OF ISSUE

ALIEN REGISTRATION NUMBER

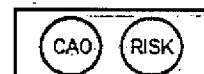
DATE OF ISSUE (MM/DD/YYYY)

PLACE OF ISSUE



**APPLICATION FOR INSTALLATION ACCESS
(FOR NON-U.S. CITIZEN APPLICANTS ONLY)**

SECTION I. INFORMATION ON NON-U.S. CITIZEN APPLICANT(S) (Continuation page)			
3. LAST NAME, FIRST NAME, MIDDLE INITIAL		DRIVER'S LICENSE NUMBER	ISSUING STATE
DATE OF REQUESTED ACCESS (MM/DD/YYYY)		TIME OF REQUESTED ACCESS	
FROM <input type="text"/>	TO <input type="text"/>	FROM <input type="text"/>	TO <input type="text"/>
DAYS REQUESTED ACCESS <input type="checkbox"/> MONDAY <input type="checkbox"/> TUESDAY <input type="checkbox"/> WEDNESDAY <input type="checkbox"/> THURSDAY <input type="checkbox"/> FRIDAY <input type="checkbox"/> SATURDAY <input type="checkbox"/> SUNDAY			
CITIZENSHIP	COUNTRY OF BIRTH	DATE OF BIRTH (MM/DD/YYYY)	
PASSPORT NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
VISA NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
ALIEN REGISTRATION NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
4. LAST NAME, FIRST NAME, MIDDLE INITIAL		DRIVER'S LICENSE NUMBER	ISSUING STATE
DATE OF REQUESTED ACCESS (MM/DD/YYYY)		TIME OF REQUESTED ACCESS	
FROM <input type="text"/>	TO <input type="text"/>	FROM <input type="text"/>	TO <input type="text"/>
DAYS REQUESTED ACCESS <input type="checkbox"/> MONDAY <input type="checkbox"/> TUESDAY <input type="checkbox"/> WEDNESDAY <input type="checkbox"/> THURSDAY <input type="checkbox"/> FRIDAY <input type="checkbox"/> SATURDAY <input type="checkbox"/> SUNDAY			
CITIZENSHIP	COUNTRY OF BIRTH	DATE OF BIRTH (MM/DD/YYYY)	
PASSPORT NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
VISA NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
ALIEN REGISTRATION NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
5. LAST NAME, FIRST NAME, MIDDLE INITIAL		DRIVER'S LICENSE NUMBER	ISSUING STATE
DATE OF REQUESTED ACCESS (MM/DD/YYYY)		TIME OF REQUESTED ACCESS	
FROM <input type="text"/>	TO <input type="text"/>	FROM <input type="text"/>	TO <input type="text"/>
DAYS REQUESTED ACCESS <input type="checkbox"/> MONDAY <input type="checkbox"/> TUESDAY <input type="checkbox"/> WEDNESDAY <input type="checkbox"/> THURSDAY <input type="checkbox"/> FRIDAY <input type="checkbox"/> SATURDAY <input type="checkbox"/> SUNDAY			
CITIZENSHIP	COUNTRY OF BIRTH	DATE OF BIRTH (MM/DD/YYYY)	
PASSPORT NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
VISA NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
ALIEN REGISTRATION NUMBER	DATE OF ISSUE (MM/DD/YYYY)	PLACE OF ISSUE	
FOR LAW ENFORCEMENT USE ONLY			
DATE NCIC IS CONDUCTED		DISQUALIFYING FACTORS	
		<input type="checkbox"/> YES <input type="checkbox"/> NO	
FOR APPROVING AUTHORITY USE ONLY			
<input type="checkbox"/> APPROVED	PRINTED NAME	SIGNATURE	DATE
<input type="checkbox"/> DISAPPROVED			



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APPENDIX C: ENVIRONMENTAL PROTECTION PLAN



CITY OF MONTEREY
ENVIRONMENTAL PROTECTION PLAN
FOR
MANAGING CONSTRUCTION AND DEMOLITION DEBRIS

Prepared by: City of Monterey Staff

Project:

DPW-

It is the goal of the City of Monterey to maximize recycling, divert solid waste and minimize and remediate hazardous waste generated during construction and demolition projects.

ENVIRONMENTAL PROTECTION PLAN

This plan serves as a general environmental section for project contracts. It integrates the DA (Department of Army) environmental program policies and requirements for activities that occur on military installations and/or are funded under the military construction/O&M funding. Army Environmental Program policies are promulgated in the following regulations, DA AR 200-1 (Environmental Protection and Enhancement), DA AR 200-2 (Environmental Effects of Army Actions), and DA AR 200-3 (Natural Resources -Land, Forest and Wildlife Management).

Designers need to ensure that the project design and contemplated methods of construction comply with all applicable laws, including: Clean Air Act (CAA), Clean Water Act (CWA), Coastal Zone Management Act (CZMA), Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA), Emergency Planning and Community Right to Know Act (EPCRA), Endangered Species Act (ESA), Fish and Wildlife Coordination Act (FWCA), Marine Protection, Research, and Sanctuaries Act (MPRSA), National Environmental Policy Act (NEPA), National Historic Preservation Act (NHPA), National Pollutant Discharge Elimination System (NPDES), Oil Pollution Act (OPA), Research and Sanctuaries Act, Native American Graves Protection and Repatriation Act (NAGPRA), Resource Conservation and Recovery Act (RCRA), Rivers and Harbors Act of 1899 (R&H), Safe Drinking Water Act (SDWA), Toxic Substance Control Act (TSCA), Wild & Scenic Rivers Act (WSRA), Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), and Subsequent Executive Orders.

1.1 BACKGROUND

Estimates indicate that up to 30 percent of the solid waste produced in the Monterey Bay area each year consists of construction and demolition (C&D) debris. This debris results from construction, repair, remodeling, or demolition operations on buildings, other structures, and pavement. The construction and demolition waste stream can be broken into three basic categories—(1) wood, (2) rubble and asphalt, and (3) other materials. Various estimates indicate that about half of the debris is composed of rubble (which includes concrete, cinder block, stone, clay brick, and soil and asphalt). Wood composes about 25 to 40 percent of the construction and demolition waste; and the remaining materials are metals, gypsum wallboard, asphalt roofing material, plastic, paper, and glass. Furthermore, construction waste can be contaminated by the improper handling of hazardous waste materials. Several experts claim that 90 percent of this waste could be eliminated by reducing waste production and by recycling, depending on local market conditions for the materials.

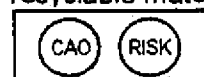
CA Integrated Waste Management Act of 1989 (AB 939)

AB 939 passed in 1989, established a new direction for waste management in the state with the creation of the CA Integrated Waste Management Board (CIWMB), and setting up a new mandate for local jurisdictions to meet diversion goals.

AB 939 mandated local jurisdictions to meet solid waste diversion goals of 25 percent by 1995 and 50 percent by 2000. The CIWMB would determine this diversion by looking at the base-year solid waste generation (waste normally disposed of into landfills) to determine the amount of solid waste diverted. To help in the increase of diversion rates, each jurisdiction was required to create an Integrated Waste Management Plan that looked at recycling programs, purchasing of recycled products and waste minimization.

To encourage recycling and reuse, the Countywide Integrated Waste Management Plan for Monterey County divides the waste stream into four categories: construction or demolition wastes, land-clearing wastes, inert wastes, and yard trash. The plan then recommends the following methods for handling these materials:

- Construction and demolition debris should be separated into recyclable and non-recyclable materials.



- Inert debris (defined by the state as concrete, brick, concrete block, uncontaminated soil, rock, and gravel) should be recycled and reused as clean fill material.
- Yard waste and land-clearing debris should be reduced, reused, or recycled as mulch or compost.

1.2 DEFINITIONS

1.2.1 ENVIRONMENTAL POLLUTION AND DAMAGE

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally and/or historically.

1.2.2 ENVIRONMENTAL PROTECTION

Environmental protection is the prevention/control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

1.2.3 CONTRACTOR GENERATED HAZARDOUS WASTE

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and excess pesticides, and contaminated pesticide equipment rinse water.

1.2.4 ENVIRONMENTAL PROTECTION PLAN

The Environmental Protection Plan is a document designed to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern must be defined within the Environmental Protection Plan. Each topic shall be addressed at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified, but are considered necessary, must be identified and discussed after those items formally identified. An environmental protection plan shall be a fluid document that is developed and updated throughout a project with input from the contractor, designer, environmental regulatory authority, and contracting officer.

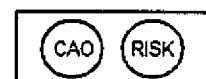
1.3 GENERAL REQUIREMENTS

Minimize environmental pollution and damage that may occur as the result of construction operations through the identification of recycling, solid waste minimization, and solid waste diversion opportunities, and the submittal of a Construction and Demolition (C&D) plan following the completion of the project.

The environmental resources within the project boundaries and those affected outside the limits of permanent work must be protected during the entire duration of this contract. Comply with all applicable environmental Federal, State, and local laws and regulations. Any delays resulting from failure to comply with environmental laws and regulations will be the Contractor's responsibility.

No requirement in this Section will relieve the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor will be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

1.4 SUBMITTALS



1.4.1 PRE-CONSTRUCTION SUBMITTALS

Submittals which are required prior to commencing work on-site or the start of the next major phase of the construction on a multi-phase contract includes:

1. C&D Debris Waste Management Plan Section 1:
 - a. Project Information
 - b. Waste Hauler Information
2. C&D Debris Waste Management Plan Section 2: Parts 1, 2 & 3

1.4.2 POST-CONSTRUCTION SUBMITTALS

Submittals which are required within fifteen days following the final closeout of the project includes:

1. C&D Debris Waste Management Plan Section 2: Part 4

1.5 METHODS FOR MINIMIZING WASTE

1.5.1 REDUCING WASTE AT THE SOURCE

Consider the following ways to reduce waste.

Design - When designing use standard material sizes—for example, wall sections that use 4-by-8-foot sheets of materials efficiently.

Plan - Plan ahead so that fewer emergency supply runs need be made to local suppliers. Store left over supplies and materials for your next project.

Reduce Packaging - Ask suppliers to remove packaging before shipping materials to your site, wrap materials in reusable blankets or padding, or take back the packaging after the materials have been delivered.

Include Waste Disposal Costs in Bids - Require subcontractors to include the cost of removing their waste in their bids to give them an incentive to produce less waste.

1.5.2 REUSE SCRAP MATERIALS

Consider reusing materials on site to reduce your disposal efforts and costs.

On site storage - Keep excess or left over materials on site in a well organized fashion so they can be located and reused when needed.

Leftover masonry materials - Crush on site and used for fill or as bedding material for light paving.

Joist off-cuts - Cut up and used as stakes for forming or for headers around openings in the floor assembly.

Pallets - Recycle, or returned to the vendors.

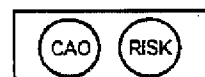
Salvageable materials - Give salvageable or excess new materials to businesses that collect and resell used construction materials such as Habitat for Humanity's Restores.

1.5.3 RECYCLE MATERIALS

Most construction and demolition wastes can be recycled into new materials. Information about recycling opportunities can be obtained from local solid waste managers, regional offices of state solid waste management agencies, and waste haulers. Segregated construction and demolition materials can be stored on the project site in compartmentalized dumpsters labeled for metals, wood, cardboard, plastics, and other materials.

Scrap lumber can be processed and used for landscaping, compost, animal bedding, boiler fuel, or engineered building products.

Metals such as aluminum, copper, steel, and brass can be sold to scrap metal yards. These are some of the easiest and most cost-effective materials to recycle.



Cardboard can be kept separate in cardboard-only dumpsters at the job site and picked up by a local recycling firm. Several communities have banned cardboard from landfills and others are considering it, so now is the time to be thinking about options.

Gypsum drywall can be ground up for use as a soil amendment or a substitute for lime on lawns.

Rubble (concrete, bricks, cinder block, and certain types of tile) can be crushed and sieved for use as an aggregate. For example, it can substitute for stone aggregate in nonstructural applications.

Glass can be recycled into fiberglass or crushed and used in place of sand or p-gravel in paving material.

Asphalt shingles can be used in asphalt paving and pothole repair.

Other scrap, such as plastic, fiberglass, and foam or other packaging materials can be recycled. However, it may not be cost effective to recycle the small amounts generated unless a local market exists. Check with a local or state solid waste manager for information on recycling markets.

NOTE: If recycling a material by using it as a soil amendment or beneficial fill material, contact the local environmental regulatory agencies first for guidance and approval. Consider these suggestions for reducing, reusing, and recycling your materials; take the time to analyze the operations.

1.5.4 USE RECYCLED-CONTENT CONSTRUCTION MATERIALS

To help expand markets for recyclable materials, it is important to buy building supplies that contain recycled materials. Some of these materials have been used for years by the construction industry, but they have not been advertised as "recycled." There are also many new recycled-content building materials that you may not be aware of. Information about the products available and how to purchase them can be obtained by consulting some of the publications or offices listed here.

1.6 SOURCES OF ADDITIONAL INFORMATION

California Department of Resources Recycling and Recovery

Phone: (916) 341-6199

Fax: (916) 341-6667

Email: lamd@calrecycle.ca.gov

Contact for Questions: Annabel Farrall

<http://www.calrecycle.ca.gov/>

City of Monterey Building & Safety Dpt.

580 Pacific Street

City of Monterey

City Hall

Monterey, CA 93940

US Green Building Council

U.S. Green Building Council

2101 L Street, NW

Suite 500

Washington, DC 20037

Environmental Health

Administration Division

1270 Natividad Road

Salinas, CA 93906

Phone: (831) 755-4505

Fax: (831) 755-4820



MRWPCA

14201 Del Monte Boulevard
P.O. Box 1670
Marina, CA 93933-1670
Phone: (831) 384-5313
Fax: (831) 384-3567

Monterey City Disposal Service

10 Ryan Ranch Road
Monterey CA 93940
Phone: (831) 372-7977
Fax: (831) 899-2640
Email Address info@montereydisposal.com

1.7 PUBLICATIONS

State Hazardous Waste Law

<http://www.mrwmd.org/pdf/HHW%20Customer%20Notice.pdf>

Recycled Products Guide

Federal Supply Service
U.S. General Services Administration
Centralized Mailing List Service
P.O. Box 6477
Mailing code RCPG-0001
Fort Worth, TX 76115

The Official Recycled Products Guide

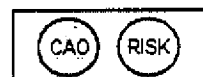
American Recycling Market, Inc
P.O. Box 577
Ogdensburg, NY 13669
(800) 267-0707

Green Pages

Earthways Green Builder Council
3617 Grandel Square
St. Louis, MO 63103
(314) 577 9457

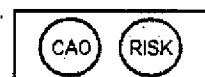
Environmental Building News

RR 1, Box 161
Brattleboro, VT 05301
(802) 257-7300



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APPENDIX D: CONSTRUCTION AND DEMOLITION DEBRIS WASTE MANAGEMENT PLAN



CONSTRUCTION AND DEMOLITION DEBRIS WASTE MANAGEMENT PLAN

Introduction

This guide will help you complete your Construction and Demolition (C&D) Debris Waste Management Plan required for all Presidio of Monterey infrastructure improvements projects.

General Information

Construction and Demolition (C&D) debris contributes up to 30% of the waste stream in the Monterey Bay Area. C&D debris includes the materials generated in the construction and/or demolition of general construction, streets & underground construction, buildings, remodels and additions.

Section I. Information

Project Information

All information must be filled out completely within 15 days of the award of contract and before any construction begins.

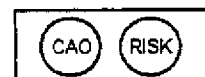
- a) **Owner's Name** – owner of the structure or property
- b) **Owner's Address** – current address of the owner of the structure or property
- c) **Project Name & Number** - Official project name & number as issued by DPW
- d) **Project Address** – location of the jobsite
- e) **Project Contact Person** – person in charge of the construction/demolition project also include phone, email, and address
- f) **Type of Building** – check where applicable
- g) **Type of Project** – check all that apply
- h) **Total Project Cost** – cost of the construction/demolition project
- i) **Total Square Feet** – Area remodeled or for new construction enter the size of structure.

Waste Hauler Information

- a) **Waste Hauling Company** – company that hauls construction debris from your jobsite
- b) **Contact Name** – name of representative at hauling company
- c) **Address, City/State/Zip, Phone, Fax** – location and contact information for the hauling company

List all haulers if you have more than one company removing your construction/demolition debris

Section II. Construction Debris Material Handling



1) Complete the schedule to determine types and quantities of C&D debris created on the job site. List approximate weights of each type of materials, describe material type and where it originates from, and list the planned destination for all C&D materials.

2) Where applicable, list actions taken to recycle materials and minimize and divert solid waste from the waste stream.

3) Describe areas where more recycling or solid waste minimization and diversion could take place.

4) Following the completion of the project complete the C&D schedule by:

The project developer shall report the quantities of all construction and demolition debris recycled. At a minimum, all of the materials listed in the approved recycling plan should be reported below.

The project developer shall attach receipts from a bonafide recycling facility or other pertinent documentation to demonstrate recycling of the materials.

This C&D Waste Management Plan Shall be submitted to the contracting officer, and maintained in the City project Folder.

