| SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair) | 1. SOLICITATION NO. | 2. TYPE OF SOLICITATION | 3. DATE ISSUED | PAGE | OF | PAGES |
|---|---|---|---|---|---|---|
| | 70LGLY26RSSB00037 | ☐ SEALED BID (IFB) INVITATION FOR BID<br>☒ NEGOTIATED (RFP) REQUEST FOR PROPOSAL | 08/18/2026 | 1 | | 82 |

**IMPORTANT** - The "offer" section on the reverse must be fully completed by offeror.

| 4. CONTRACT NO. | 5. REQUISITION/PURCHASE REQUEST NO. | 6. PROJECT NO. |
|---|---|---|
| | 26EOYOCC0001 | |

| 7. ISSUED BY CODE 70LGLY | 8. ADDRESS OFFER TO |
|---|---|
| DEPARTMENT OF HOMELAND SECURITY<br>FEDERAL LAW ENFORCEMENT TRAINING CENTERS<br>1131 CHAPEL CROSSING RD<br>GLYNCO GA 31524 | Fedral Law Enforcement Training Center<br>Building 681 Attn: S. Anthony<br>1131 Chapel Crossing<br>Glynco GA 31524 |

| 9. FOR INFORMATION CALL | a. NAME | b. TELEPHONE NO. *(Include area code) (NO COLLECT CALLS)* |
|---|---|---|
| | Shannon Anthony | 912-261-3630 |

## SOLICITATION

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

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS *(Title, identifying number, date)*

This Request for Proposal will result in a Single Firm Fixed Price Contract Award for Building 93 Renovation at Federal Law Enforcement Training Center, Glynco, GA

The contract will be procured as a 100% total small business set-aside.

The Government will utilize the acquisition strategy Best Suited Then Negotiate when analyzing proposals. The Government will also utilize Federal Acquisition Regulation procedures (FAR) 15.404, Price Negotiation when evaluating Offeror's proposal.

The construction magnitude for this requirement is between $1,000,000 and $5,000,000.

The contract duration will be for a period not to exceed 334 calendar days after issuance of Notice to Proceed.

The North American Industry Classification System (NAICS) Code for this solicitation shall be 236220 Commercial and Institutional Building Construction

Continued...

11. The contractor shall begin performance within 5 calendar days and complete it within 334 calendar days after receiving ☐ award, ☒ notice to proceed. This performance period is ☐ mandatory ☒ negotiable. ***(See*** _____ ***).***

| 12a. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES", indicate within how many calendar days after award in Item 12b.)* | 12b. CALENDAR DAYS |
|---|---|
| ☐ YES ☒ NO | 0 |

13. ADDITIONAL SOLICITATION REQUIREMENTS:

a. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 1100 ***(hour)*** local time 09/17/2026 (date). If this is a sealed bid solicitation, offers will be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

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

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

d. Offers providing less than 0 calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

## OFFER *(Must be fully completed by offeror)*

| 14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)* | 15. TELEPHONE NO. *(Include area code)* |
|---|---|
| | 16. REMITTANCE ADDRESS *(Include only if different than Item 14.)* |
| CODE FACILITY CODE | |

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirement stated in Item 13d. Failure to insert any number means the offeror accepts the minimum in Item 13d.)*

AMOUNTS ▶

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS

*(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)*

| AMENDMENT NUMBER | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| DATE. | | | | | | | | | | |

| 20a. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER *(Type or print)* | 20b. SIGNATURE | 20c. OFFER DATE |
|---|---|---|
| | | |

## AWARD *(To be completed by Government)*

21. ITEMS ACCEPTED:

Continued...

| 22. AMOUNT | 23. ACCOUNTING AND APPROPRIATION DATA |
|---|---|
| | |

| 24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise specified)* ▶ | ITEM | 25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO THE UNITED STATES CODE AT ☐ 10 U.S.C. 3204(a) ( ) ☐ 41 U.S.C. 3304(a) ( ) |
|---|---|---|

| 26. ADMINISTERED BY 70LGLY | 27. PAYMENT WILL BE MADE BY |
|---|---|
| DEPARTMENT OF HOMELAND SECURITY<br>FEDERAL LAW ENFORCEMENT TRAINING CENTERS<br>1131 CHAPEL CROSSING RD<br>PRO BLDG 93<br>GLYNCO GA 31524 | |

*CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE*

| ☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return* 1 *copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work requirements identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications incorporated by reference in or attached to this contract. | ☐ 29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary. |
|---|---|
| 30a. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)* | 31a. NAME OF CONTRACTING OFFICER *(Type or print)*<br>Shannon Anthony |
| 30b. SIGNATURE / 30c. DATE | 31b. UNITED STATES OF AMERICA<br>BY / 31c. DATE |

| ITEM NO. (A) | SUPPLIES/SERVICES (B) | QUANTITY (C) | UNIT (D) | UNIT PRICE (E) | AMOUNT (F) |
|---|---|---|---|---|---|
| | A site visit is scheduled for August 26, 2026, at 11:00am at FLETC Building 200. Upon arrival, attendees should report to the commercial gate a minimum of 30 minutes prior to the application screening process, then proceed to Building 200. All personnel who are not currently badged will need to complete and return Day Pass applications for all attendees no later than August 25, 2026, at 10:00am to the attention of Project Manager, Richard Love at Richard.Love@fletc.dhs.gov Plese coordiante receipt of badge applications and submission with Mr. Love.<br><br>Delivery: 334 Days After Notice to Proceed<br>Delivery Location Code: FLETC GL<br>DEPARTMENT OF HOMELAND SECURITY<br>FEDERAL LAW ENFORCEMENT TRNG CTR<br>1131 CHAPEL CROSSING RD<br>ATTN: BLDG:<br>GLYNCO GA 31524<br><br>Period of Performance: 09/30/2026 to 08/30/2027 | | | | |
| 0001 | This is a Firm Fixed Price CLIN. Building 93 General Labor<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0002 | This is a Firm Fixed Price CLIN. Building 93 HVAC testing and balancing<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0003 | This is a Firm Fixed Price CLIN. Building 93 New Restroom Plumbing Fixtures<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0004 | This is a Firm Fixed Price CLIN. Building 93 | 1 | EA | | |

Continued...

| ITEM NO. (A) | SUPPLIES/SERVICES (B) | QUANTITY (C) | UNIT (D) | UNIT PRICE (E) | AMOUNT (F) |
|---|---|---|---|---|---|
| | Restroom demolition<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | | | | |
| 0005 | This is a Firm Fixed Price CLIN. Building 93<br>Concrete demolition & replacement in hallway<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0006 | This is a Firm Fixed Price CLIN. Building 93<br>Trailer restroom rental<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0007 | This is a Firm Fixed Price CLIN. Building 93<br>New painting Hallways and Suites<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0008 | This is a Firm Fixed Price CLIN. Building 93<br>New LVP flooring installation<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0009 | This is a Firm Fixed Price CLIN. Building 93<br>Furniture Relocation<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0010 | This is a Firm Fixed Price CLIN. Building 93<br>Electrical<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |

Continued...

| ITEM NO. (A) | SUPPLIES/SERVICES (B) | QUANTITY (C) | UNIT (D) | UNIT PRICE (E) | AMOUNT (F) |
|---|---|---|---|---|---|
| 0011 | This is a Firm Fixed Price CLIN. Building 93 Carpet Demolition<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0012 | This is a Firm Fixed Price CLIN. Building 93 Sewer Line Replacement<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0013 | This is a Firm Fixed Price CLIN. Building 93 Restroom Lighting Replacement<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS | 1 | EA | | |
| 0014 | This is a Firm Fixed Price CLIN. Building 93 Excavation<br>Product/Service Code: Z2AA<br>Product/Service Description: REPAIR OR ALTERATION<br>OF OFFICE BUILDINGS<br><br>Offerors shall provide a statement of compliance with FAR 52.222-50, Combating Trafficking in Persons, requirements and confirm subcontractors will accomplish a statement of compliance upon award. | 1 | EA | | |

## B - Supplies or Services/Prices

Clauses

See Continuation Sheet, Standard Form 1442. Also, please refer to Exhibit A for completion of the Bid Schedule and proposal breakdown

## C - Description/Specifications

The contractor will furnish all labor, materials, equipment, and supervision necessary to accomplish the work detailed herein. The contractor will also verify all quantities, dimensions, and site conditions in the field. The contractor will supply all supplemental and related miscellaneous work to comply with the scope of work as indicated in the Specifications, Statement of Work, and/or Contract.

The contractor shall provide all labor, materials, tools, equipment, and supervision necessary for Building 93 Renovations to include bathrooms, hallways, Suite 160, d Suite 140, and temporary restroom trailer.

**See Section J, Attachment 1 for the complete SOW and technical requirements associated with this action.**

## D - Packaging and Marking

Clauses

D.1 Packing and Marking

(a) All shipments of materials, equipment and/or supplies to the project site shall be addressed to the Contractor and not the U. S. Government. Preservation, packaging and packing shall be in accordance with standard practices for commercial packaging.

(b) Government personnel are not authorized to accept deliveries for the contractor, nor are they responsible for off-loading shipments. A contractor representative must be present to accept deliveries.

D.2 Payment and Postage and Fees

a) The Contractor shall pay all postage and fees related to submitting information (including forms, reports, etc.) to the Contracting Officer.

## E - Inspection and Acceptance

Clauses

**52.246-12 Inspection of Construction. (AUG 1996)**

**52.246-21 Warranty of Construction. (MAR 1994)**

## F - Deliveries or Performance

### F.1 Existing Furniture, Equipment, and Materials

The Contractor shall move all furniture, equipment, and materials for access to work. Upon completion of work, such items shall be repositioned to their original location. Personal items, computers, telephones, audio-visual equipment, and facsimile machines will be removed by the Government. All other items will be removed and replaced by the Contractor. Some offices are fully furnished and others are less congested. It will be the Contractor's responsibility to remove and replace, or if unable to remove the furniture, to cover and protect, all furniture for the duration of the task order. Additional compensation may be negotiated for rooms that are considered “libraries’ or “volume storage areas.”

### F.2 Occupancy of Premises

The premises may be occupied during the performance of the work.

### F.3 Submittals & Preconstruction Conference

Submittals are due no later than 14 calendar days after award. For more information regarding submittals, please see Attachment 1, Scope of Work and Submittal Specifications.

Clauses

**52.211-10 Commencement, Prosecution, and Completion of Work. (APR 1984)**

The Contractor shall be required to (a) commence work under this contract within 5 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 334 calendar days after the date the Contractor receives the notice to proceed. The time stated for completion shall include final cleanup of the premises.

(End of clause)

**52.211-13 Time Extensions. (SEP 2000)**

**52.242-17 Government Delay of Work. (APR 1984)**

## G - Contract Administration Data

Clauses

### G.1 Accounting and Appropriation Data

Funds have been reserved for this acquisition. The accounting appropriation data applicable for this acquisition will be provided in any resulting contract.

### G.2 Identification of Correspondence

All correspondence and data submitted by the Contractor under this contract will reference the contract number and title.

### G.3 Contracting Officer

The Contracting Officer (CO) for award of the contract will be Shannon Anthony from the office listed below:

FLETC, Procurement Division
Specialized Services Branch (SSB)
Bldg 681, 1131 Chapel Crossing Road
Brunswick, GA 31524

The Contracting Officer (CO) for administration of the contract will be Shannon Anthony.

### G.4 Payment Office Address

Department of Homeland Security
FLETC Finance Division/Contract Payments
Building 681 (BFD)
Glynco, Georgia 31524
(See G.8, Invoices)

### G.5 Contracting Officer

The Contracting Officer has the overall responsibility for the administration of this contract. All communication pertaining to contractual or administrative matters under the contract shall be addressed to the Contracting Officer. The Contracting Officer alone, without delegation, is authorized to take actions on behalf of the Government to amend, modify or deviate from the contract terms, conditions, requirements, specifications, details and/or schedules. However, he may delegate certain other responsibilities to his authorized representatives.

### G.6 Designation of Contracting Officer’s Representative

As indicated in Homeland Security Acquisition Regulation (HSAR) clause 3052.242-72, Contracting Officer’s Representative, the Contracting Officer will designate a Contracting Officer's Representative (COR) to perform functions under the contract such as review or inspection and acceptance of services, and other functions of a technical nature. The Contracting Officer will provide a written notice of such designation to the Contractor within five working days after contract award. The designation letter will set forth the authorities and limitations of the COR under the action. The Contracting Officer cannot authorize the COR or any other representative to sign documents, such as contracts, contract modifications, etc., that require the signature of the Contracting Officer. In no event, will any matter deviating from the terms of this contract be effective or binding unless formalized by contractual documents executed by the Contracting Officer.

The Contracting Officer for this contract should be informed as soon as possible of any actions or inaction by the Contractor or the Government which could change any of the terms, conditions, or completion times stated in the contract. On all matters pertaining to contract terms, the Contractor must communicate with the Contracting Officer. Whenever, in the opinion of the Contractor, the COR requests effort outside the scope of the contract, the Contractor should so advise the COR. If a disagreement exists as to contractual coverage, the Contracting Officer should be notified immediately, preferably in writing if time permits. Proceeding with work without contractual coverage could result in nonpayment.

**G.7 Bonds – 52.228-1 Bid Guarantee (SEP 1996) (Not required for subject requirement)**

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds-

(1) To unsuccessful bidders as soon as practicable after the opening of bids; and

(2) To the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.

(c) The amount of the bid guarantee shall be [20%] percent of the bid price or $3,000,000.00 the amount of the proposed price, whichever is less.

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee. 52.232-40 Providing Accelerated Payments to Small Business Subcontractors. (DEC 2013)

(a) Upon receipt of accelerated payments from the Government, the Contractor shall make accelerated payments to its small business subcontractors under this contract, to the maximum extent practicable and prior to when such payment is otherwise required under the applicable contract or subcontract, after receipt of a proper invoice and all other required documentation from the small business subcontractor.

(b) The acceleration of payments under this clause does not provide any new rights under the Prompt Payment Act.

(c) Include the substance of this clause, including this paragraph (c), in all subcontracts with small business concerns, including subcontracts with small business concerns for the acquisition of commercial items.

**G.8 Payment & Performance Bond (REQUIRED for subject requirement)**

a. Performance and Payment bonds. The Contractor shall be required to provide both payment and performance bonds.

b. Penal sums. The penal sums of the performance and payment bonds shall equal one hundred percent (100%) of the contract price.

c. The Contractor shall furnish all bonds or alternative payment protection no later than ten (10) calendar days after receipt of the notice of award. The furnishing of bonds is a part of contract performance and failure to provide bonds within the time specified shall be grounds for default.

**G.9 Individual Surety**

a. As prescribed in FAR 28.200, individual sureties are acceptable for all types of bonds except position schedule bonds. In order for the Contracting Officer to determine the acceptability of individuals proposed as sureties, all bidders/offerors who submit bonds which are executed by individual sureties are required to furnish the following information in support of SF 28, Affidavit of Individual Surety, with the bond(s):

1. A complete description of real property offered, supported by proof of title, such as by title opinion or abstract of title, and a certified appraisal or tax assessment;

2. C.P.A. certified balance sheet(s) and income statement(s) with a signed opinion for each individual surety;

3. Independent certified appraisal of net value of property offered;

4. Independent Certification by licensed attorney or Title Company of liens or other encumbrances which exist against all property listed;

5. A current list of all other bonds on which the individual is a surety and bonds for which the individual is requesting to be a surety, together with a statement as to the percent completion of these bonded jobs.

6. Copy of latest Federal and State Income Tax returns including all schedules.

b. This information is necessary to enable the Government to evaluate the sufficiency of the surety. Failure to furnish this information may result in non-approval of the surety and a determination of non-responsibility.

**G.10 Irrevocable Letter of Credit**

As prescribed in FAR 28.204-3, an Irrevocable Letter of Credit is acceptable for all types of bonds, if all provisions of FAR 28.204-3 and FAR -14 are met. FAR -14 requires a specific format for the Irrevocable Letter of Credit and the letter from the Financial Institution confirming an Irrevocable Letter of Credit.

## G.11 Invoices

a. All payments under this contract will be made by electronic funds transfer (EFT) in accordance with FAR 52.232.33, Payment by Electronic Funds Transfer—System for Award Management (See Section I). An invoice is a written request for payment under the contract for supplies delivered or for service rendered. Invoices shall cite the contract number, quantity, price, and total amount of invoice. The sample invoice forms will be given to the successful offeror at the Pre-Construction meeting after contract award. In accordance with FAR Clause 52.232-5, Payments Under Fixed Price Construction Contracts (Section I), the Contractor shall furnish proper certification required by paragraph (d) on progress payments.

b. Invoices shall be prepared by the Contractor and submitted and distributed as follows:

Email to the attention of the Contracting Officer at Shannon.Anthony@fletc.dhs.gov

c. The Government will pay all proper invoices per the provisions of FAR 52.232-5, Payments Under Fixed Price Construction Contracts, and FAR 52.232-27 Prompt Payment for Construction Contracts (see Section I).

d. Payment will be based on invoices submitted by the Contractor for satisfactorily completed work. Upon verification of work actually performed and receipt of a proper invoice and any required contractor submittals, invoices will be processed for payment.

e. Submission of the invoice certifies that all employees and subcontractors have been notified of the United State Government’s zero tolerance policy regarding trafficking in persons, and the actions that will be taken for violations of this policy.

## G.12 Payment to Contractor

a. The Provisions of the clause entitled "Payment Under Fixed-Price Construction Contracts" prescribed in FAR 52.232-5 are supplemented as follows:

1. In preparation of estimates, the Contracting Officer (CO) may authorize materials delivered to the site and preparatory work done to be taken in to consideration if these items are specifically identified in the accepted Schedule of Values (SOV) (if applicable) for the contract. The CO will only authorize payment for stored materials in the SOV that are considered high value; long lead or difficult to obtain; or are specialty items specifically manufactured for this project. Standard construction materials such as CMU block, conduit, wire, paint, etc. will be paid for upon satisfactory installation of the material. Payment requests for authorized stored materials in the SOV must be accompanied by an invoice showing a detailed description, quantity, cost of the materials, and evidence of contractor payment for the materials. If payment is authorized, the Contractor will be paid the lesser of the material invoice amount, or the SOV line item amount. Any remaining SOV line item balance shall be redistributed to the material installation activity, or another activity as acceptable to the Contracting Officer. The Contractor remains responsible at all times for the proper storage and

protection of all materials. Retention will be withheld from future payment applications for improperly stored materials for which the Contractor has been previously paid.

2. The FLETC will not normally authorize payment for material stored off-site. In the event the FLETC and the Contractor both agree that it is in interest of the project to consider payment for off-site material, the following conditions at minimum must be met:

a) Material properly stored in a bonded warehouse;

b) Submission of a paid invoice indicating the contractor has title to the material

c) Arrangements made for government representative to inventory the material

d) A defined material delivery date to the project

3. In accordance with FAR 52.232-5, Payments under Fixed-Price Construction Contracts, if the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved.

b. No payment request (invoice) will be processed by the Contracting Officer when the Contractor's payroll submittals and/or those of any subcontractor are not current. This means the Contracting Officer must have in hand payroll submittals for the prime Contractor and all subcontractors up through and including the week immediately prior to the date on the invoice. Any invoice received wherein the Contractor has not adhered to this policy will be promptly returned to the Contractor and will not be processed until payroll submittals are brought up to date by the Contractor.

### G.13 Final Payment

Final payment will not be made until all work is completed and accepted, all submittals have been received and approved, warranties received, and final cleanup of the premises is accomplished.

### G.14 Daily Report to Inspector

The Contractor’s Superintendent shall complete for each day and submit electronically daily, prior to 10 AM of the following day, Form FTC-FMD-42 (12/09), Daily Report to Inspector to the Government Project Manager, Building 200, FLETC, Glynco GA. The Daily Report should contain a clear accounting of the time, location, type and quantity of work that took place. All sections shall be filled out or a comment made indicating that “this does not apply at this time”. If the proper procedure is not followed, a “Contract Construction Compliance Notice” will accompany the returned document or in the case of no report, the “CCCN” will be your notification.

### G.15 Special Note

Sections K, L and M of this solicitation will be physically removed from any resultant award; however; Section K will be deemed to be incorporated by reference.

# SECTION H- SPECIAL CONTRACT REQUIREMENTS

**H.1 Directives, Regulations, And Instructions (Jul 2013)**

The Contractor, its personnel, subcontractors, their personnel, and representatives shall become acquainted with and fully comply at all times with the Federal Law Enforcement Training Centers (FLETC) Regulations, Directives, and Instructions. Any individual shall be subject to removal from the Center for noncompliance.

In the event of a conflict between this contract and FLETC directives, regulations, or instructions the contract shall take precedence.

**H.2 Operation On The Facility Safety (Jul 2013)**

**H.2.1 Safety**

The Contractor shall conduct the operation(s) under this contract in strict conformance with all FLETC safety directives and Federal, State, and local requirements and with all applicable provisions of 29 CFR Part 1910 and 1926 of the Occupational Safety and Health Act (OSHA) and USACE EM-385-1-1.

The Contractor shall conform to all safety rules and requirements in effect on the award date of this contract and shall take such additional precautions as the Contracting Officer (CO) may reasonably require for safety and accident prevention purposes while performing any work under this contract. The Contractor agrees to take all reasonable steps and precautions to prevent accidents and preserve the life and health of Contractor and Government personnel performing in any way under this contract.

The Contractor shall make contract personnel available for government-furnished safety and occupational training, estimated at two (2) to four (4) hours annually per individual. Government-furnished training may include Quality, Safety, and Occupational requirements.

**H.2.2 Accident Reports**

Within 24-hours of occurrence, the Contractor shall prepare a report of all job-related accidents and injuries occurring on FLETC property. The Contractor shall deliver the report to the Contracting Officer Representative (COR) and if COR is unavailable the CO. The Contractor shall maintain an accurate record of all accidents resulting in personal injury, death, trauma, or occupational illness or disease; exposure to hazardous materials (asbestos, lead, etc.); and all injuries reported on the Occupational Safety and Health Administration (OSHA) Form 300, Log of Work-Related Injuries and Illnesses.

**H.2.3 Occupational Hazards**

The Contractor shall comply with all elements of OSHA Safety and Health Standards, FLETC Safety & Health Directives and all other Federal, State and Local regulatory requirements.

**H.2.4 Physical Security**

The Contractor shall be responsible for safeguarding all Government property provided for

contractor use. At the end of each work period, all Government facilities, equipment and materials must be secured. Locked rooms must not be left unattended during the cleaning process and shall be re-locked by contractor personnel after completion of cleaning duties. The Contractor is responsible, through the CO/COR, for obtaining access to buildings and arranging for each room/area to be opened and closed as necessary in the performance of contract requirements.

**In the event of an Emergency or Fire**

1. **Glynco Security**
    a. Dispatch x2911
    b. (912) 267-2911
2. **Artesia Security**
    a. Dispatch x8136
    b. (575) 748-8136
3. **Charleston Security**
    a. Dispatch x911
    b. (843) 974-6305
4. **Cheltenham Security**
    a. Dispatch x911
    b. (301) 877-8400

The Contractor shall observe all OSHA, FLETC, and National Fire Prevention Association (NFPA) requirements for handling and storage of combustible supplies, materials, waste, and trash. If combustible materials are to be stored on the premises, the Contractor shall obtain Government approval, label the containers with the materials' fire hazard potential, and store the containers in fire-rated locking metal cabinets.

**H.2.5 Traffic Regulations**

Contractor and subcontractor personnel operating motor vehicles on FLETC shall observe traffic regulations and posted speed limits except as defined elsewhere in this contract. The only exception to posted speed limits is passing jogging formations, when speed shall be reduced to 15 mph. Traffic laws are enforced on the Center, and violations shall be assessed penalty points, which can result in the revocation of driving privileges on the Center.

**H.2.6 Prohibited items -** See Interagency Security Committee Executive Order 14111, U.S. DHS, Cybersecurity and Infrastructure Security Agency, **Interagency Security Committee Document** (2022 edition) for the list of prohibited items on federal facilities.

**Substances**

Contractor personnel are not permitted to bring any substance that is illegal under Federal or State law or statute.

**Weapons**

Contractor personnel are not permitted to bring privately owned firearms, weapons, or ammunition on FLETC facilities. This restriction includes handguns, rifles, shotguns, hunting bows, arrows, etc. All privately owned firearms, weapons, and ammunition must be surrendered/checked in at the Security Visitor Control Center (VCC) Weapons Storage area upon

entry to FLETC.

**H.2.7 Supervision of Contractor Personnel**
The Contractor's personnel shall always remain under the Contractor's direct supervision. Although the Government will coordinate direction within the scope of the contract, detailed instructions for the Contractor's personnel's performance and supervision shall remain the sole responsibility of the Contractor.

**H.3 Medical Treatment**
Only emergency medical care is available in Government facilities to Contractor personnel who suffer on-the-job injury. The Government will NOT perform physical examinations on Contractor personnel except as specified elsewhere in this contract. Government emergency vehicles and medical personnel may be used as the first point of treatment in emergency situations affecting Contractor personnel suffering pain or whose life or limb may be in danger.

Transfer to other than Government medical treatment facilities shall be affected by the Local Rescue Squad or Security Vehicle as determined necessary by attending medical authorities. The Contractor shall render payment for care at the rates established by the CO as equitable with like services rendered in the local community. Upon receipt of a statement of charges, reimbursement will be made by the Contractor as a credit to the next billing invoice. Cost of these emergency services shall be incurred and borne by the Contractor as non-reimbursable by the Government.

**H.4 Subcontracting**
The Government reserves the right to approve or disapprove subcontractors for any work required by this contract. The Contractor shall obtain the CO's written approval of all subcontractors and provide copies of approved subcontracts.

**H.5 Other Contracts**
The Government may award third party contracts for additional work at or near the site of work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the CO. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

**H.6 Rights Of The Government To Perform Functions With Its Own Personnel**
The Government reserves the right to perform or supplement performance of contract functions with Government personnel during periods of disaster, war emergencies, police actions, or acts of God. Such performance shall not constitute a breach of contract by the Government within the meaning of the contract clause FAR 52.212-4 entitled "Termination for Cause".

The Contractor agrees under such circumstances to permit the Government to use any essential Contractor-furnished property. The Government will equitably compensate the Contractor for use of such property.

**H.7 Government Performance Of Services During Labor Strikes**
Because the services called for under this contract are of critical importance to FLETC, the Government reserves the right to take over or supplement performance of this contract in the event of a labor strike by the Contractor's personnel which impairs the Contractor's ability to satisfactorily perform the contract. Under such circumstances and at the direction of the CO, the Contractor agrees not to interfere in any way with Government performance. The Contractor further agrees under such circumstances to permit the Government to use any essential contractor-furnished property. The Government will equitably compensate the Contractor for use of such property.

The Contractor will not be entitled to payment for any performance period, in part or in total, during which the Government assumes performance under this clause. This clause does not limit the Government's rights under any other clause of this contract, including but not limited to, "Termination for Cause"; "Termination for Convenience", and "Inspection/Acceptance" in accordance with FAR 52.212-4(a).

**H.8 Conservation**
Contractor and subcontractor personnel shall actively participate in all energy conservation efforts and programs applicable to work performed under this contract. The Contractor shall instruct its personnel and subcontractors in utilities conservation policies.

**H.9 Labor Relations**
The Contractor shall maintain satisfactory labor relations with its personnel. Representatives of the Contracting Office will not participate in labor relation matters unless disputes develop that interfere with the proper performance of the contract, at which time the representative may endeavor to assist in settling the difficulty.

The Contractor shall provide the CO with a copy of any collective bargaining agreement applicable to personnel performing on this contract.

**H.10 Affirmative Procurement Of Biobased Products Under Service And Construction Contracts**
The Contractor shall provide a complete list of biobased products purchased to carry out the contract requirements. Provided to those listed in FAR 52.223-2, Reporting of Biobased Products Under Service and Construction Contracts (May 2024), product types and dollar value of any biobased products in USDA-designated product categories purchased by the Contractor during the previous Government fiscal year, between October 1 and September 30. The products list shall be organized into the following three categories: Biobased products, Sustainable Products and Services and all other products. The Contractor shall list volume to be used and total cost for each individual product in each category.

**H.11 Photography**
No photography, of any nature, is allowed while on FLETC without the written authorization of the COR or CO. Submit photography requests to the CO at least two (2) business days prior to the anticipated photo session.

**H.12 Conduct Of Personnel**
The CO may require the Contractor to remove from the job site any individual under this contract for reasons of misconduct, security, suspected or found to be under the influence of alcohol, drugs, or other incapacitating agents. Contractor and subcontractor personnel shall be subject to dismissal from the premises upon determination by the CO that such action is in the best interests of the Government. The CO has the authority to bar individuals from the installation. Such removal from the job site or dismissal from the premises shall not relieve the Contractor of the requirement to provide sufficient personnel to perform the services as required by this performance work statement.

**H.13 Contractor Vehicles, Driver's license and Vehicle Passes**
All Contractor vehicles operated on Government property shall be in operable condition, maintained in good repair, and meet all local, State and Federal safety requirements. Vehicles found to be unsafe or unable to function as designed shall be removed from the job site immediately. Each vehicle operated by the Contractor under this contract shall, at all times, display a valid state license plate and safety inspection sticker, if applicable.

Vehicles must be registered with FLETC. Contractors wishing to drive on FLETC will need to provide proof of insurance, valid registration and tag number of the vehicle. Contractor cannot park in restricted parking areas unless authorized by FLETC. These authorizations will receive a parking pass that must be displayed when parked in the restricted areas. Failure to register a vehicle with FLETC will result in the loss of driving privileges on FLETC for a minimum of 30 days.

Traffic laws are enforced on the Center and violations shall be assessed penalty points, which can result in revocation of driving privileges on Center. Contractor personnel operating motor vehicles on FLETC shall observe traffic regulations and posted speed limits. Drivers will reduce speed to no more than 15mph when passing jogging formations.

**H.13.1 Vehicle Inspections**
The Contractor shall be liable for any resultant delays (including jeopardizing their performance report rating on contract schedules) should a vehicle fail to meet the standards.
The Contractor's name and telephone number shall be conspicuously legible on both sides of all Contractor vehicles and over-the-road equipment.

The Contractor shall ensure that all Contractor personnel who will be driving a vehicle in support of this contract possess the required license prior to driving that vehicle. This specifically includes personnel operating FLETC government-owned vehicles in the performance of their roles.

**H.14 Permits**
The Contractor shall, without additional expense to the Government, obtain all appointments, licenses, and permits required for the prosecution of the work and for compliance with all applicable Federal, State, and local laws, regulations, and codes. Evidence of such shall be provided to the CO upon request.

The Contractor shall ensure that all Contractor personnel who will be driving a vehicle in support of this contract possess a required license prior to driving that vehicle. This specifically includes personnel operating FLETC government-owned vehicles in the performance of their roles.

**H.15 Environmental Protection**

The Contractor shall comply with all applicable environmental protection requirements, including all Federal, State, and local laws and regulations. All environmental protection matters shall be coordinated with the CO or designated representative. In the event that a regulatory agency assesses a monetary fine against the Government for violations caused by the Contractor, or contractor equipment, personnel, etc., the Contractor shall reimburse the Government for that portion of the fine and associated costs for which the Contractor is responsible.

**H.16 Access To Buildings**

It shall be the Contractor's responsibility, through the COR, to obtain access to buildings and to arrange for each room/area to be opened and closed as necessary in performance of contract requirements. The Contractor shall be responsible for safeguarding all Government property and securing facilities, equipment, and materials at the end of each work period.

**H.17 Key Control and Access Control Devices**

Keys to include keyless entry cards or other similar access control devices will be issued to the Contractor as appropriate. The Contractor shall receive, service, and account for all keys issued for use in the performance of this contract. The Contractor shall develop a system of key control and submit the written plan for the CO's approval five (5) days prior to contract start. This plan shall become a part of the quality control plan. The Contractor's plan shall ensure that all keys and lock combinations issued to the Contractor by the Government are not lost, misplaced, or used by unauthorized persons.

Neither the Contractor, nor any Contractor personnel, shall duplicate or fabricate any Government key or access control device in its custody. The Contractor shall report loss or unauthorized duplication of Government issued keys to the CO and/or the COR, along with his/her designated representative within 48 hours of learning of the loss or duplication by Contractor personnel. Should replacement keys be required, the Contractor shall submit a WRITTEN REQUEST to the COR and/or the CO, before any action is taken to replace any key.

The Contractor shall control access to all Government provided lock combinations to preclude unauthorized entry. The Contractor shall immediately notify the COR when lock combinations have been compromised.

Should the security of a facility become compromised by the loss of a key by Contractor personnel, the Contractor shall be responsible for replacement cost for rekeying of locks or lock replacements as determined appropriate by the CO. In the event a master key is lost or duplicated, all locks and keys for that system shall be replaced and replacement cost borne by the Contractor.

Contractor personnel shall not allow anyone the use of any Government key in their possession. They shall not open locked rooms or areas to permit entrance by persons other than Contractor personnel performing assigned duties. Any room unlocked by Contractor at the start of work shall not be left unattended during the service process and shall be re-locked by Contractor personnel after completion of their service duties.

**H.18 Disclosure Of Information**
***DISCLOSURE OF INFORMATION***

a. The Contractor is reminded that information furnished under this contract may be subject to disclosure under the Freedom of Information Act (FOIA). Therefore, all items that are confidential to business, or contain trade secrets, proprietary, or personnel information must be clearly marked. Marking of items will not necessarily preclude disclosure when FLETC or the Government determines disclosure is warranted by the FOIA. However, if such items are not marked, all information contained within the submitted documents will be deemed releasable.

b. Any information made available to the Contractor by the Government must be used only for carrying out the provisions of this Contract and must not be divulged or made known in any manner to any person except as may be necessary in the performance of the contract.

c. In performance of this contract, the Contractor assumes responsibility for protection of the confidentiality of Government records and must ensure that all work performed by its subcontractors shall be under the supervision of the Contractor or the Contractor's responsible employees.

d. Each officer or employee of the Contractor or any of its subcontractors to whom any Government record may be made available or disclosed must be notified in writing by the Contractor that information disclosed to such officer or employee can be used only for the purpose and to the extent authorized herein, and that further disclosure of any such information, by any means, for a purpose or to an extent unauthorized herein, may subject the offender to criminal sanctions imposed by 19 U.S.C. 641.19 U.S.C. 641. This section provides, in pertinent part, that whoever knowingly converts to their use or the use of another, or without authority, sells, conveys, or disposes of any record of the United States or whoever receives the same with intent to convert it to their use or gain, knowing it to have been converted, shall be guilty of a crime punishable by a fine of up to $10,000, or imprisoned up to ten years, or both.

**H.19 Implementation Of Executive Order (E.O.) 13224-Blocking Property and Prohibiting Transactions With Persons Who Commit, Threaten to Commit, or Support Terrorism**
The Contractor is reminded that U.S. Executive Orders and U.S. law prohibits transactions with, and the provision of resources and support to, individuals and organizations associated with terrorism. It is the legal responsibility of the Contractor to ensure compliance with the United States Executive Orders and laws.

**H.20 Advertising of Award**
The Contractor shall not refer to awards in commercial advertising in such a manner as to state

or imply that the product or service provided is endorsed or preferred by the Federal Government or is considered by the Government to be superior to other products or services.

**H.21 Damage Reports**
In all instances where Government property or equipment is damaged by Contractor personnel, the Contractor shall submit a full written report of the facts and extent of such to the COR within 24 hours.

**H.22 Property Damage And Personal Injuries**
The Contractor shall assume full responsibility for any and all damages or claims for damage for injury to persons, property, or equipment which results from any service performed under this contract. The contractor shall repair or replace to the satisfaction of the Contracting Officer (CO) or his representative any surfaces, fixtures, furnishings, structures, equipment, material, or supplies which were damaged by Contractor personnel. The Contractor shall abide by the decision of the CO whether to repair or to replace items, property, or structures when damage is caused by any of the above. The Contractor shall accomplish such repair or replacement at no cost to the Government within five (5) business days following occurrence of the damage unless otherwise agreed upon by the CO.

**H.23 Indemnity And Liability**
The Contractor shall exercise reasonable care and use the Contractor's best efforts to prevent accidents, injury, or damage to all persons and property in and about the work and to the facility or part(s) thereof upon which work is done.

The Contractor shall indemnify and hold harmless the Government against any and all liability claims and costs for injury to any property (Government or otherwise) arising from the occupancy, use, service, operation or performance of work in connection with this contract resulting in whole or in part from the negligent acts or fault of the Contractor or any subcontractor, or any employee, agent or representative of the Contractor or any subcontractor.

The Government will in no way be responsible for damages or loss occasioned by fire, theft, and accident or otherwise to the Contractor's stored supplies, materials, equipment, or its personnel's personal belongings.

The Contractor shall indemnify the Government against any and all liability claims for injuries, or death of any person and for loss or damage to any property occurring in connection with the occupancy, use, service, operation, or performance of work in connection with this contract resulting from the negligent acts or fault of the Contractor, any subcontractor, any employee, agent, or representative of the Contractor or subcontractor.

**H.24 Contractor Liability For Acts Of God**
The Contractor shall not be held responsible for damages incurred as a result of an Act of God, including but not limited to: flood, lightning, hurricane, tornado, earthquake, and unusually severe weather conditions documented by the National Weather Service as differing from the norm for this geographical area. The Contractor shall take all necessary precautions or measures to protect Government property and equipment if warning is given. If the Contractor is found to

be negligent in his efforts to minimize damages, the Government shall hold the Contractor liable for those damages and associated costs.

**H.25 Insurance**

The Contractor shall procure and maintain insurance at the Contractor's expense during the term of the contract and any extensions. Before starting work under this contract, the Contractor shall certify to the CO in writing that the required insurance has been obtained. Within 10 days after the award of this contract, the Contractor shall furnish to the CO a certificate of insurance as evidence of the existence of the following insurance coverage in amounts not less than the minimum amounts specified below:

1. Comprehensive General Liability: $200,000 per person and $500,000 per accident for bodily injury and $50,000 per occurrence for property damage.
2. Automobile Insurance: $200,000 per person and $500,000 per occurrence for bodily injury and $20,000 per occurrence for property damage
3. Standard Workers' Compensation and Employer's Liability Insurance in the minimum amount of $100,000.

The general liability policy shall name "The United States of America, acting by and through the Department of Homeland Security (DHS), Federal Law Enforcement Training Center (FLETC)" as an additional insured with respect to operations performed under this contract.

The Certificate of Insurance shall provide for a minimum of 30 days' written notice to the CO by the insurance company prior to cancellation or material change in policy coverage.

**H.26 Holidays (Updated PRO 2026)**

a. The Government recognizes the following holidays: New Year's Day, Birthday of Martin Luther King Jr., Washington's Birthday (President's Day), Memorial Day, Juneteenth National Independence Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving Day and Christmas Day.

