

**Solicitation W0537**

**Armory Refurbishment-Richmond California**

**State of California**

## Bid W0537

### Armory Refurbishment-Richmond California

Bid Number W0537  
Bid Title Armory Refurbishment-Richmond California

Bid Start Date Apr 27, 2009 2:55:48 PM PDT  
Bid End Date May 27, 2009 2:00:00 PM PDT  
Question & Answer End Date May 22, 2009 3:30:00 PM PDT

Bid Contact Allen McCord  
916-854-3141  
Allen.McCord@us.army.mil

Pre-Bid Conference May 7, 2009 11:00:00 AM PDT  
**Attendance is mandatory**  
Location: 624 Carlson Blvd  
Richmond, California

Standard Disclaimer The State of California advises that prospective bidders periodically check the websites, including but not limited to Bidsync, and/or other state department links for modifications to bid documents. The State of California is not responsible for a prospective bidder's misunderstanding of the bid solicitation or nonresponsive bid due to failure to check these websites for updates or amendments to bid documents, and/or other information regarding the bid solicitations. Failure to periodically check these websites will be at the bidder's sole risk.

The information published and/or responded to on these websites is public information. Confidential questions/issues/concerns should be directed to the contact on the ad.

#### Description

The State of California Military Department will accept sealed bids until 2:00 p.m. on May 27, 2009 from qualified bidders, who attended the Mandatory Job Walk on May 7, 2009 at 11:00 am, offering to provide equipment, materials, labor, licenses, bonds and insurance required to replace the existing windows, remove and replace two (2) existing vault doors, repair and coat the existing built up roof system and repair and paint the existing exterior concrete walls at the California National Guard Armory located at 624 Carlson Boulevard, Richmond, California in accordance with the terms, conditions, and requirements of this Invitation for Bid (IFB). The Contracting Officer's Representative is Major Bryan Keels, (925) 321-6997. All drawings associated with this IFB will be available at the mandatory job walk. Contractors are encouraged to reserve a copy of the plans to be delivered at that time by calling (916) 854-3619 and requesting a copy. A complete copy of this IFB (minus drawings) is available by downloading it from the e-procurement site.

# INVITATION FOR BID

**PROJECT**

ARMORY REFURBISHMENT- RICHMOND  
PROJECT W0537

**LOCATION**

NATIONAL GUARD FACILITY  
RICHMOND, CALIFORNIA

**MANDATORY JOB WALK**

MAY 7, 2009 AT 11:00 A.M.

**BID OPENING DATE**

MAY 27, 2009 AT 2:00 P.M.

**Issue Date**

MAY 21, 2009

**Issued By**

STATE OF CALIFORNIA  
OFFICE OF THE ADJUTANT GENERAL  
STATE MILITARY DEPARTMENT  
Purchasing and Contracting Branch  
9800 Goethe Road  
Sacramento, California 95827-3563

**ARMORY REFURBISHMENT  
NATIONAL GUARD SITE  
RICHMOND, CA  
PROJECT W0537**

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## SECTION 1

### NOTICE TO CONTRACTORS

1-01. The State of California Military Department will **accept sealed bids until 2:00 p.m. on May 27, 2009** from qualified bidders, who attended the **Mandatory Job Walk on May 7, 2009 at 11:00 am**, offering to provide equipment, materials, labor, licenses, bonds and insurance required to replace the existing windows, remove and replace two (2) existing vault doors, repair and coat the existing built up roof system and repair and paint the existing exterior concrete walls at the California National Guard Armory located at 624 Carlson Boulevard, Richmond, California in accordance with the terms, conditions, and requirements of this Invitation for Bid (IFB). The Contracting Officer's Representative is Major Bryan Keels, (925) 321-6997. **All drawings required with this IFB will be available at the mandatory job walk.** Contractors are encouraged to reserve a copy of the plans to be delivered at that time by calling (916) 854-3619 and requesting a copy. A complete copy of this IFB (minus drawings) is available by downloading it from the e-procurement site ([www.bidsync.com](http://www.bidsync.com)).

- a. At **2:00 p.m., May 27, 2009** all bids received will be publicly opened and read at the Office of the Adjutant General, 9800 Goethe Road, Sacramento, California, 95827-3563. Bid results will not be divulged by telephone or available via facsimile. Official bid results will be posted to the e-procurement website.
- b. Basis of award of this contract will be lowest responsive bid from a qualified, responsible bidder; taking into account the Small Business and Disabled Veteran's Business Enterprise Preference.
- c. Disabled Veteran Business Enterprise Participation: Preference will be granted to bidders properly approved as a "Disabled Veteran's Enterprise Businesses (DVBE)" in accordance with Government Code 14600, 14615, 14838, California Military and Veteran's Code 999 and California Code of Regulations 1896.98 ET SEQ. The rules and regulations of this law, and applications for preference, should be obtained from Department of General Services, Small Business and DVBE Services, telephone number (916) 375-4339.

Bidders certified as a "Disabled Veteran's Enterprise Businesses" in accordance with Government Code 14600, 14615, 14838, California Military and Veteran's Code 999 and California Code of Regulations 1896.98 et seq. shall be granted up to five percent (5%) bid preference when a responsible non-Disabled Veteran's Enterprise Business has submitted the lowest-priced, responsive bid.

Non-DVBE Bidders claiming the Disabled Veteran's Enterprise Business preference may be granted up to five percent (5%) business preference on a bid proposal when a responsible non-small business has submitted the lowest-priced responsive bid. **To be considered for the preference**

**bidders claiming the Disabled Veteran's Business Enterprise preference must meet the conditions as outlined in Section 5 of this IFB.**

- d. Prospective bidders **must attend the mandatory job walk on May 7, 2009, at 11:00 a.m. at the California National Guard Armory located at 624 Carlson Boulevard, Richmond, California**, to be considered responsive to the bidding requirements of this IFB. Prospective bidders may obtain directions to the job walk site by calling the Department Contracting Officer's Representative (COR), Major Bryan Keels, (925) 321-6997. Prospective bidders must sign-in prior to the start of the job walk, attend the entire job walk and be present for roll call at the conclusion of the job walk.
- e. **Bidders are required to submit proposals based solely on the contract documents i.e. (drawings, specifications and any addendums applicable). Any additions, deletions or changes to the contract documents must be incorporated in an addendum to be applicable. Any information provided on a job walk that conflicts or is in addition/deletion to the contract documents is only applicable if an addendum is issued.**
- f. During the bid opening in the event of a tie, the Military Department Contracting Officer shall conduct a coin toss to determine award. The coin toss shall be witnessed by a minimum of two personnel whose signatures and titles shall be posted to the bid results.
- g. Bidder will be required to certify that his firm will comply with the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.), which will be included in any contract. (See paragraph 1-11).
- h. Bidders must also complete the Non-collusion Affidavit (Attachment 4) and return with the bid documents. Bids received without the Non-collusion Affidavit may be rejected as non-responsive.
- i. 20-DAY PRELIMINARY NOTICE: In the event a 20-Day Preliminary Notice is filed on behalf of any subcontractors, material men/suppliers, or other non-contractor claimants providing services and/or materials for the primary contractor in conjunction with this project, a signed release by the person or firm filing said notice must be furnished the Military Department before final payment will be made.

1-02. If awarded the contract, contractor agrees to sign the contract, to furnish the bonds called for herein, and to commence work within five (5) days of notification by the Military Department Contracting Officer's Representative.

- a. A PAYMENT BOND, Standard Form 807, in the amount of 100% of the contract amount must be submitted by the successful bidder at the time signed contracts are returned to the Military Department **if the contract exceeds \$5,000.00.**

- b. A PERFORMANCE BOND in the amount of 100% of the contract amount must be submitted by the successful bidder at the time signed contracts are returned to the Military Department **if the contract exceeds \$10,000.00.**
- c. A BID BOND in the amount of at least 10% of the bid amount must be submitted by the contractor with the Proposal Form **if the contract exceeds \$25,000.00** utilizing a bond form provided by the Surety.

1-03. The State is seeking a single bid not to exceed quotation to be inclusive of all contractors' costs involved in performing the full scope of this service.

- a. Bids must be submitted for the entire work described therein. Any deviation from the specification will not be considered and will be cause for rejection of bid.
- b. The Military Department reserves the right to reject any or all bids.
- c. The contractor/bidder must be licensed by the State of California, Contractors State License Board (CSLB) in compliance with the following to perform services identified in the Technical Specifications:
  - **Possess a "B" General Contractor's License to perform the work on this contract. Primary Contractor and all listed subcontractors must provide the required licenses/certificates listed above and in Section 4 (Scope of Work) upon bid opening; failure to comply with this requirement may be considered non-responsive and may lead to the rejection of your bid.**
- d. All subcontractors must be licensed by the CSLB for the trade in which they will be performing. Bidders must list all subcontractors and subcontractor license numbers on page A-3 of the bidder's proposal form.
- e. Contractor may request progress payments during the performance of work. If authorized by the Military Department Contracting Officer, progress payments shall not exceed 90% of the value of the completed work and of materials delivered to the work site. The Contractor's request for progress payments must be presented to the COR 30 days prior to submitting an invoice for payment.
- f. Contractor will be allowed **60 working days** to complete this project. The Start date will be established by a Job Start Meeting in which the Contractor and the COR shall conduct within 7 days after receipt of the fully executed contract and issuance of the Notice to Proceed. The Notice to Proceed will not be issued until the Contractor has completed the submittal process. The start date of the project established by the job start meeting must be within 90 days of the job start meeting.

- g. All subcontractors utilized in the performance of this specification must be licensed appropriately in accordance with Title 16, Contractors License Law.
  - h. Contractors bidding on this project will be required to furnish license number and date of expiration of said license for themselves and any subcontractors used in the performance of this specification. Failure to provide such information on the Proposal Form may result in bid being rejected [Reference B. &P. Code 7028.15(e)].
  - i. In accordance with the provisions of Section 1773 of the Labor Code, the Director of the Department of Industrial Relations has ascertained the generally prevailing rate of wages applicable to the County in which the work is to be done. Included therein are employer payments for health and welfare, vacation, pension, apprenticeship or other authorized training programs, and similar purposes. Holidays shall be as defined in the collective bargaining agreement applicable to the classification(s) employed on the project.
  - j. Copies of the General Prevailing Wage rate for the applicable labor classification(s) are available at the web site for the State of California, Department of Industrial Relations-Division of Labor Statistics and Research at [www.dir.ca.gov/DLSR](http://www.dir.ca.gov/DLSR).
  - k. Pursuant to Labor Code, Section 1773.2, the Military Department has access to copies of the General Prevailing Wage Rate for the applicable labor classification(s) and will make such available to any interested party upon request.
  - l. Requests for prevailing wage determinations must be made in writing and submitted by facsimile to the Military Department at (916) 854-4229, attention: Contracting Section. The Military Department will not respond to requests submitted within five (5) working days of the bid opening.
  - m. Faxed requests must identify the geographical location for the basic trade and the appropriate determination(s) for the work to be performed.
- 1-04. Contractor will provide qualified, licensed and trained personnel during the contract period.
- a. Specific schedule and definition of level of service will be found in Section 4 – Technical Specifications - of this IFB.
  - b. All services called for in this IFB and the resulting contract will be performed in accordance with the specific requirements and schedule of performance found in Section 4.
  - c. Costs of developing and submitting proposals are entirely the responsibility of bidding individuals/firm and shall not be chargeable to or paid by the State of California.

1-05. Questions regarding this IFB should be directed as follows:

- a. Technical Specifications, worksite conditions and contractor responsibilities, contact the Military Department Contracting Officer's Representative (COR), Major Bryan Keels, (925) 321-6997.
- b. Contract administration, contractor qualifications and rules of bidding, contact the Contracting Officer, Chief Warrant Officer Allen McCord, at (916) 854-3141.

1-06. The use of the proposal forms provided in this IFB is mandatory (or a photocopy of the attached forms). For your convenience the forms are printed on yellow paper.

1-07. Bidders requesting small business preference must check and sign the appropriate area on the bid proposal forms.

1-08. Contract Standard Clauses. Bidder awarded a contract pursuant to this IFB will be required to sign contract documents containing the following provisions:

- a. The Contractor agrees to indemnify and save harmless the State, its officers, agents and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, material men, laborers and any other person, firm or corporation furnishing or supplying work, services, materials or supplies in connection with the performance of this contract, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by the contractor in the performance of this contract.
- b. The Contractor, and the agents and employees of Contractor, in the performance of this agreement, shall act in an independent capacity and not as officers or employees or agents of the State of California.
- c. The State may terminate this agreement and be relieved of the payment of and consideration to Contractor should Contractor fail to perform the covenants herein contained at the time and in the manner herein provided. In the event of such termination the State may proceed with the work in any manner deemed proper by the State. The cost to the State shall be deducted from any sum due the contractor under this agreement and the balance, if any, shall be paid the Contractor upon demand.
- d. Without the written consent of the State, This agreement is not assignable by Contractor either in whole or in part.
- e. Time is of the essence in this agreement.
- f. No alteration or variation of the terms of this contract shall be valid unless made in writing and signed by the parties hereto, and no oral

understanding or agreement not incorporated herein, shall be binding on any of the parties hereto.

- g. The consideration to be paid Contractor, as provided herein, shall be in compensation for all of Contractor's expenses incurred in the performance hereof, including travel and per diem, unless otherwise expressly provided.
- h. Contractor swears under penalty of perjury that no more than one final unappealable finding of contempt of court by a Federal Court has been issued against the Contractor within the immediately preceding two-year period because of the Contractor's failure to comply with an order of the National Labor Relations Board.
- i. This contract may be amended during the period of contract performance, subject to the mutual agreement of parties.
- j. This contract shall be subject to and construed in accordance with the laws of the State of California, whether or not specifically cited herein.
- k. This agreement contains all the terms and conditions agreed to by all parties. No other understanding, oral or otherwise, regarding the subject matter of this agreement, shall be deemed to exist or to bind any of the parties hereto.
- l. The contractor agrees to recognize the mandatory standards and policies relating to the energy efficiency in the State Energy Conservation Plan Title 23, California Code of Regulations, as required by the U.S. Energy Policy and Conservation Act (Public Law 94-165).
- m. Contractor shall not enter into any subcontracts for the performance of the principle services to be rendered under this agreement without the express consent in writing of the State. Any subcontractors authorized to provide such services must meet and comply with all requirements set forth in this agreement.
- n. All Contracting parties shall be subject to the examination and audit of the Auditor General for a period of three years after final payment under the contract (Government Code Section 10532) should the contract amount exceed \$10,000.
- o. Contractor agrees that the Military Department or its designee will have the right to review, obtain, and copy all records pertaining to performance of the contract. Contractor agrees to provide the Military Department with any relevant information requested and shall permit the Military Department access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts, and other material that may be relevant to a matter under investigation for the purpose of determining compliance with Public Contract Code Section 10115 et. seq. and Title 2, California Code of Regulations, Section 1896.60 et. seq. and for the

purpose of determining compliance with the State requirements. Contractor further agrees to maintain such records for a period of three (3) years after final payment under the contract.

- p. This agreement is valid and enforceable only if sufficient funds are made available by the Budget Acts for those state fiscal years as represented under this contract. This contract is further subject to any additional restrictions, limitations, or conditions enacted by the Legislature and contained in the above Budget Bills or any statute enacted by the Legislature which may effect the provisions, terms, or funding of this or any subsidiary contract in any manner.

1-09. Contracts resulting from this IFB will be inclusive of the provisions of the standard clauses above, Section 2 (General Conditions), Section 3 (Insurance Liability Requirements), and Section 4 (Technical Specifications) as fully set out in this solicitation.

1-10. Cancellation, Modification, and Waiver: The Military Department reserves the right to cancel or modify this IFB, in whole or in part. The Military Department may reject any or all bids or proposals for cause, and may waive any immaterial deviation or defect in a bid or proposal. The Military Department's waiver of a deviation or defect shall in no way modify the IFB documents, or excuse the contractor from full compliance with the IFB specifications if awarded the contract.

1-11. Drug-Free Workplace Certification: Senate Bill 1120, Chapter 1170, Statutes of 1990, requires state contractors to maintain a "drug-free workplace". By signing this contract, the contractor or grantee hereby certifies under penalty of perjury under the laws of the State of California that the contractor or grantee will comply with the requirements of the Drug-Free Workplace Act of 1990 (Government Code Section 8350 et seq.) and will provide a drug-free workplace by taking the following actions:

- a. Every contractor must comply with the following:

- (1) Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations, as required by Government Code Section 8355(a).

- (2) Establish a Drug-Free Awareness Program as required by Government Code Section 8355(b) to inform employees about all of the following:

- a) the dangers of drug abuse in the workplace;
    - b) the person's or organization's policy of maintaining a drug-free workplace;
    - c) any available counseling, rehabilitation and employee assistance programs; and,
    - d) penalties that may be imposed upon employees for drug abuse violations.

(3) Provide, as required by Government Code Section 8355(c), that every employee who works on the proposed contract:

- a) will receive a copy of the company's drug-free statement; and,
  - b) will agree to abide by the terms of the company's statement as a condition of employment on the contract.
- b. Failure to comply with these requirements may result in suspension of payments under the contract or termination of the contract or both and the contractor or grantee may be ineligible for award of any future state contracts if the department determines that any of the following has occurred: (1) the contractor or grantee has made false certification, or (2) violates the certification by failing to carry out the requirements as noted above.

1-12. Bidders certified as a "Small Business" in accordance with Title 2, California Code of Regulations, Section 1896, et seq. shall be granted a five percent (5%) cost bid preference when a responsible non-small business has submitted the lowest-priced, responsive bid.

- a. The rules and regulations of this law and applications for the State of California Small Business preference may be obtained from:

State Department of General Services, Procurement Division,  
Office of Small Business and DVBE Certification, 707 Third Street,  
1<sup>st</sup> Floor, Room 400, West Sacramento, California 95605 - (916)  
375-4940 voice, (916) 375-4950 24 hour recording, (916)  
375-4950 facsimile

- b. Bidder's small business status and disabled veteran business enterprise status shall be verified with the Office of Small Business and DVBE Certification.

1-13. Non-small business bidders shall be granted a five percent (5%) non-small business preference on a bid proposal when a responsible non-small business has submitted the lowest-priced responsive bid. To be considered for the 5% cost bid preference non-small business bidders must meet the following conditions at the time of their bid submission:

- a. Submit written certification with their bid cost bid package that states the firm commits to subcontract at least twenty-five percent (25%) of the firm's net bid price with one or more State of California certified Small Business (es).
- b. Submit a list of the certified Small Business (es) with their cost bid package that the bidding firm commits to subcontract with for a commercially useful function in the performance of the contract. The bidder's list of subcontractors shall include the subcontractor's name, address, voice telephone number, description of the work to be performed and the dollar amount or percentage per subcontractor.

c. Commercially useful function is defined as:

- (1) The contractor or subcontractor is responsible for the execution of a distinct element of the work of the contract; carrying out its obligation by actually performing, managing or supervising the work involved; and performing work that is normal for its business services and functions; and
- (2) The contractor or subcontractor is not further subcontracting a greater portion of the work than would be expected by normal industry practices.
- (3) The contractor or subcontractor is responsible, with respect to materials and supplies provided on the subcontract, for negotiating price, determining quality and quantity, ordering the material, installing (when applicable), and paying for the material itself.
- (4) A contractor or subcontractor will not be considered as performing a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to achieve the appearance of small business participation.

(5) In the event of a precise tie a contract award shall be made as follows:

| Tie between a:                                                                                      | Award to:                |
|-----------------------------------------------------------------------------------------------------|--------------------------|
| Certified Small Business and certified DVBE who is a certified Small Business                       | Certified DVBE           |
| Certified Small Business and a non-small business who is eligible for the Small Business preference | Certified Small Business |

**1-14. A certified Small Business (SB) shall receive a 5% preference on a bid proposal when a responsible non-small business has submitted the lowest priced responsive bid.**

**A certified Disabled Veterans Business Enterprise (DVBE) shall receive a 5% preference on a bid proposal when a responsible non-DVBE has submitted the lowest priced responsive bid.**

**A firm that is certified as both a SB and DVBE shall receive a 10% preference on a bid proposal when a responsible non-small business and non-DVBE has submitted the lowest priced responsive bid.**

**If the low bidder is a SB then a 5% preference will be given to a firm that is certified as both a SB and DVBE.**

**Non-SB bidders claiming SB and/or DVBE preference may be granted up to 10% incentive percentage on a bid proposal when a responsible Non-SB/DVBE has submitted the lowest priced responsive bid (Please see 1-13 for SB preference requirements and Section 5 for DVBE preference requirements).**

**A non-SB/DVBE which qualifies for this preference may not take an award away from a certified SB or DVBE.**

**The value of these SB/DVBE preferences are limited to \$100,000 when a contract award is based upon award to the lowest compliant bid.**

1-15. The California Taxpayer and Shareholder Protection Act of 2003, Public Contract Code section 10286, et seq., which prohibits state agencies from contracting with expatriate companies, unless they satisfy minimum requirements related to shareholder rights, or obtain a waiver, effective April 1, 2004. An expatriate company is a United States company that has moved, in name and on paper only, to a tax haven country (typically Bermuda or the Bahamas) and has no substantial business activities in the country of reincorporation.

1-16. All bids must have reached the Purchasing and Contracting Branch prior to bid opening time. Proof of receipt prior to the deadline is a Military Department Purchasing and Contracting Branch Date Stamp. Bidders are cautioned that internal State handling of mail can add up to 24 hours to delivery time within the Department prior to date stamping.

END OF SECTION 1

SECTION 2  
GENERAL CONDITIONS OF PUBLIC WORKS CONTRACT

2-01. GENERAL

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

2-02. BIDDING REQUIREMENTS AND CONDITIONS

A. Examination of Plans, Specifications and Site of the Work:

1. Contractor's Responsibility: The bidder shall carefully examine the work site and the plans and specifications. The bidder shall investigate and become satisfied with the site conditions to be encountered, the character, quality and quantity of surface, and subsurface materials or other obstacles to be overcome, the work to be performed, materials to be furnished, and as to all requirements of the proposal, plans, and specifications of the contract.
2. Responsibility for Utilities: The contractor shall be responsible for payment of all costs of the work required by the existence or proximity of utilities encountered in performing the work, including without limitation, repair of any damage and or exploratory excavation required. If during the course of the work the contractor encounters utility installations which are not shown or indicated in the plans or in the specifications, or which are found in a location substantially different from that shown in the contract documents, the contractor must promptly notify the State in writing. When necessary for the execution of the contract, the Military Department shall issue a written order to the contractor to make such adjustment, rearrangement, repair, removal, alteration, or special handling of such utility, including repair of damaged utility. The contractor shall perform the work described in such written order and compensation will be made in accordance with Article 2-06A relating to changes in the work. Except for the items of cost specified in such articles, the contractor shall not receive compensation for any other costs or delays associated with the utility. If the contractor fails to give the notice specified above and thereafter acts without instructions from the State, then all cost, expenses, and damages to the utilities or other work of the contract which arises from the contractor's operations shall be the contractor's responsibility.

B. Discrepancies or Errors: If omissions, discrepancies, or apparent errors are found in the plan and specifications prior to the date of bid opening, bidders shall submit a written request for clarification to the State. Any clarification will be given in the form of addendum to all bidders if time permits. Otherwise, in figuring the work, bidders shall consider that any discrepancies or conflict between drawings and specifications shall be governed by Article 2-05E.

C. Proposal Forms: The Military Department will furnish to each bidder a standard proposal form which, when filled out and executed, shall be submitted as the bid. Bids not presented on forms so furnished may be disregarded. All proposals shall give the prices proposed, both in writing and figures, and shall be signed by the bidder or a duly authorized representative, with his address. Proposals made by an individual, shall include the bidder's name and post office/ mailing address; if made by partnership, the name and post office/ mailing address of the partnership, and the signature of one or more partners must be shown: if made by a corporation, the proposal shall show the name of the state of incorporation, the name of the corporation and the title of the person who signs on behalf of the corporation.

D. List of Subcontractors: Each proposal shall have listed therein the name and address of each subcontractor to whom the bidder proposes to subcontract portions of the work in an amount in excess of one-half of one percent (1/2 of 1%) of the total bid, in accordance with Chapter 2, Division 5, Title 1, of the Government Code.

E. Rejection of Irregular Proposals: Proposals may be rejected if they show any alterations of form, additions not called for, conditional bids, incomplete bids, erasures, or irregularities of any kind.

- F. **Withdrawal of Proposals:** Any bid may be withdrawn at any time prior to the time fixed in the public notice for the opening of bids, provided that a request in writing, executed by the bidder or his duly authorized representative, for the withdrawal of such bid is filed with the Military Department. A telegraphic request is not acceptable. The withdrawal of a bid shall not prejudice the right of a bidder to file a new bid within the time specified. This article does not authorize the withdrawal of any bid after the time fixed in the public notice for the opening of bids.
- G. **Public Opening of Proposals:** Proposals will be opened publicly and read at the time and place indicated in the Notice to Contractors. Bidders or their authorized agents and the general public are invited to be present.
- H. **Competitive Bidding:**
  - 1. If more than one proposal is offered by an individual, partnership, corporation, association, or any combination thereof, under the same or different names, all such proposals may be rejected. A party who has quoted prices on materials or work to a bidder as a supplier or subcontractor is not thereby disqualified from quoting prices to other bidders.
  - 2. All bidders are put on notice that any collusive agreement fixing the prices to be bid so as to control or affect the awarding of this contract is in violation of the competitive bidding requirements of the State Contract Act and may render void any contract let under such circumstances.

## 2-03. AWARDS AND EXECUTION OF CONTRACT

- A. **Award of Contract:** The right is reserved to reject any and all proposals. The award of the contract, if awarded, will be to the lowest responsible bidder whose proposal complies with all the requirements prescribed. If the lowest responsible bidder refuses or fails to execute the contract, the Military Department may award the contract to the second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the contract, the Military Department may award the contract to the third lowest responsible bidder. The Military Department will make the award of the contract on the date of the determination of the successful bidder.
- B. **Contract Bonds:**
  - 1. Prior to the commencement of performance, the contractor must obtain and provide to the State, a payment bond, on Standard Form 807, when the contract involves a public works expenditure (labor/installation costs) in excess of \$ 5,000. Such bond shall be in a sum not less than one hundred percent (100%) of the contract price. Forms shall be provided to the contractor. The contractor shall ensure the payment bond remains in full force and effect during execution of the contracted work, the guarantee period and through such time that all subcontractors and suppliers are paid in full by the contractor.
  - 2. If the contract amount is less than \$5,000, and a subsequent change order or contract amendment causes the total amount of the contract to exceed \$5,000 then a payment bond will be required in the amount of one hundred percent (100%) of the new contract total amount.
  - 3. If the contract amount exceeds \$10,000, a performance bond in the amount of 100% of the contract amount must be submitted by the successful bidder at the time signed contracts are returned to the Military Department. The contractor shall ensure the performance bond remains in full force and effect during execution of the contracted work and guarantee period.
- C. **Execution of Contract:**
  - 1. The contract shall be signed by the successful bidder and returned within 10 days of receipt, not including Saturdays, Sundays and legal holidays, together with the contract bonds. No contract shall be binding upon the State until the contractor receives a fully executed contract signed and approved by

the Military Department, and Department of General Services, when required.

2. The Contract is not valid until approved by the Department of General Services, Office of Legal Service, if such approval is required by law. See PCC §§ 10335 and 10360. If the contractor begins work prior to contract approval and receipt of the "Notice to Proceed", the contractor may need to seek payment by filing with the Victim Compensation Board. The state has no legal obligation to the contractor until the contract is approved.
- D. Failure to Execute Contract: Failure to sign a contract and file acceptable bonds as provided herein within the required time mentioned above in paragraph C-1, shall be just cause for the annulment of the award. If the successful bidder refuses or fails to sign the contract, the Military Department may award the contract to second lowest responsible bidder. If the second lowest responsible bidder refuses or fails to execute the contract, the Military Department may award the contract to the third lowest bidder. Bidder who refuses to execute the contract may be held liable for additional costs to the State and/or claims against any bid bond.
- E. **Americans With Disabilities Act (ADA): By signing the contract, the Contractor assures the State that it complies with the Americans with Disabilities Act (ADA) of 1990, (42 U.S.C. 12101 et seq.), which prohibits discrimination on the basis of disability, as well as all applicable regulations and guidelines issued pursuant to the ADA.**

## 2-04. LEGAL, RELATIONS, AND RESPONSIBILITY

### A. Regulations and Protection:

1. The contractor shall keep informed of and comply with and cause all of his agents and employees to observe and comply with all prevailing Federal and State laws, and all rules and regulations issued made pursuant to said Federal and State laws, which in any way affect the conduct of the work of this contract.
2. The contractor shall obtain and pay for all permits and licenses required for excavating or other work on or in public streets, road or sidewalks, and shall comply with all laws in connection therewith. If any conflict arises between provisions of the plans and specifications and any such law the contractor shall notify the State at once in writing. The contractor shall protect and indemnify the State or any of its officers, agents, and servants against any claim or liability arising from or based on the violation of any such law or regulation by the contractor or its agents or employees.
3. Neither the State nor the contractor is subject to municipal, county, or district laws, rules or regulations pertaining to building permits or regulating the design or construction of buildings upon State property.
4. The contractor shall be responsible for and provide and maintain all proper temporary walks, roads, guards, railings, lights, warning signs, and take precaution at all times to avoid injury or damage to any person or any property, and upon completion of the work, or at proper times as directed, shall restore the premises and adjacent property to proper condition.
5. The contractor shall protect adjoining property and nearby buildings, including State buildings, State roads, and public streets or roads, from dust, dirt, debris, or other nuisance arising out of the contractor's operations or storage practices. Sprinkling or other effective methods acceptable to the State shall control dust.
6. No advertising by the contractor will be permitted in or about the work except by order of the State.

### B. Laws to be Observed:

1. Labor Discrimination: Attention is directed to Section 1735 of the Labor Code, which reads as follows: "No discrimination shall be made in the employment of persons upon public works because of race, color, or religion of such persons and every contractor for public works violating this section is subject to all the penalties for violation of this chapter.
2. Labor Code Certifications:

- a. The contractor certifies **"I am aware of the provisions of Section 3700 of the Labor Code, which require every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code and I will comply with such provisions before commencing the performance of the work of this contract."**
- b. **It is hereby mutually agreed that the contractor shall forfeit to the state a penalty of fifty dollars for each calendar day, or portion thereof, for each worker paid by him or her, or subcontractor under him or her, less than the prevailing wage so stipulated and in addition the contractor further agree to pay to each worker the difference between the actual amount paid for each calendar day, or portion thereof, and the stipulated prevailing wage rate for the same. This provision shall not apply to properly, registered apprentices.**
- c. **It is further agreed that the maximum hours a worker is to be employed is limited to eight hours a day and 40 hours a week and the contractor shall forfeit, as a penalty to the state, twenty-five dollars for each worker employed in the execution of the contract for each calendar day during which a worker is required or permitted to labor more than eight hours in any calendar day or more than 40 hours in any calendar week, in violation of Labor Code Sections 1810-1815, inclusive.** Work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon compensation for all hours worked in excess of 8 hours per day at not less than one and one-half times the basic rate of pay, as provided in Labor Code Section 1815.
- d. The wage rates set forth are the minimum that may be paid by the contractor. Nothing herein contained shall be construed as preventing the contractor from paying more than the minimum rates set forth. No extra compensation whatever will be allowed by the State due to inability of the contractor to hire labor at the minimum rates, nor for any necessity for payment by the contractor of subsistence, travel time, overtime or other added compensations, all of which possibilities are elements to be considered and ascertained to the contractor's own satisfaction in preparing his bid.
- e. Travel and subsistence payments shall be paid to each worker needed to execute the work, as such travel and subsistence payments are defined in the applicable collective bargaining agreements filed in accordance with Labor Code Section 1773.8.
- f. **Each contractor and subcontractor shall comply with the Labor Code section 1776 regarding record keeping.**
- g. **Copies of the prevailing rate of per diem wages are on file at the State Military Department and shall be made available to any interested party on request.**
- h. **By signing the contract, the contractor swears under penalty of perjury that no more than one final unappealable finding of contempt of court by a federal court has been issued against the contractor with the immediately preceding two year period because of the contractor's failure to comply with an order of a federal court which orders the contractor to comply with an order of the Nation Labor Relations Board.**
3. **Apprentices: Properly registered apprentices may be employed in the prosecution of the work. Every such apprentice shall be paid the standard wage paid to apprentices under the regulations of the craft or trade at which he or she is employed, and shall be employed only at the work of the craft or trade to which he or she is registered. The contractor and each subcontractor must comply with the requirements of Labor Code Section 1777.5 and any related regulations regarding the employment of registered apprentices.**
4. **Registration of Contractors: All businesses or individuals, who construct, offer to construct, or alter any building, highway, road, parking facility, railroad, excavation, or other structure in California must be licensed by the California Contractors State License Board (CSLB) if the total cost (labor and materials) of one or more contracts on the project is \$300 or more. Contractors, including subcontractors, specialty contractors, and persons engaged in the business of home improvement must be licensed before submitting bids. Licenses may be issued to individuals, partnerships, corporations or joint**

ventures.

- C. **Responsibility for Damage:** Neither the State of California, The Adjutant General, nor any officer or employee of the Military Department shall be accountable in any manner, for any loss or damage that may happen to the work or any part thereof, or for any of the materials or other things used or employed in performing the work, or for injury to any person or persons, either worker or the public, for damage to property from any cause which might have been prevented by the contractor, or any contractor's employee against all of which injuries or damages to persons and property the contractor having control over such work must properly guard. The contractor shall be responsible for any liability imposed by law for any damage to any person or property resulting from defects or obstructions or from any cause whatsoever during the progress of the work or at any time before the completion and final acceptance. The contractor shall indemnify and save harmless the State of California, the Adjutant General, and all officers and employees of the Military Department from all units or actions of every name, kind and description, brought for, or on account of any injuries or damages received or sustained by any person or persons, by or from the contractor, or any contractor's employee or agents, in the construction of the work or by or in consequence of any negligence in guarding the same, in improper materials used in its construction, or by or on account of any act or omission of the contractor or contractor's agents.
- D. **Occupancy by the State Prior to Acceptance:**
1. The State reserves the right to occupy all or any part of the project prior to completion of the entire contract, upon written order notice. In such event, the contractor will be relieved of responsibility for any injury or damage to such part as may result from such occupancy and use by the State.
  2. Such occupancy does not constitute waiver of any rights or acceptance by the State either of the complete work or of any portion thereof, nor will it relieve the contractor of full responsibility for correcting defective work or materials found at any time before the formal written acceptance of the entire contract or during the full guaranty period after such acceptance, as specified in Article 2-07C.
- E. **Contractor's Responsibility for Work:**
1. Until the formal acceptance of the work, the contractor shall have the charge and care thereof and shall bear the risk of injury or damage to any part of the work by the action of the elements or from any other cause whether arising from execution or from the non-execution of the work.
  2. The contractor shall rebuild, repair, restore, and make good all injuries or damages to any portion of the work occasioned by any of the above causes before its completion and acceptance, and shall bear the expense thereof, except for such injuries or damages as are directly and proximately occasioned by acts of the Federal Government and the public enemy. In case of suspension of work from any cause whatever, the contractor shall be responsible for the work as above specified and shall also be responsible for all materials, and shall properly store them if necessary, and shall provide suitable drainage and erect temporary structures when necessary.
- F. **No Personal Liability:** Neither the Adjutant General, nor any other officer or authorized employees of the Military Department shall be personally responsible as an individual for any liability arising under the contract.
- G. **Fair Employment Practices:**
1. The contractor will not willfully discriminate against any employee or applicant for employment because of race, color, religion, ancestry, sex, age, or national origin. The contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color religion, ancestry, sex, age, or national origin. Such action shall include, but not be limited to, the following: Employment upgrading, transfer, recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation, and selection for training, including apprenticeship. The contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the awarding authority setting forth the provisions of this Fair Employment Practices Section.