Form must be signed and dated by City Representative

For questions regarding waste disposal please contact the Monterey Regional Waste Management District at cdinfo@co.wake.nc.us or call 919-856-5216. Visit our website at www.wakegov.com

For more information regarding the Monterey Regional Waste Management Fees Please Visit the following website:

<http://www.mrwmd.org/pdf/disposal%20fee%20brochure%2001-09.pdf>

For and introduction to Construction and Demolition waste reduction please visit the following website:

<http://www.mrwmd.org/pdf/CandDWasteReductionReuseandRecycling.pdf>



Section I. Information

Project Information:

Owner's Name: Presidio of Monterey

Address: _____

Project TITLE: _____

Project Address: _____

City/State/Zip: : _____

Project Contact Person: _____

Phone: _____ Email: _____

Address: _____

City/State/Zip: _____

Type of Building: Commercial Housing Classrooms/Office

Type of Project: New Construction Addition/Renovation Demolition

Total Project Cost: \$ _____ Total Sq. Ft.: _____

Waste Hauler Information:

1) Waste Hauling Company: _____

Contact Name: _____

Address: _____

City/State/Zip: _____

Phone: _____ Fax: _____

Email: _____

2) Waste Hauling Company: _____

Contact Name: _____

Address: _____

City/State/Zip: _____

Phone: _____ Fax: _____

Email: _____

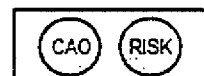


Section II Construction Debris Material Handling

1) List approximate weights of each type of materials, describe material type and where it originates from, and list the planned destination for all C&D materials.

Waste Type	Estimate Qty. Recycled (lbs)	Material Type & Origin	Destination Facilities
Concrete			
Asphalt			
Masonry			
Clean Lumber (unpainted)			
Drywall			
Metal			
Roofing Shingles			
Cardboard			
Green Waste			
Hazardous Waste			
Other Material			

2) Describe actions taken to recycle materials and minimize and divert solid waste from the waste stream.



Company will make every effort to recycle materials wherever possible.

3) Describe areas where more recycling or solid waste minimization and diversion could take place.

Company was diligent in recycling materials.

4) Following the completion of the project complete the C&D schedule and attach any and all disposal or recycling tags or receipts.

RECYCLING REPORTS

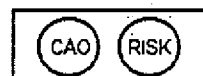
Reporting Period From: _____ To: _____

Acceptance:

Contractor

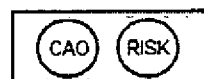
Contracting Officer

Waste Type	Amount Recycled/ Diverted (lbs)	Receipt Attached (Yes or No)	Name of Recycling Facility or Landfill	Date of Disposal/Recycling	Cost of Recycling /Disposal
Concrete					
Asphalt					
Masonry					
Clean Lumber (unpainted)					
Drywall					
Metal					
Roofing Shingles					
Cardboard					
Pails and Rubber Cove					
Hazardous Waste					
Other Material Carpet					



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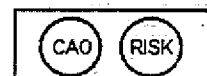


APPENDIX E: IWATCH AND USAG OPERATIONS SECURITY (OPSEC) TRAINING FOR CONTRACTORS

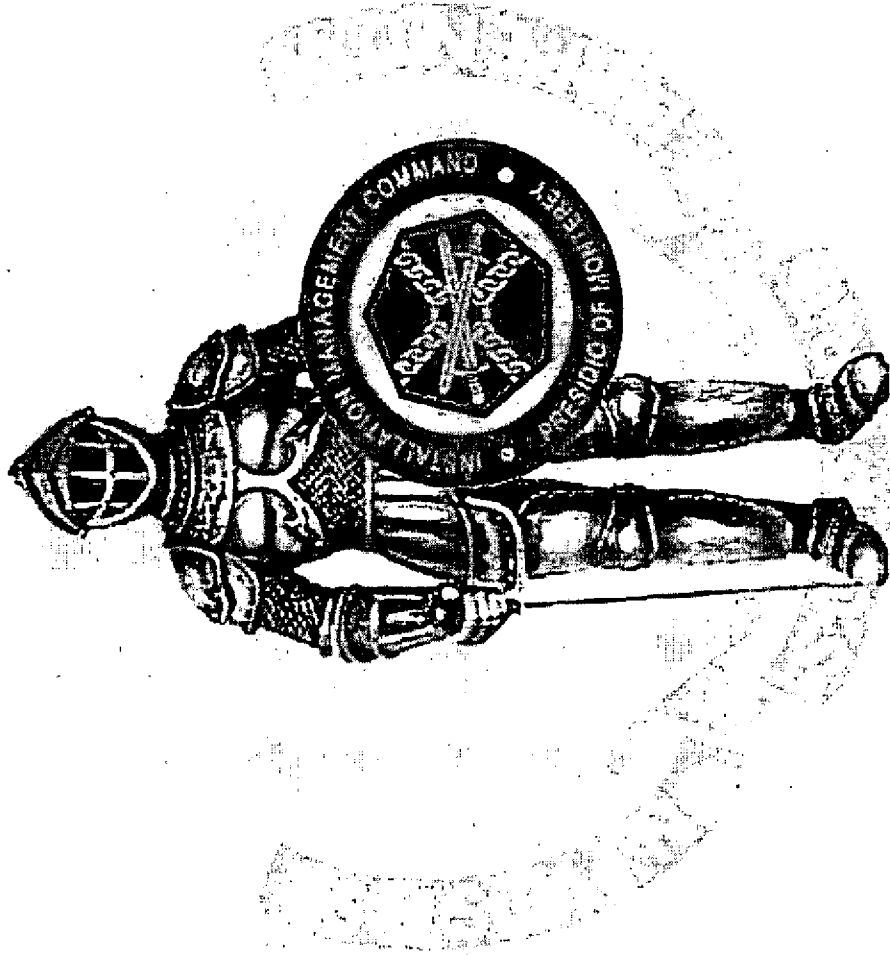
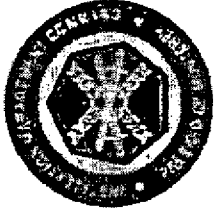
Please insert IWatch and OPSEC Training once specs are final.

[insert project name]

Agreement #: Ag-7218 - Page 84 of 147



iWatch Army Training



UNCLASSIFIED



What is iWatch Army?

IMCOM

INTEGRITY • PARTNERSHIP • CIVILITY

- iWatch Army is a program to help your community stay safe from terrorist activities.
- We can all report behaviors and activities that seem unusual or suspicious.
- iWatch Army is a partnership between community members and law enforcement.
- iWatch Army asks us all to report behaviors that are unusual or seem out of the ordinary.



UNCLASSIFIED



IMCOM
SOLDIERS • FAMILIES • CIVILIANS

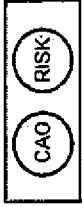
What should you report?



Unusual or suspicious activity does not necessarily mean that terrorist activity is happening, but definitely report the following suspicious behaviors:

- Individuals:
 - acting furtively and suspiciously
 - asking questions about security forces or procedures
 - asking questions about sensitive information such as building blueprints, VIP travel schedules, unit deployments or details beyond normal curiosity
 - avoiding eye contact
 - departing quickly when seen or approached
 - in places they don't belong
 - drawing or measuring important buildings or infrastructure
 - **overdressed for the type of weather**

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What should you report?

- Vehicles:
 - emitting a strong odor
 - overloaded and/or excessively weighted down
 - leaking fluid other than from the engine or gas tank
 - parked in "No Parking" zones near important buildings
- Briefcases, suitcases, backpacks or packages left unattended/abandoned
- Chemical smells/fumes that concern you

Examples:

- "There's a strange chemical smell coming from my neighbor's house."
- "I saw someone taking measurements outside the Network Enterprise Center. What should I do "
- "I saw a backpack laying outside the Belas Hall Dining Facility at 1000 hours."





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Reporting Suspicious Activity

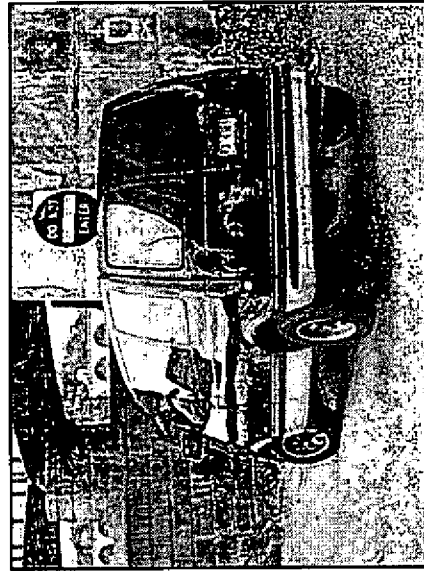


How would you describe a person or a vehicle?



For the individual pictured at left:

- Caucasian male; about 5'7", 160-180 lbs.
- Straight dark brown hair—to the bottom of the ears on the sides and collar-length in the back, bangs to the eyebrows; full moustache;
- Average build with thick neck; thick lower lip
- No noticeable scars, tattoos or disabilities - eye color unknown, wearing sunglasses; - wearing blue jacket, long dark blue or black chino pants, and new-looking white sneakers; large camera hanging around his neck



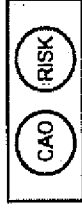
For the vehicle pictured at left:

- Blue Chevy Astro van; silver splash guard around bottom
- Pennsylvania license plate number FJ 6381
- Rust spots and discoloration on the back left door panel; rust above the back left wheel
- White bumper sticker with red lettering on back left side of the bumper

AND WHY WAS

IT SUSPICIOUS?

Agreement to A.L.C. 886 of 147





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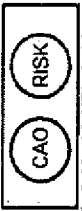


Suspicious Activity at Construction Sites

Following are behaviors and activities associated with construction sites that should be considered suspicious:

- Individuals or groups who:
 - surveil the site in a covert or prolonged manner
 - enter a construction site without authorization after normal work hours
 - make unusual or atypical inquiries at a construction area
- Other potential indicators may include:
 - Unauthorized removal or alteration of survey stakes
 - Violent environmental extremist and/or anti-government slogans, banners, or signs at the site or nearby
 - Movement or attempted movement of heavy equipment
 - Warnings or threats sent to construction companies
 - Unscheduled or unordered deliveries of materials/equipment
 - Items found on-site that do not belong or are not a part of the site materials

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Suspicious Activity at Construction Sites (cont'd)

Following are behaviors and activities associated with construction sites that should be considered suspicious:

- Other potential indicators may include:
 - Thefts of hazardous materials
 - Evidence of intentional damage to cables, gas lines, and/or power lines
 - Vandalism at the site or similar sites including broken windows, slashed tires, spray painting, sand/sugar in fuel tanks, cut fuel or brake lines and/or glued locks
 - Arson at buildings under construction, work sheds, trucks, bulldozers, cranes or other equipment
 - The discovery of discarded clothing, shoes/boots, tools or spray paint long nearby roads and paths after a crime has occurred on-site





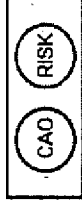
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What should you do?



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- Keep your site clean/orderly so that the presence of the abnormal or the absence of the normal will be obvious
- Secure potentially dangerous/hazardous products
- Know what material, equipment, workers and subcontractors should be on-site
- Do not leave the site unattended for long periods
- Maintain adequate security
- Require subcontractors to be licensed and insured
- Focus on behaviors/activities that are unusual or out of place for the situation
- **If something seems wrong, it probably is - call the Presidio of Monterey Police at (831) 242-7851/7853**
- Be sure to include the 5 W's – Who, What, When, Where, and Why





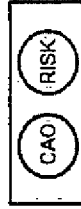
UNCLASSIFIED

Why should you report?



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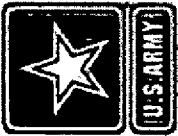
- ✓ Information from one report can prevent an attack.
- ✓ Would-be terrorists rely on complacency and assumptions like Ahit's probably nothing."
- ✓ Not reporting is actually providing indirect support to terrorist activities.
- ✓ Law enforcement needs your help in identifying suspicious activity to prevent potential attacks before they happen.
- ✓ Reporting is always better than refraining from doing so.
- ✓ What you saw may be linked to a report from someone else.
- ✓ Trained personnel can interpret your report to mean something larger than what you saw.
- ✓ We are all stakeholders in our community's security!





USAG Operations Security (OPSEC) Training for Contractors

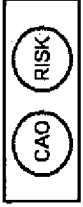


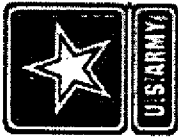


Requirement

To ensure USAG Operations Security (OPSEC) program is in compliance with AR 530-1

- All Departments of the Army Personnel active component, reserve component, DA civilians, and DOD contractors are required to complete mandatory OPSEC training on an annual basis.





What is OPSEC?

OPSEC is the process of analyzing friendly actions related to military operations and other activities to:

Identify those actions that can be observed by adversary intelligence systems.

Determine indicators hostile intelligence systems might obtain that could be interpreted or pieced together to derive Critical Information in time to be useful to adversaries.

Select and execute measures that eliminate or reduce to an acceptable level the vulnerabilities of friendly actions to adversary exploitation.





What do Adversaries Want?

They are looking for:

1. Names / photographs
2. Tactics, Techniques, and Procedures
3. Equipment vulnerabilities
4. Present and future capabilities
5. Insights into national / military morale
6. Meetings of top officials / diplomatic efforts
7. Important government places
8. Information about military facilities:

Location

Units

Weapons used

Communication nodes

Amount of security lighting

Building dimensions

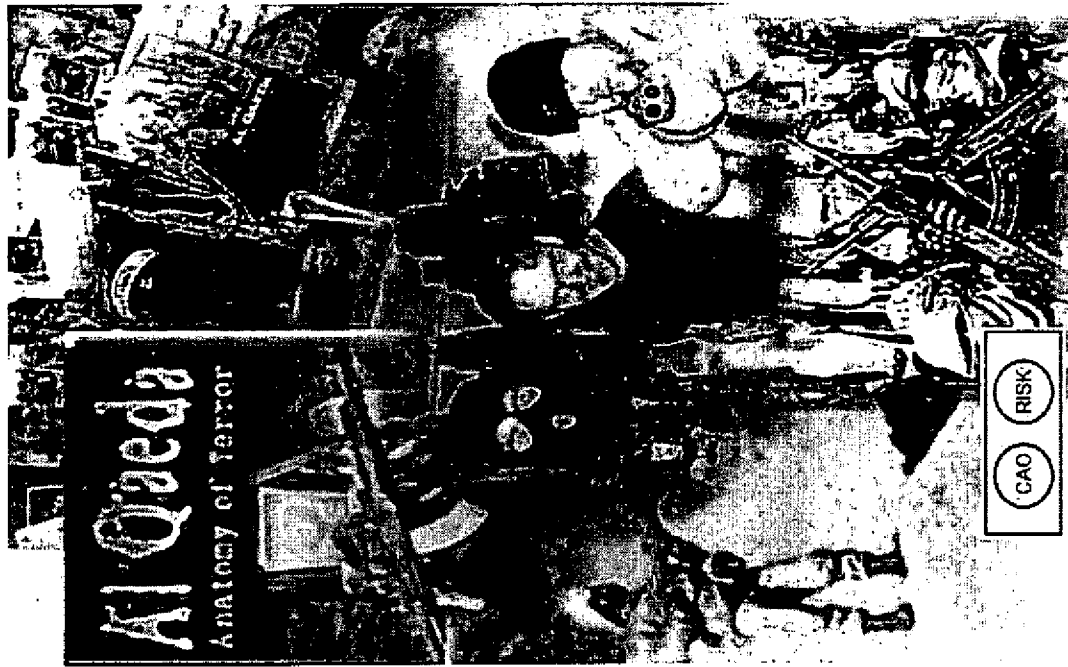
Number of personnel

Ammunition storage locations

Leave policies

Brigades and names of organizations

Agreement # ~~AO 121~~ ~~Page 1 of 147~~ ~~Security for Page 1 of 147~~ and response time





OPSEC Guidance

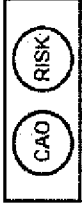
KEY POINTS

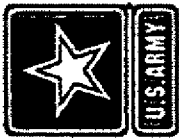
OPSEC is everyone's responsibility

It's serious business; we must do a better job across the Army

The enemy aggressively reads our open source information and continues to exploit such information for use against our forces

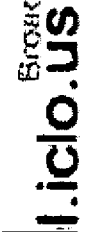
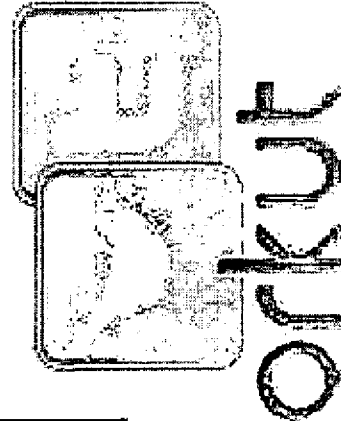
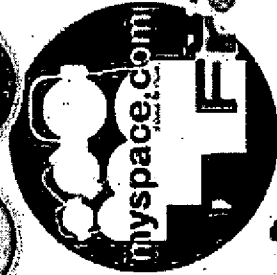
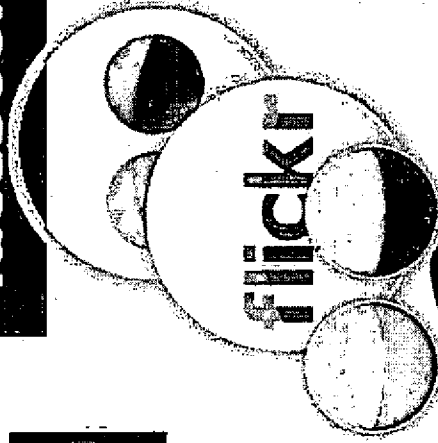
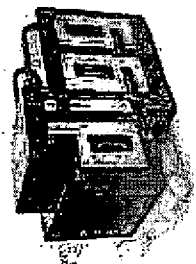
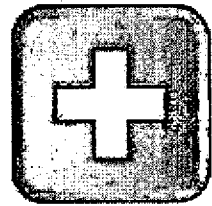
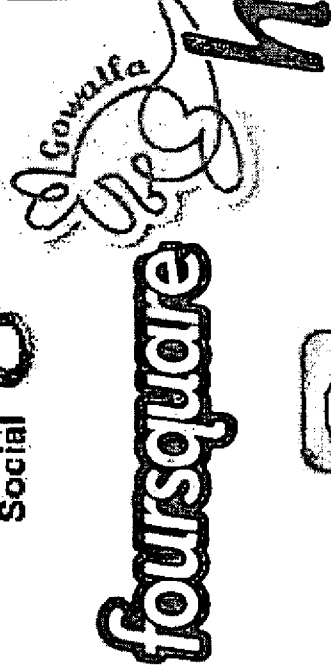
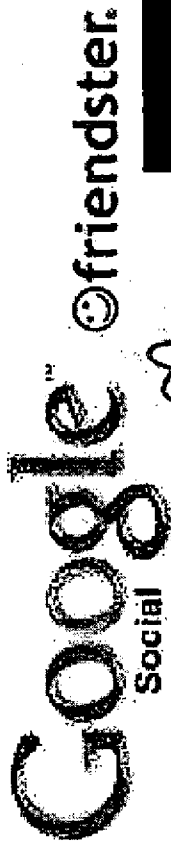
OPSEC violations needlessly place lives at risk and degrade the effectiveness of our operations





Operations Security (OPSEC) and Social Networking

Social Networking Sites (SNS) allow people to network, interact and collaborate to share information, data and ideas without geographic boundaries.