From OPM.Gov – 2026 Federal Holidays

| Date | Holiday |
|---|---|
| Wednesday, January 01 | New Year's Day |
| Monday, January 20 | Birthday of Martin Luther King, Jr. |
| Monday, February 17 * | Washington's Birthday |
| Monday, May 25 | Memorial Day |
| Friday, June 19 | Juneteenth National Independence Day |
| Friday, July 03** | Independence Day |
| Monday, September 07 | Labor Day |
| Monday, October 12 | Columbus Day |
| Wednesday, November 11 | Veterans Day |

| Date | Holiday |
|---|---|
| Thursday, November 26 | Thanksgiving Day |
| Friday, December 25 | Christmas Day |

**This holiday is designated as "Washington's Birthday" in section 6103(a) of title 5 of the United States Code, which is the law that specifies holidays for Federal employees. Though other institutions such as state and local governments and private businesses may use other names, it is our policy to always refer to holidays by the names designated in the law.*

***If a holiday falls on a Saturday, for most Federal employees, the preceding Friday will be treated as a holiday for pay and leave purposes. (See 5 U.S.C. 6103(b).) If a holiday falls on a Sunday, for most Federal employees, the following Monday will be treated as a holiday for pay and leave purposes. (See Section 3(a) of Executive Order 11582, February 11, 1971.) See also our Federal Holidays – "In Lieu Of" Determination Fact Sheet at https://www.opm.gov/policy-data-oversight/pay-leave/work-schedules/fact-sheets/Federal-Holidays-In-Lieu-Of-Determination.*

b. The Federal holidays listed above are holidays granted to Federal employees. The Contractor shall refer to the individual wage determination (SCA Wage Determinations or Davis-Bacon Wage Determinations) for actual holidays to be allowed for contractor employees.

i. When any holiday falls on a Saturday, the preceding Friday is observed. When any holiday falls on a Sunday, the following Monday is observed. Observance of such days by Government personnel shall not by itself be cause for an additional period of performance or entitlement of compensation except as set forth within the contract.

ii. Occasionally, Federal holidays will be declared normal training days and full Contractor support will be required. Notice of this requirement will be given to the Contractor at least one week in advance.

iii. The Contractor shall NOT receive premium rates for any special declared holiday for Federal employees (e.g., National Day of Mourning for death of a former president).

iv. FLETC may schedule non-training days, for example the Friday after Thanksgiving Day and on day before or after Christmas Day; however, this is not a Federal Holiday and does not relieve the Contractor from the Project Management (PM) responsibilities on the non-training days.

**H.27 Hours Of Operation**

Normal work hours are from 7:30 a.m. through 4:30 p.m., Monday through Friday unless otherwise defined in individual specification sections.

Notwithstanding the provisions of FAR clause 52.222-4, Contract Work Hours and Safety Standards Act – Overtime Compensation, work will NOT be permitted outside normal work hours, on Saturdays, Sundays, or federal holidays unless coordinated and approved by the Government Project Manager and Contracting Officer in advance. A request to work outside normal work hours must be submitted a minimum of two (2) working days in advance of the date on which such work is anticipated. The exclusion of work on Saturdays, Sundays, and holidays has been considered in computing the performance time of this contract.

**H.28 Personnel Security Requirements (Updated October 2019 CSO)**

**H.28.1 General Requirements**

**General Security:**

FLETC security regulations are found in the most recent revisions of the following FLETC Directives and Manuals (FD_FM)-Links are from FLETC Connect:
Number 71-01, Physical Access Control FD_FM 71-01 Physical Access Control -

508.pdf
Number 71-11, Building/Area Security and Access FD_FM 71-11 Building Area Security and Access - 508.pdf
Number 121-02, Internal Security FD_FM 121-02 Internal Security Program - 508.pdf
Number 121-03, Personnel Security and Suitability/Fitness Program FD_FM 121-03 FLETC Personnel Security and Suitability Program - 508.pdf
Number 121-10, Operations Security FD_FM 121-10 Operations Security Program - 508.pdf
Number 121-11, Information Security FD_FM 121-11 (70-08) Administrative Security Program (Manuals A and B) - 508.pdf
Number 121-14, Identification Badges, Credentials and Shields FD_FM 121-14 (71-00B) Identification Badges, Credentials, and Shields - 508.pdf
Number 121-15, Violence in the Workplace FD_FM 121-15 (67-01) Violence in the Workplace - 508.pdf
Number 121-17, Traffic Regulations on FLETC Facilities FD_FM 121-17 (70-09I) Traffic Regulations on FLETC Facilities - 508.pdf

a. Contractor and subcontractor personnel in the performance of this contract or any representative of the Contractor entering FLETC shall abide by all FLETC security regulations that may be in effect during the contract period. Any such individual(s) shall be subject to those security inspections which may be deemed necessary by FLETC to ensure that no security violations occur during the contract. It shall be the Contractor's responsibility to ensure that each applicant who is expected to perform on FLETC facilities or who requires routine access to FLETC facilities shall complete the most current versions of the following forms:

FLETC FTC-SEM-17 Badge Application Request form,
DHS Form 11000-25,
Contractor Fitness/Screening Request Form,
U.S Citizen and Immigration Services (USCIS) Employment Eligibility Verification I-9,
Office of Personnel Management (OPM) Declaration for Federal Employment form OF-306,
DHS Non-Disclosure 11000-6, and
Federal Bureau of Investigation (FBI) Fingerprint Card FD-258, in order to undergo a suitability background investigation which will be either a fingerprint check, a National Agency Check with Written Inquiries (Tier 1) or a Minimum Background Investigation (Tier 2).

1) If a Tier 2 or Tier 1 investigation is required, Contractor and subcontractor personnel will be required to complete a Questionnaire for Non-Sensitive Positions, SF85, Questionnaire for Public Trust Positions, SF85P. An SF-85 is required to be filled out for a Tier 1. A Tier 1 is performed on Contractor and subcontractor personnel who are considered low risk. An SF 85P is required to be filled out for a Tier 2. A Tier 2 is normally conducted for Contractor and subcontractor personnel who are in a moderate risk position or have access to Sensitive but Unclassified (SBU) information in all its forms and markings. Individuals in this category include, but are not limited to, those working as educational aides, Role Players, FLETC Security Police, firearms personnel, explosives handlers, and Information Technology (IT) specialists. In addition, the Contractor should ensure that they have completed an e-Verify search for all Foreign National (FN) Contractor and subcontractor personnel.

2) For a cleared contract, the security background check will be conducted on the Contractor (facility) and Contractor and subcontractor personnel by the Defense Industrial Security Clearance Office (DISCO).

b. FLETC reserves the right and prerogative to deny and/or restrict facility and information access of any Contractor or subcontractor personnel whose actions are in conflict with the standards of conduct,
5 CFR 2635. In accordance with the most current version of FLETC Manual 71-01, Physical Access Control, Paragraph 6, d, (1), (a) an individual will be denied access to FLETC facilities. Examples of offenses which prevent access to FLETC include, but are not limited to:

1) Any felony conviction within the last six years.
2) Any misdemeanor conviction of a serious nature within the last three years.
3) Multiple misdemeanor convictions within the last six years.
4) Any conviction for drug usage trafficking or involvement in the last 2 years;
5) Violence against Law Enforcement Officers (LEO).
6) Current open criminal charges.
7) Failure to register for Selective Service, if applicable.
8) Aggravated Violent Crimes (e.g., child brutality, child molestation, rape, wrongful death of another, etc.).
9) An active arrest warrant for any of the aforementioned crimes, and/or.
10) Past incidents that would reflect badly on FLETC in the eyes of the public or that would otherwise pose a threat to the safety and security of FLETC personnel or property.

c. The Contractor shall report to the Chief Security Officer (CSO) any adverse information coming to their attention concerning Contractor and subcontractor personnel during the course of the contract. The report shall include the individual's name and social security number. If this information results in the subsequent termination of the individual's access to FLETC, it does not obviate the requirement to submit this report.

d. Costs, delays and other hardships that result from Contractor or subcontractor personnel being denied access to FLETC shall be borne entirely by the Contractor. Denial of access for Contractor or subcontractor personnel to FLETC by the CSO shall not be subject to the Contract Disputes clause and cannot be the basis for any claim under the contract. FLETC security regulations regarding physical security access are found in the most recent revisions of the following FLETC Directives and Manuals (FD-FM) Links are from FLETC Connect:

Number 71-01, Physical Access Control FD_FM 71-01 Physical Access Control - 508.pdf
Number FLETC Manual 121-14 FD_121-14 Credentials and Shields (formerly 71.00B, Credentials and Shields); and
Number 71-11, Building/Area Security and Access FD_FM 71-11 Building Area Security and Access - 508.pdf

**H.28.2 Fitness Determinations of Contractor Personnel**

To establish trust with contractor personnel, FLETC evaluates their character and conduct to ensure they add to the integrity and efficiency of the Government. This Fitness determination process is commonly known as a background check or eligibility determination. It is NOT an evaluation of the individual's technical expertise or job qualifications.

A position sensitivity designation must be established for every position performing on the contract. This designation is used to determine the type of background check required for each contractor personnel. The contractor personnels' proposed physical and logical access (and additional risk factors) requirements must be coordinated with the CO or COR to ensure the correct Fitness determination is performed.

Position Sensitivities are designated as low risk, moderate risk, or high risk. Additional details can be found in the related FLETC Policies

Any such individual(s) shall be subject to those security inspections which may be deemed necessary by FLETC to ensure that no security violations occur during the course of the contract. It shall be the Contractor's responsibility to ensure that each applicant who is expected to perform on FLETC facilities or that requires routine access to FLETC facilities shall complete the most current versions of:
FLETC Form 121-00-02, for short-term access/badge application requests
DHS Form 11000-25, for long-term access/badge applications
Contractor Fitness/Screening Request Form,
U.S Citizen and Immigration Services (USCIS) Employment Eligibility Verification I-9,
Office of Personnel Management (OPM) Declaration for Federal Employment form OF-306,
DHS Non-Disclosure 11000-6, and
Federal Bureau of Investigation (FBI) Fingerprint Card FD-258, in order to undergo a suitability background investigation which will be either a fingerprint check, a National Agency Check with Written Inquiries (Tier 1) or a Minimum Background Investigation (Tier 2).

1) If a Tier 2 or Tier 1 investigation is required, Contractor and subcontractor personnel will be required to complete a Questionnaire for Non-Sensitive Positions, SF85, Questionnaire for Public Trust Positions, SF85P. An SF-85 is required to be filled out for a Tier 1. A Tier 1 is performed on Contractor and subcontractor personnel who are considered low risk. An SF 85P is required to be filled out for a Tier 2. A Tier 2 is normally conducted for Contractor and subcontractor personnel who are in a moderate risk position or have access to Sensitive but Unclassified (SBU) information in all its forms and markings. Individuals in this category include, but are not limited to, those working as educational aides, Role Players, FLETC Security Police, firearms personnel, explosives handlers, and Information Technology (IT) specialists. In addition, the Contractor should ensure that they have completed an E-Verify search for all Foreign National (FN) Contractor and subcontractor personnel.

b. FLETC reserves the right and prerogative to deny and/or restrict facility and information access of any Contractor personnel whose actions are in conflict with the standards of conduct, 5 CFR 2635. In accordance with the most current version of FLETC Manual 71-01, Physical Access Control, Paragraph 6, d, (1), (a) an individual will be denied access to FLETC facilities based on a case by case review of the severity of the offense. Examples of offenses which may prevent access to FLETC include, but are not limited to:

1) Any felony conviction.
2) Any misdemeanor conviction of a serious nature.
3) Multiple misdemeanor convictions.

4) Any conviction for drug usage trafficking or involvement;
5) Violence against Law Enforcement Officers (LEO).
6) Current open criminal charges.
7) Aggravated Violent Crimes (e.g., child brutality, child molestation, rape, wrongful death of another, etc.).
8) An active arrest warrant.
9) Past incidents that would reflect badly on FLETC in the eyes of the public or that would otherwise pose a threat to the safety and security of FLETC personnel or property.

c. The Contractor shall report to the Chief Security Officer (CSO), through the COR and copying the CO, any adverse information coming to their attention concerning Contractor and subcontractor personnel during the course of the contract. The report shall include the individual's name and social security number. If this information results in the subsequent termination of the individual's access to FLETC, it does not obviate the requirement to submit this report.

d. Costs, delays and other hardships that result from Contractor or subcontractor personnel being denied access to FLETC shall be borne entirely by the Contractor. Denial of access for Contractor or subcontractor personnel to FLETC by the CSO shall not be subject to the Contract Disputes clause and cannot be the basis for any claim under the contract

e. Incomplete request will be returned to the contractor applicant's COR/PM.

Applicants have 30 days to provide missing information and/or information needed to mitigate derogatory issues. If the requested information is not provided by the end of the 30 days suspense date, the request will be cancelled.

Contractor personnel are subject to specific access requirements as defined herein.
1) Contractor. The Contractor shall manage the submission of personnel requests for background investigations and shall conduct their own pre-screening to ensure not only that the application is complete, but also to pre-screen for Fitness using the same standards the Government applies.

2) Fitness for Contractor Personnel to Perform on FLETC, Fitness factors are identified in the most current version of DHS Instruction Handbook 121-01-007-01, Personnel Security, Suitability and Fitness Program.
The Contractor shall:
a) Furnish to prospective Contractor personnel under this contract the necessary forms to be completed to request access to FLETC (U.S Citizen and Immigration Services (USCIS) Employment Eligibility Verification I-9, DHS Non-Disclosure 11000-6, Office of Personnel Management (OPM) Declaration for Federal Employment form OF-306, and DHS Form 11000-25).

b) Ensure that personnel have been checked through E-Verify, https://e-verify.uscis.gov/emp/vislogin.aspx.
E-Verify informational brochure on how to create an account:
http://www.uscis.gov/USCIS/Verification/E-Verify/Publications/Guides/guide-enrollment.pdf

c) Review the completed forms for completeness and accuracy then submit completed forms to the CO or COR for processing.

3) Contractor Personnel Access For More Than Six Months. All Contractor and subcontractor personnel who are not temporary or intermittent and who work at FLETC on a regular basis for more than six (6) months will be required to complete an SF85. For Contractor and subcontractor personnel determined to be in a moderate risk position, the SF85P will be required to be completed. Questionnaires must be completed by Contractor and subcontractor personnel utilizing the Defense Counterintelligence and Security Agency (DCSA) NBIS eAPP.

a) The CSO/ Personnel Security Program (PER) will initiate Contractor and subcontractor personnel in the eAPP system using information provided on the form 11000-25.

b) Contractor and subcontractor personnel will then receive an e-mail message that provides information on accessing the National Background Investigation Bureau (NBIS) website and completing the electronic questionnaire.

c) In order for Contractor and subcontractor personnel to begin work, the SF85/85P must be completed and electronically released to CSO/PER. CSO/PER will then release the SF85/85P to the DCSA for the background investigation.

d) For positions identified by the CSO or FLETC Information System Security Manager (ISSM) as low, moderate, or high risk for fitness for employment, the Contractor shall:

i) Provide to the CO a Form I-9, OF306, DHS Non-Disclosure, and DHS Form 11000-25 for all identified Contractor and subcontractor personnel. All forms must be completed in their entirety. For U.S. Citizens, the Contractor must submit the required forms at least 10 days in advance of Contractor and subcontractor personnel's earliest proposed access to FLETC IT systems or facilities. Requirements specific to non-U.S. Citizens are outlined later in this section. Employment vouchers are required for the past two years of employment.

ii) Upon notification from FLETC Security staff, Contractor and subcontractor personnel will be required to appear in person before an authorized FLETC representative for the purpose of verifying the individual's identity in accordance with Homeland Security Presidential Directive (HSPD) 12, Policy for a Common Identification Standard for Federal Employees and Contractors. HSPD-12 mandates that verification of identification for Contractor and subcontractor personnel requires the individual to be physically present, and to present to the badging authority:

i. A picture identification card issued by either a governmental entity of one of the several States or the United States Federal government, and.

ii. One other form of identification specified on Form I-9. Upon verifying the Contractor and subcontractor personnel's identity, Contractor and subcontractor personnel shall provide fingerprints and a photograph.

iii. Following a favorably adjudicated background investigation, FLETC may issue a Personal Identity Verification (PIV) Card to Contractor and subcontractor personnel that will enable appropriate access to the facility and IT systems. Such access will only be issued in accordance with FLETC Physical Security, Information Security and IT Security policies. Access to national security information only occurs in the event that the Contractor has received a clearance from the DISCO.

iv. At the discretion of the CSO and following the receipt of favorable National Agency Check (NAC), FLETC may elect to approve temporary access to the facility for Contractor and subcontractor personnel while the rest of the fitness investigation is being completed. If the NAC is not returned in five (5) days from the time that the CSO/PER releases the electronic questionnaire to NBIB, the results of a fingerprint check can be used to allow the Contractor and subcontractor personnel to begin working.

4) Contractor Personnel Less Than Six Months, More Than Five Days. Contractor and subcontractor personnel who will require access to FLETC for more than five (5) days, but less than six (6) months, the Contractor shall provide a completed OF 306, Form I-9, DHS Non-Disclosure, and DHS Form 11000-25. For U.S. Citizens, FLETC requires that the Form 11000-25 shall be submitted to the CO a minimum of 10 business days in advance of Contractor and subcontractor personnel's first day of needed access.

a) FLETC shall conduct background checks for access using the information provided from the Form
11000-25.

i) Upon notification from FLETC Security staff, Contractor and subcontractor personnel will be required to appear in person before an authorized FLETC representative for the purpose of verifying the individual's identity. Verification of the Contractor and subcontractor personnel's identity requires the individual to be physically present, and to present to the badging authority:

i. A picture identification card issued by either a governmental entity of one of the several States or the
United States Federal government, and.

ii. One other form of identification specified on Form I-9. Upon verifying the Contractor and subcontractor personnel's identity, Contractor and subcontractor personnel shall provide fingerprints and a photograph.

iii. Once the results of the fingerprints are received by the CSO/PER are successfully adjudicated, the
Contractor will be allowed to begin work.

5) Contractor Personnel for Five Days or Less. For Contractor and subcontractor personnel who will require access to FLETC for up to five (5) days, the Contractor shall request temporary or intermittent access utilizing FLETC Form 121-00-02 Visitor Access Request. Such access is granted at the discretion of the CSO.

**H.28.3 Identification Badges**
a. All individuals working on or requesting access to FLETC must obtain authorization to enter FLETC through the issuance of an appropriate FLETC identification badge or PIV card. FLETC badge/card or PIV card are required to be worn visibly on the outside clothing between the neck and waist always displaying the photograph side of the identification badge while on FLETC premises. Lost or stolen identification documents must be immediately reported to the Chief Security Office / Field Security Operations (CSO/FSO).

b. A replacement charge will be assessed against the Contractor for each FLETC badge/card or pass that must be replaced for other than excessive wear, name change, or other reasons approved by CSO/FSO. Lost or stolen identification documents shall be considered to be within the control of Contractor and subcontractor personnel. Replacement charges will be assessed and paid by the Contractor prior to the replacement identification badge being issued.

c. If Contractor and subcontractor personnel resign, are terminated, or denied access to FLETC, voluntarily or otherwise, prior to contract completion, the bearer of FLETC identification badge or PIV card and vehicle pass shall immediately surrender them to the Contractor. The Contractor shall return FLETC identification badge/PIV card to the CSO/FSO within three (3) business days of the resignation, termination, or access denial. In addition, the contracting company COR or PM will notify CSO/PER of the contractor termination/separation date. Failure to return FLETC identification badge or PIV card will result in the Contractor being charged as proscribed in paragraph c. above.

**H.28.4 Classified Contracts and Cleared Contractors**
a. **Classified National Security Information (CNSI)**
Contracts which authorize companies access Classified National Security Information (CNSI) are commonly referred to as classified contracts. Contract companies and contractor personnel on classified contracts are also bound to the security requirements contained in the Department Of Defense (DOD) Contract Security Classification Specification Form (Form DD254). Contractor personnel in a national security position that perform on a classified contract must receive their clearance from the DISCO. Both the Contractor (facility) and the Contractor's (to include the subcontractor) personnel must have clearances issued by the DISCO. National security positions are identified in Title 5 Code of Federal Regulation (CFR) 732.102 and CFR 1400.

b. **Identification Badges and Vehicle Passes**
The Contractor shall be responsible for returning to the CSO all identification badges and vehicle passes issued under the contract no later than 15 days after the final acceptance of the work by FLETC. Final contract payment shall not be authorized until FLETC has received all identification badges and passes which have been issued under this contract, including those issued to subcontractors. If the Contractor is unable to return all badges and passes issued, a charge for the missing documents will be assessed against the final payment as per the replacement costs described above.

c. **Cost of Denied background checks**
Before final payment is made, the Contracting Officer (CO) in conjunction with the CSO may

review the number of badge applications submitted under this contract. If the number of Contractor and subcontractor personnel denied access to FLETC because of the results of the background investigation exceed 8% of the total number of Contractor and subcontractor personnel requesting access to FLETC, the Contractor shall bear the cost for the background investigations for each denied background check above 8%. The cost of a background investigations for fiscal year 25 is $179 for a Tier 1, $415 for Tier 2, and $5,355 for a Tier 5. The percentage to be borne by the Contractor for Contractor and subcontractor personnel denied access to FLETC because of the results of the background investigation will be across the board for each type of investigation required above the 8%. The amount will be deducted from the contract total. The amount deducted from the contract total because of this action shall not be subject to the Contract Disputes clause and cannot be the basis for any claim under the contract.

**H.28.5 Review of Clearance Access and Fitness Determinations**

a. **Access Determinations**. Access to classified national security information and the receipt of a security clearance will be in accordance with Executive Order (EO) 13526, as well as all applicable Department of Homeland Security Directives and all applicable FLETC Directives and Manuals. After contract award, Contractor personnel who are denied access to FLETC shall be provided with "due process" for the denial of access in accordance with all applicable standards. All these actions will be conducted by the DISCO.

b. **Fitness Determinations**. When adverse information is developed in the course of a background investigation, the scope of the inquiry will normally be expanded to the extent necessary to obtain such additional information as may be required to determine whether Contractor and subcontractor personnel may be granted unescorted access to FLETC facilities and sensitive information. Contractor and subcontractor personnel for whom unfavorable or derogatory information has been developed shall be provided with a Proposed Action Letter (PAL) that contains the questionable information. Contractor and subcontractor personnel shall be offered the opportunity to respond to the PAL in order to refute, explain, clarify, or mitigate the information in question. If a determination of ineligibility is made, Contractor and subcontractor personnel shall be formally notified and informed of the reason(s). Adverse information about the Contractor and subcontractor personnel may not be disclosed to the Contractor and/or subcontractor. When a final determination has been made, the Contractor shall be informed simultaneously with notification to the affected individual that individual is ineligible to render services or otherwise perform under the contract. Waivers for specific requirements for working in Federal, Department of Homeland Security, and FLETC facilities shall only be granted under specific conditions and processes as defined in the applicable regulations and directions regarding such requirements.

c. **Foreign Nationals**

1) Employment and Prime Contractor Requirements for Non-U.S. Citizens. The Contractor will adhere to the following requirements when attempting to employ Non-U.S. Citizens on FLETC.

a) Employment requests for Foreign Nationals (FN) must be submitted to the CSO with full and completed documentation in the below identified time frame(s). Requests must be made on DHS Form 11055 Foreign National Screening Request Form, which can be obtained from FLETC

Registration Buildings/Visitors Centers at all FLETC sites.

i) NOTE: All FNs seeking to perform at FLETC MUST present valid identification documents (Passport) at the Registration Building/Visitor Center. Failure to present required credentials will result in denial of access to the facility and employment eligibility.

b) For FNs who are or are not Lawful Permanent Residents (LPRs) of the United States, requests must be submitted to the CSO no less than 30 business days in advance of the first day of access. A copy of the FN's passport must be attached or a copy of the LPR's Resident Alien card, Permanent Resident card must be attached.

c) The Contractor must notify the responsible CO as to whether they will employ any Non-U.S. Citizen Contractor or subcontractor personnel that fall into positions/areas with possible access to SBU information. SBU information includes but is not limited to: For Official Use Only (FOUO) information, Law Enforcement Sensitive (LES) information, and Sensitive Personally Identifiable Information (Sensitive PII). All new-hire FN/LPR Contractor and subcontractor personnel/applicants whose new position would fall into assignments with possible access to SBU, will be required to wait until completion of the investigation and adjudication of the contract personnel before being approved for work/access. Such notification will be in writing and will include the name(s) of all of the Contractor and subcontractor's FN/LPR Contractor and subcontractor personnel subject to these requirements. The document will state that the Contractor, subcontractor and their personnel are willing to meet the specific criteria outlined below:

i. Confirm in writing that the FN Contractor and subcontractor personnel has been an LPR of the U.S. for two (2) years or more or if non-LPR the Contractor must confirm in writing that FN personnel have a valid Employment Authorization Document, Form I-766.

ii. Confirm in writing that the Contractor believes that the FN Contractor and subcontractor personnel are not a threat to the U.S. and would properly protect and/or handle the SBU information they will be required to work with or near.

iii. Confirm in writing that the FN/ LPR Contractor and subcontractor personnel have indicated that they are willing to submit to the NBIB-conducted Tier 2 and have agreed to complete the SF 85P, DHS Non-Disclosure, Form I-9, submit a set of fingerprints; and provide any additional information as needed for the conduct of the Tier 2.

iv. The cost of the investigation and adjudication shall be responsibility of the FN or LPR Contractor and subcontractor personnel or the Contractor.

v. FN/LPR Contractor and subcontractor personnel who are temporary/intermittent and who have work-related, or may have inadvertent, access to SBU information are required to have a successfully adjudicated Tier 2 prior to beginning work.

vi. Access for those FN/LPR Contractor and subcontractor personnel in these kinds of positions that are not included in the Contractor's request document will be immediately rescinded.

vii. When a FN/LPR contract position applicant is being sponsored by a FLETC Partner Organization (PO) for a position with access to SBU information, the PO must conduct the required background investigations and the PO sponsor must indicate on the DHS Form 11055 that the FN/LPR personnel/applicant has had a favorably adjudicated Tier 2.

**H.29 Security Training** **(See FLETC Directive 121-11 (Formerly 70-08) Administrative Security Program Manual 70-08B)**

***General***. All Contractor personnel (including subcontractors or any representative of the Contractor) entering Federal Law Enforcement Training Centers (FLETC) shall be provided Security training prior to accessing FLETC.

***Training***.

a. Security training shall be provided by the Contractor, at least annually. The training shall consist of the viewing of a Government-provided video (Security Orientation for Contractors), or review of attached Government-provided material contained outlining the major security references and requirements for the Contractor. Contractor supervisory personnel will ensure that the material is available for review by any contractor employee.

b. Active Shooter Threat training by the Contractor and consist of viewing the one (1) hour Government-provided DVD that will be provided at time of award and must be viewed prior to entering FLETC and shall be provided again at least annually by contractor. Active Shooter Preparedness Webinar Training (CISA) Link: Active Shooter Preparedness Webinar Training | CISA.

***Reporting***. The Contractor shall deliver to the CO a Security Training List within the first 30 days of performance, and semi-annually on the first day of October and April. The Security Training List shall be provided in Microsoft Excel format, and include - Company Name, Contract Number, Employee Name, Date Employee Reports on Center, and Date of Training. The standardized format is attached.

***Certification***. The Contractor shall certify information submitted on the Security Training List is accurate. The Contractor shall designate an authorized representative for certification purposes.

**H.30 Access To Facilities, Information Technology Resources, and Sensitive Information Requirement (July 2013 CSO)**

The assurance of the security of unclassified facilities, IT resources, and sensitive information during the acquisition process and contract performance are essential to the DHS mission. DHS Directive 11042.1, Safeguarding Sensitive But Unclassified (For Official Use Only) Information, describes how Contractors must handle sensitive but unclassified information. The DHS Sensitive Systems Handbook prescribes policies and procedures on security for IT resources. The Contractor shall comply with these policies and procedures, any replacement publications, or any other current or future DHS policies and procedures covering Contractors specifically for all Delivery Orders that require access to DHS facilities, IT resources or sensitive information. The Contractor shall not use or redistribute any DHS information processed, stored, or transmitted by the Contractor except as specified in the Delivery Order.
The Government will provide the Contractor with access to existing system.

Sensitive Information, means any information, the loss, misuse, disclosure, or unauthorized access to or modification of which could adversely affect the national or homeland security interest, or the conduct of Federal programs, or the privacy to which individuals are entitled under Section 552a of Title 5, United States Code (the Privacy Act), but which has not been specifically authorized under criteria established by an EO or an Act of Congress to be kept secret in the interest of national defense, homeland security or foreign policy. This definition includes but is not limited to the following categories of information:

1. Protected Critical Infrastructure Information (PCII) as set out in the Critical Infrastructure Information Act of 2002 (Title II, Subtitle B, of the Homeland Security Act, Public Law 107-296, 196 Stat. 2135), as amended, the implementing regulations thereto (Title 6, Code of Federal Regulations, Part 29) as amended, the applicable PCII Procedures Manual, as amended, and any supplementary guidance officially communicated by an authorized official of the Department of Homeland Security (including the PCII Program Manager or his/her designee);

2. Sensitive Security Information (SSI), as defined in Title 49, Code of Federal Regulations, Part 1520, as amended, "Policies and Procedures of Safeguarding and Control of SSI," as amended, and any supplementary guidance officially communicated by an authorized official of the Department of Homeland Security (including the Assistant Secretary for the Transportation Security Administration or his/her designee);

3. Information designated as FOUO, which is unclassified information of a sensitive nature and the unauthorized disclosure of which could adversely impact a person's privacy or welfare, the conduct of Federal programs, or other programs or operations essential to the national or homeland security interest; and

   NOTE: The designation "Controlled Unclassified Information" (CUI) will replace FOUO and other sensitive but unclassified markings. As mandatory implementation time comes closer, the Contractor may find more documents, materials, and other information formats marked or referred to as CUI. Any material referenced in any manner as CUI will receive the same protections as those outlined in DHS Directive 11042.1, Safeguarding Sensitive But Unclassified (For Official Use Only) Information.

4. Any information that is designated "sensitive" or subject to other controls, safeguards or protections in accordance with subsequently adopted homeland security information handling procedures.

5. "Information Technology Resources" include, but are not limited to, computer equipment, networking equipment, telecommunications equipment, cabling, “R”drive, computer drives, network software, computer software, software programs, intranet sites, and internet sites.

Contractor and subcontractor personnel working on this contract must complete such forms as may be necessary for security or other reasons, including the conduct of background investigations to determine fitness. Completed forms shall be submitted as directed by the CO.

Upon the CO's request, the Contractor and subcontractor personnel shall be fingerprinted, or subject to other investigations as required. All Contractor and subcontractor personnel requiring recurring access to Government facilities or access to sensitive information or IT resources are required to have a favorably adjudicated background investigation prior to commencing work on this contract unless this requirement is waived under Departmental procedures.

The CO may require the Contractor to prohibit individuals from working on the contract if the government deems their initial or continued employment contrary to the public interest for any reason, including, but not limited to, carelessness, insubordination, incompetence, or security concerns.

Work under this contract may involve access to sensitive information. Therefore, the Contractor shall not disclose, orally or in writing, any sensitive information to any person unless authorized in writing by the CO. For Contractor and subcontractor personnel authorized access to sensitive information, the Contractor shall ensure that these persons receive training concerning the protection and disclosure of sensitive information both during and after contract performance.

The Contractor shall include the substance of this clause in all subcontracts at any tier where the subcontractor may have access to Government facilities, sensitive information, or resources.

Before receiving access to IT resources under this contract the individual must receive a security briefing, which the COR will arrange, and complete the Contractor's verification of Security Training.

**H.31 Operations Security (OPSEC) Requirements (Jul 2013 CSO)**
FLETC Operations Security (OPSEC) Program acts to secure against the inadvertent release or unauthorized disclosure specific, unclassified facts about FLETC's mission, intentions, capabilities, or activities that are considered critical information and must be protected to ensure our adversaries are not successful. OPSEC measures pertaining to a contract require additional requirements to consider such as:

FLETC must determine if there is critical information associated with the contract or activities involved in the contract that warrants the inclusion of OPSEC requirements. Consideration shall be given to the type of work being performed and the environment and circumstances in which contract performance will occur. Potential Critical Information that must be protected includes but is not limited to:

1. Indications of when and where activities will occur (such as tests) which can possibly be targeted and present collection opportunities by foreign intelligence.
2. The duration of a contract and indications of results (such as in ads, status reports and brochures).
3. The existence of a contract, services involved and what is being developed in U.S. press releases, stock prospective, etc.
4. Pictures indicating classified design features or approaches.
5. The lettering of contracts and identity of subcontractors.
6. Maps, Aerial Photographs, Floor Plans of the project.

7. Photographs including facial images.
8. Official and Personal websites (including social networking sites) revealing details of the project.
9. Contract specifications detailing how project and contractor personnel are handling/protecting SBU information.

To ensure uniformity in the way OPSEC requirements are presented to industry, the following guidance shall be followed:

1. Guidance will be appended to basic solicitations or contracts and labeled "OPSEC Requirements."
2. OPSEC guidance will include Critical Information pertinent to contractual activities and essential secrecy to be maintained and statement of harm if adversaries derive accurate estimates.

If OPSEC requirements are necessary, an OPSEC review shall be conducted of the Performance Work Statement (PWS)/Statement Of Work (SOW) for contracts prior to the time the CO releases the PWS/SOW to contract offerors/bidders. The PWS/SOW is a publicly released document that can reveal critical information or indicators of critical information. It is important that COs, CORs and Contractors work with CSO/OPS and project coordinators, e.g., FLETC Facilities Management Division (FMD), PRO, etc. to identify OPSEC requirements for the scope of work to be performed. The SOW should also undergo a formal content review prior to its release to the public.

FLETC and PO COs, CORs, and contractor managers are responsible for ensuring that their respective Contractors are aware of this policy and adhere to these requirements. This includes responding to Contractor inquiries on what photography is permissible and what is not, as well as researching and coordinating interpretation of the policy with CSO/OPS.

Contractor and subcontractor personnel may be required to participate in formal OPSEC classroom and/or computer-based training (CBT) and briefings, as required.

Contractor and subcontractor personnel's use of personal still and video photography (including cell phone cameras) is prohibited.

Contractor and subcontractor personnel to whom access to FLETC-related SBU and critical information is granted will:

1. Be aware of and comply with FLETC safeguarding requirements for OPSEC, as applicable.
2. Be aware that not protecting DHS and FLETC critical information may result in administrative or disciplinary action.
3. Participate in formal OPSEC classroom and/or CBT and briefings, as required.

The Contractor will coordinate with Project Coordinators, e.g., FMD, and CSO/OPS the conduct of OPSEC reviews, assessments, and evaluations of FLETC contractor products designated for external distribution or publication to include television, radio, film, video, print, photography, and electronic products, for those assigned contracts.

As applicable, the Contractor will ensure that all subordinate Contractor and subcontractor

personnel will participate with these reviews, surveys, assessments, development of countermeasures, etc., for their respective organization.

The Contractor will ensure documentation of individual Contractor and subcontractor personnel attendance at OPSEC briefings and training occurs by following established training documentation procedures, as applicable. Submit all applicable Contractor OPSEC training documentation to the respective COR.

***Contract Completion***: The Contractor shall be responsible for ensuring FLETC Chief Information Officer (CIO) Directorate is notified of all Contractor and subcontractor personnel released from this contract support at the time of release, voluntarily or otherwise and at the end of the contract, who were issued access accounts to any FLETC IT systems. Notification to the CIO Directorate shall be through the COR or CO.

**H.32 Information Technology And Data Security Requirements (Updated July 2013 OSPR)**
***General Requirements***: All Contractor and subcontractor personnel in the performance of this contract requiring access to FLETC information technology (IT) systems or sensitive data shall abide by all FLETC IT security regulations which may be in effect during the contract period. Any such individual(s) shall be subject to those checks which may be deemed necessary by FLETC to ensure that no violations occur. It shall be the Contractor's responsibility to ensure that all Contractor and subcontractor personnel who are expected to have access to FLETC-owned or -operated IT systems or IT systems contracted on behalf of FLETC that contain.

FLETC sensitive data or information, undergo or have undergone an appropriate suitability background investigation. The type of background investigation that is conducted is based on FLETC's assessment of risk of the contractor's position. Positions may be categorized as either IT or non-IT and based on the risk (i.e., low, moderate) to public trust.

Determination of Contractor and subcontractor personnel IT access needs must be coordinated with the COR. IT system and data suitability background investigation requirements may be greater than those requirements for physical security access to FLETC facilities. Suitability background investigation processes for physical security access will be followed as contained in this Section H. Temporary IT system and data access will only be permitted for non-sensitive IT systems and data. For Contractor and subcontractor personnel who will require admittance to FLETC facilities and/or are being given access to FLETC SBU information that includes, Personnel Identity Information (PII), Protected critical Infrastructure Information (PCII), Sensitive Security Information (SSI), FOUO, or IT resources, will be required to undergo a background investigation even if they work for less than six months. Depending on the risk level, the background investigation will be a NACI or MBI. The risk determination will be made in consultation with the CO, PHY, PER, and the Chief Information Security Officer (CISO).

The required suitability background investigation forms will be provided upon contract award. All forms must be completed in their entirety by all Contractor and subcontractor personnel subject to the requirement. If the background investigation results in an unfavorable adjudication, the individual will be denied access to FLETC IT systems and sensitive data. Examples of offenses which could prevent access to FLETC IT systems and sensitive data include but are not

limited to any felony convictions or habitual violations, any crimes against a police officer, any conviction for distribution of illegal drugs, or any crimes of moral turpitude. Any cost or time delay which the Contractor experiences in the contract due to Contractor and subcontractor personnel being denied access to FLETC IT systems and sensitive data shall be the sole responsibility of the Contractor. Denial of IT system access for any individual because of failure to meet FLETC IT security standards shall not be subject to the Contract Disputes clause and cannot be the basis for any claim under the contract. The DHS IT security requirements are outlined in DHS Sensitive Systems Policy Directive 4300A.

***Contract Completion***: The Contractor shall be responsible for ensuring FLETC Chief Information Officer (CIO) Directorate is notified of all Contractor and subcontractor personnel released from this contract support at the time of release, voluntarily or otherwise and at the end of the contract, who were issued access accounts to any FLETC IT systems. Notification to the CIO Directorate shall be through the COR.

**H.32.1 Information Technology Security Training**
All Contractor and subcontractor personnel entering FLETC shall be provided IT Security training prior to accessing an information system, its information, and resources. Training material will be provided by the Government. 5 CFR Part 930, subpart C, as revised, requires that all users of Federal information systems be exposed to security awareness materials annually or whenever system security changes occur, or when the user's responsibilities change. Training for new system users must occur before they are allowed access to systems. OMB Circular A-130, Appendix III, Security of Federal Automated Information Resources, requires that persons be trained in their responsibilities and in the Rules of Behavior for system. In accordance with FLETC policy, all IT system users must complete initial IT security training and must acknowledge FLETC IT system rules of behavior, prior to gaining system access.

IT Security Awareness training shall be provided by the Contractor for Contractor and subcontractor personnel requiring access to FLETC IT systems and resources. The Contractor shall use training prescribed by the Chief Information Security Officer. Contractor and subcontractor personnel must receive the prescribed training before initial access will be granted, and annually thereafter until access is no longer required.

The Contractor shall deliver to the CO an IT Security training report within the first 30 days of performance. The report shall be provided in Microsoft Excel format. The report shall contain the Company Name, Employee Name, Date, and Date of Training.

The Contractor shall verify information submitted on the report is accurate.

In addition to IT Security Awareness training, the Contractor shall provide Contractor and subcontractor personnel performing significant IT security responsibilities under this contract with specific role-based training prescribed in Appendix A of FLETC IT Security Awareness, Training and Education Plan.

**H.32.2 IT Access**
The Contractor shall sign the prescribed Rules of Behavior before access to FLETC IT systems

will be granted. The Contractor consents to monitoring for compliance and other lawful purposes while using a FLETC-issued account.

**H.34.3 Contractor IT Security Plan**
The Contractor shall provide, implement and maintain an IT Security Plan. The plan shall be delivered to the CO in accordance with HSAR 3052.204-70, Security Requirements for Unclassified Information Technology Resources for Government approval within 5 days upon contract award. Upon Government approval the plan will be incorporated into the contract as a compliance document.

**H.34.4 Interconnection Security Agreements**
Interconnections between FLETC and non-FLETC IT systems shall be established only through controlled interfaces and via approved service providers. The controlled interfaces shall be accredited at the highest security level of information on the network. Connections with other Federal agencies shall be documented based on interagency agreements, memoranda of understanding, service level agreements or interconnection security agreements.

**H.34.5 Information Security Standards Applicable to this Contract**
DHS Sensitive Systems Policy Directive 4300A, version 13.4, December 2024, or subsequent publication.

**H.34.6 Section 508 Compliance**
Section 508 of the Rehabilitation Act, as amended by the Workforce Investment Act of 1998 (P.L. 105-220) requires that when Federal agencies develop, procure, maintain, or use electronic and information technology, they must ensure that it is accessible to people with disabilities. Federal employees and members of the public who have disabilities must have equal access to and use of information and data that is comparable to that enjoyed by non-disabled Federal employees and members of the public.