2. The contractor will send to each labor union or representative of workers with which there is an existing collective bargaining agreement or other contract. A Notice to Labor Unions, to be provided by the awarding authority, advising the said labor union or worker's representative of the contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
3. The contractor will permit access to its record of employment, employment advertisements, application forms, and other pertinent data and records by the Fair Employment Practices Commission, the awarding authority or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract.
4. A finding of willful violation of the Fair Employment Practices section of this contract or of the Fair Employment Practices Act shall be regarded by the awarding authority as a basis for determining that the contractor is not a "responsible bidder" as to any future contracts for which such contractor may submit bids for revoking the contractor's pre-qualification rating, if any, and for refusing to establish, re-establish or renew a pre-qualification rating for the contractor.
5. The awarding authority shall deem a finding of willful violation of the Fair Employment Practices Act to have occurred upon receipt of written notice from the Fair Employment Practice Commission that it has investigated and determined that the contractor has violated the Fair Employment Practices Act and has issued an order under Labor Code Section 1426 or obtained an injunction under Labor Code Section 1429.
6. Upon receipt of such written notice from the Fair Employment Practices Commission, the awarding authority shall notify the contractor that unless they demonstrate to the satisfaction of the awarding authority within a stated period of time that the violation has been corrected, the contractor's pre-qualification rating will be revoked at the expiration of such period.
7. The contractor agrees, that should the awarding authority determine that the contractor has not complied with the Fair Employment Practices section of this contract, then pursuant to Labor Code Section 1735 and 1775, the contractor shall, as a penalty to the awarding authority, forfeit, for each calendar day or portion thereof, for each person who was denied employment as a result of such noncompliance, the penalties provided in the Labor Code for violation of prevailing wage rates. Such monies may be recovered from the contractor. The awarding authority may deduct any such damages from any monies due the contractor from the State of California.
8. Nothing contained in this Fair Employment Practices Section shall be construed in any manner or fashion so as to prevent the awarding authority of the State of California from pursuing any other remedies that may be available at law.
9. Nothing contained in this Fair Employment Practices Section shall be construed in any manner or fashion so as to require or permit the hiring of an employee not permitted by the National Labor Relations Act.
10. Standards for Affirmative Compliance:
  - a. Prior to award of the contract, the contractor shall certify to the awarding authority that the contractor has or will meet the following standards for affirmative compliance, which shall be evaluated in each case by the-awarding authority.
  - b. The contractor shall provide evidence, as required by the awarding authority, that the contractor has notified all supervisors, foremen and other personnel officers in writing of the content of the anti-discrimination clause and their responsibilities under it.
  - c. The contractor shall provide evidence, as required by the awarding authority, that he has notified all sources of employee referrals (including unions, employment agencies, advertisements, Department of Employment) of content of the anti-discrimination clause.

- d. Personally, or through an authorized representative(s), the contractor shall, through negotiations with the unions with whom he has agreements, attempt to develop an agreement, which will:
    - (1) Spell out responsibilities for non-discrimination in hiring, referral, upgrading and training.
    - (2) Otherwise implement an affirmative anti-discrimination program in terms of the union's specific areas of skill and geography, to the end that qualified minority workers will be available and given an equal opportunity for employment.
  - e. The contractor shall notify the contracting agency of opposition to the anti-discrimination clause by individuals, firms or organizations during the period of its pre-qualification.
11. **Employment of undocumented aliens:** No state agency or department, as defined in Public Contract Code § 10357, that is subject to this code, shall award a public works contract to a bidder or contractor, nor shall a bidder or contractor be eligible to bid for or receive a public works contract, who has, in the preceding five years, been convicted of violating a state or federal law regarding the employment of undocumented aliens. See Public Contract Code § 6101.
  12. **Antitrust Claims:** The contractor offers and agrees and will of his other subcontractors and suppliers to agree to assign to the awarding body all rights, title, and interest in and to all causes of action they may have under Section 4 of the Clayton Act (15 USC § 15) or under the Cartwright Act (Chapter 2 [commencing with § 16700] of Part 2 of Division 7 of the Business and Professions Code) arising from purchases of goods, services, or materials pursuant to the public works contract or subcontract. The assignment made by the contractor and all additional assignments made by the subcontractors or suppliers shall be deemed to have been made and will become effective at the time the awarding body tenders final payment to the contractor without further acknowledgment or the necessity of tendering to the awarding body any written assignments.
  13. **If an awarding body receives, either through judgment or settlement, a monetary recovery for a cause of action assigned under Government Code sections 4550-4554, the assignor shall be entitled to receive reimbursement for actual legal costs incurred and may, on demand, recover from the public body any portion of the recovery, including treble damages and attributable overcharges that were paid by the assignor but were not paid by the public body as a part of the bid price, less the expenses incurred on obtaining that portion of the recovery. On demand in writing by the assignor, the assignee shall, within one year from such demand, reassign the cause of action assigned under Government sections 4550-4554 if the assignor has been or may have been injured by the violation of law for which the cause of action arose and (a) the assignee has not been injured thereby, or (b) the assignee declines to file a court action for the cause of action**
  14. The contractor will include the provisions of the foregoing paragraphs 1 through 13 in every subcontract, so that such provisions will be binding upon each subcontractor.
- H. Workers Compensation
1. The contractor will be required to secure the payment of compensation to his employees in accordance with provisions of Labor Code Section 3700.
  2. Travel and subsistence payments shall be paid to each worker needed to execute the work, as such travel and subsistence payments as defined in the applicable collective bargaining agreements tiled in accordance with Labor Code Section 1773.8.
  3. **Patents:** The contractor shall assume all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the work, and agrees to indemnify and save harmless the State of California, The Adjutant General, and all duly authorized representatives, from all suits at law, or actions of every nature for, or on account of the use of any patented materials, equipment,

devices, or processes.

## 2-05. PERFORMANCE, PROSECUTION AND PROGRESS OF WORK

- A. Progress of Work: The Contractor shall provide at all times sufficient competent labor, materials, and equipment to properly carry on the work and to insure completion within the time agreed.
- B. Limitation on Work Site and Premises:
  - 1. The "work site" or "job site" is defined as the area of actual construction and the areas immediately adjacent thereto, as shown on the plans or as specified. The "Premises" is defined as the area of State-owned property which surrounds the job site, limited by the property lines thereat. In some cases the premises may coincide with the job site.
  - 2. The contractor shall limit construction operations to the work site unless otherwise shown on the plans or specifications. The contractor shall perform no operations of any nature over or on the premises except such operations as are specifically authorized in the plans or specifications, or as otherwise authorized in writing by the Military Department.
- C. Accident Prevention: Precautions shall be exercised at all times for the protection of persons (including employees) and property. The contractor shall install adequate safety guards and protective devices for any and all equipment and machinery, whether used in the work or permanently installed as part of the work. The contractor shall comply with all applicable laws relating to safety precautions, including the safety regulations of the Division of Industrial Safety, Department of Industrial Relations, of the State of California.
- D. Interpretation of Contract Requirements: The contract documents are intended to be consistent, and to describe and to provide for a complete scope of work. Any requirement occurring in one document is binding as though occurring in all the contract documents. However, in the event of conflict or discrepancies therein, then the priorities stated below shall govern:
  - 1. Addendum: An Addendum shall govern over all other contract documents. Subsequent addendum's issued shall govern over prior addendum's only to the extent specified.
- E. Specifications and Drawings

The contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the contracting officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of differences between drawings and specifications, the specifications shall govern. In any case of difference in the figures, in the drawings, or in specifications, the matter shall be promptly submitted to the contracting officer who shall promptly make a determination in writing. Any adjustment by the contractor without this determination shall be at its own risk and expense. The contracting officer shall furnish from time to time such detail drawing and other information, as he may consider necessary, unless otherwise provided.

- F. Clarification and Additional Instructions: Should any discrepancies, omission or apparent errors, be found in the contract documents, or should any question arise concerning interpretation or clarification of the contract documents, or if it appears that the work to be done or any matters relative thereto are not sufficiently detailed or explained in the contract documents, then, before proceeding with the work affected, the contractor shall immediately notify the Military Department in writing through the Contracting Officers Representative and request interpretation, clarification or furnishing of additional detailed instructions concerning the work. All such questions shall be resolved within a reasonable time by the Military Department, whose decision thereon shall become final. Should the contractor proceed with the work affected without giving such notice or should be given such notice and then proceed with the work affected before receipt of instructions from the Military Department, the contractor shall then remove and replace or adjust at the contractor's own expense, any work which is not in accordance with the instructions furnished by the Military Department and the contractor shall be responsible for any damage, defect or added cost resulting from this action.

G. Product and Standards:

1. Product Designation: When descriptive catalogue designations, including product brand name, or model number are referred to in the contract documents, such designations shall be considered as being those found in industry publications of current issue at date of first IFB.
2. Standards Incorporated by Reference: When standards of the State or Federal Government, trade societies, or trade associations are referred to in the contract documents by specific date of issue, these shall be considered a part of this contract. When such references do not bear a date of issue, the current published edition at date of first invitation to bid shall be considered as part of this contract.

H. Materials, Articles, and Equipment: Materials, articles and equipment furnished shall be new. When the contract documents indicate or require that materials, articles, or equipment are to be furnished but the quality or kind thereof is not specified, shown or indicated, the contractor shall furnish materials, article, or equipment at least equal to the class or quality of similar materials, articles, and equipment which are specified, shown or otherwise indicated. No-claim for additional compensation based on the State's failure to specify or indicate the class, type or quality of materials, articles or equipment will be recognized in any event, unless the contractor makes a clear showing that the contractor could not determine the class, type or quality of materials, articles, and/or equipment.

I. Submittal of Shop Drawings and Product Data: The contractor shall submit to the State five (5) sets of shop drawings and product data for all work for which submittals are specifically required, three sets of which will be returned to the contractor. All submittals shall be fully identified as to project, agency, locations, work order, contract numbers, and the contractor's firm name. Shop drawings for construction means drawings, submitted to the State by the construction contractor, subcontractor or any lower tier subcontractor pursuant to a construct, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The State may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

J. Brand or Trade Names and Alternatives: For convenience in designation on the plans or in the specifications, certain materials, articles, or equipment may be designated by a brand or a trade name of the manufacturer together with catalogue designation or other identifying information. Such designation is for descriptive purposes only, and does not mean that a particular product has any preference, or that an approved alternative product may not be used. The use of an alternative material, article, or equipment, which is of equal quality and of the required characteristics for the purpose intended, will be permitted if approved by the State in writing. Contractor shall be allowed a period of 35 days after award of the contract in which to submit data substantiating a request for substitution of an equal item.

K. Conduct of Work:

1. The State reserves the right to do other work in connection with the project or adjacent thereto by contract or otherwise, and the contractor shall at all times conduct its work so as to impose no hardship on the State or others engaged in the work, nor to cause any unreasonable delay or hindrance thereto.
2. The contractor shall indemnify and hold the State harmless for any claims against the State arising from the Contractor's failure to conduct, adjust, correct, and coordinate its work with the work of others engaged in the work.
3. All construction equipment, including tools, plant, temporary construction elevators, hoist, scaffolding, false work, forms and centering required for prosecution of the work of this contract, and all labor, power, and signals required for the installation, operation, and maintenance of such equipment shall be provided by the contractor. The contractor shall obtain all necessary measurements for the work and shall check dimensions, levels, and construction lay out and supervise the construction, for correctness of all of which he shall be responsible. Where work of one trade joins or is on other work, there shall be no discrepancy when same is completed. In engaging work with other materials, marring or damaging some will not be permitted. Should improper work of any trade be covered by another and such improper work results in damage or defects, the whole work affected shall be made good without

additional cost to the State. The contractor must anticipate relation of all parts of the work and at the proper time furnish and set anchorage, blocking, or bedding as required.

4. Materials, articles, and equipment shall be furnished in ample quantities and at such times as to insure uninterrupted progress of the work. They shall be so stored and protected as to insure the preservation of their quality, appearance, and suitability for the work. When stored they shall be so located as to facilitate prompt inspection, and so as to avoid interference with the work of others.
- L. **Inspection of Records:** The contractor agrees that the State Military Department, or the Bureau of Audits or its designated representative, shall have an absolute right of access to all of the contractor's records, files, documents, accounts and financial affairs as deemed necessary for the purposes of conducting an audit to determine compliance with terms and conditions of this contract. The contractor shall provide the auditor(s) with any relevant information requested without unnecessary delay and, on reasonable notice, permit access to its premises during normal business hours for the purpose of interviewing staff and inspecting and copying such books, records, accounts and other material as warranted to conduct the audit. The contractor further agrees to maintain such records for a period of three years after final payment is made on this contract or three years after resolution of all issues that may arise as a result of any litigation, claim, negotiation or audit related to the contract, whichever is later. The state agrees to treat as confidential any proprietary information obtained as a part of any such audit.
- M. **Samples and Tests:**
1. Whenever the contract documents require tests of materials, articles, equipment or other work, the contractor at its expense shall perform all such tests. However, the State may test any portion of the work, at its option, any time during the progress of the work, and shall pay the cost thereof. Unless otherwise directed, all samples for testing will be taken by the Contracting Officer's Representative from the material, articles or equipment delivered, or from work performed, and test will be under the supervision of, or directed by, and at such places as may be convenient to the State.
  2. Materials, articles and equipment requiring tests shall be delivered in ample time before intended use to allow for testing, and none may be used before receipt of written approval by the State. Samples that are of value after testing or review shall remain the property of the contractor.
- N. **Rejection:**
- Should any portion of the work done or any materials delivered fail to comply with requirements of the contract, such work or materials shall be rejected and shall immediately be made satisfactory to the State by the contractor, at no additional expense to the State. Any materials that are rejected shall immediately be removed from the premises at the contractor's expense.
- O. **Preservation and Cleaning:** The contractor having control of the work site shall clean up the work as it progresses. At frequent intervals and at all times when directed, the contractor shall remove and dispose of accumulations of old forms, rubbish and debris of all kinds. At the completion of the project, the entire work site including the surrounding premises shall be cleared of tools, false work, equipment, rubbish, etc., and ready for acceptance.
- P. **Labor:**
1. The contractor shall observe strictly that each and every kind of work shall be performed by worker, laborers or mechanics specially skilled in the class of work required and that workmanship shall be of the best, regardless of the quality of material.
  2. Any agent or employee of the contractor who the State deems incompetent or disorderly shall be promptly removed from the work by the contractor upon written notice from the State, and shall not be re-employed on the contract worker premises.
- Q. **Subcontracting:**

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

R. Time of Work and Damage:

1. The State will designate the starting day of the contract on which the contractor shall immediately begin and diligently prosecute the work to completion. The Start date will be established by a Job Start Meeting in which the Contractor and the COR shall conduct within 7 days after receipt of the fully executed contract and issuance of the Notice to Proceed. The Notice to Proceed will not be issued until the Contractor has completed the submittal process. The start date of the project established by the job start meeting must be within 10 days of the job start meeting.
2. By signing the Job Start Letter, the contractor obligates himself to perform the work completely and satisfactorily on or before the expiration date to be determined from the number of working days stated in the agreement or by stipulated date of completion, plus such days as may be subsequently allowed by the State.
3. The contractor shall not be assessed with liquidated damages nor the cost of engineering the inspection during any delay in the completion of the work caused by acts of God, or of the public enemy, fire, flood, epidemics, quarantine restrictions, freight embargo. Contractor shall notify the State in writing of the causes of delay within five (5) days from the beginning of any such delay.

2-06. CHANGES IN THE WORK

A. Requests for Changes:

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

4. Changed work shall be performed completely and in accordance with the original contract drawings and specifications except for the deviations specifically called for by the change order. Materials used on changed work shall be as specified in the original contract documents insofar as they do not conflict with the conditions set forth in the change order. All changed work will be prosecuted by the contractor with due diligence, and with an efficiency of labor and equipment at least equal to that exercised as to the rest of the work of the contract.

B. Changed Work, Time Adjustments:

1. For any change in the work, the contractor shall be entitled only to such adjustment in time for which completion of the entire work is delayed due to performance of the changed work. Each estimate for a change in the work submitted by the contractor shall state the amount of extra time that he considers should be allowed for making the requested change. Failure to request extra time when submitting such estimates shall constitute a waiver of the right to subsequently claim any adjustment in the time for final completion based upon such changed work.
2. If agreement is reached as to the adjustment in compensation for the performance of changed work, but agreement is not reached as to the time adjustment for such work, then the contractor shall proceed with the work at the agreed price, reserving to the contractor the right to further pursue his claim for the time adjustment.

- C. Supplementary Agreements: As to certain changes in the basic scope of the work, a supplementary agreement shall be executed at the option of the State, such agreement to be executed in the manner of the original agreement, to which the change shall be attached and become a part. The bonds required by Article 2-03B shall be furnished with such supplementary agreement, covering any increased amount of the contract due to the change.

2-07. ACCEPTANCE AND PAYMENTS

- A. Acceptance: The contracted work shall be accepted by the Military Department when the project is completed in accordance with the contract documents, to the full satisfaction of the State Military Department.
- B. Progress Payments: Military Department policy provides that public works projects which allow the contractor 30 working days or more to complete and are estimated to exceed \$30,000.00 in value are eligible for progress payments. The contractor may request progress payments during performance of the contracted work. If authorized by the Military Department Contracting Officer, progress payments shall not exceed 90% of the value of the completed work and of materials delivered to the work site.
- C. Final Payment: Final payment will not be made to the contractor until such time as all punch list items have been completed and the Military Department is in receipt of all expressed manufacturer's warranties. Upon acceptance of the contractor's work by the Military Department, the COR shall complete a Contract/Contractor Evaluation Form (Office of Adjutant General Form 4) and forward to the Military Department Contracting Section for final review and approval. Approved Contract/Contractor Evaluation Forms shall be forwarded to the Military Department Accounts Payable Section where the Contract/Contractor Evaluation Form and the contractor's invoice shall be processed for payment.
- D. Guarantee:
1. The contractor hereby unconditionally guarantees that the work will be done in accordance with the requirements of the contract, and further guarantees the work of the contract to be and remain free of defects in workmanship and materials for a period of one year from the date of acceptance of the contract, unless a longer guarantee period is specifically called for. The contractor hereby agrees to repair or replace any and all work, together with any other adjacent work which may be displaced in so doing, that may prove to be not in accordance with the requirements of the contract or that may be defective in its workmanship or material within the guarantee period specified, without any expense whatsoever to the State of California, ordinary wear and tear and unusual abuse or neglect excepted.

2. Contract bonds will remain in full force and effect during the guarantee period.

2-08. LIQUIDATED DAMAGES

- A. The Military Department will designate the starting date of the contract on which the contractor shall immediately begin and thereafter diligently prosecute the work to completion. The Contractor obligates himself to complete the work within the number of working days or on the fixed date established by the Military Department.
- B. If the Contractor shall neglect, fail, or refuse to complete the Work within the time specified for Substantial Completion in the Contract, then the Contractor does hereby agree, as a part consideration for the awarding of this Contract, to pay to the Owner, as liquidated damages and not as a penalty, the sum of **\$400.00 per day for each working day** beyond the dates set forth in the Agreement that the Contractor fails to achieve Substantial Completion for the Project. The said amount is fixed and agreed on by and between the Contractor and the Owner because of the impracticability and extreme difficulty of fixing and ascertaining the true value of the damages which the Owner will sustain by failure of the Contractor to complete the Work on time, such as loss of revenue, service charges, interest charges, delays caused to other construction activities of Owner by failure to perform this Contract, and other damages, some of which are indefinite and not susceptible of easy proof, said amount is agreed to be a reasonable estimate of the amount of damages which the Owner will sustain and said amount shall be deducted from any monies due or that may become due to the Contractor, and if said monies are insufficient to cover said damages, then the Contractor shall pay the amount of the difference.

2-09. WORKING HOURS

The work site will not be available for contractor's activities before 8:00 a.m. or after 4:30 p.m. Monday through Friday. The site will not be available for contractor's activities on weekends, or on State or Federal holidays.

2-10. CONTRACTS FUNDED IN WHOLE/IN PART BY FEDERAL GOVERNMENT

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

2-11. Standard California Non-Discrimination Clause - Construction Contract Specifications (Government Code, Section 12990): See the last two pages of this Section.

2-12. Forced, Convict, and Indentured Labor

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

## PART 11 FEDERAL STATUTES, RULES AND REGULATIONS

### 2-13. Relationship of the Federal Government

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

### 2-14. Changes and Extras

The contracting officer may at any time, in writing and without notice to the sureties; order extras or make changes in the drawings and/or specifications of this contract, providing such extras or changes are within the general scope thereof. If any such extra or change causes an increase or decrease in the amount due under this contract, or in the time required for its performance, an equitable adjustment shall be made, and the contract shall be modified in writing. Federal Funding support for any change or extra is subject to prior approval by the Chief, National Guard Bureau, or his duly authorized representative. Any claim of the contractor for adjustment under this clause must be asserted in writing within 30 days after the date of receipt by the contractor of the notification extra or change. Provided, however, that the contracting officer, decides that the facts justify such action, may receive and act upon any such claim asserted at any time prior to the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in the clause 2-17 hereof entitled DISPUTES. Nothing provided in this clause, however, shall excuse the contractor from proceeding with the prosecution of the work as changed. Except as otherwise herein provided, no charge for any extra work or material will be allowed.

### 2-15. Changed Conditions

The Contractor shall promptly, and before such conditions are disturbed, notify the contracting officer in writing of (1) subsurface or latent physical conditions at the site differing materially from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in this contract. The contracting officer shall promptly investigate the conditions, and if he finds that such conditions do so materially differ and cause an increase or decrease in the cost of (or the time required for), performance of this contract, an equitable adjustment shall be made, and the contract modified in writing. Federal funding support to any change or extra is subject prior approval by the chief, National Guard Bureau, or his duly authorized representative. Any claim of the contractor for adjustment hereunder shall not be allowed unless he has given notice as required above. The contracting officer, however, may if he determines the facts so justify, consider and adjust any such claim asserted before the date of final settlement of the contract. If the parties fail to agree upon the adjustment to be made, the dispute shall be determined as provided in clause 2-18 hereof entitled DISPUTES.

### 2-16. Termination for Default-Damages or Delay-Time Extensions

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

- B. If the State does not terminate the right of the contractor to proceed, as provided in subparagraph (A) hereof, the contractor shall continue the work, in which event he and his sureties shall be liable to the State, in the amount set forth in the specifications or accompanying papers, for the fixed, agreed, liquidated damages for each calendar day of delay until the work is completed or accepted: or if liquidated damages are not so fixed, any actual damages occasioned by such delay.
- C. The right of the contractor to proceed shall not be terminated, as provided in subparagraph (A) hereof, not the contractor charged with liquidated or actual damages, as provided in subparagraph (B), because of any delays in the completion of the work due to causes beyond his control which could not reasonably have been anticipated and were without his fault or negligence, including, but not restricted to, acts of God, acts of the public enemy, acts of the Government or the State (either in its sovereign or contractual capacity), acts of another contractor in the performance of a contract with the State quarantine restrictions, strikes, freight embargoes, or unusually severe weather; or, delays of subcontractors or suppliers due to such unforeseeable causes beyond the control and without the fault or negligence of both the contractor and such subcontractors or suppliers at any tier; provided, that the contractor shall, within 10 days after the beginning of any such delay, unless the contracting officer shall grant a further period of time prior to the date of final settlement of the contract, notify the contracting officer in writing of the causes of delay. The contracting officer shall ascertain the facts as to the extent of the delay and make a decision whether or not to extend the time for completing the work. When in the Contracting Officer's judgment the findings of fact justify such an extension, and Contracting Officer's findings of fact thereon shall be final and conclusive on the parties hereto, subject only to appeal as provided in the DISPUTES clause hereof.

#### 2-17. Disputes

Except as otherwise specifically provided in this contract, and except as otherwise specifically provided by the State procedure for arbitration or other State procedure established by the State law, any dispute concerning a question of fact arising under this contract which is not disposed of by mutual agreement shall be decided by the contracting officer, who shall reduce any decision to writing and send a copy to the contractor by certified mail-return receipt requested, to the address shown herein. Within thirty (30) days after the date of receipt of such copy, the contractor may appeal in writing to the Governor of this State, whose written decision thereon, or that of his designated representative or representatives, shall, unless determined by a court of competent jurisdiction to have been fraudulent or capricious or arbitrary or so grossly erroneous as necessarily to imply bad faith, or not supported by substantial evidence, be final and conclusive: provided, that if no such appeal is taken the decision of the contracting officer shall be final and conclusive. The Governor of this State may designate an individual or individuals other than the contracting officer, or a board, as the authorized representative to determine appeals under this Article. In connection with any appeal proceeding under this clause, the contractor shall be afforded an opportunity to be heard and to offer evidence in Support of his appeal. Pending final decision of a dispute hereunder, the contractor shall proceed diligently with the performance of the contract and in accordance with the contracting officer's decision. Any sum or sums allowed to the contractor under the provisions of this Article or under the State Arbitration proceedings or under other State procedure shall be paid subject to approval by the chief, National Guard Bureau, for the Government's share of the cost of the Articles or work herein disputed as deemed to be within the contemplation of this contract.

#### 2-18. Payments to contractors

- A. Unless otherwise provided in the specifications, partial payments will be made as the work progresses at the end of each calendar month, or as soon thereafter as practicable, or at more frequent intervals as determined by the contracting officer, on estimates made and approved by the contracting officer. In preparing estimates the material delivered on the site and preparatory work done may be taken into consideration.
- B. In making such partial payments there shall be retained 10 percent on the estimated amount until final completion and acceptance of all work covered by the contract: Provided, however, that the contracting officer, at any time after 50 percent of the work has been completed, upon a finding that satisfactory progress is being made, may make any of the remaining partial payments in full: and provided further, that on completion and acceptance of each separated building, public work, or other division of the contract, on which the price is stated separately in the contract, payment may be made in full, including the retained percentage thereon, less authorized deductions. The retainment on partial payments of Federal funds shall

be determined by the United States Property and Fiscal Officer (USPFO) of the State in conformance with the Defense Acquisition Regulations (DAR).

- C. All material and work covered by partial payments made shall thereupon become the sole property of the State, but this provision shall not be construed as relieving the contractor from the sole responsibility for all materials and work upon which payments have been made or the restoration of any damaged work, nor as a waiver of the right of the State to require the fulfillment of all of the terms or the contract.
- D. Upon completion and acceptance of all work required hereunder, and after the contractor shall have furnished the State with a release of all claims against the State arising under and by virtue of this contract, other than such claims, if any, as may be specifically excepted by the contractor from the operation of the release, in stated amount to be set forth therein, the amount due the contractor under this contract will be paid upon the presentation of a properly executed and duly certified voucher. If the contractor's claim to amounts payable under the contract has been assigned under the Assignment of Claims Act of 1940, as amended (41 U.S.C, 15), a release may also be required of the assignee at the option of the contracting officer or USPFO of the State.

#### 2-19. Material and Workmanship

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

#### 2-20. Inspection

- A. Except as otherwise provided in subparagraph (D) hereof, all material and workmanship (if not otherwise designated by the specifications) shall be subject to inspection, examination, and testing by representatives of the contracting officer at any and all times during manufacture and/or construction (and at any and all places where such manufacture and/or construction are carried on). The State shall have the right to reject defective material and workmanship or require its correction. Rejected workmanship shall be satisfactorily corrected and rejected material shall be replaced with proper material without charge and the contractor shall promptly segregate and remove rejected material from the premises. If the contractor fails to proceed at once with the replacement of rejected material and/or the correction of defective workmanship, the State may, by contract or otherwise, replace such material and/or correct such workmanship and charge the cost thereof to the contractor, or the State may terminate the right of the contractor to proceed as provided in Clause 2-17 of this contract, the contractor and surety being liable for any damage to the same extent as provided in said Clause 2-17 for termination.
- B. The contractor shall furnish promptly, without additional charge, all reasonable facilities, labor and materials necessary for the safe and convenient inspections and tests that may be required by the contracting officer or by the USPFO of the State. All inspections and tests by the State shall be performed in such manner as not unnecessarily to delay the work. Special, full size, and performance tests shall be as described in the specifications. The contractor shall be charged with any additional cost of the inspection when material and workmanship is not ready at the time inspection is requested by the contractor.
- C. Should it be considered necessary or advisable by the State, or by the representatives of the Chief, National

Guard Bureau, at any time before final acceptance of the entire work to make an examination of the work already completed, by removing or tearing out same, the contractor shall on request promptly furnish all necessary facilities, labor, and material to accomplish such inspection. If such work is found to be defective or non-conforming in any material respect due to the fault of the contractor or a subcontractor, the contractor shall bear all the expenses of such examination and of satisfactory reconstruction. If, however, such work is found to meet the requirements of the contract, an equitable adjustment shall be made in the contract price to compensate the contractor for the additional services involved in such examination and reconstruction: and, if completion of the work has been delayed thereby, the contractor shall, in addition, be granted a suitable extension of time. Federal funding support of the cost for examination and replacement of satisfactorily completed work that requires removal or that is damaged due to inspection requirements is subject to prior approval by the Chief, National Guard Bureau, or a duly authorized representative.

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

2-21. Superintendent by Contractor

The contractor shall give personal superintendent over the work or employ a competent foreman or superintendent, satisfactory to the contracting officer, on the work site at all times during progress, with full authority to act on the contractor behalf.

2-22. Permits and responsibility for Work

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

2-23. Other Contracts

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

2-24. Additional Bond Security

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

2-25. Covenant Against Contingent Fees

The contractor warrants that no person or selling agency has been employed or retained to solicit or secure this contract upon an agreement or understanding for a commission, percentage, brokerage, or contingent fee, excepting bona fide employees or bona fide established commercial or selling agencies maintained by the contractor for the purpose of securing business. For breach or violation of this warranty the State shall

have the right to annul this contract without liability or in its discretion to deduct from the contract price or consideration the full amount of such commission, percentage, brokerage, or contingent fee.

2-26. Officials to Benefit

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

2-27. Convict Labor

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

2-28. Gratuities

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

2-29. Copeland ("Anti-Kickback") Act-Non Rebate of Wages

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

2-30. Withholding of Funds

- A. The contracting officer may withhold or cause to be withheld from the State prime contractor so much of the accrued payment or advances as may be considered necessary (i) to pay laborers and mechanics, including apprentices, trainees, watchmen, and guards, employed by the contractor or any subcontractor on the work the full amount of wages required by the contract, and (ii) to satisfy any liability of the contractor and any subcontractor for liquidated damages under paragraph (B) of the Clause entitled Contract Work Hours and Safety Standards Act - Overtime Compensation.

- B. If the contractor or any subcontractor fails to pay any laborer, mechanic, apprentice, trainee, watchman, or guard employed or working on the site of the work, all or part of the wages required by the contract, the contracting officer may, after written notice the State prime contractor, take such action as may be necessary to cause suspension of any further payments or advances until such violations have ceased.

2-31. Disputes Concerning Labor Standards

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

2-32. Subcontracts-Termination

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

2-33. Equal opportunity (See paragraphs 2-04,B 2 and G 1 through 13; Standard California Nondiscrimination Construction Contract Specifications (GOV. Code Section 12990).

2-34. Certification of Non-segregated Facilities

(Applicable to contracts, subcontracts, and to agreements with applicants who are themselves performing Federally assisted construction contracts, exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause). By the submission of this bid, the bidder, offeror, applicant or subcontractor certifies that he does not maintain or provide for his employees any segregated facilities at any of his establishments, and that he does not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. He certifies further that he will not maintain or provide for his employees any segregated facilities at any of his establishments, and that he will not permit his employees to perform their services at any location, under his control, where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause in the Contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion or national origin, because of habit, local custom or otherwise. He further agrees that (except where he has obtained identical certifications from proposed subcontractors for specific time periods) he will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause: that he will retain such certifications in his files" and that he will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods):

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

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

## 2-35. Clean Air and Water

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

## A. The bidder or offeror certifies as follows:

- (i) Any facility to be utilized in the performance of this proposed contract is ( ), is not ( ), listed on the Environmental Protection Agency List of Violating Facilities:
- (ii) The bidder/offeror will promptly notify the contracting officer, prior to award, or the receipt of any communication from the Director, Office of Federal Activities, U.S. Environment Protection Agency, indicating that any facility which is proposes for use for during the performance of the contract is under consideration to be listed on the EPA List Violating Facilities: and
- (iii) The bidder/offeror will include substantially this solicitation certification, including this paragraph (iii), in every nonexempt subcontract.

## B. The terms used in this clause have the following meanings:

- (i) The term "Air Act" means the Clean Air Act, as amended (42 U.S.C. 1857 et seq., as amended by Public Law 91-604).
- (ii) The Term "Water Act" means the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251 et seq., as amended by Public Law 92-500).
- (iii) The term "clean air standards" means any enforceable rules, regulations, guidelines, standards, limitations, orders, controls, prohibitions, or other requirements which are contained in, issued under, or otherwise adopted pursuant to the Air Act or Executive order 11738, an applicable implementation plan as described in section 110(d) of the Clean Air Act (42 U.S.C. 1875c-5(d)), an approved implementation procedure or plan under section 111(c) or section 111(d), respectively, of the Air Act 942 U.S.C. 1875c-6(c) or (d)), or an approved implementation procedure under section 112(d) of the Air Act (42 U.S.C. 1875c-7(d)).
- (iv) The term "clean water standards" means any enforceable limitation, control, condition, prohibition, standard or other requirement which is promulgated pursuant to the Water Act or contained in a permit issued to a discharge by the Environmental Protection Agency or by a State under an approved program, as authorized by section 402 of the Water Act (33 U.S.C. 1342), or by a local government to ensure compliance with pretreatment regulations as required by section 307 of the Water Act (33 U.S.C. 1317).
- (v) The term "compliance" means compliance with clean air or water standards. Compliance shall also mean compliance with a schedule or plan ordered or approved by a court of competent jurisdiction, the Environmental Protection Agency or an air or water pollution control agency in accordance with the requirement of the Air Act or Water Act and regulations issued pursuant thereto.
- (vi) The term "facility" means any building, plant, installation, structure, mine, vessel or other floating craft location, or site of operations, owned, leased, or supervised by a contractor, subcontractor, to be utilized in the performance of a contract or subcontract. Where a location or site of operations contains or includes more than one building, plant, installation, or structure, the entire location or site shall be deemed to be facility except where the Director, Office of Federal Activities, environmental Protection Agency, determines that independent facilities are co-located in one geographical area.
- (vii) The term "nonexempt contract or subcontract" means a contract or subcontract of more than \$100,000 which is not otherwise exempted pursuant to the EPA regulations implementing the Air Act and Water Act (40 CFR 15.5), as further implemented in ASP R 1-2302.4 or in FPR 1-1.230204 (whichever is

applicable) and the procedures of the Department awarding the contract.