Broadcast Yourself

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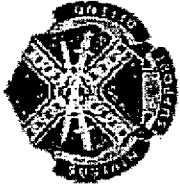
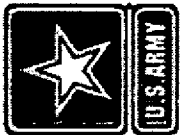
The Danger

Bad guys use it too:

- Stalkers
- Thieves
- Terrorist
- Hackers
- Phishers/Scammers
- Enemy organizations
- Pedophiles

And the list goes on





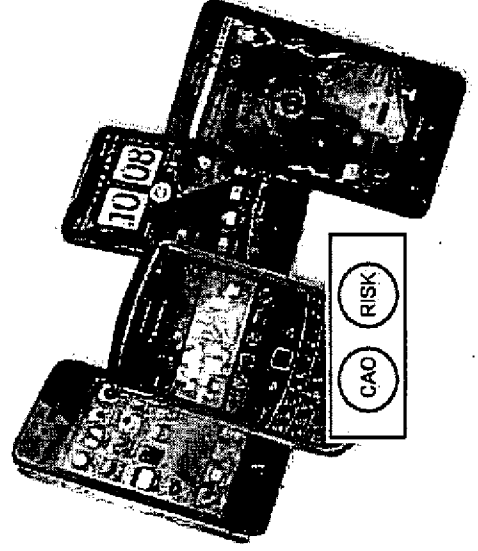
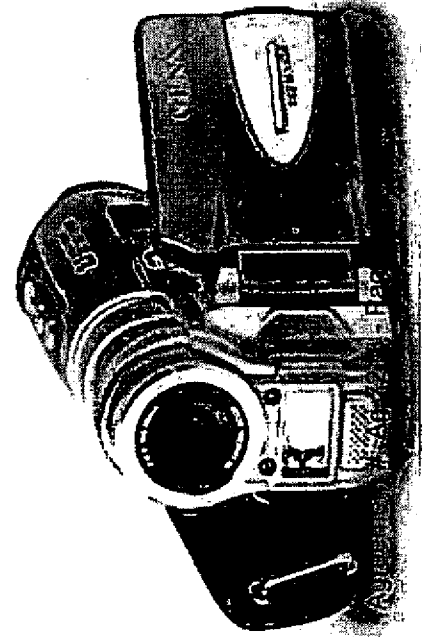
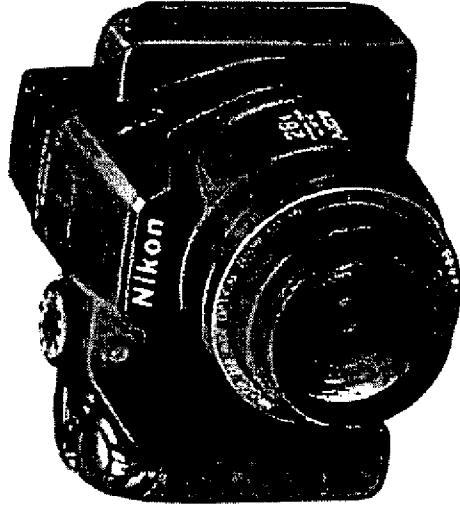
OPSEC and Photography

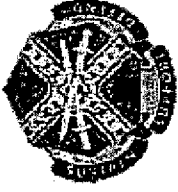
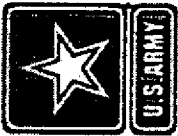
Picture taking or video taping anywhere on the installation is strictly prohibited without prior approval

All photos/videos are subject to review

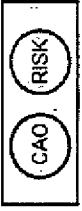
Unauthorized photos are subject to deletion / confiscation if prior approval is not given

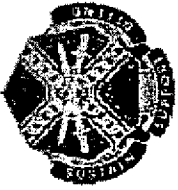
For approval contact the Public Affairs Office (301-619-2018)





To report OPSEC related issues phone 301-619-1929





Conclusion

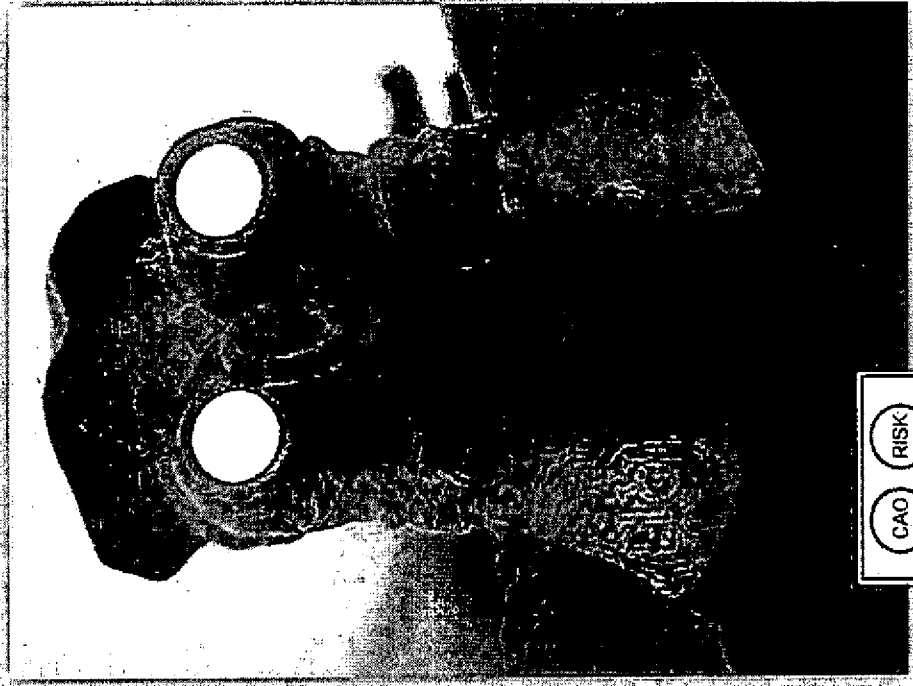
**Safeguarding our sensitive
information is vital to success**

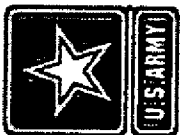
The threat is real

What you do matters

***“You can’t measure your worth and your
importance by your proximity to the battlefield.”***

General Cody



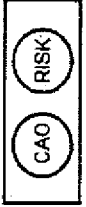


Certificate of Training

This is to certify that

has completed
USAG Operations Security Training

_____ *Date*

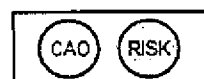


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[Use this page when needed to ensure the last page is even or the Appendix begins on an odd numbered page]

Insert project name

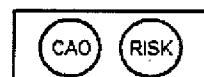
Agreement #: Ag-7218 - Page 105 of 147



APPENDIX F: HAZARDOUS MATERIAL SURVEY AND REPORT

[insert project name]

Agreement #: Ag-7218 - Page 106 of 147





**ENVIRONMENTAL
CONSULTING LLC**

December 26, 2017

Ms. Elvie Camacho
Senior Engineer
City of Monterey
Capital Projects Division
353 Camino El Estero
Monterey, CA 93940
831.646.3783 (t)
831.760.2275 (c)

Via email:
camacho@monterey.org

Re: Limited Pre-Renovation Survey of Building 4468 (Fort Ord Police Station) Boiler Room
Located at the Ord Military Community in Seaside, California
M³ Project No. 17748.0 Task 1

Dear Ms. Camacho:

At your request, M³ Environmental Consulting, LLC (M³) conducted inspections for suspect asbestos-containing materials (ACM) and lead-containing paint (LCP) prior to the removal of all of the mechanical equipment in the boiler room in building 4468 located at the Ord Military Community, Seaside, California. The inspection was limited to the areas and materials that were to be impacted by the project.

The inspection was performed on November 17, 2017 by Mr. Collin Fuerst, California Certified Site Surveillance Technician (CSST) No., 16-5747, California Department of Public Health Certified (CDPH) Sampling Technician No. 29156, and Environmental Technician with M³, under the direction of Mr. Chris Gatward, California Certified Asbestos Consultant (CAC) No. 92-0216, and Principal of M³.

The asbestos inspection was performed to identify ACM that will be impacted by the planned renovation project. The Monterey Bay Air Resources District (MBARD) Rule 424 requires a comprehensive survey be conducted for ACM prior to any planned renovation or demolition activity in accordance with the Environmental Protection Agency (EPA) National Emission Standards for Hazardous Air Pollutants (NESHAP) regulation (Title 40 Code of Federal Regulations [CFR] Part 61 Subpart M).

The purpose for the collection of paint chips and bulk suspect lead samples was to determine the location of lead-containing materials prior to planned renovation activities to comply with the California Occupational Safety and Health Administration (Cal/OSHA) Construction Lead Standard (Title 8 CCR Section 1532.1) requirement for worker protection.

Sampling and Analysis

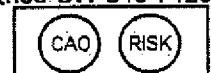
Asbestos Sampling

A total of 23 ACM bulk samples were collected and analyzed by PLM using the Environmental Protection Agency (EPA) Method (EPA/600/R-93/116, July 1993) "Method for the Determination of Asbestos in Bulk Building Materials". The laboratory results of the materials sampled during field investigation are presented as estimated percentages of asbestos by types (e.g. amosite, chrysotile, crocidolite, as well as types of non-fibrous fibrous materials) or non-detect (ND).

Lead Sampling

A total of 5 samples of suspect lead containing materials were collected, and analyzed by the laboratory in accordance with EPA Method 600/R-93/200 and analyzed in accordance with EPA Method-SW 846-7420

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Flame Atomic Absorption Spectrometry (FAA). Results are presented in percent lead by weight (wt%) for paint, parts per million (ppm) for bulk, and below the reporting limit (BRL) if non-lead containing.

All samples were analyzed by EMC Labs, Inc. located in Phoenix, Arizona.

Results

The laboratory results of the materials sampled during field investigations are included in the attached appendices.

Asbestos

The following materials were analyzed and determined to contain detectable concentrations of asbestos.

Material No.	Description	Asbestos Content
3	Boiler interior wall- smooth	30%
4	Transite Flue, Gray	Chrysotile 10% Crocidolite 5%
6	18" Pipe run insulation, White	5%
9	Water tank insulation	3%

Non-Asbestos

The following materials were analyzed and determined not to contain detectable concentrations of asbestos:

Material No.	Description	Asbestos Content
1	Boiler Fire door	ND
2	Boiler Interior Wall- Rough	ND
5	Boiler Block Caulking	ND
7	6" Pipe Run Insulation	ND
8	Insulated fittings	ND
10	Expansion joint cloth	ND

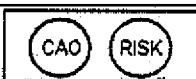
Lead

Sample No.	Color	Substrate	Component	Location	Lead Content (% by weight)
L3	Yellow	Metal	Post	Interior	0.015

Non-Lead

The following samples were analyzed and determined to be below the lead reporting limit (BRL):

Sample No.	Color	Substrate	Component	Location	Lead Content
L1	Yellow	Metal	Railing	Interior	BRL
L2	Yellow	Metal	Ladder	Interior	BRL
L4	Yellow	Metal	Scaffold	Interior	BRL
L5	White/Silver	Metal	Boiler	Interior	BRL



Conclusions/Recommendations

Asbestos

- Prior to renovation activities that will impact the materials identified in this report as containing or assumed asbestos containing at any level the materials must be removed and disposed of by a registered asbestos abatement contractor using proper engineering controls and worker protection.
- If any other suspect ACM not identified in this report is found during any renovation or demolition, work should cease, and additional sampling and analysis should be performed to determine if the materials contain asbestos.
- Contractors and others responsible for any renovation or demolition activities on the property should be notified as to the presence of the asbestos so that compliance with regulatory requirements may be met in any planning and bidding phases.
- Abatement contractors must notify the nearest Cal/OSHA district office at least 24 hours prior to any asbestos related work.
- Notification to the appropriate Planning and Building Department advising that this survey has been conducted.

Lead

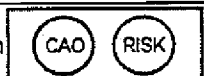
- Prior to impacting any painted components determined to be lead containing, all flaking, peeling paint should be removed and disposed of from the interior and exterior by a licensed abatement contractor using CDPH certified workers using worker protection and proper engineering controls. All other interior and exterior paint in good condition (not peeling from the substrate) may remain in place during demolition.
- Lead related activities shall not include the use of wire brushing, flame torching, dry scraping, sanding, stripping, abrasive methods, or the use of heat guns unless proper engineering controls and worker protection are in place.
- At the time of removal of any LCP, samples of the lead containing/contaminated waste should be collected and analyzed by the TTLC, STLC and TCLP in order to determine whether wastes are classified as non-hazardous solid or hazardous waste in California or as defined under the RCRA before transportation and disposal to either a Class I, II, or III landfill.
- Contractors bidding for renovation work should be compliant with the requirements of the Cal/OSHA Lead in Construction Standard (Title 8 CCR 1532.1).

Environmental Consulting

The use of M³ or another qualified environmental consulting firm to design abatement specifications, observe abatement activities, conduct air monitoring during abatement, visual inspections, and conduct air clearances after abatement activities.

Limitations

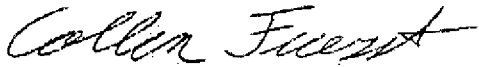
A reasonable effort is made by M³ personnel to locate and sample suspect materials. However, for any facility the existence of unique or concealed hazardous material debris is a possibility. M³ does not warrant, guarantee or profess to have the ability to locate or identify all hazardous material in a facility. M³'s hazardous material testing, results are applicable for the time that testing was conducted and for the condition of surfaces at the time they were tested. During demolition/renovation operations, materials may be uncovered which were not identified during our assessment. Personnel in charge of demolition/renovations should be alerted to note materials uncovered during these operations, which differ substantially from those included in this assessment. M³ does not guarantee or warrant that the areas



surveyed are safe, nor does M³'s involvement in this property relieve the Owner of any continuing responsibility of providing a safe environment. M³ is not, and has no responsibility as a generator, operator, treater, storer, transporter or disposer of hazardous materials or waste found or identified as a result of M³'s work.

Thank you for this opportunity to be of service to you. If you have any questions regarding the survey or report, please do not hesitate to contact me at 831.649.4623.