All EIT deliverables within this work statement shall comply with the applicable technical and functional performance criteria of Section 508 unless exempt.
Specifically, the following applicable standards have been identified:

36 CFR 1194.21 – Software Applications and Operating Systems, applies to all EIT software applications and operating systems procured or developed under this work statement including but not limited to GOTS and COTS software. In addition, this standard is to be applied to Web-based applications when needed to fulfill the functional performance criteria. This standard also applies to some Web based applications as described within 36 CFR 1194.22.

36 CFR 1194.22 – Web-based Intranet and Internet Information and Applications, applies to all Web-based deliverables, including documentation and reports procured or developed under this work statement. When any Web application uses a dynamic (non-static) interface, embeds custom user control(s), embeds video or multimedia, uses proprietary or technical approaches such as, but not limited to, Flash or Asynchronous JavaScript and XML (AJAX) then “1194.21 Software” standards also apply to fulfill functional performance criteria.

36 CFR 1194.24 Video and Multimedia Products, applies to all video and multimedia products that are procured or developed under this work statement. Any video or multimedia presentation shall also comply with the software standards (1194.21) when the presentation is using a Web or Software application interface having user controls available.

36 CFR 1194.26 – Desktop and Portable Computers, applies to all desktop and portable computers, including but not limited to laptops and personal data assistants (PDA) that are procured or developed under this work statement.

36 CFR 1194.31 – Functional Performance Criteria applies to all EIT deliverables regardless of delivery method. All EIT deliverable shall use technical standards, regardless of technology, to fulfill the functional performance criteria.

36 CFR 1194.41 – Information Documentation and Support, applies to all documents, reports, as well as help and support services. To ensure that documents and reports fulfill the required "1194.31 Functional Performance Criteria", they shall comply with the technical standard associated with Web- based Intranet and Internet Information and Applications at a minimum. In addition, any help or support provided in this work statement that offer telephone support, such as, but not limited to, a help desk shall have the ability to transmit and receive messages using TTY.

Exceptions for this work statement have been determined by DHS and only the exceptions described herein may be applied. Any request for additional exceptions shall be sent to the COR and determination will be made in accordance with DHS MD 4010.2. DHS has identified the following exceptions that may apply:

36 CFR 1194.2(b) – (COTS/GOTS products), When procuring a product, each agency shall procure products that comply with the provisions in this part when such products are available in the commercial marketplace or when such products are developed in response to a Government solicitation. Agencies cannot claim a product as a whole is not commercially available because no product in the marketplace meets all the standards. If products are commercially available that meets some but not all of the standards, the agency must procure the product that best meets the standards.

When applying this standard, all procurements of EIT shall have documentation of market research that identify a list of products or services that first meet the agency business needs, and from that list of products or services, an analysis that the selected product met more of the accessibility requirements than the non- selected products as required by FAR 39.2. Any selection of a product or service that meets less accessibility standards due to a significant difficulty or expense shall only be permitted under an undue burden claim and requires approval from the DHS Office of Accessible Systems and Technology (OAST) in accordance with DHS MD 4010.2.

**H.35 Phase-In/Orientation Period**

The Contractor shall become acquainted with all available information regarding difficulties which may be encountered and the conditions under which the work of this contract must be accomplished. The Contractor will NOT be relieved from assuming all responsibility for

properly estimating the difficulties and the cost of performing the services required because of his failure to investigate the conditions or to become acquainted with all information concerning the services to be performed.

The Contractor shall begin phase-in only after post award conference and in accordance with the requirements contained in the submitted phase-in plan. The Contractor is expected to be at full performance at the completion of the phase-in period.

To ensure a smooth transition of work effort from the incumbent, the Contractor shall begin an orientation to:

1. Become thoroughly familiar with work requirements and work procedures.
2. Finalize development of necessary work plans and procedures.
3. Complete personnel requirements (work force) including the hiring of personnel to assure satisfactory performance beginning on the contract start date.
4. Obtain security clearances, if required.
5. Complete training requirements and accomplish necessary training of Contractor and subcontractor personnel.
6. Finalize the development of quality control plans and procedures.
7. The Contractor is prohibited from soliciting Government personnel for employment.
8. The Contractor shall negotiate in good faith a plan with the incumbent as described in the below cited clause entitled PHASE-OUT/CONTRACT COMPLETION.

Immediately after award and prior to performance, the Contractor's representative and the COR shall make an on-site, in-depth review of the total job requirements. The Contractor will be allowed access to the facilities to familiarize supervisors, key personnel, and staff with equipment, reporting, work scheduling and procedures (including operations, priorities, safety, security, etc.). To preclude interference with work production efforts of the current personnel, arrangements for access to Government facilities will be made with the CO.

The Contractor shall make provisions for all required building, material, and equipment inventories to be conducted during the last 10 business days of the phase-in period. The Contractor shall coordinate these inventories with the COR so those appropriate representatives may be present for all inventories. The Contractor shall sign receipt for the items upon completion of the inventory. Responsibility for performance of the services covered shall also pass to the Contractor at that time. A proposed schedule for the inventories shall be included in the phase-in plan.

**H.36 Phase-Out/Contract Completion**

The Contractor shall provide a phase-out plan to the Contracting Officer for approval 120 days prior to contract completion. The plan shall describe how the contractor shall approach the following issues: orientation and training of follow-on contractor, and any other actions required to ensure continuity of services. The contractor shall provide a certified list of all service employees on the contractor's and/or subcontractor's payroll together with anniversary dates of employment to the COR and CO. During the phase-out period, the incumbent shall be fully responsible for contract performance. Government reserves the right to conduct site visits in all Contractor operated facilities in conjunction with the solicitation of offers for the follow-on

contract. In the event the follow-on contract is awarded to other than the incumbent, the incumbent Contractor shall cooperate to the extent required to permit an orderly change over to the succeeding Contractor. This includes reasonable recruitment access to incumbent employees. A recruitment notice may be placed in each facility.

At a minimum the incumbent contractor Project Manager shall be available to attend the post-award conference to the follow-on contract as a means to aid in transition. Duration of engagement shall be limited to two (2) hours. Incumbent shall be notified no later than 72 hours in advance of conduct of the conference of date and time for attendance.

If there is a change in Contractor, the incumbent Contractor shall negotiate in good faith a plan with the follow-on contractor addressing the nature and extent of orientation and training to ensure nominal impact during transition and to comply with the clause above entitled 'PHASE-IN/ORIENTATION PERIOD.' The plan shall specify a training program and a date for transferring responsibility for each division of work described in the plan and shall be subject to the Contracting Officer’s approval.

The Contractor shall schedule all inventories to occur within 15 business days prior to exercise of options or the termination of the contract. The Contractor shall coordinate these inventories with the COR so those appropriate representatives may be present.

Within five (5) business days after completion of this contract (or as otherwise directed by the CO) the Contractor shall remove all Contractor owned vehicles, equipment, tools, supplies, materials, or other items from FLETC. The Government reserves the right to dispose of items remaining after the stated period in accordance with Federal property regulations.

No later than 10 days after the final acceptance of the work by FLETC the Contractor shall return all personnel identification badges. Final contract payment will not be authorized until FLETC has received all identification badges and passes issued under this contract.

All documents will be maintained in an organized, acceptable working order by the Contractor in the Government provided office. The Technical Library, if required by this contract, shall remain in place, in acceptable working order, at the Contractor's office at completion (or termination) of the contract. Upon contract completion or termination of the contract the Contractor shall make the library available to the follow-on contractor during the Phase in/Phase out period. The exiting Contractor shall ensure the Technical Library is in an organized and maintained state prior to turning over to the follow-on contractor.

**H.37 Salvage**

All Government-owned material and equipment which are removed or disconnected but are not specifically indicated or specified for reuse shall remain the property of the Government if determined by the COR to be of value. Such items shall be delivered by the Contractor to the location on FLETC designated by the CO, when and if circumstances arise which warrant doing so.

**H.38 Contractor Ingress/Egress**

a. The Contractor is required to use the gate as instructed by COR for employees and material deliveries. The Government may direct the Contractor to construct a contractor entry point outside FLETC property for trucks and movement of equipment.
b. Contractor vehicles entering the Center will be required to show proof of insurance as specified in this Section H.

**H.40 Subcontracting Requirements**
Contractor or Subcontractor will ensure that all terms and conditions of FAR clause 52.222-11, Subcontracts (Labor Standards) (May 2014) are incorporated into any and all subcontracts issued in the performance of this contract.

The Contractor shall ensure that Subcontractor(s) attend progress meetings held during the performance of the Subcontractor's trade. The Contractor is responsible for all coordination and scheduling with the Subcontractor(s) regarding work under this contract. The Contractor is responsible for the work of the Subcontractor and if work of the Subcontractor is not acceptable to the Government under the terms of the contract, the Contractor shall be responsible for making the work acceptable, including any additional costs or time involved.

**H.41 FLETC Closure**
Should FLETC experience unforeseen closure, the Contractor will not receive payment for any services under this contract other than the continuous PM CLIN (i.e., closed for inclement weather, unscheduled shutdown, hurricane evacuation, emergency closing, etc.).

**H.42 Work Scheduling**
The Contractor shall control and perform all work as not to cause interference with the normal conduct of Government business and training or work being performed by other Contractors' projects.

The Government may award other contracts for additional work at or near the site of work under this contract.

The Contractor shall promptly notify the CO/COR when it appears that Government activities or personnel or other contractor's projects are hindering the effective execution of its work efforts.

Contractor shall submit to the COR, all work schedules for approval by the COR. The Contractor shall adhere to the established schedules.

The Contractor shall fully cooperate with the other contractors and with Government employees, and shall carefully adapt scheduling and performing work under this contract to accommodate the additional work, heeding any directions that may be provided by the CO/COR.

**H.43 Lost and Found Property**
It is the responsibility of the Contractor to ensure that all lost and found items are reported to the CO/COR. When items are found the Contractor shall:

1. Turn in all lost and found articles to Assets and Logistics Management Division (ALM) including cash and valuables such as rings, watches, cameras, etc., on a weekly

basis. Consumable items such as those mentioned below) are excluded.

2. Dispose of consumable items such as open bottles of shampoo, soaps, conditioners, washing powder, toothpaste, mouthwash, lotions, soda, beer, food, etc., and binders into FLETC dumpsters.

3. Place items of clothing in a bag. Tag the bag with the date, time, and the building and room number, and/or other pertinent information which can be used to identify owner(s) and store it in the Contractor's storage area for holding. On a weekly basis, the Contractor shall consolidate the items by building, prepare form FTC-ADM-44, Survey Report, and forward the document to the CO/COR(s). Once the survey document has been signed by the COR(s) or Contracting Officer, the Contractor shall deliver both the items and document to ALM, Building 2400.

4. Place any item containing blood or bodily fluids in a Bio Bag and deliver to the Health Unit.

**H.44 Records**

The Contractor shall be responsible for creating, maintaining, and disposing of only those Government required records that are specifically cited in this PBSOW or required by the provisions of a mandatory directive listed in paragraph 6.0 "Applicable Publications and Forms. If requested by the Government, the Contractor shall provide the original record or a reproducible copy of any such record within five (5) working days of receipt of the request.

**H.45 Smoking**

The Contractor shall be responsible for adhering to the Smoking/Use of Tobacco Program, FLETC Manual 70-09, Occupational Safety and Health Program, Chapter 31, FLETC Supplements to the DHS Occupational Safety and Health Manual. Smoking to include the use of smokeless tobacco products shall only be permitted in designated smoking areas.

**H.46 Hazardous Materials Management**

The Contractor shall provide a complete list of hazardous materials, proposed chemicals, etc. to be utilized during the course of this contract. This list shall be forwarded to the CO/COR who will then forward to FLETC Environmental Safety Branch (ESB), for review and approval.

All hazardous materials shall be stored in closed, appropriate containers. All MSDS/SDS are to be provided to the CO/COR for approval before use and as changes are requested.

Storage cabinets, if applicable, holding flammable liquids shall be grounded and are not to exceed the storage capacity. Storage cabinets shall be vented, each individual stored container shall not exceed a five-gallon capacity. No hazardous materials shall be stored on the jobsite without the CO's approval.

Appropriate safety cans and dispensers shall be used to transport small quantities of hazardous materials. The Contractor shall not move any hazardous material without first coordinating the move with the CO/COR who will contact the ESB. Hazardous materials required for daily work task may remain properly secured worksite. Hazardous materials will be labeled with the Contractors name and contents. The Contractor is responsible for ensuring compliance with all requirements governing the handling of hazardous waste. The disposal of all hazardous/potentially hazardous materials (i.e., paints, cleaning products, solvents, thinners,

rags, brushes, rollers, propellants, etc.) shall be accomplished in accordance with the Federal Law Enforcement Training Center (FLETC) Hazardous Waste Management Plan. The Contractor shall also comply with all Environmental Protection Agency (EPA) Hazardous Waste Regulations, and Georgia Environmental Protection Division (GA EPD) regulations for all non-hazardous and hazardous waste management, disposition and disposal.

The Contractor shall submit a Hazardous Waste Management Plan that Conforms to FLETC Hazardous Waste Plan 10 days after award and when changes occur.

The Contractor shall not remove or ship hazardous waste from FLETC. The shipping and disposal of Hazardous Waste shall be documented under FLETC Generator EPA ID Number GA6202932244. Only designated individuals from FLETC ESD will sign the Hazardous Waste Manifest as the generating activity. Hazardous waste shall be managed and collected in strict accordance with FLETC Hazardous Waste Management Plan. FLETC Environmental Programs Branch will dispose, transfer, and transport hazardous waste generated by the Contractor utilizing the Waste Transfer Document.

The Contractors' Environmental Representative shall be responsible for the proper segregation, packaging and handling of hazardous waste in accordance with FLETC Hazardous Waste Plan.

The Contractor shall coordinate with the CO/COR who will coordinate with the Environmental Programs Branch for all hazardous waste storage, transportation and disposal. A Waste Information Document (WID) will be provided by the Government for each waste-stream per the Hazardous Waste Management Plan.

All containerization, labeling and storage of waste shall be in accordance with FLETC Hazardous Waste Management Plan.
Hazardous waste shall be stored at a designated Satellite Accumulation Area.

Note: FLETC will establish the SAA Area) When the waste stream exceeds 55 gallons it shall be transported, within 72 hours, to the 90-day accumulation site by contacting the CO/COR who will contact FLETC Environmental Branch. The Government will then transport the waste.
The Contractor shall coordinate with the CO/COR who will coordinate with FLETC ESB, who will provide guidance and assistance with the identification of waste streams and disposal.

The ESB will assist in designating Storage locations, (SAA's), providing labels and waste transfer Documents, and will conduct random no-notice inspections on SAA's using The SAA Inspection Checklist.

All waste disposal accomplished through the 90-day accumulation Site will be the responsibility of FLETC.

The Contractor shall be responsible for proper segregation, identification and classifying of his waste stream.

The Contractor shall contact the CO/COR who will contact FLETC ESB within 14 days of

award of the contract to schedule Hazardous Waste Training. The Hazardous Waste Training will take approximately one hour.

The Contractor shall provide the ESB with a copy off all hazardous waste documentation annually or upon request.

The Contractor shall provide a complete list of hazardous materials, proposed chemicals, etc. to be utilized during the course of this contract. This list shall be provided to the CO/COR within 15 days of contract award and immediately following changes/additions for review and approval by the FLETC Environmental Safety Branch (ESB).

All hazardous materials shall be stored in approved containers in good functioning condition meeting all regulatory requirements. All Safety Data Sheets (SDS) are to be readily available and provided to the CO/COR for review and approval prior to use.

The Contractor is responsible for ensuring compliance with all Federal, State, and local environmental laws and regulations governing the handling of hazardous waste. The disposal of all hazardous/potentially hazardous materials (i.e., paints, cleaning products, solvents, thinners, rags, brushes, rollers, propellants, etc.) shall be accomplished in accordance with the Federal Law Enforcement Training Center (FLETC) Hazardous Waste Management Plan.

The Contractor shall submit a Hazardous Waste Management Plan that Conforms to FLETC Hazardous Waste Plan 30 days after award and when changes occur. The Contractor shall not remove or ship hazardous waste from FLETC. FLETC The Contractors' Environmental Representative shall be responsible for the proper segregation, packaging and handling of hazardous waste in accordance with FLETC Hazardous Waste Plan.

The Contractor shall coordinate with the CO/COR for all matters associated with hazardous waste storage, transportation, and/or disposal. Hazardous waste shall be stored at a designated Satellite Accumulation Area.

### H.47 Safety And Environmental

### H.48 Supplies, Materials, And Equipment Provided By The Contractor

Unless otherwise specified herein, the Contractor shall furnish all supplies, materials, and equipment necessary for the performance of work under this contract. All supplies and materials shall be of a type and quality that conform to applicable Federal specifications and standards and, to the extent feasible and reasonable, include the exclusive use of approved environmentally preferable products. All supplies, materials, and equipment to be used in the performance of work described herein are subject to the approval of the CO.

### H.49 Hazardous Material Storage

a. The Contractor, its personnel, subcontractors, their personnel, and representatives shall become acquainted with and fully, always comply with FLETC Regulations, Directives, and Instructions. Any individual shall be subject to removal from the Center for noncompliance.
b. In the event of a conflict between this contract and any FLETC Directive, Regulation or Instruction the contract prevails.

The Contractor, subcontractor personnel, and any representatives shall comply with Federal, state, and

local laws and regulations. Noncompliance may result in removal from FLETC.

**H.50-H.61 Are Construction Sections (If not applicable please delete)**
**H.50 PRECONSTRUCTION CONFERENCE**

a. A preconstruction conference will be arranged by the CO after award of contract and before the Notice to Proceed is issued. The CO/Specialist will notify the Contractor of the time and date set for the meeting. At this conference the Contractor shall be oriented with respect to Government procedures and line of authority, contractual, administrative (security, fire, and environment protection), safety, labor, and construction responsibilities. The Contractor will have the opportunity at the conference to ask questions concerning any contractual requirements.

b. Prior to this conference the Contractor shall submit pre-construction submittals to the Government Project Manager with a copy to the Contracting Officer for each of the following preconstruction submittals referenced in technical specification Section 01 33 00 "Submittal Procedures":

-Certificate of Insurance in completed form;
-Surety Bonds;
-Qualifications, certifications, resumes, and Appointment Letters for Quality Control Manager and Superintendent
-List of proposed subcontractors and suppliers;
-Project Schedule
-Submittal Register (Status Log,
-Accident Prevention and Safety Plan
-Quality Control Plan
-Environmental and Waste Management Plan

c. The Contractor's proposed Project Manager, Superintendent, and Quality Control Manager must attend the Preconstruction Conference.

d. Preconstruction submittals shall be submitted to the Government Project Manager and Contracting Officer seven (7) days prior to the scheduled Preconstruction Conference and requires Government approval prior to issuance of Notice To Proceed and work commencement on site.

e. A Letter of Record will be written documenting all items discussed at the conference, and a copy will be furnished by the Procurement Office to all in attendance.

**H.51 NONCOMPLIANCE NOTICE (LEVEL 2)**

a. The Contractor shall provide a Safety Representative for this contract. This individual shall be responsible for the overall safety of the project site and shall have the authority to act in all safety matters for the Contractor. The Safety Representative shall be on site at all times during construction. The Safety Officer may not be the QCM. Reference the related Safety Officer's requirement presented in technical specification Sections 01 45 00 and 01 52 50.

b. If a Contractor is found to be in violation of safety regulations (Title 29 Code of Federal Regulation, part 1926 and 1910, and Department of Homeland Security Directive 066-01, Safety and Health Program3) or in noncompliance with various terms or specifications of the contract, a

notice will be issued by the Construction Representatives or other Government personnel assigned to the contract. Receipt of this notification shall be indicated by the signature of the Contractor's Safety Representative on the form, as well as the signature of the Contractor's Superintendent. Potential violation or areas of noncompliance will be addressed during a preconstruction conference.

**H.52 TIME EXTENSION FOR UNUSUALLY SEVERE WEATHER – GLYNCO, GEORGIA**

a. This provision specifies the procedure for the determination of time extensions for unusually severe weather in accordance with FAR clause 52.249-10, Default (Fixed Price Construction). Contractor shall be responsible for verification and consideration of National Oceanic and Atmospheric Administration's (NOAA) historical monthly averages for the NOAA location closest to the contract site, or similar data. In order for the CO to award a time extension under this clause, the following conditions must be satisfied:

1. The weather experienced at the project site during the contract period must be found to be unusually severe, that is, more severe than the adverse weather anticipated for the project location during any given month.

2. The unusually severe weather must cause a delay to the completion of the project. The delay must be beyond the control and without the fault or negligence of the contractor.

b. Upon acknowledgment of the Notice to Proceed and continuing throughout the contract, the Contractor shall record on the daily Contractor's Quality Control (CQC) report, the occurrence of adverse weather and resultant impact to normally scheduled work. Actual adverse weather delay days must prevent work on critical activities for 50 percent or more of the contractor's scheduled workday.

c. The number of actual adverse weather days shall include days impacted by actual adverse weather (even if adverse weather occurred in the previous month), be calculated chronologically from the first to the last day in each month and be recorded as full days. The CO will examine any adverse weather days to determine whether a Contractor is entitled to a time extension. Adverse weather days occurring must prevent work for 50 percent or more of the Contractor's workday and delay work critical to the timely completion of the project. In order to claim adverse weather delays, the Contractor shall maintain and submit a monthly record of all actual adverse weather days. The CO will convert any qualifying delays to calendar days, giving full consideration for equivalent fair-weather workdays, and issue a modification in accordance with contract clause entitled "DEFAULT (FIXED-PRICE CONSTRUCTION (FAR 52.249-10)."

d. The Contractor's schedule must consider adverse weather delays on all weather dependent activities. The following table of anticipated adverse weather delay days reflects climatological data based on NOAA data for the project area and will constitute the baseline for the total contract time adverse weather delay evaluations. The contractor's progress schedule must anticipate this number of adverse weather delays in weather dependent activities.

**MONTHLY ANTICIPATED ADVERSE WEATHER DELAY WORKDAYS BASED ON 5-DAY WORK WEEK**

| JAN | FEB | MAR | APR | MAY | JUN | JUL | AUG | SEP | OCT | NOV | DEC |
|---|---|---|---|---|---|---|---|---|---|---|---|
| 7 | 6 | 7 | 6 | 7 | 6 | 7 | 6 | 6 | 4 | 4 | 6 |

**H.53 EQUITABLE ADJUSTMENTS; WAIVER AND RELEASE OF CLAIMS**

a. Pursuant to the Changes Clause at FAR 52.243-4, the work under this contract may be changed. If a change under this clause causes an increase or decrease in the cost of, or time required for, the performance of any part of the work under this contract, whether or not changed by any such order, an equitable adjustment shall be made, and the contract modified accordingly. This provision describes the process by which a Contractor must prepare and submit its request for equitable adjustment.

b. A Contractor's request for an equitable adjustment to the contract amount must be in writing. The proposal must include:

1. The date, circumstances, and source of the order to change the Work;

2. A description of the planned Work immediately prior to the changed work with regard to the Project Schedule; and,

3. Statements that the Contractor regards the order or condition to be change to the Contract that causes (or will cause) an increase or decrease in the Contractor's costs of and/or time required for performance.

c. Each request for equitable adjustment that involves a request to increase or decrease the contract amount must include a detailed quantification of the requested adjustment along with sufficient information and documentation to support the reasonableness of the proposed amount(s). This information and documentation to support changes to the cost of labor, equipment, materials, subcontracts, or other direct or indirect costs incurred (or planned to be incurred) may be submitted in the form of, but not limited to:

1. Cost or pricing data as described by FAR Part 15;

2. Unit prices charged on other recent comparable projects (for work subject to unit pricing);

3. Competitive subcontractor quotes;

4. An itemized breakdown of costs by separate trades and/or subcontractors, to include documentation of subcontractor/supplier quotes/proposals and a statement that the Contractor considers the subcontractor/supplier quote/proposal to be fair and reasonable;

5. Contractor/subcontractor/supplier mark-ups; and

6. Other costs included in the Contractor's proposal that are defined, documented, and supported.

d. Detailed cost information to support or document proposed costs may include, as a minimum, the following types of information:

1. Direct labor costs to include the estimated number of hours for each trade and hourly rate of pay. There may be circumstances in which the proposal should be documented by reflecting the impact to specific positions. Documentation may include such records as certified payrolls, job cost reports, and project costs reports. (NOTE: Where the direct labor costs exceed $25,000, associated labor costs, such as Workmen's Compensation, employment taxes, FICA and FUTA should be broken out separately.)

2. Direct material costs including quantities, measurements, and unit prices.

3. Construction equipment costs (if applicable) supported by equipment type and rental rate or hourly cost of ownership.

4. Overhead, profit, and/or commission as applicable.

e. Proposals, including all documentation and support, shall be submitted not later than 14 calendar days after being requested unless otherwise directed.

f. The percentages for overhead, profit, and commission which will be allowed by the Government may vary according to the nature, extent, and complexity of the work involved, but in no case shall exceed the following guidelines:

1. Percentages for commission, profit, and overhead shall be negotiated and may vary according to the nature, extent and complexity of the work involved. Only costs allowed within the principles and procedures of FAR Part 31 will be considered within costs attributable to overhead. In no case shall the commission, profit or overhead exceed the following unless the Contractor clearly demonstrates entitlement to a higher percentage:

| **Work Performed By:** | **Maximum Potential Charges** | **Commission** | **Profit** | **O/H** |
|---|---|---|---|---|
| Prime Contractor's Own Workforce | Prime Contractor | None | 10% | 10% |
| Subcontractor's Workforce | Subcontractor | None | 10% | 10% |
| | Prime Contractor | 8% | | |
| Sub-Subcontractor's Workforce | Sub-Subcontractor | None | 10% | 10% |
| | Subcontractor | 5% | | |
| | Prime Contractor | 5% | | |

2. In no instance shall the Government provide for more than three tiers or layers of profit and or commission, irrespective of the number of tiers or layers of purchase, acquisition or contracting. Neither overhead changes nor profit shall be allowed by any entity that does not directly incur costs of the work performed.

3. Equitable adjustments for deleted work shall include credits for overhead, profit and/or commission at the same level as costs would have been incurred. If a proposal includes both increases and decreases in the contract price, the application of

overhead and profit shall be on the net change in direct costs to the Contractor, Subcontractor or Sub-Subcontractor performing the work.

4. Unless otherwise defined by contract terms and conditions or separate rate agreement, overhead, profit and commissions include all indirect and other direct costs of the Work. Where appropriate, the costs of bonds and insurance shall be reflected as a separate line of cost.

g. Whenever the Contractor submits a claim for equitable adjustment under any clause of this contract which provides the equitable adjustment of the contract, such claim shall include all types of adjustments in the total amounts to which the clause entitles the Contractor, including, but not limited to, adjustments arising out of delays of disruptions or both caused by such change. Except as the parties may otherwise expressly agree, the Contractor shall be deemed to have waived (i) any adjustments to which it otherwise might be entitled under the clause where such claim fails to request such adjustments, and (ii) any increase in the amount of equitable adjustments additional to those requested in its claim.

h. The Contractor agrees that, if required by the CO, he will execute a release, in form and substance satisfactory to the CO, as part of the supplemental agreement setting forth the aforesaid equitable adjustment. The Contractor further agrees that such release shall discharge the Government, its officers, agents, and employees, from any further claims, including, but not limited to, further claims arising out of delays or disruptions or both caused by the aforesaid change.

**H.54 PERCENTAGE OF WORK PERFORMED BY THE CONTRACTOR**

Prior to commencement of the work at the site, the Contractor shall furnish to the CO a description of work to be performed with the Contractor's own organization and the percentage of total amount of work to be performed under the contract which this represents. Consider the value of materials as part of work performed by the Contractor only if the materials are to be installed on the site by his own organization.

**H.55 AREA OF CONTRACT OPERATIONS**

a. The Contractor shall take all precautions to ensure that no damage will result from his operations to private or public property. All damages caused by the Contractor shall be repaired or replaced by the Contractor at no cost to the Government. The Contractor shall submit a list of all of his construction machinery, equipment, and materials to be used on the site. This list shall be submitted to the CO at the Preconstruction Conference and shall include, as applicable, the following: accommodation scaffolding, backhoe, grader, etc. The list shall provide the quantities, types of equipment, and the scheduled period of use on the site.

b. The Contractor shall store all supplies and equipment on project site so as to preclude mechanical and climatic damage. Materials and equipment shall be protected in accordance with the manufacturer's recommendations. Maintain site in a neat and orderly manner daily.

c. The Contractor shall cover equipment that is to remain in place within the area of contract operations and protect it against damage or loss. Store equipment that is removed in performance of work were directed or reuse in work as required by drawings and specifications. Equipment temporarily removed shall be protected, cleaned, and replaced equal to its condition prior to

starting work. Security for equipment or material that is to be reused and is removed for temporary storage shall be the sole responsibility of the Contractor.

d. The Contractor shall comply with all applicable State and Local laws, ordinances, and regulations relative to noise control.

e. The Contractor shall ensure all trucks leaving the site with loose debris are loaded in a manner that will prevent dropping of materials on streets. Fasten suitable tarpaulins over the load before entering surrounding streets. In the event of spillage, the Contractor shall be responsible for cleanup to restore the site to the original condition and appearance.

f. The Contractor shall provide adequate toilet facilities for all Contractor personnel.

**H.56 GOVERNMENT FURNISHED PROPERY (GFP)**
Government furnished property, if provided, will be issued through the Facilities Management Division. The Contractor shall coordinate with the COR to schedule pick-up. Pick-up, delivery, and installation will be the responsibility of the Contractor.

**H.57 RECORDING AND PRESERVING HISTORICAL AND ARCHEOLOGICAL FINDS**
All items having any apparent historical or archeological interests discovered in the course of any construction activities shall be carefully preserved. The Contractor shall leave the archeological find undisturbed and immediately report the find to the CO and the COR so that proper authorities may be notified.

**H.58 CONTRACTOR'S STAFF**
The Contractor shall maintain sufficient off-site support staff, and competent full-time staff at the Project site authorized to act on behalf of the Contractor to coordinate, inspect, and provide general direction of the work and progress of the subcontractors. Key personnel staffing requirements establish a minimum level of on-site managerial staffing required under this contract. Additional support staffing, to include clerical staff, may be necessary to support the workload.

**H.59 CONSTRUCTION STAGING AREA**
Prior to establishing a staging area for use during construction, the successful Offeror shall contact the CO or his duly authorized representative for direction and/or an approved site.

**END OF SECTION H**

## I - Contract Clauses

Clauses

**52.202-1 Definitions. (JUN 2020)**

**52.203-3 Gratuities. (APR 1984)**

**52.203-5 Covenant Against Contingent Fees. (MAY 2014)**

**52.203-6 Restrictions on Subcontractor Sales to the Government. (JUN 2020)**

**52.203-7 Anti-Kickback Procedures. (JUN 2020)**

**52.203-8 Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity. (MAY 2014)**

**52.203-10 Price or Fee Adjustment for Illegal or Improper Activity. (MAY 2014)**

**52.203-12 Limitation on Payments to Influence Certain Federal Transactions. (JUN 2020)**

**52.203-17 Contractor Employee Whistleblower Rights (NOV 2023)**

**52.203-18 – Prohibition on Contracting with Entities that Require Certain Internal Confidentiality Agreements or Statements—Representation (Jan 2017)**

**52.203-19 Prohibition on Requiring Certain Internal Confidentiality Agreements or Statements (Jan 2017)**

**52.204-1 Approval of Contract. (DEC 1989)**

This contract is subject to the written approval, one level above the Department of Homeland Security Contracting Officer and shall not be binding until so approved.

(End of clause)

**52.204-2 Security Requirements. (MAR 2021)**

**52.204-9 Personal Identity Verification of Contractor Personnel. (AUG 2025)**

**52.204-10 Reporting Executive Compensation and First-Tier Subcontract Awards. (AUG 2025)**

**52.204-13 System for Award Management Maintenance. (AUG 2025)**

**52.204-14 Service Contract Reporting Requirements (AUG 2025)**

**52.204-16 Commercial and Government Entity Code Reporting (AUG 2020)**

**52.209-6 Protecting the Government's Interest When Subcontracting With Contractors Debarred, Suspended, or Proposed for Debarment. (NOV 2025)**

**52.209-9 Updates of Publicly Available Information Regarding Responsibility Matters. (NOV 2025)**

**52.209-10 Prohibition on Contracting With Inverted Domestic Corporations. (NOV 2025)**

**52.209-11 – Representation by Corporations Regarding Delinquent Tax Liability or a Felony Conviction under any Federal Law (NOV 2025)**

**52.210-1 Market Research. (MAY 2025)**

**52.211-2 Liquidated Damages-Construction (Sept 2000)**

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of __***$236.53***_____ *f*or each calendar day of delay until the work is completed or accepted.

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

(End of clause)

**52.215-2 Audit and Records - Negotiation. (OCT 2025)**

**52.215-8 Order of Precedence - Uniform Contract Format. (OCT 2025)**

**52.219-1 Small Business Program Representations.(OCT 2025)**

**52.219-6 Notice of Total Small Business Set-Aside. (OCT 2025)**

**52.219-8 Utilization of Small Business Concerns (OCT 2025)**

**52.219-14 Limitations on Subcontracting. (OCT 2025)**

**52.219-28 Post-Award Small Business Program Representation. (OCT 2025)**

(a) Definitions. As used in this clause—

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

Small business concern—

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

(2) Affiliates, as used in this definition, means business concerns, one of whom directly or indirectly controls or has the power to control the others, or a third party or parties control or have the power to control the others. In determining whether affiliation exists, consideration is given to all appropriate factors including common ownership, common management, and contractual relationships. SBA determines affiliation based on the factors set forth at 13 CFR 121.103.

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

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

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

(3) For long-term contracts-

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(ii) It □ is, □ is not a joint venture that complies with the requirements of 13 CFR part 127, and the representation in paragraph (h)(4)(i) of this clause is accurate for each WOSB concern eligible under the WOSB Program participating in the joint venture. [ The Contractor shall enter the name or names of the WOSB concern eligible under the WOSB Program and other small businesses that are participating in the joint venture:_____. ] Each WOSB concern eligible under the WOSB Program participating in the joint venture shall submit a separate signed copy of the WOSB representation.

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

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

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

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

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

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

(i) It □ is, □ is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material changes in ownership and control, principal office, or HUBZone employee percentage have occurred since it was certified in accordance with 13 CFR part 126; and

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

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

(End of clause)

**52.222-1 Notice to the Government of Labor Disputes. (FEB 1997)**

**52.222-3 Convict Labor. (JUN 2003)**

**52.222-4 Contract Work Hours and Safety Standards - Overtime Compensation. (OCT 2025)**

**52.222-6 Construction Wage Rate Requirements. (OCT 2025)**

**52.222-7 Withholding of Funds. (MAY 2014)**

**52.222-8 Payrolls and Basic Records. (JUL 2021)**

**52.222-9 Apprentices and Trainees. (JUL 2005)**

**52.222-10 Compliance with Copeland Act Requirements. (FEB 1988)**

**52.222-11 Subcontracts (Labor Standards). (OCT 2025)**

**52.222-12 Contract Termination - Debarment. (OCT 2025)**

**52.222-13 Compliance With Construction Wage Rate Requirements and Related Regulations. (MAY 2014)**

**52.222-14 Disputes Concerning Labor Standards. (FEB 1988)**

**52.222-15 Certification of Eligibility. (MAY 2014)**

**52.222-21 Prohibition of segregated facilities. (APR 2015)**

**52.222-23 Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity for Construction. (FEB 1999)**

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

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

Goals for Minority Participation for Each Trade

22.2%

Goals for Female Participation for Each Trade

6.9%

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

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

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of $10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the-

(1) Name, address, and telephone number of the subcontractor;

(2) Employer's identification number of the subcontractor;

(3) Estimated dollar amount of the subcontract;

(4) Estimated starting and completion dates of the subcontract; and

(5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is the Federal Law Enforcement Training Center, Glynco, GA.