2-36. Audit by Department of Defense

The contractor will permit access to the contractor's records of employment, employment advertisements, application forms, and other pertinent data and records by the National Guard Bureau Representative, the awarding authority or any other appropriate agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment Practices section of this contract. In addition to employment records, the Contractor will permit access to the following documentation:

- A. Examination of Cost: If this is a cost reimbursement type, incentive, time and materials, labor hour, or price re-determinable contract, or any combination thereof, the contractor shall maintain, and the contracting officer or his representatives shall have the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to reflect properly all direct and indirect costs of whatever nature claimed to have been incurred and anticipated to be incurred for the performance of this contract. Such right of examination shall include inspection at all reasonable times of the contractor's plants, or such parts thereof, as may be engaged in the performance of this contract.

- B. Cost of Pricing Data

If the contractor submitted cost or pricing data in connection with the pricing of this contract or any change or modification thereto, unless such pricing was based on adequate price competition, established catalog of market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, the contracting officer or his representatives who are employees of the State of California (or representatives listed above) shall have the right to examine all books, records, documents and other data of the contractor related to the negotiation, pricing or performance of such contract, change or modification, for the purpose of evaluating the accuracy, completeness and currency of the cost or pricing data submitted.

- C. Reports

If the contractor is required to furnish Contractor Cost Data Reports (CCDR) Contract Fund Status Reports (CFSR), or Cost Performance Reports (CPR) the contracting officer or his representatives shall have the right to examine books, records, other documents, and supporting materials, for the purpose of evaluating (i) the effectiveness of the contractor's policies and procedures to produce data compatible with the objectives of these reports, and (ii) the data reported.

- D. Availability

The materials described in (B), and (C) above shall be made available at the office of the contractor, at all reasonable times, for inspection, audit, or reproduction, until the expiration of three (3) years from the date of final payment under this contract.

- E. The contractor shall insert a clause containing all the provisions of this Clause, including this paragraph (D), in all subcontracts hereunder, except altered as necessary for proper identification of the contracting parties and the contracting officer under the State prime contract.

2-37. Subcontractor Cost or Pricing Data-Price Adjustment

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

2-38. Buy American Act

- A. Agreement: In accordance with the Buy American Act (41 U.S.C. 10a-10d) the contractor agrees that only domestic construction material will be used (by the contractor, subcontractor, and suppliers) in the performance of this contract, except for non-domestic construction material listed in the "Non-domestic Construction Materials" clause, if any, of this contract.

- B. Domestic Construction Material: "Construction material" means any article, material, or supply brought to the construction site for incorporation in the building or work. A non-manufactured construction material is a "domestic construction material" if it has been mined or produced in the United States. A manufactured construction material is a "domestic construction material" if it has been manufactured in the United States and if the cost of its components which have been mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. "Component" means any article, material, or supply directly incorporated in a construction material.
- C. Domestic Component: A component shall be considered to have been "mined, produced, or manufactured in the United States" (regardless of its source in fact) if the article, material, or supply in which it is incorporated was manufactured in the United States and the component is of a class or kind determined by the government to be not mined, produced, or manufactured in the United States in sufficient and reasonable available commercial quantities and of satisfactory quality.

#### 2-39. Definitions

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

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

#### 2-40. Approval

This contract and any subsequent termination, modifications, or change orders (including those resulting from disputes and settlements of disputes) shall be subject to the written approval of the Chief, National Guard Bureau, or his duly authorized representative, and shall not be binding until so approved.

#### 2-41. Site Investigation

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

#### 2-42. Protection of Existing Vegetation, Structures, Utilities, and Improvements

- A. The contractor will preserve and protect all existing vegetation such as trees, shrubs, and grass on or adjacent to the site of work which is not to be removed and which does not unreasonably interfere with the construction work. Care will be taken in removing trees authorized for removal to avoid damage to

vegetation to remain in place. Any limbs or branches of trees broken during such operations or by the careless operation of equipment, or by workmen, shall be trimmed with a clean cut and painted with an approved tree pruning compound as directed by the contracting officer.

- B. The contractor will protect from damage all existing improvements or utilities at or near the site of the work, the location of which to be made known to him, and will repair or restore any damage to such facilities resulting from failure to comply with the requirements of this contract or the failure to exercise reasonable care in the performance of the work. If the contractor fails or refuses to repair any such damage promptly, the contracting officer may have the necessary work performed and charge the cost thereof to the contractor.

#### 2-43. Operations and Storage Areas

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

#### 2-44. Modification Proposals-Price Breakdown

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

#### 2-45. Cleaning Up

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

#### 2-46. Inspections

The work will be conducted under the general direction of the contracting officer and is subject to inspection by his appointed inspectors to insure strict compliance with the terms of the contract. No inspector is

authorized to change any provision of the specifications without written authorization of the contracting officer, nor shall the presence or absence of an inspector relieve the contractor from any requirement of the contract.

2-47. Recycling Certification

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

2-48. Child Support Compliance Act

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

a.) The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code; and

b.) The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

| 2-49. SUSPENSION AND DISBARMENT

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

- 2-50. **EXPATRIATE CORPORATIONS:** Contractor hereby declares that it is not an expatriate corporation or subsidiary of an expatriate corporation within the meaning of PCC Section 10286 and 10286.1, and is eligible to contract with the State.

END OF SECTION 2

### SECTION 3

#### BID SUBMISSION, CONTRACT AWARD AND INSURANCE LIABILITY

- 3-01. Bid Description: The State is seeking bids based on a single, not to be exceeded cost quotation inclusive of all contractor's costs involved in performing the full scope of this service.
- a. Bids will be submitted for the entire scope of work as described in Section 4 of this Invitation for Bid (IFB). Any deviation from the specification (including qualified bids) will not be considered a valid proposal and will be cause for rejection.
  - b. Proposals must be signed by the bidder or by an officer of the bidder who has authority to sign contracts binding upon the bidder. Unsigned proposals will be rejected.
  - c. Bidders are required to submit two (2) proposals: One completed and signed original and one photocopy of the completed, signed original.
  - d. A Bidder may deliver a Proposal by:  
  
U. S. Mail; In person; or Messenger service.
  - e. Proposals must be **delivered** to the Military Department Purchasing and Contracting Office, 9800 Goethe Road, Sacramento, California 95827-3563 or P.O. Box 269101, Sacramento, California 95826-9101. Postmark dates of mailing are not relevant. Electronic mail and facsimile (FAX) transmissions **WILL NOT** be accepted in whole or in part under any circumstances. The Military Department will not accept telephonic nor telegraphic bids, or telephonic/telegraphic request to modify or withdraw bids.
- 3-02. Bid Opening: At time and date as stated in Section 1, paragraph 1-01, all bids received will be publicly opened and read at the Office of the Adjutant General, 9800 Goethe Road, Sacramento, California 95827.
- a. All bids must have reached the Purchasing and Contracting Branch prior to bid opening time.
  - b. Proof of receipt prior to deadline is a Military Department Purchasing and Contracting Branch date stamp. Internal State handling of mail can add up to 24 hours to delivery time within the Department prior to date stamping.
- 3-03. Bid Forms: Proposals must be submitted on official Military Department forms (or copied reproduction thereof) or bid will be rejected.
- 3-04. Bid Withdrawal: Prior to the published time and date, a proposal may be withdrawn by submitting a written request signed by the bidder or a duly authorized officer of the bidder. Bids may not be withdrawn after published bid opening time on the proposal due date. All bid offers will remain in effect until the contract is awarded by the State.

- 3-05. Rejection and Waiver: The State may reject any or all bids and may waive any immaterial deviation. The State's waiver of an immaterial deviation shall in no way modify the IFB or excuse the bidder from full compliance with the objectives if the bidder is awarded the contract.
- 3-06. Basis of Award of Contract: The basis of award of this contract will be the lowest responsive bid from a qualified, responsible bidder; then taking into account Small Business Preference (if applicable), See Section 1, Paragraph 1-12 and Section 2, Paragraph 2-02, g for more information.
- 3-07. Contractor's Liability Insurance: Contractor shall obtain a policy of comprehensive bodily injury and property damage liability insurance whose provisions conform to this article and which is issued by an insurance company acceptable to the Department of General Services, Office of Insurance and Risk Management.

**NOTE:**

**THE CONTRACTOR SHALL MAINTAIN INSURANCE COVERAGE AS SPECIFIED BELOW AND MAINTAIN SUCH POLICY IN FULL FORCE AND EFFECT AT ALL TIMES.**

**THE CONTRACTOR SHALL FURNISH THE MILITARY DEPARTMENT A CERTIFICATE OF INSURANCE EVIDENCING COMPLIANCE WITH THE FOLLOWING REQUIREMENTS:**

3-08. Terms of Policy:

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

- |                                    |                            |
|------------------------------------|----------------------------|
| 1. Automobile Liability (BI & PD): | \$1,000,000 Per Occurrence |
| 2. General Liability (BI & PD):    | \$1,000,000 Per Occurrence |
| 3. Workers Compensation:           | Statutory                  |

b. Insurer shall not cancel or modify policy without 30 days prior written notice to the Military Department.

c. State shall not be responsible for premiums or assessments on the policy.

d. The State of California, its officers, agents, employees and servants are included as additional insured, but only insofar as the operations under this contract are concerned.

**NOTE: THE ABOVE FOUR (4) TERMS MUST BE ON THE INSURANCE CERTIFICATE**

3-09. The Certificate Holder and the mailing address for the Certificate of Insurance is identified below:

State of California  
Military Department  
CAJS-SC-CS (W0537)  
P. O. BOX 269101  
SACRAMENTO, CA 95826-9101

END OF SECTION 3

06E9006

ARMORY WINDOW REPLACEMENT, CONCRETE RESTORATION,  
EXTERIOR PAINT AND ROOF REPAIR / COATING

LOCATED AT

624 CARLSON BOULEVARD

RICHMOND, CALIFORNIA

**CSFM File Number: 12-07-11-0015**

COVER SHEET

26 MARCH 2009

## SECTION 4

## TECHNICAL SPECIFICATIONS

06E9006

ARMORY WINDOW REPLACEMENT, CONCRETE RESTORATION  
EXTERIOR PAINT AND ROOF COATING

CALIFORNIA NATIONAL GUARD FACILITY

LOCATED AT

624 CARLSON BOULEVARD  
RICHMOND, CALIFORNIA

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## SECTION 01015

## GENERAL REQUIREMENTS

## I00000000PART 1 GENERAL

## I.1SCOPE

A.The work consists of furnishing all equipment, materials, plant and labor necessary to replace the existing windows, remove and replace 2 (two) existing vault doors, repair and coat the existing built up roof system, repair and paint existing exterior concrete walls at the Richmond Armory. Associated work to include:

1. Removal of existing steel window frames, windows, window operators and all associated mounting fasteners. Modify existing window openings as required for the proper installation of the new window system.
2. Repair existing roof and drip edge / gutter system, including but not limited to drip edge replacement, gutter replacement, blister repair, fish mouth repair, edge and base flashing repair and reseal all roof edge / flashing metal junctures with new sealant. Upon repair completion, coat entire roof with a 3 coat 32 Mil. dry film thickness "Cool Roof Coating".
3. Repair, prepare and paint all exterior concrete walls and canopy. Repair all exterior and interior concrete. Prepare and paint interior surfaces damaged by epoxy crack injection procedures. Clean and restore existing exterior brick walls. Install water repellant exterior brick veneer. Prepare and paint all exposed surfaces of fascia, metal flashings, vents and "California National Guard" sign at front high wall of Armory.
4. Contractor's lump sum base bid shall include concrete repairs. Contractor agrees to submit unit costs and do the actual repair work performed as described in these Specifications and Project Drawings. Failure to provide this information at the time of the bid opening may be grounds for bid rejection.
5. Furnish and install one new galvanized satellite dish bracket, weatherhead and cable. Furnish and install and water lines, connections and exterior hose bibs, at locations shown on project drawings.
6. Remove and replace 2 (two) vault doors with Class 5A vault doors. Coordinate location with PM and COR.

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GENERAL REQUIREMENTS  
PAGE 2

B. Lead, Asbestos and Mold. Contractor is hereby notified that analysis of paint samples indicates that the paint materials contain lead. Additionally, analysis indicates that portions of the building components at this facility contain Chrysotile Asbestos fiber. It shall be the contractor's responsibility to comply with all County, State, and Federal agency requirements for removal and disposal of lead, asbestos and mold containing materials removed or modified as part of the work of this project.

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

D. Accomplish all work in accordance with California Building Codes (2007 Edition).

E. Perform all work at the California National Guard Armory located at 624 Carlson Boulevard, Richmond, California.

I.2 CONTRACTING OFFICER'S REPRESENTATIVE

Wherever in these specifications the abbreviation COR is referenced, it shall be the same as if the term Contracting Officer's Representative is referenced.

I.3 ENGINEER/CONSTRUCTION INSPECTOR (ECI)/PROJECT MANAGER (PM)

Wherever the specifications direct the Contractor to the ENGINEER/CONSTRUCTION INSPECTOR (ECI)/PROJECT MANAGER (PM) for appropriate determination, the Contractor will direct his inquiries to the State Military Department, 9800 Goethe Road, P.O. Box 269101, Sacramento, California 95827, ATTN: CAFE-EN, Assigned Project Manager.

I.4 CONTRACTOR'S RESPONSIBILITY

A. Nothing contained in these specifications shall relieve the contractor from the responsibility of visiting the site, accurately measuring the work or otherwise insuring that the quantities used in preparing his bid are the actual quantities of the work to be accomplished under the contract. By submitting a bid the contractor confirms that he has visited the aforementioned site and verifies that the quantities used in preparing his bid are the actual quantities of the work to be accomplished under the contract.

I.5 VEHICLE MOVEMENT

The following applies to all vehicles, except emergency vehicles responding to an emergency:

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GENERAL REQUIREMENTS  
PAGE 3

A. Any vehicles on the Armory and OMS compound will operate at 10 MPH, maximum. Vehicles when in close proximity to military vehicles or buildings will operate at 5 MPH, maximum.

B. Vehicles will not be backed without a ground guide.

C. All vehicles which do not require the engine to be running for contract purposes will have the ignition turned off and the parking brake set and/or the vehicle's transmission placed in park.

I.6 CONTRACTOR STORAGE AREA AND PERSONNEL

The COR will designate an area that the contractor may use as a storage area. The contractor shall contact the COR for information regarding parking areas to be used for contractor's equipment and by contractor personnel and any restrictions that will be placed on contractor personnel while on the job site.

I.7 TEMPORARY FACILITIES

Water, electric power, and toilet facilities are available free of charge at the site. Contractor shall make arrangements with the COR for use of such facilities, and shall comply with such requirements and restrictions for their use as may be prescribed.

I.8 MATERIAL SUBMITTALS

A. Contractor shall submit to the PM for approval, one (1) copy in writing, of a complete list of material submittals and equipment to accomplish the work specified.

B. Submittals shall comply with Section 01300 of these specifications. Transmitted submittals (from Submittal List) will be tracked on Submittal Log (the list and a blank log is provided after Section 01300).

C. PM must receive submittals for Specification identified materials (no substitutions permitted) within ten (10) working days after receiving the "Proposed Contract" for signature.

D. Receipt of Submittals that substitute an "or equal" are required within fifteen (15) days after date of Contract Agreement.

E. Do not start work until PM approves all project submittals, issues special instructions, and a "Notice to Proceed" is received from the Contracting Officer.

I.9 APPROVAL OF PROCEDURES

The manufacturer's recommended installation procedures

SECTION 01015  
GENERAL REQUIREMENTS  
PAGE 4

and these specifications, will serve as a basis for inspection and acceptance or rejection of actual installation procedures used on the work.

SECTION 01015  
GENERAL REQUIREMENTS  
PAGE 5

I.10 ORDINANCES AND REGULATIONS

All work shall be accomplished in accordance with all local, State and Federal regulations. Permits and fees shall be the responsibility of the contractor at no additional cost to the Government.

I.11 WORKING DAYS

Contractor shall complete the work within ONE HUNDRED FORTYFIVE (145) working days from starting date, as notified by the contracting office.

I.12 WORKING HOURS

The work site will be available for contractor's activities from 8:00 a.m. until 4:30 p.m. Monday through Friday. The site will not be available for contractor's activities on weekends and State or Federal holidays.

I.13 SCHEDULING AND INSPECTION

F. Within fifteen (15) calendar days after receipt of Notice to Proceed, and before commencing work, the contractor shall submit in writing to the PM for approval, the complete scope of work and the procedures and sequence required to complete the work.

G. The contractor shall work directly with the PM and ECI on work scheduling and inspection procedures prior to starting any work.

I.14 AS BUILT DRAWINGS

The contractor shall maintain a set of as-built drawings on site during performance of all work, and keep the as-built drawings marked up and up to date with detailed indication of all work put in place differently than the original contract drawings. Upon completion of the work and prior to issuance of a Certificate of Completion, provide two (2) full and accurate sets of as-built drawings, for the work accomplished by all trades for this contract marked up in a neat and understandable manner, submitted to the PM.

II PART 2 PRODUCTS

II.1 MATERIALS

All materials for use under this project shall meet or exceed the standards of quality hereinafter set forth.

III PART 3 EXECUTION

III.1 QUALITY CONTROL

To insure proper project quality control and required record keeping, contractor shall comply with Section

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GENERAL REQUIREMENTS  
PAGE 6

01400.

SECTION 01015  
GENERAL REQUIREMENTS  
PAGE 7

III.2 CONTRACT CLOSEOUT

Contract closeout requires contractor compliance with  
Section 01700.

END OF SECTION

SECTION 01016  
UNIT PRICE BIDS  
PAGE 1

SECTION 01016  
UNIT BID PRICES

I000000000PART 1 GENERAL

I.1UNIT PRICE BIDS

A.Contractor's lump sum base bid shall include **spalled concrete repairs** which are estimated at 10 S.F. at the Armory building for this bid. Contractor's lump sum base bid shall be adjusted based on the actual square feet of repaired spall areas. Contractor agrees to **submit a square foot unit cost** and do the following for actual repair work performed:

1.If the area of repaired spalled concrete does not exceed 10 S.F. the lump sum base bid shall be reduced. The area difference between the estimated 10 S.F. of spalled concrete repairs and the actual square feet of repaired spalled concrete shall be multiplied by the square foot unit cost. This amount shall be deducted from the lump sum base bid.

2.If the area of repaired spalled concrete does exceed 10 S.F. the lump sum base bid shall be increased. The area difference between the estimated 10 S.F. of spalled concrete repair and the actual square feet of repaired spalled concrete shall be multiplied by the square foot unit cost. This amount shall be added to the lump sum base bid.

3.If no spalled concrete repair is needed the lump sum base bid shall reduced by an amount equal to the estimated 10 S.F. multiplied by the submitted square foot unit cost.

B.Contractor's lump sum base bid shall include **concrete crack injection repairs** which are estimated at 2000 L.F. at the Armory building for this bid. Contractor's lump sum base bid shall be adjusted based on the actual lineal feet of injection repaired crack. Contractor agrees to **submit a lineal foot unit cost** and do the following for actual repair work performed:

1.If the length of injection repaired crack does not exceed 2000 L.F. the lump sum base bid shall be reduced. The difference between the estimated 2000 L.F. of injection crack repair and the actual lineal feet of injection repaired crack shall be multiplied by the lineal foot unit cost. This amount shall be deducted from the lump sum base bid.

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UNIT PRICE BIDS  
PAGE 2

2.If the length of injection repaired crack does exceed 2000 L.F. the lump sum base bid shall be increased. The difference between the estimated 2000 L.F. of injection crack repair and the actual lineal feet repaired crack shall be multiplied by the lineal foot unit cost. This amount shall be added to the lump sum base bid.

3.If no crack injection repair is needed the lump sum base bid shall reduced by an amount equal to the estimated 2000 L.F. multiplied by the submitted lineal foot unit cost.

C.Contractor's lump sum base bid shall include **concrete routing repairs** which are estimated at 400 L.F. at the Armory building for this bid. Contractor's lump sum base bid shall be adjusted based on the actual lineal feet of concrete routed. Contractor agrees to **submit a lineal foot unit cost** and do the following for actual repair work performed:

1.If the length of routed concrete does not exceed 400 L.F. the lump sum base bid shall be reduced. The area difference between the estimated 400 L.F. of routed concrete and the actual lineal foot unit cost. This amount shall be deducted from the lump sum base bid.

2.If the length of routed concrete does exceed 400 L.F. the lump sum base bid shall be increased. The difference between the estimated 400 L.F. of routed concrete and the actual lineal feet of routed concrete shall be multiplied by the lineal foot unit cost. This amount shall be added to the lump sum base bid.

3.If no concrete routing is needed the lump sum base bid shall reduced by an amount equal to the estimated 400 L.F. multiplied by the submitted lineal foot unit cost.

D.Contractor's lump sum base bid shall include **routed panel joint repairs** which are estimated at 700 L.F. at the Armory building for this bid. Contractor's lump sum base bid shall be adjusted based on the actual lineal feet of panel joints routed. Contractor agrees to **submit a lineal foot unit cost** and do the following for actual repair work performed:

1.If the length of routed panel joints does not exceed 700 L.F. the lump sum base bid shall be reduced. The area difference between the estimated 400 L.F. of routed panel joints and the actual

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UNIT PRICE BIDS  
PAGE 3

lineal foot unit cost. This amount shall be deducted  
from the lump sum base bid.

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UNIT PRICE BIDS  
PAGE 4

2.If the length of routed concrete does exceed 700 L.F. the lump sum base bid shall be increased. The difference between the estimated 700 L.F. of routed panel joints and the actual lineal feet of routed panel joints shall be multiplied by the lineal foot unit cost. This amount shall be added to the lump sum base bid.

3.If no panel joint routing is needed the lump sum base bid shall reduced by an amount equal to the estimated 400 L.F. multiplied by the submitted lineal foot unit cost.

I.2SCHEDULE OF UNIT PRICE BID ITEMS

| ITEM DESCRIPTION          | UNIT        | ESTIMATED<br>QUANTITY |
|---------------------------|-------------|-----------------------|
| Spalled Concrete Repair   | Square Feet | 10 S.F.               |
| Injection Crack Repair    | Lineal Feet | 2000 L.F.             |
| Routed Concrete Repair    | Lineal Feet | 400 L.F.              |
| Routed Panel Joint Repair | Lineal Feet | 700 L.F.              |

END OF SECTION

## SECTION 01300

## SUBMITTALS

## 00000000I PART 1 GENERAL

## I.1 SECTION INCLUDES

- A. Submittal procedures.
- B. Construction progress schedules.
- C. Product data.
- D. Manufacturer's instructions.
- E. Manufacturer's warranty certificates.
- F. Shop drawings.

## I.20 RELATED SECTIONS

See individual specification sections for submittal requirements.

## I.3 SUBMITTAL PROCEDURES

- A. **Transmitted submittals will be tracked using a submittal log provided with this Section.** *The items described on attached submittal list are presented to the contractor only as a guideline for required submittals. More may be required by the COR.*
- B. Sequentially number the transmittal forms. Re-submittals to have original number with an alphabetic suffix.
- C. Insure that all submittals including all data sheets, shop drawings and samples are identified and signed by the contractor with project location, contract number, and contractor's name.
- D. Identify Project, Contractor, Subcontractor or supplier; pertinent Drawing sheet and detail number(s), and specification Section number, as

appropriate.

## SECTION 01300

## SUBMITTALS

## PAGE 3

- E. Apply Contractor's stamp, signed or initialed certifying that review, verification of Products required, field dimensions, adjacent construction Work, and coordination of information, is in accordance with the requirements of the Work and Contract Documents.
- F. Schedule submittals to expedite the Project, and deliver required copies to PM for review and approval.
- G. Identify variations from Contract Documents and Product or system limitations which may be detrimental to successful performance of the completed Work.
- H. Revise and resubmit submittals as required, identify all changes made since previous submittal.

## I.40 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit two (2) copies of initial progress schedule within fifteen (15) days after date of established notice to proceed for PM review and approval.
- B. Revise and resubmit as required.

## I.50 PRODUCT DATA

- A. Submit (1) one copy to the PM.
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturer's standard data to provide information unique to this project.
- C. Include manufacturer's style, specification or catalog cuts, color chips for each material proposed for use. Approval of proposed materials will be based on manufacturer's data and compliance with contract documents. Each item of material submitted shall be initialed by the contractor as verification that the submittal has been reviewed in detail and is, in fact, the contractor's choice of materials.

## SECTION 01300

## SUBMITTALS

PAGE 4

## I.60 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification Sections, submit manufacturer's printed instructions for installation, start-up, adjusting, finishing, and maintenance, in quantities specified for Product Data.
- B. Identify conflicts between manufacturer's instructions and Contract Documents.

## I.70 MANUFACTURER'S WARRANTY CERTIFICATES

- A. When specified in individual specification Sections, submit manufacturer's certificate to PM for review, in quantities specified in PRODUCT DATA paragraph of this section.
- B. Specify material or product data that conforms to or exceeds the requirements of the contract. Submit supporting reference data, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to the Engineer.

## I.80 SHOP DRAWINGS

Submit in the form of one reproducible transparency and three opaque reproductions, two copies of which will be retained by PM/Construction Inspector.

## II0 PART 2 PRODUCTS

Not Used

## III PART 3 EXECUTION

Not Used

SECTION 01300  
SUBMITTALS  
PAGE 5

END OF SECTION

## SECTION 01400

## QUALITY CONTROL

## 00000000I PART 1 GENERAL

## I.1 SECTION INCLUDES

- A. Quality assurance and control of installation.
- B. Inspection and testing.

## I.20 RELATED SECTIONS

Section 01300 - Submittals: Submission of  
Manufacturer's Instructions and Certificates.

## I.3 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Contractor must insure quality control over, products received from suppliers, manufacturers, services, site conditions, and workmanship to produce work of specified quality.
- B. Comply fully with manufacturer's instructions, including each step in sequence.
- C. Should manufacturer's instructions conflict with Contract Documents, request clarification from Contracting Officer Representative before proceeding.
- D. Perform work by persons qualified to produce workmanship of specified quality.
- E. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, and physical distortion.

## I.40 INSPECTION AND TESTING

- A. The State Military Department will designate a representative to perform inspection and to review the contractor's quality of work.
- B. All testing and inspection shall be made at the job site in connection with the actual installation.

## II00 PART 2 PRODUCTS

Not Used

## III PART 3 EXECUTION

Not Used

END OF SECTION

## SECTION 01600

## MATERIAL AND EQUIPMENT

## 00000000I PART 1 GENERAL

## I.1 SECTION INCLUDES

- A. Products
- B. Transportation and handling
- C. Storage and protection
- D. Product options
- E. Substitutions

## I.20 RELATED SECTIONS

- A. Document - Instructions to Bidders: Product options and substitution procedures.
- B. Section 01015 - General Requirements
- C. Section 01300 - Submittals

## I.30 PRODUCTS

- A. Products: Means new material, machinery, components, equipment, fixtures, and systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components required for reuse.
- B. Do not use materials and equipment removed from existing premises, except as specifically permitted by the Contract Documents.
- C. Provide interchangeable components of the same manufacturer for similar components or details.
- D. Painting material shall be delivered to job-site in new, dry, unopened containers, clearly showing catalog number, product description, where and by

whom manufactured, in quantities sufficient to assure continuous work.

I.40      TRANSPORTATION AND HANDLING

- A. Transport and handle products in accordance with manufacturer's instructions.
- B. Promptly inspect shipments to assure that products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products by methods to prevent soiling, disfigurement, or damage.

I.50      STORAGE AND PROTECTION

- A. Store and protect products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive products in weather-tight, climate controlled enclosures.
- B. Assure that materials are kept clean, and away from excessive heat and cold; do not remove labels or tear off protective covering until ready for application; store in an enclosed area where temperature is above 50 degrees and below 90 degrees Fahrenheit, securely tied with rope. Material shall not be stored directly on the ground.
- C. For exterior storage of fabricated products, place on sloped supports, above ground.
- D. Provide off-site storage and protection when site does not permit on-site storage or protection.
- E. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to avoid condensation.
- F. Provide equipment and personnel to store products by methods to prevent soiling, disfigurement, or damage.

- G. Arrange storage of products to permit access for inspection. Periodically inspect to assure products are undamaged and are maintained under specified conditions.

SECTION 01600  
MATERIAL AND EQUIPMENT  
PAGE 4

I.60 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Any product meeting those standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of manufacturers named and meeting specifications, no options or substitutions allowed.
- C. Products Specified by Naming One or More Manufacturers with a Provision for Substitutions: Submit a request for substitution for any manufacturer not named.

I.70 SUBSTITUTIONS

- A. Instructions to Bidders specify time restrictions for submitting requests for Substitutions during the bidding period.
- B. Engineer will consider requests for Substitutions only within 15 days after date of Contract Agreement.
- C. Substitutions may be considered when a product becomes unavailable through no fault of the Contractor.
- D. Document each request with complete data substantiating compliance of proposed Substitution with Contract Documents.
- E. A request constitutes a representation that the Contractor:
  - 1. Has investigated proposed product and determined that it meets or exceeds the quality level of the specified product.
  - 2. Will provide the same warranty for the Substitution as for the specified product.
  - 3. Will coordinate installation and make changes to other Work which may be required for the Work to be complete with no additional cost to the Government.

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MATERIAL AND EQUIPMENT  
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4. Waives claims for additional costs or time extension which may subsequently become apparent.

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MATERIAL AND EQUIPMENT  
PAGE 6

F.0 Substitutions will not be considered when they are indicated or implied on shop drawing or product data submittals, without separate written request, or when acceptance will require revision to the Contract Documents.

G. Substitution Submittal Procedure:

1. Submit three copies of request for Substitution for consideration. Limit each request to one proposed Substitution.
2. Submit shop drawings, product data, and certified test results attesting to the proposed product equivalence.
3. The Project Manager will notify Contractor, in writing, of decision to accept or reject request.

II000 PART 2 PRODUCTS

Not Used

III PART 3 EXECUTION

Not Used

END OF SECTION

## SECTION 01700

## CONTRACT CLOSEOUT

## 00000000I PART 1 GENERAL

## I.1 SECTION INCLUDES

- A. Closeout procedures
- B. Final cleaning
- C. Adjusting
- D. Project record documents

## I.20 CLOSEOUT PROCEDURES

- A. Submit written certification that Contract Documents have been reviewed, Work has been inspected and accepted, and that Work is complete in accordance with Contract Documents and ready for inspection.
- B. Comply with requirements of specification sections 01015 and 01300.
- C. Provide warranty certificates to Project Manager.
- D. Submit final Application for Payment to COR identifying total adjusted Contract Sum, previous payments, and sum remaining due.

## I.30 FINAL CLEANING

- A. Execute final cleaning prior to final inspection.
- B. Clean site; sweep paved areas.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the site.
- D. Repair and repaint any items or surfaces damaged by work of this contract in accordance with, paint, and other manufacturer's requirements and Section 09910.

## I.40 ADJUSTING

Adjust operating Products and equipment to ensure smooth, proper operation. Verify all existing functioning equipment in area of work still function after work is accomplished.

## I.5 PROJECT RECORD DOCUMENTS

A. Maintain on site, one set of the following record documents; record actual revisions to the Work:

1. Project Drawings
2. Specifications
3. Change Orders and other Modifications to the Contract.
4. Reviewed product data, and samples
5. Manufacturers Warranty Certificate(s)

B.0 Store Record Documents separate from documents used for construction.

C. Record information concurrent with construction progress.

D. Specifications: Legibly mark and record at each Product section description of actual Products installed, including the following:

1. Manufacturer's name and product model and number.
2. Product substitutions or alternates utilized.
3. Changes made by Addenda and Modifications.

E.0 Record Documents and Shop Drawings: Legibly mark each item to record actual construction including:

1. Field changes of dimension and detail.
2. Details not on original Contract Drawings.
3. Submit one (1) set prior to final inspection, bound in 8-1/2 x 11 inch text pages, 3-D side ring binder.
4. Internally subdivide the binder contents with page dividers, logically organized, and tabbed to identify contents of binder.

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CONTRACT CLOSEOUT  
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5. Part 1: Directory, listing names, addresses, and telephone numbers of Contractor, and Subcontractors.
6. Part 2: Project documents and certificates, including the following:
7. Shop drawings and product data.
8. Warranty certificates.

F.0 Submit one copy of completed volume in final form seven (7) days prior to final inspection. Revise content of documents as required prior to final contract close out per COR directions.

G. Submit final revised volume within ten (10) days after final inspection.

II00 PART 2 PRODUCTS

Not Used

III PART 3 EXECUTION

Not Used

END OF SECTION

## SECTION 02082

## ASBESTOS ABATEMENT

## 00000000I PART 1 GENERAL

## I.1 SECTION INCLUDES

Removal of asbestos-containing material.

## I.2 RELATED DOCUMENTS AND SECTIONS

A. Section 01015: Summary of Work.

B. Section 01300: Submittals.

## I.30 REFERENCES

A. General - Codes, regulations and references applicable to asbestos abatement work include but are not limited to the following:

1. American National Standards Institute (ANSI) publications:

Z87.1-79 Occupational and Educational Eye and Face Protection.

Z88.2-80 Practices for Respiratory Protection.

Z89.1-81 Requirements for Protective Headgear for Industrial workers.

Z41-83 Personal Protection - Protective Footwear.

Z88.6-84 Respiratory Protection - Respiratory Use Physical Qualifications for Personnel.

2. American Society for Testing and Materials (ASTM) publications:

D1331-56 Surface and Interfacial Tensions of Solutions of Surface Active Agents.

B.0 Code of Federal Regulations (CFR):

- 29 CFR 1910.12            Construction Work.
- 29 CFR 1910.20            General Safety and Health  
Provisions Access to Employee  
Exposure and Medical Records.
- 29 CFR 1910               Subpart I, Personal Protective  
Equipment.
- 29 CFR 1910.145          Specifications for Accident Prevention  
Signs and tags.
- 29 CFR 1910.1101        Asbestos.
- 34 CFR 231                Appendix C, Procedures for Containing  
and Removing Building Materials  
Containing Asbestos.
- C.   Compressed Gas Association, Inc.:
- G-7.1                    Commodity Specification for Air (1973).
- D.   National Fire Protection Association (NFPA):
- CEC - California Electrical Code 2007 Edition.
- E.   UL 586-77 (R1982)      Test Performance of High  
Efficiency Particulate Air Filter Units (June 10,  
1977, 5th Ed.; Rev. March 12, 1982).
- F.   National Institute for Occupation Safety and Health  
     (NIOSH):
- N31, 3rd. Ed., Vol. 1, Manual of Analytical Methods,  
     Method 7400 Fibers.
- G.   Environmental Protection Agency Documents:
- EPA 530-SW-85-007        Asbestos Waste Management  
     Guidance, May 1985.
- EPA 560/5-85-024        Guidance for Controlling  
     Asbestos-Containing Material  
     in Buildings, June 1985.
- EPA 600/4-85-049        Measuring Airborne Asbestos  
     Following an Abatement Action,  
     November 1985.

EPA 560 OPTS-86.001      A Guide to Respiratory  
Protection for the Asbestos  
Abatement Industry, April 1986.

H. California Code of Regulations (CCR):

Title 8, Article 2.5      Registration Asbestos-Related  
Work                      Section 341.6  
through 341.14.

Title 8, Section 5208      General Industry Safety  
Orders, Asbestos Regulations.

Title 22, Division 4,      Minimum Standards for  
Chapter 30                  Management of Hazardous and  
Extremely Hazardous Waste.