M³ Environmental Consulting, LLC



Collin Fuerst
Environmental Consultant
California SST No. 16-5747
CDPH Sampling Technician No. 29156



Chris G. Gatward
Principal
California CAC No. 92-0216

Attachments:

Appendix A – Asbestos Laboratory Results and Chain of Custody
Appendix B – Lead Laboratory Results and Chain of Custody

APPENDIX A
ASBESTOS LABORATORY RESULTS
AND
CHAIN OF CUSTODY

EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0194643

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: M3 ENVIRONMENTAL CONS. Job# / P.O. #: 17748.0
Address: 9821 BLUE LARKSPUR LN, STE 100 Date Received: 11/20/2017
MONTEREY CA 93940 Date Analyzed: 11/27/2017
Collected: 11/17/2017 Date Reported: 11/27/2017
Project Name: CITY OF MONTEREY-FORT ORD POLICE EPA Method: EPA 600/R-93/116
Address: STATION BOILER RM-4468 GIGLING RD, Submitted By: COLLIN FUERST
SEASIDE, LTD ACM/Pb Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0194643-001 1A	BOILER RM	Boiler Fireproofing, Gray/ Beige	No	None Detected	Fibrous Glass 5% Cellulose Fiber 2% Carbonates Gypsum Mica Binder/Filler 93%
0194643-002 1B	BOILER RM	Boiler Fireproofing, Gray/ Beige	No	None Detected	Fibrous Glass 2% Cellulose Fiber 1% Carbonates Gypsum Mica Binder/Filler 97%
0194643-003 2A	BOILER RM	Boiler Interior Wall Rough, Gray/ Beige	No	None Detected	Fibrous Glass 3% Carbonates Gypsum Mica Binder/Filler 97%
0194643-004 2B	BOILER RM	Boiler Interior Wall Rough, Gray/ Beige	No	None Detected	Fibrous Glass 3% Cellulose Fiber 1% Carbonates Gypsum Mica Perlite 96%
0194643-005 3A	BOILER RM	Boiler Interior Wall Smooth, White/ Tan	Yes	Chrysotile 30%	Gypsum Mica Diatoms Carbonates 70%
0194643-006 3B	BOILER RM	Boiler Interior Wall Smooth, White/ Tan	Yes	Chrysotile 30%	Cellulose Fiber 5% Gypsum Mica Diatoms Carbonates 65%



EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
 Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

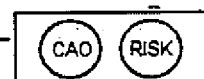
Laboratory Report
0194643

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONS.	Job# / P.O. #:	17748.0
Address:	9821 BLUE LARKSPUR LN, STE 100	Date Received:	11/20/2017
	MONTEREY CA 93940	Date Analyzed:	11/27/2017
Collected:	11/17/2017	Date Reported:	11/27/2017
Project Name:	CITY OF MONTEREY-FORT ORD POLICE	EPA Method:	EPA 600/R-93/116
Address:	STATION BOILER RM-4468 GIGLING RD, SEASIDE, LTD ACM/Pb	Submitted By:	COLLIN FUERST
		Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0194643-007 4A	BOILER RM	Transite Flue, Gray	Yes	Chrysotile Crocidolite 10% 5%	Carbonates Gypsum Quartz Diatoms Binder/Filler 85%
0194643-008 4B	BOILER RM	Transite Flue, Gray	Yes	Chrysotile Crocidolite 10% 5%	Carbonates Gypsum Quartz Diatoms Binder/Filler 85%
0194643-009 5A	BOILER RM	Boiler Block Caulking, Tan	No	None Detected	Silicone Binder/Filler 100%
0194643-010 5B	BOILER RM	Boiler Block Caulking, Tan	No	None Detected	Silicone Binder/Filler 100%
0194643-011 6A	BOILER RM	LAYER 1 18" Pipe Run Insulation, White	Yes	Chrysotile 5%	Wollastonite Gypsum Diatoms Mica Carbonates 25% 70%
		LAYER 2 Pipe Insulation, Tan	No	None Detected	Fibrous Glass Cellulose Fiber Gypsum 95% 1% 4%



EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

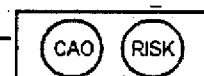
Laboratory Report
0194643

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: M3 ENVIRONMENTAL CONS. Job# / P.O. #: 17748.0
Address: 9821 BLUE LARKSPUR LN, STE 100 Date Received: 11/20/2017
MONTEREY CA 93940 Date Analyzed: 11/27/2017
Collected: 11/17/2017 Date Reported: 11/27/2017
Project Name: CITY OF MONTEREY-FORT ORD POLICE EPA Method: EPA 600/R-93/116
Address: STATION BOILER RM-4468 GIGLING RD, Submitted By: COLLIN FUERST
SEASIDE, LTD ACM/Pb Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0194643-012 6B	BOILER RM	LAYER 1 18" Pipe Run Insulation, White	Yes	Chrysotile 4%	Mineral Wool 35% Cellulose Fiber 1% Gypsum Diatoms Quartz Carbonates 60%
		LAYER 2 Wrap, Off White Note: Difficult to separate adjacent layer	No	None Detected	Cellulose Fiber 95% Gypsum Carbonates 5%
0194643-013 6C	BOILER RM	18" Pipe Run Insulation, Yellow/ Brown	No	None Detected	Fibrous Glass 95% Cellulose Fiber 2% Gypsum 3%
0194643-014 7A	BOILER RM	6" Pipe Run Insulation, Yellow/ Brown	No	None Detected	Fibrous Glass 95% Cellulose Fiber 1% Gypsum 4%
0194643-015 7B	BOILER RM	6" Pipe Run Insulation, Yellow/ Brown	No	None Detected	Fibrous Glass 95% Cellulose Fiber 2% Gypsum 3%
0194643-016 7C	BOILER RM	LAYER 1 6" Pipe Run Insulation, Yellow/ Brown	No	None Detected	Fibrous Glass 95% Cellulose Fiber 1% Gypsum 4%
		LAYER 2 Wrap, White	No	None Detected	Cellulose Fiber 90% Fibrous Glass 2% Gypsum Carbonates Binder/Filler 8%



EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

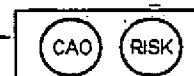
Laboratory Report
0194643

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client: M3 ENVIRONMENTAL CONS. Job# / P.O. #: 17748.0
Address: 9821 BLUE LARKSPUR LN, STE 100 Date Received: 11/20/2017
MONTEREY CA 93940 Date Analyzed: 11/27/2017
Collected: 11/17/2017 Date Reported: 11/27/2017
Project Name: CITY OF MONTEREY-FORT ORD POLICE EPA Method: EPA 600/R-93/116
Address: STATION BOILER RM-4468 GIGLING RD, Submitted By: COLLIN FUERST
SEASIDE, LTD ACM/Pb Collected By:

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents	
0194643-017 8A	BOILER RM	LAYER 1 Insulated Joints, Brown	No	None Detected	Fibrous Glass Cellulose Fiber Gypsum	95% 1% 4%
		LAYER 2 Wrap, White	No	None Detected	Cellulose Fiber Carbonates Binder/Filler	90% 10%
0194643-018 8B	BOILER RM	LAYER 1 Insulated Joints, Brown	No	None Detected	Fibrous Glass Cellulose Fiber Gypsum	95% 1% 4%
		LAYER 2 Wrap, White	No	None Detected	Cellulose Fiber Fibrous Glass Carbonates Binder/Filler	90% 1% 9%
0194643-019 8C	BOILER RM	LAYER 1 Insulated Joints, Brown	No	None Detected	Fibrous Glass Cellulose Fiber Gypsum	95% 2% 3%
		LAYER 2 Wrap, White	No	None Detected	Cellulose Fiber Fibrous Glass Carbonates Binder/Filler	90% 1% 9%
0194643-020 9A	BOILER RM	Water Tank Insulation, White	Yes	Chrysotile 3%	Mineral Wool Cellulose Fiber Gypsum Mica Quartz Carbonates	35% 2% 60%
0194643-021 9B	BOILER RM	Water Tank Insulation, White	Yes	Chrysotile 3%	Mineral Wool Cellulose Fiber Gypsum Mica Quartz Carbonates	35% 2% 60%



EMC LABS, INC.

9830 S. 51st Street, Suite B109, Phoenix, AZ 85044
Phone: 800-362-3373 or 480-940-5294 - Fax: (480) 893-1726

Laboratory Report
0194643

Bulk Asbestos Analysis by Polarized Light Microscopy

NVLAP#101926-0

Client:	M3 ENVIRONMENTAL CONS.	Job# / P.O. #:	17748.0
Address:	9821 BLUE LARKSPUR LN, STE 100	Date Received:	11/20/2017
	MONTEREY CA 93940	Date Analyzed:	11/27/2017
Collected:	11/17/2017	Date Reported:	11/27/2017
Project Name:	CITY OF MONTEREY-FORT ORD POLICE	EPA Method:	EPA 600/R-93/116
Address:	STATION BOILER RM-4468 GIGLING RD,	Submitted By:	COLLIN FUERST
	SEASIDE, LTD ACM/Pb	Collected By:	

Lab ID Client ID	Sample Location	Layer Name / Sample Description	Asbestos Detected	Asbestos Type (%)	Non-Asbestos Constituents
0194643-022 9C	BOILER RM	Water Tank Insulation, White	Yes	Chrysotile 3%	Mineral Wool 35% Cellulose Fiber 2% Gypsum Mica Quartz Carbonates 60%
0194643-023 10A	BOILER RM	Ventilation Expansion Joint Cloth, Black	No	None Detected	Fibrous Glass 40% Carbonates Gypsum Binder/Filler 60%


Analyst - Johann Hofer


Signatory -- Lab Director - Kurt Kettler

Distinctly stratified, easily separable layers of samples are analyzed as subsamples of the whole and are reported separately for each discernible layer. All analyses are derived from calibrated visual estimates and measured in area percent unless otherwise noted. The report applies to the standards or procedures identified and to the sample(s) tested. The test results are not necessarily indicated or representative of the quality of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. These reports are for the exclusive use of the addressed client and that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. The report shall not be reproduced except in full, without written approval by our laboratory. The samples not destroyed in testing are retained a maximum of thirty days. The laboratory measurement of uncertainty for the test method is approximately less than 1 by area percent. Accredited by the National Institute of Standards and Technology, Voluntary Laboratory Accreditation Program for selected test method for asbestos. The accreditation or any reports generated by this laboratory in no way constitutes or implies product certification, approval, or endorsement by the National Institute of Standards and Technology. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. Polarized Light Microscopy may not be consistently reliable in detecting asbestos in floor coverings and similar non-fibrous organically bound materials.

CHAIN OF CUSTODY

EMC Labs, Inc.
9830 S. 51ST St., Ste B-109
Phoenix, AZ 85044
(800) 362-3373 Fax (480) 893-1726

LAB#: 194643
TAT: 3 days
Rec'd: NOV 20 P.M.

COMPANY NAME: M3 Environmental Cons.
9821 Blue Larkspur Ln, Ste 100
Monterey, CA 93940

CONTACT:
Phone/Fax: (831) 649-4623 / (831) 649-4624
Email: collin@m3environmental.com

BILL TO: (If Different Location)

Now Accepting: **VISA - MASTERCARD** Price Quoted: \$ _____ / Sample \$ _____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

1. **TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]

- ****Prior confirmation of turnaround time is required
- ****Additional charges for rush analysis (please call marketing department for pricing details)
- ****Laboratory analysis may be subject to delay if credit terms are not met

2. **TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]

3. **DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
(If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. **Project Name:** City of Monterey - Fort Ord Police Station Boiler Room - 4468 Gigling Rd, Seaside - Ltd. ACM/Pb

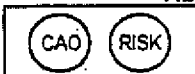
P.O. Number: _____ Project Number: 17748.0

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
1		11/17/17		Y N			
	3 Please See Attached Log			Y N			
	ACM <u>23</u>			Y N			
	Pb <u>0</u>			Y N			
				Y N			
23				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS:

Sample Collector: (Print) Collin Faust (Signature) [Signature]
Relinquished by: [Signature] Date/Time: 11/20/17 Received by: Diana Federico Date/Time: 11/20/17
Relinquished by: Diana Federico Date/Time: 11/20/17 Received by: [Signature] Date/Time: 11-20-17
Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs. Rev. 09/01/08



...ue will be

194643

Asbestos Bulk Sampling Log



M3
ENVIRONMENTAL
CONSULTING LLC

Client: City of Monterey
 Project Name: 4th Area AB
 Site Address: 446 & 12th St, Seaside
 Building: Police Station - Boiler Room
 Project No.: 17749.0

Sample Date: 1/17/17
 Inspector: Collin Fuerst
 CAC No. _____
 SST No. 16-5747

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
1			Boiler	Boiler Fire Door ↓				
2								
3				Boiler Interior wall - Rough ↓				
4								
5				Boiler Interior wall - smooth ↓				
6								
7				Transite Flue ↓				
8								
9				Boiler Block Conkng ↓				
10								

CAO

RISK

194643



Asbestos Bulk Sampling Log

Client: City of Monterey
 Project Name: 1st Assembly
 Site Address: 4165 Gaging Rd., Seaside
 Building: _____
 Project No.: 177R02

Sample Date: 1/27/12
 Inspector: Collin Fuerst
 CAC No. _____
 SST No. 16-5747

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
11	6A		Boiler Room	Ins. Pipe Runs 18"				
12	6B							
13	6C							
14	7A			Ins. Pipe Runs 6"				
15	7B							
16	7C							
17	8A			Ins. Joints				
18	8B							
19								
20				Water Tank Ins.				Plaster Line / Cloth

CAO

RISK

194643

Asbestos Bulk Sampling Log



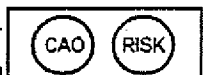
Client: City of Monterey
 Project Name: LAO Action Plan
 Site Address: 1465 Gaby Rd, Seaside
 Building:
 Project No.: 177482

Sample Date: 11/7/17
 Inspector: Collin Fuersl
 CAC No.
 SST No. 16-5747

Sample No.	Building / Floor	Area No.	Area Name	Material Description	Estimated Quantity			Notes
					SF	LF	EA	
21			Baker Room	Water Tank 5/16.				
22								
23				Ventilation Exhaust inlet grate				

CAO RISK

APPENDIX B
LEAD LABORATORY RESULTS
AND
CHAIN OF CUSTODY





9830 South 51st Street, Suite B-109 / PHOENIX, ARIZONA 85044 / 480-940-5294 or 800-362-3373 / FAX 480-893-1726
emclab@emclabs.com

LEAD (Pb) IN PAINT CHIP SAMPLES
EMC SOP METHOD #L01/1 EPA SW-846 METHOD 7420

EMC LAB #: L67134		DATE RECEIVED: 11/20/17			
CLIENT: M3 Environmental Consulting		REPORT DATE: 11/22/17			
		DATE OF ANALYSIS: 11/22/17			
CLIENT ADDRESS: 9821 Blue Larkspur Lane, Suite 100 Monterey, CA 93940		P.O. NO.:			
PROJECT NAME: City of Monterey – Fort Ord Police Station Boiler Room – 4468 Gigling Rd, Seaside – Ltd. ACM/Pb		PROJECT NO.: 17748.0			
EMC # L67134-	SAMPLE DATE /17	CLIENT SAMPLE #	DESCRIPTION	REPORTING LIMIT (%Pb by weight)	%Pb BY WEIGHT
1	11/17	L1	Yellow / Metal / Railing / Interior Boiler Room	0.016	BRL
2	11/17	L2	Yellow / Metal / Ladder / Interior Boiler Room	0.035	BRL
3	11/17	L3	Yellow / Metal / Post / Interior Boiler Room	0.010	0.015
4	11/17	L4	Yellow / Metal / Scaffold / Interior Boiler Room	0.043	BRL
5	11/17	L5	White/Silver / Metal / Boiler / Interior Boiler Room	0.010	0.646

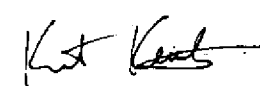
^ = Dilution Factor Changed * = Excessive Substrate May Bias Sample Results BRL = Below Reportable Limits # = Very Small Amount Of Sample Submitted, May Affect Result

This report applies to the standards or procedures identified and to the samples tested only. The test results are not necessarily indicative or representative of the qualities of the lot from which the sample was taken or of apparently identical or similar products, nor do they represent an ongoing quality assurance program unless so noted. Unless otherwise noted, all quality control analyses for the samples noted above were within acceptable limits.

Where it is noted that a sample with excessive substrate was submitted for laboratory analysis, such analysis may be biased. The lead content of such sample may, in actuality, be greater than reported. EMC makes no warranty, express or implied, as to the accuracy of the analysis of samples noted to have been submitted with excessive substrate. Resampling is recommended in such situations to verify original laboratory results.

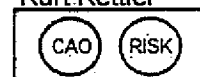
These reports are for the exclusive use of the addressed client and are rendered upon the condition that they will not be reproduced wholly or in part for advertising or other purposes over our signature or in connection with our name without special written permission. Samples not destroyed in testing are retained a maximum of sixty (60) days.

ANALYST: 
Jason Thompson

QA COORDINATOR: 
Kurt Kettler

Rev. 11/30/08

Agreement #: Ag-7218 - Page 122 of 147



CHAIN OF CUSTODY

EMC Labs, Inc.
 9830 S. 51ST St., Ste B-109
 Phoenix, AZ 85044
 (800) 362-3373 Fax (480) 893-1726

LAB#: 267134
 TAT: 3 day
 Rec'd: 11/20/17

COMPANY NAME: M3 Environmental Cons.
9821 Blue Larkspur Ln, Ste 100
Monterey, CA 93940
 CONTACT:
 Phone/Fax: (831) 649-4623 / (831) 649-4624
 Email: collin@m3environmental.com


BILL TO: _____

Now Accepting: **VISA -- MASTERCARD** Price Quoted: \$ _____ / Sample \$ _____ / Layers

COMPLETE ITEMS 1-4: (Failure to complete any items may cause a delay in processing or analyzing your samples)

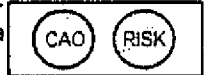
- TURNAROUND TIME:** [4hr rush] [8hr rush] [1-Day] [2-Day] [3-Day] [5-Day] [6-10 Day]
 ****Prior confirmation of turnaround time is required
 ****Additional charges for rush analysis (please call marketing department for pricing details)
 ****Laboratory analysis may be subject to delay if credit terms are not met
- TYPE OF ANALYSIS:** [Bulk-PLM] [Air-PCM] [Lead] [Point Count] [Fungi: AOC, W-C, Bulk, Swab, Tape]
- DISPOSAL INSTRUCTIONS:** [Dispose of samples at EMC] / [Return samples to me at my expense]
 (If you do not indicate preference, EMC will dispose of samples 60 days from analysis.)