(End of provision)

**52.222-26 Equal Opportunity. (Sep 2016)**

**52.222-27 Affirmative Action Compliance Requirements for Construction. (APR 2015)**

**52.222-35 Equal Opportunity for Veterans. (JUL 2014)**

**52.222-36 Equal Opportunity for Workers with Disabilities. (JUL 2014)**

**52.222-37 Employment Reports on Veterans. (OCT 2025)**

**52.222-38 Compliance with Veteran's Employment Reporting Rights (FEB 2016)**

**52.222-40 Notification of Employee Rights Under the National Labor Relations Act. (DEC 2010)**

**52.222-50 Combating Trafficking in Persons. (NOV 2021)**

**52.222-54 Employment Eligibility Verification. (OCT 2025)**

**52.222-55 Minimum Wages Under Executive Order 13658. (JAN 2022)**

**52.222-62 Paid Sick Leave Under Executive Order 13706 (JAN 2022)**

**52.222-90 Addressing DEI Discrimination By Federal Contractors (APR 2026)**

**52.223-1 Bio-based Product Certification. (OCT 2025)**

**52.223-2 Affirmative Procurement of Biobased Products Under Service and Construction Contracts. (OCT 2025)**

**52.223-3 Hazardous Material Identification and Material Safety Data. (OCT 2025)**

**52.223-5 Pollution Prevention and Right-to-Know Information. (MAY 2024)**

**52.223-9 Estimate of Percentage of Recovered Material Content for EPA-Designated Items. (MAY 2008)**

**52.223-10 Waste Reduction Program. (MAY 2024)**

**52.223-11 Ozone-Depleting Substances and High Global Warming Potential Hydrofluorocarbons. (OCT 2025)**

**52.223-19 Compliance With Environmental Management Systems (May 2011)**

**52.223-20 Aerosols. (May 2024)**

**52.223-21 Foams. (May 2024)**

**52.225-9 Buy American - Construction Materials. (OCT 2025)**

**52.225-10 Notice of Buy American Requirement - Construction Materials. (MAY 2014)**

**52.225-13 Restrictions on Certain Foreign Purchases. (FEB 2021)**

**52.226-8 Encouraging Contractor Polices to Ban Text Messaging While Driving (May 2024)**

**52.227-1 Authorization and Consent. (JUN 2020)**

**52.227-2 Notice and Assistance Regarding Patent and Copyright Infringement (JUN 2020)**

**52.227-4 Patent Indemnity--Construction Contracts. (DEC 2007)**

**52.228-2 Additional Bond Security. (OCT 1997)**

**52.228-5 Insurance - Work on a Government Installation. (JAN 1997)**

**52.228-11 Individual Surety -Pledges of Assets. (FEB 2021)**

**52.228-12 Prospective Subcontractor Requests for Bonds. (DEC 2022)**

**52.228-14 Irrevocable Letter of Credit. (NOV 2014)**

**52.228-15 Performance and Payment Bonds - Construction. (JUN 2020)**

**52.229-3 Federal, State, and Local Taxes. (FEB 2013)**

**52.232-5 Payments Under Fixed-Price Construction Contracts. (MAY 2014)**

**52.232-12 Advance Payment (OCT 2025)**

**52.232-13 Notice of Progress Payment (APR 84)**

**52.232-17 Interest. (MAY 2014)**

**52.232-18 Availability of Funds. (APR 1984)**

**52.232-23 Assignment of Claims. (MAY 2014)**

**52.232-27 Prompt payment for construction contracts. (Jan 2017)**

**52.232-33 Payment by Electronic Funds Transfer - System for Award Management. (OCT 2018)**

**52.232-39 Unenforceability of Unauthorized Obligations. (JUN 2013)**

**52.232-40 Providing Accelerated Payments to Small Business Subcontractors (MAR 2023)**

**52.233-1 Disputes. (AUG 2025)**

**52.233-3 Protest after Award. (AUG 2025)**

**52.233-4 Applicable Law for Breach of Contract Claim. (OCT 2025)**

**52.236-2 Differing Site Conditions. (MAY 2025)**

**52.236-3 Site Investigation and Conditions Affecting the Work. (MAY 2025)**

**52.236-4 Physical Data (Apr 1984)**

**52.236-5 Material and Workmanship. (APR 1984)**

**52.236-6 Superintendence by the Contractor. (AUG 2025)**

**52.236-7 Permits and Responsibilities. (AUG 2025)**

**52.236-8 Other Contracts. (AUG 2025)**

**52.236-9 Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements. (AUG 2025)**

**52.236-10 Operations and Storage Areas. (AUG 2025)**

**52.236-11 Use and Possession Prior to Completion. (AUG 2025)**

**52.236-12 Cleaning Up. (AUG 2025)**

**52.236-13 Accident Prevention. (NOV 1991)**

**52.236-14 Availability and Use of Utility Services. (AUG 2025)**

**52.236-15 Schedules for Construction Contracts. (AUG 2025)**

**52.236-17 Layout of Work. (AUG 2025)**

**52.236-21 Specifications and Drawings for Construction. (AUG 2025)**

**52.236-26 Preconstruction Conference. (FEB 1995)**

**52.242-13 Bankruptcy. (JUL 1995)**

**52.242-14 Suspension of Work. (APR 1984)**

**52.243-4 Changes. (JUN 2025)**

**52.244-6 Subcontracts for Commercial Items (June 2025)**

**52.245-1 - Government Property (SEP 2021)**

**52.245-9 Use and Charges (APR 2012)**

**52.246-21 Warranty of Construction. (MAR 1994)**

**52.248-3 Value Engineering - Construction. (OCT 2025)**

**52.249-2 Termination for Convenience of the Government (Fixed-Price). (APR 2012)**

**52.249-10 Default (Fixed-Price Construction). (APR 1984)**

**52.251-1 Government Supply Sources. (APR 2012)**

**52.252-2 Clauses Incorporated by Reference. (FEB 1998)**

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

(End of clause)

**52.253-1 Computer Generated Forms. (OCT 2025)**

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

**Contract Terms and Conditions Applicable to DHS Acquisition of Commercial Items (JUL 2023) The Contractor agrees to comply with any provision or clause that is incorporated herein by reference to implement agency policy applicable to acquisition of commercial items or components. The provision or clause in effect based on the applicable regulation cited on the date the solicitation is issued applies unless otherwise stated herein. The following provisions and clauses are incorporated by reference:**

**(b) Clauses.**

**_X___3052.204-71 Contractor Employee Access.**

**_X___3052.205-70 Advertisement, Publicizing Awards, and Releases.**

**_X__ 3052.215-70 Key Personnel or Facilities.**

**_X___3052.228-70 Insurance.**

**_X_3052.242-72 Contracting Officer's Representative.**

**(End of clause)**

**3052.204-72 Safeguarding of Controlled Unclassified Information (July 2023)**

**3052.209-70 Prohibition on contracts with corporate expatriates (JUN 2006)**

**3052.211-70 Index for specifications. (DEC 2003)**

**3052.222-70 Strikes or picketing affecting timely completion of the contract work. (DEC 2003)**

**3052.222-71 Strikes or picketing affecting access to a DHS facility. (DEC 2003)**

**3052.223-70 Removal or disposal of hazardous substances--applicable licenses and permits. (JUN 2006)**

**3052.225-70 Requirement for Use of Certain Domestic Commodities. (NOV 2024)**

## J - List of Documents, Exhibits and Other Attachments

List of Documents, Exhibits, and Other Attachments

| Attachment Number | Title |
|---|---|
| 1 | Statement of Work & Specifications & Drawings |
| 2 | SF 25 - Performance Bonds |
| 3 | SF 25A - Payment Bonds |
| 4 | SF 28 - Affidavit of Individual Surety |
| 5 | Format for Irrevocable Letter of Credit |
| 6 | Format for Financial Institution |
| 7 | FTC.FMD-70 - Invoice Cover Sheet |
| 8 | Instructions for Completing WH-347 |
| 9 | WH 347 - Wage and Hour Division |
| 10 | FMD 42 - Daily Report |
| 11 | DHS 11000-6 - Non-Disclosure Agreement |
| 12 | 12 FLETC Form 121-00-02 Badge Application form (See Project Manager for most updated version) |
| 13 | 13 USCIS Form I-9 - Instructions for Employment |
| 14 | Eligibility Verification Form |
| 15 | SF 85 - Questionnaire for Non-Sensitive Positions |
| 16 | Security Handout |
| 17 | Security Training List |
| 18 | GA Construction Requirements Statute Wage Determination Building |
| 19 | SF 1413 - Statement and Acknowledgment |
| 20 | SF 1444 - Request for Authorization of Additional Classification and Rate |
| 21 | SF 24 - Bid Bond |
| 22 | SF LLC - Disclosure of Lobbying Activities |
| 23 | Financial Questionnaire |
| 24 | DHS 700-3 - Contractor Release Form |
| 25 | WH 1321 - DOL Poster |
| 26 | Past Performance Questionnaire |
| Exhibit A | Bid Schedule and Proposal Breakdown |

## K - Representations, Certifications, and Other Statements of Bidders

Clauses

### 52.204-3 Taxpayer Identification. (OCT 1998)

(a) *Definitions*.

*Common parent,* as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

*Taxpayer Identification Number (TIN),* as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.

(d) *Taxpayer Identification Number (TIN)*.

[ ] TIN: _____.

[ ] TIN has been applied for.

[ ] TIN is not required because:

[ ] Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;

[ ] Offeror is an agency or instrumentality of a foreign government;

[ ] Offeror is an agency or instrumentality of the Federal Government.

(e) *Type of organization*.

[ ] Sole proprietorship;

[ ] Partnership;

[ ] Corporate entity (not tax-exempt);

[ ] Corporate entity (tax-exempt);

[ ] Government entity (Federal, State, or local);

[ ] Foreign government;

[ ] International organization per 26 CFR 1.6049-4;

[ ] Other _____.

(f) *Common parent*.

[ ] Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.

[ ] Name and TIN of common parent:

Name _____

TIN _____

(End of provision)

## 52.204-8 Annual Representations and Certifications. (OCT 2025)

(a)

(1) The North American Industry Classification System (NAICS) code for this acquisition is__*236220*_____.

(2) The small business size standard is ___*$45M*_____.

(3) The small business size standard for a concern that submits an offer, other than on a construction or service acquisition, but proposes to furnish an end item that it did not itself manufacture, process, or produce is 500 employees, or 150 employees for information technology value-added resellers under NAICS code 541519 if the acquisition—

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

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

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

(b)

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

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

(i) □ Paragraph (d) applies.

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

(c)

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

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

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

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

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

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed $200,000.

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

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

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

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

(B) Exceed the simplified acquisition threshold; and

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(xvi) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified

acquisition threshold and the contract is not for acquisition of commercial products or commercial services.

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

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

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

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

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

(A) If the acquisition value is less than $50,000, the basic provision applies.

(B) If the acquisition value is $50,000 or more but is less than $100,000, the provision with its Alternate II applies.

(C) If the acquisition value is $100,000 or more but is less than $102,280, the provision with its Alternate III applies.

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

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

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

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

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

[*Contracting Officer check as appropriate.*]

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

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

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

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

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

__ (vi) 52.227-6, Royalty Information.

__ (A) Basic.

__ (B) Alternate I.

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

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

| FAR Clause # | Title | Date | Change |
|---|---|---|---|
| _____ | | | |

Any changes provided by the offeror are applicable to this solicitation only, and do not result in an update to the representations and certifications posted on SAM.

## 52.204-17 Ownership or Control of Offeror. (AUG 2020)

a) Definitions. As used in this provision–

*Commercial and Government Entity (CAGE) code* means–

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity by unique location; or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and

its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

*Highest-level owner* means the entity that owns or controls an immediate owner of the offeror, or that owns or controls one or more entities that control an immediate owner of the offeror. No entity owns or exercises control of the highest level owner.

*Immediate owner* means an entity, other than the offeror, that has direct control of the offeror. Indicators of control include, but are not limited to, one or more of the following: ownership or interlocking management, identity of interests among family members, shared facilities and equipment, and the common use of employees.

(b) The Offeror represents that it □ has or □ does not have an immediate owner. If the Offeror has more than one immediate owner (such as a joint venture), then the Offeror shall respond to paragraph (c) and if applicable, paragraph (d) of this provision for each participant in the joint venture.

(c) If the Offeror indicates "has" in paragraph (b) of this provision, enter the following information:

Immediate owner CAGE code: _____

Immediate owner legal name: _____

(Do not use a "doing business as" name)

Is the immediate owner owned or controlled by another entity?: □ Yes or □ No.

(d) If the Offeror indicates "yes" in paragraph (c) of this provision, indicating that the immediate owner is owned or controlled by another entity, then enter the following information:

Highest-level owner CAGE code: _____

Highest-level owner legal name: _____

(Do not use a "doing business as" name)

(End of provision)

## 52.204-19 Incorporation by Reference of Representations and Certifications. (DEC 2014)

## 52.204-20 Predecessor of Offeror. (AUG 2020)

(a) Definitions. As used in this provision-

*Commercial and Government Entity (CAGE) code* means-

(1) An identifier assigned to entities located in the United States or its outlying areas by the Defense Logistics Agency (DLA) Commercial and Government Entity (CAGE) Branch to identify a commercial or government entity; or

(2) An identifier assigned by a member of the North Atlantic Treaty Organization (NATO) or by the NATO Support and Procurement Agency (NSPA) to entities located outside the United States and its outlying areas that the DLA Commercial and Government Entity (CAGE) Branch records and maintains in the CAGE master file. This type of code is known as a NATO CAGE (NCAGE) code.

Predecessor means an entity that is replaced by a successor and includes any predecessors of the predecessor.

Successor means an entity that has replaced a predecessor by acquiring the assets and carrying out the affairs of the predecessor under a new name (often through acquisition or merger). The term "successor" does not include new offices/divisions of the same company or a company that only changes its name. The extent of the responsibility of the successor for the liabilities of the predecessor may vary, depending on State law and specific circumstances.

(b) The Offeror represents that it [ ] is or [ ] is not a successor to a predecessor that held a Federal contract or grant within the last three years.

(c) If the Offeror has indicated "is" in paragraph (b) of this provision, enter the following information for all predecessors that held a Federal contract or grant within the last three years (if more than one predecessor, list in reverse chronological order):

Predecessor CAGE code: [(or mark "Unknown")].

Predecessor legal name: [(Do not use a "doing business as" name)].

(End of provision)

**52.204-24 Representation Regarding Certain Telecommunications and Video. (NOV 2021)**

**52.204-26 Covered Telecommunications Equipment or Services-Representation. (OCT 2020)**

**52.209-7 Information Regarding Responsibility Matters. (OCT 2018)**

(a) Definitions. As used in this provision—

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

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

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

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

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

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

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

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

(i) In a criminal proceeding, a conviction.

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

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

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

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

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

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

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

(End of provision)

**52.222-22 Previous Contracts and Compliance Reports. (FEB 1999)**

The offeror represents that-

(a) It [ ] has, [ ] has not participated in a previous contract or subcontract subject the Equal Opportunity clause of this solicitation.

(b) It [ ] has, [ ] has not filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards. (End of provision)

**52.222-38 Compliance with Veterans' Employment Reporting Requirements. (FEB 2016)**

**52.223-1 Biobased Product Certification. (MAY 2024)**

**52.223-4 Recovered Material Certification. (MAY 2008)**

## L - Instructions, Conditions, and Notices to Bidders

SUBMISSION REQUIREMENTS

**Building 93 Renovations**
**Federal Law Enforcement Training Center, Glynco GA**
**Single Firm Fixed Price Contract**
**70LGLY26RSSB00037**

ELECTRONIC PROPOSAL SUBMISSION IS REQUIRED. ELECTRONIC SUBMISSION SENT VIA FACSIMILE WILL NOT BE ACCEPTED. HAND CARRIED PROPOSAL SUBMISSION IS NOT AUTHORIZED.

**DIRECTIONS FOR SUBMITTING PROPOSALS**
All proposals shall be submitted electronically. All submissions shall be in Adobe PDF format, excluding the Offeror's bid schedule and any supporting bid schedule documentation. The Offeror shall submit bid schedule documentation via Excel, utilizing Exhibit A (Proposal Breakdown). The price proposal and any technical information provided shall be submitted as "*separate*" single files.

Please submit your proposal to the attention of the Contracting Officer at the following email address: Shannon.Anthony@fletc.dhs.gov

**Proposal Due Date and Time:**

Request For Proposal No: 70LGLY26RSSB00037
Due Date of Proposal: September 17, 2026
Time by which Proposals are Due: 11:00 A.M. (E.T.)
Title of Project: Building 93 Renovations

The date and time of delivery will be established by the time of receipt of the e-mail notification to the Contracting Officer, not by the date and time of uploading the proposal for submission to the Contracting Officer. Do not assume that electronic communication is instantaneous. Please make allowances for delays in transmittal. If an electronic submission is uploaded minutes before the deadline but notification is not actually received in the recipients' e-mail inboxes until after the deadline, the submission will be considered late.

The Government will not be responsible for proposals delivered to any location or to anyone other than those designated to receive proposals on its behalf. The Offeror is responsible for ensuring that proposals are submitted so as to reach the designated recipient of proposals. The Offeror is responsible for allowing sufficient time for the proposal to be received in accordance with the information provided.

**WAGE DETERMINATIONS**: The appropriate wage determination for this firm fixed price requirement is: GA20260315 dated 05/18/2026 (please use the most recent determination at the time of proposal submission.

TECHNICAL MATTERS: Submit technical inquiries and questions relating to this solicitation to:
Contracting Officer, Shannon Anthony at Shannon.Anthony@fletc.dhs.gov

Proposals shall be submitted in accordance with the following instructions:

Proposals shall be organized and tabbed in accordance with Submission Requirements identified below. Proposals shall be signed by a duly authorized official of the Offeror's company and are required no later than **11:00 AM eastern time on Wednesday, September 17, 2026**.

**The Request for Proposal Packet must include the following:**
**Volume I Price**

TAB A – Standard Form 1442, completed and signed by authorized individual(s)
TAB B – Section B – Proposal Pricing/Bid Schedule, Exhibit A
TAB C - Section K– Representations and Certifications.
TAB D – Financial Information (Completion of Attachment 23 and Letter from Offeror's Surety Company stating bonding capacity to include bonding aggregate)

**Volume II Technical Requirements**
TAB E - Past Performance

- No submission is required, the Government will evaluate PPQs, PPIRS/CPARS records, etc. as outlined in Section M, Paragraph A

TAB F – Technical Requirements – Corporate Relevant Experience

- Tab F1 – Project Criteria - A minimum of two no more than four Past Performance Questionnaires as identified in Section M, paragraph B are required for submission (Attachment 26)

- Tab F2 - Copy of License(s), Certification(s) and Statement of Professional Credentials as identified in Section M. paragraph a and b

TAB G – Teaming Arrangements and Narratives, if applicable.

- Notwithstanding the specific requirements of any other area of the RFP, information submitted about any company other than the Offeror, whether a predecessor company, affiliated company, subsidiary (including wholly owned subsidiaries), or subcontractors that will perform major or critical aspects of this requirement, or other associated business, WILL NOT be evaluated for any factor unless the proposal contains a detailed narrative explaining why this submitted information is relevant to this acquisition. The Government will consider the adequacy of this explanation in deciding the relevance and weight, if any, of the information to this procurement. Where information about a subcontractor is properly submitted and relied upon by the Government in

evaluating proposals, the failure of the Offeror to actually perform with that subcontractor may be grounds for termination for default. Any narrative provided should be incorporated into the Offeror's proposal at Tab G.

Clauses

**52.204-7 System for Award Management. (NOV 2024)**

**52.215-20 Requirements for Certified Cost or Pricing Data or Data Other Than Cost or Pricing Data. (NOV 2021)**

**52.216-1 Type of Contract. (APR 1984)**

The Government contemplates award of a Firm Fixed Price contract resulting from this solicitation.

(End of provision)

**52.233-2 Service of Protest. (SEP 2006)**

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

Department of Homeland Security
Federal Law Enforcement Training Center
Procurement Division
Specialized Services Branch
Building 681-FLETC

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

(End of provision)

**52.236-27 Site Visit (Construction). (FEB 1995)**

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

(b) A site visit will be held on August 26, 2026, at 11:00am. Please coordinate site access with Project Manager, Richard Love at Richard.Love@fletc.dhs.gov no later than **August 25, 2026, at 10:00am (local time)**. For site access requirements and further details on who will be allowed access to FLETC, please see Section H.29. Upon arrival, Attendees should report to the commercial gate for access, then proceed to Building 200. Questions regarding the site visit should be directed to:

Name: Richard Love

Email: Richard.Love@fletc.dhs.gov

Telephone: 912-267-2161

**52.236-28 Preparation of Proposals - Construction. (OCT 1997**)

(a) Proposals must be

(1) submitted on the forms furnished by the Government or on copies of those forms, and

(2) manually signed. The person signing a proposal must initial each erasure or change appearing on any proposal form.

(b) The proposal form may require offerors to submit proposed prices for one or more items on various bases, including -

(1) Lump sum price;

(2) Alternate prices;

(3) Units of construction; or

(4) Any combination of paragraphs (b)(1) through (b)(3) of this provision.

(c) If the solicitation requires submission of a proposal on all items, failure to do so may result in the proposal being rejected without further consideration. If a proposal on all items is not required, offerors should insert the words “no proposal” in the space provided for any item on which no price is submitted.

(d) Alternate proposals will not be considered unless this solicitation authorizes their submission.

(End of Provision)

**52.252-1 Solicitation Provisions Incorporated by Reference. (FEB 1998)**

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

(End of provision)

## M - Evaluation Factors for Award

EVALUATION CRITERIA

All Offeror's proposal submissions shall be evaluated utilizing three factors as follows:

**Non-Cost Factors:**
Factor 1: Past Performance
Factor 2: Corporate Relevant Experience

**Cost Factor:**
Factor 3: Price

**Order of Importance:** All non-cost factors to include Past Performance and Corporate Relevant Experience are of equal importance to Price

### A. FACTOR 1: Past Performance

An overall assessment of the Offeror's Past Performance will be evaluated utilizing project information submitted by the Offeror (maximum of four PPQs) as well as project information retrieved from CPARS/PPIRS by the Government, the Federal Awardee Performance and Integrity Information System (FAPIIS), the Electronic Subcontract Reporting System (eSRS), and any other known sources. The Government will utilize the CAGE/Unique Identifier Number provided by the Offeror to retrieve past performance information. PPQs coupled with information retrieved by the Government will not exceed five (5) records for Factor 1, Past Performance evaluation.

i) An assessment will be made of the projects submitted (PPQs) and retrieved from CPARS/PPIRS and completed in the past five (5) years. An offeror must receive an overall rating of satisfactory or better to be considered for project award. The Past Performance Rating will be based on the evaluation criteria identified the Factor 1, Past Performance ratings table below.

ii) The information in Factor 1 from the PPQ and CPAR/PPIRS evaluations must clearly establish that the Offeror's submittal meets the definitions established in the Past Performance Ratings Table below.

| Past Performance Ratings | |
|---|---|
| **Rating** | **Definition** |
| (S) Superior | Based on the offeror's past performance record, it is highly likely that the offeror will successfully perform the required effort. |
| (S) Satisfactory | Based on the offeror's past performance record, it is likely that the offeror will successfully perform the required effort. |
| (N) Neutral | No relevant performance record is identifiable upon which to base a meaningful performance rating. A search was unable to identify any relevant past |

| | |
|---|---|
| | performance information for the offeror, key personnel, or subcontractors. This isneither a negative or positive assessment. |
| (U) Unsatisfactory | Based on the offeror's past performance record, it is not likely that the offerorwill successfully perform the required effort. |

The past performance evaluation will result in an assessment of the Government's confidence in the ability of the Offeror to meet the solicitation requirements. The past performance evaluation considers the Offeror's demonstrated record of performance.

**B. FACTOR 2: Corporate Relevant Experience**

- **Project Criteria** (TAB F1)- Offerors shall submit two no more than four Past Performance Questionnaires (PPQ's) (Attachment 26) for project work with the following criteria:

  (a) Offerors shall submit a minimum of two (2) and no more than four (4) projects with a minimum value of no less than $500,000.00. Each project/job must demonstrate comparable project size and same and/or similar scope of work that involves renovation to include sanitation sewer line replacement, plumbing fixtures to restrooms, carpet, LVP or tile flooring, painting interior or exterior walls. Projects must have been completed within the last five (5) years or are at least 80% completed at the date of solicitation issuance.

  (b) Offerors may submit previously completed CPARS records for project criteria evaluation, however **PPQ cover page must be complete and attached to CPARS record and the contact information on PPQ's must be current for purpose of reference.**

  **At a minimum, two PPQs must meet the project criteria specified in paragraph (a) above to be considered for project award**

- **License and Statement of Professional Credentials** (TAB F2) – In addition to PPQ's, Offerors shall submit:

  (a) A copy of License(s) Contractor to submit current license and qualifications. At a minimum, prime contractors must have a minimum of 5 years' experience in the commercial industry to include restroom remodeling, painting, and plumbing and sewer line replacement. Any combination of the aforementioned is acceptable.

  The Prime contractor for the commercial renovation is to have a minimum of 5 years' experience in the industry of installation of plumbing, painting, and/or similar work.

(b) Statement of professional credentials; stating the Offeror's ability to

complete the requirement in accordance with RFP requirements and within the scope and magnitude of the subject requirement. The Offeror shall:

i) Identify any contractor/professional licenses held by the firm. (submit copies)

ii) Identify any certifications specific to commercial restrooms remodeling, repainting, plumbing fixtures replacement and tile floor and LVP Flooring installation and/or similar work. (submit copies)

An overall assessment of the Offeror's Corporate Relevant Experience will be evaluated utilizing the Past Performance Questionnaire, License(s), and Statement of Professional Credentials as submitted by the Offeror. A Corporate Relevant Experience Rating will be assigned to the Offeror's technical submissions utilizing the rating table below:

| **Factor 2 – Corporate Relevant Experience** | |
|---|---|
| **Rating** | **Definition** |
| (S) Superior | The proposal demonstrates that the contractor holds the required licensing and certifications outlined in the project specifications for commercial renovations, such as plumbing fixtures, sewer line replacement, tile, carpet and LVP flooring installation, Repainting interior or exterior walls, equipment installation, and remodeling. The contractor's qualifications and expertise ensure compliance with all relevant standards and regulations. The proposal highlights strengths that will provide significant benefits to the Government, with a low risk of unsuccessful performance. |
| (G) Good | The proposal demonstrates that the contractor possesses the necessary required by the project specifications, including certifications and training for commercial/industrial plumbing systems installation of sewer lines and plumbing fixtures installation. The proposal highlights one or more strengths that will provide clear benefits to the Government, including certifications and training for commercial/industrial plumbing, flooring replacement with a low risk of unsuccessful performance. |
| (A) Acceptable | The proposal demonstrates that the contractor holds the necessary licensing required by the project specifications, including certifications for. sewer line replacement, tile, carpet and LVP flooring installation, Repainting interior or exterior walls, equipment installation, remodeling. The proposal offers an acceptable solution with few or no identified strengths, and the risk of unsuccessful performance is assessed as moderate. |
| (M) Marginal | The proposal demonstrates that the contractor possesses the licensing required by the project specifications for. sewer line replacement, tile, carpet and LVP flooring installation, Repainting interior or exterior walls, equipment installation, remodeling However, significant weaknesses or deficiencies are present that may be correctable without major revisions to the proposal. The risk of unsuccessful performance is assessed as high. |

| | |
|---|---|
| (U) Unsatisfactory | The proposal fails to demonstrate that the contractor meets the licensing requirements outlined in the project specifications for sewer line replacement, tile, carpet and LVP flooring installation, Repainting interior or exterior walls, equipment installation, remodeling<br>As a result, a contract cannot be awarded based on this proposal. |

**C. Factor 3: Price**

The Contracting Officer will perform the price analysis, in accordance with FAR 15.404-1(b), to determine fairness and reasonableness as well as to ensure the Offeror's understanding of the work and ability to execute the work at the price proposed. The Contracting Officer will:

1. Ensure that the price proposal and resulting evaluation are not compromised by team members, not directly or not authorized to be involved in the price evaluation process.

2. Review the proposal to determine price submission errors or omissions and areas requiring clarification.

3. Evaluate proposal for price reasonableness. Reasonableness will be established using available pricing tools such as historical pricing data and/or the Independent Government Estimate.

**C. Basis for Award and Exchanges with Best Suited Contractor:**

a) Offerors are reminded to include their best technical and price terms in their initial offer. To determine which proposal represents the best suited contractor, proposals will be evaluated against all RFP criteria.

b) Proposals must meet the criteria stated in the RFP to be eligible for award, to include responsiveness, technical acceptability, and responsibility. A responsibility determination will be made in accordance with the Federal Acquisition Regulation (FAR) 9.1.

c) Award will be made on the basis of the best suited then negotiate methodology.

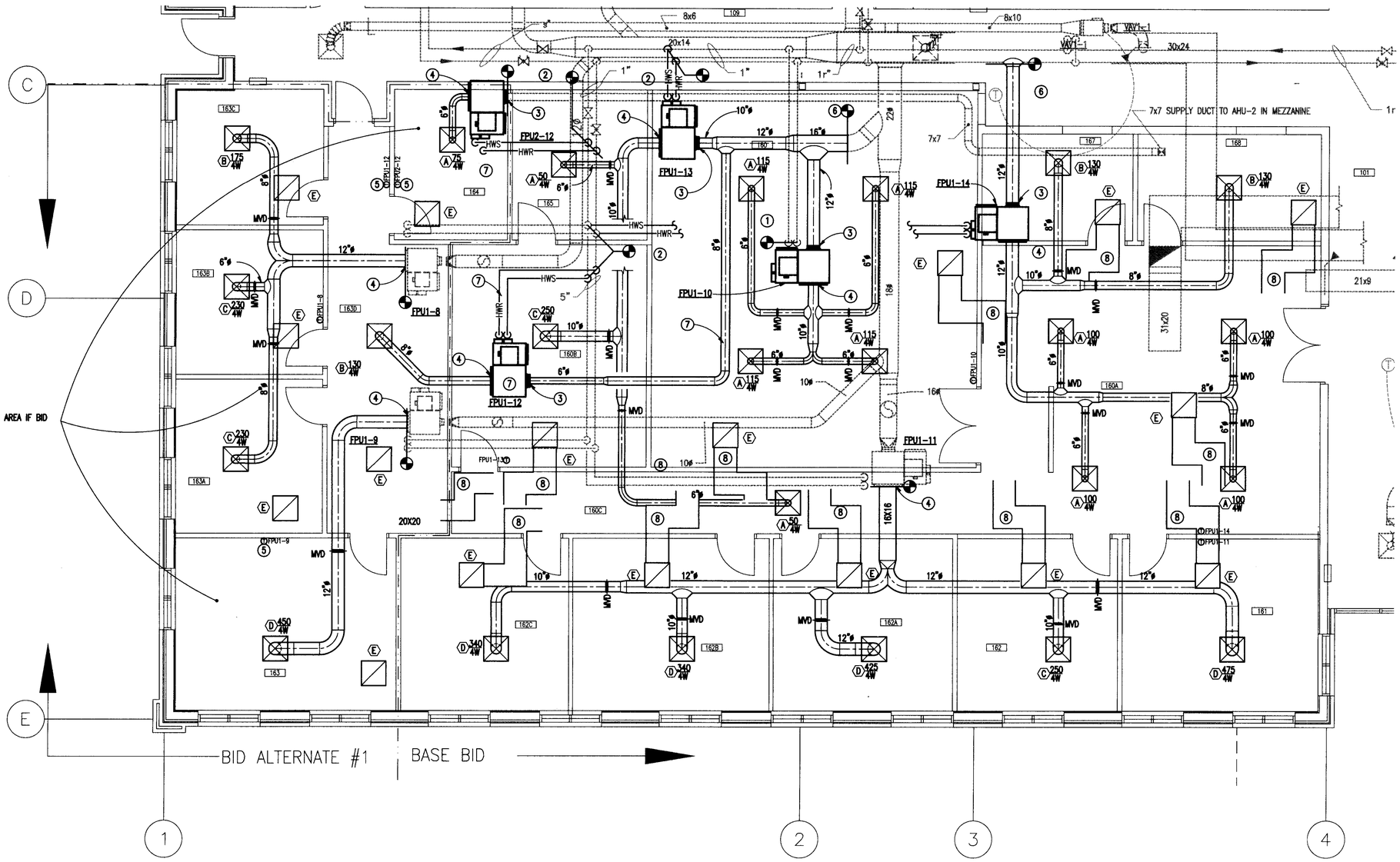
d) In order to be considered for project award, at a minimum, the Offeror must obtain a satisfactory rating for Past Performance and a rating of Acceptable for Corporate Relevant Experience. The Offeror is advised that any offer wherein pricing is deemed unfair, unreasonable, or unrealistic may be rendered ineligible for award. Historical price information, the Independent Government Estimate (IGE), or any other pricing tool as necessary will be utilized in making this determination. Based on an overall assessment of the Offeror's proposal to include cost as well as non-cost factors, the Government reserves the right to award to other than the lowest price or highest technically rated Offeror.

e) Once the Government determines the contractor that is the best-suited (i.e., the apparent successful contractor), the Government reserves the right to communicate with only that contractor to address any remaining issues, if necessary, and finalize a task order with that contractor. These issues may include technical and price. If the parties cannot successfully address any remaining issues, as determined pertinent at the sole discretion of the Government, the Government reserves the right to communicate with the next best-suited contractor based on the original analysis and address any remaining issues. Once the Government has begun communications with the next best-suited contractor, no further communications with the original best contractor will be entertained until after the task order has been awarded. This process shall continue until an agreement is successfully reached and a single firm-fixed price contract has been awarded.

   If negotiations with the next best-suited offeror/quoter are not successful, then the Government may still use FAR procedures to conduct negotiations with all offerors/quoters or establish a competitive range.

f) The Government reserves the right to reject any and all offers.

g) Offerors are reminded to include their best technical and price terms in their initial offer and not to automatically assume that they will have an opportunity to participate in interchanges or be asked to submit a revised offer. The Government may make award of a conforming proposal without interchanges, if deemed to be within the best interests of the Government.




## GENERAL NOTES:

A. ALL HOT WATER RUNOUTS SHALL BE 3/4" UNLESS OTHERWISE INDICATED.

B. MECHANICAL WORK SHALL BE CONFINED TO AREA AS DEFINED BY COLUMN LINES "E" TO "C" AND "1" TO "4". EXCEPT WORK NECESSARY TO MAKE CONNECTION TO EXISTING SYSTEMS.

C. REMAINDER OF BUILDING TO REMAIN IN OPERATION DURING CONSTRUCTION. CONTRACTOR SHALL UTILIZE METHODS AND TECHNIQUES TO ALLOW BUILDING OPERATION TO CONTINUE UNHINDERED. ALL DOWNTIME TO THE BUILDING'S HVAC SYSTEM SHALL BE COORDINATED WITH GOVERNMENT AND SHALL BE KEPT TO A MINIMUM.

## NOTES:

(THIS SHEET ONLY)

1. CONNECT EXISTING PIPING TO FPU1-10.
2. CONNECT TO EXISTING PIPING AT THIS APPROXIMATE LOCATION.
3. TRANSITION DUCTWORK AS NECESSARY TO FPU INLET.
4. TRANSITION DUCTWORK AS NECESSARY FROM FPU OUTLET.
5. INSTALL THERMOSTAT IN SAME LOCATION AS PREVIOUS THERMOSTAT. REPAIR WALL AS NEEDED. SEE ARCHITECTURAL FOR DETAILS.
6. CONNECT TO EXISTING DUCTWORK AT THIS APPROXIMATE LOCATION.
7. WORK NOT REQUIRED IF BID ALTERNATE #1 IS DECLINED. SEE SHEET M201.
8. Z DUCT IS 22X12 UNLESS NOTED OTHERWISE. SEE DETAIL ON M102. ROUTE Z DUCT AT LOWER ELEVATION THAN SUPPLY DUCT.

## NEW WORK FLOOR PLAN – MECHANICAL

SCALE: 1/4" = 1'-0"

PROJECT AREA 1ST FLOOR

KEY PLAN

MEZZANINE ABOVE

1/4" = 1'-0" 0 2' 4' 8' 12'

GRAPHIC SCALE

PROJECT NORTH

LAW ENFORCEMENT SENSITIVE
FOR OFFICIAL USE ONLY

KIEL AND ASSOCIATES

TOLAND • MIZELL ARCHITECTS, INC
ATLANTA, GEORGIA
*A Joint Venture*

| REVISIONS | | |
|---|---|---|
| NO. | DESCRIPTION | DATE |
| | | |

SEAL

DRAWN BY: PB | CHKD BY: CTH
DATE: 29 MARCH 2007

FAC. DWG.
DRAWING FILE

FEDERAL LAW ENFORCEMENT TRAINING CENTER
GLYNCO, GEORGIA

FINAL SUBMITTAL
BUILDING 93
NEW WORK FLOOR PLAN
MECHANICAL

PROJECT No: 608-083-5797
PAGE 11 OF 16

M301

## GENERAL NOTES:

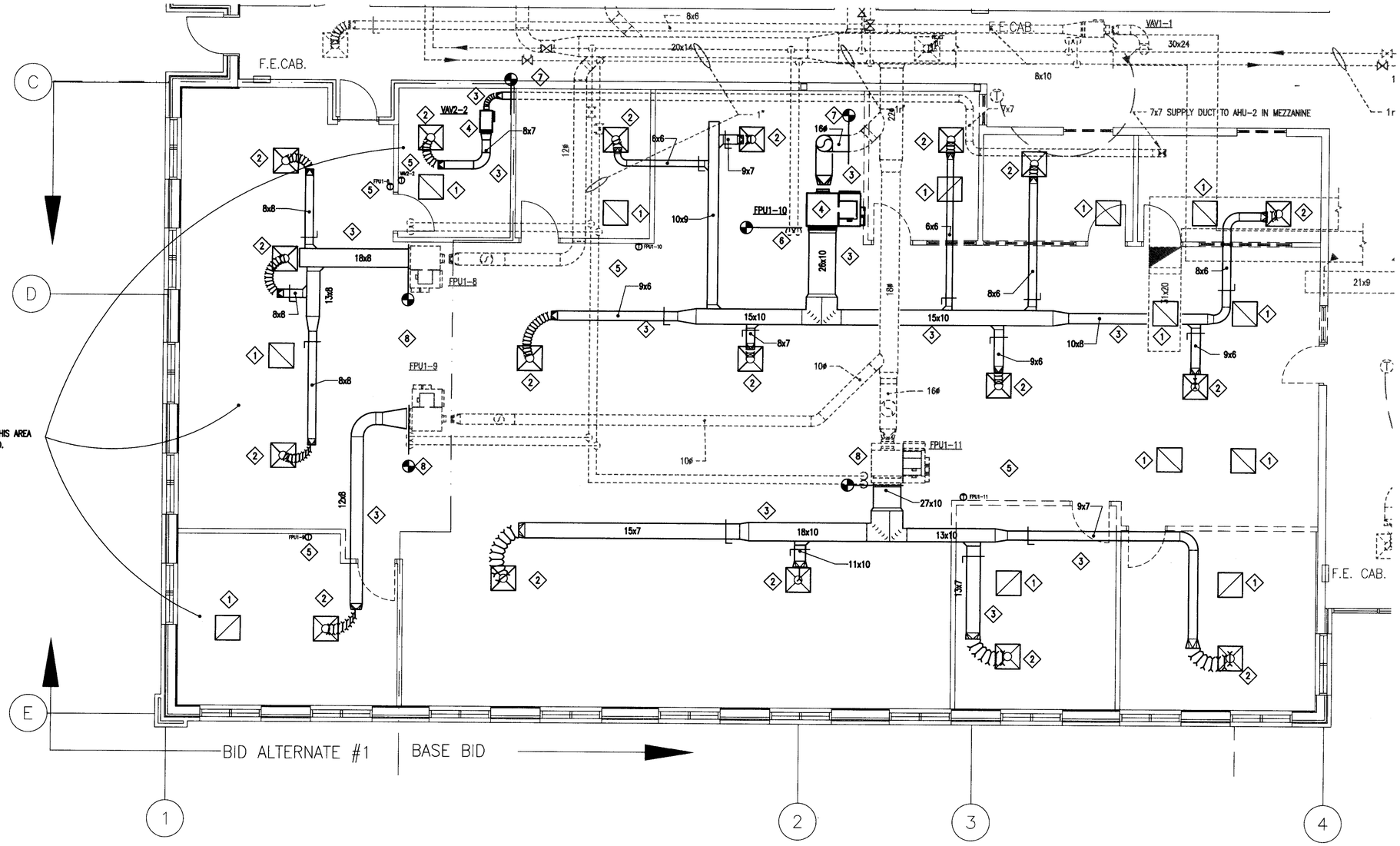
A. ALL HOT WATER PIPING TO REMAIN UNLESS OTHERWISE INDICATED.

B. MECHANICAL WORK SHALL BE CONFINED TO AREA AS DEFINED BY COLUMN LINES "E" TO "C" AND "1" TO "4".

C. REMAINDER OF BUILDING TO REMAIN IN OPERATION DURING CONSTRUCTION. CONTRACTOR SHALL UTILIZE METHODS AND TECHNIQUES TO ALLOW BUILDING OPERATION TO CONTINUE UNHINDERED. ALL DOWNTIME TO THE BUILDING'S HVAC SYSTEM SHALL BE COORDINATED WITH OWNER AND SHALL BE KEPT TO A MINIMUM.

## DEMOLITION NOTES:
(THIS SHEET ONLY)

1. REMOVE RETURN GRILLE.
2. REMOVE SUPPLY DIFFUSER.
3. REMOVE DUCTWORK IN ITS ENTIRETY INCLUDING DAMPERS, FITTINGS AND INSULATION BACK TO SCOPE OF WORK MARK.
4. REMOVE TERMINAL UNIT, CONTROL WIRING AND THERMOSTAT. TURN OVER TO OWNER
5. REMOVE THERMOSTAT.
6. DISCONNECT HOT WATER PIPING FROM TERMINAL UNIT AND CAP FOR FUTURE USE.
7. CAP DUCTWORK AT SCOPE OF WORK. MAKE READY FOR RECONNECTION.
8. EXISTING FPU TO REMAIN. MAKE READY FOR RECONNECTION.




DEMOLITION FLOOR PLAN – MECHANICAL
SCALE: 1/4" = 1'-0"

TRUE NORTH

PROJECT NORTH

LAW ENFORCEMENT SENSITIVE
FOR OFFICIAL USE ONLY

KIEL AND ASSOCIATES

TOLAND • MIZELL ARCHITECTS, INC.
ATLANTA, GEORGIA
A Joint Venture

PROJECT AREA 1ST FLOOR

KEY PLAN

MEZZANINE ABOVE

1/4" = 1'-0"
0 2' 4' 8' 12'
GRAPHIC SCALE

PROJECT NORTH

| REVISIONS | | |
|---|---|---|
| NO. | DESCRIPTION | DATE |
| | | |

GEORGIA REGISTERED ARCHITECT CLINTON T. HARDY, JR.