I. Local Air Pollution Control District Regulations.

I.40 DEFINITIONS

- A. Abatement: Procedures to control fiber release from asbestos-containing building materials. Includes removal, repair, encapsulation, and enclosure.
- B. Action Level: An exposure of airborne concentrations of asbestos fibers in excess of 0.10 fiber per cubic centimeter of air.
- C. Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time.
- D. Air Sampling Professional: The professional contracted or employed to supervise air monitoring and analysis schemes. This individual is also responsible for recognition of technical deficiencies in Worker protection equipment and procedures during both planning and on-site phases of an abatement project. This individual shall be certified in the comprehensive practice of (industrial hygiene) or (air sampling of hazardous materials) by The Comprehensive Practice of Industrial Hygiene (C.I.H.) and have specialized experience in air sampling for asbestos and be approved by the State. Other acceptable air sampling professionals include environmental engineer, architects, chemists, and environmental scientists with equivalent experience in asbestos/air monitoring

and worker protection.

- E. Amended Water: Water to which a surfactant has been added.
- F. Area Monitoring: Sampling of asbestos fiber concentrations within the asbestos Work Area and outside the asbestos Work Area which is representative of the airborne concentrations of asbestos fibers which may reach the breathing zone.

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- G. Asbestos: The term asbestos includes chrysotile, amosite, crocidolite, tremolite, anthophyllite, and actinolite.
- H. Asbestos-Containing Material (ACM) - Material composed of asbestos of any type and in any amount greater than one-tenth of one percent by weight, either alone or mixed with other fibrous or non-fibrous materials.
- I. Asbestos Fibers: This expression refers to asbestos fibers having an aspect ratio of 3:1 and longer than 5 micrometers.
- J. Authorized Visitor: The State's Project team member, the State's Representative, and any Representative of a regulatory or other agency having jurisdiction over the project.
- K. Encapsulant (sealant): A liquid material which can be applied to asbestos containing material and which controls the possible release of asbestos fiber from the material either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).
- L. Encapsulation: Procedures necessary to apply an encapsulant to asbestos-containing building materials to control the possible release of asbestos fibers into the ambient air.
- M. Excursion Limit: A limit of 1.0 f/cc over a 30-minute sampling period to which employees may not be exposed without appropriate respiratory protection.
- N. Friable Asbestos Material: Material that contains more than one tenth percent asbestos by weight and that can be crumbled, pulverized, or reduced to powder by hand pressure when dry.
- O. HEPA Vacuum Equipment: Vacuuming equipment with a HEPA filter system.
- P. Non-Friable Asbestos Material: Material that contains asbestos in which the fibers have been locked in by a

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bonding agent, coating, binder, or other material so that the asbestos is well bound and will not release fibers in excess of the asbestos control limit during any appropriate use, handling, demolition, storage, transportation, processing or disposal.

- Q. Personnel Monitoring: Sampling of asbestos fiber concentrations within the breathing zone of an asbestos Worker.
- R. Removal: Procedures necessary to remove asbestos-containing materials from designated areas and to dispose of these materials at an acceptable site.

I.50 SUBMITTALS

- A. Requirements are as set forth in the General Conditions, Supplementary Conditions, Sections 01015 and 01300 for items required to be submitted under this section.
- B. Product data shall include manufacturer's product data, specifications, samples and application instructions and other pertinent information as necessary.
- C. Alternatives: Product substitution submittal shall be in accordance with the General Conditions and Supplementary Conditions of the contract, and Section 01300.
- D. Disposal Certifications: Submit proof satisfactory to the State that required permits, site location and arrangements for transport and disposal of asbestos-containing waste materials have been made.

I.60 QUALITY ASSURANCE

- A. Qualification: Within ten (10) days from Notice to Proceed, submit the following documents.
- B. Registration: Submit copy of the registration for Asbestos-Related Work from the Division of Occupational Safety and Health in accordance with Title 8, Article 2.5 of the California Code of Regulations.
- C. Personnel Training--Superintendent and Foreman: Submit copy of certificates signed by the superintendent and

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foreman that he or she has successfully completed a training course in asbestos abatement project supervision offered by an EPA endorsed educational institution.

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- D. Personnel Training-Workers: Submit copy of the asbestos abatement employee training program, and certificates signed by each employee that he or she has had instructions on the hazards of asbestos exposure, has had training in asbestos removal, and understands this instruction.
- E. Respirators: Submit a written standard operating procedure governing selection, fit-testing, and use of respirators in accordance with 29 CFR 1910, Subpart I, 29 CFR 1926.58, CGAI Standard G7.1, ANSI Z88.2, and Z88.6. Also submit manufacturer's certification that the respirators to be used in this project comply with these regulatory requirements.
- F. Medical Examination: Submit proof that personnel who will be entering contaminated areas have had medical examinations, and furnish the results of said exam to the State. Comply with 29 CFR 1910.20 for access to employee exposure and medical records.
1. Before exposure to airborne asbestos, provide each employee with a comprehensive medical exam meeting the general definition outlined in California Administration Code Title 8, CCR Section 5208 (j). No employee shall be allowed to enter the Work Area without having first provided a copy of his Medical History to the State.
  2. Submit an employee roster to the State for each Work shift and confirm in writing within 24 hours of commencement of shift.
- G.0 Notifications, Communications and Postings:
1. Submit copies of notifications to all appropriate Government agencies, including the following:
    - a. Division of Occupational Safety and Health  
Occupational Carcinogen Control Unit  
525 Golden Gate Avenue  
San Francisco, CA 94602  
(415) 557-2037

Notification shall be in accordance with the Section

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341.9 of Title 8 of California Code of Regulations.

2.0 Copies of Government agency correspondence shall be included in the submittals.

H.0 Safety Compliance: In addition to detailed requirements of this Specification, comply with laws, ordinances, rules, and regulations of federal, state, regional, and local authorities regarding handling, storing, transporting, and disposing of asbestos waste materials. Comply with applicable requirements of the current issue of 29 CFR 1910.1101, 29 CFR 1926.58, and 40 CFR 61, Subparts A, & M, 40 CFR 61.152, and CCR Section 5208. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting Work. Where requirements of this Specification and reference documents vary, the most stringent requirement shall apply.

I. Contractor shall have at least one copy each of 29 CFR 1910, Subpart I, 29.CFR.1910.1101; 29 CFR 1926.58; 40 CFR Part 61, Subparts A & M; and CCR, Title 8, Section 5208, at his office and also at the job site.

J. Before the commencement of any Work at the site, post bilingual EPA and CAL/OSHA caution signs in and around the Work Area to comply with EPA and OSHA regulations.

I.70 FIELD AIR SAMPLING:

Personnel monitoring and other monitoring which is required by law or considered necessary by the Contractor for Worker protection shall be the responsibility of the Contractor and performed by Contractor's Air Sampling Professional.

I.8 CERTIFICATIONS:

Rental Equipment: When rental equipment is to be used in removal areas or to transport waste materials, a copy of the written notification provided to the rental company informing them of the nature of use of the rented equipment shall be submitted to the Contracting Officer's Representative, and signed by the rental company.

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II0 PART 2 PRODUCTS

II.1 GENERAL

Submit manufacturer's product data for all the items listed  
under Part 2 Products.

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II.2 PROTECTIVE PACKAGING

- A. All asbestos containing material shall be disposed of at a Class III Disposal facility that will accept asbestos containing materials.
- B. The abatement Contractor shall comply with all Federal, State, Local and OSHA requirements for the disposal of asbestos containing materials.

II.30 WARNING LABELS AND SIGNS

As required by 29 CFR 1926.58 and 29 CFR 1910.145.

II.4 PERSONAL PROTECTIVE EQUIPMENT

- A. Personal Protective Equipment shall comply with the requirements of 29 CFR 1910, Subpart I.
- B. Work clothes shall consist of disposable, full-body coveralls, head covers, boots, rubber gloves, and sneakers or equivalent in accordance with 29 CFA 1926.58, and ANSI Z41. Sleeves at wrists and cuffs at ankles shall be taped secure.
- C. Eye protection and hard hats shall be available as required by applicable safety regulations and shall conform to ANSI 87.1 and 89.1.
- D. Provide authorized visitors with suitable protective clothing, headgear, eye protection, and footwear whenever they are required to enter Work area.

II.50 RESPIRATORS

- A. Provide all workers, foremen, superintendents, authorized visitors, and inspectors personally issued and marked respiratory equipment jointly approved by NIOSH/MSHA. When respirators with disposable filters are employed, provide sufficient filters for replacement as recommended by manufacturers or this specification. Selection of respirators shall be made according to the guidance of 29 CFR 1910 Subpart I; ANSI Z88.2; CGAI G7.1; EPA 560 OPTS-86.001.

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- B. When positive pressure supplied air Type "C" equipped with full face piece respirators are employed, the Air Supply System shall provide Grade "D" breathing air in accordance with OSHA 29 CFR 1910 Subpart I and ANSI Z88.2 and CGAI G7.1.
- C. The Compressed Air system for Type "C" Respirators shall be high pressure (nominal 100 psi), with a compressor capacity to satisfy the respirator manufacturer's recommendations. The receiver shall have sufficient capacity to allow a 15 minute escape time for the respirator wearers in the event of compressor failure or malfunction. Type C supplied air respirators with HEPA filter disconnect may be used as an alternate to the 15 minute escape time required with event of compressor failure for Type C respirators. The Compressed Air System shall have compressor failure alarm, high temperature alarm, carbon monoxide alarm, and suitable in-line air purifying sorbent beds and filters to assure Grade "D" breathing air.
- D. The minimum respiratory protection required for this project is as follows:
  - 1. Use half face mask air purifying respirators approved for asbestos in case the removal activity generates fibers.
  - 2. If the fiber level at the work area exceeds 0.1 fiber/cc the respirator shall be upgraded to "powered air purifying respirator" full face piece with high efficiency filters.

### III000 PART 3 EXECUTION

#### III.1 PROJECT PROCEDURES

##### Initial Testing Procedures:

- 1. Furnish a minimum of two workers to manually remove existing asbestos containing materials for a period of four hours. Workers and area of work will be monitored by an Air Sampling Professional, certified by the American Board of Industrial Hygiene and approved by the State. Use work practices to

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minimize fragmentation and tearing of material that  
contribute to increased dust generation.

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2. Testing shall determine worker exposure level on an 8-hour time weighted average. If testing demonstrates that worker exposure is below action level of 0.1 fiber/cc of air calculated as an 8-hour time weighted average, the following shall not be required: Worker's using Personal Protective Equipment, Respirators, Decontamination Enclosure System (General), Worker Decontamination Enclosure System and Equipment Decontamination Enclosure System.
3. Dispose of removed material as specified in Paragraph III.5.

III.200 ABATEMENT PROCEDURE PLANS

- A. Submit a detailed plan of the work procedures for abatement of asbestos-containing materials to COR. Include the following:
- B. Initial Testing Procedures. If initial testing procedure results in fiber level below action level, follow the same manual removal procedure for remainder of asbestos containing materials removal as outlined in the Paragraph III.1.A. above.
- C. Personnel monitoring procedures in accordance with 29 CFR 1926.58.
- D. Phasing of abatement work indicating daily roster of workers for each phase.
- E. Security system warning signs locations in accordance with 29 CFR 1926.58.
- F. Detailed plans for worker decontamination facility and equipment decontamination facility, and toilets showing connections to the work area.
- G. Standard procedures for protecting workers, visitors, and employees and protection of spaces outside work area from contamination.

III.30 EMERGENCY PRECAUTIONS AND PROCEDURES

- A. Establish emergency and fire exits from the Work Area.

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- B. Local medical emergency personnel, both ambulance crews and hospital emergency room staff, shall be notified prior to commencement of abatement operations as to the possibility of having to handle contaminated or injured Workers, and shall be advised on safe decontamination.
- C. Contractor shall be prepared to administer first aid to injured personnel after decontamination. Seriously injured personnel shall be treated immediately or evacuated without delay for decontamination. When an injury occurs, the Contractor shall stop Work and implement fiber reduction techniques (e.g., water spraying) until the injured person has been removed from the Work Area.

### III.40 PREPARATION

#### A. Work Areas:

- 1. Do not begin Work until area is free of loose equipment.
- 2. Clean the proposed work areas using HEPA filtered vacuum equipment or wet cleaning methods as necessary to maintain fiber levels at or below 0.1 f/cc. Methods that raise dust, such as dry sweeping or vacuuming with equipment not equipped with HEPA filters shall not be used.
- 3. Seal off openings, including but not limited to corridors, doorways, ducts, grills, diffusers, and any other penetrations into building interior, with plastic sheeting sealed with tape. Doorways and corridors which will not be used for passage during Work must be sealed with barriers.
- 4. Maintain emergency and fire exits from Work Areas.

#### B.0 Equipment Decontamination Enclosure System:

- 1. Provide an equipment decontamination enclosure system consisting of areas as follows:
  - a. A wet sponge area to clean the outside of bagged waste.

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- b. A holding area for the bagged asbestos containing materials waste.

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C.00 Asbestos abatement work shall not commence until:

1. Arrangements have been made for disposal of waste at an acceptable site and submitted to the Engineer for approval.
2. Tools, equipment and material waste receptors are on hand.
3. Preparatory steps have been taken and applicable notices posted and permits obtained.
4. Contractor submittal for isolating non-asbestos work areas have been reviewed and approved by the Government.
5. Timing of removal work has been coordinated with window installation and concrete repair work, through the Construction Inspector and COR. Removal shall not be commenced until it is determined that removal can be accomplished and window installation or temporary protection can be completed without danger of damage by inclement weather.

III.500 DISPOSAL

- A. Waste Transportation: Submit to ECI the method of transport of Asbestos containing materials waste including name, address, EPA I.D. number and telephone number of transporter.
- B. Asbestos Containing Material Waste Site: Submit to ECI for approval, the name, address, EPA I.D. number and telephone number of the Class III (3) waste site(s) to be utilized for disposal.
- C. The sealed asbestos containers shall be delivered to Contractor's pre-designated approved Class III Waste Site for burial; in accordance with Title 22, CCR, EPA guidelines and 40 CFR 61.156 and local Air Pollution Control District Regulations.
- D. Notify the State 48 hours in advance of the time when contaminated materials are to be removed from the site.

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- E. Contractor shall be responsible for safe handling and transportation of asbestos-containing waste generated by this Contract to the designated Class III Waste Site.
- F. Contractor shall hold the State of California Military Department harmless for claims, damages, losses, and expenses against the Government, including attorney's fees arising out of or resulting from asbestos spills on the site or spills en route to the disposal site.

III.60 AIR MONITORING

Area Air Monitoring:

- 1. Throughout the abatement process area air monitoring shall be conducted by an approved Observation Service to ensure Work is done in conformance with fiber concentration limits in accordance with 29 CFR 1926.58.
- 2. If area air monitoring outside the Work Area or personnel air monitoring results are in excess of 0.05 f/cc, Contractor shall make changes in work procedures to assure compliance with minimum standards. Unsatisfactory results are fiber counts in excess of 0.05 fibers/cc by PCM or 0.01 asbestos fibers/cc by TEM, determined as a TWA outside the work area for Area Air Monitoring.

III.700 CLEAN UP

Maintain a clean project site during and upon completion of Work of this Section. Cleaning shall be in accordance with Section 01700.

END OF SECTION

## SECTION 02090

## REMOVAL AND DISPOSAL OF LEAD-CONTAINING PAINT

## I PART 1 - GENERAL

## I.1 GENERAL REQUIREMENTS

- A. This specification section provides requirements for the removal, handling, transporting, storage and disposal of lead based coatings. The Contractor shall comply with all Federal, State and Local regulations for removal, handling, transporting, storing and disposing of lead based coatings.

## I.2 REFERENCES

- A. The publications listed below form a part of this specification to the extent referenced. The publications are referred within the text by the basic designation only.

- 1. AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
  - a. ANSI Z9.2 - 1979 Fundamentals Governing the Design and Operation of Local Exhaust Systems
  - b. ANSI Z88.2 - 1980 Respiratory Protection
- 2. CALIFORNIA CODE OF REGULATIONS (CCR)
  - a. TITLE 22 - California Code of Regulations
- 3. CODE OF FEDERAL REGULATIONS (CFR)
  - a. 29 CFR 1910.94 - Ventilation
  - b. 29 CFR 1910.1025 - Respiratory Protection
  - c. 29 CFR 1910.1025 - Lead
  - d. 29 CFR 1910.1200 - Hazard Communication
  - e. 29 CFR 1926.55 - Gases, Vapors, Fumes, Dusts and Mists
  - f. 29 CFR 1926.57 - Ventilation

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- g. 29 CFR 1926.62 - Lead
  - h. 40 CFR 52 - Clean Air Act
  - i. 40 CFR 260 - Hazardous Waste Management Systems: General.
  - j. 40 CFR 261 - Identification and Listing of Hazardous Waste
  - k. 40 CFR 262 - Generators of Hazardous Waste
  - l. 40 CFR 263 - Transporters of Hazardous Waste
  - m. 40 CFR 264 - Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
  - n. 40 CFR 265 - Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities
  - o. 40 CFR 172 - Hazardous Materials Tables and Hazardous Materials Communications Regulations 40 CFR 178 Shipping Container Specification
4. UNDERWRITERS LABORATOIRES INC. (UL)
- a. UL 586 - 1990 High-Efficiency, Particulate, Air Filter Units

### I.3 DEFINITIIONS

#### A. Action Level for Lead Based Coatings

- 1. Action Level for Airborne Lead Concentrations: Employee exposure, without regard to use of respirators, to an airborne concentration of lead of 30 micrograms per cubic meter of air averaged over an 8-hour period. As used in this section, "30 micrograms per cubic meter

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of air" refers to the action level.

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2. Action Level for Lead Content: The level of lead concentration established for each type of analysis performed, which if the lead concentration equals or exceeds the action level specified herein, renders the material hazardous.
  - a. Action Level for Toxicity Characteristic Leaching Procedure (TCLP) by EPA 200.7: Action level for TCLP is 5.0 milligrams per liter.
  - b. Action Level for Total Threshold Limit Concentration Leak (TTLC) by EPA 6010: Action level for TTLC is 1000 milligrams per kilogram.
  - c. Action Level for Soluble Threshold Limit Concentration (STLC) by EPA 200.7: Action level for STLC is 5.0 milligrams per liter.
- B. Area Monitoring: Sampling of lead concentrations within the lead control area and inside the physical boundaries which is representative of the airborne lead concentrations which may reach the breathing zone of personnel potentially exposed to lead.
- C. Physical Boundary: Area physically roped or partitioned off around an enclosed lead control area to limit unauthorized entry of personnel. As used in this section, "inside boundary" shall mean the same as "outside lead control area."
- D. Certified Industrial Hygienist (CIH): As used in this section, refers to an Industrial Hygienist employed by the Contractor and is certified by the American Board of Industrial Hygiene in comprehensive practice.
- E. Change Rooms and Shower Facilities: Rooms within the designated physical boundary around the lead control area equipped with separate storage facilities for clean protective work clothing and

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equipment and for street clothes which prevent cross-contamination.

- F. Decontamination Room: Room for removal of contaminated personal protective equipment (PPE).
- G. Eight-Hour Time Weighted Average (TWA): Airborne concentration of lead averaged over an 8-hour workday to which an employee is exposed.
- H. High Efficiency Particulate Air (HEPA) Filter Equipment: HEPA filtered vacuuming equipment with a UL 586 filter system capable of collecting and retaining lead-contaminated paint dust. A high efficiency particulate filter means 99.97 percent efficient against 0.3 micron size particles.
- I. Lead: Metallic lead, inorganic lead compounds, and organic lead compounds.
- J. Lead Control Area: An enclosed area or structure with full containment to prevent the spread of lead dust, paint chips, or debris of lead-containing paint removal operations. The lead control area is isolated by physical boundaries to prevent unauthorized entry of personnel.
- K. Lead Permissible Exposure Limit (PEL): Fifty micrograms per cubic meter of air as an 8-hour time weighted average as determined by 29 CFR 1910.1025. If an employee is exposed for more than 8 hours in a work day, the PEL shall be determined by the following formula:  
  
$$\text{PEL (micrograms/cubic meter of air)} = 400 / \# \text{ hours worked per day.}$$
- L. Personal Monitoring: Sampling of lead concentrations within the breathing zone of an employee to determine the 8-hour time weighted average concentration in accordance with 29 CFR 1910.1025. Samples shall be representative of the employee's work tasks. Breathing zone shall be considered an area within a hemisphere,

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forward of the shoulder, with a radius of 6 to 9 inches and the center at the nose or mouth of an employee.

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I.4 GENERAL DESCRIPTION

- A. The work includes removal and disposal of lead-containing paint from contaminated surfaces as indicated.
1. Removal shall be accomplished by removal of unsound lead base coatings from the contaminated surfaces within the area of work as identified on the project drawings.
  2. In some instances removal may be accomplished by complete removal of contaminated surfaces such as fascia boards, gutters and roof flashings.
  3. Prepare all surfaces for the application of new paint coatings in accordance with and as specified in specification section 09910.
  4. Additionally, the contractor shall dispose of all stripped lead base coatings and demolition materials which are coated with lead base paints.

I.5 QUALITY ASSURANCE

- A. Medical Examinations: Before exposure to lead-contaminated dust, provide workers with a comprehensive medical examination as required by 29 CFR 1910.1025 and 29 CFR 1910.1200. The examination will not be required if adequate records show that employees have been examined as required by 29 CFR 1910.1025 within the last year.
1. Medical Records: Maintain complete and accurate medical records of employees for a period of at least 40 years or for the duration of employment plus 20 years, whichever is longer.
- B. CIH Responsibilities:
1. Certify training.
  2. Review and approve lead-containing paint

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removal plan for conformance to the applicable referenced standards.

3. Inspect lead-containing paint removal work for conformance with the approved plan.
  4. Ensure work is performed in strict accordance with specifications at all times.
  5. Ensure hazardous exposure to personnel and to the environment are adequately controlled at all times.
- C. Training: Train each employee performing paint removal, disposal, and air sampling operations prior to the time of initial job assignment, in accordance with 29 CFR 1910.1025.
1. Training Certification: Submit certificates signed and dated by the CIH and by each employee stating that the employee has received training.
- D. Respiratory Protection Program:
1. Furnish each employee required to wear a negative pressure respirator or other appropriate type with a respirator fit test at the time of initial fitting and at least every 6 months thereafter as required by 29 CFR 1910.1025. Where negative pressure respirators are worn they shall not be worn for more than 4.4 hours per day.
  2. Establish and implement a respiratory protection program as required by ANSI Z88.2, 29 CFR 1910.134, 29 CFR 1910.1025 and 29 CFR 1926.55.
- E. Hazard Communication Program: Establish and implement a Hazard Communication Program as required by 29 CFR 1910.12000.
- F. Hazardous Waste Management: The Hazardous Waste Management plan shall comply with applicable

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requirements of federal, state, and local hazardous waste regulations and address:

1. Identification of hazardous wastes associated with the work.
  2. Estimated quantities of wastes to be generated and disposed of.
  3. Names and qualifications of each contractor of facility that will be transporting, storing, treating, and disposing of the wastes. Include the facility location and a 24-hour point of contact with name, address and telephone number. Identify what EPA, state and local hazardous waste permits are required to authorize/permit the transport, storage treatment and/or disposal of the hazardous materials and provide proof/verification that the Contractor or facility has obtained the required permits. Include EPA identification number, with expiration date.
  4. Names and qualifications (experience and training) of personnel who will be working on-site with hazardous wastes.
  5. List of waste handling equipment to be used in performing the work, to include cleaning, volume reduction, and transport equipment.
  6. Spill prevention, containment, and cleanup contingency measures to be implemented.
  7. Work plan and schedule for waste containment, removal and disposal. Waste shall be cleaned up and containerized daily.
  8. Cost for hazardous waste disposal according to this plan.
- G. Additional Requirements: In addition to the detailed requirements of this specification, comply with the following:

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1. Clean Air Act (CAA) 40 CFR 52.
2. The local air pollution control district (APCD) or air quality management district (AQMD) rules and regulations.

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3. Ambient Air Monitoring: Ambient air monitoring shall be conducted through the use of high-volume samplers set between and downwind of the subject abatement area. These samplers shall be preceded by a 7-day meteorological study to determine the consistent wind velocity and wind direction for the determination of the location of the sampler.
4. Samplers: Samplers shall include APCD or AQMD approved PM<sub>10</sub> (Particulate matter 10  $\mu\text{m}$  or smaller) sampler and a total suspended particulate (TSP) monitor. Sampling conducted using these samplers shall conform to CAA requirements.
5. Ambient Air Monitoring shall conform to CAA requirements for a 1.5.  $\mu\text{g}/\text{cubic meter}$ .
6. Safety and Health Compliance: In addition to the detailed requirements of this specification, comply with laws, ordinances, rules and regulations of federal, state, and local authorities regarding removing, handling, storing, transporting, and disposing of lead waste materials. Comply with the applicable requirements of the current issue of 29 CFR 1910.1025. Submit matters regarding interpretation of standards to the State for resolution before starting work. Where specification requirements and the referenced documents vary, the most stringent requirements shall apply. The following local laws, ordinances, criteria, rules and regulations regarding removing, handling, storing, transporting, and disposing of lead-contaminated materials apply:
7. TITLE 22, California Code of Regulations
- H. Pre-Construction Conference: Along with the CIH, meet with the COR and Project Inspector to discuss in detail the lead-containing paint

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removal work plan, including work procedures and  
precautions for the work plan.

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I.6 SUBMITTALS

- A. Submit the following in accordance with Section 01300, "Submittals."
1. Manufacturer's Catalog Data:
    - a. Vacuum filters
    - b. Respirators
  2. Instructions:
    - a. Paint removal materials. Include applicable material safety data sheets.
  3. Statements:
    - a. Qualifications of CIH
    - b. Testing Laboratory qualifications
    - c. Lead-containing paint removal plan
    - d. Rental equipment notification
    - e. CIH approval of work plan (signature, date, and certification number).
    - f. Respiratory protection program
    - g. Hazard communication program
    - h. EPA approved hazardous waste treatment or disposal facility for lead disposal.
    - i. Hazardous waste management plan
- B. Qualifications of CIH: Submit name, address, and telephone number of the CIH selected to perform responsibilities in paragraph entitled "CIH Responsibilities." Provide previous experience of the CIH. Submit proper documentation that the Industrial Hygienist is certified by the American Board of Industrial Hygiene in comprehensive practice, including certification number and date of

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certification/recertification.

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C. Testing Laboratory: Submit the name, address, and telephone number of the testing laboratory selected to perform the monitoring, testing, and reporting of airborne concentrations of lead. Provide proper documentation that persons performing the analysis have been judged proficient by successful participation within the last year in the National Institute for Occupational Safety and Health (NIOSH) Proficiency Analytical Testing (PAT) Program. The laboratory shall be accredited by the American Industrial Hygiene Association (AIHA). Provide AIHA documentation along with the date of accreditation/reaccreditation.

D. Lead-Containing Paint Removal Plan: Submit a detailed job-specific plan of the work procedures to be used in the removal of lead-containing paint. The plan shall include a sketch showing the location, size, and details of lead control areas, location and details of decontamination rooms, change rooms, shower facilities, and mechanical ventilation system.

Include in the plan: eating, drinking, smoking and restroom procedures, interface of trades, sequencing of lead related work, collected wastewater and paint debris disposal plan, air sampling plan, respirators, protective equipment, and a detailed description of the method of containment of the operation to ensure that airborne lead concentrations of 30 micrograms per cubic meter of air are not exceeded outside of the lead control area. Include air sampling, training and strategy, sampling methodology, frequency, duration of sampling, and qualifications of air monitoring personnel in the air sampling portion of the plan.

E. Field Test Reports

1. Monitoring Results

F. Air Monitoring: Submit monitoring results to the State within 3 working days, signed by the

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testing laboratory employee performing the air monitoring, the employee that analyzed the sample, and the CIH.

G. Certificates

1. Vacuum filters

H. Records

1. Completed and signed hazardous waste manifest from treatment, storage and disposal facility.
2. Certification of medical examinations
3. Employee training certification

- I. Contractor is to provide copies of all applicable regulation pamphlets on the job.

I.7 REMOVAL

- A. Title of Materials: Materials resulting from demolition work, except as specified otherwise, shall become the property of the Contractor and shall be disposed of in accordance with Section 02070, "Demolition of Equipment", except as specified herein.

I.8 EQUIPMENT

- A. Furnish the State with two complete sets of personal protective equipment daily, as required herein, for entry into and inspection of the paint removal work within the lead controlled area. Personal protective equipment shall include fitted respirators and disposable whole body covering, including appropriate foot, head, and hand protection. PPE shall remain the property of the Contractor.
- B. Respirators: Furnish appropriate respirators approved by the NIOSH, Department of Health and Human Services, for use in atmospheres containing lead dust. Respirators shall comply with the requirements of 29 CFR 1910.1025.

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- C. Special Protective Clothing: Furnish personnel who will be exposed to lead-contaminated dust with appropriate disposable protective whole body clothing, head covering, gloves, and foot coverings. Furnish appropriate disposable plastic or rubber gloves to protect hands. Reduce the level of protection only after obtaining approval from the CIH.
- D. Rental Equipment Notification: If rental equipment is to be used during lead-containing paint handling and disposal, notify the rental agency in writing concerning the intended use of the equipment. Furnish a copy of the written notification to the State.
- E. Vacuum Filters: UL 586 labeled HEPA filters.

## II PART 2 PRODUCTS

### II.1 PAINT REMOVAL PRODUCTS

- A. Submit applicable Material Safety Data Sheets for paint removal products used in paint removal work. Use the least toxic product acceptable to the Industrial Hygienist. Conform with 29 CFR 1910.94 for ventilation.

## III PART 3 EXECUTION

### III.1 PROTECTION

- A. Notification: Notify the State in writing 14 calendar days prior to the start of any paint removal work.
- B. Lead Control Area Requirements
  - 1. Establish a lead control area by completely enclosing the area or structure where lead-containing paint removal operations will be performed.
  - 2. Contain removal operations by the use of a negative pressure full containment system with at least one change room and with HEPA

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filtered exhaust.

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3. Verify that personnel are not in buildings affected area at time of lead-containing paint removal.
- C. Protection of Existing Work to Remain: Perform paint removal work without damage or contamination of adjacent areas. Where existing work is damaged or contaminated, restore work to its original condition or better.
- D. Boundary Requirements: Provide physical boundaries around the lead control area by stripping off the area designated in Lead-Containing Paint Removal Plan, providing curtains, portable partitions or other enclosures to ensure that airborne concentrations of lead will not reach 30 micrograms per cubic meter of air outside of the lead control area.
- E. Furnishings: Remove furniture and equipment from the work area before lead-containing paint removal work begins. Coordinate with COR.
- F. Heating, Ventilating and Air Conditioning (HVAC) Systems: Seal intake and exhaust vents in the lead control area with 6-mil plastic sheet and tape. Seal seams in HVAC components that pass through the lead control area.
- G. Change Room and Shower Facilities: Provide clean change rooms and shower facilities within the physical boundary around the designated lead control area in accordance with requirements of 29 CFR 1910.1025.
- H. Mechanical Ventilation System
  1. Use adequate Ventilation to control personnel exposure to lead in accordance with 29 CFR 1926.57.
  2. To the extent feasible, use fixed local exhaust ventilation connected to HEPA filters. Local exhaust ventilation systems shall be designed, constructed, installed,

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and maintained in accordance with ANSI Z9.2.

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3. Provide specification of the mechanical ventilation system to the industrial hygienist.
- I. Personnel Protection: Personnel shall wear and use protective clothing and equipment as specified herein. Eating, smoking, or drinking is not permitted in the lead control area. No one will be permitted in the lead control area unless they have appropriate training and protective equipment.
- J. Warning Signs: Provide warning signs at approaches to lead control areas. Locate signs at such a distance that personnel may read the sign and take the necessary precautions before entering the area. Signs shall comply with the requirements of 29 CFR 19101.1025.

III.2WORK PROCEDURES

- A. Perform removal of lead-containing paint in accordance with approved lead-containing paint removal plan. Use procedures and equipment required to limit occupational and environmental exposure to lead when lead-containing paint is removed in accordance with 29 CFR 1910.1025, except as specified herein. Dispose of removed paint chips and associated waste in compliance with Environmental Protection Agency (EPA), federal, state, and local requirements.
- B. Personnel Exiting Procedures: Whenever personnel exit the lead-controlled area, they shall perform the following procedures and shall not leave the work place wearing any clothing or equipment worn during the work day.
- C. Monitoring: Monitoring of airborne concentrations of lead shall be in accordance with 29 CFR 1910.1025 and as specified herein. Air monitoring, testing, and reporting shall be performed by a CIH or an Industrial Hygiene (IH) Technician who is under the direction of CIH.

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1. The CIH or the IH Technician under the direction of the CIH shall be on the job site directing the monitoring, and inspecting the lead-containing paint removal work to ensure that the requirements of the Contract have been satisfied during the entire lead-containing paint removal operation.
2. Take personal air monitoring samples on employees who are anticipated to have the greatest risk of exposure as determined by the CIH. In addition, take air monitoring samples on at least 25 percent of the work crew or a minimum of two employees, whichever is greater, during each work shift.
3. Submit results of air monitoring samples, signed by the CIH, within 3 days after the air samples are taken. Notify the State immediately of exposure to lead at or in excess of the action level of 30 micro grams per cubic meter of air outside of the lead control area.
4. Monitoring During Paint Removal Work: Perform personal and area monitoring during the entire paint removal operation. Sufficient area monitoring shall be conducted at the physical boundary to ensure unprotected personnel are not exposed above 30 micrograms per cubic meter of air at all times. If the outside boundary lead levels are at or exceed 30 micrograms per cubic meter of air, work shall be stopped and the CIH shall immediately correct the condition(s) causing the increased levels and notify the State immediately. The CIH shall review the sampling data collected on that day to determine if condition(s) requires any further change in work methods. Removal work shall resume when approval is given by the CIH. The Contractor shall control the lead level outside of the work boundary to less than 30 micrograms per cubic meter of air at all times. As a minimum, conduct area

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monitoring daily on each shift in which lead paint removal operations are performed in areas immediately adjacent to the lead control taken on the downwind side of the lead control area. If adjacent areas are contaminated, clean, visually inspect and take wipe samples (if applicable) of the contaminated areas. The CIH shall certify that the area has been cleaned of lead contamination.

### III.3 LEAD CONTAINING PAINT REMOVAL

- A. Remove paint as necessary within the areas designated on the drawings to provide substrate required for application of new paint system. Take whatever precautions are necessary to minimize damage to the underlying substrate.
- B. Indoor Lead Paint Removal
  - 1. Selection: Select paint removal processes to minimize contamination of work areas with lead- contaminated dust or other lead- contaminated debris/waste. The following paint removal is unacceptable:
    - a. Gas-fired open-flame burning
    - b. Grinding or sanding
    - c. Uncontained water blasting
    - d. Open abrasive blasting.

### III.4 SURFACE PREPARATIONS

- A. Avoid flash rusting or other deterioration of the substrate. Provide required surface preparation for painting in accordance with specification section 09910.

### III.5 CLEANUP AND DISPOSAL

- A. Cleanup: Maintain surfaces of the lead control area free of accumulations of paint chips and

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dust. Restrict the spread of dust and debris; keep waste from being distributed over the work area. Do not dry sweep or use compressed air to clean up the area. At the end of each shift and when the paint removal operation has been completed, clean the area of visible lead paint contamination by vacuuming with a HEPA filtered vacuum cleaner.