4. Project Name: City of Monterey - Fort Ord Police Station Boiler Room - 4468 Gigling Rd. Seaside - Ltd. ACM/Pb.
 P.O. Number: _____ Project Number: 17748.0

EMC SAMPLE #	CLIENT SAMPLE #	DATE & TIME SAMPLED	LOCATION/MATERIAL TYPE	Samples Accepted Yes / No	AIR SAMPLE INFO / COMMENTS		
					ON	OFF	FLOW RATE
	<u>L1</u> Please See Attached Log <u>ACM</u> <u>Pb</u>	<u>11/17/17</u>		<u>Q</u> N			
				Y N			
				Y N			
				Y N			
				Y N			
<u>5</u>	<u>L5</u>			<u>Q</u> N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			
				Y N			

SPECIAL INSTRUCTIONS:
 Sample Collector: (Print) Collin Forest (Signature) [Signature]
 Relinquished by: [Signature] Date/Time: 11/17/17 Received by: [Signature] Date/Time: 11/20/17
 Relinquished by: [Signature] Date/Time: 11/20/17 Received by: [Signature] Date/Time: 11/20/17
 Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____

** In the event of any dispute between the above parties for these services or otherwise, parties agree that in Phoenix, Arizona and prevailing party will be entitled to attorney's fees and court costs. Rev. 09/01/08





ENVIRONMENTAL
CONSULTING LLC

Lead Bulk Sampling Log

Sample Date: 11/11/17
 Inspector: Collin Fuerst
 CDPH No. 29156

Client: City of Monterey
 Project Name: 11th St. Am. Bldg
 Site Address: 4465 Corby Rd., Seaside
 Building: _____
 Project No.: 1774612

Sample No.	Color	Substrate	Building Component	Sample Location (interior/exterior)	Notes/Result
L1	Yellow	Metal	Railing	Interior Boiler Room	
L2			Ladder		
L3			Post		
L4			Scarf		
L5	White/Silver		Boiler		

Ag-7218 - Page 124 of 147

CAO
RISK

627134



EMSL ANALYTICAL, INC.
LABORATORY PRODUCTS DIVISION

Asbestos Chain of Custody

EMSL Order Number (Lab Use Only):

091800689

EMSL ANALYTICAL, INC.
2235 POLVOROSA AVE, STE 230
SAN LEANDRO, CA 94577
PHONE: (510)895-3675
FAX: (510)895-3680

Company: M3 Environmental Consulting, LLC		EMSL-Bill to: <input checked="" type="checkbox"/> Same <input type="checkbox"/> Different If Bill to is Different note instructions in Comments**	
Street: 9821 Blue Larkspur Lane, Suite 100		Third Party Billing requires written authorization from third party	
City: Monterey	State/Province: CA	Zip/Postal Code: 93940	Country: USA
Report To (Name): Chris Gatward		Fax #: N/A	
Telephone #: 831-649-4623		Email Address: chris@m3environmental.com	
Project Name/Number: 17748-0 T-2 City of Monterey, Ft Ord 4468 Boiler			
Please Provide Results: <input type="checkbox"/> Fax <input checked="" type="checkbox"/> Email <input type="checkbox"/> Purchase Order:		U.S. State Samples Taken: CA	

Turnaround Time (TAT) Options* - Please Check

3 Hour 6 Hour 24 Hour 48 Hour 72 Hour 96 Hour 1 Week 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air <input checked="" type="checkbox"/> NIOSH 7400 <input type="checkbox"/> w/ OSHA 8hr. TWA	TEM - Air <input type="checkbox"/> 4-4.5hr TAT (AHERA only) <input type="checkbox"/> AHERA 40 CFR, Part 763 <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II <input type="checkbox"/> ISO 10312	TEM - Dust <input type="checkbox"/> Microvac - ASTM D 5755 <input type="checkbox"/> Wipe - ASTM D6480 <input type="checkbox"/> Carpet Sonication (EPA 600/J-93/167)
PLM - Bulk (reporting limit) <input type="checkbox"/> PLM EPA 600/R-93/116 (<1%) <input type="checkbox"/> PLM EPA NOB (<1%) Point Count <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) Point Count w/Gravimetric <input type="checkbox"/> 400 (<0.25%) <input type="checkbox"/> 1000 (<0.1%) <input type="checkbox"/> NYS 198.1 (friable in NY) <input type="checkbox"/> NYS 198.6 NOB (non-friable-NY) <input type="checkbox"/> NIOSH 9002 (<1%)	TEM - Bulk <input type="checkbox"/> TEM EPA NOB <input type="checkbox"/> NYS NOB 198.4 (non-friable-NY) <input type="checkbox"/> Chatfield SOP <input type="checkbox"/> TEM Mass Analysis-EPA 600 sec. 2.5	Soil/Rock/Vermiculite <input type="checkbox"/> PLM CARB 435 - A (0.25% sensitivity) <input type="checkbox"/> PLM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - B (0.1% sensitivity) <input type="checkbox"/> TEM CARB 435 - C (0.01% sensitivity) <input type="checkbox"/> EPA Protocol (Semi-Quantitative) <input type="checkbox"/> EPA Protocol (Quantitative)
<input type="checkbox"/> TEM - Water: EPA 100.2 Fibers >10µm <input type="checkbox"/> Waste <input type="checkbox"/> Drinking All Fiber Sizes <input type="checkbox"/> Waste <input type="checkbox"/> Drinking		Other: <input type="checkbox"/>

Check For Positive Stop - Clearly Identify Homogenous Group

Samplers Name: Chris Gatward Samplers Signature: *CG*

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
CL-1	Inside Containment	1530	11/01/18
CL-2	↓	1515	↓
CL-3	↓	1500	↓

Client Sample # (s): 3 Total # of Samples: 3

Relinquished (Client): Chris Gatward Date: 7/11/18 Time:

Received (Lab): GX Date: 11/12/15 Time: 9:14 AM

Comments/Special Instructions: EEF 4



EMSL Analytical, Inc.

484 McCormick Street San Leandro, CA 94577
Tel/Fax: (510) 895-3675 / (510) 895-3680
http://www.EMSL.com / sanleandrolab@emsl.com

EMSL Order: 091800689
Customer ID: MENC78
Customer PO: 17748-0 T-2
Project ID:

Attention: Chris Gatward
M3 Environmental Consulting, LLC
9821 Blue Larkspur Ln
Suite 100
Monterey, CA 93940
Project: 17748-0 T-2 CITY OF MONTEREY, FT ORD 4468 BOILER

Phone: (831) 915-0558
Fax: (831) 649-4624
Received Date: 01/12/2018 9:15 AM
Analysis Date: 01/12/2018
Collected Date: 01/11/2018

Test Report: Fiber Count by Phase Contrast Microscopy (PCM), NIOSH 7400 Method - A Rules, Revision 3, Issue 2, 8/15/94

Sample	Location	Sample Date	Volume (liters)	Fibers	Fields	LOD (fib/cc)	Fibers/mm ²	Fibers/cc	Notes
CL-1	INSIDE CONTAINMENT	1/11/2018	1530.00	<5.5	100	0.002	<7.01	<0.002	
091800689-0001									
CL-2	INSIDE CONTAINMENT	1/11/2018	1511.00	<5.5	100	0.002	<7.01	<0.002	
091800689-0002									
CL-3	INSIDE CONTAINMENT	1/11/2018	1500.00	<5.5	100	0.002	<7.01	<0.002	
091800689-0003									

This method requires the submission of field blanks with each sample set. No discernable field blanks were submitted, samples are not blank corrected.

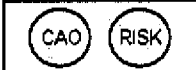
Analyst(s):
Freshta Ahadi PCM (3)

Matthew Batongbacal
or Other Approved Signatory

Limit of detection is 7 fibers/mm². Intra-laboratory Sr values: 5 - 20 fibers = 0.39, 21 - 50 fibers = 0.22, 51 - 100 fibers = 0.21. Inter-laboratory Sr values (Average of EMSL round robin data) = 0.35. The laboratory is not responsible for data reported in fibers/cc, which is dependent on volume collected by non-laboratory personnel. This report relates only to the samples reported above. This report may not be reproduced, except in full, without written approval by EMSL. Unless otherwise noted, the results in this report have been blank corrected. Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted.

Samples analyzed by EMSL Analytical, Inc San Leandro, CA AIHA-LAP, LLC-IHLAP Accredited #101748

Initial report from: 01/12/2018 11:53 AM Agreement # Ag-7218 - Page 126 of 147



ORD MILITARY COMMUNITY (OMC) B-4468 EMERGENCY GENERATOR REPLACEMENT PROJECT

GENERAL NOTES

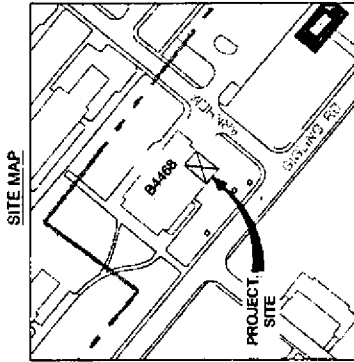
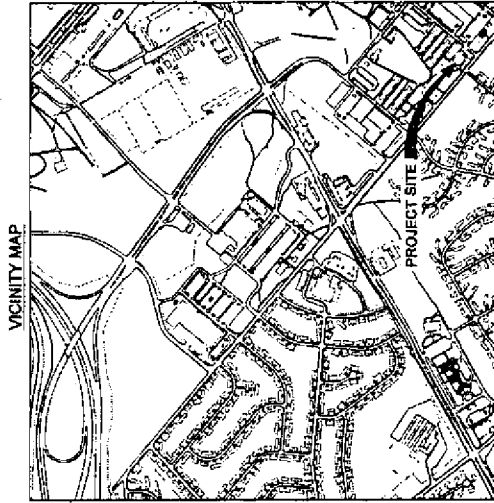
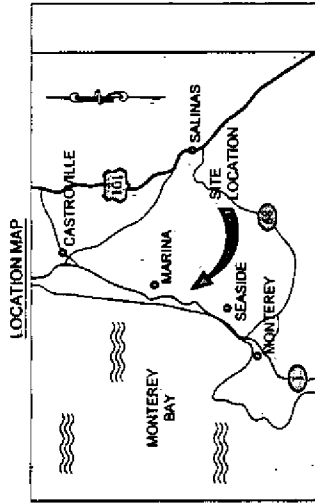
- A. WORK IS LOCATED IN AN ACTIVE POLICE DEPARTMENT. CONTRACTOR SHALL ABIDE WITH ALL SECURITY REGULATIONS. THE ENGINEER OR AUTHORIZED OFFICER OF THE LAW RESERVES THE RIGHT TO REMOVE FROM THE PREMISES PERSONNEL THAT ARE IN VIOLATION OF ANY SECURITY REQUIREMENTS.
- B. CONTRACTOR SHALL SUBMIT A LIST OF EMPLOYEES TO THE ENGINEER FOR SECURITY PROCESSING AND APPROVAL. CONTRACTOR SHALL FILL OUT ACCESS APPLICATION, AT LEAST 21 DAYS BEFORE START OF WORK.
- C. CONTRACTOR SHALL BE PREPARED UPON REQUEST TO BE SEARCHED BY AN OFFICER.
- D. CONTRACTOR SHALL COORDINATE WORK SCHEDULE WITH THE ENGINEER PRIOR TO THE EXECUTION OF WORK. NORMAL WORK SCHEDULE IS FROM 0800 - 1700 MONDAY THROUGH FRIDAY, EXCEPT FOR FEDERAL HOLIDAYS WEEKENDS AFTER HOUR WORK IS PERMITTED SUBJECT TO THE APPROVAL OF THE ENGINEER.
- E. ALL MATERIALS TO BE USED ON SITE SHALL BE SUBMITTED TO THE ENGINEER AND ALL SUBMITTALS SHALL BE APPROVED BY THE ENGINEER PRIOR TO THE MATERIALS ARRIVING ON SITE. ANY MATERIALS NOT APPROVED BY THE ENGINEER SHALL BE IMMEDIATELY REMOVED FROM THE JOB SITE.
- F. DURING CONSTRUCTION, THE CONTRACTOR SHALL ENSURE THAT GOVERNMENT STRUCTURES, EQUIPMENT AND VEGETATION ARE PROTECTED. THE CONTRACTOR IS RESPONSIBLE FOR ALL DAMAGES TO EXISTING STRUCTURES CREATED AS A RESULT OF THE EXECUTION OF THIS PROJECT, AND ALL REPAIRS SHALL BE EQUAL OR BETTER THAN EXISTING AND SUBJECT TO ACCEPTANCE OF THE ENGINEER.
- G. THE ENGINEER MUST APPROVE ANY AND ALL MODIFICATIONS TO EXISTING PLANS PRIOR TO EXECUTION OF WORK.
- H. CONTRACTOR SHALL BE RESPONSIBLE TO PROTECT WORK AREA DURING CONSTRUCTION. CONTRACTOR SHALL ENSURE THAT WORK AREA IS CLEAN AT THE END OF EACH DAY.

PROJECT NOTES:

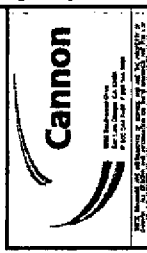
1. THESE PLANS SHALL BE IN CONFORMANCE WITH THE GENERAL MUNICIPAL BUILDING ORDINANCES CONTRACT.
2. THE INTENT OF THIS PROJECT IS TO REPLACE THE EXISTING DUAL FUEL GAS EMERGENCY GENERATOR AND AUTOMATIC TRANSFER SWITCH (ATS) AT THE PRESIDIO OF MONTEREY (POM) BUILDING 4468 LOCATED AT THE ORD MILITARY COMMUNITY (OMC). THE EXISTING GENERATOR AND ATS ARE UNDERSIZED AND ONLY SERVES A PORTION OF THE BUILDING. THE NEW GENERATOR IS TO SERVE THE ENTIRE BUILDING'S ELECTRICAL LOAD DURING UNEXPECTED UTILITY OUTAGES.
3. THE WORK IN GENERAL, BUT NOT LIMITED TO, INCLUDES REMOVAL OF EXISTING GENERATOR, REMOVAL OF EXISTING ATS, FINISH AND INSTALLATION OF NEW DUAL FUEL GENERATOR AND NEW ATS, MODIFICATION TO SWITCHBOARD BUSING, NEW CONDUITS AND FEEDER CIRCUITS, EXTENSION OF EXISTING NATURAL GAS AND PROPANE PIPING.
4. IN SOME CASES CONTRACTORS WILL HAVE TO HAVE POLICE ESCORTS ACCOMPANYING THEM WHEN WORKING INSIDE CERTAIN AREAS. ALL ESCORTS SHALL BE SCHEDULED IN ADVANCE BY THE CONTRACTOR, AND IS SUBJECT TO AVAILABILITY OF STAFF.

TIME LIMITS:

1. CUT OVERS AND DIE ENERGIZING ELECTRICAL SERVICES MUST BE CLOSELY COORDINATED WITH CITY AND POLICE STATION. IF CUTAGE OVER ONE (1) HOUR IS REQUIRED, WORK MAY CONTRACTOR SHALL PROVIDE TIMELINE FOR OUTAGE AND ARRANGE FOR A SPECIFIC DATE TO CONTACT THE WORK. OUTAGE MAY BE REQUIRED ON SATURDAY OR SUNDAY TO MINIMIZE DISRUPTION TO FACILITY.



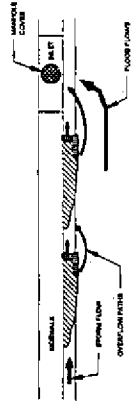
SHEET INDEX	
SHEET NO.	TITLE SHEET & DRAWING INDEX
01	01 TITLE SHEET & DRAWING INDEX
02	02 ERSION & SEPARATION CONTROL PLAN
03	03 SYMBOLS & GENERAL NOTES
04	04 SINGLE LINE DIAGRAM
05	05 DEMOLITION PLAN
06	06 ELECTRICAL PLAN
07	07 DETAILS
08	08 MECHANICAL PIT MODIFICATION DETAILS



	CITY OF MONTEREY PRESIDIO MUNICIPAL SERVICES AGENCY 500 PACIFIC STREET, MONTEREY, CA 93940 TEL: 831.846.3921 WEBSITE: WWW.MONTEREY.ORG		APPROVED FOR CONSTRUCTION DATE: 1-21-14 BY: [Signature]	PROJECT NO. DRAWING NO. E0.1 DATE: 1/22/14
ORD MILITARY COMMUNITY BUILDING 4468 EMERGENCY GENERATOR REPLACEMENT TITLE SHEET & DRAWING INDEX MONTEREY, CA 93940				