SEAL

DRAWN BY: WSS CHKD BY: CTH
DATE: 29 MARCH 2007

FEDERAL LAW ENFORCEMENT TRAINING CENTER GLYNCO, GEORGIA

FINAL SUBMITTAL
BUILDING 93
DEMOLITION FLOOR PLAN
MECHANICAL

FAC. DWG.
DRAWING FILE

PROJECT No: 108-083-5767
PAGE 10 OF 16

U.S. DEPARTMENT OF HOMELAND SECURITY

M201

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Revisions:

SEE MEZZANINE PLAN SHEET M3.1 FOR CONTINUATION OF REFRIGERANT LINES

CU-1

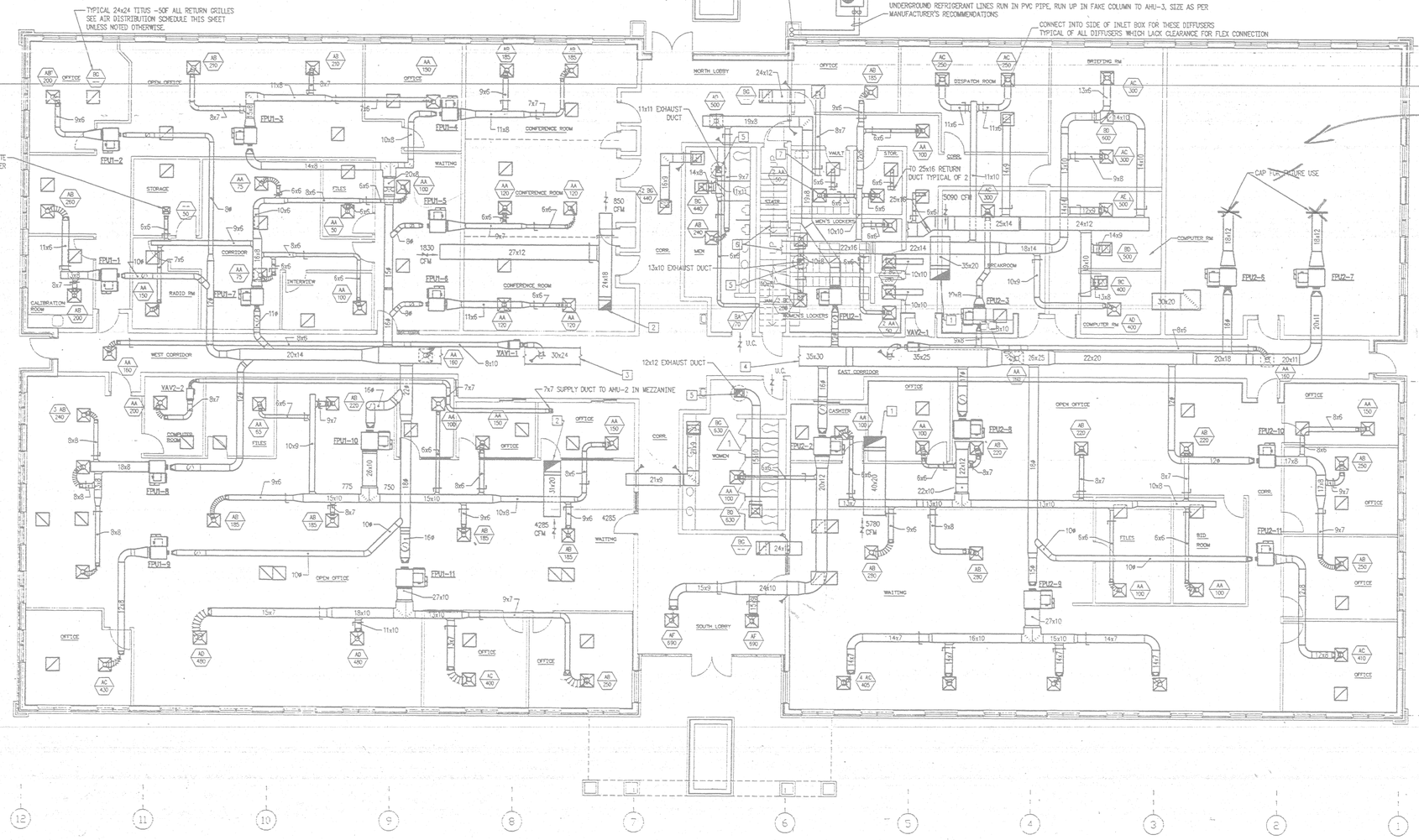
6" THICK 3000 PSI CONCRETE EQUIPMENT PAD, REINFORCED WITH #2 REBAR 1' O.C. BOTH WAYS
RUN REFRIGERANT LINES DOWN THROUGH PAD WITH PVC SLEEVE
PERIMETER OF PAD TO EXTEND 6" OUTSIDE OF UNIT AND 1' WHERE REFRIGERANT LINES GO DOWN.

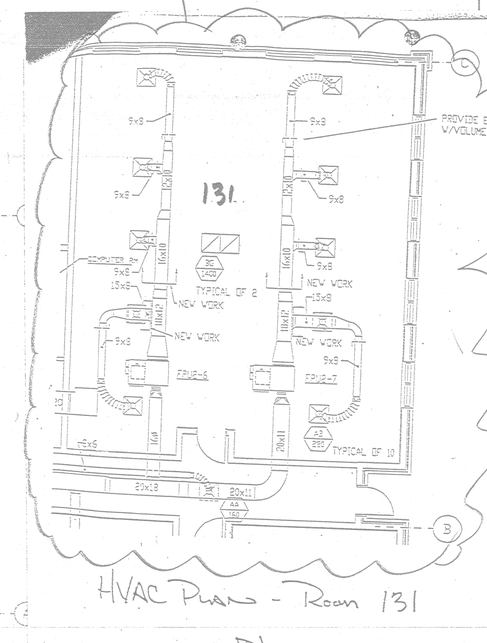
UNDERGROUND REFRIGERANT LINES RUN IN PVC PIPE. RUN UP IN FAKE COLUMN TO AHU-3, SIZE AS PER MANUFACTURER'S RECOMMENDATIONS

CONNECT INTO SIDE OF INLET BOX FOR THESE DIFFUSERS
TYPICAL OF ALL DIFFUSERS WHICH LACK CLEARANCE FOR FLEX CONNECTION

TYPICAL 24x24 TITUS -50F ALL RETURN GRILLES
SEE AIR DISTRIBUTION SCHEDULE THIS SHEET
UNLESS NOTED OTHERWISE.

9x9 BY 8"ø TITUS MODEL TDCA-AA OFF WHITE
CEILING DIFFUSER



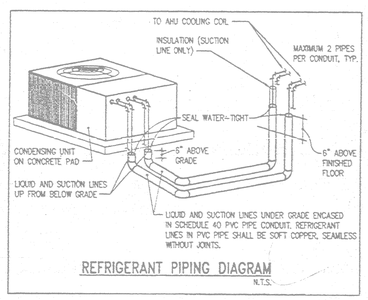

HVAC Plan - Room 131

JSF 9/14/97 Sht 5 of 6

# FLOOR PLAN - H.V.A.C.

SCALE: 1/8 " = 1'-0"

0 4' 8' 16' 24'
1/4" = 1'0




REFRIGERANT PIPING DIAGRAM
N.T.S.

## MECHANICAL NOTES

1. RETURN DUCT UP TO AHU-2 IN MEZZANINE, SEE ENLARGED MECHANICAL PLAN SHEET M3.1 FOR CONTINUATION
2. RETURN DUCT UP TO AHU-1 IN MEZZANINE, SEE ENLARGED MECHANICAL PLAN SHEET M3.1 FOR CONTINUATION
3. SUPPLY DUCT DOWN FROM AHU-1 IN MEZZANINE, SEE ENLARGED MECHANICAL PLAN SHEET M3.1 FOR CONTINUATION
4. SUPPLY DUCT DOWN FROM AHU-2 IN MEZZANINE, SEE ENLARGED MECHANICAL PLAN SHEET M3.1 FOR CONTINUATION
5. EXHAUST DUCT UP TO EF-1 IN MEZZANINE LEVEL, SEE ENLARGED MECHANICAL PLAN SHEET M3.1 FOR CONTINUATION
6. FOR CONTINUATION OF AHU-3 SUPPLY/RETURN DUCTING SEE SHEET M3.1
7. TO 25x16 RETURN DUCT

## AIR DISTRIBUTION SCHEDULE

| MARK | DESCRIPTION | | | |
|---|---|---|---|---|
| A | CEILING DIFFUSER, 24x24 MODULE WITH SQUARE TO ROUND ADAPTOR, ADJUSTABLE DISCHARGE, AND OPPOSED BLADE DAMPER | | | |
| | NECK SIZE | MATERIAL | FINISH | BASIS OF DESIGN |
| AA | 8"ø | ALUMINUM | OFF-WHITE | TITUS - TDCA-AA |
| AB | 10"ø | ALUMINUM | OFF-WHITE | TITUS - TDCA-AA |
| AC | 12"ø | ALUMINUM | OFF-WHITE | TITUS - TDCA-AA |
| AD | 14"ø | ALUMINUM | OFF-WHITE | TITUS - TDCA-AA |
| AE | 14"ø | ALUMINUM | OFF-WHITE | TITUS - TDCA-AA |
| AF | 16"ø | ALUMINUM | OFF-WHITE | TITUS - TDCA-AA |
| B | RETURN OR EXHAUST REGISTER, WITH ½"x½"x1" GRID AND OPPOSED BLADE DAMPER | | | |
| | SIZE | MATERIAL | FINISH | BASIS OF DESIGN |
| BA | 6x6 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| BB | 8x8 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| BC | 10x10 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| BD | 12x12 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| BE | 14x14 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| BF | 18x18 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| BG | 24x24 | ALUMINUM | OFF-WHITE | TITUS - 50F |
| C | SIDEWALL REGISTER, ½" SPACING, SINGLE DEFLECTION WITH OPPOSED BLADE DAMPER AND 0° DEFLECTION | | | |
| | SIZE | MATERIAL | FINISH | BASIS OF DESIGN |
| CA | 6x6 | ALUMINUM | OFF-WHITE | TITUS - 271RL |
| CB | 12x6 | ALUMINUM | OFF-WHITE | TITUS - 271RL |
| CC | 16x8 | ALUMINUM | OFF-WHITE | TITUS - 271RL |
| CD | 18x10 | ALUMINUM | OFF-WHITE | TITUS - 271RL |

NOTES: 1. AIR DISTRIBUTION DEVICES LOCATED WITHIN ACOUSTICAL TILE CEILINGS SHALL BE PROVIDED WITH BORDER TYPE 3 FOR LAY-IN MOUNTING. AIR DISTRIBUTION DEVICES LOCATED WITHIN GYPSUM BOARD CEILINGS OR WALLS SHALL BE PROVIDED WITH BORDER TYPE 1 FOR SURFACE MOUNTING. REFER TO ARCHITECTURAL DOCUMENTS FOR CEILING TYPES.

2. AIR DISTRIBUTION DEVICES LOCATED IN SMALL ROOMS WHERE FULL 24"x24" GRID ARE NOT AVAILABLE SHALL BE PROVIDED WITH SURFACE MOUNTING BORDERS IN LIEU OF LAY-IN. SECURE EACH DEVICE TO CEILING GRID WITH FIELD FABRICATED SUPPORTS.

Saxelye Planners Interior Designers
AA 0002288
AE 0002288
Saxelye Architects, Inc.
Jacksonville, FL

FEDERAL LAW ENFORCEMENT TRAINING ADMINISTRATION BUILDING

FIRST FLOOR PLAN - H.V.A.C.

FINAL SUBMITTAL

Job number: SA94042C
Date: 2 SEPTEMBER 1997
Drawn by: JSF
Checked by: HLB

Sheet Number: M1.1

396076 TLC Tilden Lobnitz Cooper Engineering for Architecture




Building 0093

working 3 31 2022

## GENERAL NOTE:

A. CONTROL SEQUENCE AND GRAPHICS SHALL BE PROGRAMMED INTO GOVERNMENT'S EXISTING HEADEND COMPUTER. CONTRACTOR SHALL PROVIDE MONITORING AND EDITABLITIY OF ALL POINTS SHOWN.

B. CONTROLS WORK AND CONNECTION TO GOVERNMENT FRONT END SHALL BE PERFORMED BY AN AUTOMATED LOGIC LICENSED CONTRACTOR USING AUTOMATED LOGIC PRODUCTS.

## CONTROL LEGEND

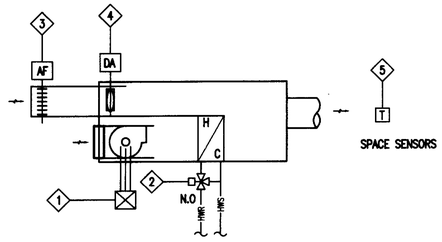
| | | | |
|---|---|---|---|
| | FAN | AI | ANALOG INPUT |
| | HEATING COIL | AO | ANALOG OUTPUT |
| | THREE WAY ELECTRONIC CONTROL VALVE | DI | DIGITAL INPUT |
| | ROUND CONTROL DAMPER | DO | DIGITAL OUTPUT |
| DA | DAMPER ACTUATOR (ELECTRONIC) | NC | NORMALLY CLOSED |
| AF | AFMS AIR FLOW MEASURING STATION | NO | NORMALLY OPEN |
| AFMS | AIR FLOW MEASUREMENT STATION | | |
| | | | |

## CONTROL POINTS SCHEDULE

| MARK ◇ | TYPE | DESCRIPTION | NOTES |
|---|---|---|---|
| 1 | DO | MOTOR START/STOP | 1; |
| 2 | AO | HOT WATER COIL VALVE MODULATION | 1; |
| 3 | AI | AIRFLOW SENSOR | 1; |
| 4 | DO | DAMPER OPEN/CLOSE | 1; |
| 5 | AI | SPACE TEMPERATURE SENSOR | 1; |

NOTES:

1. TYPICAL OF 1 PER VAV BOX.



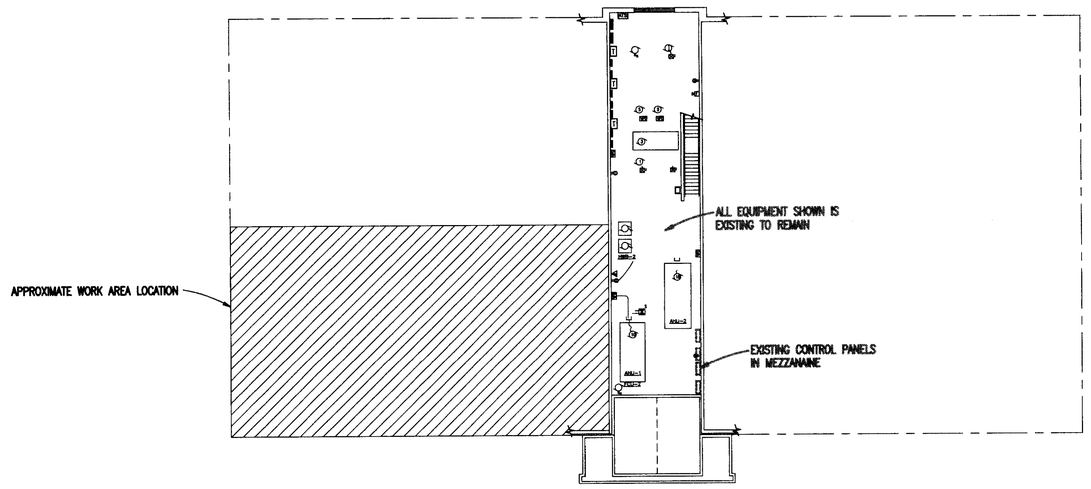

FAN POWERED PARALLEL
FPU TERMINAL CONTROL SCHEMATIC -TYPICAL
SCALE: NONE

SEQUENCE OF CONTROL

A. FAN POWERED UNIT (FPU) WITH REHEAT

1. DAY MODE
   a. AS THE ROOM TEMPERATURE RISES TOWARD THE ROOM SETPOINT, THE REHEAT VALVE WILL BE MODULATED CLOSED. A CONTINUED RISE IN TEMPERATURE WILL SHUT THE FPU BOX FAN DOWN. AS THE TEMPERATURE RISES ABOVE THE SETPOINT, THE FPU BOX AIR DAMPER WILL MODULATE FROM MINIMUM TO MAXIMUM FLOW. THE REVERSE HAPPENS ON A TEMPERATURE DROP.

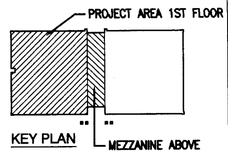
2. NIGHT MODE
   a. THE FPU BOX FAN AND REHEAT VALVE WILL MODULATE TO MAINTAIN THE NIGHT HEATING SETPOINT.
   b. PRESSING THE OVERRIDE BUTTON ON THE THERMOSTAT WILL RETURN THE BOX AND ASSOCIATED AHU TO THE OCCUPIED MODE FOR A PREDETERMINED LENGTH OF TIME.




MEZZANINE FLOOR PLAN
SCALE: 1/16"=1'-0"

TRUE NORTH

PROJECT NORTH




1/16" = 1'-0"
0 4' 8' 16' 32' 48'
GRAPHIC SCALE

PROJECT NORTH

KEY PLAN

LAW ENFORCEMENT SENSITIVE
FOR OFFICIAL USE ONLY

KIEL AND ASSOCIATES

TOLAND - MIZELL
ARCHITECTS, INC.
ATLANTA, GEORGIA
A Joint Venture

| REVISIONS | | |
|---|---|---|
| NO. | DESCRIPTION | DATE |
| | | |

SEAL

DRAWN BY: RAT | CHKD BY: CTH
DATE: 29 MARCH 2007

FAC. DWG.
DRAWING FILE

FEDERAL LAW ENFORCEMENT
GLYNCO, TRAINING CENTER GEORGIA

FINAL SUBMITTAL
BUILDING 93
CONTROLS
MECHANICAL

PROJECT No: 808-093-5707
PAGE 12 OF 16

M401

# SPECIFICATIONS

## RENOVATIONS OF BUILDINGS 93 FEDERAL LAW ENFORCEMENT TRAINING CENTER GLYNCO, GEORGIA

**Prepared By:**

**Richard Love Project Manger**

**Aug. 5, 2026**

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26 53 00.00 40 EXIT SIGNS

-- End of Project Table of Contents --

1.8 ON-SITE PERMITS

1.8.1 Utility Outage Requests and Utility Connection Requests

Notify the Project Manager in writing at least 3 working days prior to starting excavation work. Contractor is responsible for marking and verifying all utilities not marked.

The Contractor shall verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated or specified to be removed but indicated to be transversed by piping, ducts, and other work to be installed.

Work shall be scheduled to hold outages to a minimum.

Utility outages and connections required during the prosecution of work that affect existing systems shall be arranged for at the convenience of the Government and shall be scheduled outside the regular working hours or on weekends.

Contact the local utility providers to obtain permits, verify tap fees and coordinate authorization to connect to their respective utilities. All utility connection costs shall be borne by the Contractor. Contractors are encouraged to contact all local utilities to confirm costs of connections, tap fees, etc.

Contractor shall not be entitled to additional payment for utility outages and connections required to be performed outside the regular work hours.

Requests for utility outages and connections shall be made in writing to the Government at least three (3) work days in advance of the time required. Each request shall state the system involved, area involved, approximate duration of outage, and the nature of work involved.

1.9 Delivery Schedule

Notify the Contracting Officer in writing at least 30 calendar days in advance of the date on which the materials and equipment are required. Pick up materials and equipment no later than 30 calendar days after such date.

1.9.1 Delivery Location

The materials and equipment are located within the Glynco FLETC Campus.

1.10 LOCATION OF UNDERGROUND FACILITIES

Contact and employ the local utility locator service Utility Protection center 1-800-282-7411, at least four days in advance to arrange public utility location. Verify the elevations of existing piping, utilities, and any type of underground obstruction not indicated to be removed but discovered during scanning in locations to be traversed by piping, ducts, and other work to be conducted or installed. Any excavation requiring traffic detours shall require the Contractor to notify the Government three work days in advance. Contractor shall provide detour signage, barriers, markings, and traffic signal men as required by the Government.

1.11 SALVAGE MATERIAL AND EQUIPMENT

Items designated by the Government to be salvaged shall remain the property of the Government. The salvaged property shall be segregated, itemized, delivered, and off-loaded at the Government designated storage area located within the Glynco FLETC Campus.

Contractor shall maintain property control records for material or equipment designated as salvage. Contractor shall be responsible for

storage and protection of salvaged materials and equipment until disposition by the Government.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 20 00

PROJECT MEETINGS
**08/08**

PART 1 GENERAL

1.1 PRE-CONSTRUCTION MEETING:

Scheduled by the Government and conducted prior to issuance of Notice to Proceed.

1.1.1 Location

A site designated by the Government.

1.1.2 Mandatory Attendance

Government representatives, Contractor`s approved Quality Control Manager and Superintendent, major subcontractors, and FLETC Safety, Environmental and Security Representatives.

1.1.3 Agenda

The Contracting Officer will provide the agenda.

a. Distribution and discussion of:

1. List of major subcontractors and suppliers for approval.

2. Projected construction schedule.

b. Project Schedule and Critical work sequencing.

c. Major equipment deliveries and priorities.

d. Project coordination:

1. Designation of responsible personnel.

e. Procedures and processing for:

1. Field decisions, proposal requests, submittals, change orders, and applications for payment.

f. Adequacy of distribution of contract documents.

g. Procedures for maintaining record documents.

h. Temporary utilities.

1.2 PROGRESS MEETINGS

Refer to Section 01 45 00 for progress meetings.

Schedule routine weekly progress meetings or as otherwise required by the Government. Contractor shall schedule and administer periodic progress meetings and specially called meetings throughout the progress of the work.

a. Submit a meeting schedule at the pre construction meeting.

b. Prepare agenda for meeting.

c. Distribute written notice of each meeting four days in advance of meeting date.

d. Make physical arrangements for the meeting.

e. The QC Manager shall preside at meetings with assistance from the Superintendent.

f. Record the minutes; include all significant proceedings and decisions.

g. Produce and electronically distribute construction progress reports within three days after each meeting to:

1. All participants in the meeting;

2. All parties affected by decisions made at the meeting;

3. The Project Manager, Construction Representative, and the Contracting Officer.

4. Make corrections as required by the Government and redistribute the construction progress report.

Representatives of the Contractor, subcontractors, and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.

Government representatives may attend meetings to ascertain that work is expedited consistent with Contract Documents and the construction schedule.

1.2.1 Location of the Meetings

The project field office of the Contractor.

1.2.2 Attendance

Quality Control Manager, Superintendent, Safety Officer, subcontractors as appropriate to the agenda, suppliers as appropriate to the agenda and others. Government representatives include, but are not limited to, Construction Representative (ConRep), Project Manager (PM) and the Contracting Officer.

1.2.3 Suggested Agenda

a. Review and approval of the construction progress report of previous meeting.

b. Review of work progress since previous meeting.

c. Field observations, problems, and conflicts.

d. Problems which impede construction schedule.

e. Review of off site fabrication, delivery schedule.

f. Review of current project schedule. Corrective measures and procedures to regain projected schedule. Revisions to construction schedule. Planned progress and schedule during succeeding two week work period.

g. Review of submittal register and schedules.

h. Maintenance of quality standards.

i. Review proposed changes.

j. Review of Accident Prevention and Safety compliance measures.

k. Review of Requests For Information (RFI) and log.

l. Review of Contractor Construction Compliance Notices (CCCN) and rework log. Discussion of proposed Contractor corrective action plans for deficient work.

m. Review of testing and testing log.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 21 00

INVOICE AND PAYMENT PROCEDURES
**02/10**

PART 1 GENERAL

1.1 RELATED SECTIONS

Section 01 32 16.00 20 Construction Progress Documentation.

Section 01 33 00 Submittal Procedures.

Section 01 45 00 Construction Quality Control.

Section 01 78 00 Closeout Submittals.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

**Before any request for payment under this contract is approved the Contractor shall submit for and receive approval of all the following Preconstruction Submittals:**

Progress Schedule; G

Schedule of Prices; G

Certificates of Insurance

Bonds; G

Qualifications, Certifications, Resumes, and appointment Letters for Quality Control Manager, and Superintendent; G

List of Proposed Subcontractors and Suppliers; G

Submittal Register; G

Accident Prevention and Safety Plan; G

Quality control Plan; G

Environmental Management and Waste Management Plan; G

Indoor Air Quality (IAQ) Management Plan; G

See the related specification sections for a description of the submittal requirements.

## 1.3 SCHEDULE OF PRICES

### 1.3.1 Data Required

The schedule of prices will be formatted to include:

a. A separate line item for material and labor for each activity.

b. An amortized monthly cost for schedule preparation and updates (see Section 01 32 16.00 20).

c. An amortized monthly cost for the Quality Control Program.

d. A separate line item for bonds and insurance.

This contract requires the use of a cost-loaded Network Analysis Schedule. The information required for the Schedule of Prices will be entered as an integral part of the Network Analysis Schedule (NAS) and its Mathematical Analysis. Within a minimum of seven calendar days prior to the scheduled Preconstruction Conference, prepare and deliver to the Government a schedule of prices. Provide a detailed breakdown of the contract price, giving quantities for each of the various kinds of work, unit prices, and extended prices therefore. See Section 01 32 16.00 20 Construction Progress Documentation for detailed Schedule of Prices requirements.

## 1.4 INVOICING PROCEDURES

Prior to submission of a monthly progress payment request, the QC Manager and Superintendent shall examine work in place and provide to the Government's Construction Representative a preliminary listing of proposed percentages of completion and extended costs for all priced activities. Proposed percentages and extended costs will be promptly reviewed in a joint meeting with the Government, Superintendent, and Quality Control Manager for the purposes of establishing agreed upon percentages of completion and avoiding invoice rejections. The Government will note any required revisions and upon acceptance of the proposed figures, the Contractor may submit the progress payment request for payment processing. No invoicing changes shall be made after agreement to the preliminary percentages has occurred. Submission of a satisfactory monthly updated project schedule is a required condition to Government acceptance of a progress payment request.

Progress payments are based upon satisfactorily completed work. Upon verification of satisfactory work actually performed, receipt of a proper invoice and any required documentation and submittals, invoices will be processed for payment.

Payment requests will be returned to the contractor unapproved if the request for payment does not comply with this Section.

Payments required under the provisions of this contract will, at the discretion of the Government, be subject to reductions, deductions, and/or suspension permitted under the FAR and agency rules.

A 10 percent retainage will be withheld on each invoice once the total work in place equals or exceeds 85 percent of the total value of the contract. This retainage will continue to be withheld until all punch list work is accepted, work has been completed, and all close-out

documents accepted by the Government.

In addition, comply with Section G of the contract for other specific invoicing requirements.

1.5 CONTRACTOR'S INVOICE AND CONTRACT PERFORMANCE STATEMENT

1.5.1 Content of Progress Payment Invoices

Requests for payment will be processed in accordance with the Contract Clause "FAR 52.232-27, Prompt Payment Construction Contracts." The following documents shall accompany each payment request. Payment will not be made without the acceptable provision of the below. Submit original and two copies of all required documents to the FMD office and one copy to the PRO office.

a. Along with each request for progress payment the Contractor shall furnish the following certification. The Contractor's invoice shall be certified by the QC Manager and Superintendent.

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

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

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

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

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

_____

(Name) (Date)

_____

(Title- Superintendent)

_____

(Name) (Date)

_____

(Title- Quality Control Manager)

b. The Contract Performance Statement on the form FTC-FAC-70 furnished by the Government for this purpose, showing in detail, the estimated cost, percentage of completion, and value of completed performance. Submit original and two copies.

c. Final invoice shall be accompanied by Final Release Form. If the contractor is incorporated, the release shall contain the corporate seal. An officer of the corporation shall sign the release and the corporate secretary shall certify the release.

d. Updated progress schedule (color copies required on color coded

schedules), network diagram, schedule reports, sorts, narrative, and earnings report.

e. Certification that all payroll reports have been submitted to date.

f. Certification that record drawings are current and up to date.

g. Submit applicable documents attesting to description, value, quantity, and proof of payment for any stored materials.

1.5.2 Mailing of Invoices

a. All invoices shall be forwarded to the attention of FMD Project Manager Building 200 and PRO Contracting Officer Building 93 with specific marking on the envelope. This marking shall be in the front lower left hand corner, in large letters, "INVOICES - ENCLOSED." The contract name and number shall be clearly noted.

b. Invoices not completed in accordance with contract requirements will be returned to the Contractor for correction of the deficiencies.

c. Final invoices not accompanied by Final Release Form will be considered incomplete and will be returned to the Contractor.

1.6 PAYMENTS TO THE CONTRACTOR

Payments will be made on submission of itemized requests by the Contractor which comply with the requirements of this section, and will be subject to reduction for overpayments or increase for underpayments made on previous payments to the Contractor.

1.6.1 Payment for Materials Stored On Site

The Government may authorize payment for materials stored on site.

a. Basis for the Government's consideration to allow progress payment for material delivered on the site (but not installed) shall be (1) major high cost items and (2) long lead order items. Long lead materials and equipment are those products that have a demonstrated manufacturer production cycle of over 90 calendar days. Items that will not be paid for prior to installation include, but are not limited to, nails, fasteners, gypsum board, paint, masonry, ceiling grid and tile, wall coverings, doors and frames, door hardware, flooring, pipe and plumbing accessories, plumbing fixtures, ductwork, light fixtures, wire, conduits and electrical accessories, lumber, sealant, insulation, roofing, supplies, etc.

b. In the request for progress payment, such items shall be specifically identified in the Contractor's estimates of work submitted for the Government's approval in accordance with paragraph entitled "Schedule of Prices" above. At the time of invoicing, the amount billed shall be supported by documents establishing item description, quantity, value, and proof of payment for the stored item(s).

c. Any items anticipated by the Contractor to be billed as stored materials must be supported by the approved Schedule of Prices and have a separate designated labor and material cost breakdown in order to be considered by the Government for payment. Any authorized stored

materials payments will be limited to a maximum of 90% of the schedule material value as listed in the accepted Schedule of Prices. Revisions to the accepted schedule of prices are not allowed.

A separate list of all materials being invoiced shall be submitted with the invoice in the following format:

| MATERIAL ON SITE LAST ITEM | PERIOD | + | MATERIAL RECEIVED THIS PERIOD | - | MATERIAL CONSUMED THIS PERIOD | = | MATERIAL ON SITE |
|---|---|---|---|---|---|---|---|

d. The Contractor shall remain responsible for stored materials.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 32 16.00 20

CONSTRUCTION PROGRESS DOCUMENTATION
**11/09**

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction schedule; G

1.2 ACCEPTANCE

Prior to the start of work, prepare and submit to the Contracting Officer for acceptance a construction schedule in the form of a Network Analysis Schedule (NAS) in accordance with the terms in Contract Clause "FAR 52.236-15, Schedules for Construction Contracts," except as modified in this contract. Acceptance of an error free Baseline Schedule and updates is a condition precedent to processing the Contractor's pay request.

1.3 SCHEDULE FORMAT

1.3.1 Network Analysis Schedule (NAS)

The Contractor shall use the critical path method (CPM) to schedule and control project activities. Project schedules shall be prepared and maintained using Primavera P3, Primavera SureTrak, MS Project or current mandated scheduling program. Save files in Concentric P3 or current mandated scheduling program file format, compatible with the Governments version of the scheduling program. Importing data into P3/SureTrak/MS Project current mandated scheduling program using data conversion techniques or third party software will be cause for rejection of the submitted schedule. The schedule shall be built as follows:

The Project Schedule shall show submittals, government review periods, material/equipment delivery, utility outages, all on-site construction, inspection, testing, and closeout activities. Government and Contractor on-site work activities shall be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days.

With the exception of the Contract Award and End Contract milestone activities, no activities shall be open-ended; each activity shall have predecessor and successor ties.

Each activity shall be assigned its appropriate Responsibility Code indicating responsibility to accomplish the work indicated by the activity, Phase Code and Work Location Code.

Date/time constraint(s) and/or lags, other than those required by the contract, shall not be allowed unless accepted by the Contracting Officer. The Contractor shall include as the last activity in the contract

schedule, a milestone activity named "Contract Completion Date". The "Contract Completion Date" milestone shall have a "Mandatory Finish" constraint equal to the contract completion date.

1.3.1.1 NAS Submittals and Procedures

Submit all network analysis and updates in hard copy and on electronic media that is acceptable to the Contracting Officer. Submit an electronic back-up of the project schedule in an import format compatible with the governments scheduling program.

1.4 UPDATED SCHEDULES

Update the Construction schedule at monthly intervals or when the schedule has been revised. The updated schedule shall be kept current, reflecting actual activity progress and plan for completing the remaining work. Submit copies of purchase orders and confirmation of delivery dates as directed.

1.5 3-WEEK LOOK AHEAD SCHEDULE

The Contractor shall prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the Construction Schedule. The work plans shall be keyed to activity numbers when a NAS is required and updated each week to show the planned work for the current and following two-week period. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. The detail work plans are to be bar chart type schedules, maintained separately from the Construction Schedule on an electronic spreadsheet program and printed on 8 ½ by 11 sheets as directed by the Contracting Officer. Activities shall not exceed 5 working days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the work. Three hard copies and one electronic file of the 3-Week Look Ahead Schedule shall be delivered to the Contracting Officer no later than 8 a.m. each Monday and reviewed during the weekly CQC Coordination Meeting.

1.6 CORRESPONDENCE AND TEST REPORTS:

All correspondence (e.g., letters, Requests for Information (RFIs), e-mails, meeting minute items, Production and QC Daily Reports, material delivery tickets, photographs, etc.) shall reference Schedule activities that are being addressed. All test reports (e.g., concrete, soil compaction, weld, pressure, etc.) shall reference schedule activities that are being addressed.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 33 00

SUBMITTAL PROCEDURES
**02/11**

PART 1 GENERAL

Requirements of this Section apply to, and are component to, each section of the specifications.

The Government may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections.

Units of weights and measures used on all submittals are to be the same as those used in the contract drawings.

Each submittal is to be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

Contractor's Quality Control (CQC) System Manager to check and approve all items prior to submittal and stamp, sign, and date indicating action taken. Proposed deviations from the contract requirements are to be clearly identified. Include within submittals items such as: Contractor's, manufacturer's, or fabricator's drawings; descriptive literature including (but not limited to) catalog cuts, diagrams, operating charts or curves; test reports; test cylinders; samples; O&M manuals (including parts list); certifications; warranties; and other such required submittals.

Submittals requiring Government approval are to be scheduled and made prior to the acquisition of the material or equipment covered thereby.

Submittals required by the Government shall be distributed to the Architect of Record with a copy to the Government Project Manager. The Architect of Record will review and return submittals to the Contractor.

1.1 DEFINITIONS

1.1.1 Submittal Descriptions (SD)

Submittals requirements are specified in the technical sections. Submittals are identified by Submittal Description (SD) numbers and titles as follows:

SD-01 Preconstruction Submittals

Submittals which are required prior to start of construction (work) or commencing work on site.

Certificates of insurance

Surety bonds

Qualifications, Certifications, Resumes, and Appointment Letters for Quality Control Manager and Superintendent,

List of proposed subcontractors and suppliers,

Project Schedule,

Submittal Register (Status Log),

Schedule of prices,

Accident Prevention and Safety plan,

Quality Control(QC) plan,

Environmental Protection and Waste Management plan,

SD-02 Shop Drawings

Drawings, diagrams and schedules specifically prepared to illustrate some portion of the work.

Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.

Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.

Samples of warranty language when the contract requires extended product warranties.

SD-04 Samples

Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.

Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.

Field samples and mock-ups constructed on the project site establish standards by which the ensuring work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of contract award for the project.)

Report which includes findings of a test required to be performed by

the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports.

Daily logs and checklists.

Final acceptance test and operational test procedure.

SD-07 Certificates

Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a manufacturer, supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

Confined space entry permits.

Text of posted operating instructions.

SD-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data sheets concerning impedances, hazards and safety precautions.

SD-10 Operation and Maintenance Data

Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance and repair of the item.

This data is intended to be incorporated in an operations and maintenance manual or control system.

SD-11 Closeout Submittals

Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.

Special requirements necessary to properly close out a construction contract. For example, Record Drawings and as-built drawings. Also, submittal requirements necessary to properly close out a major phase of construction on a multi-phase contract.

1.1.2 Approving Authority

Office or designated person authorized to approve submittal.

1.1.3 Work

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

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor QC approval and shall be provided to the Government for information purposes. See the information herein for the requirements of "Information Only" submittals. Submit the following in accordance with this Section.

SD-01 Preconstruction Submittals

**These submittals are to be made a minimum of seven (7) days prior to the scheduled Preconstruction Conference and require Government approval prior to Notice To Proceed and work commencement on site.**
See the related Division 1 specification sections such as Quality Control, Project Schedule, Environmental Controls/Management, Waste Management, Safety Requirements:

Certificates of insurance, G
Surety bonds, G
Qualifications, Certifications, Resumes, and Appointment Letters for Quality Control Manager and Superintendent, G
List of proposed subcontractors and suppliers, G
Project Schedule, G
Submittal Register (Status Log), G
Schedule of Prices, G
Accident Prevention and Safety plan, G
Quality Control (QC) plan, G
Environmental Protection and Waste Management plan, G
Indoor Air Quality Management Plan; G

1.3 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.3.1 Government Approved

Submittal is required in accordance with all contract requirements and prior to fabrication, delivery, and start of any related work activity. The Government reserves the right to suspend work activities initiated without approved submittals. As a minimum, Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the specifications. Government approval is required for any deviations from the Solicitation or Accepted Proposal and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

1.3.2 Information Only

Submittals not requiring Government approval will be for information only. Submit information only submittals in the same quantities required for Government Approved "G" submittals. Submittal is required in accordance with all contract requirements and prior to fabrication, delivery, and start of any related work activity. The Government reserves the right to suspend work activities initiated without Government receipt of QC Manager approved information only submittals. Submittals for information only may not be returned. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to furnish material conforming to the plans and specifications; will not prevent the Government from requiring removal and replacement of nonconforming material incorporated in the work; and does not relieve the Contractor of the requirement to furnish samples for testing by the Government laboratory or for check testing by the Government in those instances where the technical specifications so prescribe. Information only submittals are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

1.4 FORWARDING SUBMITTALS REQUIRING GOVERNMENT APPROVAL

1.4.1 Submittals Required from the Contractor

As soon as practicable after award of contract, and before procurement of fabrication, forward to the FMD Project Manager submittals required in the technical sections of this specification, including shop drawings, product data and samples. One copy of the transmittal form for all submittals shall be forwarded to the Contracting Officer.

The Architect-Engineer (A/E) for this project will review stamp submittals to verify submittals comply with the contract requirements. A/E review comments will be provided to the Government for final submittal action. All SD-01 through SD-08, SD-13 through SD-15, and SD-18 shall be submitted and approved before 50 percent the contract performance period has expired.

1.4.1.1 O&M Data

The Architect-Engineer for this project will review and the Government will approve O&M Data to verify the submittals comply with the contract requirements; submit data specified for a given item within 30 calendar days after the item is delivered to the contract site.

In the event the Contractor fails to deliver O&M Data within the time limits specified, the Government Officer may withhold from progress payments 50 percent of the price of the item with which such O&M Data are applicable.

1.5 PREPARATION

1.5.1 Transmittal Form

Transmit each submittal, except sample installations and sample panels to the FMD Project Manager. Transmit each copy of the submittal in the format of the Agency sample transmittal form FTC-FMD-74 furnished by the Government. On the transmittal form identify Contractor, indicate date of submittal, and include information prescribed by transmittal form and

required in paragraph entitled "Identifying Submittals." Process transmittal forms to record actions regarding sample mock-ups, installations, panels.

Use the furnished sample transmittal form for submitting both Government approved and information only submittals. Properly complete this form by filling out all the heading blank spaces and identifying each item submitted by section, submittal description (SD) number, and paragraph reference number. Exercise special care to ensure proper listing of the specification paragraph and sheet number of the contract drawings pertinent to the data submitted for each item. Assign each submittal a transmittal number.

1.5.2 Identifying Submittals

When submittals are provided by a lower tier contractor the Prime Contractor is to prepare, review and stamp with Contractor's approval all specified submittals prior to submitting for Government approval.

Identify submittals, except sample installations and sample panels, with the following information permanently adhered to or noted on each separate component of each submittal and noted on transmittal form. Mark each copy of each submittal identically, with the following:

a. Project title and location.

b. Construction contract number.

c. Date of the drawings and revisions.

d. Name, address, and telephone number of subcontractor, supplier, manufacturer and any other subcontractor associated with the submittal.

e. Section number of the specification section by which submittal is required.

f. Submittal description (SD) number of each component of submittal.

g. When a resubmission, add alphabetic suffix on submittal description, for example, submittal 18 would become 18A, to indicate resubmission.

h. Product identification and location in project.

i. Quality Control Manager's certification stamp.