- B. Certification: The CIH shall certify in writing that the inside and outside the lead control area air monitoring samples are less than 30 micrograms per cubic meter of air, wipe sampling result show no trace of lead, the respiratory protection for the employees was adequate, the work procedures were performed in accordance with 29 CFR 1910.1025, and that there were no visible accumulations of lead-contaminated paint and dust on the work site. Do not remove the lead control area or roped-off boundary and warning signs prior to the State's receipt of the CIH's certification. Reclean areas showing dust or residual paint chips. The following documents shall be delivered to the COR for review:

1. Training certification
2. IH certificate
3. Lead-containing paint removal plan
4. Final clearance certification

- C. Testing of Lead-Containing Paint Residue and Used Abrasive: Where indicated or when directed by the State, Test lead containing paint residue and used abrasive in accordance with 40 CFR 261 and TITLE 22 for hazardous waste.

- D. Disposal

1. Collect lead-contaminated waste, scrap, debris, bags, containers, equipment, and lead-contaminated clothing which may produce airborne concentrations of lead particles.

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Label the containers in accordance with 29 CFR 1910.1025. Dispose of lead-contaminated waste material at a EPA, CCR and California Administrative Code (CAC) TITLE 22 approved hazardous waste treatment, storage, or disposal facility off State property.

2. Store waste materials in U.S. Department of Transportation (49 CFR 178) approved 55-gallon drums. Properly label each drum to identify the type of waste (49 CFR 172) and the date the drum was filled. The State or an authorized representative will assign an area for interim storage of waste-containing drums. Do not store hazardous waste drums in interim storage longer than 90 calendar days from the date affixed to each drum.
  3. Handle, store, transport and dispose lead or lead-contaminated waste in accordance with 40 CFR 260, 40 CFR 261, 40 FR 262, 40 CFR 263, 40 CFR 264, and 40 CFR 265. Comply with land disposal restriction notification requirements as required by 40 CFR 268.
- E. Disposal Documentation: Submit written evidence that the hazardous waste treatment, storage, or disposal facility (TSD) is approved for lead disposal by the EPA and state or local regulatory agencies. Submit one copy of the completed manifest, signed and dated by the initial transporter in accordance with 40 CFR 262.

END OF SECTION

*Asbestos & Lead Building  
Inspection Report For:*

*Richmond Armory*

*624 Carlson Boulevard  
Richmond, California*

*Presented To:*

*Geoff Nickless*

*California National Guard  
P.O. Box 269101  
Sacramento, CA 95825*

*By:*

*Anthony M. De Arcos  
Certified Asbestos Consultant*

*National Analytical Laboratories, Inc.  
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November 4, 2008

Geoff Nickless  
California National Guard  
P.O. Box 269101  
Sacramento, CA 95825

RE: Asbestos & Lead Inspection – Richmond Armory

Dear Mr. Nickless,

This report is in regards to the asbestos & lead building inspection completed at the Richmond Armory located at 624 Carlson Boulevard, in Richmond, California. Of the eighteen (18) suspected asbestos containing samples collected six (6) were found to contain asbestos containing construction materials (ACCM). Of the fifteen (15) suspected lead containing samples collected twelve (12) were found to contain Lead Containing Material (LCM).

Mr. Nickless retained National Analytical Laboratories, Inc. (NAL) to collect suspect samples from various areas at the site. The inspection was completed on October 31, 2008. Anthony M. De Arcos, Certified Asbestos Consultant, Certified Lead Inspector/Assessor and Registered Environmental Assessor (REA), conducted the inspection. The following is a report of our findings.

The asbestos inspection was completed according to the EPA's Asbestos Containing Building Materials (ACBM) In-Schools Rule; 40 CFR 763.85 (Inspection and Re-Inspection). Currently, EPA regulations classify ACBM as materials containing more than 1-percent (1%) of asbestos. Cal-OSHA currently regulates asbestos to 1/10<sup>th</sup> of 1% (0.1%) and requires that certified asbestos workers conduct this work on materials containing levels at or above this amount.

***Based on the sample results the 9" Brown Floor Tile (1,1215 sf), the Glazing Compound (~150 sf), Mudded Elbows (~50 each), the Sheetrock-Joint Compound, the Sprayed on Acoustical Ceiling (~885 sf) and the TSI Pipe Insulation (~835 sf) were found to contain ACCM. All square footage should be verified by contractor. No destructive sampling was conducted during the site visit, in the event that future renovation and/or demolition work reveals any unforeseen suspect materials; the contractor shall contact the project manager for further testing.***

The lead suspect samples were collected according to HUD Guidelines, the Environmental Protection Agency and DHS, who regulate and require the abatement or in-place management of LCM or lead based paint (LBP) hazards equal to or greater than 1.0 milligram per square centimeter (1.0 mg/cm<sup>2</sup>) of lead or more than 0.5% lead by weight. Because OSHA considers all surfaces to contain lead, this regulation, OSHA's 29 CFR 1926.62, California Occupational Safety and Health Standard, Title 8 (Cal/OSHA 8 CCR 1532.1) shall be adhered to.

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624 Carlson Boulevard, Richmond  
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***The samples from the Brown Paint, Brown-Green (inside & out) Paint, Brown-Green-Orange Paint, Brown-Tan-Green Paint, Tan Paint, Tan-Gold-Green Paint and Tan-green Paint wall surfaces were found to contain LCM levels above the OSHA Limit of Detection.*** Thus, a certified lead worker must complete any work that will disturb the painted surfaces at the site, including prep, in-place management and/or abatement.

EMSL Analytical, Inc. (EMSL) in Carle Place, New York, analyzed the bulk suspect asbestos containing samples utilizing Polarized Light Microscopy (PLM) Method and utilizing the SW-846-7420 method analyzed the suspect LCM samples. National Voluntary Laboratory Accreditation Program (NVLAP) Certification #10148-10 and California Environmental Laboratory Accreditation Program (CAELAP) Certification #2339, certifies EMSL.

### ***Section I – Asbestos Inspection:***

Federal and state regulations require that anyone disturbing asbestos containing materials are properly trained certified and have the required respiratory protection and medical surveillance.

*\*Although not all the rooms or materials throughout the site were sampled, the like materials that were not tested will be treated as homogeneous to the materials that were tested and will be considered as containing ACCM.*

The locations and results from this sampling found to contain ACCM are as follows:

| Sample ID# | Material                      | Location                                         | Results                       |
|------------|-------------------------------|--------------------------------------------------|-------------------------------|
| 624-1A     | 9" Brown Floor Tile           | 2nd Floor, Weight Room, Southeast Corner         | 4% Chrysotile                 |
| 624-2      | Glazing Compound              | 2nd Floor, Weight Room, Window Bank, Center      | 2% Chrysotile                 |
| 624-3      | Sheetrock-Joint Compound      | 2nd Floor, Weight Room, Ceiling Northwest Corner | *Trace<br><1% Chrysotile      |
| 624-13     | TSI Pipe Insulation           | Down Stairs, Men's Restroom, South end by Door   | 15% Amosite                   |
| 624-14     | Mudded Elbows                 | 1st Floor, Men's Restroom, South End by Door     | 10% Amosite<br>20% Chrysotile |
| 624-15     | Sprayed on Acoustical Ceiling | 1st Floor, Room 110, Ceiling & Wall              | 2% Chrysotile                 |

The Sprayed on Acoustical Ceiling, TSI Pipe Insulation and Mudded Elbows are considered Friable-Hazardous Materials that when disturbed and/or removed must be disposed of at a regulated waste facility.

The 9" Brown Floor Tile and Glazing Compound are considered Category I, non-friable/non hazardous materials that can be removed and disposed of at a non-hazardous waste facility.

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Based on the regulatory requirements by the National Emission Standards for Hazardous Air Pollutants (NESHAP), Regulation 40 CFR, Part 61, Subpart M the following must occur "If the asbestos content is less than 10 percent, verification shall be made using the point counting method specified in Appendix A, Subpart F, 40 CFR Part 763, Section 1.7.2.4, Polarized Light Microscopy, Qualification of Asbestos Content."

Samples found to contain a Trace, <1% amount of Chrysotile asbestos were re-analyzed utilizing the EPA 600/M4-82-020, Point Count Method to determine if the amount of ACCM is less than or greater than 1%. The results for the Material sample were found to contain 0.75% asbestos. Based on the results the surface materials will be treated to contain a Trace <1% Chrysotile asbestos containing construction material (ACCM). NAL would recommend that the entire clean up of the area be conducted in PPE to alleviate the chances of exposure to the workers performing the removal work at the site.

The result of the Point Count test is as follows:

| Sample ID# | Material                 | Location                                         | Results          |
|------------|--------------------------|--------------------------------------------------|------------------|
| 624-3      | Sheetrock-Joint Compound | 2nd Floor, Weight Room, Ceiling Northwest Corner | 0.75% Chrysotile |

Although neither EPA nor Local County Air Quality regulates materials at <1% level, it does fall under the jurisdiction of OSHA in regards to worker protection. Based on this, the work must be completed by a certified asbestos contractor.

The Sheetrock-Joint Compound is to be considered homogeneous and treated as containing Trace <1% Chrysotile. A certified asbestos abatement contractor must be retained to remove the above materials containing the Trace (<1%) amount prior to any renovation or demolition work being completed at the site. During the removal of the materials, the debris will be placed into an open top waste bin. The bin will have "Asbestos Hazard" signs posted around the perimeter of the waste bin. Upon completion of the removal process, the bin will be covered, the signs will be removed and the debris will be disposed of as general construction debris at a non-regulated waste facility.

NAL recommends that a certified asbestos abatement contractor be retained to remove the friable and non-friable materials prior to any scheduled renovation/demolition work being completed at the site. Prior to the work process starting a work plan or specifications in regards to the abatement process should be completed and distributed to the abatement contractors during the job walk at the site.

Richmond Armory  
 624 Carlson Boulevard, Richmond  
 November 4, 2008  
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On-Site Observation, conducted by NAL's CAC or Site Surveillance Technician should be completed to verify the work plan/specification are being followed and to confirm that during the abatement work the outside air was clean. Upon completion of the abatement work air clearance sampling should be completed in order for the general contractor to reoccupy the work area(s) without concern for exposure to asbestos airborne fibers to their employees. Once a certified asbestos contractor has removed the ACCM, following EPA and OSHA requirements and air clearance sampling has been completed and cleared, the renovation or demolition work can be completed by the general contractor. The following samples were non-asbestos containing materials:

| Sample ID# | Material                                                      | Location                                                     | Results       |
|------------|---------------------------------------------------------------|--------------------------------------------------------------|---------------|
| 624-1B     | Floor Tile Mastic                                             | 2nd Floor, Weight Room, Southeast Corner                     | None Detected |
| 624-4      | Mortar Base                                                   | 2nd Floor, Weight Room, Women's Restroom, Under Ceramic Tile | None Detected |
| 624-5      | Brown Cove Base Mastic                                        | 2nd Floor, Room 201, East Wall                               | None Detected |
| 624-6      | Sheetrock-Joint Compound                                      | 2nd Floor, East Office Corridor, East Wall-Center            | None Detected |
| 624-7      | Sheetrock-Joint Compound                                      | 2nd Floor, East Offices, Northeast End                       | None Detected |
| 624-8      | 2' x 4' Small Pin Hole Fissured Acoustical Ceiling Tile (ACT) | 2nd Floor, Room 220, Northwest Corner, Ceiling               | None Detected |
| 624-9      | Cove Base Mastic                                              | 2nd Floor, Room 220, Northeast Corner Wall                   | None Detected |
| 624-10A    | 12" Blue Floor Tile                                           | 2nd Floor, Room 220 Northeast Corner                         | None Detected |
| 624-10B    | 12" Blue Floor Tile Mastic                                    | 2nd Floor, Room 220 Northeast Corner                         | None Detected |
| 624-11     | 12" Medium Hole ACT                                           | Main Ceiling, Southwest Corner                               | None Detected |
| 624-12     | 12" Medium Hole ACT                                           | Main Ceiling, Southeast Corner                               | None Detected |
| 624-16     | Glazing Compound                                              | Exterior West Window, South Restroom                         | None Detected |

### ***Section II – Lead Inspection:***

Since the laboratory results are reported by weight percent, during the collection of the suspect LCM samples the paint must be removed down to, but not including, the bare substrate (wood, metal, etc.). Inclusion of the any amount of the substrate material in the paint sample will dilute the sample result(s).

Once the determination is made on where the LCM and/or the LBP are located, the In-place Management or the Abatement of the painted surfaces can commence. If the In-Place Management method is to be used, prior to the repainting of the effected surface areas, the loose flaky paint must be removed until the remaining paint adheres smoothly to the substrate. Once this task is completed, the surface area can be repainted without the possibility of paint being dislodged and falling to the floor or ground areas. If the Abatement of all surfaces is to be completed then the debris and any loose flaky paint must be bagged or burrito wrapped prior to the removal of the debris from the work area(s) and subsequently the site. Because the paint samples listed below were found to contain LCM and/or the LBP, all areas where the Lead Containing Material will be disturbed will require abatement, encapsulation, and/or prep work by a certified lead worker.

Richmond Armory  
624 Carlson Boulevard, Richmond  
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*Although not all the rooms or materials were sampled, the like materials that were tested and their results will be treated as homogeneous and the materials will be treated as containing LCM throughout the site.*

The locations and results of the suspect samples found to be LCM or LBP are as follows:

| Sample ID# | Material                         | Location                                                 | Concentration<br>% By Weight |
|------------|----------------------------------|----------------------------------------------------------|------------------------------|
| 624-1L     | Tan-Gold-Green Paint             | 2nd Floor, Weight Room, Southeast Corner Wall            | 0.5%                         |
| 624-2L     | Brown-Green (inside & out) Paint | 2nd Floor, Weight Room, Window Metal Bank, Center Window | 3.6%                         |
| 624-3L     | Tan-green Paint                  | 2nd Floor, Weight Room, Outside Center Window Wall       | 0.83%                        |
| 624-4L     | Brown-Tan-Green Paint            | 2nd Floor, Weight Room, Entry Door & Jamb                | 1.2%                         |
| 624-5L     | Tan Paint                        | 2nd Floor, Weight Room, Sheet Rock Ceiling               | 0.21%                        |
| 624-8L     | Brown Paint                      | 2nd Floor, Upper Walkway, Metal Railing                  | 1.9%                         |
| 624-9L     | Tan-Green Paint                  | Downstairs Concrete Wall                                 | 0.41%                        |
| 624-10L    | Brown-Green-Orange Paint         | 1st Floor, West Roll Up Door                             | 2.6%                         |
| 624-11L    | Brown-Green Paint                | 1st Floor, Door & Jamb                                   | 0.81%                        |
| 624-12L    | Tan-Green Paint                  | Kitchen, Metal Windows                                   | 1.1%                         |
| 624-14L    | Tan Paint                        | Exterior, Walls, Various Areas                           | 0.09%                        |
| 624-15L    | Tan Paint                        | Exterior, Entry Concrete Soffit                          | 0.04%                        |

Prior to the demolition work being completed and/or the transporting of the debris from the site, the Health and Safety Code 25157.8 (AB 2784 National Resources) requires that all lead debris will be sampled for Waste Characterization. This will assist the Contractor in making a determination of whether or not the material is to be considered Hazardous or Non-Hazardous Lead waste or general construction debris. The sequence of testing to be completed by the Contractor is as follows:

- Total Threshold Limit concentration (TTLC) with a result of 50 mg/kg or more of lead must be retested using Soluble Threshold Limit concentration (STLC) method;
- A STLC result of 5.0 mg/l or more must be retested using Total Characteristic Leaching Procedure (TCLP);
- A TCLP result of 5.0 mg/l or more deems the waste as RCRA;
- A TCLP result of <5mg/l is categorized as State Hazardous Waste (Class 1); and
- All waste with total lead greater than 350 ppm (mg/kg); but less than 1,000 ppm (mg/kg) disposed of in California, must be disposed of at a Class 1 Hazardous waste landfill, or at other landfills that have specific permits as non-hazardous waste unless the waste has been deemed hazardous for another reason.

Richmond Armory  
624 Carlson Boulevard, Richmond  
November 4, 2008  
Page 7 of 7

- The California hazardous waste threshold for total lead is 1,000 ppm and the soluble threshold concentration (STLC) for lead is 5ppm. A TCLP test shall be completed on the waste to determine if it is lead hazardous waste or lead waste that must be sent to a certified waste facility or general construction waste facility.

**RECOMMENDATION:**

NAL recommends that the LCM and/or LBP painted surfaces currently scheduled for demolition and the remaining areas where pre and/or in-place management work is to be completed, to help stabilize the current lead containing surfaces, be conducted by Lead Certified Workers. Once the abatement, in-place management and/or prep work is completed and the area are stabilized the existing surface will be in good condition and not create a health or safety concern to the workers conducting the general construction work at the site. A Scope of Work and/or specifications should be utilized to conduct the lead work at the site.

The following painted surfaces were found to be less than (<) the OSHA's Limit of Detection for LCM:

| Sample ID# | Material               | Location                                        | Concentration<br>% By Weight |
|------------|------------------------|-------------------------------------------------|------------------------------|
| 624-6L     | Tan Ceramic Floor Tile | 2nd Floor, Weight Room, Women's Restroom, Floor | <0.01%                       |
| 624-7L     | 4" Yellow Ceramic Tile | 2nd Floor, Weight Room, Women's Restroom, Wall  | <0.01%                       |
| 624-13L    | Tan Paint              | Exterior, North End, Gutter Downspout           | <0.01%                       |

If you have any questions regarding this report or if we can be of further assistance, please contact our office.

Reviewed and submitted by:



Anthony M. De Arcos  
Certified Asbestos Consultant  
DOSH #92-0261  
Certified Lead Inspector/Assessor  
DHS #2406

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**Rancho Cordova, CA 95670**

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 Customer PO:  
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 EMSL Order: 060817782

Fax: (916) 361-0540 Phone: (916) 361-0555  
 Project: **Richmond Armory: 624 Carlson Blvd, Richmond, CA**

EMSL Proj:  
 Analysis Date: 11/5/2008  
 Report Date: 11/5/2008

### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| Sample                   | Location                                                     | Appearance                               | Non-Asbestos |                                             | Asbestos       |
|--------------------------|--------------------------------------------------------------|------------------------------------------|--------------|---------------------------------------------|----------------|
|                          |                                                              |                                          | % Fibrous    | % Non-Fibrous                               | % Type         |
| 624-1A<br>060817782-0001 | 2nd fl, weight rm,<br>SE corner/9*<br>brown FT               | Red<br>Non-Fibrous<br>Homogeneous        | Floor tile   | 96% Non-fibrous (other)                     | 4% Chrysotile  |
| 624-1B<br>060817782-0002 | 2nd fl, weight rm,<br>SE corner                              | Black<br>Non-Fibrous<br>Homogeneous      | Mastic       | 100% Non-fibrous (other)                    | None Detected  |
| 624-2<br>060817782-0003  | 2nd fl, weight rm,<br>window bank,<br>center/glazing com     | Gray<br>Non-Fibrous<br>Homogeneous       |              | 98% Non-fibrous (other)                     | 2% Chrysotile  |
| 624-3<br>060817782-0004  | 2nd fl, weight rm,<br>ceiling NW<br>corner/sheetrock-<br>Joi | Gray/White<br>Non-Fibrous<br>Homogeneous |              | 100% Non-fibrous (other)                    | <1% Chrysotile |
| 624-4<br>060817782-0005  | 2nd fl, weight rm,<br>women's restrm,<br>under ceramic t     | Tan<br>Non-Fibrous<br>Homogeneous        |              | 20% Ca Carbonate<br>80% Non-fibrous (other) | None Detected  |
| 624-5<br>060817782-0006  | 2nd fl, rm 201, E<br>wall/brown cove<br>base mastic          | Brown<br>Non-Fibrous<br>Homogeneous      |              | 100% Non-fibrous (other)                    | None Detected  |
| 624-6<br>060817782-0007  | 2nd fl E office<br>corridor, E wall-<br>center/sheetrock     | White/Gray<br>Non-Fibrous<br>Homogeneous | 5% Cellulose | 30% Ca Carbonate<br>65% Non-fibrous (other) | None Detected  |

Analyst(s)

Enisa Lalic (4)

Fahrudin Lalic (14)

Michelle McGowan, Laboratory Manager  
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The limit of detection as stated in the method is 1%. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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PLM-1

1



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 Project: **Richmond Armory: 624 Carlson Blvd, Richmond, CA**

EMSL Proj:  
 Analysis Date: 11/5/2008  
 Report Date: 11/5/2008

### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| Sample                    | Location                                                 | Appearance                               | <u>Non-Asbestos</u>        |                                             | <u>Asbestos</u> |
|---------------------------|----------------------------------------------------------|------------------------------------------|----------------------------|---------------------------------------------|-----------------|
|                           |                                                          |                                          | % Fibrous                  | % Non-Fibrous                               | % Type          |
| 624-7<br>060817782-0008   | 2nd fl E office NE<br>end/sheetrock-joint<br>compound    | White/Gray<br>Non-Fibrous<br>Homogeneous | 5% Cellulose               | 25% Ca Carbonate<br>70% Non-fibrous (other) | None Detected   |
| 624-8<br>060817782-0009   | 2nd fl rm 220, NW<br>corner, ceiling/2'x4'<br>small pin  | Gray<br>Fibrous<br>Homogeneous           | 30% Cellulose<br>30% Glass | 40% Non-fibrous (other)                     | None Detected   |
| 624-9<br>060817782-0010   | 2nd fl rm 220, NE<br>corner wall/cove<br>base mastic     | Tan<br>Non-Fibrous<br>Homogeneous        |                            | 100% Non-fibrous (other)                    | None Detected   |
| 624-10A<br>060817782-0011 | 2nd fl rm 220 NE<br>corner/12" blue<br>Floor tile        | Yellow<br>Non-Fibrous<br>Homogeneous     |                            | 100% Non-fibrous (other)                    | None Detected   |
| 624-10B<br>060817782-0012 | 2nd fl rm 220 NE<br>corner/12" blue FT<br>mastic         | Yellow<br>Non-Fibrous<br>Homogeneous     |                            | 100% Non-fibrous (other)                    | None Detected   |
| 624-11<br>060817782-0013  | Main ceiling, SW<br>corner/12" medium<br>hole acoustical | Yellow<br>Fibrous<br>Homogeneous         | 80% Cellulose              | 20% Non-fibrous (other)                     | None Detected   |
| 624-12<br>060817782-0014  | Main ceiling, SE<br>corner/12" medium<br>hole acoustical | Yellow<br>Fibrous<br>Homogeneous         | 80% Cellulose              | 20% Non-fibrous (other)                     | None Detected   |

## Analyst(s)

Enisa Lalic (4)

Fahrudin Lalic (14)

Michelle McGowan, Laboratory Manager  
 or other approved signatory

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EMSL Proj:  
 Analysis Date: 11/5/2008  
 Report Date: 11/5/2008

### Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

| Sample                   | Location                                                   | Appearance                         | <u>Non-Asbestos</u> |                                             | <u>Asbestos</u>               |
|--------------------------|------------------------------------------------------------|------------------------------------|---------------------|---------------------------------------------|-------------------------------|
|                          |                                                            |                                    | % Fibrous           | % Non-Fibrous                               | % Type                        |
| 624-13<br>060817782-0015 | Downstairs, men's<br>restrm, S end by<br>door/TSI pipe i   | White<br>Fibrous<br>Homogeneous    | 5% Cellulose        | 20% Ca Carbonate<br>60% Non-fibrous (other) | 15% Amosite                   |
| 624-14<br>060817782-0016 | 1st fl men's restrm<br>S end by<br>door/mudded elbow       | White<br>Fibrous<br>Homogeneous    | 20% Cellulose       | 10% Ca Carbonate<br>40% Non-fibrous (other) | 10% Amosite<br>20% Chrysotile |
| 624-15<br>060817782-0017 | 1st fl, rm 110,<br>ceiling &<br>wall/sprayed on<br>acousti | Gray<br>Fibrous<br>Homogeneous     | 15% Cellulose       | 15% Ca Carbonate<br>68% Non-fibrous (other) | 2% Chrysotile                 |
| 624-16<br>060817782-0018 | Exterior W<br>window, S<br>restrm/glazing<br>compound      | Gray<br>Non-Fibrous<br>Homogeneous |                     | 100% Non-fibrous (other)                    | None Detected                 |

Analyst(s)

Enisa Lalic (4)  
 Fahrudin Lalic (14)

Michelle McGowan, Laboratory Manager  
 or other approved signatory

Due to magnification limitations inherent in PLM, asbestos fibers in dimensions below the resolution capability of PLM may not be detected. The limit of detection as stated in the method is 1%. The above test report relates only to the items tested and may not be reproduced in any form without the express written approval of EMSL Analytical, Inc. EMSL's liability is limited to the cost of analysis. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. Samples received in good condition unless otherwise noted. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

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 Project: **Richmond Armory: 624 Carlson Blvd, Richmond, CA**

EMSL Proj:  
 Analysis Date: 11/5/2008  
 Report Date: 11/5/2008

**Asbestos Analysis of Bulk Material via EPA 600/R-93/116. Quantitation using 400 Point Count Procedure.**

| Sample         | Location              | Appearance  | <u>Non-Asbestos</u> |                            | <u>Asbestos</u>  |
|----------------|-----------------------|-------------|---------------------|----------------------------|------------------|
|                |                       |             | % Fibrous           | % Non-Fibrous              | % Type           |
| 624-3          | 2nd fl. weight rm,    | Gray/White  | 5.00% Cellulose     | 25.00% Ca Carbonate        | 0.75% Chrysotile |
| 060817782-0004 | ceiling NW            | Non-Fibrous |                     | 69.25% Non-fibrous (other) |                  |
|                | corner/sheetrock-.ini | Homogeneous |                     |                            |                  |

Analyst(s)

Enisa Lalic (1)

Michelle McGowan, Laboratory Manager  
 or other approved signatory

Disclaimer: Some samples may contain asbestos fibers present in dimensions below PLM resolution limits. The limit of detection as stated in the method is 0.25%. EMSL Analytical Inc suggests that samples reported as <0.25% or none detected undergo additional analysis via TEM. The above test report relates only to the items tested. This report may not be reproduced, except in full, without written approval of EMSL Analytical Inc. This test report must not be used by the client to claim product endorsement by NVLAP or any agency of the United States Government. EMSL Analytical Inc., bears no responsibility for sample collection activities, analytical method limitations, or the accuracy of results when requested to separate layered samples. EMSL Analytical Inc., liability is limited to the cost of sample analysis. The test results contained within this report meet the requirements of NELAC unless otherwise noted. Samples received in good condition unless otherwise noted.

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PLMPointCount-1

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1



## EMSL Analytical, Inc.

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 Project: **Richmond Armory: 624 Carlson Blvd, Richmond, CA**

EMSL Proj:

Report Date: 11/5/2008

## Lead in Paint Chips by Flame AAS (SW 846 3050B and 7420\*)

| Client Sample Description                          | Lab ID | Collected  | Analyzed  | Lead Concentration |
|----------------------------------------------------|--------|------------|-----------|--------------------|
| 624-1L                                             | 0001   | 10/31/2008 | 11/5/2008 | 0.50 % wt          |
| 2nd fl, weight rm, SE corner wall/tan-gold-green p |        |            |           |                    |
| 624-2L                                             | 0002   | 10/31/2008 | 11/5/2008 | 3.6 % wt           |
| 2nd fl, weight rm, window metal bank, center windo |        |            |           |                    |
| 624-3L                                             | 0003   | 10/31/2008 | 11/5/2008 | 0.83 % wt          |
| 2nd fl, weight rm, outside center window wall/tan- |        |            |           |                    |
| 624-4L                                             | 0004   | 10/31/2008 | 11/5/2008 | 1.2 % wt           |
| 2nd fl, weight rm, entry door & jamb/brown-tan-gre |        |            |           |                    |
| 624-5L                                             | 0005   | 10/31/2008 | 11/5/2008 | 0.21 % wt          |
| 2nd fl, weight rm, sheetrock ceiling/tan paint     |        |            |           |                    |
| 624-6L                                             | 0006   | 10/31/2008 | 11/5/2008 | <0.01 % wt         |
| 2nd fl, weight rm, women's restrm fl/tan ceramic f |        |            |           |                    |
| 624-7L                                             | 0007   | 10/31/2008 | 11/5/2008 | <0.01 % wt         |
| 2nd fl, weight rm, women's restrm wall/4" yellow c |        |            |           |                    |
| 624-8L                                             | 0008   | 10/31/2008 | 11/5/2008 | 1.9 % wt           |
| 2nd fl, weight rm, walkway, metal railing/brown pa |        |            |           |                    |
| 624-9L                                             | 0009   | 10/31/2008 | 11/5/2008 | 0.41 % wt          |
| downstairs concrete wall/tan-green paint           |        |            |           |                    |

*Michelle McGowan*  
 Michelle McGowan, Laboratory Manager  
 or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. \* slight modifications to methods applied.

AIHA ELLAP 102344, CT PH-0249, NY ELAP 11469

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ChmSinglePrm/nQC

Page 1 of 2

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 Project: **Richmond Armory: 624 Carlson Blvd, Richmond, CA**

EMSL Proj:

Report Date: 11/5/2008

**Lead in Paint Chips by Flame AAS (SW 846 3050B and 7420\*)**

| <i>Client Sample Description</i>                              | <i>Lab ID</i> | <i>Collected</i> | <i>Analyzed</i> | <i>Lead Concentration</i> |
|---------------------------------------------------------------|---------------|------------------|-----------------|---------------------------|
| 624-10L<br>1st floor, W roll up door/brown-green-orange paint | 0010          | 10/31/2008       | 11/5/2008       | 2.6 % wt                  |
| 624-11L<br>1st floor, door & jamb/brown-green paint           | 0011          | 10/31/2008       | 11/5/2008       | 0.81 % wt                 |
| 624-12L<br>Kitchen, metal windows/tan-green paint             | 0012          | 10/31/2008       | 11/5/2008       | 1.1 % wt                  |
| 624-13L<br>Exterior, N end, gutter downspout/tan paint        | 0013          | 10/31/2008       | 11/5/2008       | <0.01 % wt                |
| 624-14L<br>Exterior, walls various areas/tan paint            | 0014          | 10/31/2008       | 11/5/2008       | 0.09 % wt                 |
| 624-15L<br>Exterior, entry concrete soffit/tan paint          | 0015          | 10/31/2008       | 11/5/2008       | 0.04 % wt                 |

Average relative percent difference in data is 7.5

Michelle McGowan, Laboratory Manager  
 or other approved signatory

Reporting limit is 0.01 % wt. The QC data associated with these results included in this report meet the method QC requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. EMSL bears no responsibility for sample collection activities. Samples received in good condition unless otherwise noted. \* slight modifications to methods applied.

AIHA ELLAP 102344, CT PH-0249, NY ELAP 11469

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## SECTION 03930

## CONCRETE RESTORATION

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section includes concrete wall restoration and brick cleaning. All work shall be in accordance with concrete restoration material manufacturer's written instructions and within ambient condition tolerances described therein.

## 1.2 REFERENCES

- A. International Concrete Repair Institute:
  - 1. ICRI No. 03730 - Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion.
- B. ASTM International:
  - 1. ASTM C150 - Standard Specification for Portland Cement.

## 1.3 SUBMITTALS

- A. Section 01300 - Submittal Procedures: Submittal procedures.
- B. Product Data: Submit data for all materials used on this project.
- C. Manufacturer's Certificate: Certify Products meet or exceed specified requirements.

## 1.4 QUALITY ASSURANCE

- A. Perform Work in accordance with ACI 301-96.
- B. Maintain one copy of document on site.

## 1.5 PRE-INSTALLATION MEETINGS

- A. Convene minimum one week prior to commencing work of this section.

## 1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 1600 - Product Requirements: Product storage and handling requirements.

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- B. Deliver all materials in manufacturer's original packaging, including use instructions.
- C. Store materials above ground on pallets.

1.7 COORDINATION

- A. Section 01300 - Submittals: Submit schedule coordinating abatement and project conditions.

PART 2 PRODUCTS

2.1 CONCRETE INJECTION REPAIR MATERIALS

- A. Crack Injection Materials: two component, low-viscosity, 100% solids epoxy adhesive for repairing concrete by crack injection. ASTM C 881, Type I, II and V, Class B and C, Grade 1.

1. Manufacturers:

- a. Sonneborn: EPOFIL and EPOFIL SLV Injection Resins.
- b. Substitutions: Section 01600 - Product Requirements.

2.2 CONSTRUCTION JOINT REPAIR MATERIALS

- A. Construction Joint Repair Materials: three component, high flexibility, color to match approved paint color. ASTM C 920, Type M, Grade NS, Class 25, Use NT, T, G, A, M, and O.

1. Manufacturers:

- a. Sonneborn: NP-2.
- b. Substitutions: Section 01600 - Product Requirements

2.3 VERTICAL SURFACE CONCRETE REPAIR MATERIALS (Routed Crack repair)

- A. Vertical Concrete Repair Materials: single component, high performance, nonpriming, gun grade, elastomeric polyurethane sealant, ASTM 920, Type S, Grade 25, Use NT, M, A, G, and I, Federal specification TT-S-00230C, Type II, Class A.

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1. Manufacturers:

- a. Sonneborn: NP-1.
- b. Substitutions: Section 01600 - Product Requirements

2.4 CONCRETE SPALL REPAIR MATERIALS

- A. Surface Repair Mortar: Single or two component polymer-modified cementitious repair mortar for resurfacing of distressed vertical or overhead concrete. Surface Repair Mortar shall have a maximum modulus of elasticity of  $2.5 \times 10^6$ .

1. Manufacturers:

- a. BASF: ThoroRoc HBA Repair Mortar.
- b. Master Builders: Emaco R350 CL.
- c. Substitutions: Section 01600 - Product Requirements.

- B. Aggregate: Shall conform to ASTM C33-93. Aggregate for incorporation with bagged mortar shall be 3/8", well graded non-reactive and cleaned.

- C. Anti-Corrosion Reinforcing Bar Coating: Provide polymer modified, cement based coating with corrosion inhibiting admixture evaporation under hot, dry or windy conditions.

1. Manufacturers:

- a. BASF: ThoroRoc Zincrich Rebar Primer.
- b. Master Builders: Emaco P-22 or Emaco P-24.

2.5 REINFORCEMENT MATERIALS

- A. Reinforcing steel: Conforming to ASTM A615-94, 60 ksi yield grade billet-steel deformed bars.
- B. Stirrup Steel: Conforming to ASTM A615-94, 40 ksi yield grade billet-steel deformed bars.

2.6 BRICK CLEANING MATERIALS

- A. Hard Water Deposit Remover: PROSCO - Sure-Klean 1261 or equal.

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- B. Encrustation Cleaner: PROSCO - Sure-Klean 766 or equal.

## PART 3 EXECUTION

## 3.1 EXAMINATION

- A. Section 01300 - Administrative Requirements: Coordination and project conditions.
- B. Verify items to be cast into concrete are placed securely and will not impede placing concrete.
- C. Notify Architect/Engineer minimum 24 hours prior to commencement of concreting operations.

## 3.2 PREPARATION

- A. All construction joint repair areas shall be prepared in accordance with approved construction joint sealant manufacturer's written instructions. This includes but is not limited to the following:
  - 1. Remove all joint material and contaminants completely using mechanical grinders or roto chipping hammers. When grout is completely removed clean joint sides with grinder blade or sandblasting. Remove as much material from behind the gutters as possible. Work shall be reviewed and accepted by ECI.
  - 2. Temporarily move (out of way) all obstructions (including, but not limited to plants, downspouts and utility piping) from areas of work.
- B. All spall repair areas shall be prepared in accordance with International Concrete Repair Institute's "Guide for Surface Preparation for the Repair of Deteriorated Concrete Resulting from Reinforcing Steel Corrosion". This includes but is not limited to the following:
  - 1. Remove loose or deteriorated concrete around corroded reinforcing steel. Removals shall be performed with chipping hammers or other Architect approved method. Chipping hammers shall not be in excess of 20 pound rating.