EROSION AND SEDIMENT CONTROL-GENERAL NOTES

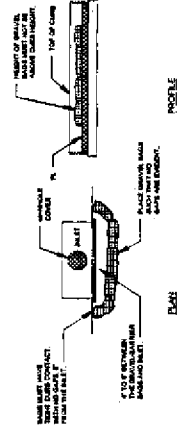
1. BEST MANAGEMENT PRACTICES (BMPs) AT A MINIMUM, THE FOLLOWING BMPs ARE REQUIRED REGARDLESS OF WEATHER CONDITIONS, AND AS APPLICABLE TO THE CONSTRUCTION ACTIVITIES PLANNED. VERIFY ALL OF THE BELOW MEASURES ARE ADDRESSED ON THE EROSION SUBMITTAL, AS APPLICABLE.
 - A. WEATHER MEASURES: IF POSSIBLE, AVOID LAND-OPENING ACTIVITIES DURING THE WETTEST WEATHER SEASON - OCTOBER 15 THROUGH APRIL 15. OTHERWISE, EXTRA BMP MATERIALS (EXTRAS, TREES, MULCH, GRAVEL, BAGS, MULCH-STRAW, PLASTIC COVERS) SHALL BE KEPT ON-SITE FOR PRE-RAIN INSTALL.
 - B. EXISTING VEGETATION (PROTECT EXISTING VEGETATION, AVOID REMOVAL, AS REQUIRED, AND WHEREVER POSSIBLE, INSTALL APPROPRIATE PROTECTIVE FENCING, PERIMETER CONTROLS PRIOR TO WORK.
 - C. EROSION AND SEDIMENT CONTROL: AS APPLICABLE, SLOPE AND SOIL STABILIZATION BMPs SHALL BE UTILIZED THROUGHOUT THE CONSTRUCTION PERIOD. BMPs SHALL BE MAINTAINED AND MONITORED TO ENSURE THEY REMAIN EFFECTIVE AND DO NOT CAUSE EROSION OR SEDIMENT TO LEAVE THE SITE. BMPs SHALL BE REPAIRED OR REPLACED AS NECESSARY TO MAINTAIN THEIR EFFECTIVENESS.
 - D. STOCKPILE MANAGEMENT: 1) ALL STOCKPILES SHALL BE CONTAINED AND COVERED WHEN NOT ACTIVE, AND COVERED AT THE END OF EACH DAY. 2) STOCKPILES SHALL BE SECURELY COVERED OVERNIGHT AND PRIOR TO DEPARTURE FROM THE SITE. 3) NO MATERIAL SHALL LEAVE THE SITE ON WIND UP DUST.
 - E. WASTE MANAGEMENT: ALL CONSTRUCTION WASTE SHALL BE CONTAINED AND SECURELY COVERED ON-SITE, INCLUDING TRASH, PAINT, GROUT, CONCRETE, ETC. ANY WASH OUT FACILITY SHALL BE COVERED, MAINTAINED, AND ITS CONTENTS DISPOSED OF PROPERLY. NO MATERIAL SHALL BE THROWN INTO STREET.
 - F. VEHICLES AND EQUIPMENT RESPONSIBLE PARTIES MUST ENSURE ALL VEHICLES AND EQUIPMENT ARE MAINTAINED IN GOOD WORKING ORDER. WALL NOT CAUSE OIL, MUD, OIL, GREASE, OR FUEL TO BE TRACKED OFF-SITE INTO THE STREET. INACTIVE VEHICLES/EQUIPMENT MUST USE COVER AND/OR CRIP PANS.
 - G. DRAINAGE PROTECTION & PERIMETER CONTROLS: DRAINAGE DITCHES THAT RECEIVE STORM WATER MUST BE MAINTAINED AND MONITORED TO ENSURE THEY REMAIN EFFECTIVE AND DO NOT CAUSE EROSION OR SEDIMENT TO LEAVE THE SITE. GUTTER CONTROLS AND PERIMETER CONTROLS SHALL BE APPLIED IN A MANNER NOT IMPEDING TRAFFIC ON ADJACENT PERIMETER TO PREVENT MOVEMENT OF SEDIMENT AND DEBRIS OFF-SITE.
 - H. SWEEPING: ALL IMPERVIOUS SURFACES (DRIVEWAYS, STREETS) SHALL BE PHYSICALLY SWEEP (NOT WASHED OR HURED DOWN), AND MAINTAINED FREE OF DEBRIS AND ACCUMULATIONS OF DIRT, NO TRACKING OFF-SITE.
 - I. DOWNSPOUTING: NO DOWNSPOUTING IS ALLOWED FROM CONSTRUCTION SITES UNLESS ENCOURAGED BY AN APPLICABLE REGULATORY AGENCY. DOWNSPOUTING SHALL BE PROHIBITED UNLESS ENCOURAGED BY APPLICABLE REGULATORY AGENCIES.
 - J. STORMWATER MIXED WITH NON-STORMWATER SHALL BE MANAGED AS NON-STORMWATER.



STREET WIDTH (FT)	STORM DRAIN WIDTH (FT)	STORM DRAIN DEPTH (FT)
12	18	18
15	21	18
18	24	18
21	27	18
24	30	18
27	33	18
30	36	18

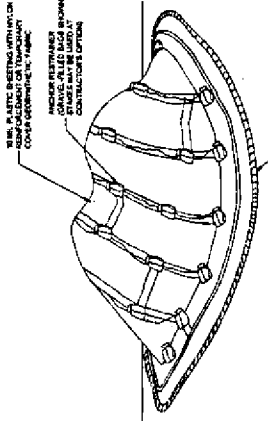
CURB AND GUTTER CONTAINMENT

1 C-1



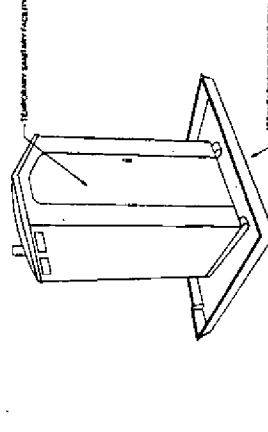
DRAIN INLET BARRIER

2 C-1



TEMPORARY COVER ON STOCKPILE

3 C-1



SANITARY WASTE MANAGEMENT

4 C-1

Canon
CANNON ENGINEERING, INC.
1000 S. GATEWAY AVENUE
MONTEREY, CA 93940
TEL: 831.646.3921

PROJECT NO.	DATE	SCALE	DATE
PROJECT NAME	PROJECT LOCATION	PROJECT NUMBER	PROJECT PHASE
ORD MILITARY COMMUNITY BUILDING 4488 EMERGENCY GENERATOR REPLACEMENT EROSION & SEDIMENT CONTROL PLAN			
MONTEREY, CA			
E02			



CITY OF MONTEREY	
PRESIDIO MUNICIPAL SERVICES AGENCY	
580 PACIFIC STREET, MONTEREY, CA 93940	
TEL 831.646.3921 WEBSITE: WWW.CITYOFMONTEREY.ORG	

ELECTRICAL ABBREVIATIONS:

Table of electrical abbreviations with symbols and descriptions. Includes terms like AIR CONDITIONING, ALTERNATOR, AMMETER, AMPERE, AMPERE HOUR, etc.

ELECTRICAL LEGEND:

Table of electrical legend symbols and descriptions. Includes terms like AIR CONDITIONING, ALTERNATOR, AMMETER, AMPERE, AMPERE HOUR, etc.

EXISTING CONDITIONS NOTES:

- List of notes regarding existing conditions, including notes about utility lines, existing equipment, and site conditions.

GROUNDING NOTES:

- List of notes regarding grounding requirements, including notes about grounding conductors, equipment grounding, and safety.

SECTION AND DETAIL IDENTIFICATION SYSTEM:

Text describing the section and detail identification system, including a key for section letters and detail numbers.

NOTICE TO CONTRACTOR:

- Notice to contractor regarding the project, including information about the contract, drawings, and site conditions.

NOTES:

- General notes for the contractor, including notes about materials, workmanship, and safety.



Form for project identification, including fields for project name, location, and drawing number.

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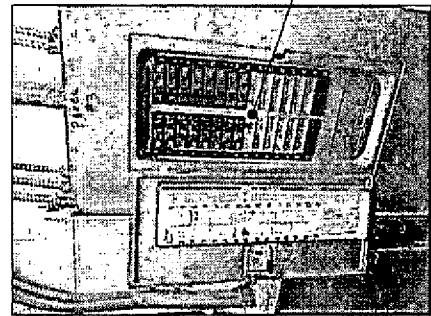
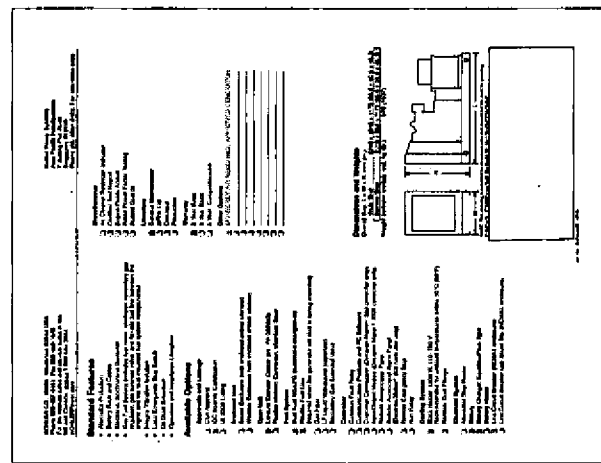
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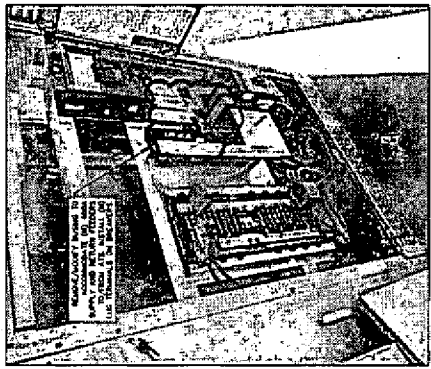
GENERAL NOTES
 1. SEE GENERAL NOTES AND SYMBOLS ON SHEET 02.

CONSTRUCTION NOTES

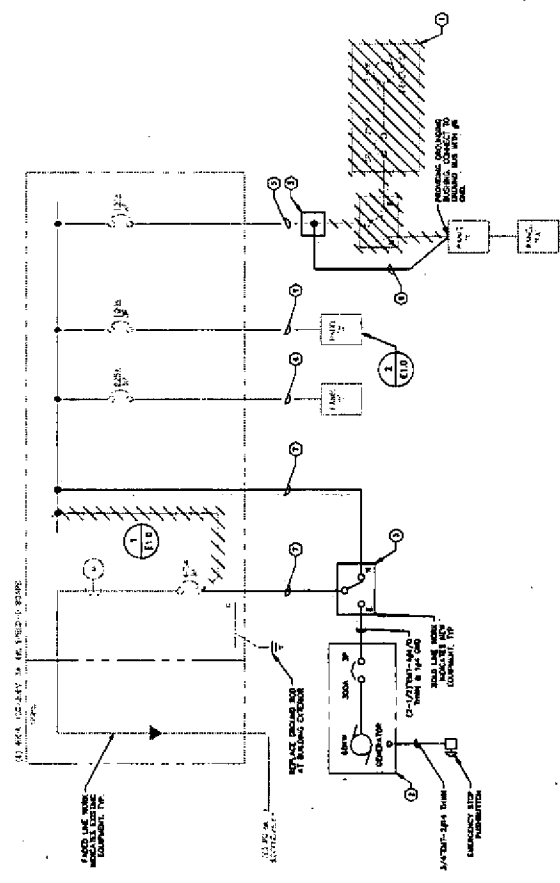
1. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA ELECTRICAL CODE AND THE NATIONAL ELECTRICAL CODE.
2. ALL WIRING SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE CALIFORNIA ELECTRICAL CODE AND THE NATIONAL ELECTRICAL CODE.
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PANEL #3 ELEVATION
 SCALE: AS SHOWN



SWITCHBOARD DISTRIBUTION SECTION
 SCALE: AS SHOWN



SINGLE LINE DIAGRAM
 SCALE: AS SHOWN



ORD MILITARY COMMUNITY BUILDING 4489 EMERGENCY GENERATOR REPLACEMENT SINGLE LINE DIAGRAM MONTEREY, CA 100227.01		DRAWING NO. SHEET NO. SCALE E1.0
PROJECT NO. DRAWING NO. SHEET NO. SCALE	APPROVED FOR CONSTRUCTION CITY/PROJECT DATE	CITY OF MONTEREY PRESIDIO MUNICIPAL SERVICES AGENCY 560 PACIFIC STREET, MONTEREY, CA 93940 TEL 831 646 3921 WEBSITE: WWW.MONTEREY.ORG

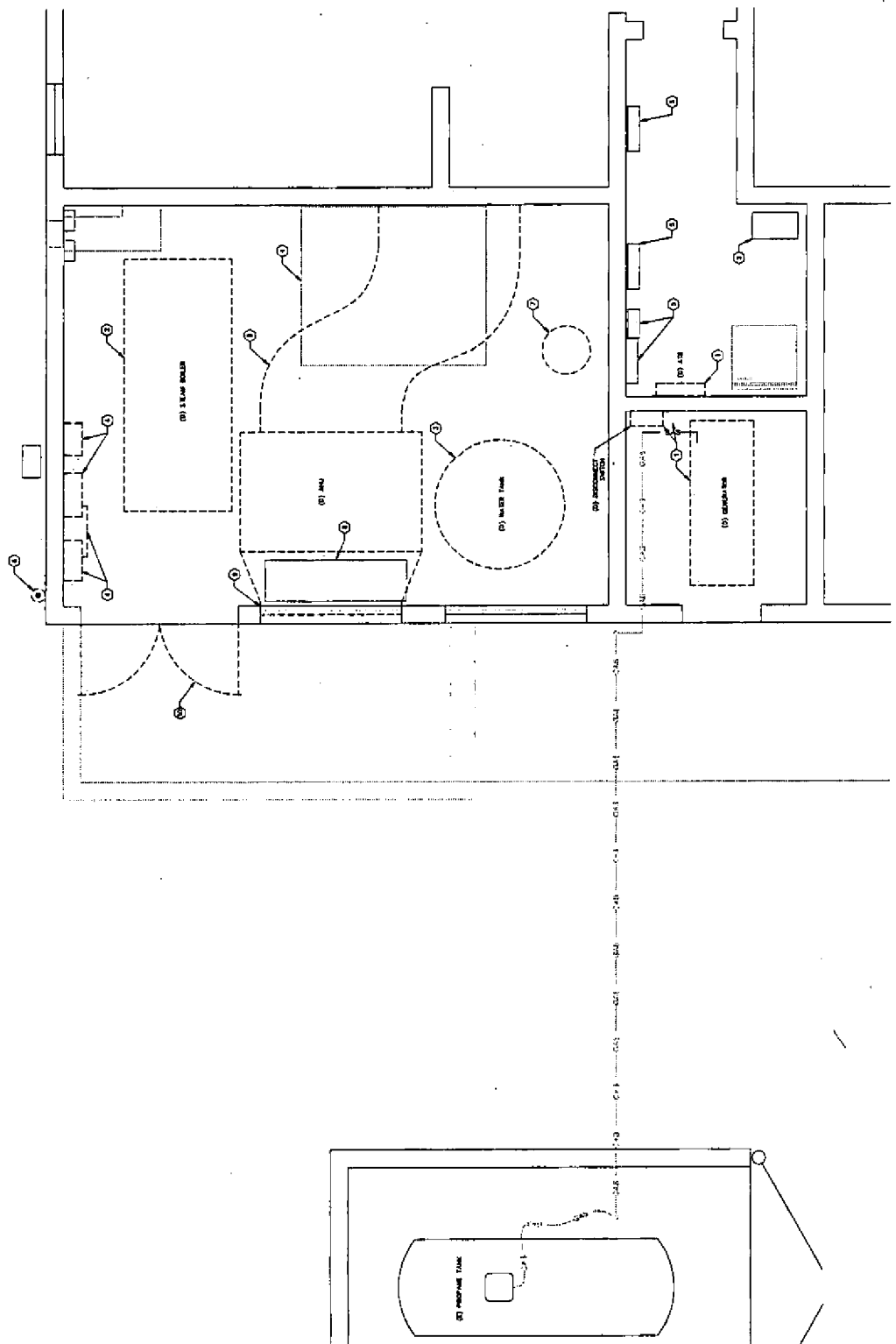
GENERAL NOTES

1. ALL EXISTING WORK AND MATERIALS ON SHEET (01) IS TO BE DEMOLISHED AND REMOVED FROM THE PROJECT SITE.
2. ALL EXISTING WORK IS TO BE DEMOLISHED AND REMOVED FROM THE PROJECT SITE.
3. ALL EXISTING WORK IS TO BE DEMOLISHED AND REMOVED FROM THE PROJECT SITE.

DEMOLITION NOTES

1. ALL EXISTING WORK, UNLESS SPECIFICALLY NOTED OTHERWISE, IS TO BE DEMOLISHED AND REMOVED FROM THE PROJECT SITE.
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ITEM IS SHALL BE DONE BY OTHERS AND IS INCLUDED IN THIS CONTRACT.