1.5.3 Format for SD-02 Shop Drawings

a. Shop drawings are not to be less than 8 1/2 by 11 inches nor more than 30 by 42 inches, except for full size patterns or templates. Prepare drawings to accurate size, with scale indicated, unless other form is required. Drawings are to be suitable for reproduction and be of a quality to produce clear, distinct lines and letters with dark lines on a white background.

b. Present 8 1/2 by 11 inches sized shop drawings as part of the bound volume for submittals required by section. Present larger drawings in sets.

c. Include on each drawing the drawing title, number, date, and revision

numbers and dates, in addition to information required in paragraph entitled "Identifying Submittals."

d. Number drawings in a logical sequence. Each drawing is to bear the number of the submittal in a uniform location adjacent to the title block. Place the Government contract number in the margin, immediately below the title block, for each drawing.

e. Reserve a blank space on the right hand side of each sheet for the A/E and Government disposition stamp.

f. Dimension drawings, except diagrams and schematic drawings; prepare drawings demonstrating interface with other trades to scale. Use the same unit of measure for shop drawings as indicated on the contract drawings. Identify materials and products for work shown.

g. Include the nameplate data, size and capacity on drawings. Also include applicable federal, military, industry and technical society publication references.

h. Reproductions of the contract drawings will not be accepted as shop drawings. Such submittals will be rejected.

1.5.4 Format of SD-03 Product Data and SD-08 Manufacturer's Instructions

a. Present product data submittals for each section as a complete, bound volume. Include table of contents, listing page and catalog item numbers for product data.

b. Indicate, by prominent notation, each product which is being submitted; indicate specification section number and paragraph number to which it pertains.

c. Supplement product data with material prepared for project to satisfy submittal requirements for which product data does not exist. Identify this material as developed specifically for project, with information and format as required for submission of SD-07 Certificates.

d. Provide product data in English dimensions.

e. Include the manufacturer's name, trade name, place of manufacture, and catalog model or number on product data. Also include applicable federal, military, industry and technical society publication references. Should manufacturer's data require supplemental information for clarification, submit as specified for SD-07 Certificates.

f. Where equipment or materials are specified to conform to industry and technical society reference standards of the organizations such as American National Standards Institute (ANSI), ASTM International (ASTM), National Electrical Manufacturer's Association (NEMA), Underwriters Laboratories (UL), and Association of Edison Illuminating Companies (AEIC), submit proof of such compliance. The label or listing by the specified organization will be acceptable evidence of compliance. In lieu of the label or listing, submit a certificate from an independent testing organization, competent to perform testing, and approved by the Contracting Officer. State on the certificate that the item has been tested in accordance with the specified organization's test methods and that the item complies with the specified organization's reference standard.

g. Collect required data submittals for each specific material, product, unit of work, or system into a single submittal and marked for choices, options, and portions applicable to the submittal. Mark each copy of the product data identically. Partial submittals will not be accepted for expedition of construction effort.

h. Submit manufacturer's instructions with product data.

1.5.5 Format of SD-04 Samples

a. Furnish samples in sizes below, unless otherwise specified or unless the manufacturer has prepackaged samples of approximately same size as specified:

(1) Sample of Equipment or Device: Full size.

(2) Sample of Materials Less Than 2 by 3 inches: Built up to 8 1/2 by 11 inches.

(3) Sample of Materials Exceeding 8 1/2 by 11 inches: Cut down to 8 1/2 by 11 inches and adequate to indicate color, texture, and material variations.

(4) Sample of Linear Devices or Materials: 10 inch length or length to be supplied, if less than 10 inches. Examples of linear devices or materials are conduit and handrails.

(5) Sample of Non-Solid Materials: Pint. Examples of non-solid materials are sand and paint.

(6) Color Selection Samples: 2 by 4 inches. Where samples are specified for selection of color, finish, pattern, or texture, submit the full set of available choices for the material or product specified. Sizes and quantities of samples are to represent their respective standard unit.

(7) Sample Panel: 4 by 4 feet.

(8) Sample Installation: 100 square feet.

b. Samples Showing Range of Variation: Where variations in color, finish, pattern, or texture are unavoidable due to nature of the materials, submit sets of samples of not less than three units showing extremes and middle of range. Mark each unit to describe its relation to the range of the variation.

c. Reusable Samples: Incorporate returned samples into work only if so specified or indicated.Incorporated samples are to be in undamaged condition at time of use.

d. Recording of Sample Installation: Note and preserve the notation of area constituting sample installation but remove notation at final clean up of project.

e. When color, texture or pattern is specified by naming a particular manufacturer and style, include one sample of that manufacturer and style, for comparison.

1.5.6 Format of SD-05 Design Data and SD-07 Certificates

Provide design data and certificates on 8 1/2 by 11 inches paper. Provide a bound volume for submittals containing numerous pages.

1.5.7 Format of SD-06 Test Reports and SD-09 Manufacturer's Field Reports

a. Provide reports on 8 1/2 by 11 inches paper in a complete bound volume.

b. Indicate by prominent notation, each report in the submittal. Indicate specification number and paragraph number to which it pertains.

1.5.8 Format of SD-10 Operation and Maintenance Data (O&M)

Comply with the requirements specified in Section 01 78 20 OPERATION AND MAINTENANCE DATA for O&M Data format.

1.5.9 Format of SD-01 Preconstruction Submittals and SD-11 Closeout Submittals

a. When submittal includes a document which is to be used in project or become part of project record, other than as a submittal, do not apply Contractor's approval stamp to document, but to a separate sheet accompanying document.

b. Provide all dimensions in administrative submittals in English units.

1.6 QUANTITY OF SUBMITTALS

Provide six copies of submittals when a number of submittal copies are not otherwise identified.

1.6.1 Number of Samples SD-04 Samples

a. Submit three samples or sets of samples showing range of variation, of each required item. Two approved samples or sets of samples will be retained by approving authority and one will be returned to Contractor.

b. Submit one sample panel or provide one sample installation where directed. Include components listed in technical section or as directed.

c. Submit one sample installation, where directed.

d. Submit three samples of non-solid materials.

1.6.2 Number of Copies SD-06 Test Reports and SD-09 Manufacturer's Field Reports

Submit in compliance with quantity and quality requirements specified for shop drawings other than field test results that will be submitted with QC reports.

1.6.3 Number of Copies of SD-10 Operation and Maintenance Data

Submit four copies of O&M Data to the Government for review and approval.

1.6.4 Number of Copies SD-11 Closeout Submittals

Unless otherwise specified, submit six sets of Close-Out submittals.

1.7 VARIATIONS / SUBSTITUTION REQUESTS

Variations from contract requirements require Government approval pursuant to contract Clause FAR 52.236-21 and will be considered when advantageous to Government.

1.7.1 Considering Variations

Discussion with FMD Project Manager prior to submission, will help ensure functional and quality requirements are met and minimize rejections and re-submittals.

Specifically point out variations from contract requirements in transmittal letters. Failure to point out deviations may result in the Government requiring rejection and removal of such work at no additional cost to the Government.

1.7.2 Proposing Variations

When proposing variation, deliver written request to the Government, with documentation of the nature and features of the variation and why the variation is desirable and beneficial to Government. If lower cost is a benefit, also include an estimate of the cost savings. In addition to documentation required for variation, include the submittals required for the item. Clearly mark the proposed variation in all documentation.

1.7.3 Warranting That Variations Are Compatible

When delivering a variation for approval, Contractor warrants that this contract has been reviewed to establish that the variation, if incorporated, will be compatible with other elements of work.

1.7.4 Variations Review Schedule

In addition to normal submittal review period, a minimum period of 15 working days will be allowed for consideration by the Government of submittals with variations.

1.8 SUBMITTAL REGISTER

Prepare and maintain submittal register, as the work progresses. The Government may provide a baseline submittal register attached within this Section or in Section J. This list may not be all inclusive and additional submittals may be required. In the absence of a Government furnished submittal register, the Contractor shall provide a submittal register organized by specification Section and Division and as required by this Section. The register shall include a complete listing of ALL submittals required by the contract documents. This includes Government approved, For Information Only (Contractor approved), administrative, product, shop drawing, samples, statements, test reports, certifications, and all other submittals without exception. Format as follows:

Column (a): Activity number.

Column (b): Transmittal number.

Column (c): Lists specification section in which submittal is required.

Column (d): Lists each submittal description (SD No. and type, e.g. SD-02 Shop Drawings) required in each specification section.

Column (e): Lists one principal paragraph in specification section where a material or product is specified. This listing is only to facilitate locating submitted requirements. Do not consider entries in column (e) as limiting project requirements.

Column (f): Indicate approving authority for each submittal.

CONTRACTOR SCHEDULE DATES:

Column (g): Contractor submittal date.

Column (h): Approval needed date.

Column (i): Material needed date.

CONTRACTOR ACTION:

Column (j): Action code.

Column (k): Date of action.

APPROVING AUTHORITY:

Column (l): Date received by approving authority.

Column (m): Date forwarded to A/E.

Column (n): Date received back form A/E.

Column (o): Approving authority action code.

Column (p): Date of action.

Column (q): Date mailed to Contractor or Date received from approving authority.

Column (r): Remarks

The Contractor is to track all submittals by maintaining a complete list, including completion of all data columns, including dates on which submittals are received and returned by the Government.

The Contractor is required to complete the submittal register and submit it to the Government for approval no later than seven days prior to the Preconstruction Conference. The approved submittal register will serve as a scheduling document for submittals and will be used to control submittal actions throughout the contract period. Coordinate the submit dates and need dates with dates in the Contractor prepared progress schedule. Submit monthly or until all submittals have been satisfactorily completed, updates to the submittal register showing the Contractor action codes and actual dates with Government action codes. Revise the submittal register when the progress schedule is revised and submit both for approval.

1.8.1 Use of Submittal Register

Submit submittal register with QC plan and project schedule. Verify that all submittals required for project are listed and add missing submittals. Coordinate and complete the following fields on the register submitted with the QC plan and the project schedule:

Column (a) Activity Number: Activity number from the project schedule.

Column (g) Contractor Submit Date: Scheduled date for approving authority to receive submittals.

Column (h) Contractor Approval Date: Date Contractor needs approval of submittal.

Column (i) Contractor Material: Date that Contractor needs material delivered to Contractor control.

1.8.2 Contractor Use of Submittal Register

Update the following fields with each submittal throughout contract.

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (j) Action Code (k): Date of action used to record Contractor's review when forwarding submittals to QC Manager.

Column (q) List date approval received.

1.8.3 Approving Authority Use of Submittal Register

Update the following fields.

Column (b) Transmittal Number: Contractor assigned list of consecutive numbers.

Column (l) List date of submittal receipt.

Column (m) through (p) List Date related to review actions.

Column (q) List date returned to Contractor.

1.8.4 Contractor Action Code and Action Code

Entries for columns (j) and (o), are to be used are as follows:

NR - Not Received

AN - Approved as noted

A - Approved

RR - Disapproved, Revise, and Resubmit

1.8.5 Copies Delivered to the Government

Deliver one copy of submittal register updated by Contractor to Government with each invoice request.

1.9 SCHEDULING

**All SD-01 through SD-08, SD-13 through SD-15, and SD-18 shall be submitted and approved by approving authority before 50 percent the contract performance period has expired.**

Schedule and submit concurrently submittals covering component items forming a system or items that are interrelated. Include certifications to be submitted with the pertinent drawings at the same time. No delay damages or time extensions will be allowed for time lost in late submittals.

a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential resubmittal of requirements.

b. Submittals called for by the contract documents will be listed on the register. If a submittal is called for but does not pertain to the contract work, the Contractor is to include the submittal in the register and annotate it "N/A" with a brief explanation. Approval by the Government does not relieve the Contractor of supplying submittals required by the contract documents but which have been omitted from the register or marked "N/A".

c. Re-submit register and annotate monthly by the Contractor with actual submission and approval dates. When all items on the register have been fully approved, no further re-submittal is required.

d. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

e. Except as specified otherwise, allow review period, beginning with receipt by approving authority, that includes at least 15 working days for submittals for QC Manager approval and 20 working days for submittals for Government approval. Period of review for submittals with Government approval begins when Government receives submittal from QC organization.

f. For submittals requiring review by fire protection engineer, allow review period, beginning when Government receives submittal from QC organization, of 30 working days for return of submittal to the Contractor.

g. Period of review for each resubmittal is the same as for initial submittal.

h. Within seven calendar days before the Preconstruction conference provide, for approval by the Government, the following schedule of submittals:

    a. A schedule of shop drawings and technical submittals required by the specifications and drawings. Indicate the specification or

drawing reference requiring the submittal; the material, item, or process for which the submittal is required; the "SD" number and identifying title of the submittal; the Contractor's anticipated submission date and the approval need date.

b. A separate schedule of other submittals required under the contract but not listed in the specifications or drawings. Schedule will indicate the contract requirement reference; the type or title of the submittal; the Contractor's anticipated submission date and the approved need date (if approval is required).

1.9.1 Reviewing, Certifying, Approving Authority

The QC organization is responsible for reviewing and certifying that submittals are in compliance with contract requirements. Approving authority on submittals is the QC Manager unless otherwise specified for specific submittal. At each "Submittal" paragraph in individual specification sections, a notation "G," following a submittal item, indicates Government is approving authority for that submittal item.

1.9.2 Constraints

a. Conform to provisions of this section, unless explicitly stated otherwise for submittals listed or specified in this contract.

b. Submit complete submittals for each definable feature of work. Submit at the same time components of definable feature interrelated as a system.

c. When acceptability of a submittal is dependent on conditions, items, or materials included in separate subsequent submittals, submittal will be returned without review.

d. Approval of a separate material, product, or component does not imply approval of assembly in which item functions.

1.9.3 QC Organization Responsibilities

It is the responsibility of the QC manager to coordinate all submittals with subcontractors, manufacturers, suppliers, etc. to insure all submittals are complete and represent entire systems where multiple subcontractors, supplier, etc. combine to make up an operating system.

a. Note date on which submittal was received from Contractor on each submittal.

b. Review each submittal; and check and coordinate each submittal with requirements of work and contract documents.

c. Review submittals for conformance with project design concepts and compliance with contract documents.

d. Act on submittals, determining appropriate action based on QC organization's review of submittal.

(1) When QC Manager is approving authority, take appropriate action on submittal from the possible actions defined in paragraph entitled, "Actions Possible."

(2) When Government is approving authority or when variation has been proposed, forward submittal to Government with certifying statement or return submittal marked "not reviewed" or "revise and resubmit" as appropriate. The QC organization's review of submittal determines appropriate action.

e. Ensure that material is clearly legible. Submittals containing illegible materials will be entirely rejected.

f. Stamp each sheet of each submittal with QC certifying statement or approving statement, except that data submitted in bound volume or on one sheet printed on two sides may be stamped on the front of the first sheet only.

(1) When approving authority is Government, QC organization will certify submittals forwarded to Contracting Officer with the following certifying statement:

"I hereby certify that the equipment, material, article shown and marked in this submittal is that proposed to be incorporated with contract Number_____, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is submitted for Government approval.

Certified by Submittal Reviewer_____, Date _____
(Signature when applicable)

Certified by QC Manager_____, Date_____"
(Signature)

(2) When approving authority is QC Manager, QC Manager will use the following approval statement when returning submittals to Contractor as "Approved" or "Approved as Noted."

"I hereby certify that the material, equipment, article shown and marked in this submittal and proposed to be incorporated with contract Number_____, is in compliance with the contract drawings and specification, can be installed in the allocated spaces, and is approved for use.

Certified by Submittal Reviewer_____, Date _____
(Signature when applicable)

Approved by QC Manager_____, Date_____"
(Signature)

g. Sign certifying statement or approval statement. The QC Manager is the person signing certifying statements. The use of original ink for signatures is required. Stamped signatures are not acceptable.

h. Update submittal register as submittal actions occur and maintain the submittal register at project site until final acceptance of all work by Government.

i. Retain a copy of approved submittals at project site, including Contractor's copy of approved samples.

1.10 GOVERNMENT APPROVING AUTHORITY

When approving authority is the Government, the Government will:

a. Note date on which submittal was received from QC Manager.

b. Review submittals for approval within scheduling period specified and only for conformance with project design concepts and compliance with contract documents.

c. Identify returned submittals with one of the actions defined in paragraph entitled "Review Notations" and with markings appropriate for action indicated.

Four copies of approved submittals will be retained by the Government and the remaining copies of the submittal will be returned to the Contractor.

1.10.1 Review Notations

Submittals will be returned with the following notations:

a. Submittals marked "approved" authorize the Contractor to proceed with the work covered.

b. Submittals marked "approved as noted" "or approved except as noted, resubmittal not required," authorize the Contractor to proceed with the work covered provided he takes no exception to the corrections.

c. Submittals marked "not approved" or "disapproved," or "revise and resubmit," indicate noncompliance with the contract requirements or design concept, or that submittal is incomplete. Resubmit with appropriate changes. No work shall proceed for this item until resubmittal is approved.

d. Submittals marked "not reviewed" will indicate submittal has been previously reviewed and approved, is not required , does not have evidence of being reviewed and approved by Contractor, or is not complete. A submittal marked "not reviewed" will be returned with an explanation of the reason it is not reviewed. Resubmit submittals returned for lack of review by Contractor or for being incomplete, with appropriate action, coordination, or change.

1.11 DISAPPROVED OR REJECTED SUBMITTALS

Contractor shall make corrections required by the Government. If the Contractor considers any correction or notation on the returned submittals to constitute a change to the contract drawings or specifications; notice as required under the clause entitled, "Changes" is to be given to the Contracting Officer. Contractor is responsible for the dimensions and design of connection details and construction of work. Failure to point out deviations may result in the Government requiring rejection and removal of such work at the Contractor's expense.

If changes are necessary to submittals, the Contractor shall make such revisions and submission of the submittals in accordance with the procedures above. No item of work requiring a submittal change is to be accomplished until the changed submittals are approved.

1.12 APPROVED SUBMITTALS

The Government's approval or acceptance of submittals is not be construed as a complete check. Approval or acceptance will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for verification of dimensions and the compliant construction of all work. After submittals have been approved or accepted by the Government, no resubmittal for the purpose of substituting materials or equipment will be considered unless accompanied by an explanation of why a substitution is necessary.

1.13 APPROVED SAMPLES

Approval of a sample is not to be construed to change or modify any contract requirements. Before submitting samples, the Contractor is to assure that the materials or equipment will be available in quantities required in the project.No substitution will be permitted after a sample has been approved.

Match the approved samples for Materials and equipment incorporated in the work.

Failure of any materials to pass the specified tests will be sufficient cause for refusal to consider, under this contract, any further samples of the same brand or make of that material. Government reserves the right to disapprove any material or equipment which previously has proved unsatisfactory in service.

Samples of various materials or equipment delivered on the site or in place may be taken by the Government for testing. Samples failing to meet contract requirements will automatically void previous approvals. Contractor to replace such materials or equipment to meet contract requirements.

Approval of the Contractor's samples by the Government does not relieve the Contractor of his responsibilities under the contract.

1.14 WITHHOLDING OF PAYMENT

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

1.15 STAMPS

Stamps used by the Contractor on the submittal data to certify that the submittal meets contract requirements is to be similar to the following:

| CONTRACTOR |
| --- |
| (Firm Name) |
| _____Approved |
| _____Approved with corrections as noted on submittal data and/or attached sheets(s) |
| SIGNATURE: _____ |
| TITLE: Quality Control Manager |
| DATE: _____ |

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

SECTION 01 35 26

GOVERNMENTAL SAFETY REQUIREMENTS
**11/15**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)

| | |
|---|---|
| ASSE/SAFE A10.34 | (2001; R 2012) Protection of the Public on or Adjacent to Construction Sites |
| ASSE/SAFE A10.44 | (2014) Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations |
| ASSE/SAFE Z244.1 | (2003; R 2014) Control of Hazardous Energy Lockout/Tagout and Alternative Methods |
| ASSE/SAFE Z359.0 | (2012) Definitions and Nomenclature Used for Fall Protection and Fall Arrest |
| ASSE/SAFE Z359.1 | (2007) Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components |
| ASSE/SAFE Z359.11 | (2014) Safety Requirements for Full Body Harnesses |
| ASSE/SAFE Z359.12 | (2009) Connecting Components for Personal Fall Arrest Systems |
| ASSE/SAFE Z359.13 | (2013) Personal Energy Absorbers and Energy Absorbing Lanyards |
| ASSE/SAFE Z359.14 | (2014) Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems |
| ASSE/SAFE Z359.15 | (2014) Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems |
| ASSE/SAFE Z359.2 | (2007) Minimum Requirements for a Comprehensive Managed Fall Protection Program |
| ASSE/SAFE Z359.3 | (2007) Safety Requirements for Positioning and Travel Restraint Systems |
| ASSE/SAFE Z359.4 | (2013) Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems and Components |

| | |
|---|---|
| ASSE/SAFE Z359.6 | (2009) Specifications and Design Requirements for Active Fall Protection Systems |
| ASSE/SAFE Z359.7 | (2011) Qualification and Verification Testing of Fall Protection Products |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM F855 | (2015) Standard Specifications for Temporary Protective Grounds to Be Used on De-energized Electric Power Lines and Equipment |

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

| | |
|---|---|
| IEEE 1048 | (2003) Guide for Protective Grounding of Power Lines |
| IEEE C2 | (2012; Errata 1 2012; INT 1-4 2012; Errata 2 2013; INT 5-7 2013; INT 8-10 2014; INT 11 2015) National Electrical Safety Code |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 241 | (2013; Errata 2015) Standard for Safeguarding Construction,Alteration, and Demolition Operations |
| NFPA 51B | (2014) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work |
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |
| NFPA 70E | (2015; ERTA 1 2015) Standard for Electrical Safety in the Workplace |

U.S. ARMY CORPS OF ENGINEERS (USACE)

| | |
|---|---|
| EM 385-1-1 | (2014) Safety and Health Requirements Manual |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 29 CFR 1910 | Occupational Safety and Health Standards |
| 29 CFR 1910.147 | Control of Hazardous Energy (Lock Out/Tag Out) |
| 29 CFR 1910.333 | Selection and Use of Work Practices |
| 29 CFR 1915.89 | Control of Hazardous Energy (Lockout/Tags-Plus) |
| 29 CFR 1926 | Safety and Health Regulations for |

Construction

29 CFR 1926.500 Fall Protection

1.2 DEFINITIONS

1.2.1 Competent Person (CP)

The CP is a person designated in writing, who, through training, knowledge and experience, is capable of identifying, evaluating, and addressing existing and predictable hazards in the working environment or working conditions that are dangerous to personnel, and who has authorization to take prompt corrective measures with regards to such hazards.

1.2.2 Competent Person, Confined Space

The CP, Confined Space, is a person meeting the competent person requirements as defined EM 385-1-1 Appendix Q, with thorough knowledge of OSHA's Confined Space Standard, 29 CFR 1910.146, and designated in writing to be responsible for the immediate supervision, implementation and monitoring of the confined space program, who through training, knowledge and experience in confined space entry is capable of identifying, evaluating and addressing existing and potential confined space hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.3 Competent Person, Cranes and Rigging

The CP, Cranes and Rigging, as defined in EM 385-1-1 Appendix Q, is a person meeting the competent person, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the Crane and Rigging Program, who through training, knowledge and experience in crane and rigging is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.4 Competent Person, Excavation/Trenching

A CP, Excavation/Trenching, is a person meeting the competent person requirements as defined in EM 385-1-1 Appendix Q and 29 CFR 1926, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the excavation/trenching program, who through training, knowledge and experience in excavation/trenching is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.5 Competent Person, Fall Protection

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

1.2.6 Competent Person, Scaffolding

The CP, Scaffolding is a person meeting the competent person requirements in EM 385-1-1 Appendix Q, and designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the scaffolding program. The CP for Scaffolding has enough training, knowledge and experience in scaffolding to correctly identify, evaluate and address existing and potential hazards and also has the authority to take prompt corrective measures with regard to these hazards. CP qualifications must be documented and include experience on the specific scaffolding systems/types being used, assessment of the base material that the scaffold will be erected upon, load calculations for materials and personnel, and erection and dismantling. The CP for scaffolding must have a documented, minimum of 8-hours of scaffold training to include training on the specific type of scaffold being used (e.g. mast-climbing, adjustable, tubular frame), in accordance with EM 385-1-1 Section 22.B.02.

1.2.7 Competent Person (CP) Trainer

A competent person trainer as defined in EM 385-1-1 Appendix Q, who is qualified in the material presented, and who possesses a working knowledge of applicable technical regulations, standards, equipment and systems related to the subject matter on which they are training Competent Persons. A competent person trainer must be familiar with the typical hazards and the equipment used in the industry they are instructing. The training provided by the competent person trainer must be appropriate to that specific industry. The competent person trainer must evaluate the knowledge and skills of the competent persons as part of the training process.

1.2.8 High Risk Activities

High Risk Activities are activities that involve work at heights, crane and rigging, excavations and trenching, scaffolding, electrical work, and confined space entry.

1.2.9 High Visibility Accident

A High Visibility Accident is any mishap which may generate publicity or high visibility.

1.2.10 Load Handling Equipment (LHE)

LHE is a term used to describe cranes, hoists and all other hoisting equipment (hoisting equipment means equipment, including crane, derricks, hoists and power operated equipment used with rigging to raise, lower or horizontally move a load).

1.2.11 Medical Treatment

Medical Treatment is treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

1.2.12 Near Miss

A Near Miss is a mishap resulting in no personal injury and zero property damage, but given a shift in time or position, damage or injury may have

occurred (e.g., a worker falls off a scaffold and is not injured; a crane swings around to move the load and narrowly misses a parked vehicle).

1.2.13 Operating Envelope

The Operating Envelope is the area surrounding any crane or load handling equipment. Inside this "envelope" is the crane, the operator, riggers and crane walkers, other personnel involved in the operation, rigging gear between the hook, the load, the crane's supporting structure (i.e. ground or rail), the load's rigging path, the lift and rigging procedure.

1.2.14 Qualified Person (QP)

The QP is a person designated in writing, who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems related to the subject matter, the work, or the project.

1.2.15 Qualified Person, Fall Protection (QP for FP)

A QP for FP is a person meeting the requirements of EM 385-1-1 Appendix Q, and ASSE/SAFE Z359.0, with a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, and evaluating and specifying fall protection and rescue systems.

1.2.16 Recordable Injuries or Illnesses

Recordable Injuries or Illnesses are any work-related injury or illness that results in:

a. Death, regardless of the time between the injury and death, or the length of the illness;

b. Days away from work (any time lost after day of injury/illness onset);

c. Restricted work;

d. Transfer to another job;

e. Medical treatment beyond first aid;

f. Loss of consciousness; or

g. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (a) through (f) above.

1.2.17 USACE Property and Equipment

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

1.2.18 Load Handling Equipment (LHE) Accident or Load Handling Equipment Mishap

A LHE accident occurs when any one or more of the eight elements in the

operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents, even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, or roll over). Document any mishap that meets the criteria described in the Contractor Significant Incident Report (CSIR) using the NAVFAC prescribed Navy Crane Center (NCC) form.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G

SD-06 Test Reports

Monthly Exposure Reports

Notifications and Reports

Accident Reports; G

LHE Inspection Reports

SD-07 Certificates

Contractor Safety Self-Evaluation Checklist

Standard Lift Plan; G

Activity Hazard Analysis (AHA)

Hot Work Permit

Certificate of Compliance

1.4 MONTHLY EXPOSURE REPORTS

Provide a Monthly Exposure Report and attach to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both Prime and subcontractor. Failure to submit the report may result in retention of up to 10 percent of the voucher.

1.5 CONTRACTOR SAFETY SELF-EVALUATION CHECKLIST

Contracting Officer will provide a "Contractor Safety Self-Evaluation checklist" to the Contractor at the pre-construction conference. Complete

the checklist monthly and submit with each request for payment voucher. An acceptable score of 90 or greater is required. Failure to submit the completed safety self-evaluation checklist or achieve a score of at least 90 may result in retention of up to 10 percent of the voucher.

1.6 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, comply with the most recent edition of USACE EM 385-1-1, and the applicable federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

1.7 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

1.7.1 Personnel Qualifications

1.7.1.1 Site Safety and Health Officer (SSHO)

Provide a Safety oversight team that includes a minimum of one (1) person at each project site to function as the Site Safety and Health Officer (SSHO). The SSHO or an equally-qualified Alternate SSHO must be at the work site at all times to implement and administer the Contractor's safety program and government-accepted Accident Prevention Plan. The SSHO and Alternate SSHO must have the required training, experience, and qualifications in accordance with EM 385-1-1 Section 01.A.17, and all associated sub-paragraphs.

If the SSHO is off-site for a period longer than 24 hours, an equally-qualified alternate SSHO must be provided and must fulfill the same roles and responsibilities as the primary SSHO. When the SSHO is temporarily (up to 24 hours) off-site, a Designated Representative (DR), as identified in the AHA may be used in lieu of an Alternate SSHO, and must be on the project site at all times when work is being performed. Note that the DR is a collateral duty safety position, with safety duties in addition to their full time occupation.

1.7.1.2 Contractor Quality Control (QC) Manager:

The Contractor Quality Control Manager can be the SSHO on this project.

1.7.1.3 Competent Person Qualifications

Provide Competent Persons in accordance with EM 385-1-1, Appendix Q and herein. Competent Persons for high risk activities include confined space, cranes and rigging, excavation/trenching, fall protection, and electrical work. The CP for these activities must be designated in writing, and meet the requirements for the specific activity (i.e. competent person, fall protection).

The Competent Person identified in the Contractor's Safety and Health Program and accepted Accident Prevention Plan, must be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. Provide the credentials of the Competent Persons(s) to the the Contracting Officer for information in consultation with the Safety Office.

1.7.1.3.1 Competent Person for Confined Space Entry

Provide a Confined Space (CP) Competent Person who meets the requirements of EM 385-1-1, Appendix Q, and herein. The CP for Confined Space Entry must supervise the entry into each confined space.

1.7.1.3.2 Competent Person for Scaffolding

Provide a Competent Person for Scaffolding who meets the requirements of EM 385-1-1, Section 22.B.02 and herein.

1.7.1.3.3 Competent Person for Fall Protection

Provide a Competent Person for Fall Protection who meets the requirements of EM 385-1-1, Section 21.C.04 and herein.

1.7.2 Personnel Duties

1.7.2.1 Duties of the Site Safety and Health Officer (SSHO)

The SSHO must:

a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily production report.

b. Conduct mishap investigations and complete required accident reports. Report mishaps and near misses.

c. Use and maintain OSHA's Form 300 to log work-related injuries and illnesses occurring on the project site for Prime Contractors and subcontractors, and make available to the Contracting Officer upon request. Post and maintain the Form 300A on the site Safety Bulletin Board.

d. Maintain applicable safety reference material on the job site.

e. Attend the pre-construction conference, pre-work meetings including preparatory meetings, and periodic in-progress meetings.

f. Review the APP and AHAs for compliance with EM 385-1-1, and approve, sign, implement and enforce them.

g. Establish a Safety and Occupational Health (SOH) Deficiency Tracking System that lists and monitors outstanding deficiencies until resolution.

h. Ensure subcontractor compliance with safety and health requirements.

i. Maintain a list of hazardous chemicals on site and their material Safety Data Sheets (SDS).

j. Maintain a weekly list of high hazard activities involving energy, equipment, excavation, entry into confined space, and elevation, and be prepared to discuss details during QC Meetings.

k. Provide and keep a record of site safety orientation and indoctrination for Contractor employees, subcontractor employees, and site visitors.

Superintendent, QC Manager, and SSHO are subject to dismissal if the above duties are not being effectively carried out. If Superintendent, QC Manager, or SSHO are dismissed, project work will be stopped and will not be allowed to resume until a suitable replacement is approved and the above duties are again being effectively carried out.

1.7.3 Meetings

1.7.3.1 Preconstruction Conference

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the preconstruction conference. This includes the project superintendent, Site Safety and Occupational Health officer, quality control manager, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, and Government review of AHAs to preclude project delays.

c. Deficiencies in the submitted APP, identified during the Contracting Officer's review, must be corrected, and the APP re-submitted for review prior to the start of construction. Work is not permitted to begin work until an APP is established that is acceptable to the Contracting Officer.

1.7.3.2 Safety Meetings

Conduct safety meetings to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent Safety and Occupational Health (SOH) training and motivation. Conduct meetings at least once a month for all supervisors on the project location. The SSHO, supervisors, foremen, or CDSOs must conduct meetings at least once a week for the trade workers. Document meeting minutes to include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Maintain documentation on-site and furnish copies to the Contracting Officer on request. Notify the Contracting Officer of all scheduled meetings 7 calendar days in advance.

1.8 ACCIDENT PREVENTION PLAN (APP)

A qualified person must prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1, Appendix A, and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1, Appendix A. The APP must be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP must interface with the

Contractor's overall safety and health program referenced in the APP in the applicable APP element, and made site-specific. Describe the methods to evaluate past safety performance of potential subcontractors in the selection process. Also, describe innovative methods used to ensure and monitor safe work practices of subcontractors. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP must be signed by an officer of the firm (Prime Contractor senior person), the individual preparing the APP, the on-site superintendent, the designated SSHO, the Contractor Quality Control Manager, and any designated Certified Safety Professional (CSP) or Certified Health Physicist (CIH). The SSHO must provide and maintain the APP and a log of signatures by each subcontractor foreman, attesting that they have read and understand the APP, and make the APP and log available on-site to the Contracting Officer. If English is not the foreman's primary language, the Prime Contractor must provide an interpreter.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. Once reviewed and accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP is cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified. Continuously review and amend the APP, as necessary, throughout the life of the contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and Quality Control Manager. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered. Should any severe hazard exposure (i.e. imminent danger) become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate and remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSE/SAFE A10.34), and the environment.

1.8.1 Names and Qualifications

Provide plans in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

a. Names and qualifications (resumes including education, training, experience and certifications) of site safety and health personnel designated to perform work on this project to include the designated Site Safety and Health Officer and other competent and qualified personnel to be used. Specify the duties of each position.

b. Qualifications of competent and of qualified persons. As a minimum, designate and submit qualifications of competent persons for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; and personal protective equipment and clothing to include selection,

use and maintenance.

1.8.2 Plans

Provide plans in the APP in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

1.8.2.1 Standard Lift Plan (SLP)

Plan lifts to avoid situations where the operator cannot maintain safe control of the lift. Prepare a written SLP in accordance with EM 385-1-1, Section 16.A.03, using Form 16-2 for every lift or series of lifts (if duty cycle or routine lifts are being performed). The SLP must be developed, reviewed and accepted by all personnel involved in the lift in conjunction with the associated AHA. Signature on the AHA constitutes acceptance of the plan. Maintain the SLP on the LHE for the current lift(s) being made. Maintain historical SLPs for a minimum of 3 months.

1.8.2.2 Fall Protection and Prevention (FP&P) Plan

The plan must comply with the requirements of EM 385-1-1, Section 21.D and ASSE/SAFE Z359.2, be site specific, and address all fall hazards in the work place and during different phases of construction. Address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A competent person or qualified person for fall protection must prepare and sign the plan documentation. Include fall protection and prevention systems, equipment and methods employed for every phase of work, roles and responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Review and revise, as necessary, the Fall Protection and Prevention Plan documentation as conditions change, but at a minimum every six months, for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. Keep and maintain the accepted Fall Protection and Prevention Plan documentation at the job site for the duration of the project. Include the Fall Protection and Prevention Plan documentation in the Accident Prevention Plan (APP).

1.8.2.3 Rescue and Evacuation Plan

Provide a Rescue and Evacuation Plan in accordance with EM 385-1-1 Section 21.N and ASSE/SAFE Z359.2, and include in the FP&P Plan and as part of the APP. Include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility.

1.8.2.4 Hazardous Energy Control Program (HECP)

Develop a HECP in accordance with EM 385-1-1 Section 12, 29 CFR 1910.147, 29 CFR 1910.333, 29 CFR 1915.89, ASSE/SAFE Z244.1, and ASSE/SAFE A10.44. Submit this HECP as part of the Accident Prevention Plan (APP). Conduct a preparatory meeting and inspection with all effected personnel to coordinate all HECP activities. Document this meeting and inspection in accordance with EM 385-1-1, Section 12.A.02. Ensure that each employee is familiar with and complies with these procedures.

## 1.9 ACTIVITY HAZARD ANALYSIS (AHA)

Before beginning each activity, task or Definable Feature of Work (DFOW) involving a type of work presenting hazards not experienced in previous project operations, or where a new work crew or subcontractor is to perform the work, the Contractor(s) performing that work activity must prepare an AHA. AHAs must be developed by the Prime Contractor, subcontractor, or supplier performing the work, and provided for Prime Contractor review and approval before submitting to the Contracting Officer. AHAs must be signed by the SSHO, Superintendent, QC Manager and the subcontractor Foreman performing the work. Format the AHA in accordance with EM 385-1-1, Section 1 or as directed by the Contracting Officer. Submit the AHA for review at least 15 working days prior to the start of each activity task, or DFOW. The Government reserves the right to require the Contractor to revise and resubmit the AHA if it fails to effectively identify the work sequences, specific anticipated hazards, site conditions, equipment, materials, personnel and the control measures to be implemented.

AHAs must identify competent persons required for phases involving high risk activities, including confined entry, crane and rigging, excavations, trenching, electrical work, fall protection, and scaffolding.

### 1.9.1 AHA Management

Review the AHA list periodically (at least monthly) at the Contractor supervisory safety meeting, and update as necessary when procedures, scheduling, or hazards change. Use the AHA during daily inspections by the SSHO to ensure the implementation and effectiveness of the required safety and health controls for that work activity.

### 1.9.2 AHA Signature Log

Each employee performing work as part of an activity, task or DFOW must review the AHA for that work and sign a signature log specifically maintained for that AHA prior to starting work on that activity. The SSHO must maintain a signature log on site for every AHA. Provide employees whose primary language is other than English, with an interpreter to ensure a clear understanding of the AHA and its contents.

## 1.10 DISPLAY OF SAFETY INFORMATION

### 1.10.1 Safety Bulletin Board

Within one calendar day(s) after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer, that is accessible and includes all mandatory information for employee and visitor review, may be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, Section 1.A.7. Additional items required to be posted include:

a. Confined space entry permit.

b. Hot work permit.

1.10.2 Safety and Occupational Health (SOH) Deficiency Tracking System

Establish a SOH deficiency tracking system that lists and monitors the status of SOH deficiencies in chronological order. Use the tracking system to evaluate the effectiveness of the APP. A monthly evaluation of the data must be discussed in the QC or SOH meeting with everyone on the project. The list must be posted on the project bulletin board and updated daily, and provide the following information:

a. Date deficiency identified;

b. Description of deficiency;

c. Name of person responsible for correcting deficiency;

d. Projected resolution date;

e. Date actually resolved.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in paragraph REFERENCES. Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 NOTIFICATIONS and REPORTS

1.13.1 Mishap Notification

Notify the Contracting Officer as soon as practical, but no more than twenty-four hours, after any mishaps, including recordable accidents, incidents, and near misses, as defined in EM 385-1-1 Appendix Q, any report of injury, illness, load handling equipment (LHE) or rigging mishaps, or any property damage. The Contractor is responsible for obtaining appropriate medical and emergency assistance and for notifying fire, law enforcement, and regulatory agencies. Immediate reporting is required for electrical mishaps, to include Arc Flash; shock; uncontrolled release of hazardous energy (includes electrical and non-electrical); load handling equipment or rigging; fall from height (any level other than same surface); and underwater diving. These mishaps must be investigated in depth to identify all causes and to recommend hazard control measures.

Within notification include Contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (for example, type of construction equipment used and PPE used). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted. Assist and cooperate fully with the Government's investigation(s) of any mishap.