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2. Once removals are made, proceed with chipping beneath all exposed corroded bars. This will provide clearance for cleaning under the bar. Concrete shall be removed such that a 3/4" clearance under the bar is achieved, or 1/4" greater than the largest aggregate used in repair.
3. Concrete removals shall extend along the bars to locations along the bar free of bond inhibiting corrosion. Removals shall extend two inches beyond the location of the corrosion-free bars.
4. If non-corroded reinforcing bars are exposed during the undercutting, care will be taken not to damage the bond between the bar and the concrete.
5. Loose reinforcement shall be secured in place by tying to other secured bars or ECI approved method.
6. ECI shall determine the necessity of replacing or supplementing reinforcing steel with reduced cross sectional areas caused by corrosion damage.
7. Repair configurations should be kept as simple as possible to minimize boundary edges.
8. At edge locations, provide right angle cuts to the concrete surface by saw-cutting 3/4 inch or less as required, to avoid cutting reinforcing steel.
9. After removals and edge conditions are complete, remove bonding inhibiting materials by abrasive blasting or high pressure water blasting. Protect the public from falling debris. Check concrete surfaces after cleaning to insure that the surface is free from loose aggregates.
10. Pre-soak substrate to a saturated condition prior to repair. Allow time to drain. Surface shall be damp, but not dripping wet, at time of repair.

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- C. All crack injection locations shall be cleaned:
1. Remove dirt, dust, algae, laitance, efflorescence, deteriorated concrete and other materials which will prohibit adequate cap seal adhesion from the surface by mechanical means.
  2. Remove loose dust, obstructions and other materials which will prohibit adequate performance from the areas to be injected by vacuum, oil-free compressed air or other approved means.
- D. Bar Protection and Bonding Agent Options.
1. Following completion of spall area repair preparation, apply anti-corrosion coating into deep patch areas.
  2. Bond the repair material to the prepared area with one of the following methods.
    - a. Apply the epoxy-bonding agent to the prepared concrete surface according to manufacturer's written instructions.
    - b. Apply a slurry bond coat of the repair material to the prepared area with a stiff bristle brush or broom. Do not allow the slurry to dry prior to installation of the repair material. Do not re-temper this bond coat.
- E. Routed Crack Repair Preparation
1. Route out cracks using a crack chaser blade on a mechanical grinder.
  2. Route cracks to a depth of approximately 1". The crack chaser blade will then leave a joint approximately 1" x 1/2".

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3.3 MIXING

- A. Mechanical mixing is recommended with the use of a slow speed drill and a jiffler type paddle, or in an appropriate mortar mixer. Typical mixing time is 3-4 minutes. Do not add more water (or acrylic polymer) than is recommended by the manufacturer. Do not mix longer than 5 minutes.
- B. Only that portion of material that can be properly mixed within 10 minutes of application should be mixed.

3.4 CONSTRUCTION JOINT SEALANT APPLICATION

- A. Install closed cell backer rod to provide maximum depth sealant recommended by materials manufacturer's written instructions. Joint preparation shall be approved by joint sealant manufacturer's representative. This may be accomplished by emailed photos or site inspection by manufacturer's representative.
- B. Surfaces shall be left in a ready to paint condition.
- C. NP 2 is considered a non-priming sealant, but special circumstances or substrates may require a primer. It is the applicator's responsibility to check the adhesion of the cured sealant on typical test joints at the project site before and during application. Follow manufacturer's instructions regarding which primer to use. Priming and sealing must be completed on the same work day.

3.5 SPALL AREA REPAIR MORTAR APPLICATION

- A. Apply fresh mortar to the bond coat. Place repair mortar according to manufacturer's written instructions. Ensure a minimum of 1/2" of cover over abandoned anchor holes.
- B. Evaporation Retarder: Where rapid surface evaporation may occur, apply specified evaporation retarder according to manufacturer's written instructions.

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- C. Finishing: Completed repair surfaces should be straight, true and match existing profiles. Do not over work the surface. Pay particular attention to the correct detail of architectural surfaces and window sills.
- D. Surfaces shall be left in a ready to paint condition.

3.6 EPOXY CRACK INJECTION REPAIR APPLICATION

- A. Condition kits to 70 degrees Fahrenheit or higher before use.
- B. Perform cap seal removal using methods proposed by material manufacturer's representative. Test shall be observed by ECI, Contractor and material manufacturer's representative.
- C. Follow material manufacturer's written instructions for mixing epoxy materials.
- D. Place epoxy injection ports as required for proper application. Port spacing shall not be less than the thickness of the concrete being repaired.
- E. Seal surface of crack(s) with Gel Viscosity Epoxy Resin as necessary to prevent leakage of the injection resin. Cap seal through-cracks on opposite side of substrate as necessary to prevent leakage of the injection resin.
- F. Apply mixed low viscosity epoxy resin using recognized procedures without entrapping air or water.
  - 1. Vertical and Inclined Orientations: Start injection process on port at lowest elevation. When epoxy shows at port above, cap lower entry port and continue injection process on second port. Continue process until all ports have been injected and pressure is maintained.
  - 2. Horizontal Orientation: Injection from one end of crack to other using same port-to-port procedures. When possible, inject from bottom side of structure (overhead).

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3.7 CRACK ROUTING REPAIR APPLICATION

- A. Area to be repaired must be clean, structurally sound and free of all loose, oily, and scaly material or any material that may affect proper bonding.
- B. Repair area should have saw cut straight edges.
- C. Install an expanded polyethylene backer rod or tape in the routed crack to control the depth of the sealant and to prevent three sided sealant adhesion.
- A. Install sealant over the backer rod to fill the routed crack full. Tool the surface of the sealant flat so that there isn't a concave surface.
- B. Allow 24 hours of cure time prior to painting.

3.8 CURING

- A. All spall repaired surfaces must be cured for a minimum of 5 days with one of the following methods.
  - 1. Wet cure with burlap or wet burlap.
  - 2. Sheeting material.

3.9 CLEANING

- A. General: Keep area clean during repair operation. Remove and clean promptly, mortar, or epoxy spills with appropriate tools and solvents without damaging concrete. Collect and maintain site in a clean and orderly condition. Remove debris daily from site.
- B. Clean up after sufficient cure of epoxy resin, remove ports and cap seal by appropriate methods, leaving surface paint ready.
- C. Final Cleaning: Remove all mortar splatters, epoxy spills from the repair area and adjacent structures acceptable to the ECI.

END OF SECTION

**SECTION 07181**  
**WATERPROOF, PEDESTRIAN DECK COATING**

**PART 1 - GENERAL**

**1.1 SUMMARY**

A. This Section includes deck coatings for the following applications:

1. Exterior First Floor "Eyebrow" Waterproof Deck Coating.

B. Related Sections:

1. Section 03930 – Concrete Repair

**1.2 SUBMITTALS**

A. Comply with Section 01300 - Submittals

B. Product Data: For each product indicated.

C. Samples: For type of deck coating required, prepared on rigid backing. Provide stepped samples on backing large enough to illustrate build-up of traffic coatings.

D. Maintenance data.

**1.3 QUALITY ASSURANCE**

A. Installer (Applicator) Qualifications: Applicator who is **acceptable to** manufacturer.

1. Certification: Written approval or license of applicator by deck coating manufacturer.

B. Source Limitations: Use deck coatings of a single manufacturer.

C. Pre-installation Conference: Conduct conference **at Project site one week prior to start of work.**

**1.4 PROJECT CONDITIONS**

A. Environmental Limitations:

1. Minimum application temperature is 40 degrees F and rising.

2. Do not apply in rain or when rain is expected within 24 hours. Do not apply above 90 degrees F or below 40 degrees F or when temperatures are expected to fall below 40 degrees F within 24 hours.

## 1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace deck coatings that fail in materials and workmanship within five years from date of Substantial Completion.
  1. Warranty does not include deterioration or failure due to unusual weather phenomena, failure of prepared and treated substrate, formation of new substrate cracks exceeding **1/16 inch** in width, fire, vandalism.
  2. Failure includes, but is not limited to, the following:
    - a. Adhesive or cohesive failures.
    - b. Abrasion or tearing failures.
    - c. Surface crazing or spalling.
    - d. Intrusion of water into deck substrate.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Subject to compliance with requirements, provide products from the following manufacturer.
  1. BASF Building Systems  
889 Valley Park Drive  
Shakopee, MN 55379  
Customer Service: 800-433-9517
- B. Material Compatibility: Provide primers; base, intermediate, and top coats; and miscellaneous materials that are compatible with one another and with substrate under conditions of service and application, as demonstrated by manufacturer based on testing and field experience.
- C. Substitutions: Comply with Section 01600-Materials & Equipment

### 2.2 MATERIALS

- A. Acceptable Products: Subject to compliance with requirements, products that may be incorporated into the Work include, but are not limited to, the following:
  1. Primer: Sonneborn Primer 770
  2. Base Coat: Sonoguard Base Coat
  3. Top Coat Tint Base: Sonoguard Top Coat Tint Base
    - a. Color as selected by Architect from manufacturer's color chart.
  4. Sealant: Sonneborn NP-2
  5. Clean-up: Reducer 990
  6. Or equal

## 2.3 MIXING

- A. Mix material per manufacturer's instructions.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. General: Comply with ASTM C 1127 and manufacturer's written recommendations.
- B. Verify compatibility with and suitability of substrates and that substrates are visibly dry and free of moisture.
  - 1. Application of coating indicates acceptance of surfaces and conditions.
- C. Clean and prepare substrates to produce clean, dust-free, dry substrate for deck coating application.
- D. Prepare vertical and horizontal surfaces at terminations and penetrations through deck coatings according to manufacturer's written recommendations.
  - 1. Provide sealant cants at penetrations and at reinforced and non-reinforced deck-to-wall butt joints.
- E. Prepare, treat, rout, and fill joints and cracks substrates. Before coating surfaces, remove dust and dirt from joints and cracks according to ASTM D 4258.

### 3.2 APPLICATION

- A. Surface Pre-striping and detailing:
  - 1. Pre-stripe with primer 1 inch beyond all surfaces that require detail work, using short-nap roller.
  - 2. For nonmoving joints and cracks less than 1/16 inch wide, apply 25 wet mils pre-striping of base coat over cured primer. Apply the base coat to fill and overlap the joint or crack 3 inches on each side. Feather the edges.
  - 3. Dynamic cracks and joints over 1/16 inch wide shall be routed to a minimum of ¼ inch by ¼ inch and cleaned. Install bond breaker tape to prevent adhesion to bottom of the joint. Prime joint faces only with sealant primer if required by manufacturer and fill with sealant. Fill joints deeper than ¼ inch with backer rod and joint sealant. For cracks, sealant shall be flush with the adjacent surface.
- B. Priming:
  - 1. After thoroughly vacuuming the surface, apply primer to the properly prepared deck surfaces at the rate of 200 to 250 square feet per gallon. Using a roller pan and a short to

medium nap roller cover, force the primer into the pores and voids to eliminate pinholes.  
Do not apply over pre-striping.

2. Allow the primer to dry tack free. Base coat shall be applied the same working day.

C. LIGHT TO MEDIUM DUTY COATING SYSTEM

1. Apply 25 wet mils of base coat. Allow base coat to dry overnight.
2. Apply 25 wet mils of top coat.

3.3 CLEANING

- A. Clean wet deck coating membrane from tools and equipment with Xylene or Reducer 990.  
Remove cured materials mechanically.
- B. Clean up and properly dispose of debris remaining on Project site related to application.
- C. Remove temporary coverings and protection from adjacent work areas.

END OF SECTION 07181

## ROOFING REPAIR

## 00000000I PART 1 GENERAL

## I.1 SUMMARY OF WORK

- A. Contractor to supply the necessary labor, materials and equipment to repair existing roofing systems at the California National Guard Armory, Richmond. Work shall include, but is not limited to, the following:

- 1. Repair existing roof system as shown on the project drawings and as described in this Section.

## I.200 PRODUCTS INSTALLED BUT NOT FURNISHED UNDER THIS SECTION

- A. Section 07600 - Roof Coating.

## I.30 RELATED SECTIONS

- A. Section 07600 - Roof Coating.

## I.40 REFERENCES FOR REPAIR MATERIALS

- A. ASTM C165 - Test Method for Measuring Compressive Properties of Thermal Insulations.
- B. ASTM C177 - Test Method for Steady-State Thermal Transmission Properties by Means of the Guarded Hot Plate.
- C. ASTM C203 - Test Methods for Breaking Load and Flexural Properties of Block-Type Thermal Insulation.
- D. ASTM D1622 - Density, Overall.
- E. ASTM D41 - Asphalt Primer.
- F. ASTM D4586 Type 1 - SBS Asphalt Roof Cement (Asbestos Free).
- G. ASTM D5147-91 - Testing Modified Bituminous Sheet Material.
- H. FM (Factory Mutual) - Roof Assembly Classifications.
- I. NRCA (National Roofing Contractors Association) - Roofing and Waterproofing Manual.
- J. UL (Underwriters Laboratories, Inc.) - Fire Hazard

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Classifications.

K. California Building Code, 2007 Edition.

## I.50 SUBMITTALS

- A. Submit product data for all materials used in the work for this project under provisions of Section 01015 and 01300.
- B. Product Data: Provide data indicating membrane and bitumen materials, base flashing materials, walk pads, polyisocyanurate insulation, protective covering and decking. Submit one 6" x 6" sample of roof SBS mineral surfaced cap sheet, and SBS base flashing materials to Engineer. Submit one (1) of each type of mechanical fastener to Engineer.
- B. Manufacturer's Installation Instructions: Install roofing repair materials in accordance with manufacturer's instructions. See item III.6.D and E below.
- C. Manufacturer's Certificate: Certify that Products meet or exceed all ASTM, UL, FM and government requirements specified in Item I.4.
- D. Manufacturer's Field Reports: Submit under provisions of Section 01300. Indicate procedures to be followed.
- E. Manufacturer's Warranty: Submit copy of proposed roof coating warranty in accordance with Paragraph I.13.

## I.60 QUALITY ASSURANCE

- A. Maintain copies of each document on site, in accordance with Section 01700.
- B. Perform Work in accordance with roofing repair material(s) manufacturer's written instructions, NRCA Roofing and Waterproofing Manual, SMACNA Sheet Metal Fabrication Manual, roof coating manufacturer's written instructions, the drawings and specifications contained herein. Where the cited references contain more than one detail for a specific purpose, the most stringent condition shall govern.

## I.70 QUALIFICATIONS

- A. Contractor/Applicator: Company specializing in performing the work of this section with minimum five years documented experience and two years

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documented experience with specified materials.

1. Contractor shall meet with designated COR/ECI representatives prior to the start of the job to inspect the site and clarify any questions that might arise. Provide a work-in-progress inspection at beginning of work, 50%, and at completion of the work. Promptly conduct a final inspection, to certify that materials installed comply in all respects with the requirements of this specification; and were installed in strict accordance with manufacturer's current requirements for the specified system.

#### I.80 REGULATORY REQUIREMENTS

- A. Manufacturer shall submit proof of the following tests and agency requirements:
  1. UL: Class B Fire Hazard Classification.  
Material shall pass this test without the use of a mineral surface covering.

#### I.900 PRE-INSTALLATION CONFERENCE

- A. The Contractor, Manufacturer's Technical Representative, and ECI/COR shall convene one week prior to commencing work of this section and walk the existing roof. All repair items shall be noted with colored pen and amounts of repair quantified. This shall include, but not be limited to blister and base flashing repair and drip-edge sealant application. All work outside of that discovered on roof walk shall be reviewed by ECI/COR prior to repair.
- B. Review requirements for preparation and installation procedures, coordinating and scheduling required with related work and conditions which could possibly interfere with successful performance of the work.

#### I.100 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products in accordance with provisions of Section 01600.
- B. Roofing material shall be delivered to job-site in new, dry, manufacturers original unopened containers with seals and labels intact, clearly showing catalog number, product description approved inspection agency label, where and by whom

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manufactured and in quantities sufficient to assure continuous work.

- C. Store rolled goods on end on pallet supports. Do not double stack membrane. Maintain aisle space between stacks to facilitate fire suppression. Discard any flattened roll goods.
- D. Do not overload structure with building materials. Do not store materials on finished roof membrane.
- E. Protect insulation from direct exposure to sunlight and moisture.
- F. Assure that materials are kept clean, and away from excessive heat, cold and moisture; do not remove labels or tear off protective covering until ready for application and inspected by ECI representative; store in an enclosed area where temperature is above 50 degrees and below 90 degrees Fahrenheit, securely tied with rope.  
Material shall not be stored directly on the ground or any improved surface.

I.110 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply roofing membrane during unsuitable weather or when ambient temperature is below 50 degrees Fahrenheit.
- B. Maintain roofing felts above 40 degrees F. for 24 hours prior to application.
- C. Do not apply roofing membrane to damp or frozen deck surface or when precipitation is present (rain, mist, dew, frost and or snow).
- D. Do not expose materials vulnerable to water or sun damage in quantities greater than can be weatherproofed the same day.

I.120 COORDINATION

- A. Coordinate the work of this section with installation of associated counter flashings installed by other sections as the work proceeds.
- B. Work shall not begin until other trade work required ahead of membrane application is completed.

I.130 WARRANTY

- A. Provide three year applicators performance warranty, which shall cover workmanship and materials and repair or replacement of same at no cost to the Government.
- B. Warranty shall be submitted under provisions of Section 01700.

#### I.140 SAFETY REQUIREMENTS

- A. Contractor shall comply with all building and safety codes and shall report any non compliance of these specifications or manufactured installation procedures to roof manufacturer's representative prior to beginning work.
- B. Safety standards set forth by the Occupational Safety and Health Administration (OSHA) shall be maintained and followed by the Contractor, Sub Contractor(s) and work crews at all times.
- C. Contractor shall comply with the California Fire Code, 2007 Edition. There shall be at least four fire extinguishers of a minimum 20 BC classification, located within the work area.

#### II00 PART 2 REPAIR PRODUCTS

##### II.1 REPAIR MEMBRANE MATERIALS - AS REQUIRED

- A. Manufacturers - Dual reinforced (polyester and fiberglass) membrane materials installed torch applied over existing roof system plies:
  - 1. MB Technology -I2T-FT160CWH
  - 2. Other approved system manufacturers are: Ecology Roof Systems and Garland. Alternate systems must be approved by the Military Department. The assembly (base and cap) shall weigh a minimum weight of 210 lbs. / sq. and a minimum thickness of 288 mils.
- B.0 Roofing Membrane System: SBS interply, SBS mineral surface cap sheet, edge and base flashings shall be produced by the same manufacturer. All components shall be SBS Modified meeting the following characteristics:
  - 1.0 SBS Torch Interply Sheet: M.B. Technology

FT160CSA.

- a. Thickness: 140 mils min.  $\pm$  10%
- b. Average Weight: 100 lbs/sq min.
- c. Reinforcement: Dual Reinforced.

2.0 SBS Mineral Surfaced Cap & Flashing Sheet: M.B. Technology FG160CWH.

- a. Thickness: 170 mils min.  $\pm$  10%
- b. Reinforcement: Dual Reinforced.
- c. Average Weight: 110 lbs/sq min.
- d. Top Surface: Mineral Granules.

## II.200 EMULSION MATERIALS

- A. Smooth Surfaced SBS Membrane Primer: #220AF emulsion roof coating or approved equal conforming to ASTM D-1227 Type II, Class 1; SS-R-1781 (except asbestos free) and MIL-R-3472A (except asbestos free).
- B. Mat Reinforcement: Karnak Poly-Mat or Approved Equal.

## II.300 BITUMINOUS MATERIALS

- A. Asphalt Primer: ASTM D41.
- B. Modified Asphalt Roof Cement: ASTM D4586 (Type I Asbestos Free) - Elastomeric mastic. Acceptable manufacturers - Gibson Homan, Pro's Choice 1010 or approved equal.

## II.400 CANTS

Perlite Cant and Tapered Edge Strips: ASTM C 728-91, Asphalt impregnated perlite. Cants shall be preformed to 45 degree angle with a 4" vertical leg, and 4" horizontal leg, unless noted otherwise.

## II.5 ROOF WALKPADS

Walkway Pads: Malarkey (recycled materials), 36" x 48" with 1/2" minimum thickness, compatible with mineral surfaced cap sheet (depending on roof system) of the same material identified in Paragraph II.1 of this section.

## II.6 ACCESSORIES

- A. Metal discs: Shall be flat discs or caps of zinc coated sheet metal not lighter than 28 gauge and not less than 1-3/8 inches in diameter. Discs shall be formed to prevent dishing. Bell or cup-shaped caps are not acceptable. Minimum withdraw resistance of nails or fasteners shall be as required to obtain a Factory Mutual I90 wind uplift rating.
- B. Plumbing Vents and Penetration Flashing: Shall meet or exceed ASTM-B29, 4 lb. sheet lead.
- C. Base Flashing Nails: Nails shall be of galvanized steel, except that hard copper nails shall be used with copper: aluminum or stainless steel nails shall be used with stainless steel. Nails and fasteners shall be flush driven through flat metal discs of not less than 1-3/8 inch diameter. Metal discs may be omitted when one piece composite nails or fasteners with heads not less than one inch diameter are used. Unless other wise specified, minimum withdraw resistance of nails or approved fasteners shall be 40 pounds each in the specific decks, when driven.
- D. Caulking Sealant: ASTM C-920, shall consist of a single component, high performance, elastomeric sealant. Acceptable manufacturers:
  - 1. Flexible Seal by AC Products, Inc., Placentia, CA.
  - 2. Sonolastic NP 1 by Sonneborn Building Products, Minneapolis, MN.

## III000 PART 3 EXECUTION

## III.1 EXAMINATION

- A. Verify that surfaces and site conditions are ready to receive work.
- B. **Verify roof is clean and smooth, flat, free of depressions, waves, or projections, properly sloped towards gutters and ready for installation of roof system. If depressions are discovered, it will be the responsibility of the Contractor to add roofing interplies as required, to provide proper drainage.**

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- C. Verify roof surfaces are dry and free of debris.
- D. Verify adjacent decks do not vary more than 1/4".  
Add taper board to adjust variances and provide for  
smooth deck transition.
- E. Verify roof openings, curbs, pipes, conduit, hose  
bibs, sleeves, ducts, vents and flues through roof  
deck are solidly set and reglets are in place.

III.20 WORKMANSHIP

- A. All roofing work shall be accomplished with a  
foreman and laborers who are thoroughly skilled in  
the application of specified materials; with all  
workmanship done in such a manner as to fulfill the  
requirements of the drawings and specifications.
- B. Any specific directions furnished by manufacturer,  
in writing, on company letterhead, and as published  
in the manufacturer's manual for built-up roofing  
systems, regarding the application of roofing  
materials shall be faithfully followed.
- C. All deviations from the manufacturer's published  
instructions shall be secured in writing on company  
letterhead from the manufacturer's representative  
prior to beginning work.
- D. The Contractor shall supervise installation of, and  
be responsible for, seeing that roof mechanical and  
electrical equipment, and other work is properly  
set and roof membrane is not damaged; make roof and  
flashing repairs as necessary; advise Government  
Inspector, General Contractor, and/or Contracting  
Officer's Representative in writing of all  
potential leaks as may be caused by other trades.

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

### III.30 ASPHALT HANDLING, HEATING AND APPLICATION

- A. Cutting or alterations of primer and sealants will not be permitted.

### III.40 SBS INTERPLY MEMBRANE

- A. Install only as much roofing material as can be completed and covered in accordance with the requirements of this specification and the roofing manufacturer's requirements in one (1) day.
- B. Do not allow traffic, stacked roofing materials or any equipment on completed roofing surfaces without adequate protective walkpads or minimum 1/2 inch plywood.
- C. Prior to applying any membrane, the Contractor and his Foreman shall review these specifications and the manufacturer's technical manual with the Manufacturer's Technical Representative to make certain that all aspects of the membrane system application are understood. Certify this requirement to the COR in writing.
- D. Application of membrane system shall proceed in strict accordance with specifications, detailed drawings and manufacturer's written technical manual.
- E. Smooth Surfaced Interply - Torch Application:
  - 1. Torch weld SBS FT160CSA interply membrane to asphalt primed dens-deck roofing board in half width starter strips along the roof edge with subsequent course applied in full width rolls. Torch weld allowing 3.5 inch side laps and 6 inch on end laps. End laps shall be staggered with a minimum spacing of 36 inches. Apply to produce a 1/8 inch to 1/4 inch outflow of bitumen at all seams. Areas with less than 1/8 inch outflow will be checked with a trowel, heat applied between laps and properly sealed.
  - 2. Turn sheet up a minimum of 2" above cants at

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all vertical surfaces.

3. Apply membrane smooth, free from air pockets, fishmouths, wrinkles, or tears. Ensure full bond of membrane to substrate.

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4. Insure that all fishmouths are cut and objects causing separation between plies are removed. Do not attempt to walk down fishmouths. Patch areas if the cut is made after the interply has set up.
5. All membranes shall be cut to conform to the nailer spacing. Nail the end lap across the width of the sheet, with the first nail spaced  $\frac{3}{4}$ " from the leading edge of the sheet, and the remaining nails spaced approximately 8.5" o.c. The nails shall be staggered across the width of the nailer to reduce the risk of the sheet tearing along the nail line. Nails must have an integral 1" diameter cap. Where capped nails are not used, fasteners must be driven through caps having a 1" diameter.

F.0 SBS Reinforcing Strip Application (Base Flashings)

1. The SBS reinforcing strip shall be cut into manageable lengths prior to application. Lay the material out on the roof and allow it to relax and flatten.
2. Torch weld SBS 160 mil reinforcing strip to modified interply and primed vertical surfaces. Reinforcing strip shall extend from 4 inches above the cant to 4 inches onto field membrane.
3. Course shall be laid with a minimum of 4" end lap.
4. Bitumen runout at side laps shall extend 1/8 inch to  $\frac{1}{4}$  inch onto interply surface, beyond salvage edge.

G.0 Mineral Surfaced Cap Sheet Application Torch Applied

1. The mineral surfaced SBS cap sheet shall be cut into manageable lengths prior to application. Lay the material out on the roof and allow it to totally relax and flatten.
2. The mineral surfaced membrane shall be applied via torching. The first layer at edges shall be full width. To begin, first preheat the salvage edge of the previously laid membrane. When torching the roll itself, use a steady torching technique, keeping the torch moving to bring the entire surface to the proper

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temperature prior to bonding.

3. Allow laps to relax as long as possible before fusing. Side laps shall be interply heat fused prior to interply fusing of the end lap of the same sheet. Pressure shall be applied on the top of the lap to ensure solid contact. All laps shall be fused before leaving job for the day.
  4. Bitumen runout at side laps shall extend 1/8" to 1/4" onto mineral surface, beyond salvage edge and covered with mineral granules as recommended by material manufacturer.
  5. End laps of cap membrane shall be staggered a minimum of 36".
  6. Extend mineral surfaced cap membrane a minimum of 4" above all cants. Fuse membrane to face of cant and underlying SBS reinforcement interply. Apply torch to underside of cap membrane only and press into place.
  7. Apply membrane smooth, free from air pockets, fishmouths, wrinkles, or tears. Ensure full bond of membrane to substrate.
  8. Install two plies membrane and bitumen glaze coat for cut-off at end of day's operation. Glaze cut off plies exposed at end of working day. Remove cut-off before resuming roofing.
  9. Insure that all fishmouths are cut and objects causing separation between plies are removed. **Do not attempt to walk down fishmouths.** Patch areas if the cut is made after the interply mopping has set up.
  10. Seal edges and ends permanently waterproof.
- H.0 If moisture penetrates roofing membrane at any location, all wet material will be replaced by contractor at no expense to the Government.
- I. All Finished work of others which is damaged in the execution of work under this section shall be replaced or restored to the original condition by Contractor at the Contractor's expense.
- J. Install walkpads after roof surface is coated. Do

not coat walkpads, set joints 6" maximum and 2" minimum distance apart to allow proper roof drainage. Install walk pads at locations as detailed in project drawings.

### III.50 FLASHINGS AND ACCESSORIES

- A. Install required expansion joint curbing and cant strips before applying base sheet, field membrane, flashings and coating.
- B. Coordinate installation of roof flashings with roofing repair operations.

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- C. Base flashings shall be composed of 1 layer SBS mineral surfaced cap sheet over 1 layer 160 mil SBS interply membrane reinforcing strip as shown on project drawings.
- D. Install base flashings at all roof wall junctures, projections and curb per manufacturers requirements. Special care shall be taken to generously preheat the surface to which the flashing is being applied prior to heating the bottom of flashing membranes.
- E. When flashing is installed over a porous surface, apply a coating of asphalt primer at a minimum rate of 1/2 to 3/4 gal. per 100 S.F. of area and allow to completely dry.
- F. All metal flanges to be stripped in with 160 Mil. SBS interply sheet and mineral surfaced cap membrane shall be coated (both sides) with asphalt primer and allowed to dry thoroughly, 24 hours minimum.
- G. Mineral surfaced flashing membrane shall be unrolled and cut to desired width and maximum length of 10 feet.
- H. The flashing must not remain open at the end of the work day.
- I. The contractor and construction inspector shall thoroughly inspect the completed flashing system at the end of each day's work.
- J. Mechanically fasten top edge of base flashings with approved fasteners per roofing manufacturer's specifications and project drawing details.
- K. The Contractor shall insure that a uniform slope is provided at all roof areas so that water will drain and will not pond at building perimeter. If, upon flood testing, water does pond at any location on this roof area, the roofing shall be removed, re-sloped and repaired at the Contractor's expense.
- L. Install 4 lb. lead sleeves on all new vent pipe/conduit roof penetrations. Flanges shall extend a minimum of 6 inches in all directions on top of the new interply membrane, and be stripped into the roof membrane with SBS base flashings. The top of the sleeve shall be cut even with the top of

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## ROOFING REPAIR

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the vent and shall have preformed sleeve cap installed. Pipes and conduit shall have a stainless steel draw-band seal and rain bonnet. Installation procedures shall comply with project details and these specifications.

## III.60 FIELD QUALITY CONTROL

- A. Field inspection will be performed under provisions of Section 01400, and manufacturers requirements.
- B. All mineral surfaced cap membrane shall be carefully inspected for construction damage and imperfect heat fusion. Any holes or tears shall be patched with the appropriate mineral surfaced cap membrane. The patch must extend a minimum of 4" in all directions from the edges of the tear or puncture.
- C. All mineral cap membrane edges exposed at waste stacks, vent stacks and other similar assemblies shall be caulked with a smooth continuous bead of approved sealant.
- D. Where free water is discovered between the plies, the affected area shall be removed and rebuilt in dry conditions. Where insulation is found to be wet, the insulation, and 12 inch perimeter, shall be removed and new built-up roofing and insulation shall be installed at no additional cost to the Government.
- E. Deficiencies identified during final inspection shall be corrected within five (5) working days, and will be re-inspected at Final Inspection.
- F. All heat weld assembly installations shall be inspected prior to leaving the site to assure that no smoldering or combustible materials are ignited through the night.
- G. Require site attendance of roofing and insulation material manufacturers as required by progress scheduling during installation of the Work. Notification to all concerned parties must be received not less than 48 hours prior to required attendance.

## III.70 CLEANING

- A. Remove bituminous markings from finished surfaces.
- B. Repair, replace and repaint any items or finishes defaced or disfigured by work under this contract.
- C. In areas where finished surfaces are soiled by bitumen or any other source of soiling caused by

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work of this section, consult bitumen manufacturer for cleaning advice and conform to their documented instructions.

## III.80 DEBRIS DISPOSAL

- A. Contractor shall make his own arrangements for disposal of debris or other waste material away from job site at his own expense, and assume total responsibility for proper disposal of all materials in accordance with local, State and Federal regulations.
- B. Debris from project will be removed daily, and at no time allowed to block any thoroughfare. Premises shall be cleaned to satisfaction of the COR.

## III.90 PROTECTION OF FINISHED WORK

Where traffic must continue over finished roof membrane, protect surfaces with temporary walk pads or 1/2" plywood sheeting per manufacturer's requirements.

END OF SECTION

## CO-POLYMER ELASTOMERIC ROOF COATING

## 00000000I PART 1 GENERAL

## I.1 SUMMARY OF WORK

A. Contractor is to supply the necessary labor, materials and equipment to coat existing roof system (approximately 243 squares) with a co-polymer elastomeric roof coating. Work shall include, but is not limited to, the following:

1. Prepare and coat existing mineral surfaced roofing system with a **3 coat** (minimum) **co-polymer elastomeric coating (minimum 32 mil dry film thickness)**.
2. Make repairs as shown on project drawings and as described in Section 07500.

## I.20 REFERENCES

- A. NRCA (National Roofing Contractors Association) - Roofing and Waterproofing Manual.
- B. UL (Underwriters Laboratories, Inc.) - Fire Hazard Classifications.
- C. California Building Code, 2007 Edition.
- D. ASTM - D6083 Standard Test Conditions for Liquid Applied Acrylic Roof Coatings.

## I.30 SUBMITTALS

- A. Submit product data for all materials used in the work for this project under provisions of Section 01015 and 01300.
- B. Product Data: Provide data indicating coating materials, asphalt roof membrane repair materials, adhesives, mastics, asphalt primers, coating primers, coating reinforcement(s), fasteners and walk pads.
- C. Manufacturer's Installation Instructions: Install roofing/coating materials in accordance with manufacturer's written instructions and these specifications. See item II.4.below.
- D. Manufacturer's Certificate: Certify that Products meet or exceed all ASTM, UL, FM and government requirements specified in Items II.2.
- E. Manufacturer's Field Reports: Submit under provisions of Section 01300. Indicate procedures to be followed.

F. Manufacturer's Warranty: Submit copy of proposed warranty in accordance with Paragraph I.5.

I.40 QUALITY ASSURANCE

A. Maintain copies of each document on site, in accordance with Section 01700.

B. Perform Work in accordance with NRCA Roofing and Waterproofing Manual, SMACNA Sheet Metal Fabrication Manual, manufacturer's instructions, the drawings and specifications contained herein. Where the cited references contain more than one detail for a specific purpose, the most stringent condition shall govern.

C. Roof Coating Manufacturer's representative and ECI shall jointly inspect the finished coating system to resolve any deficiency issues prior to project close out.

I.50 QUALIFICATIONS

A. Contractor/Applicator: Company specializing in performing the work of this section with minimum five years documented experience and two years documented experience with specified materials. Contractor/Applicator shall provide a certificate issued by the roof coating system manufacturer stating that the contractor/applicator has successfully installed a minimum of 500 squares of the proposed coating manufacturer's system and that the same 500 squares are currently under warranty issued by the coating system manufacturer. Certification shall be presented with the contractor's bid package. Failure to provide this certification at the time of the bid opening may be grounds for bid rejection. **Coating applicator must be independent and not a representative or employee of approved roof coating manufacturer.**

I.600 PRE-INSTALLATION CONFERENCE

- A. Convene one week prior to commencing work of this section.
- B. Review requirements for repair, coating preparation and installation procedures, coordinating and scheduling required with related work and conditions which could possibly interfere with successful performance of the work.
- C. Manufacturer shall meet with designated COR/ECI representatives prior to the start of the job to inspect the site and clarify any questions that

might arise. Provide an inspection at completion of the work to certify that materials installed comply in all respects with the requirements of this specification; and were installed in strict accordance with manufacturer's current written requirements for the specified coating system.