BUILDING 4468 - DEMOLITION PLAN
SCALE: 1/2"=4'



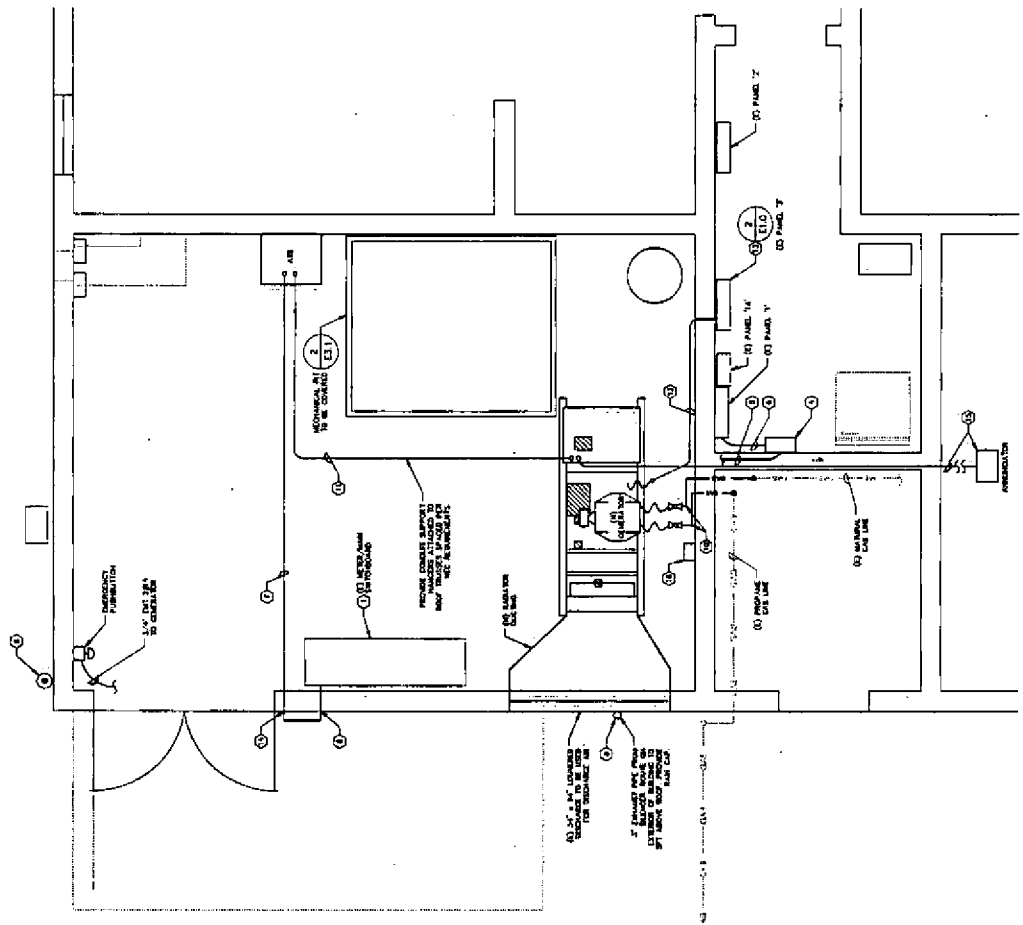
<p>CITY OF MONTEREY PRESIDIO MUNICIPAL SERVICES AGENCY 540 PACIFIC STREET, MONTEREY, CA 93940 TEL: 831.646.3021 WEB: WWW.MONTEREY.ORG</p>		<p>APPROVED FOR CONSTRUCTION DATE: _____ BY: _____</p>		<p>APPROVED FOR DEMOLITION DATE: _____ BY: _____</p>		<p>CONTRACT NO. _____</p>		<p>PROJECT NO. _____</p>		<p>DATE _____</p>		<p>SCALE 1"=4'</p>		<p>PROJECT NAME ORD MILITARY COMMUNITY BUILDING 4468 EMERGENCY GENERATOR REPLACEMENT</p>		<p>DEMOLITION PLAN MONTEREY, CA 10002701</p>		<p>DATE E2.0</p>		<p>SCALE 1"=4'</p>	
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GENERAL NOTES

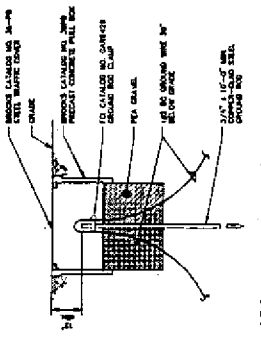
1. SEE GENERAL NOTES AND SYMBOLS ON SHEET 02.1
2. INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES AND REGULATIONS.
3. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN FIELD PRIOR TO CONSTRUCTION.

CONSTRUCTION NOTES

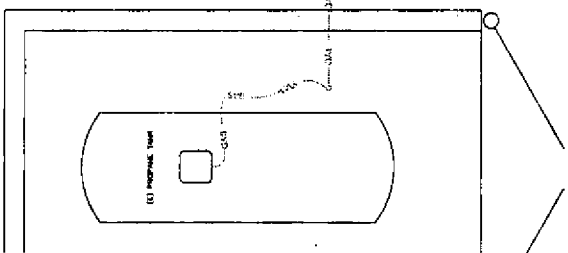
1. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
2. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
3. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
4. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
5. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
6. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
7. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
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9. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.
10. ALL WIRING SHALL BE INSTALLED IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE (NEC) AND ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS.



BUILDING 4468 - ELECTRICAL PLAN
SCALE: 1/8" = 1'-0"

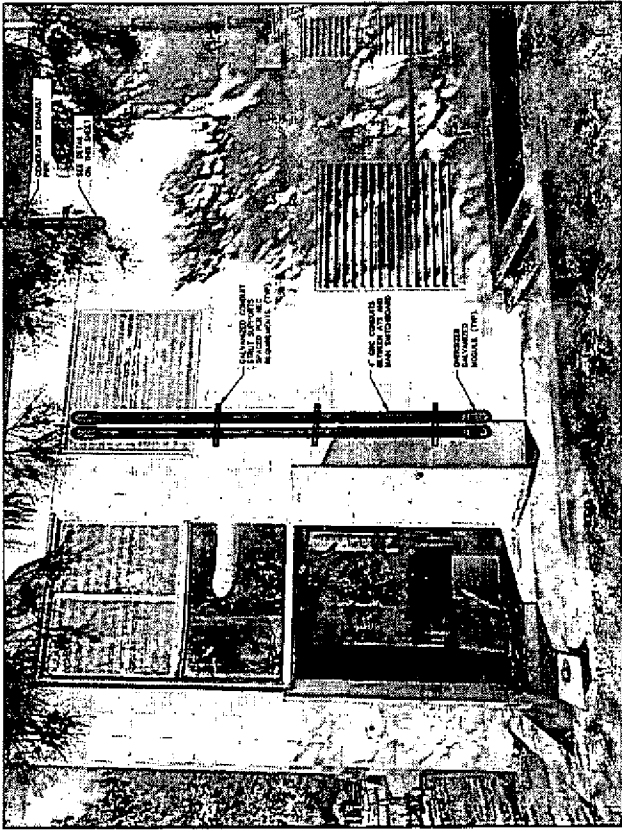


GROUND WELL DETAIL
SCALE: 1/8" = 1'-0"



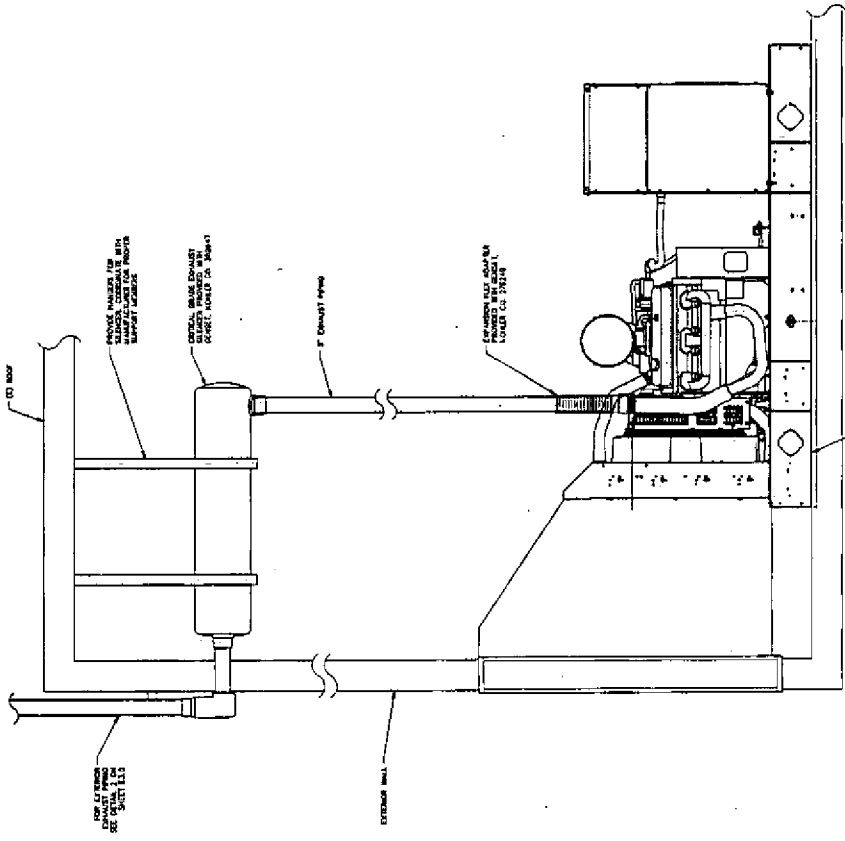
		CITY OF MONTEREY PRESIDIO MUNICIPAL SERVICES AGENCY 550 PACIFIC STREET, MONTEREY, CA 93940 TEL 831 646 3921 WEB: WWW.CITYOFMONTEREY.ORG	
APPROVED FOR CONSTRUCTION CITY ENGINEER	DATE	PROJECT NO. BUILDING 4468	SHEET NO. E21
PROJECT TITLE ORD MILITARY COMMUNITY BUILDING 4468 EMERGENCY GENERATOR REPLACEMENT		PROJECT LOCATION MONTEREY, CA	

PROVIDE EXHAUST PIPE
BY 100% SLOPE



1
E30

BUILDING ELEVATION CONDUIT PLAN
SCALE: AS SHOWN



1
E30

GENERATOR EXHAUST DETAIL
SCALE: 1/2" = 1'-0"



1000 Eastman Ave.
Monterey, CA 93940
Tel: 831.372.1234
Fax: 831.372.1234

ORD MILITARY COMMUNITY
BUILDING 4468 EMERGENCY GENERATOR REPLACEMENT
DETAILS
MONTEREY, CA
10/20/04

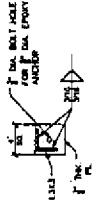
DATE	10/20/04
PROJECT NO.	
PROJECT NAME	
PROJECT LOCATION	
PROJECT OWNER	
PROJECT ARCHITECT	
PROJECT ENGINEER	
PROJECT CONTRACTOR	
PROJECT SUBMITTER	
PROJECT REVIEWER	
PROJECT APPROVER	
PROJECT DATE	
PROJECT SCALE	
PROJECT SHEET NO.	
PROJECT SHEET TOTAL	



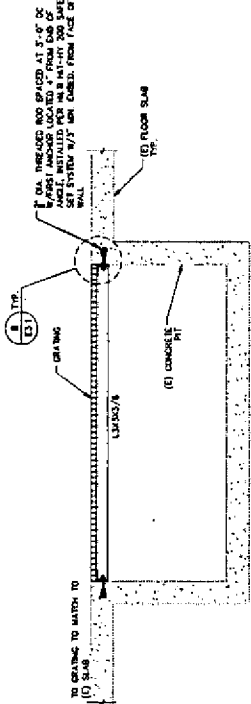
APPROVED FOR CONSTRUCTION
CITY ENGINEER
DATE

CITY OF MONTEREY
PRESIDIO MUNICIPAL SERVICES AGENCY
500 PACIFIC STREET, MONTEREY, CA 93940
TEL: 831.646.3021, WEB: www.ci.monterey.ca.us



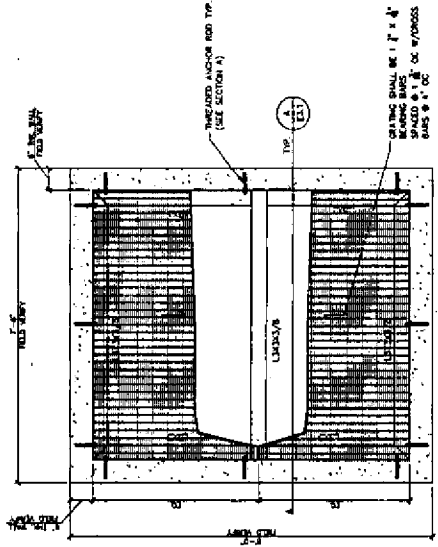


L3X3 TO WALL CONNECTION DETAIL
SCALE: 3/8"=1'-0"



EXISTING - PIT COVER SECTION
SCALE: 3/8"=1'-0"

(OTHER WORK WILL BE DONE BY OTHERS AND IS NOT INCLUDED IN THIS CONTRACT)



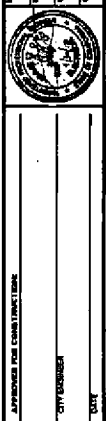
EXISTING PIT COVER PLAN
SCALE: 3/8"=1'-0"



SCALE:	DATE:
PROJECT NO.:	DATE:
PROJECT NAME:	DATE:
PROJECT NO.:	DATE:
PROJECT NAME:	DATE:
PROJECT NO.:	DATE:
PROJECT NAME:	DATE:

**ORD. MILITARY COMMUNITY
BUILDING 4488 EMERGENCY GENERATOR REPLACEMENT**

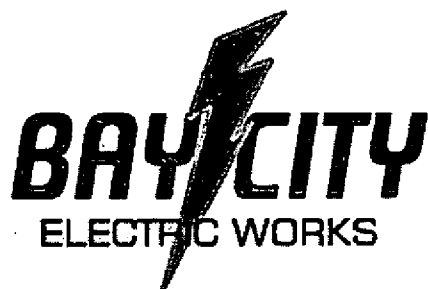
REVISION NO.	DATE	DESCRIPTION



**CITY OF MONTEREY
PRESIDIO MUNICIPAL SERVICES AGENCY**
560 PACIFIC STREET, MONTEREY, CA 93940
TEL 831.646.3921 WEBSITE: WWW.MONTEREY.ORG



May 17, 2018



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REFERENCE: B4468 Generator Replacement DPW-17017
EMERGENCY GENERATOR SYSTEM
BCEW # 69587 Rev5 NJPA

Bay City Electric Works in conjunction with the NJPA contract #120617-KOH is pleased to offer the following Kohler generator system for your use on the referenced project. This proposal includes the equipment, installation, and testing shown on the City of Monterey plans and specifications. The clarifications, technical exceptions and/or exclusions are noted within this proposal.

Major system components include:

One (1) UL2200 Listed Kohler model 60REZGB Dual Fuel LP powered/natural gas powered generator set, rated for standby duty, 120/208 volt, 3 phase, 4 wire, 60 Hertz, 1800 RPM, indoor application.

60REZGB List Price \$26,786.00

NJPA Member Discount 38%

NJPA Member Price FOB Kohler, WI \$16,607.32 + \$1,453.14 tax (8.75%)

One (1) Kohler Model KCS-ACTC-0400S Automatic Transfer Switch, rated at 400 amps, 208 volt, 3 phase, 4 wire, 3 pole, solid neutral, in Nema 3R cabinet for outdoor mounting.

KCS-ACTC-0400S List Price \$6,557.00

NJPA Member Discount 30%

NJPA Member Price FOB Kohler, WI \$4,589.90 + \$401.54 tax (8.75%)

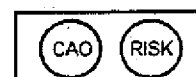
Jobsite inspection, initial startup, and initiation of warranty, by a Bay City Electric Works field technician during normal working hours Monday through Friday 7:00 a.m. to 4:00 p.m. Testing will utilize building load unless the specification states otherwise. Fuel for testing is excluded. Any jobsite orientation and training of operating personnel to be done at the time of startup.

Start-up \$1,921.00 Distributor List less 5% = \$1,824.95 NJPA Member Price

Freight \$1,336.00

13625 Danielson Street, Poway, CA 92064 (HQ)
860 Lawson Street, City of Industry, CA 91748
322 Lindbergh Avenue, Livermore, CA 94551
Phone - 866.938.8200 Fax - 619.938.8217 (SD)

Agreement #: Ag-7218 - Page 135 of 147 www.BCEW.com



REFERENCE:
BCEW # 69587 Rev5
2 of 3

Installation: Remove and dispose of existing generator and transfer switch including gas piping wire and conduit. Patch and paint walls. Hazardous waste disposal. Install new generator and automatic transfer switch using a crane. Natural gas and LP hook-up to new generator with two new LP gas regulators and new gas piping. Electrical hook up of new generator and transfer switch using new conduit and wire. New custom fabricated sheet metal ducting to existing wall vents. Custom exhaust installation. Extend exhaust pipe above roof line. Core drilling and concrete patching. Temporary power during installation.

Installation as listed above by licensed contractor \$54,780.00 Distributor list less 5% = \$52,290.00 NJPA Member Price + \$4,793.25 tax (8.75%)

Total contract amount excluding tax \$76,648.17
Total contract amount including tax \$83,296.10

Exclusions: Sales tax. Permits of any kind - we understand you have the air permit in hand. The propane leak detection is excluded. The ground rod section and the smoke detectors and any other electrical items other than related to the generator installation as outlined in this proposal are not included in this quote. Other exclusions may apply.

Kohler limited generator warranty, effective from date of startup, for:
1. year or 2000 hours (whichever occurs first) as published in Kohler Brochure.

Kohler limited ATS warranty, effective from date of startup, for:
1 year as published in Kohler Brochure.

Quotation Notes:

1. Applicable taxes have not been included.
2. Quotation will be held firm for 30 days. This quote may be modified and/or rescinded by BCEW at its sole discretion unless the quote is accepted before the expiration date.
3. On-site installation work is included per scope listed herein.
4. Fuel, initial fuel fill and fuel for testing is excluded.

Terms and Conditions:

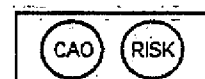
1. Terms of payment are net 30 days from factory shipment, upon approval of credit department.
2. Materials will be invoiced date of shipment from factory.
3. Acceptance of purchase order is based on materials quoted.
4. 1.5% per month on unpaid balance will be assessed if not paid within terms.
5. Terms for retention and liquidated damages will not be accepted.

Lead Times:

1. Submittals can be provided within 10 working days from receipt of your order.

13625 Danielson Street, Poway, CA 92064 (HQ)
860 Lawson Street, City of Industry, CA 91748
322 Lindbergh Avenue, Livermore, CA 94551

Agreement #: Ag-7218 - Page 136 of 147



REFERENCE:
BCEW # 69587 Rev5
3 of 3

2. Current factory lead-time for the generator is 11-13 weeks from release for production.
3. Current factory lead-time for the Automatic Transfer Switch is 6-8 weeks from release for production.

We appreciate this opportunity to offer our equipment for your consideration. Please call if you have any questions or if I can help in any way. Bay City Electric Works wants to be your Generator System Supplier.