1.13.2 Accident Reports

a. Conduct an accident investigation for recordable injuries and illnesses, property damage, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

b. Near Misses: The Contracting Officer will provide the Contractor the required forms. Near miss reports are considered positive and proactive Contractor safety management actions.

c. Conduct an accident investigation for any load handling equipment accident to establish the root cause(s) of the accident. Complete the LHE Accident Report form and provide the report to the Contracting Officer within 30 calendar days of the accident. Do not proceed with crane operations until cause is determined and corrective actions have been implemented to the satisfaction of the Contracting Officer. The Contracting Officer will provide a blank copy of the accident report form.

1.13.3 LHE Inspection Reports

Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

1.13.4 Certificate of Compliance and Pre-lift Plan/Checklist for LHE

Provide a FORM 16-1 Certificate of Compliance for LHE entering an activity under this contract and in accordance with EM 385-1-1. Post certifications on the crane.

Develop a Standard Lift Plan (SLP) in accordance with EM 385-1-1, Section 16.H.03 using Form 16-2 Standard Pre-Lift Crane Plan/Checklist for each lift planned. Submit SLP to the Contracting Officer for approval within 15 calendar days in advance of planned lift.

1.14 HOT WORK

1.14.1 Permit and Personnel Requirements

Submit and obtain a written permit prior to performing "Hot Work" (i.e. welding or cutting) or operating other flame-producing/spark producing devices, from the Fire Division. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. Provide at least two 20 pound 4A:20 BC rated extinguishers for normal "Hot Work". The extinguishers must be current inspection tagged, and contain an approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity.The Fire Watch must be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.

When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Division phone number. REPORT ANY FIRE, NO MATTER HOW SMALL, TO THE RESPONSIBLE FIRE DIVISION IMMEDIATELY.

1.15 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must:

a. Secure outside equipment and materials and place materials that could be damaged in protected areas.

b. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.

c. Ensure that temporary erosion controls are adequate.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 CONSTRUCTION AND OTHER WORK

Comply with EM 385-1-1, NFPA 70, NFPA 70E, NFPA 241, the APP, the AHA, Federal and State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard prevails.

PPE is governed in all areas by the nature of the work the employee is performing. Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks. Safety glasses must be worn or carried/available on each person. Mandatory PPE includes:

a. Hard Hat

b. Long Pants

c. Appropriate Safety Shoes

d. Appropriate Class Reflective Vests

3.1.1 Worksite Communication

Employees working alone in a remote location or away from other workers must be provided an effective means of emergency communications (i.e., cellular phone, two-way radios, land-line telephones or other acceptable means). The selected communication must be readily available (easily within the immediate reach) of the employee and must be tested prior to the start of work to verify that it effectively operates in the area/environment. An employee check-in/check-out communication procedure must be developed to ensure employee safety.

3.1.2 Hazardous Material Use

Each hazardous material must receive approval from the Contracting Office or their designated representative prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material.

3.1.3 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract,

radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer approval. Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

3.1.4 Unforeseen Hazardous Material

Contract documents identify materials such as PCB, lead paint, and friable and non-friable asbestos and other OSHA regulated chemicals (i.e. 29 CFR Part 1910.1000). If material(s) that may be hazardous to human health upon disturbance are encountered during construction operations, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to FAR 52.243-4, "Changes" and FAR 52.236-2, "Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Apply for utility outages at least 14 days in advance. As a minimum, the request must include the location of the outage, utilities being affected, duration of outage and any necessary sketches. Special requirements for electrical outage requests are contained elsewhere in this specification section. Once approved, and prior to beginning work on the utility system requiring shut down, attend a pre-outage coordination meeting with the Contracting Officer to review the scope of work and the lock-out/tag-out procedures for worker protection. No work will be performed on energized electrical circuits unless proof is provided that no other means exist.

3.3 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Provide and operate a Hazardous Energy Control Program (HECP) in accordance with EM 385-1-1 Section 12, 29 CFR 1910.333, 29 CFR 1915.89, and paragraph HAZARDOUS ENERGY CONTROL PROGRAM (HECP).

3.4 FALL PROTECTION PROGRAM

Establish a fall protection program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify roles and responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures in accordance with ASSE/SAFE Z359.2 and EM 385-1-1, Sections 21.A and 21.D.

3.4.1 Training

Institute a fall protection training program. As part of the Fall

Protection Program, provide training for each employee who might be exposed to fall hazards. Provide training by a competent person for fall protection in accordance with EM 385-1-1, Section 21.C. Document training and practical application of the competent person in accordance with EM 385-1-1, Section 21.C.04 and ASSE/SAFE Z359.2 in the AHA.

3.4.2 Fall Protection Equipment and Systems

Enforce use of personal fall protection equipment and systems designated (to include fall arrest, restraint, and positioning) for each specific work activity in the Site Specific Fall Protection and Prevention Plan and AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, Section 21.

Provide personal fall protection equipment, systems, subsystems, and components that comply with EM 385-1-1 Section 21.I, 29 CFR 1926.500 Subpart M,ASSE/SAFE Z359.0, ASSE/SAFE Z359.1, ASSE/SAFE Z359.2, ASSE/SAFE Z359.3, ASSE/SAFE Z359.4, ASSE/SAFE Z359.6, ASSE/SAFE Z359.7, ASSE/SAFE Z359.11, ASSE/SAFE Z359.12, ASSE/SAFE Z359.13, ASSE/SAFE Z359.14, and ASSE/SAFE Z359.15.

3.4.2.1 Additional Personal Fall Protection

In addition to the required fall protection systems, other protection such as safety skiffs, personal floatation devices, and life rings, are required when working above or next to water in accordance with EM 385-1-1, Sections 21.O through 21.O.06. Personal fall protection systems and equipment are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall protection systems are required when operating other equipment such as scissor lifts. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, travel, or while performing work.

3.4.2.2 Personal Fall Protection Harnesses

Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. The use of body belts is not acceptable. Harnesses must have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Snap hooks and carabiners must be self-closing and self-locking, capable of being opened only by at least two consecutive deliberate actions and have a minimum gate strength of 3,600 lbs in all directions. Use webbing, straps, and ropes made of synthetic fiber. The maximum free fall distance when using fall arrest equipment must not exceed 6 feet, unless the proper energy absorbing lanyard is used. Always take into consideration the total fall distance and any swinging of the worker (pendulum-like motion), that can occur during a fall, when attaching a person to a fall arrest system. All full body harnesses must be equipped with Suspension Trauma Preventers such as stirrups, relief steps, or similar in order to provide short-term relief from the effects of orthostatic intolerance in accordance with EM 385-1-1, Section 21.I.06.

3.4.3 Fall Protection for Roofing Work

Implement fall protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing

capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 6 feet of an edge, on a roof having a slope less than or equal to 4:12 (vertical to horizontal), protect personnel from falling by use of personal fall arrest/restraint systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized. Provide in accordance with 29 CFR 1926.500.

(2) For work greater than 6 feet from an edge, erect and install warning lines in accordance with 29 CFR 1926.500 and EM 385-1-1, Section L.

b. Steep-Sloped Roofs: Work on a roof having a slope greater than 4:1 (vertical to horizontal) requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also applies to residential or housing type construction.

3.4.4 Horizontal Lifelines (HLL)

Provide HLL in accordance with EM 385-1-1, Section 21.I.08.d.2. Commercially manufactured horizontal lifelines (HLL) must be designed, installed, certified and used, under the supervision of a qualified person, for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500). The competent person for fall protection may (if deemed appropriate by the qualified person) supervise the assembly, disassembly, use and inspection of the HLL system under the direction of the qualified person. Locally manufactured HLLs are not acceptable unless they are custom designed for limited or site specific applications by a Registered Professional Engineer who is qualified in designing HLL systems.

3.4.5 Guardrails and Safety Nets

Design, install and use guardrails and safety nets in accordance with EM 385-1-1, Section 21.F.01 and 29 CFR 1926 Subpart M.

3.4.6 Rescue and Evacuation Plan and Procedures

When personal fall arrest systems are used, ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue or assisted-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP). The plan must comply with the requirements of EM 385-1-1, ASSE/SAFE Z359.2, and ASSE/SAFE Z359.4.

3.5 WORK PLATFORMS

3.5.1 Scaffolding

Provide employees with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically

designed for access is prohibited. Comply with the following requirements:

a. Scaffold platforms greater than 20 feet in height must be accessed by use of a scaffold stair system.

b. Ladders commonly provided by scaffold system manufacturers are prohibited for accessing scaffold platforms greater than 20 feet maximum in height.

c. An adequate gate is required.

d. Employees performing scaffold erection and dismantling must be qualified.

e. Scaffold must be capable of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection and prevention plan.

f. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward.

g. Special care must be given to ensure scaffold systems are not overloaded.

h. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material are prohibited. The first tie-in must be at the height equal to 4 times the width of the smallest dimension of the scaffold base.

i. Scaffolding other than suspended types must bear on base plates upon wood mudsills (2 in x 10 in x 8 in minimum) or other adequate firm foundation.

j. Scaffold or work platform erectors must have fall protection during the erection and dismantling of scaffolding or work platforms that are more than 6 feet.

k. Delineate fall protection requirements when working above 6 feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

3.5.2 Elevated Aerial Work Platforms (AWPs)

Workers must be anchored to the basket or bucket in accordance with manufacturer's specifications and instructions (anchoring to the boom may only be used when allowed by the manufacturer and permitted by the CP). Lanyards used must be sufficiently short to prohibit worker from climbing out of basket. The climbing of rails is prohibited. Lanyards with built-in shock absorbers are acceptable. Self-retracting devices are not acceptable. Tying off to an adjacent pole or structure is not permitted unless a safe device for 100 percent tie-off is used for the transfer.

Use of AWPs must be operated, inspected, and maintained as specified in the operating manual for the equipment and delineated in the AHA. Operators of AWPs must be designated as qualified operators by the Prime Contractor. Maintain proof of qualifications on site for review and include in the AHA.

3.6 EQUIPMENT

3.6.1 Material Handling Equipment (MHE)

a. Material handling equipment such as forklifts must not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions. Material handling equipment fitted with personnel work platform attachments are prohibited from traveling or positioning while personnel are working on the platform.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions. Material Handling Equipment Operators must be trained in accordance with OSHA 29 CFR 1910, Subpart N.

c. Operators of forklifts or power industrial trucks must be licensed in accordance with OSHA.

3.6.2 Machinery and Mechanized Equipment

a. Proof of qualifications for operator must be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment must be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1. Incorporate such additional safety precautions or requirements into the AHAs.

3.6.3 USE OF EXPLOSIVES

Explosives shall not be used or brought to the project site.

3.7 EXCAVATIONS

Soil classification must be performed by a competent person in accordance with 29 CFR 1926 and EM 385-1-1.

3.7.1 Utility Locations

Provide a third party, independent, private utility locating company to positively identify underground utilities in the work area in addition to any station locating service and coordinated with the station utility department.

3.7.2 Utility Location Verification

Physically verify underground utility locations, including utility depth, by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within 3 feet of the underground system.

3.7.3 Utilities Within and Under Concrete, Bituminous Asphalt, and Other Impervious Surfaces

Utilities located within and under concrete slabs or pier structures, bridges, parking areas, and the like, are extremely difficult to identify. Whenever contract work involves chipping, saw cutting, or core drilling

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

## 3.8 ELECTRICAL

Perform electrical work in accordance with EM 385-1-1, Appendix A, Sections 11 and 12.

### 3.8.1 Conduct of Electrical Work

As delineated in EM 385-1-1, electrical work is to be conducted in a de-energized state unless there is no alternative method for accomplishing the work. In those cases obtain an energized work permit from the Contracting Officer. The energized work permit application must be accompanied by the AHA and a summary of why the equipment/circuit needs to be worked energized. Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Attach temporary grounds in accordance with ASTM F855 and IEEE 1048. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator is allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method.

When working in energized substations, only qualified electrical workers are permitted to enter. When work requires work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves and electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA. Ensure that each employee is familiar with and complies with these procedures and 29 CFR 1910.147.

### 3.8.2 Qualifications

Electrical work must be performed by QP personnel with verifiable credentials who are familiar with applicable code requirements. Verifiable credentials consist of State, National and Local Certifications or Licenses that a Master or Journeyman Electrician may hold, depending on work being performed, and must be identified in the appropriate AHA. Journeyman/Apprentice ratio must be in accordance with State, Local requirements applicable to where work is being performed.

### 3.8.3 Arc Flash

Conduct a hazard analysis/arc flash hazard analysis whenever work on or near energized parts greater than 50 volts is necessary, in accordance with NFPA 70E.

All personnel entering the identified arc flash protection boundary must be QPs and properly trained in NFPA 70E requirements and procedures. Unless permitted by NFPA 70E, no Unqualified Person is permitted to approach nearer than the Limited Approach Boundary of energized conductors and circuit parts. Training must be administered by an electrically qualified source and documented.

3.8.4 Grounding

Ground electrical circuits, equipment and enclosures in accordance with NFPA 70 and IEEE C2 to provide a permanent, continuous and effective path to ground unless otherwise noted by EM 385-1-1.

Check grounding circuits to ensure that the circuit between the ground and a grounded power conductor has a resistance low enough to permit sufficient current flow to allow the fuse or circuit breaker to interrupt the current.

3.8.5 Testing

Temporary electrical distribution systems and devices must be inspected, tested and found acceptable for Ground-Fault Circuit Interrupter (GFCI) protection, polarity, ground continuity, and ground resistance before initial use, before use after modification and at least monthly. Monthly inspections and tests must be maintained for each temporary electrical distribution system, and signed by the electrical CP or QP.

-- End of Section --

SECTION 01 42 00

SOURCES FOR REFERENCE PUBLICATIONS
**11/14**

PART 1 GENERAL

1.1 REFERENCES

Various publications are referenced in other sections of the specifications to establish requirements for the work. These references are identified in each section by document number, date and title. The document number used in the citation is the number assigned by the standards producing organization (e.g. ASTM B564 Standard Specification for Nickel Alloy Forgings). However, when the standards producing organization has not assigned a number to a document, an identifying number has been assigned for reference purposes.

1.2 ORDERING INFORMATION

The addresses of the standards publishing organizations whose documents are referenced in other sections of these specifications are listed below, and if the source of the publications is different from the address of the sponsoring organization, that information is also provided.

AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE (AHRI)
2111 Wilson Blvd, Suite 500
Arlington, VA 22201
Ph: 703-524-8800
Fax: 703-562-1942
Internet: http://www.ahrinet.org

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)
1827 Walden Office Square, Suite 550
Schaumburg, IL 60173-4268
Ph: 847-303-5664
Fax: 847-303-5774
E-mail: customerservice@aamanet.org
Internet: http://www.aamanet.org

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)
1 Davis Drive
P.O. Box 12215
Research Triangle Park, NC 27709-2215
Ph: 919-549-8141
Fax: 919-549-8933
Internet: http://www.aatcc.org

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)
1330 Kemper Meadow Drive
Cincinnati, OH 45240
Ph: 513-742-2020 or 513-742-6163
Fax: 513-742-3355
E-mail: mail@acgih.org
Internet: http://www.acgih.org

AMERICAN HARDBOARD ASSOCIATION (AHA)
1210 West Northwest Highway
Palatine, IL 60067
Ph: 847-934-8800
Fax: 847-934-8803
E-mail: aha@hardboard.org
Internet: http://domensino.com/AHA/

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)
One East Wacker Drive, Suite 700
Chicago, IL 60601-1802
Ph: 312-670-2400
Fax: 312-670-5403
Bookstore: 800-644-2400
E-mail: aisc@ware-pak.com
Internet: http://www.aisc.org

AMERICAN LUMBER STANDARDS COMMITTEE (ALSC)
P.O. Box 210
Germantown, MD 20875-0210
Ph: 301-972-1700
Fax: 301-540-8004
E-mail: alsc@alsc.org
Internet: http://www.alsc.org

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)
1899 L Street, NW,11th Floor
Washington, DC 20036
Ph: 202-293-8020
Fax: 202-293-9287
E-mail: storemanager@ansi.org
Internet: http://www.ansi.org/

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)
1791 Tullie Circle, NE
Atlanta, GA 30329
Ph: 800-527-4723 or 404-636-8400
Fax: 404-321-5478
E-mail: ashrae@ashrae.org
Internet: http://www.ashrae.org

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)
1800 East Oakton Street
Des Plaines, IL 60018
Ph: 847-699-2929
Internet: http://www.asse.org

AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE)
18927 Hickory Creek Drive, Suite 220
Mokena, IL 60448
Ph: 708-995-3019
Fax: 708-479-6139
E-mail: staffengineer@asse-plumbing.org
Internet: http://www.asse-plumbing.org

AMERICAN WATER WORKS ASSOCIATION (AWWA)
6666 West Quincy Avenue
Denver, CO 80235-3098

Ph: 303-794-7711
E-mail: distribution@awwa.org
Internet: http://www.awwa.org

AMERICAN WELDING SOCIETY (AWS)
13301 NW 47 Ave
Miami, FL 33054

Ph: 888-WELDING, 305-824-1177, 305-826-6192
Fax: 305-826-6195
E-mail: customer.service@awspubs.com
Internet: http://www.aws.org

AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)
P.O. Box 361784
Birmingham, AL 35236-1784
Ph: 205-733-4077
Fax: 205-733-4075
Internet: http://www.awpa.com

APA - THE ENGINEERED WOOD ASSOCIATION (APA)
7011 South 19th St.
Tacoma, WA 98466-5333
Ph: 253-565-6600
Fax: 253-565-7265
Internet: http://www.apawood.org

ASME INTERNATIONAL (ASME)
Two Park Avenue, M/S 10E
New York, NY 10016-5990
Ph: 800-843-2763
Fax: 973-882-1717
E-mail: customercare@asme.org
Internet: http://www.asme.org

ASTM INTERNATIONAL (ASTM)
100 Barr Harbor Drive, P.O. Box C700
West Conshohocken, PA 19428-2959
Ph: 877-909-2786
Internet: http://www.astm.org

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)
355 Lexington Avenue, 15th Floor
New York, NY 10017
Ph: 212-297-2122
Fax: 212-370-9047
Internet: http://www.buildershardware.com

CARPET AND RUG INSTITUTE (CRI)
P.O. Box 2048
Dalton, GA 30722-2048
Ph: 706-278-3176
Fax: 706-278-8835
Internet: http://www.carpet-rug.com

CAST IRON SOIL PIPE INSTITUTE (CISPI)
3008 Preston Station Drive
Hixson, TN 37343
Ph: 423-842-2122

Internet: http://www.cispi.org

COPPER DEVELOPMENT ASSOCIATION (CDA)
Internet: http://www.copper.org

GREEN SEAL (GS)
1001 Connecticut Avenue, NW
Suite 827
Washington, DC 20036-5525
Ph: 202-872-6400
Fax: 202-872-4324
Internet: http://www.greenseal.org

HARDWOOD PLYWOOD AND VENEER ASSOCIATION (HPVA)
1825 Michael Faraday Dr.
Reston, VA 20190
Ph: 703-435-2900
Fax: 703-435-2537
E-mail: hpva@hpva.org
Internet: http://www.hpva.org

ILLUMINATING ENGINEERING SOCIETY (IES)
120 Wall Street, 17th Floor
New York, NY 10005-4001
Ph: 212-248-5000
Fax: 212-248-5018
E-mail: IES@IES.org
Internet: http://www.IES.org

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)
445 and 501 Hoes Lane
Piscataway, NJ 08854-4141
Ph: 732-981-0060 or 800-701-4333
Fax: 732-562-9667
E-mail: onlinesupport@ieee.org
Internet: http://www.ieee.org

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (IAPMO)
4755 E. Philadelphia St.
Ontario, CA 91761
Ph: 909-472-4100
Fax: 909-472-4150
E-mail: iapmo@iapmo.org
Internet: http://www.iapmo.org

INTERNATIONAL CODE COUNCIL (ICC)
500 New Jersey Avenue, NW
6th Floor, Washington, DC 20001
Ph: 800-786-4452 or 888-422-7233
E-mail: order@iccsafe.org
Internet: www.iccsafe.org

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)
1, ch. de la Voie-Creuse
Case Postale 56
CP 56 - CH-1211 Geneva 20
Switzerland
Ph: 41-22-749-01-11

Fax: 41-22-733-34-30
E-mail: central@iso.ch
Internet: http://www.iso.org

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY (MSS)
127 Park Street, NE
Vienna, VA 22180-4602
Ph: 703-281-6613
E-mail: info@mss-hq.com
Internet: http://mss-hq.org/Store/index.cfm

MASTER PAINTERS INSTITUTE (MPI)
2800 Ingleton Avenue
Burnaby, BC CANADA V5C 6G7
Ph: 1-888-674-8937
Fax: 1-888-211-8708
E-mail: info@paintinfo.com or techservices@mpi.net
Internet: http://www.mpi.net/

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)
1300 North 17th Street, Suite 900
Arlington, VA 22209
Ph: 703-841-3200
Internet: http://www.nema.org/

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)
1 Batterymarch Park
Quincy, MA 02169-7471
Ph: 617-770-3000
Fax: 617-770-0700
Internet: http://www.nfpa.org

NATIONAL HARDWOOD LUMBER ASSOCIATION (NHLA)
6830 Raleigh LaGrange Road
PO Box 34518
Memphis, TN 38184
Ph: 901-377-1818
Store: 901-399-7563
Internet: http://www.nhla.org

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)
272 Tuttle Road
Cumberland, ME 04021
Ph: 207-829-6901
Fax: 207-829-4293
E-mail: info@nelma.org
Internet: http://www.nelma.org

NSF INTERNATIONAL (NSF)
789 North Dixboro Road
P.O. Box 130140
Ann Arbor, MI 48105
Ph: 734-769-8010 or 800-NSF-MARK
Fax: 734-769-0109
E-mail: info@nsf.org
Internet: http://www.nsf.org

PLASTIC PIPE AND FITTINGS ASSOCIATION (PPFA)
800 Roosevelt Road
Building C, Suite 312
Glen Ellyn, IL 60137
Ph: 630-858-6540
Fax: 630-790-3095
Internet: http://www.ppfahome.org

PLUMBING AND DRAINAGE INSTITUTE (PDI)
800 Turnpike Street, Suite 300
North Andover, MA 01845
Ph: 978-557-0720 or 800-589-8956
E-Mail: pdi@PDIonline.org
Internet: http://www.pdionline.org

REDWOOD INSPECTION SERVICE (RIS) OF THE CALIFORNIA REDWOOD ASSOCIATION (CRA)
818 Grayson Road, Suite 201
Pleasant Hill, CA 94523
Ph: 925-935-1499
Fax: 925-935-1496
E-Mail: ris@calredwood.org
Internet: http://www.redwoodinspection.com/

SCIENTIFIC CERTIFICATION SYSTEMS (SCS)
2000 Powell Street, Suite 600
Emeryville, CA 94608
Ph: 800-326-3228
E-mail: info@SCSglobal services.com
Internet: http://www.scsglobalservices.com/

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)
4201 Lafayette Center Drive
Chantilly, VA 20151-1219
Ph: 703-803-2980
Fax: 703-803-3732
Internet: http://www.smacna.org

SOCIETY FOR PROTECTIVE COATINGS (SSPC)
40 24th Street, 6th Floor
Pittsburgh, PA 15222
Ph: 412-281-2331
Fax: 412-281-9992
E-mail: info@sspc.org
Internet: http://www.sspc.org

SOCIETY OF AUTOMOTIVE ENGINEERS INTERNATIONAL (SAE)
400 Commonwealth Drive
Warrendale, PA 15096
Ph: 724-776-4970
Fax: 877-606-7323
E-mail: customerservice@sae.org
Internet: http://www.sae.org

SOUTHERN PINE INSPECTION BUREAU (SPIB)
P.O. Box 10915
Pensacola, FL 32504-0915
Ph: 850-434-2611

Fax: 850-433-5594
Internet: http://www.spib.org

STEEL DOOR INSTITUTE (SDI/DOOR)
30200 Detroit Road
Westlake, OH 44145
Ph: 440-899-0010
Fax: 440-892-1404
E-mail: info@steeldoor.org
Internet: http://www.steeldoor.org

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA)
1320 N. Courthouse Rd., Suite 200
Arlington, VA 22201
Ph: 703-907-7700
Fax: 703-907-7727
Internet: http://www.tiaonline.org

TILE COUNCIL OF NORTH AMERICA (TCNA)
100 Clemson Research Boulevard
Anderson, SC 29625
Ph: 864-646-8453
Fax: 864-646-2821
E-mail: info@tileusa.com
Internet: http://www.tcnatile.com/

U.S. ARMY CORPS OF ENGINEERS (USACE)
CRD-C DOCUMENTS available on Internet:
http://www.wbdg.org/ccb/browse_cat.php?c=68
Order Other Documents from:
USACE Publications Depot
Attn: CEHEC-IM-PD
2803 52nd Avenue
Hyattsville, MD 20781-1102
Ph: 301-394-0081
Fax: 301-394-0084
E-mail: pubs-army@usace.army.mil
Internet: http://www.publications.usace.army.mil/
or
http://www.hnc.usace.army.mil/Missions/Engineering/TECHINFO.aspx

U.S. DEPARTMENT OF ENERGY (DOE)
1000 Independence Avenue Southwest
Washington, D.C. 20585
Internet: www.eere.energy.gov

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)
Ariel Rios Building
1200 Pennsylvania Avenue, N.W.
Washington, DC 20004
Ph: 202-272-0167
Internet: http://www2.epa.gov/libraries
--- Some EPA documents are available only from:
National Technical Information Service (NTIS)
5301 Shawnee Road
Alexandria, VA 22312
Ph: 703-605-6050 or 1-688-584-8332
Fax: 703-605-6900
E-mail: info@ntis.gov

Internet: http://www.ntis.gov

U.S. GENERAL SERVICES ADMINISTRATION (GSA)
General Services Administration
1275 First St. NE
Washington, DC 20417
Ph: 202-501-1231
Internet: http://www.gsaelibrary.gsa.gov/ElibMain/home.do
Obtain documents from:
Acquisition Streamlining and Standardization Information System (ASSIST)
Internet: https://assist.dla.mil/online/start/; account registration required

U. S. GREEN BUILDING COUNCIL (USGBC)
2101 L St NW, Suite 500
Washington, D.C. 20037
Ph: 800-795-1747
Internet: http://www.usgbc.org

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)
8601 Adelphi Road
College Park, MD 20740-6001
Ph: 866-272-6272
Fax: 301-837-0483
Internet: http://www.archives.gov
Order documents from:
Superintendent of Documents
U.S.Government Printing Office (GPO)
710 North Capitol Street, NW
Washington, DC 20401
Ph: 202-512-1800
Fax: 202-512-2104
E-mail: contactcenter@gpo.gov
Internet: http://www.gpoaccess.gov

UNDERWRITERS LABORATORIES (UL)
2600 N.W. Lake Road
Camas, WA 98607-8542
Ph: 877-854-3577
E-mail: CEC.us@us.ul.com
Internet: http://www.ul.com/
UL Directories available through IHS at http://www.ihs.com

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)
P.O. Box 23145
Portland, OR 97281
Ph: 503-639-0651
Fax: 503-684-8928
E-mail: info@wclib.org
Internet: http://www.wclib.org

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)
1500 SW First Ave., Suite 870
Portland, OR 97201
Ph: 503-224-3930
Fax: 503-224-3934
E-mail: info@wwpa.org
Internet: http://www.wwpa.org

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)
330 N Wabash Avenue, Suite 2000
Chicago, IL 60611
Ph: 312-321-6802
E-mail: wdma@wdma.com
Internet: http://www.wdma.com

PART 2 PRODUCTS

Not used

PART 3 EXECUTION

Not used

-- End of Section --

SECTION 01 45 00

CONSTRUCTION QUALITY CONTROL
**02/10**

PART 1 GENERAL

1.1 RELATED SECTIONS

Requirements of this Section apply to, and are component of, each section of the specifications.

1.2 REFERENCES

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

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

| | |
|---|---|
| ASHRAE 52.2 | (2010; Errata 2010) Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D 6245 | (2007) Using Indoor Carbon Dioxide Concentrations to Evaluate Indoor Air Quality and Ventilation |
| ASTM D 6345 | (2010) Selection of Methods for Active, Integrative Sampling of Volatile Organic Compounds in Air |

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)

| | |
|---|---|
| SMACNA 1507 | (1995) IAQ Guidance for Occupied Buildings Under Construction |

U.S. ARMY CORPS OF ENGINEERS (USACE)

| | |
|---|---|
| EM 385-1-1 | (2014) Safety and Health Requirements Manual |

U.S. GREEN BUILDING COUNCIL (USGBC)

| | |
|---|---|
| LEED Reference Guide | (2005) LEED-NC Reference Guide for New Construction |

1.3 DEFINITIONS

Reference to the Project Manager (PM) and Construction Representative (ConRep) herein refers to the FLETC Facilities Management Division Project Manager and Construction Representative.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

**The below listed Pre-Construction Submittals are critical to start of work activities and are required to be provided to the Government a minimum of seven (7) calendar days prior to the scheduled Preconstruction Conference.** Contact the Contracting Officer for the scheduled Pre-Construction conference date after award. All Pre-Construction submittals require Government approval. Make any required Pre-Construction Re-Submittals within five (5) calendar days after Government rejection. Demolition and construction work may proceed upon Government approval of all Pre-Construction submittals. Neglect to provide timely approved Pre-Construction submittals and to employ approved key on-site Quality Control Manager and Superintendent personnel will not be the basis for time extension, claim under the Contract, nor will it be subject to the Disputes clause. Submit six (6) submittal copies for Government retention PLUS the number of copies requested for return back to the Contractor. In the event of conflict regarding specified numbers of submittals copies, the maximum specified number of copies shall be enforced. No payments other than bond costs will be approved until the below listed Pre-Construction Submittals have been approved by the Government.

Construction Quality Control (QC) Plan; G

Submit a QC Plan in accordance with the requirements of this Section. Acceptance of the QC Plan is required prior to start of construction work.

Key Personnel Resumes, Qualifications, Certificates and Appointment Letters; G

In resume format for the Superintendent and each person in the QC organization, submit personnel qualifications, educational and training diplomas and certificates, work experience and history, and reference contacts. As a minimum, provide resumes and Appointment Letters for the Quality Control Manager, Alternate Quality Control Manager, and Superintendent. Resumes and Appointment Letters are to be provided for Government review at the earliest possible opportunity after award, but no later than seven (7) calendar days prior to the scheduled Preconstruction Conference. Personnel must be available for on-site interviews as required. **Acceptable key personnel qualifications, performance, and organizational observance of required QC and Superintendent personnel authorities are considered critical to the project.** Required authorities of the QC and Superintendent personnel are described in this Section and are to be acknowledged in the Appointment Letters. Government approval of key personnel is necessary prior to the Preconstruction Conference and approved key personnel shall attend the Preconstruction Conference.

Construction Project Cost-Loaded Critical Path Method Schedule; G

Provide a computerized cost-loaded Critical Path Method (CPM) schedule, such as Primavera or Microsoft Project, in accordance with requirements of Section 01 32 16.00 20, CONSTRUCTION PROGRESS DOCUMENTATION. The minimum required initial level of detail includes this information:

a) Sequentially organized activity descriptions and listing. Include Procurement activities such as submittals, submittal approvals, materials/equipment procurement, fabrication, and delivery. Include any Government activities that could impact progress such as, Notice to Proceed (NTP), Government furnished equipment provision, and approvals,
b) Activity durations,
c) Early start and early finish dates for each activity,
d) Late start and late finish dates for each activity,
e) Float for each activity,
f) Activity total cost and cost breakdown for materials and labor of each activity. Request for payment on stored materials will only be considered if the activity cost is broken down into materials and labor categories,
g) Clearly identify the critical path,
h) Network diagram,
i) Projected earnings in graphic format, S-curves,
j) Provide additional sort information upon request.

Schedule of Prices; G

See activity cost breakdown requirements described above.

Contractor Safety Plan; G

Provide a comprehensive Safety Plan in accordance with the related Section for SAFETY REQUIREMENTS. The Safety Plan comprises, but is not limited to, an Accident Prevention Plan (APP), Activity Hazard Analysis (AHA), Health and Safety Plan, provision of proposed Safety Officer Training Records and Qualifications.

Contractor Environmental Plan; G

Provide a comprehensive Environmental, Indoor Air Quality and Waste Management Plan in accordance with the related Sections for CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT and TEMPORARY ENVIRONMENTAL CONTROLS. Provide required Environmental Officer Training Records and Qualifications.

Submittal Register (Status Log); G

The Government may provide a baseline submittal register. In absence of a Government furnished submittal log, the Contractor shall provide a submittal register organized by specification Section and Division and as required by the related Section SUBMITTAL PROCEDURES. The register shall include a complete listing of ALL submittals required by the contract documents. This includes Government approved, For Information Only (Contractor approved), administrative, product, shop drawing, samples, statements, test reports, certifications, and all other

submittals without exception.

Listing of Subcontractors and Suppliers; G

Provide for Government review, a complete listing of all Subcontractors and major Suppliers anticipated to perform work under this contract.

Indoor Air Quality (IAQ) Management Plan; G

SD-10 Operation and Maintenance Data

Training Plan

For each training session submit dates, start and finish times, and locations; outline of the information to be presented; names and qualifications of the presenters; and list of texts and other materials required to support training.

SD-11 Closeout Submittals

Training Outline; G

Validation of Training Completion; G

1.5 REPORTING FORMS

Use reporting forms provided in the contract or obtain a single copy of forms from the Facilities Management Project Manager. The report forms will consist of the Superintendent's Daily Report (FTC-FMD-42) and the Quality Control Manager's Daily Report (FTC-FMD-67). Other forms shall be developed by the Contractor and submitted for approval of the Government for reporting of QC Meeting Agendas and Minutes, Preparatory Phase Checklist, Initial Phase Checklist, Rework Items List, Requests For Information (RFI), Field Test Reports, and Testing Plan and Log. Hand-deliver reports to both the Facilities Management Division and Procurement Division drop-points set up in Buildings 200 and 93, respectively. Provide type written reports.

Deliver the following to the Project Manager during Construction:

a. Superintendent's and QCM Reports: Hand-carry completed and signed daily reports to the Facilities Management Division (original) and Procurement Division (copy) by 10:00 AM the next working day. Provide daily reports for all working and non-working days through the date of final acceptance of all work. Annotate non-working days accordingly on reports.

b. Preparatory Phase Checklist: Original attached to the original QCM Report and one copy attached to each QCM Report copy.

c. Initial Phase Checklist: Original attached to the original QCM Report and one copy attached to each QCM Report copy.

d. Field Test Reports: Hand-carry the original within two working days after the test is performed, attached to the original QCM Report and one copy attached to each QCM Report copy.

e. Testing Plan and Log: Hand-carry the original attached to the last

QCM Report of each month and one copy attached to each QCM Report copy. A copy of the final Testing Plan and Log shall be provided with Close-out documentation.

f. Rework Items List: Hand-carry the original attached to the last QCM Report of each month and one copy attached to each QCM Report copy. Include update Rework List with every progress meeting agenda.

g. QCM Meeting Minutes: Electronically submit within two working days after each progress meeting is held. Copy all meeting attendees.

h. QC Certifications: As required by the paragraph entitled "QC Certifications."

1.6 QC PROGRAM REQUIREMENTS

Establish and maintain a QC program as described in this section. This QC program is a key element in meeting the project objectives of timely and quality performance. The QC program consists of a QC Organization, QC Plan, QC Plan Meeting(s), a Coordination and Mutual Understanding Meeting, QC meetings, three phases of control, submittal review and approval, testing, completion inspections, and QC certifications and documentation necessary to provide materials, equipment, workmanship, fabrication, construction and operations which comply with the requirements of this Contract. The QC program shall cover on-site and off-site work and shall be keyed to the work sequence. No construction work or testing may be performed in the absence of an approved Quality Control Manager AND Superintendent. Duties requiring departure from the site during any work activities shall be performed by personnel other than the QC Manager and Superintendent. Absence of these key personnel or their approved alternates from the site during work activities can result in work stoppage, contract price reduction, staffing removal, and/or other actions as determined by the Government. The QC Manager shall report to an Officer of the firm and shall not be subordinate to the Project Superintendent, the Field or Home Office Contractor Project Manager. The QC Manager and Superintendent must work together effectively. Although the QC Manager is the primary individual responsible for quality control, the Superintendent and all individuals will be held responsible for the quality of work on the job. The Contractor shall maintain a competent approved QC Manager and Superintendent on the work site until all work is completed and accepted by the Government.

1.6.1 Commissioning

Commissioning (Cx) is a systematic process of ensuring that all building systems meet the requirements and perform interactively according to the Contract. The QC Program is a key to this process by coordinating, verifying and documenting measures to achieve the following objectives:

a. Verify and document that the applicable equipment and systems are installed in accordance with the design intent as expressed through the Contract and according to the manufacturer's recommendations and industry accepted minimum standards.

b. Verify and document that equipment and systems receive complete operational checkout by the installing contractors.

c. Verify and document proper performance of equipment and systems.

d. Verify that Operation and Maintenance (O&M) documentation is complete.

e. Verify and document that the Government's operating personnel are adequately trained.

1.6.2 Acceptance of the Construction Quality Control Plan and Key Personnel

Acceptance of the QC Plan is required prior to the start of demolition and construction. The Government reserves the right to require changes in the QC Plan and operations as necessary.The Government reserves the right to interview any personnel at any time in order to evaluate and verify personnel qualifications and a suitable level of work performance. The Superintendent and all QC organization personnel shall be subject to acceptance by the Project Manager. If at any time during the Contract performance period, the Quality Control or Superintendent personnel's job performance falls below a reasonable standard of competence, professionalism, attendance, or should performance be otherwise objectionable, he/she shall be promptly replaced by the Contractor upon request from the Government. Neglect to maintain an effective Quality Control Program and acceptable key Quality Control and Superintendent Personnel will not be the basis for claim under the Contract nor will it be subject to the Disputes clause. All persons are subject to a background criminal investigation at the discretion of the Federal Law Enforcement Training Center.

1.6.3 Preliminary Construction Work Authorized Prior to Plan Acceptance

Demolition and construction work may not proceed until the Pre-Construction submittals are approved. The only activities authorized to proceed prior to the acceptance of the QC Plan and on-site employ of approved QC and Superintendent personnel are mobilization of storage and office trailers and establishment of temporary utilities.

1.6.4 Notification of Changes

Notify the Project Manager, in writing, of any proposed changes in the QC Plan or changes to the QC organization personnel, a minimum of 10 work days prior to a proposed change. Proposed changes shall be subject to acceptance by the Project Manager.Notify Project Manager and ConRep in advance when the Alternate QC Manager or Alternate Superintendent will temporarily assume duties as necessitated by an absence of the primary person(s).

1.7 QC ORGANIZATION

1.7.1 QC Manager (QCM)

1.7.1.1 Duties

Provide a QC Manager at the work site to implement and manage the QC program. The only duties and responsibilities of the QC Manager are to manage and implement the QC program on this Contract. The QC Manager shall devote his time exclusively to work under this contract only. The QC Manager must have the authority to stop work, require work replacement, direct subcontractor performance with regard to quality, issue and enforce Contractor non-compliance notices with respect to all work. The QC Manager shall not be designated as the safety competent person as defined by the adopted U.S. Army Corps of Engineers (USACE) Safety Manual EM 385-1-1. The QC Manager is required to attend QC Plan Meetings,

Coordination and Mutual Understanding Meeting, Progress Meetings, conduct the QC meetings, perform the three phases of control, perform submittal review and approval, ensure testing is performed and provide QC certifications and documentation required in this Contract. The QC Manager is responsible for managing and coordinating the three phases of control and documentation performed by testing laboratory personnel and any other inspection and testing personnel required by this Contract. The QC Manager is the manager of all QC activities.