- D. Require Manufacturer's Technical Representative to participate in the conference.

#### I.70 DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products in accordance with provisions of Section 01600.
- B. Roof coating material shall be delivered to job-site in new, dry, manufacturers original unopened containers with seals and labels intact, clearly showing catalog number, product description approved inspection agency label, where and by whom manufactured and in quantities sufficient to assure continuous work.
- C. Do not overload structure with building materials. Protect existing finished roof membrane from coating containers or equipment with plywood. Contractor shall use caution laying plywood onto roof surface so not to puncture membrane or knock loose granules.
- D. Assure that materials are kept clean, and away from excessive heat, cold and moisture; do not remove labels or tear off protective covering until ready for application and inspected by ECI representative; store in an enclosed area where temperature is above 50 degrees and below 90 degrees Fahrenheit, securely tied with rope. Material shall not be stored directly on the ground or any improved surface.

#### I.80 ENVIRONMENTAL REQUIREMENTS

- A. Do not apply roof coating material during unsuitable weather;i.e., when roof temperature is below 50 degrees F or above 120 degrees F, or if moisture exists on roofing surfaces, or if wind speeds exceed 20 miles per hour. Contractor shall have available a moisture meter for reading surfaces to be coated.
- B. Maintain roof coatings above 50 degrees F. for 24

hours prior to application.

#### I.90 WARRANTY

- A. Provide three year applicators performance warranty, which shall cover workmanship and materials and repair or replacement of same at no cost to the Government.
- B. Provide 7 year manufacturers Non-prorated, No Dollar Limit (NDL), No Penal Sum (NPS) warranty. Warranty shall cover adhesion failure between coating and roofing membrane due to defective material and poor workmanship.
- C. Warranty shall be submitted under provisions of Section 01700.

#### I.100 SAFETY REQUIREMENTS

- A. Contractor shall comply with all building and safety codes and shall report any non compliance of these specifications or manufactured installation procedures to roof coating manufacturer's representative prior to beginning work.
- B. Safety standards set forth by the Occupational Safety and Health Administration (OSHA) shall be maintained and followed by the Contractor, Sub Contractor(s) and work crews at all times.

### II00 PART 2 PRODUCTS

#### II.1 REPAIR MATERIALS

- A. Repair Materials: Roofing repair materials shall be as specified in Specification Section 07500 and in approved coating material manufacturer's written instructions.
- B. All roof edge material (interplay and cap) shall extend to the driedge. Any space between the cap sheet and drip edge shall filled with Sonolastic NP-1.

#### II.2 COATING MATERIALS

- A. Roof Coating: Roofing Material Manufacturer's recommended coating that offers 7 year minimum warranty.

1.Manufacturers: Complying with California "cool-roof" criteria. Materials shall be labeled and EPA/DOE Energy Star Product. General Coatings: Ultra-Flex 1500 base coat and Ultra-Flex 1600 top coat or Approved Equal.

2.Smooth Surfaced SBS Membrane Primer: #220AF emulsion roof coating or approved equal conforming to ASTM D-1227 Type II, Class 1; SS-R-1781 (except asbestos free) and MIL-R-3472A (except asbestos free).

3.Finish Coating: #501 elasto-brite finish white co-polymer elastomeric emulsion exterior protective coating or approved equal.

- a.Color: White
- b.Solid by Weight: 59%
- c.Solids by Volume: 50%
- d.Hardness Shore A: 70
- e.Elongation: 300%
- f.Tensile Strength: 350 psi
- g.Permeability: 1.5

4. Mat Reinforcement: Karnak 3036 Poly-Mat.

### III000 PART 3 EXECUTION

#### III.1 EXISTING ROOFING SYSTEM PREPARATION

A. Verify that existing roof membrane surfaces and site conditions are ready to receive work.

A.Clean roof of dust, dirt, oil and loose particles. This may be accomplished by power vacuum, sweeping, high pressure air or water or any combination that assures a clean surface and does not damage existing roofing membrane. Contractor shall provide written instructions, signed by existing roof system manufacturer, stating correct method.

**B.All repair materials applied prior to coating materials shall be given proper time to set-up or cure in accordance with repair material's manufacturer's written instructions.**

**C.Verify roof is clean and smooth, flat, free of depressions, waves, or projections, properly sloped towards gutters and ready for installation of roof system. If depressions are discovered, it will be the responsibility of the Contractor to add roofing**

**interplies, as required, to provide proper drainage.**

**D. Verify all temporary obstacles such as splash blocks, splash pans and downspouts are removed prior to coating applications. Reinstall after coatings are installed.**

E. Verify all blisters, punctures and holes are repaired in accordance with specification Section 07500.

F. Verify all rake and edge metal flashings and gutters are installed per project drawings and Specification Sections 07520 and 07531.

G. Verify all membrane edge flashing materials have been installed per project drawings and Specification Section 07500.

H. Verify all base flashings are secure and attached properly to existing substrate. Temporarily remove portions of existing reglet counter flashings as required to allow access to damaged base flashings. Repair base flashings per roof system manufacturer's written instructions and reinstall reglet counter flashing.

I. Verify that edges of all roofing membrane at drip edge and metal flashing locations are sealed with polyurethane caulking.

J. Verify that roof properly drains and no ponding areas exist. If ponding areas are observed when washing roof, install new cap plies as required to fill in areas. If multiple layers of roofing are required, the bottom layer(s) may be interplay material.

K. Any and all equipment that is not curb-mounted shall be reported to the COR 24 hours in advance of being removed from roof.

K. All unnecessary and non-functional equipment identified on the plans and debris shall be removed from the roof.

L. Verify roof openings, curbs, pipes, conduit, sleeves, ducts, vents and flues through roof deck are solidly set.

### III.20 WORKMANSHIP

A. All roofing work shall be accomplished with a foreman and laborers who are thoroughly skilled in

the application of specified materials; with all workmanship done in such a manner as to fulfill the requirements of the drawings and specifications.

- B. If specific directions furnished by manufacturer, in writing, on company letterhead, or in published in the manufacturer's manual for built-up roofing systems conflict with these Specifications or Drawings, the most stringent condition shall prevail.
- C. All deviations from the manufacturer's published instructions shall be secured in writing on company letterhead from the manufacturer's representative prior to beginning work.
- D. The Contractor shall supervise installation of, and be responsible for, seeing that roof mechanical and electrical equipment, and other work is properly set and roof membrane is not damaged; make roof and flashing repairs as necessary; advise Government Inspector, General Contractor, and/or Contracting Officer's Representative in writing of all potential leaks as may be caused by other trades.
- E. The Contractor shall maintain a competent foreman, English speaking, to continuously supervise the work, with authority to discard unsuitable materials and remove unsatisfactory workmen from the project.

### III.30 ASPHALT HANDLING, HEATING AND APPLICATION

- A. Cutting or alterations of primers, sealants and coatings will not be permitted.

### III.4 0 FIELD QUALITY CONTROL

- A. Field inspection will be performed under provisions of Section 01400, and manufacturers requirements.
- B. All mineral surfaced cap membrane shall be carefully inspected for construction damage and imperfect heat fusion. Any holes or tears shall be patched with the appropriate mineral surfaced cap membrane in the same manner as a blister. Top edge of new membrane shall abut the upslope ply with no space between existing and new plies.
- C. All mineral cap membrane edges exposed at waste stacks, vent stacks and other similar assemblies

shall be caulked with a smooth continuous bead of approved sealant.

- D. Where free water is discovered between the plies, the affected area shall be removed and rebuilt in dry conditions. Where insulation is found to be wet, the insulation, and 12 inch perimeter, shall be removed and new built-up roofing and insulation shall be installed at no additional cost to the Government.
- E. Deficiencies identified during final inspection shall be corrected within five (5) working days, and will be re-inspected at Final Inspection.
- F. All heat weld assembly installations shall be inspected prior to leaving the site to assure that no smoldering or combustible materials are ignited through the night.

#### III.50 CLEANING

- A. Remove bituminous or coating markings from finished surfaces.
- B. Repair, replace and repaint any items or finishes defaced or disfigured by work under this contract.
- C. In areas where finished surfaces are soiled by bitumen, coating or any other source of soiling caused by work of this section, consult bitumen or coating manufacturer for cleaning advice and conform to their documented instructions.

#### III.60 DEBRIS DISPOSAL

- A. Contractor shall make his own arrangements for disposal of debris or other waste material away from job site at his own expense, and assume total responsibility for proper disposal of all materials in accordance with local, State and Federal regulations.
- B. Debris from project will be removed daily, and at no time allowed to block any thoroughfare. Premises shall be cleaned to satisfaction of the COR.

#### III.70 PROTECTION OF FINISHED WORK

- A. Where traffic must continue over finished roof

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## CO-POLYMER ELASTOMERIC ROOF COATING

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membrane, protect surfaces with temporary walk pads  
or 1/2" plywood sheeting per manufacturer's  
requirements.

END OF SECTION

## SECTION 07620

## SHEET METAL FLASHING AND TRIM

## I00000000PART 1 GENERAL

## I.1SCOPE

A.Install stainless steel drip edge flashing along perimeter of roof and gutters. Install stainless steel flashings around all roof penetrations. Replace existing flue pipes with code compliant Type 'B' flues. Provide transition piece(s) for any flue that is not commercially available. Install new vent caps at all locations shown on project drawings. Install new cant termination flashings at locations shown on project drawings.

B.Perform all work in accordance with NRCA, SMACNA, roofing manufacturers details and the project drawings.

## I.2 RELATED SECTIONS

A.Section 06110 - Carpentry.

B.Section 07600 Co-Polymer Elastomeric Roof Coating.

C.Section 07631 - Gutters and Downspouts.

## I.3REFERENCES

A.ASTM A446 - Steel Sheet, Zinc Coated, (Galvanized) by the Hot-Dip Process, Structural (Physical) Quality.

B.Stainless Steel: Stainless steel sheet for architectural applications, meeting requirements of ASTM A167, Type 304 or Type 316, with No. 4 finish. Where stainless steel sheet is not indicated, provide 24 gage.

C.ASTM B29-79 - 4 lb Sheet Lead.

D.ASTM B32 - Solder Metal.

E.ASTM B486 - Paste Solder.

F.ASTM D4586 - Asphalt Roof Cement, fibered, asbestos-Free.

G.FS O-F-506 - Flux, Soldering, Paste and Liquid.

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H.ASTM D-4479 - Bituminous Coating.

I.NRCA (National Roofing Contractors Association) -  
Roofing Manual.

I.4SUBMITTALS

A.Submit under provisions of Sections 01015 and 01300.

B.Submit 6" long samples of all metal flashings to be  
used.

C.Submit sample type B vent cap.

D.Shop Drawings: Indicate material profile, gage,  
jointing pattern, jointing details, fastening methods  
and materials, flashings, terminations, and installation  
details.

I.5QUALITY ASSURANCE

A.Perform work in accordance with SMACNA and NRCA  
standard details and requirements, as identified in the  
specifications and drawings contained herein.

B.Maintain one copy of each document on site.

I.6QUALIFICATIONS

Fabricator and Installer: Company specializing in sheet  
metal flashing work with three years documented  
experience.

I.7PRE-INSTALLATION CONFERENCE

Convene one week prior to commencing work of this  
section. Attendance will include contractor, sub-  
contractors, COR, and ECI.

I.8DELIVERY, STORAGE, AND HANDLING

A.Deliver, store, protect and handle products at site  
under provisions of Section 01600.

B.Stack preformed and prefinished material to prevent

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twisting, bending, or abrasion, and to provide ventilation. Slope metal sheets to ensure drainage.

C.Prevent contact with materials which may cause discoloration or staining.

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I.9COORDINATION

Coordinate with the work of Sections 06110, 07531, and 07565 for installing all sheet metal flashing and trim of this section.

II PART 2 PRODUCTS

II.1 SHEET MATERIALS

A.Stainless Steel, ISO 3506, Type 304, 24 gage.

B.Lead Flashings: ASTM B29-79, 4 lb Sheet Lead.

II.2 ACCESSORIES

A.Fasteners: Galvanized steel, Stainless steel or Copper. Same material and finish as flashing metal with soft neoprene washers (on exposed applications).

B.Primer: Zinc chromate, Galvanized iron, or iron oxide as required per flashing metal type.

C.Sealant: Polyurethane type.

D.Roof Cement: ASTM D4586, Type II (Asbestos Free).

E.Solder: ASTM B32; 50/50 type.

F.Do not use powder-actuated fasteners.

II.3 FABRICATION

A.Form sections true to shape, accurate in size, square, and free from distortion or defects.

B.Fabricate continuous cleats of same material as sheet, interlockable with sheet.

C.Form pieces in longest possible lengths.

D.Hem exposed edges on underside  $\frac{1}{4}$  inch; miter and seam corners.

E.Fabricate corners where rake or drip edge flashings meet to form one piece with minimum 18 inch long legs;

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seam for rigidity, seal with solder. Rake flashing vertical flange shall extend below the wood nailer/concrete wall juncture 2 inches minimum.

F.Fabricate vertical faces with bottom edge formed outward  $\frac{1}{4}$  inch and hemmed to form drip.

G.Fabricate metal edge flashings with 5 inch horizontal flange and a  $\frac{1}{4}$  inch maximum gravel stop. Return and brake edges.

### IIIPART 3 EXECUTION

#### III.1 EXAMINATION

A.Verify roof openings, curbs, pipes, sleeves, ducts or vents through roof are solidly set, have nailing strips under flashing flange locations and ready to receive flashings in accordance with this specification and roofing manufacturer's requirements, whichever is most stringent.

B.Verify roofing underlayment is in place, secured and ready to receive metal edge flashings.

C.Verify gutters are in place and secured prior to installation of drip edge flashings.

#### III.2 PREPARATION

Install corners, starter and edge strips, and cleats before starting installation.

#### III.3 INSTALLATION

A.Conform to drawing details included in the SMACNA and NRCA manuals.

B.Install metal edge flashings on top of underlayment(e) roofing system in  $\frac{1}{4}$ " minimum thick bed of roof cement. Apply roof cement compound between overlap joints of metal edge flashings.

C.Fit flashings tight in place. Make corners square, surfaces true and straight in planes, and lines accurate

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to profiles.

D.Rake flashings and drip edge flashings shall be  
secured 3" o.c.

E.Seal metal joints watertight.

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F.Install new vent flashings at all existing vents.  
Flanges shall be bedded in roof cement over new roof  
membrane and nailed to wood nailers, staggered at 4" on  
center.

III.4 FIELD QUALITY CONTROL

A.Field inspection will be performed under provisions of  
Section 01400.

B.Inspection will involve surveillance of work during  
installation to ascertain compliance with specified  
requirements.

END OF SECTION

## SECTION 07631

## GUTTERS AND DOWNSPOUTS

## I00000000PART 1 GENERAL

## I.1SECTION INCLUDES

- A. Materials: Stainless Steel sheet, Galvanized sheet metal and galvanized plate steel.
- B. Components: Gutter, downspouts, and precast concrete splash pads.
- C. Accessories: Strainers, straps, splash blocks and fasteners.
- D. Fabrication: Gutter system.
- E. Installation: Gutters and downspouts.
- F. Cleaning and Testing: Gutter and downspout system.

## I.2RELATED SECTIONS

- A. Section 05500 - Metal Fabrications.
- B. Section 07600 - Co-Polymer Elastomeric Roof Coating.
- C. Section 07620 - Sheet Metal Flashing and Trim Stainless Steel.

## I.3REFERENCES

- A. California Building Code - 2007 Edition.
- B. ASTM A167 - Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet, and Strip.
- C. ASTM A123 - Zinc (Hot-Dip Galvanized) Coatings for Iron and Steel Products.
- D. ASTM A653 - Steel Sheet, Zinc Coated (Galvanized) or Zinc-Iron Alloy Coated (Galvannealed) by the Hot-Dip Process.
- E. ASTM A924 - General Requirements for Steel Sheet,

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Metallic-Coated by the Hot-Dip Process.

- F. ASTM B32 - Solder Metal.
- G. ASTM B486 - Paste Solder.
- H. FS 0-F-506 - Flux, Soldering, Paste and Liquid.
- I. SMACNA - Architectural Sheet Metal Manual.

I.4SUBMITTALS

- A. Submit information on all products used in work under provisions of Section 01015 and 01300.
- B. Shop Drawings: Indicate locations, configurations, gutter and downspout profiles, materials, jointing methods, fastening methods, support methods, locations, and installation details. Show proposed detail for gutter expansion joints per SMACNA requirements.
- C. Product Data: Provide data on prefabricated components.
- D. Provide 6 inch sample of gutter and downspout materials and provide sample gutter strap and downspout strap with fasteners.

I.5DELIVERY, STORAGE, AND HANDLING

- A. Deliver, store, protect and handle products under provisions of Section 01600.
- B. Stack preformed and prefinished material to prevent twisting, bending, or abrasion, and to provide ventilation. Slope to drain.
- C. Prevent discoloration, staining or damage of materials during storage. All damaged materials shall be replaced prior to final acceptance of the work.

I.6COORDINATION

Coordinate the installation of gutter and downspout system with work of other construction trades.

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IIPART 2 PRODUCTS

II.1 MATERIALS

- A. Stainless Steel: Stainless steel sheet for architectural applications, meeting requirements of ASTM A167, Type 304 or Type 316, with No. 4 finish. Where stainless steel sheet is not indicated, provide 24 gage.
- B. Isolating Material: Alkali-resistant bituminous paint or varnish.

II.2 COMPONENTS

- A. Gutters: SMACNA Rectangular style profile, 6" x 4", stainless steel, 24 gage.
- B. Downspouts: SMACNA Rectangular profile, 3" x 4", stainless steel, 24 gage, with kick outs at reglet counterflashings. Brackets shall hold downspout away from wall to provide room for reglet counter flashing and cant.
- C. Splashpans: SMACNA Alternate section, 18" length x 12" front width x 8" back width with tapered sides from 1" in front to 2-1/2" back height, 22 gage stainless steel.
- D. Splash Pans or Blocks: Provide precast, concrete type splashblocks under all downspouts emptying onto at grade and sheet metal splash pans over cut walkpad material under all downspouts terminating on lower roofs.

II.3 ACCESSORIES

- A. Gutter and Downspout Supports and Downspout Guard: Gutter straps; stainless steel, heavy duty, 1" wide x 16 gage. straps at 2' o.c. and downspout straps 1" wide x 18 gage minimum at 48" on center or approved alternate. Supports shall be same material as gutters and downspouts.

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- B. Fasteners and Accessories: Furnish anchors and fasteners, washers, straps, and accessories required for a complete and finished installation. Fasteners and accessories shall conform with the following requirements:
1. Screws shall be stainless steel. Where sheet metal is built in over roofing materials or other sheet metal, use screws with 1 inch matching nonferrous washers. Screws shall be standard stainless steel, brass, or bronze wood screws, as required. Sheet metal screws shall be self-drilling, self-tapping stainless steel or tempered non-corrodible steel of proper size and length to suit conditions.
  2. Screw heads shall be furnished with neoprene washers.
  3. Straps: Straps and miscellaneous fastenings, where required, shall be stainless steel, of size indicated. Where not indicated, provide straps of 1/16 inch thick by 1 inch wide size.
- C. Solder: ASTM B32; 60/40 tin/lead type.
- D. Strainers: Commercially manufactured, heavy duty (16 Ga.), 4" diameter, stainless steel, globe type, mesh strainers.

#### II.4 FABRICATION

- A. Form gutters and downspouts of profiles and size indicated. Downspouts must match profile of building.
- B. Fabricate with required connection pieces per SMACNA recommendations. Fabricate slotted holes through gutter at 18 inches on center for fastening to wood nailer.
- C. Rivet gutter support straps to back of gutter at two places positioned 1 inch minimum above gutter strap and ½ inch minimum above bottom of drip edge. Fasten strap to gutter front with stainless steel nut and bolt.

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- D. Form sections square, true, and accurate in size, in maximum possible lengths, free of distortion or defects detrimental to appearance or performance. Allow for expansion at joints.
- E. Hem exposed edges of metal.
- F. Pre-tin edges of sheet. Solder shop formed metal joints. After soldering, remove flux. Wash and wipe solder joints clean. Weather seal joints.
- G. Fabricate stainless steel gutter and downspout accessories; seal seams watertight. All overlapping joints shall be power riveted and show solder bleed out at both ends of the joint (interior and exterior sides of the gutter). All rivets used shall be stainless. No pop rivets shall be used. No solder or rivets may hinder the water flow.

### IIIPART 3 EXECUTION

#### III.1 EXAMINATION

Verify that surfaces are ready to receive work, and that installation has been coordinated with work of other sections. Verify a strip of S.B.S. underlayment separates the new stainless steel gutter and the existing concrete wall. Cut any membrane extending below the bottom of the gutter.

#### III.2 INSTALLATION

- A. Install new gutters, downspouts, and accessories at roof perimeter in accordance with manufacturer's instructions, and SMACNA details, these specifications and project drawings.
- B. Fasten gutters to wood blocking at 18 inches on-center through slotted holes. Installation shall allow gutter expansion.
- C. Caulk or seal joints and laps of sheet metalwork as indicated or required for a waterproof installation. Beads of sealant which will be concealed in the finished work shall be continuous with no voids or material.

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- D. Install gutters level. Level shall be true and not based on any existing building features. Flood test performed under III.3.C below shall be performed prior to drip edge metal installation. **The gutter shall not allow more than 1/16" standing water.** Reinstall as required.
- E. Install gutter expansion joints at locations shown on project drawings.
- F. Isolate and protect dissimilar metals from contact with each other by applying specified isolation material to contact surfaces. Protect surfaces of sheet metal in contact with concrete, treated wood, or aluminum with a heavy coating of bituminous paint.
- G. Provide waterproof neoprene washers wherever required fasteners penetrate sheet metal. Exposed fasteners will not be permitted for any portion of this work.
- H. Set splash blocks under all downspouts. Install 18"x30" walk pad under splash pans on roof. Spot attach splash pans and walk pads with mastic on roof surface.
- I. Provide new commercial type stainless steel globe strainers at all new downspouts.

III.3CLEANING AND TESTING

- A. Clean new gutters and downspout of all dirt and debris, ensure new globe strainers are installed in all downspouts.
- B. Flood test all gutters and downspouts to ensure there is no leakage. Solder seal joints in gutters or downspouts which leak at no additional cost to the Government.
- C. **Flow test all gutters to ensure proper drainage to downspouts prior to installation of drip edge.** Ponding water in gutter is cause for rejection of work.

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END OF SECTION

SECTION 08111  
VAULT DOORS

## SECTION 08111

## VAULT DOORS

## PART 1 GENERAL

## 1.1 SUMMARY

- A. Section includes General Services Administration approved Class 5-A Armory vault doors, 78"x40" clear opening.
- B. Related Sections:
  - 1. Section 01300 - Submittals.

## 1.2 REFERENCES

- A. Standards:
  - 1. Federal Specification AA-D-600D.
  - 2. ASTM B633 - Standard Specification for Electrodeposited Coating of Zinc on Iron and Steel.
  - 3. ANSI/ASQ Z1.4 - Sampling Procedures and Tables for Inspection by Attributes.
  - 4. UL 752 - Standard for Safety For Bullet-Resistive Equipment.
  - 5. UL 768 - Combination Locks: For locking control of safes, chests, vaults and similar products.
  - 6. MIL-STD-129 - Marking for Shipment and Storage.

## 1.3 SUBMITTALS

- A. Section 01330 - Submittal Procedures: Submittal procedures.
- B. Shop Drawings: Indicate door elevations, internal reinforcement and closure method.
- C. Manufacturer's Installation Instructions: Submit special installation instructions.
- D. Manufacturer's Certificate: Certify products meet or exceed specified requirements.

## 1.4 QUALITY ASSURANCE

- A. Section 01400 - Quality Assurance.

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1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this section with minimum three years documented experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Section 01600 - Product Requirements: Product storage and handling requirements.
- B. Accept doors on site in manufacturer's packaging. Inspect for damage.
- C. Break seal on site to permit ventilation.

1.7 COORDINATION

- A. Section 01300 - Administrative Requirements: Coordination and project conditions.
- B. Coordinate Work with door opening construction, door frame and door hardware installation.
- C. Sequence installation to accommodate required door hardware and intrusion detection systems electric wire connections.

PART 2 PRODUCTS

2.1 GSA APPROVED VAULT DOORS

- A. Manufacturers:
  - 1. Overly Door Company. Security Vault Door - Style H (hand change combination lock).
  - 2. Substitutions: Section 01600 - Product Requirements.
- B. Product Description:
  - 1. Design: Single Lock.
  - 2. Frame Thickness: Match existing concrete wall thickness allowing adequate space for IDS (intrusion detection system) modifications.

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VAULT DOORS

2.2 FABRICATION

1. Assembly: The door frame shall be considered a part of the door for purposes of entry resistance testing and shall afford the same security protection as that of the door. Protection for the extended locking bolts shall be built into the door frame. The overall width of the door frame shall not exceed the width of the clear door opening by more than 410 mm. The door frame for the single leaf door shall be designed to mount in a structural wall opening. The door shall be assembled in such a manner as to preclude the removal or loosening of any of the door's components when the door is closed and locked, except that the hinges shall be removable from the outside. All welding and brazing shall be sound, without porosity and shall accomplish secure and rigid joints in proper alignment. All protruding or depressed welds on the door's exterior surface shall be filled and sanded or ground smooth. The door and frame shall be in perfect alignment and operation of the locking mechanism, including the locking bolts, shall be smooth and positive without binding or jamming of parts.
2. Door Frame: the door frame shall be non-grout type and the frame and door shall be mounted so that there shall be not more than 3 mm clearance between the door and the door frame. The frame shall be designed so that when attached to the wall, the wall clamping bolts will be exposed only on the inside of the vault. The frame shall have leveling and adjusting screws to compensate for building sag which may occur at any time in the future.

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3. Door Pull and Throw Bolt Handles: The door pull and throw bolt handles shall be satin finished anodized aluminum, type 430 corrosion resistant steel or satin finished chromium plating on steel or on die-cast zinc, brass or bronze. The exposed surfaces of all hardware used on a single unit shall be finished to match each other within the limits of the base material and protective coating used. The exposed surfaces of all face hardware shall be free of sharp edges, burrs, pits, nicks or scratches that penetrate the protective plating or anodizing. The door pull shall be securely and firmly attached to both the door front and the door interior. Throw bolt handles shall be firmly attached to the front of the door. Door pulls and throw bolt handles shall be attached so they withstand loosening in testing and in operation during the service life of the door. The door pull handle on the front of the door may be integral with the throw bolt handle. Removal of the handle arbor shall be controlled only from the inside of the door. The throw bolt handle shall require not more than 20 Newton-meters torque to engage or disengage the bolt work mechanism, and the initial force required to swing the unlocked door from any position shall not exceed 45 Newtons at the operating handle.
4. Door Stop: A door stop to prevent the door's face hardware from striking wall surfaces shall be furnished with the door. The stop shall be designed to be wall mounted unless otherwise specified. The stop shall be able to withstand hard usage. The stop shall not scratch or scar the door's painted finish when the door is swung open against it.
5. Door Striker: The door shall have a striker on both the front and hinged edges to minimize play or shake in the door when in the locked condition. The fit of the door to the striker on both the front and hinged edges shall be such that there is not more than 1 mm play or shake in the door when the bolts are thrown to the locked position.

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6. Door Hinges: The door shall be mounted to the frame by not less than two anti-friction bearing hinges, so designed to allow the door to be opened approximately 180 degrees. The hinges shall be removable from the outside.
7. Door Threshold: The door threshold shall be designed to provide a ramp at the door threshold of approximately 6 mm to permit free swing of the door after its installation. If receptive cups, ports, or grooves are used, they shall be recessed not less than 12 mm below the bolt in its extended position to prevent dirt or other substances from obstructing the locking mechanism.
8. Back Cover Plate: Back cover plates of not less than 1.5 mm thickness shall completely enclose the back of the door. The back plates shall be firmly and securely fastened to the door and shall be reinforced or attached by a method to prevent sagging, bulging or distortion. The back plates shall be easily removed by one person for service purposes by the use of common hand tools and shall weigh less than 20.4 kg (45 lbs.) the back shall have an opening covered by an inspection plate. The opening with the inspection plate removed shall be large enough and positioned so as to allow maintenance of the door's combination lock and cam assembly.

## 2.3 SHOP FINISHING

- A. Vault Door and Frame: The final coat for the door shall be either baked enamel, air dried textured finish, nitrocellulose lacquer or water reducible coating. The quality of the final coat and its application shall be in accordance with good commercial standards and practices. The color shall be gray, color No. 26134, of Federal Standard No. 595.

## PART 3 EXECUTION

### 3.1 EXAMINATION

- A. Section 01300 - Administrative Requirements: Coordination and project conditions.
- B. Verify opening sizes and tolerances are acceptable.

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3.2 INSTALLATION

- A. Touch-up factory finished doors.

3.3 ERECTION TOLERANCES

- A. Section 01400 - Quality Requirements: Tolerances.
- B. Maximum Diagonal Distortion: 1.5 mm measured with straight edge, corner to corner.

3.4 ADJUSTING

- A. Section 01700 - Execution Requirements: Testing, adjusting, and balancing.
- B. Adjust door for smooth and balanced door movement.

END OF SECTION

SECTION 08520  
ALUMINUM WINDOWS

1 GENERAL

1.1 SUMMARY

- A Section includes extruded aluminum windows with fixed glazing and operating vents (at locations shown on project drawings), operating hardware and screens.

1.2 REFERENCES

- A AAMA/NWWDA (American Architectural Manufacturers Association/National Wood Window and Door Association) 101/I.S.2 - Voluntary Specifications for Aluminum, Vinyl (PVC) and Wood Windows and Glass Doors.
- B ANSI/AAMA 101 (American Architectural Manufacturers Association) - Aluminum and Poly (Vinyl Chloride) (PVC) Prime Windows and Glass Doors.
- C ASTM E283 - Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors.
- D ASTM E331 - Water Penetration of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference.

1.3 SYSTEM DESCRIPTION

- A Windows: Extruded aluminum sections, factory fabricated, factory finished, related flashings, anchorage and attachment devices.
- B Configuration: Conform with ANSI/AAMA 101 Designations for windows required for Project; P-projected, F-fixed non-operable sash. Performance design pressure: C-40.
- C Glazing: 1 inch sealed unit.
1. Thermal Resistance.
    - a) Glass to Exterior: 0.47 or lower.
    - b) Glass to Center: 0.44 or lower.
    - c) Glass to Interior: 0.41 or lower
  2. Condensation Resistance.
    - a) Glass to Exterior: 70 frame and 69 low-e.
    - b) Glass to Center: 62 frame and 68 low-e.
    - c) Glass to Interior: 56 frame and 67 low-e.

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#### 1.4 PERFORMANCE REQUIREMENTS

- A Primary Performance Requirements: Aluminum windows to meet performance criteria for ANSI/AAMA 101 Designation C40 Commercial or better.
- B Deflection: Limit member deflection to 1/175 of the longer dimension with full recovery of glazing materials.
- C Assembly: To accommodate, without damage to components or deterioration of seals, movement between window and perimeter framing, deflection of lintel.
- D Air Infiltration: Limit air infiltration through assembly to 0.37 cfm/ft of wall area, measured at a reference differential pressure across assembly of 1.57 psf as measured in accordance with ASTM E283.
- E Water Leakage: None, when measured in accordance with ASTM E547.
- F System Internal Drainage: Drain water entering joints, condensation occurring in glazing channels, and migrating moisture occurring within system, to the exterior by a weep drainage network.
- G Air and Vapor Seal: Maintain continuous air barrier and vapor retarder throughout assembly, primarily in line with inside pane of glass and heel bead of glazing compound. Position thermal insulation on exterior surface of air barrier and vapor retarder.

#### 1.5 SUBMITTALS

- A Shop Drawings: Indicate opening dimensions, framed opening tolerances, affected related Work; and installation requirements.
- B Product Data: Submit component dimensions, anchorage and fasteners, glass, internal drainage, and typical details.

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- C Samples: Submit one 12 x 12 inches in size illustrating window frame section, mullion section screen and frame, factory finished aluminum surfaces, and glazing materials. Submit one sample of operating hardware, to be returned to contractor for incorporation in Work.
- D Manufacturer's Certificates: Product performance ratings shall be certified by an independent third party such as AAMA or NFRC as meeting or exceeding specified requirements.

#### 1.6 QUALITY ASSURANCE

- A Perform Work in accordance with the following:
  - 1. Aluminum Windows: Fabricate window assemblies in accordance with ANSI/AAMA 101 for types of windows required.
  - 2. Safety Glass: Conform to ANSI Z97.1 and applicable codes.
  - 3. Maintain one copy of each document on site.

#### 1.7 QUALIFICATIONS

- A Manufacturers:
  - 1. Manufacturer: Company specializing in manufacturing commercial aluminum windows with minimum three years documented experience and with service facilities within 500 miles of Project.
  - 2. Installer: Company specializing in installation of commercial aluminum windows with minimum three years documented experience.

#### 1.8 DELIVERY, STORAGE, AND PROTECTION

- A Section 01600 - Product Requirements: Product storage and handling requirements.
- B Handle Work of this section in accordance with AAMA - Curtain Wall Manual #10.
- C Protect factory finished aluminum surfaces with manufacturer approved methods. Do not use adhesive

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papers or sprayed coatings that bond when exposed to  
sunlight or weather.

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## 1.9 ENVIRONMENTAL REQUIREMENTS

- A Section 01600 - Product Requirements.
- B Do not install glazing materials when ambient temperature is less than 40 degrees F.

## 1.10 WARRANTY

- A Section 01700 - Execution Requirements: Product warranties and product bonds.
- B Warranty: Include manufacturer's standard one (1) year coverage for degradation of color finish.

## 2 PRODUCTS

### 2.1 ALUMINUM WINDOWS

- A Manufacturers:
  - 1. Vistawall Corporation, fixed model Series 3000, operable model Moduline "Merit" series.
  - 2. Kawneer Company Inc, fixed model TRIFAB 451T, operable model 7225 non-thermal.
  - 3. US Aluminum, fixed model 451 center glaze, operable model series 7300 HC75.
  - 4. Other approved equal systems. Alternate systems must be approved by the Military Department, determined by performance and style.
- B Product Description: Aluminum windows thermally broken; double glazed with low solar gain Low-e glass.
  - 1. Reinforced Mullion: Extruded aluminum with integral reinforcement of aluminum structural section as required to meet wind load.

### 2.2 COMPONENTS

- A Extruded Aluminum: 2" x 4" nominal size, 6063 alloy, T5 temper.
- B Double Paned Glass: Low-e, laminated interior lite, double 1/4 inch thick glazing with 1/2 inch air space.

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C Hardware:

1. Sash lock: Lever handle with cam lock. Provide pole handle of size to allow access to sash locks and operable windows where over 5 feet (1.5 m) above the floor.
2. Operator: Lever action handle fitted to projecting sash arms with limit stops.
3. Projecting Sash Arms: Stainless steel, friction pivot joints with nylon bearings, removable pivot clips for cleaning.
4. Pulls: Manufacturer's standard corrosion resistant components.
5. Sash lock: Lever handle with cam lock.

D Operable Sash Weather Stripping: Nylon pile or Resilient plastic; permanently resilient, profiled to effect weather seal.