Best Regards,

Mike Knez
Industrial Sales Manager
619.843.0098 cell
mknez@bcew.com

The authorized purchaser identified below accepts this proposal and agrees, upon acceptance of this contract by Bay City Electric Works, to purchase and pay for the equipment, accessories, and service in accordance with the terms and conditions set forth above.

Company name: _____

Purchaser name and title (please print): _____

Purchaser signature: _____

Date: _____ Purchase Order # _____

Delivery Date Requested by Purchaser: _____

If a delivery date is not provided, BCEW will postpone the release of product orders with its respective vendors until the date is provided in writing. It is the sole responsibility of the Purchaser to provide a delivery date within the current factory lead times.

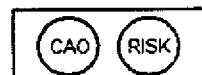
PLEASE INCLUDE PRELIM INFORMATION WHEN ISSUING A PURCHASE ORDER.

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To learn more, visit our website at www.BCEW.com

13625 Danielson Street, Poway, CA 92064 (HQ)
860 Lawson Street, City of Industry, CA 91748
322 Lindbergh Avenue, Livermore, CA 94551

Agreement #: Ag-7218 - Page 137 of 147



PERFORMANCE BOND

BOND NO. AZC369919

PREMIUM: \$2,082.00

WHEREAS, The City of Monterey, (hereinafter designated as "Obligee") and Bay City Equipment Industries, Inc. dba Bay City Electric Works (hereinafter designated as "Principal") have entered into an agreement whereby principal agrees to install and complete certain designated public improvements, which said agreement, dated City of Monterey for the OMC, and identified as project R4468 Emergency Generator Replacement Project (DPW-17017) is hereby referred to and made a part hereof; and

WHEREAS, Said principal is required under the terms of said agreement to furnish a bond for the faithful performance of said agreement;

NOW, THEREFORE, We, the principal and Merchant's Bonding Company (mutual) as surety, are held and firmly bound unto the hereinafter called "The Obligee," in the penal sum of Eighty three thousand two ninety six dollars and 10/100 dollars (\$ 83,296.10) lawful money of the United States for the payment of which sum well and truly to be made, we bind ourselves, our heirs, successors, executors and administrators, jointly and severally firmly by these presents.

As part of the obligation secured hereby and in addition to the face amount specified therefore, there shall be included costs and reasonable expenses and fees, including reasonable attorney's fees, incurred by county in successfully enforcing such obligation, all to be taxed as costs and included in any judgment rendered.

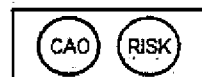
The surety hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the agreement or to the work to be performed thereunder or the specification accompanying the same shall in any wise affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the agreement or to the work or to the specifications.

IN WITNESS WHEREOF, this instrument has been duly executed by the principal and surety above named, on June 11, 2018

By *Rodney C. Lee*
PRINCIPAL RODNEY C. LEE PRESIDENT COO
BAY CITY EQUIPMENT INDUSTRIES, INC. DBA BAY CITY ELECTRIC WORKS.

By: _____
PRINCIPAL
Merchant's Bonding Company (mutual)
By: *Kischa Rushing*
ATTORNEY-IN-FACT Kischa Rushing, Attorney-In-Fact

ALL SIGNATURES MUST BE NOTARIZED. POWER OF ATTORNEY IN FACT AND SEAL OF SURETY MUST BE ATTACHED.



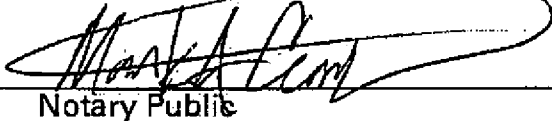
STATE OF ARIZONA)

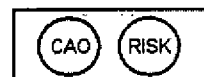
COUNTY OF MARICOPA)

On this 11th day of June 2018, before me, Mark Conklin, the undersigned Notary Public, in and for the State of Arizona personally appeared Kisha Rushing, personally known to me (or proven to me on the basis of satisfactory evidence) to be the person who executed the written instrument as Attorney-in-Fact on behalf of the Corporation therein named and acknowledged to me that the Corporation executed it.

Given under my hand and the Notary Seal this 11th day of June, 2018.

My commission Expires: April 1, 2021


Notary Public



MERCHANTS
BONDING COMPANYTM
POWER OF ATTORNEY

EXHIBIT C

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually, Andrea Krahn; Benjamin A Greer; Carl N Carter; Chris Johnston; Craig L Webb; Doris R Van Leeuwen; Jessika Gulliver; Jorge Luis Mendez; Kischea Rushing; Linda M Hurst; Sherrie Cox

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(ies) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

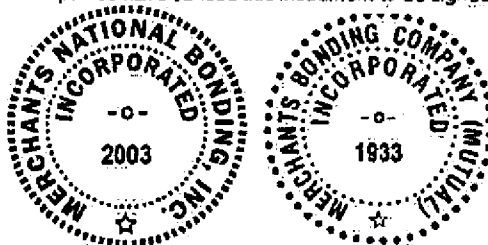
"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 6th day of April, 2017.

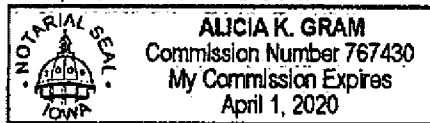


MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By *Larry Taylor*
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this this 6th day of April, 2017, before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.

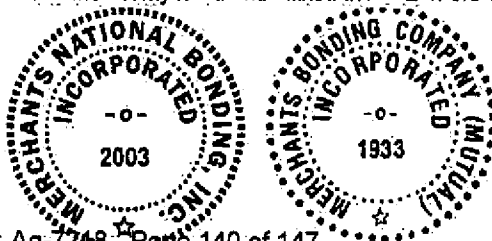


Alicia K. Gram
Notary Public

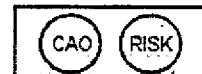
(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 11th day of June, 2018.



William Warner Jr.
Secretary



PAYMENT (LABOR AND MATERIALS) BONDBOND NO.: AZC369919

KNOW ALL MENWOMEN BY THESE PRESENT that we, Bay City Equipment Industries, Inc. dba Bay City Electric Works as Principal (also referred to herein as "CONTRACTOR"), and Merchants Bonding Company (mutual) as Surety, are held and firmly bound unto City of Monterey, hereinafter called "OWNER," in the sum of Eighty Three Thousand two hundred ninety six and 10/100 Dollars (\$ 83,296.10), for the payment of which sum, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these present.

The condition of the above obligation is such that, whereas said Principal has been awarded and is about to enter into the annexed Contract with the City of Monterey for the OMC B4468 Emergency Generator Replacement Project (DPW-17017), in accordance with OWNER's Call for Bids documents and Principal's Bid Dated 04-25-18, and to which reference is hereby made for all particulars, and is required by said City of Monterey to give this bond in connection with the execution of said Contract;

NOW, THEREFORE, if said CONTRACTOR, its Subcontractors, its heirs, executors, administrators, successors, or assigns, shall fail to pay (a) for any materials, provisions, equipment, or other supplies used in, upon, for or about the performance of the WORK contracted to be done under the Contract, or (b) for any work or labor thereon of any kind contracted to be done under the Contract, or (c) for amounts due under the Unemployment Insurance Code with respect to work or labor performed pursuant to the Contract, or (d) for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the CONTRACTOR and its Subcontractors under Section 13020 of the Unemployment Insurance Code with respect to such work and labor, in each case, as required by the provisions of Sections 9550-9566 inclusive, of the Civil Code of the State of California and acts amendatory thereof, and sections of other codes of the State of California referred to therein and acts amendatory thereof, and provided that the persons, companies, corporations or other entities so furnishing said materials, provisions, provender, equipment, or other supplies, appliances, or power used in, upon, for, or about performance of the Work contracted to be executed or performed, or any person, company, corporation or entity renting or hiring implements or machinery or power for or contributing to said Work to be done, or any person who performs work or labor upon the same, or any person, company, corporation or entity who supplies both work and materials therefor, shall have complied with the provisions of said laws, then said Surety will pay in full the same in an amount not exceeding the sum hereinabove set forth and also will pay, in case suit is brought upon this bond, a reasonable attorney's fee, as shall be fixed by the Court. This bond shall inure to the benefit of any and all persons named in Section 9100 of the Civil Code of the State of California so as to give a right of action to them or their assigns in any suit brought upon this bond.

PROVIDED, that any alterations in the WORK to be done or the materials to be furnished, or changes in the time of completion, which may be made pursuant to the terms of said Contract Documents, shall not in any way release said CONTRACTOR or said Surety thereunder, nor shall any extensions of time granted under the provisions of said Contract Documents release either said CONTRACTOR or said Surety, and notice of such alterations or extensions of the Agreement is hereby waived by said Surety.



IN WITNESS WHEREOF, the Principal and the Surety have executed this instrument in duplicate this

11 day of June, 2018

Merchants Bonding Company (mutual)

Bay City Equipment Industries, Inc.
dba Bay City Electric Works

Surety

Principal

By: Kischa Rushing

By: Rodney C. Lee

Kischa Rushing, Attorney-In-Fact
Print Name/Title

Print Name/Title RODNEY C. LEE PRESIDENT COO

2375 E. Camelback Rd Ste 250 Phx Az 85016
Address

13625 DANIELSON ST POWAY CA 92064
Address

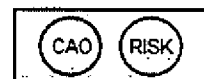
(602) 374 1309
Telephone Number

(619) 938-8209
Telephone Number

jessika.gulliver@usi.com
Email Address

RLEE@BCEW.COM
Email Address

ALL SIGNATURES MUST BE NOTARIZED. POWER OF ATTORNEY IN FACT AND SEAL OF SURETY MUST BE ATTACHED.



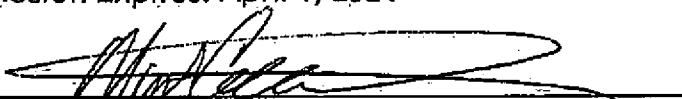
STATE OF ARIZONA)

COUNTY OF MARICOPA)

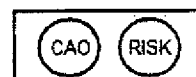
On this 11th day of June 2018, before me, Mark Conklin, the undersigned Notary Public, in and for the State of Arizona personally appeared Kisha Rushing, personally known to me (or proven to me on the basis of satisfactory evidence) to be the person who executed the written instrument as Attorney-in-Fact on behalf of the Corporation therein named and acknowledged to me that the Corporation executed it.

Given under my hand and the Notary Seal this 11th day of June, 2018.

My commission Expires: April 1, 2021



Notary Public



MERCHANTS
BONDING COMPANY
POWER OF ATTORNEY

EXHIBIT D

Know All Persons By These Presents, that MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., both being corporations of the State of Iowa (herein collectively called the "Companies") do hereby make, constitute and appoint, individually, Andrea Krahn; Benjamin A Greer; Carl N Carter; Chris Johnston; Craig L Webb; Doris R Van Leeuwen; Jessika Gulliver; Jorge Luis Mendez; Kischia Rushing; Linda M Hurst; Shermie Cox

their true and lawful Attorney(s)-in-Fact, to sign its name as surety(les) and to execute, seal and acknowledge any and all bonds, undertakings, contracts and other written instruments in the nature thereof, on behalf of the Companies in their business of guaranteeing the fidelity of persons, guaranteeing the performance of contracts and executing or guaranteeing bonds and undertakings required or permitted in any actions or proceedings allowed by law.

This Power-of-Attorney is granted and is signed and sealed by facsimile under and by authority of the following By-Laws adopted by the Board of Directors of Merchants Bonding Company (Mutual) on April 23, 2011 and amended August 14, 2015 and adopted by the Board of Directors of Merchants National Bonding, Inc., on October 16, 2015.

"The President, Secretary, Treasurer, or any Assistant Treasurer or any Assistant Secretary or any Vice President shall have power and authority to appoint Attorneys-in-Fact, and to authorize them to execute on behalf of the Company, and attach the seal of the Company thereto, bonds and undertakings, recognizances, contracts of indemnity and other writings obligatory in the nature thereof."

"The signature of any authorized officer and the seal of the Company may be affixed by facsimile or electronic transmission to any Power of Attorney or Certification thereof authorizing the execution and delivery of any bond, undertaking, recognizance, or other suretyship obligations of the Company, and such signature and seal when so used shall have the same force and effect as though manually fixed."

In connection with obligations in favor of the Florida Department of Transportation only, it is agreed that the power and authority hereby given to the Attorney-in-Fact includes any and all consents for the release of retained percentages and/or final estimates on engineering and construction contracts required by the State of Florida Department of Transportation. It is fully understood that consenting to the State of Florida Department of Transportation making payment of the final estimate to the Contractor and/or its assignee, shall not relieve this surety company of any of its obligations under its bond.

In connection with obligations in favor of the Kentucky Department of Highways only, it is agreed that the power and authority hereby given to the Attorney-in-Fact cannot be modified or revoked unless prior written personal notice of such intent has been given to the Commissioner-Department of Highways of the Commonwealth of Kentucky at least thirty (30) days prior to the modification or revocation.

In Witness Whereof, the Companies have caused this instrument to be signed and sealed this 6th day of April, 2017.

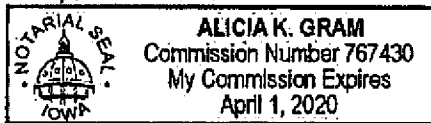


MERCHANTS BONDING COMPANY (MUTUAL)
MERCHANTS NATIONAL BONDING, INC.

By *Larry Taylor*
President

STATE OF IOWA
COUNTY OF DALLAS ss.

On this this 6th day of April, 2017, before me appeared Larry Taylor, to me personally known, who being by me duly sworn did say that he is President of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC.; and that the seals affixed to the foregoing instrument are the Corporate Seals of the Companies; and that the said instrument was signed and sealed in behalf of the Companies by authority of their respective Boards of Directors.



Alicia K. Gram
Notary Public

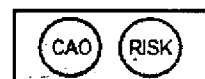
(Expiration of notary's commission does not invalidate this instrument)

I, William Warner, Jr., Secretary of MERCHANTS BONDING COMPANY (MUTUAL) and MERCHANTS NATIONAL BONDING, INC., do hereby certify that the above and foregoing is a true and correct copy of the POWER-OF-ATTORNEY executed by said Companies, which is still in full force and effect and has not been amended or revoked.

In Witness Whereof, I have hereunto set my hand and affixed the seal of the Companies on this 11th day of June, 2018.



William Warner Jr.
Secretary



California Jurat Certificate

A notary public or other officer completing this certificate verifies only the identity of the individual who signed the document to which this certificate is attached, and not the truthfulness, accuracy, or validity of that document.

State of California

County of San Diego

S.S.

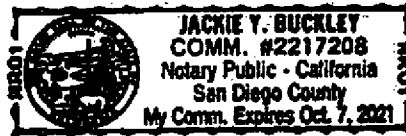
Subscribed and sworn to (or affirmed) before me on this 12 day of June,
Month

20 18, by Rodney C. Lee and
Name of Signer (1)

n/a, proved to me on the basis of
Name of Signer (2)

satisfactory evidence to be the person(s) who appeared before me.

Jackie Y. Buckley
Signature of Notary Public



Jackie Y. Buckley 2217208

For other required information (Notary Name, Commission No. etc.)

Seal

OPTIONAL INFORMATION

Although the information in this section is not required by law, it could prevent fraudulent removal and reattachment of this jurat to an unauthorized document and may prove useful to persons relying on the attached document.

Description of Attached Document

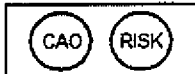
The certificate is attached to a document titled/for the purpose of

City Of Monterey OMC B4468 Emergency Generator Replacement Project DPW-17017

Performance Bond Payment & Labor And Material Bond

containing 3 pages, and dated 06-12-18

Additional Information	
Method of Affiant Identification	
Proved to me on the basis of satisfactory evidence: <input checked="" type="checkbox"/> form(s) of identification <input type="checkbox"/> credible witness(es)	
Notarial event is detailed in notary journal on: Page # _____ Entry # _____	
Notary contact: _____	
Other	
<input checked="" type="checkbox"/> Affiant(s) Thumbprint(s) <input type="checkbox"/> Describe: _____	



NONCOLLUSION DECLARATION
TO BE EXECUTED BY BIDDER AND SUBMITTED WITH BID

The undersigned declares:

I am the President & COO of Bay City Electric Works 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 this 5th day of June, 2018 in Poway [city], San Diego County, California.

Rodney C. Lee

Signature

President + COO

Printed Name and Title



DEBARMENT AND SUSPENSION CERTIFICATION

The Bidder, under penalty of perjury, certifies that, except as noted below, he/she or any other person associated therewith in the capacity of owner, partner, director, officer, manager:

- Is not currently under suspension, debarment, voluntary exclusion, disqualification, or determination of ineligibility by any state, federal, or local agency;
- Has not been suspended, debarred, voluntarily excluded, disqualified or determined ineligible by any state, federal, or local agency within the past 3 years;
- Does not have a proposed debarment or disqualification pending; and
- Has not be indicted, convicted, or had a civil judgment rendered against it by a court of competent jurisdiction in any matter involving fraud or official misconduct within the past 3 years.

If there are any exceptions to this certification, insert the exceptions in the following space.

Exceptions will not necessarily result in denial of award, but will be considered in determining Bidder responsibility. For any exception noted above, indicate below to whom it applies, initiating agency, and dates of action.

Notes: Providing false information may result in criminal prosecution or administrative sanctions.

I declare under penalty of perjury that the foregoing is true and correct and that this certification is signed this 5th day of June, 2018 in Poway [city], San Diego County, California.

Rodney C. Lee

 Signature

Rodney C. Lee President + COO

 Printed Name and Title