2.3 ACCESSORIES

- A Trim Metal (around wood posts): Kynar finished aluminum, .03" thickness.
- B Fasteners and Anchors: Stainless steel.
- C Bituminous Paint: ASTM D-2939.
- D Joint Sealer: Manufacturer's recommended sealer that is also compatible with Kynar finish.

2.4 FABRICATION

- A Fabricate components with minimum clearances and shim spacing around perimeter of assembly, yet enabling installation and dynamic movement of perimeter seal.
- B Accurately fit and secure joints and corners. Make joints flush, hairline, and weatherproof.
- C Prepare components to receive anchor devices.
- D Arrange fasteners and attachments to ensure concealment from view.
- E Prepare components with internal reinforcement for operating hardware as necessary.
- F Permit internal drainage weep holes and channels to migrate moisture to exterior. Provide internal

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drainage of glazing spaces to exterior through weep  
holes.

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G Assemble insect screen frame, miter and reinforce frame corners. Fit mesh taut into frame and secure.

H Double weather-strip operable units.

## 2.5 SHOP FINISHING

A Finish Coatings: Fluoropon, 70% PVDF (Kynar 500), AAMA 2605 Fluoropolymer Coating.

B Locks, Operators, and Exposed Hardware: Manufacturer's standard corrosion resistant components.

C Apply coat of bituminous paint on concealed aluminum surfaces in contact with cementitious or dissimilar materials.

## 3 EXECUTION

### 3.1 EXAMINATION

A Verify wall openings and adjoining air and vapor seal materials are ready to receive Work of this section.

### 3.2 INSTALLATION

A Install new kynar finished metal (wood) post trim as shown on project drawings.

B Attach window frame and shims to perimeter opening to accommodate construction tolerances, *anchor angles with bolts* and other irregularities.

C Align window plumb and level, free of warp or twist. Maintain dimensional tolerances and alignment with adjacent Work.

D Pack fibrous insulation in shim spaces at perimeter of assembly to maintain continuity of thermal barrier.

E Coordinate attachment and seal of perimeter air barrier and vapor retarder materials.

F Install operating hardware.

### 3.3 ERECTION TOLERANCES

A Section 01400 - Quality Requirements: Tolerances.

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- B Maximum Variation from Level or Plumb: 1/16 inch per 3 feet non-cumulative or 1/8 inch per 10 feet, whichever is less.

3.4 ADJUSTING

- A Section 01700 - Execution Requirements: Testing, adjusting, and balancing.
- B Adjust hardware for smooth operation and secure weather-tight closure.

3.5 CLEANING

- A Section 01700 - Execution Requirements: Final cleaning.
- B Remove protective material from factory finished aluminum surfaces.
- C Wash surfaces by method recommended and acceptable to sealant and window manufacturer; rinse and wipe surfaces clean.
- D Remove excess sealant by moderate use of mineral spirits or other solvent acceptable to sealant and window manufacturer.

3.6 SCHEDULES

- A High Assembly Hall windows: Fixed with vertical mullions dividing opening into three (3) equal sections. Frames shall have continuous top and bottom sills.
- B Office windows: Awning (project out) type.

See elevations for window configurations.

END OF SECTION

## SECTION 09910

## PAINTING

## I000000000PART 1 GENERAL

## I.1WORK INCLUDED

A.Work includes, but is not necessarily limited to:

- 1.Exterior concrete walls **and canopy.**
- 2.Exterior doors.
- 3.Existing roll-up door.
- 4.All existing metal vents and gravity vents.
- 5.All exposed galvanized metal flashings. **(Do Not paint Stainless Steel)**
- 6.All existing utility pipe and conduit.
- 7.Paint all new exposed surfaces, except those specified not to be painted hereunder, or finished by others.
- 8.Paint all surfaces as shown on project drawings.
9. Apply water repellant to exterior brick surfaces.

B.Repaint previously painted surfaces damaged, defaced or altered under work of this project, including walls where downspouts are removed.

C.Surface treatment includes surface preparation, priming and coats of paint as specified in this Section. Number of coats specified is a minimum. Uniform coverage is required, free from defects and blemishes.

**D.Preparation shall include any and all abatement required to provide approved substrate for painting. Substrate shall be jointly inspected by N.A.C.E. certified coating inspector, abatement contractor, general contractor, painting contractor and ECI.**

**E.Work will be rejected if Quality Assurance requirements are not met. Contractor's attention is directed to Section 09910 part I.6 Quality Assurance.**

## I.2SECTION INCLUDES

- A.Submittals.
- B.Quality Assurance.
- C.Material and Equipment.
- D.Painting Maintenance.

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E.Preparation.

F.Application.

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I.3RELATED SECTIONS

A.Section 03930 - Concrete Restoration.

I.4**DO NOT PAINT**

Stainless steel gutters and downspouts. Aluminum framed storefront doors, transoms and window frames.

I.5SUBMITTALS

A.Material List. Submit copies of complete material list and color samples together with statement of intended use for each material in accordance with Section 01300.

B.Samples. Submit sample draw sheets for each color proposed for use to the Engineer.

I.6QUALITY ASSURANCE

- A. Painting shall not be started without approval in writing by the Contracting Officer's Representative, based on recommendations of the N.A.C.E. Inspector.
- Painting started without approval in writing by the Contracting Officer's Representative shall be removed at Contractor's expense with no compensation for costs or lost time.
- This requirement applies to all surfaces for receiving their first coat of primer. It does not apply to subsequent coats over the first coat of primer.
- B. Wherever the term N.A.C.E. Inspector is used, it shall mean a N.A.C.E. Certified Coating Inspector - Level 3, (passed Peer Review). No other level of N.A.C.E. Inspector shall be substituted. N.A.C.E. refers to the National Association of Corrosion Engineers.
- C. Contractor shall employ a N.A.C.E. Inspector to perform work as specified herein.
- D. The N.A.C.E. Inspector shall inspect, and reject or approve surface preparation. Surface preparation inspection shall be performed by the N.A.C.E. Inspector in person. The entire job shall be inspected. It may be inspected in parts.

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- E. The Contractor shall coordinate the surface preparation inspection or inspections as follows: All contractors involved in surface abatement, surface repairs, surface preparation, painting, and the COR and ECI shall be given ample notice and opportunity to be present for the N.A.C.E. Inspector's surface preparation inspection or inspections. The Contractor shall encourage all parties to discuss any issues relating to the quality of the surface preparation.
- F. The N.A.C.E. Inspector shall communicate to the COR what parts of the job have surface preparation that are of acceptable quality and are ready to receive their first coat of primer.
- G. The Contractor shall wait for approval in writing by the Contracting Officer's Representative stating what parts of the building are approved for receiving their first coat of primer, and shall not start applying primer or paint until such approval has been received.
- H. The N.A.C.E. Inspector shall be responsible for inspecting all primer coats and subsequent paint coats for quality of application. The N.A.C.E. Inspector may delegate this work to other persons deemed qualified by the N.A.C.E. Inspector. An organized record of these inspections shall be maintained, be kept current, and shall include date, inspector, area of job inspected, coat layer inspected and result. Submit this record to the COR as part of the close-out documents.
- I. Regulations. Materials and processes shall comply with California Air Quality Management standards and all applicable local restrictions.
- J. Qualification of manufacturer. Products used in the work of this Section shall be produced by manufacturers regularly engaged in manufacture of similar items and with a history of successful production of architectural coatings.
- K. Manufacturers Standards. Comply with manufacturer's recommendations and instructions.

## I.7DELIVERY AND STORAGE

Deliver, store and protect products in accordance with

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PAINTING  
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Section 01600.

SECTION 09910  
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II PART 2 PRODUCTS

II.1 QUALITY

A. Provide the best quality grade of specified coating types as regularly produced by recognized paint manufacturers.

B. Materials not bearing manufacturer's identification as best quality products are not acceptable.

C. V.O.C. content shall be less than the maximum specified by the local air quality management district.

II.2 DURABILITY

Paints and finishes shall be durable, washable and shall stand up under any cleaning required to remove pencil marks, ink, ordinary soil, etc., without showing discoloration, loss of gloss, staining, peeling or other damage.

II.3 PAINT COLOR

Paint color shall be as noted on plans. Color substitutions and approvals of "or equal" colors shall be submitted to Owner's Facilities Engineering Department in accordance with specification Sections 01015 and 01300.

II.4 PAINTING SCHEDULE

A. References to specific manufacturers are intended to establish a standard. Substitutions and approvals of "or equal" products shall be submitted to Owner's Facilities Engineering Department in accordance with specification Sections 01015 and 01300.

B. Manufacturer product numbers are intended for contractor's general reference. Product number update will be the contractor's responsibility. Contractor shall use the latest product number edition. Submit most current product data in accordance with Section 01300.

C. The paint types defined below identify an emulsion type acrylic system; an acrylic emulsion non-flat architectural coating. V.O.C. content shall be less than the maximum specified by the local air quality management district.

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PAGE 7

II.5 COATING SYSTEM

A. Metal Surfaces. Paint metal surfaces as defined below:

1. Exterior Metal **(Non Stainless Steel)**:

- a. Prime Coat: Devoe Bar-Rust 235K or equal.
- b. Second Coat: Dulux Fortis 6407 or equal.
- c. Finish Coat: Dulux Fortis 6407 or equal.

B. Concrete Surfaces. Paint concrete surfaces as defined below:

1. Exterior Concrete Surfaces **(12 Mil. D.F.T.)**:

- a. Prime Coat (over chalky surfaces): Thoro Primer 2K or equal.
- b. Second Coat: Thorocoat 200 or equal.
- c. Finish Coat: Thorocoat 200 or equal.

C. Brick Surfaces. Seal brick surfaces as defined below:

1. Exterior Brick Surfaces:

- a. First Coat: BASF - Enviroseal Double 7 for Brick.
- b. Second Coat: BASF - Enviroseal Double 7 for Brick.

II.6 Manufacturer product numbers are intended for contractor's general reference. Product number update will be the contractor's responsibility. Contractor shall use the latest product number edition. Submit most current product data in accordance with Section 01300.

III PART 3 EXECUTION

III.1 GENERAL

Comply with this Section and manufacturer's specifications.

III.2 PROTECTION

## SECTION 09910

## PAINTING

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A.The Contractor shall provide protective devices, such as tarpaulins, screens or covers, as necessary to prevent damage to the work and to other property or persons from all cleaning and painting operations.

B.Paint or paint stains which result in an unsightly appearance on surfaces not designated to be painted shall be removed and the surface restored to it's original condition by the Contractor at his expense and to the satisfaction of the COR.

## III.3 SURFACE PREPARATION

A.Existing surfaces. Thoroughly clean all grease, oil, dirt, dust or other foreign matter from existing surfaces requiring paint. Cleaning shall consist of high pressure water blasting using suitable pressure washer equipment. Pressure washer operating pressure shall be between 1500 and 4000 PSI depending upon the surface to be cleaned. Surfaces shall be cleaned as required under criteria of the selected paint manufacturer. Perform all other preparation and cleaning of surfaces as required by the painting manufacturer.

B.Apply paints and finishes only when surfaces are dry and properly prepared, and surrounding conditions are satisfactory for painting.

C.Remove blistering, cracking, flaking, and peeling or other deteriorated coatings on areas required to receive painting by coating manufacturer's recommendations.

D.Slick surfaces shall be roughened and damaged areas such as, but not limited to, nail holes, cracks, chips, and spalls, shall be repaired with suitable material to match adjacent undamaged areas.

**E.Edges of chipped paint shall be feather edged and sanded smooth in accordance with trade standards and coating manufacturer's recommendations by lead abatement contractor. Edges shall be sealed to prevent flaking and peeling.**

F.Rusty metal surfaces shall be cleaned by solvent and wire brush or other mechanical cleaning, to provide surfaces suitable for repainting. Treat all bare and clean metal with Primer Pre-treatment prior to priming.

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III.4 MIXING AND THINNING

General. Unless otherwise recommended by the manufacturer or restricted by Air Quality Management rules, paints may be thinned immediately prior to application with not more than 1-pint of suitable thinner per gallon when necessary to suit conditions of surface, temperature, weather, and application methods. The use of thinner shall not relieve the Contractor from obtaining complete hiding, full film thickness, or required gloss, and shall not adversely affect the V.O.C. limits of the paints. Paints of different manufacturers shall not be mixed. Maintain containers used in storage, mixing, and application of paint in a clean condition, free from foreign materials and residue.

III.5 APPLICATION EQUIPMENT

A.Spray Equipment shall be proper type for work as specified.

B.Roller Equipment shall be type that will produce finish work equal to best brush applied work.

C.Mechanical Equipment shall be operated to insure good visibility and control of paint film.

III.6 APPLICATION METHODS

A.Stipple Enamel shall be applied by brush, then back rolled.

B.Coating application shall conform to approved coating manufacturer's written application instructions.

C.All other application; other than as specified above, shall be applied by brush, roller, spray, or airless equipment.

D.Primer coats shall be continuous over areas requiring work of this section.

III.7 QUALITY CONTROL

A.To insure proper quality control and record keeping, comply with Sections 01400 and 01700.

B.ECI shall test preparation per ASTM D3359 on paint

## SECTION 09910

## PAINTING

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remaining on prepared painted surfaces. This test shall occur, as a minimum, one test for the first 100 square feet primed and one test every 500 square feet thereafter. Testing shall also occur at locations of visible damage.

## III.8 APPLICATION

A.Cloudiness, spotting, holidays, laps, brush marks, runs, sags, curtains, ropiness, improper cutting in, overspray, or other surface deviations and imperfections are not acceptable.

B.Undercoats shall be provided with a difference in shade in order to distinguish between coats.

C.Topcoats shall be applied to all surfaces as designated in items II.5 and II.6, and shall match color of existing finish coat and closely match approved samples. Remove, refinish or repaint work not in compliance with requirements.

## III.9 CLEAN-UP

During the progress of the work, the contractor shall remove daily from the job site discarded painting materials and debris generated by him/her. Cloths, cotton waste and other debris that might constitute a fire hazard shall be placed in closed metal containers and removed at the end of each day. All window glass, hardware, floors, walks etc., shall be cleaned of paint residue to the satisfaction of the COR or his Representative. Upon completion of the work, the contractor's equipment and all debris shall be removed from the job site.

END OF SECTION

## SECTION 5

### INSTRUCTIONS FOR COMPLYING WITH THE DISABLED VETERAN BUSINESS ENTERPRISE (DVBE) PARTICIPATION REQUIREMENTS

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**Please read these requirements carefully. Failure to comply with the DVBE requirement may cause your bid to be deemed non-responsive and you to be ineligible for award of a contract.**

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**State law requires state contracts to have participation goals of three (3) percent for disabled veteran owned business enterprise (DVBE) on contracts OVER THE AMOUNT OF \$10,000.** The participation goal of 3% is based on the Bidder's total proposed contract solicitation amount. This section describes the process for complying with these requirements. The forms you are required to complete are located on pages B-1 through C-2 (printed on yellow paper for your easy identification).

#### **1. SB 115**

The Department of General Services (DGS) established a Disabled Veteran Business Enterprise (DVBE) incentive pursuant to Senate Bill 115 chaptered October 3, 2005 and the Military and Veterans Code section 999.5(a). The new regulations apply to all competitive solicitations for public works, services, goods, and information technology goods and services posted or released after October 9, 2007.

In accordance with SB 115, the Military Department has determined that non-DVBE bidders will be granted DVBE preference as outlined in the table below.

| <b>DVBE Participation</b>                                         | <b>Incentive %</b> |
|-------------------------------------------------------------------|--------------------|
| Greater than 12% DVBE participation                               | 5%                 |
| Greater than 9% DVBE participation through 12% DVBE Participation | 4%                 |
| Greater than 6% DVBE participation through 9% DVBE Participation  | 3%                 |
| Greater than 3% DVBE participation through 6% DVBE Participation  | 2%                 |
| 1% or more DVBE participation through 3% DVBE Participation       | 1%                 |
| No DVBE participation , (Includes "Good Faith Effort")            | 0%                 |

## 2. CONTRACT GOALS/"GOOD FAITH EFFORTS"

**BIDDERS WHO SUBMIT LESS THAN 3% DVBE PARTICIPATION MUST COMPLETE THE GOOD FAITH EFFORT REQUIREMENTS. DIRECTIONS FOR COMPLETING THE REQUIREMENTS ARE OUTLINED IN SECTION 5 OF THE IFB. FAILURE TO COMPLETE THESE REQUIREMENTS MAY DEEM YOUR BID TO BE NON-RESPONSIVE AND WILL BE CAUSE FOR THE REJECTION OF YOUR BID.**

In order to be responsive to this requirement, the bidder must do either of the two (2) alternatives:

- a. Meet the Participation Goals: Meet or exceed the participation goals of 3% DVBE participation. The DVBE firms that are used to qualify for the participation goals must be used during the execution of the proposed contract. If the bidder is a DVBE, it must commit to performing not less than 3% of the contract amount with its own forces.

**OR**

- b. Make a "good faith effort" to meet the goals by doing all of the following seven steps by the final bid/proposal date
  - 1) Contact the Military Department Contracts Office at (916) 854-3690 to identify potential DVBE participants  
**AND**
  - 2) Contact the State Small Business and DVBE Certification Office of the Department of General Services, (916) 375-4940 for assistance in identifying potential DVBE participants.  
**AND**
  - 3) Contact other state and federal agencies and local DVBE organizations to identify potential DVBE participants.  
**AND**
  - 4) Advertise in trade papers and papers focusing on DVBE (**AT LEAST TWO PUBLICATIONS - ONE TRADE AND ONE FOCUS**), **UNLESS** time limits imposed by the awarding department do not permit advertising and **EXEMPTION FROM ADVERTISING IS SPECIFIED IN SECTION 1** of this IFB.  
**AND**
  - 5) General circulation newspapers such as the Los Angeles Times and the Sacramento Bee are neither a TRADE nor FOCUS Publication. In accordance with Public Contract Code Section 10115.2(b) (3), bidders must advertise in one trade and one focus publication. The Office of Small Business and DVBE Certification publishes a list of acceptable trade and focus publications to assist bidders in meeting these contract requirements. To obtain this list, please contact the State Office of Small Business and DVBE Certification and request the "Resource

Packet". The office is located at 707 Third Street, 1<sup>st</sup> Floor, Room 400, West Sacramento, California 95605.

**AND**

- 6) Send solicitations (providing sufficient time was made available by the Military Department) to potential DVBE subcontractors or suppliers for this contract with sufficient lead time to fully entertain and consider responding bids (faxed and/or telephonic solicitations can be used to meet this requirement providing sufficient documentation is provided to show the full intent of your company to meet this requirement).

**AND**

- 7) Consider responding DVBE for participation in this contract.

### 3. **DOCUMENTATION REQUIREMENTS**

Bidders/vendors who propose goal attainment are permitted to attach documentation for making a "good faith effort" to insure against the possibility the State will not agree that goal attainment has, in fact, been met. The bidder's efforts to meet the contract goal and/or make a "good faith effort" to meet the goal must be sincere and the documentation must be sufficient to reasonably demonstrate sincerity to the State. **FINAL DETERMINATION OF GOAL ATTAINMENT OR "GOOD FAITH EFFORT" BY THE BIDDER SHALL BE AT THE MILITARY DEPARTMENT'S SOLE DISCRETION.**

- a. Each DVBE listed on Attachment 1 must include a copy of the Certification letter from the State Office of Small Business and DVBE Certification.
- b. ATTACHMENT 2 - DOCUMENTATION OF GOOD FAITH EFFORT: In addition to the above, bidders choosing to document "good faith effort" must complete each item in Attachment 2 (Page C-1). FAILURE TO FULLY COMPLETE EACH SECTION OF ATTACHMENT 2 WILL RESULT IN REJECTION OF THE BID AS NON-RESPONSIVE.
  - 1) Document each contact, dates, times, names and phone numbers. Each bidder is required at a minimum to undertake steps a, b, c, d and to document all efforts under each step.
  - 2) Advertising must be done through trade papers and papers focusing on DVBE organizations. Each bidder must document steps taken (including names of publications and dates of advertisement) to advertise for potential DVBE subcontractors.
  - 3) List and identify each vendor solicited for participation as a DVBE. If contact was made by telephone, list the firm name, person's name, phone number and date. Attach copies of written OR faxed solicitations.

#### 4. USE OF PROPOSED DVBE

If awarded the contract, the successful bidder must use the DVBE subcontractor(s) and/or supplier(s) identified in the proposal unless the substitution is requested via prior written notice to the Military Department and the Military Department has approved such substitution. At a minimum, the request must include:

- a. A written explanation of the reason for the substitution
- AND**
- b. The identity of the person or firm substituted

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**THE REQUEST AND THE MILITARY DEPARTMENT APPROVAL OR DISAPPROVAL IS NOT TO BE CONSTRUED AS AN EXCUSE FOR NON-COMPLIANCE WITH ANY OTHER PROVISION OF LAW, INCLUDING BUT NOT LIMITED TO THE SUBLETTING AND SUBCONTRACTING FAIR PRACTICES ACT OR ANY OTHER CONTRACT REQUIREMENTS RELATED TO SUBSTITUTION OF SUBCONTRACTORS.**

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**FAILURE TO ADHERE TO DVBE PARTICIPATION PROPOSED BY THE SUCCESSFUL BIDDER MAY BE CAUSE FOR CONTRACT TERMINATION AND RECOVERY OF DAMAGES UNDER THE RIGHTS AND REMEDIES DUE THE MILITARY DEPARTMENT UNDER THE DEFAULT SECTION OF THE CONTRACT.**

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#### 5. DVBE PARTICIPATION REQUIREMENT

For the purpose of this contract, in order to meet the DVBE participation requirement, the following apply (A Contractor/subcontractor can only meet one of the goals)

- a. **DISABLED VETERAN:** Defined as a veteran of the military, naval or air services of the United States with at least a 10% service-connected disability who is a resident of the State of California.
- b. **DVBE:** Defined as a business concern certified by the State Department of General Services as meeting all of the following requirements:
  - 1) It is sole proprietorship at least 51% owned by one or more disabled veterans or, in the case of a public owned business, at least 51% of its stock is owned by one or more disabled veterans; a subsidiary which is wholly owned by a parent corporation, but only if at least 51% of the voting stock of the parent corporation is owned by one or more disabled veterans; or a joint venture in which at least 51% of the joint venture's management and control and earnings are held by one or more disabled veterans.

- 2) The management and control of the daily business operations are by one more disabled veteran. The disabled veteran(s) who exercise management and control are not required to be the same disabled veterans as the owners of the business concern.
- 3) It is a sole proprietorship, corporation, or partnership with its home office located in the United States, which is not a branch or subsidiary of a foreign corporation, foreign firm, or other foreign-based business.

## **6. COMMERCIALLY USEFUL FUNCTION**

Effective January 1, 2004, AB 669 requires DVBE to perform a commercially useful function relating to any State contract either as prime or subcontractor. As defined in the California Code of Regulations, Title 2, Section 1896.61(I): any person or entity that satisfies the ownership or management and control requirements of Section 1896.6(f); is certified in accordance with Section 1896.70; and provides services or goods that contribute to the fulfillment of the contract requirements by performing a commercially useful function. A DVBE contractor, subcontractor or supplier is considered performing a commercially useful function when it meets the following criteria:

- a. The contractor or subcontractor is responsible for the execution of a distinct element of the work of the contract; carrying out its obligation by actually performing, managing or supervising the work involved; and performing work that is normal for its business services and functions
- AND
- b. The contractor or subcontractor is not further subcontracting a greater portion of the work than would be expected by normal industry practices.
- c. The contractor or subcontractor is responsible, with respect to materials and supplies provided on the subcontract, for negotiating price, determining quality and quantity, ordering the material, installing (when applicable), and paying for the material itself.

## **7. MULTIPLE AWARDS**

If the state reserves the right to make multiple awards or a single contract award as a result of this solicitation, the bidder is deemed responsive to this requirement if there would be compliance based on award of a single contract, notwithstanding that the bidder may be unable to achieve compliance to meet the established goal if the Military Department exercises its right to make multiple awards.

## **8. CONTRACT AUDITS**

Contractor agrees that the Military Department or its delegate will have the right to review, obtain and copy all records pertaining to performance of disabled veteran under this contract. Contractor agrees to provide the Military Department or its delegate with any relevant information requested and shall permit the Military Department or its delegate access to its premises, upon reasonable notice, during normal business hours for the purpose of interviewing employees and inspecting and copying such books, records, accounts and other material that may be relevant to a matter under investigation for the purpose of determining compliance with this requirement. Contractor further agrees to maintain such records for a period of three (3) years after final payment under the contract.

**CHECKLIST OF FORMS  
ARMORY REFURBISHMENT-RICHMOND  
NATIONAL GUARD FACILITY  
RICHMOND, CALIFORNIA  
PROJECT W0537**

| CHECKLIST OF FORMS TO BE RETURNED WITH BID PROPOSAL<br>SUBMIT TWO COPIES OF THE PROPOSAL FORMS: THE ORIGINAL SIGNED<br>COPIES AND ONE XEROX SET                                                                                                                                          |                                                                                                                                               |                               |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------|
| FORM                                                                                                                                                                                                                                                                                     | DESCRIPTION                                                                                                                                   | CHECK IF RETURNED<br>WITH BID |
| PROPOSAL FORM                                                                                                                                                                                                                                                                            | BID PROPOSAL, SMALL BUSINESS PREFERENCE, STATEMENT OF COMPLIANCE (COMPLETED AND SIGNED), BID BOND (BIDS OVER 25,000.00) PAGES A-1 THROUGH A-4 |                               |
| ATTACHMENT 1                                                                                                                                                                                                                                                                             | DISABLED VETERAN BUSINESS PARTICIPATION SUMMARY PAGE B-1                                                                                      | B-1                           |
| ATTACHMENT 2                                                                                                                                                                                                                                                                             | DOCUMENTATION OF GOOD FAITH EFFORT PAGE C-1 AND C-2                                                                                           | C-1                           |
| ATTACHMENT 3                                                                                                                                                                                                                                                                             | PAYEE DATA RECORD                                                                                                                             | D-1                           |
| ATTACHMENT 4                                                                                                                                                                                                                                                                             | NON-COLLUSION AFFIDAVIT PAGE E-1                                                                                                              | E-1                           |
|                                                                                                                                                                                                                                                                                          | SMALL BUSINESS CERTIFICATION LETTER OR COPY OF APPLICATION REQUEST FORM (If claiming small business status)                                   |                               |
| NOTE: ALL OF THE ABOVE DOCUMENTS REQUIRED MUST BE SUBMITTED WITH THE BID PROPOSAL. FAILURE TO DO SO MAY DEEM YOUR BID TO BE NON-RESPONSIVE AND MAY BE CAUSE FOR THE REJECTION OF YOUR BID.                                                                                               |                                                                                                                                               |                               |
| NOTE: PRIMARY CONTRACTOR AND ALL LISTED SUBCONTRACTOR(S) MUST PROVIDE THE REQUIRED LICENSES/CERTIFICATES LISTED IN SECTION 1 AND 4 (SCOPE OF WORK) UPON BID OPENING; FAILURE TO COMPLY WITH THIS REQUIREMENT MAY BE CONSIDERED NON-RESPONSIVE AND MAY LEAD TO THE REJECTION OF YOUR BID. |                                                                                                                                               |                               |
| FAILURE TO SIGN THE BID PROPOSAL MAY RESULT IN THE REJECTION OF YOUR BID                                                                                                                                                                                                                 |                                                                                                                                               |                               |

A-1

**PROPOSAL FORM  
ARMORY REFURBISHMENT  
NATIONAL GUARD ARMORY, RICHMOND, CA  
W0537**

TO: THE MILITARY DEPARTMENT  
STATE OF CALIFORNIA

The undersigned hereby proposes to provide equipment, materials, labor, licenses, bonds and insurance required to replace the existing windows, remove and replace two (2) existing vault doors, repair and coat the existing built up roof system and repair and paint the existing exterior concrete walls at the California National Guard Armory located at 624 Carlson Boulevard, Richmond, California in accordance with the terms, conditions, and requirements of this Invitation for Bid (IFB) for the total amount not to exceed:

\_\_\_\_\_ (\$\_\_\_\_\_ ) dollars.

The foregoing figure includes the cost of bonds, insurance, sales tax, and every other item of expense incident to the contract. Contractor/Bidders are required to provide the following cost breakdown that is included in the base bid amount above. **A more detailed description of work for Unit Bid Price items listed below can be found in the Technical Specification Section 01016.**

1. Costs for repairs (based on the estimated footage) are inclusive in bid amount above. Contractor is required to break out cost per square foot for the repairs.

**a. Spalled Concrete Repair:**

Concrete Repairs    \$\_\_\_\_\_ per square foot x 10 SF = \$\_\_\_\_\_

**b. Concrete Crack Injection Repairs:**

Crack Repairs            \$ \_\_\_\_\_ per lineal feet x 2000 LF = \$\_\_\_\_\_

**c. Concrete Routing Repairs**

Routing Repairs        \$\_\_\_\_\_ per lineal feet x 400 LF = \$\_\_\_\_\_

**d. Routed Panel Joint Repairs**

Panel Joint Repairs    \$\_\_\_\_\_ per lineal feet x 700 LF = \$\_\_\_\_\_

2. In the event **concrete repairs** are less than the estimated footage above, the total contract amount shall be adjusted and payment shall be made to contractor for actual area of roof replacement performed, based on price per foot submitted above.

3. In the event **concrete repairs** exceed the estimated footage above, the contract may be amended to allow for additional work based on the price per foot submitted above. **Contractor shall not proceed with additional repairs in excess of the footage above without benefit of approved amendment to original contract.**

The undersigned has checked carefully all the above figures and understands that the State of California will not be responsible for any errors or omissions on the part of the undersigned in preparing this bid.

\_\_\_\_\_  
CONTRACTOR/OFFEROR SIGNATURE

\_\_\_\_\_  
DATE

Contractor agrees to pay not less than the minimum rates of pay for laborers, workmen and mechanics employed by him on the work in accordance with the schedule set forth in the specifications herein, and further agrees that each subcontractor engaged by him shall similarly pay not less than said rates of pay to all laborers, workmen and mechanics employed by said subcontractor on the work.

#### PROPOSED LIST OF SUBCONTRACTORS

Listed hereinafter are the name, address, and license number of all subcontractors who will be employed and the segregation of the work which each will perform if the contract is awarded to this firm. In case more than one subcontractor is named for the same segregation, state the portion that each will perform. **Failure to list all required information may lead to rejection of bid.**

| CONTRACTOR | ADDRESS | TYPE OF WORK | LICENSE NUMBER |
|------------|---------|--------------|----------------|
|            |         |              |                |
|            |         |              |                |
|            |         |              |                |

The prospective contractor's signature affixed here below and dated shall constitute a certification under the penalty of perjury, under the laws of the State of California, that all information provided by the contractor/bidder, is true and correct as written.

Bidders claiming the State of California Small Business Preference must be certified by the Office of Small Business and DVBE Certification on the bid due date or have submitted a complete application to the Office of Small Business and DVBE Certification no later than 5 p.m. on the bid due date and subsequently be certified as a Small Business by the Office of Small Business and DVBE Certification. Without the State Office of Small Business and DVBE Certification's approval, your firm will not be considered a small business and will not be granted the 5% preference.

Small Business Reference Number: \_\_\_\_\_

STATUS OF FIRM must be given, whether an individual, partnership, or corporation. If partnership, list full names of partners, if corporation, give State in which incorporated.

|                                 |                                             |                          |
|---------------------------------|---------------------------------------------|--------------------------|
| <b>STATUS OF FIRM:</b>          | <b>NAME OF COMPANY/FIRM:</b>                | <b>DATE:</b>             |
| <b>FEDERAL ID NUMBER:</b>       | <b>COMPANY/FIRM COMPLETE ADDRESS:</b>       |                          |
| <b>LICENSE NUMBER:</b>          | <b>DATE LICENSE EXPIRES:</b>                | <b>CLASS OF LICENSE:</b> |
| <b>PRINTED SIGNATURE BLOCK:</b> | <b>SIGNATURE OF COMPANY REPRESENTATIVE:</b> | <b>TELEPHONE NUMBER:</b> |

The Military Department reserves the right to reject any and all bids, to waive any informality in any bids received, and accept only those individual items on the bid form which it is deemed may be in the best interest of the State.

**STATEMENT OF COMPLIANCE APPLICABLE TO CONTRACTS OF \$5,000 OR MORE:** The prospective contractor's signature affixed here below and dated shall constitute a certification under the penalty of perjury under the laws of the State of California that the bidder has, unless exempted, complied with the nondiscrimination program requirements of Government Code Section 12990 and Title 2, California Code of Regulations, Section 8103.

\_\_\_\_\_  
CONTRACTOR/OFFEROR SIGNATURE

\_\_\_\_\_  
DATE

Non-small business bidders claiming a 5% preference for the use of certified Small Business (es) must meet the following conditions at the time of their bid submission:

1. Submit written certification with their cost bid package that states the firm commits to subcontract at least twenty-five percent (25%) of the firm's net bid price with one or more State of California certified Small Business (es).
2. Submit a list of the certified Small Business (es) with their cost bid package that the bidding firm commits to subcontract with for a commercially useful function in the performance of the contract. The bidder's list of subcontractors shall include the subcontractor's name, address, voice telephone number, description of the work to be performed and the dollar amount or percentage per subcontractor.

### **RULES OF BIDDING**

Bids shall be addressed to and filed in the State of California, Military Department, 9800 Goethe Road, Sacramento, California 95827-3563, ATTN: Purchasing and Contracting, on or before **2:00 p.m., May 27, 2009**, to be publicly opened there on said day.

Enclose bid in envelope, and mark **"PROJECT W0537 – ARMORY REFURBISHMENT-RICHMOND ARMORY, RICHMOND, CALIFORNIA"**. Bids delivered by **courier service** must be placed in a sealed envelope and marked as indicated above and placed within the courier supplied pouch or envelope.

All courier pouches and envelopes are opened upon receipt by the Military Department.

**Bidders are required to submit two (2) copies of the Proposal: One original Signed Proposal and one copy.**

**FAILURE TO SIGN THIS PROPOSAL FORM MAY BE CAUSE FOR THE REJECTION OF YOUR FIRM'S BID. ORIGINAL SIGNATURE REQUIRED.**

### **SPECIAL NOTICE**

Bidders may withdraw bids up until the hour set for opening, and may submit new bids before the hour, but telegraphic/faxed bids or telegraphic/faxed modifications or withdrawal of bids will not be accepted. It is the responsibility of the bidder to insure that his bid reaches the Purchasing and Contracting Branch at the designated time.

## ATTACHMENT 4

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

STATE OF CALIFORNIA )

)ss

COUNTY OF \_\_\_\_\_)

\_\_\_\_\_, being first duly sworn, deposes and  
(name)

says that he or she is \_\_\_\_\_ of  
(position title)

\_\_\_\_\_,  
(the bidder)

the party making the foregoing bid that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly induced or solicited any other bidder to put in a false sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in proposed contract; that all statements contained in the bid are true; and further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid. I am fully aware that this certification, executed on the date and in county above, is made under penalty of perjury under the laws of the State of California.

DATED: \_\_\_\_\_ BY \_\_\_\_\_  
(person signing for bidder)

## Question and Answers for Bid #W0537 - Armory Refurbishment- Richmond California

### OVERALL BID QUESTIONS

There are no questions associated with this bid. If you would like to submit a question, please click on the "Create New Question" button below.

Question Deadline: May 22, 2009 3:30:00 PM PDT