1.7.1.2 QC Manager Qualifications

A high school graduate level education is required. The individual shall possess a total cumulative minimum of 10 years combined experience on similar private or Federal construction projects in the following positions: Project Superintendent, QC Manager, Project Manager, or Construction Manager. Of this cumulative experience, at least two years experience shall be as a QC Manager on similar United States Military or Federal agency construction contract. Similar construction contracts are defined to be of comparable cost, type and complexity of work and including the major trades that are part of this Contract. The individual shall be experienced with Federal administrative construction processes. The individual must possess and demonstrate extensive experience and a working knowledge in the full range of trades and disciplines typical to work under this contract (For example: architectural work and finishes, carpentry, structural, earthwork, pavement, utilities, concrete, heating, ventilation and air conditioning, piping, plumbing, fire alarm and protection, electrical distribution systems, lighting, lightning protection, telecommunications, multi-media, and interior furnishings). In addition to the above experience and education requirements, the QC Manager shall have completed the course entitled "Construction Quality Management (CQM) for Contractors." If the QC Manager does not have a current certification, he/she shall obtain the CQM for Contractors course certification within 30 days of award. This course is periodically offered by the Naval Facilities Engineering Command and the Army Corps of Engineers. Contact these organizations for information on the next scheduled class. The individual must be familiar with the safety requirements of USACE EM 385-1-1, and have experience in the areas of hazard identification, safety compliance, and sustainability. Computer proficiency is required in such software systems as Word, Excel, Outlook (e-mail) and Primavera. The individual must demonstrate a working knowledge and familiarity with Critical Path Network scheduling.

1.7.1.3 Alternate QC Manager Duties and Qualifications

Designate an alternate for the QC Manager at the work site to serve in the event of the designated QC Manager's absence. The period of absence may not exceed two weeks at one time. The Alternate QC Manager Qualifications shall be the same the QC Manager's.

1.7.1.4 Assistant QC Manager Duties and Qualifications

The timely and compliant progression of quality work may require provision of additional QC personnel. Provide assistance as required to the QC Manager at the work site to perform the three phases of control, perform submittal review, ensure testing is performed, and prepare QC certifications and documentation required by this Contract. The Assistant QC Manager shall be on the work site during supplemental work shifts and shall perform the duties of the QC Manager during such supplemental shift work. The qualification requirements for the Assistant The individual

must be familiar with the requirements of USACE EM 385-1-1, and have experience in the areas of hazard identification and safety compliance. An Assistant will not be assigned or accepted as an Alternate during absences of the approved QC Manager.

1.7.2 Superintendent

1.7.2.1 Duties

The Contractor shall employ, on-site at the project location, a full time Superintendent who shall be subject to approval by the Government prior to Notice to Proceed being given. The Superintendent shall devote his time exclusively to the supervision of work under this contract only. The Superintendent is not to self-perform work activities. The Superintendent shares a high level of responsibility for management and production of timely and quality conforming work. The QC Management organization is not subordinate to the Superintendent. The Superintendent shall be delegated authority by the Contractor to sign contract modifications, negotiate and reach agreement for the Contractor on matters such as change orders, time extensions, and other issues arising under the contract which may lead to contract modification in accordance with FAR 52-236-6. An Appointment Letter delegating these authorities shall be signed by a Principle Officer of the firm and submitted to the Project Manager along with the Superintendent's resume for approval. The Superintendent is required to attend QC Plan Meetings, Coordination and Mutual Understanding Meeting, and conduct Progress Meetings. The Superintendent will conduct frequent and routine meetings with Contractor and Subcontractor personnel to: coordinate trade work performance, review schedule objectives for definable features of work, coordinate work conformance to approved submittals, plan and sequence the orderly progress of trade work, correct work deficiencies, maintain job site safety, address material and equipment delivery and proper storage, ensure environmental compliance, ensure testing is satisfactorily, and conduct other related supervisory duties as necessary. The Superintendent may be designated as the safety competent person as defined by the adopted U.S. Army Corps of Engineers (USACE) Safety Manual EM 385-1-1. Computer proficiency is required in such software systems as Word, Excel, Outlook (e-mail) and Primavera. The individual must demonstrate a working knowledge and proficiency with Critical Path Network scheduling.

1.7.2.2 Superintendent Qualifications

An individual with a minimum of ten (10) years combined experience in the following positions: Project Superintendent, QC Manager, Project Manager, or Construction Manager on similar size and type construction contracts which included the major trades that are part of this Contract. The individual shall have at least five (5) years experience as a Superintendent on similar size, complexity and type contracts. The individual must possess and demonstrate extensive experience and a working knowledge in the full range of trades and disciplines typical to work under this contract (For example: architectural work and finishes, carpentry, structural, earthwork, pavement, utilities, concrete, heating, ventilation and air conditioning, piping, plumbing, fire alarm and protection, electrical distribution systems, lighting, lightning protection, telecommunications, multi-media, and interior furnishings). As a minimum, the individual shall demonstrate completion of High School level education. The individual must be familiar with the safety requirements of EM 385-1-1, and have experience in the areas of hazard identification, safety compliance, and sustainability. Computer

proficiency is required in such software systems as Word, Excel, Outlook (e-mail) and Primavera. The individual must demonstrate a working knowledge and proficiency with Critical Path Network scheduling.

1.7.2.3 Alternate Superintendent Duties and Qualifications

Designate an alternate for the Superintendent at the work site to serve in the event of the designated Superintendent's absence. The period of absence may not exceed two weeks at one time. The Alternate Superintendent's Qualifications shall be the same as the Superintendent's.

1.7.3 Key Personnel Resume Requirements

Submit Quality Control Manager, Alternate QC Manager, Superintendent and Alternate Superintendent Qualifications in resume format and Appointment letters for review and approval a minimum of seven (7) calendar days prior to the scheduled Preconstruction Conference. Personnel must be available for on-site interviews as required. Acceptable key personnel qualifications, performance, and organizational observance of required QC Management and Superintendent personnel authorities are considered critical to the project. Submission of resumes failing to demonstrate compliant qualifications will be rejected. Submit information in resume format and include attachments as necessary. Include educational experience, copies of diplomas and training certificates, chronological work history, positions held, descriptions of duties and responsibilities, relevant project descriptions and demonstration of satisfaction of the required qualifications. Provide employers and/or Owner's reference persons contact information for all positions held in the last 10 years. Provide additional information as requested. Attend on-site interviews as required by the Government.

1.7.4 LEED Commissioning Authority

1.7.4.1 Duties

Provide a Commissioning Authority (CA) as key person for the commissioning (Cx) and documentation thereof, who is subordinate to the QC Manager. The CA shall direct and coordinate Cx activities and submit Cx reports to the Project Manager to meet the submittal and reporting requirements of the LEED EA Prerequisite Requirement for Fundamental Commissioning. The CA shall coordinate the actions of the QC Specialists, Testing Laboratory personnel, and other inspection and testing personnel required by this Contract for building Cx.

1.7.4.2 Qualifications

The CA must be certified as a commissioning professional by the Association of Energy Engineers (AEE), the Building Commissioning Association (BCA), the National Environmental Balancing Bureau (NEBB). CA resume is required, providing education, experience and management capabilities on at least two similar size and type contracts. The CA may not have been involved with the project design, construction management, or supervision, and must be with a third-party firm that is not on the design team. The CA must be a Leadership in Energy and Environmental Design Accredited Professional (LEED AP).

1.8 QUALITY CONTROL (QC) PLAN

1.8.1 Construction Quality Control (QC) Plan

1.8.1.1 Requirements

A QC Plan shall be submitted for review and approval a minimum of seven (7) calendar days prior to the scheduled Preconstruction Conference. Provide, for acceptance by the Project Manager, a Construction QC Plan submitted in a three-ring binder that includes a table of contents, with major sections identified with tabs as listed below, with pages numbered sequentially, and that documents the proposed methods and responsibilities for accomplishing commissioning activities during the construction of the project. The Contractor is responsible to incorporate any review comments into the Final Plan and obtaining Government approval of the Plan prior to start of work activities as described by the paragraph "Acceptance of the Construction Quality Control Plan".

I. QC ORGANIZATION: A chart showing the QC organizational structure.

II. NAMES AND QUALIFICATIONS: Names and qualifications, in resume format as described by the paragraph "Key Personnel Resume Requirements", for each person in the QC organization. Include all supporting documents demonstrating compliance with the stated qualifications to include the CQM for Contractors course certifications for the QC Manager and Alternate QC Manager as required by the paragraphs entitled "QC Manager Qualifications".

III. DUTIES, AND AUTHORITY OF QC PERSONNEL: Duties, responsibilities, and authorities of each person in the QC organization.

IV. OUTSIDE ORGANIZATIONS: A listing of outside organizations, such as architectural and consulting engineering firms, that will be employed by the Contractor and a description of the services these firms will provide.

V. APPOINTMENT LETTERS: Letters signed by a principle officer of the firm appointing the QC Manager, Superintendent, Alternate QCM and Alternate Superintendent describing and delegating the required duties and authorities required in this Contract. Include in this letter the responsibility of the QC Manager and Alternate QC Manager to implement and manage the three phases of control, and their authority to stop work which is not in compliance with the Contract. The QC Manager shall issue letters of direction to all other QC personnel outlining their duties, authorities, and responsibilities. Copies of the letters shall be included in the QC Plan.

VI. SUBMITTAL PROCEDURES AND INITIAL SUBMITTAL REGISTER: Procedures for reviewing, approving, and managing submittals. Provide the name(s) of the person(s) in the QC organization authorized to review and certify submittals prior to approval. Provide the initial submittal of the Submittal Register or Log as specified in Section 01 33 00 SUBMITTAL PROCEDURES.

VII. TESTING LABORATORY INFORMATION: laboratory information required by the paragraphs entitled "Accreditation Requirements", as applicable.

VIII. TESTING PLAN AND LOG: A Testing Plan and Log that includes the tests required, referenced by the specification paragraph number requiring the test, the frequency, and the person responsible for each test. Use Government approved forms to log and track tests.

IX. PROCEDURES TO COMPLETE REWORK ITEMS: Procedures to identify, record, track, document corrective action plans and complete rework items. Include proposed forms to record and track rework items.

X. DOCUMENTATION PROCEDURES: Include proposed forms and provide copies of the Government furnished QCM and Superintendent daily report forms.

XI. LIST OF DEFINABLE FEATURES: A Definable Feature of Work (DFOW) is a task that is separate and distinct from other tasks and has control requirements and work crews unique to that task. A DFOW is identified by different trades or disciplines and is an item or activity on the construction schedule. The list of DFOWs shall include, but not be limited to, all critical path activities on the Network Analysis Schedule (NAS). Each submittal package differentiated by specification section shall have separate DFOWs in the Network Analysis Schedule.

XII. PROCEDURES FOR PERFORMING THE THREE PHASES OF CONTROL: Identify procedures you will use to ensure the three phases of control are used to manage the quality on this project. For each DFOW, a Preparatory and Initial phase checklist will be filled out during the Preparatory and Initial phase meetings. The Preparatory and Initial Phases and meetings shall be conducted with a view towards obtaining quality construction by planning ahead and identifying potential problems for each DFOW.

XIII. ORGANIZATIONAL MATRIX: A matrix showing organizational structure and hierarchal relationships of key field staff and home office management.

XIV. PROCEDURES FOR COMPLETION INSPECTION: Procedures for identifying and documenting the completion inspection process. Include in these procedures the responsible party for punch out inspection, pre-final inspection, and final acceptance inspection.

XV. TRAINING PROCEDURES AND TRAINING LOG: Procedures for coordinating and documenting the training of personnel required by the Contract. Include a sample record of training for reporting what systems were included in the training, who provided the training, when and where the training was performed and who attended the training.

XVI. ORGANIZATION AND SUBCONTRACTOR CERTIFICATIONS LOG: Procedures for coordinating, tracking and documenting all certifications on subcontractors, testing laboratories, suppliers, personnel, etc. QC Manager will ensure that certifications are current, appropriate for the work being performed, and will not lapse during any period of the contract that the work is being performed.

1.9 QC PLAN MEETINGS

The QC Manager will meet with the Project Manager to discuss the QC Plan requirements of this Contract as required.

## 1.10 COORDINATION AND MUTUAL UNDERSTANDING MEETING

After submission of the QC Plan, and prior to the start of demolition/construction, the QC personnel will meet with the Project Manager to present the QC program required by this Contract. When a new QC Manager is appointed, the coordination and mutual understanding meeting shall be repeated.

### 1.10.1 Purpose

The purpose of this meeting is to develop a mutual understanding of the QC details, including documentation, administration for on-site and off-site work, design intent, environmental requirements and procedures, coordination of activities to be performed, and the coordination of the Contractor's management, production, and QC personnel. At the meeting, the Contractor will be required to explain in detail how three phases of control will be implemented for each DFOW, as well as how each DFOW will be affected by each management plan or requirement as listed below:

a. Waste Management Plan.

b. Indoor Air Quality (IAQ) Management Plan.

c. Procedures for noise and acoustics management.

d. Environmental Protection Plan.

e. Environmental regulatory requirements.

f. Commissioning (Cx) Plan.

### 1.10.2 Coordination of Activities

Activities included in various sections shall be coordinated to assure efficient and orderly installation of each component. Coordinate operations included under different sections that are dependent on each other for proper installation and operation. Schedule construction operations with consideration for indoor air quality as specified in the IAQ Management Plan. Coordinate prefunctional tests and startup testing with Cx.

### 1.10.3 Attendees

As a minimum, the Contractor's personnel required to attend shall include Project Superintendent, QC Manager, Alternate QC Manager, CA, Environmental Manager, and subcontractor representatives. Minutes of the meeting will be prepared by the QC Manager and signed by the Contractor. The Contractor shall provide a copy of the signed minutes to all attendees and a copy shall be included in the Final QC Plan.

## 1.11 QC MEETINGS

After the start of construction, the QC Manager shall conduct weekly QC meetings at the work site with the Project Superintendent, the CA, and the foremen who are performing the definable features of work (DFOWs). The QC Manager shall prepare the minutes of the meeting and provide a copy to the Project Manager within two working days after the meeting. Government personnel may attend these meetings. As a minimum, the following shall be accomplished at each meeting:

a. Review the minutes of the previous meeting;

b. Review the schedule and the status of work and rework;

c. Review the status of submittals;

d. Review work and testing accomplished since the last meeting;

e. Address rework items identified since the last meeting;

f. Address rework items corrected since the last meeting;

g. Review the work to be accomplished in the next two weeks and documentation required;

h. Resolve QC and production problems (RFI, etc.);

i. Address items that may require revising the QC Plan;

j. Review Accident Prevention Plan (APP);

k. Review environmental requirements and procedures;

l. Review Waste Management Plan;

m. Review IAQ Management Plan;

n. Review Environmental Management Plan;

o. Review the status of training completion; and

p. Review commissioning (Cx) Plan and progress.

1.12 REVIEW AND DOCUMENTATION

1.12.1 Contract Document Review

The CA shall review the Contract documents to verify that each commissioned system is likely to meet the design intent relative to functionality, energy performance, water performance, maintainability, sustainability, system cost, indoor environmental quality, and local environmental impacts.

1.13 THREE PHASES OF CONTROL

The Three Phases of Control shall adequately cover both on-site and off-site work and shall include the following for each DFOW.

1.13.1 Preparatory Phase

Notify the Project Manager at least two work days in advance of each preparatory phase meeting. The meeting shall be conducted by the QC Manager and attended by the Project Superintendent, the CA, and the foreman responsible for the DFOW. When the DFOW will be accomplished by a subcontractor, that subcontractor's foreman shall attend the preparatory phase meeting. Document the results of the preparatory phase actions in the daily Contractor Quality Control Report and in the Preparatory Phase Checklist. Perform the following prior to beginning work on each DFOW:

a. Review each paragraph of the applicable specification sections;

b. Review the Contract drawings;

c. Verify that field measurements are as indicated on construction and/or shop drawings before confirming product orders in order to coordinate work and avoid dimensional errors and rework;

d. Verify that appropriate shop drawings and submittals for materials and equipment have been submitted and approved. Verify receipt of approved factory test results, when required;

e. Review the testing plan and ensure that provisions have been made to provide the required QC testing;

f. Examine the work area to ensure that the required preliminary work has been completed;

g. Coordinate the schedule of product delivery to designated prepared areas in order to minimize site storage time and potential damage to stored materials;

h. Examine the required materials, equipment and sample work to ensure that they are on hand and conform to the approved shop drawings and submitted data;

i. Discuss construction methods, construction tolerances, workmanship standards, and the approach that will be used to provide quality construction by planning ahead and identifying potential problems for each DFOW;

j. Review the Accident Prevention Plan (APP) and appropriate Activity Hazard Analysis (AHA) to ensure that applicable safety requirements are met, and that required Material Safety Data Sheets (MSDS) are submitted; and

k. Review the Commissioning (Cx) Plan and ensure all preliminary work items have been completed and documented.

1.13.2 Initial Phase

Notify the Project Manager at least two work days in advance of each initial phase. When construction crews are ready to start work on a DFOW, conduct the initial phase with the Project Superintendent, and the foreman responsible for that DFOW. Observe the initial segment of the DFOW to ensure that the work complies with Contract requirements. Document the results of the initial phase in the daily CQC Report and in the Initial Phase Checklist.Repeat the initial phase for each new crew to work on-site, or when acceptable levels of specified quality are not being met. Perform the following for each DFOW:

a. Establish the quality of workmanship required;

b. Resolve conflicts;

c. Ensure that testing is performed by the approved laboratory;

d. Check work procedures for compliance with the APP and the appropriate

AHA to ensure that applicable safety requirements are met; and

e. Review the Cx Plan and ensure all preparatory work items have been completed and documented.

1.13.3 Follow-Up Phase

Perform the following for on-going work daily, or more frequently as necessary, until the completion of each DFOW and document in the daily CQC Report:

a. Ensure the work is in compliance with Contract requirements;

b. Maintain the quality of workmanship required;

c. Ensure that testing is performed by the approved laboratory;

d. Ensure that rework items are being corrected;

e. Perform safety inspections; and

f. Review the Cx Plan and ensure all work items, testing, and documentation has been completed.

1.13.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same DFOW if the quality of on-going work is unacceptable, if there are changes in the applicable QC organization, if there are changes in the on-site production supervision or work crew, if work on a DFOW is resumed after substantial period of inactivity, or if other problems develop.

1.13.5 Notification of Three Phases of Control for Off-Site Work

Notify the Project Manager at least two weeks prior to the start of the preparatory and initial phases.

1.14 SUBMITTAL REVIEW AND APPROVAL

Procedures for submission, review and approval of submittals are described in Section 01 33 00 SUBMITTAL PROCEDURES.

1.15 TESTING

Except as stated otherwise in the specification sections, perform sampling and testing required under this Contract.

1.15.1 Accreditation Requirements

Construction materials testing laboratories must be accredited by a laboratory accreditation authority and will be required to submit a copy of the Certificate of Accreditation and Scope of Accreditation. The laboratory's scope of accreditation must include the appropriate ASTM standards (E 329, C 1077, D 3666, D 3740, A 880, E 543) listed in the technical sections of the specifications. Laboratories engaged in Hazardous Materials Testing shall meet the requirements of OSHA and EPA. The policy applies to the specific laboratory performing the actual testing, not just the Corporate Office.

1.15.2 Laboratory Accreditation Authorities

Laboratory Accreditation Authorities include the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology at http://ts.nist.gov/ts/htdocs/210/214/214.htm , the American Association of State Highway and Transportation Officials (AASHTO) program at http://www.transportation.org/aashto/home.nsf/frontpage , International Accreditation Services, Inc. (IAS) at http://www.iasonline.org, U. S. Army Corps of Engineers Materials Testing Center (MTC)at http://www.wes.army.mil/SL/MTC/, the American Association for Laboratory Accreditation (A2LA) program at http://www.a2la.org/, the Washington Association of Building Officials (WABO) at http://www.wabo.org/.

1.15.3 Capability Check

The Government retains the right to check laboratory equipment in the proposed laboratory and the laboratory technician's testing procedures, techniques, and other items pertinent to testing, for compliance with the standards set forth in this Contract.

1.15.4 Test Results

Cite applicable Contract requirements, tests or analytical procedures used. Provide actual results and include a statement that the item tested or analyzed conforms or fails to conform to specified requirements. If the item fails to conform, notify the Project Manager immediately. Conspicuously stamp the cover sheet for each report in large red letters "CONFORMS" or "DOES NOT CONFORM" to the specification requirements, whichever is applicable. Test results shall be signed by a testing laboratory representative authorized to sign certified test reports. Within five (5) days of testing, furnish the signed reports, certifications, and other documentation to the Project Manager via the QC Manager and the Daily QC Report. Full payment for work subject to testing is dependent upon successful testing.

1.16 QC CERTIFICATIONS

1.16.1 CQC Report Certification

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

1.16.2 Invoice Certification

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

1.16.3 Completion Certification

Upon completion of work under this Contract, the QC Manager shall furnish a certificate to the Government attesting that "the work has been completed, inspected, tested and is in compliance with the Contract."

## 1.17 COMPLETION INSPECTIONS

### 1.17.1 Punch-Out Inspection

Near the completion of all work or any increment thereof, established by a completion time stated in the Contract Clause entitled "Commencement, Prosecution, and Completion of Work," or stated elsewhere in the specifications, the QC Manager shall self-perform an inspection of the work and develop a "punch list" of items which do not conform to the contract documents. Include in the punch list any remaining items on the "Rework Items List", which were not corrected prior to the Punch-Out Inspection. The punch list shall include the estimated date by which the deficiencies will be corrected. Four copies of the punch list shall be provided to the Government. The QC Manager shall make follow-on inspections to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall certify in writing to the Government that Punch-Out work is satisfactorily completed and the facility is ready for the Government "Pre-Final Inspection". Allow a minimum of five (5) working days for Government coordination of the start of Pre-Final Inspection.

### 1.17.2 Pre-Final Inspection

The Government will perform this inspection to verify that the facility is complete. The Government may terminate Pre-Final Inspection at any time should it be determined the work has not been satisfactorily completed or that previously documented deficiencies remain incomplete. In such an instance the Contractor shall resume and progress Punch-Out work and the QCM shall repeat the Punch-Out Inspection. A Government "Pre-Final Punch List" may be developed as a result of this inspection. The QC Manager shall ensure that all items on this list are corrected prior to notifying the Government that a "Final" inspection with the Client can be scheduled. Any items noted on the "Pre-Final" inspection shall be corrected in a timely manner and shall be accomplished before the contract completion date for the work, or any particular increment thereof, if the project is divided into increments by separate completion dates.

### 1.17.3 Final Acceptance Inspection

The QCM shall notify the Project Manager at least 14 calendar days prior to the date a final acceptance inspection can be held. The notice shall certify in writing that all items previously identified on the pre-final punch list will be corrected and acceptable, along with any other unfinished Contract work, by the proposed date of the final acceptance inspection. The Contractor shall be represented by the QC Manager, the Project Superintendent, the CA, and others deemed necessary. Attendees for the Government will include the Project Manager, COTRs, and personnel representing the Client. Failure of the Contractor to have all contract work acceptably complete for this inspection will be cause for the Government to bill the Contractor for costs inherent to the Government's additional inspection in accordance with the Contract Clause entitled "Inspection of Construction."

The approved QC Manager and Superintendent shall remain employed on-site until final acceptance.

## 1.18 TRAINING

Prior to request for "Pre-final Inspection" of the facility by the Project

Manager the QC Manager and Contractor shall provide a comprehensive project-specific Government personnel training program for the systems and equipment of the facility specified in the technical specifications of this Contract. The trainees shall include the Project Manager, facilities managers, maintenance staff, and key building occupants. The Contractor shall be responsible for coordinating, scheduling, and ensuring that training is completed. Instructors shall have a working knowledge and be well-versed in the particular systems that they are presenting. Provide instruction time on site at a location approved by the Project Manager.

1.18.1 Training Plan

The Contractor shall submit a written training outline to the Project Manager and CA for review and approval prior to training. The training shall be coordinated and scheduled with the Project Manager and CA. The plan shall include the following elements:

a. Equipment included in training.

b. Intended audience.

c. Location of training.

d. Objectives.

e. Subjects covered including description.

f. Duration of training on each subject.

g. Methods (classroom lecture, video, site walk-through, actual operational demonstrations, written handouts, etc.).

h. Instructor and instructor qualifications for each subject.

1.18.2 Content

Training shall stress and enhance the importance of system interactions, troubleshooting, and long-term preventative maintenance and operation. The core of this training will be based on manufacturer's recommendations and the operation and maintenance information provided as a part of this Contract. A review of environmentally-related aspects of the Operation and Maintenance Manuals shall be included. The following shall be included for each system:

a. Design intent based on the contract documents.

b. Use of O&M Manuals.

c. Review of control drawings and schematics.

d. Start-up, normal operation, shutdown, unoccupied operation, seasonal changeover, manual operation, controls set-up and programming, troubleshooting, and alarms.

e. Interactions with other systems.

f. Adjustments and optimizing methods for energy conservation.

g. Relevant health and safety issues.

h. Special maintenance and replacement sources.

i. Tenant interaction issues.

j. Discussion of how the feature or system is environmentally responsive.

1.18.3 Building Systems Training

The QCM shall be responsible for coordination of all building systems training with the Government. The QCM shall interview the Project Manager to determine the special needs and identify all building systems for which training is required. Prior to Punch-Out, provide the Project Manager a comprehensive listing of the building systems training and the proposed training schedule for each course. Training course schedules are subject to Government coordination and approval. Provide a training agenda and training documents to the Project Manager in advance of each scheduled training course. The Contractor will provide each trainee in the course a written course outline and training manual, listing the major and minor topics to be discussed by the instructor on each day of the course. Assume a maximum of ten (10) trainees in any single system course of training. The QCM shall record training minutes and a sign-in list containing attendees' names/organizations. Maintain a Training Log in a three-ring binder including documents required under Building Systems Training. Submit to the Project Manager a record of training agendas, minutes, and attendees within five (5) calendar days of completion of each training course.

1.18.4 Unresolved Questions From Trainees

If, at the end of the training course, there are questions from trainees that remain unresolved, the instructor shall send the answers, in writing, to the Project Manager for transmittal to the trainees.

1.18.5 Validation of Training Completion

Provide completed and signed validation of training forms as provided in the QC Plan for all training sessions accomplished. Provide two copies of the signed training validation forms to the Project Manager.

1.19 DOCUMENTATION

Maintain current and complete records of on-site and off-site QC program operations and activities. The Contractor shall submit documentation as requested.

1.19.1 Construction Documentation

Reports are required for each day that work is performed and shall accompany the Contractor Quality Control Daily Report prepared for the same day. Maintain current and complete records of on-site and off-site QC program operations and activities. Reports are required for each day work is performed. Account for each calendar day throughout the life of the Contract. Every space on the forms must be filled in. Use N/A if nothing can be reported in one of the spaces. The Project Superintendent and the QC Manager must prepare and sign their respective daily reports. The reporting of work shall be identified by terminology consistent with the construction schedule. In the "remarks" sections of the reports, enter pertinent information including directions received, problems

encountered during construction, work progress and delays, conflicts or errors in the drawings or specifications, field changes, safety hazards encountered, instructions given and corrective actions taken, delays encountered and a record of visitors to the work site, quality control problem areas, deviations from the QC Plan, construction deficiencies encountered, meetings held. For each entry in the report(s), identify the Schedule Activity No. that is associated with the entered remark.

1.19.2 Quality Control Field Office Library

Establish and maintain the following library of information at the site Contractor field office in a series of separate three ring binders. Binders shall be identified, divided and tabbed for the orderly presentation of information. These binders shall be maintained, readily and publicly accessible in the field office to Government personnel during all business hours.

a. All completed Preparatory and Initial Phase Checklists, arranged by specification section.

b. All milestone inspections, arranged by Activity Number.

c. An up-to-date copy of the Testing Plan and Log with supporting field test reports, arranged by specification section.

d. Copies of all contract modifications, arranged in numerical order. Also include documentation that modified work was accomplished.

e. An up-to-date copy of the Rework Items List and the related Corrective Action Plans.

f. Maintain up-to-date copies of all punch lists issued by the QC staff to the Contractor and Sub-Contractors and all punch lists issued by the Government.

g. Commissioning documentation including Cx checklists, schedules, tests, and reports.

h. Training Log, training agendas, attendees list, training manuals, training verification forms and other supporting documentation.

i. Copies of Field Change and Variance Logs arranged numerically in a chronological order recording all Government approved field changes and variances. Use the Government approved form for Variances. Include description of the subject specification or drawing reference, related correspondence and documents, and documentation of Field Change or Variance approval from the Project Manager.

j. Testing Plan and Log including all test reports and approvals organized and tabbed by specification section.

k. Request For Information (RFI) Log including copies of all RFI's and the responses arranged in a numerical order.

l. Submittal Log including a comprehensive listing of all submittals required by the contract documents with delivery dates and actions taken. Organize and tab by specification section.

m. Contractor Construction Compliance Notice (CCCN) Log including copies

of all original signed compliance notices arranged in numerical order. Include descriptions of problems, corrective actions, and dates of correction completion.

o. Listing of all Subcontractors and emergency contact information for each.

1.19.3 Testing Plan and Log

As tests are performed, the QC Manager shall record on the "Testing Plan and Log" the date the test was performed and the date the test results were forwarded to the Project Manager. Attach a copy of the updated "Testing Plan and Log" to the Daily CQC Report. A copy of the final "Testing Plan and Log" shall be provided to the Project Manager at project closeout.

1.19.4 Rework Items List and Corrective Action Plans

The QC Manager shall maintain a list of work that does not comply with the Contract, identifying what items need to be reworked, the date the item was originally discovered, the date the item will be corrected by, and the date the item was corrected. Provide detailed written Corrective Action Plans to the Project Manager as requested in association with rework items. Corrective action plans shall be presented in narrative format with supporting drawings, product information, submittals, and other documents as required. Do not progress work without written Project Manager approval of Corrective Action Plans. Make changes to Corrective Action Plans as required by the Government. Remove and replace non-compliant or deficient work as instructed by the Project Manager. There is no requirement to report a rework item that is corrected the same day it is discovered. Attach a copy of the "Rework Items List" to each Progress Meeting Agenda and to the last daily CQC Report of each month. The Contractor shall be responsible for including those items identified by the Government.

1.19.5 As-Built Drawings

The QC Manager is required to ensure the as-built drawings, required by Section CLOSEOUT PROCEDURES are kept current on a daily basis and marked to show deviations which have been made from the Contract drawings. Ensure each deviation has been identified with the appropriate modifying documentation (e.g. Field Change No., Variance No., Modification No., Request for Information No., etc.). The QC Manager shall initial each revision. Upon completion of work, the QC Manager shall furnish a certificate attesting to the accuracy of the as-built drawings prior to submission to the Project Manager. Payment reductions or withholdings may result for insufficient routine maintenance of as-built drawings.

1.20 NOTIFICATION ON NON-COMPLIANCE

The Government will notify the Contractor of detected non-compliance with the Contract. Such notice, when verbally delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. The Government may, at its discretion, issue Construction Contractor Compliance Notices (CNNN's) or other written documentation concerning a non-complaint work. The Contractor shall take immediate steps to bring work into compliance. When a Corrective Action Plan is required by the Government, no corrective work shall occur prior to written Project Manager approval of the Corrective Action Plan. If the Contractor fails

or refuses to promptly bring work into compliance, the Government may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time for excess costs or damages by the Contractor.

## 1.21 CONSTRUCTION INDOOR AIR QUALITY (IAQ) MANAGEMENT PLAN

An IAQ Management Plan shall be submitted not less than 10 days before the Preconstruction Conference. Revise and resubmit Plan as required by the Government. Copies of the final Plan shall be made available to all workers on site. Include provisions in the Plan to meet the requirements specified below and to ensure safe, healthy air for construction workers and building occupants.

### 1.21.1 Requirements During Construction

Provide for evaluation of indoor Carbon Dioxide concentrations in accordance with ASTM D 6245. Provide for evaluation of volatile organic compounds (VOCs) in indoor air in accordance with ASTM D 6345. Use filters with a Minimum Efficiency Reporting Value (MERV) of 8 in permanently installed air handlers during construction.

#### 1.21.1.1 Control Measures

The Contractor shall meet or exceed the requirements of SMACNA 1507, Chapter 3, to help minimize contamination of the building from construction activities. The five requirements of this manual which must be adhered to are described below:

a. HVAC protection: Isolate return side of HVAC system from surrounding environment to prevent construction dust and debris from entering the duct work and spaces.

b. Source control: Use low emitting paints and other finishes, sealants, adhesives, and other materials as specified. When available, cleaning products shall have a low VOC content and be non-toxic to minimize building contamination. Utilize cleaning techniques that minimize dust generation. Cycle equipment off when not needed. Prohibit idling motor vehicles where emissions could be drawn into building. Designate receiving/storage areas for incoming material that minimize IAQ impacts.

c. Pathway interruption: When pollutants are generated use strategies such as 100 percent outside air ventilation or erection of physical barriers between work and non-work areas to prevent contamination.

d. Housekeeping: Clean daily to remove construction dust and debris. Promptly clean up spills. Remove accumulated water and keep work areas dry to discourage the growth of mold and bacteria. Take extra measures when hazardous materials are involved.

e. Scheduling: Control the sequence of construction to minimize the absorption of VOCs by other building materials.

#### 1.21.1.2 Moisture Contamination

a. Remove accumulated water and keep work dry.

b. Use dehumidification to remove moist, humid air from a work area.

c. Do not use combustion heaters or generators inside the building.

d. Protect porous materials from exposure to moisture.

e. Remove from the site and replace water damaged items as directed by the Project Manager.

1.21.2 Requirements after Construction

After construction ends and prior to occupancy, conduct a building flush-out or test the indoor air contaminant levels. Flush-out shall be a minimum two-week building flush-out with MERV-13 filtration media as determined by ASHRAE 52.2 at 100 percent outside air, or in accordance with LEED Reference Guide. Air contamination testing shall be consistent with EPA's current Compendium of Methods for the Determination of Air Pollutants in Indoor Air, and with the LEED Reference Guide. After building flush-out or testing and prior to occupancy, replace filtration media. Filtration media shall have a MERV of 13 as determined by ASHRAE 52.2.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PREPARATION

Designate receiving/storage areas for incoming material to be delivered according to installation schedule and to be placed convenient to work area in order to minimize waste due to excessive materials handling and misapplication. Store and handle materials in a manner as to prevent loss from weather and other damage. Keep materials, products, and accessories covered and off the ground, and store in a dry, secure area. Prevent contact with material that may cause corrosion, discoloration, or staining. Protect all materials and installations from damage by the activities of other trades.

3.2 GOVERNMENT QUALITY ASSURANCE

In accordance with FAR 52.246-12, Inspection of Construction:

a. Government inspections and tests are for the sole benefit of the Government and do not-

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

b. The presence or absence of a Government inspector does not relieve the

Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Project Manager's written authorization.

c. The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Project Manager. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

d. The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

e. If the Contractor does not promptly replace or correct rejected work, the Government may-

(1) By contract or otherwise, replace or correct the work and charge the cost to the Contractor; or

(2) Terminate for default the Contractor's right to proceed.

f. If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Project Manager shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

3.3 GOVERNMENT ACCEPTANCE

The performance and quality of work delivered by the Contractor, including services rendered and any documentation, shall be subject to inspection, review, and acceptance by the Government. All work shall be completed within the time specified in the contract, including provision of close-out documents and correction of deficiencies noted during the final inspection.

3.4 WARRANTY RESPONSIBILITIES

The Contractor shall perform quality control duties in relation to warranty work. Provide a knowledgeable and competent person on site to coordinate, supervise, and to execute quality control processes on warranty work. Perform final inspection of warranty work and promptly notify the Government of the compliant completion of warranty work. Responses times and corrective actions shall be coordinated with the Government. In accordance with FAR 52.246-21 Warranty of Construction:

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

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

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

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

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

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

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

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

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

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

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

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

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

-- End of Section --

SECTION 01 45 35

SPECIAL INSPECTION FOR SEISMIC-RESISTING SYSTEMS
**08/08**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC)

| | |
|---|---|
| ANSI/AISC 360 | (2010) Specification for Structural Steel Buildings |

1.2 SYSTEM DESCRIPTION

Perform the Special Inspection for seismic-resisting system components as specified. Special Inspector personnel shall be in addition to the quality control inspections and inspectors required elsewhere in this section.

1.2.1 Continuous Special Inspection

Continuous special inspection is the full time observation of the work by the Special Inspector present in the work area whenever work is being performed. Perform continuous special inspection where specified for items as shown on the drawings.

1.2.2 Periodic Special Inspection

Periodic special inspection is the intermittent observation of the work by a Special Inspector present in the work area while work is being performed. The intermittent observation periods shall be: at times of significant work; recurrent over the complete work period; and total at least 25 percent of the total work time. Perform periodic special inspection where specified for items as shown on the drawings.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-07 Certificates

Special Inspector; G

Certification attesting that the Special Inspector is qualified by knowledge and experience to perform the specified Special Inspections. Information, which provides evidence of the knowledge and experience necessary to qualify a person as a Special Inspector for the category of work being certified, will accompany the qualification.

Quality Control Plan; G

1.4 QUALITY CONTROL PLAN

Develop a quality control plan containing the following. Include a certificate indicating that the plan meets the content specified in this section with plan submittal.

a. A list of all items that require quality control Special Inspection and testing, including the type, frequency, extent, and duration of the special inspection for each item on this list.

b. A list of all items that require quality control testing, including the type and frequency of testing for each item on this list.

c. The content, distribution, and frequency of special inspection reports.

d. The content, distribution, and frequency of testing reports.

e. The procedures, controls, and people used within the Contractor's organization to develop, sign, and distribute Special Inspection and Testing reports along with the position title and pertinent qualifications of all Contractor personnel involved.

1.5 SPECIAL INSPECTOR

Use a Special Inspector to perform Special Inspections required by this section. The Special Inspector is a person employed by the Contractor and approved by the Government as being qualified by knowledge and experience to perform the Special Inspection for the category of work being constructed. Special Inspectors perform their duties independent from the construction quality control staff employed by the Contractor. More than one Special Inspector may be required to provide the varied knowledge and experience necessary to adequately inspect all of the categories of work requiring Special Inspection.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

3.1 PERFORMANCE OF INSPECTIONS

Perform Special Inspections for the following where designated on the drawings:

3.1.1 Structural Steel

a. Continuous special inspection for all structural welding, except that periodic special inspection is permitted for single-pass or resistance welds and welds loaded to less than 50 percent of their design strength provided the qualifications of the welder and the welding electrodes are inspected at the beginning of the work and all welds are inspected for compliance with the approved construction documents at the completion of welding.

b. Periodic special inspection in accordance with ANSI/AISC 360 for the installation of bolts in intermediate moment frames, special truss moment frames and special concentrically braced frames except that bolts not required to be fully tensioned need not be inspected for bolt tension, other than to ensure that the plies of the connected elements have been brought into snug contact

3.1.2 Cold-Formed Steel Framing

a. Periodic special inspections during all welding operations of elements of the seismic-force-resisting system.

b. Periodic special inspections for screw attachment, bolting, anchoring, and other fastening of components within the seismic-force-resisting system, including struts, braces, and hold-downs.

3.1.3 Architectural Components

Perform special inspection of the architectural components ensuring that the methods of anchoring and fastening indicated on the drawings are being complied with at the onset of construction of the components, and that the specified or shown number, spacing, and types of fasteners were actually installed. Special inspection for architectural components shall be as follows:

a. Periodic special inspection during the erection and fastening of exterior cladding, interior nonloadbearing partition walls, exterior nonloadbearing walls and masonry veneer.

b. Periodic special inspection during the anchorage of suspended ceilings.

3.1.4 Mechanical and Electrical Components

Perform special inspection of the mechanical and electrical components ensuring that the methods of anchoring and fastening indicated on the drawings are being complied with at the onset of construction of the component, and that the specified or shown number, spacing, and types of fasteners were actually installed. Special inspection for mechanical and electrical components shall be as follows:

a. Periodic special inspection during the anchorage of electrical equipment for emergency or standby power systems.

b. Periodic special inspection during the installation of anchorage of all other electrical equipment.

c. Periodic special inspection during installation for flammable, combustible, or highly toxic piping systems and their associated mechanical units.

d. Periodic special inspection during the installation of HVAC ductwork that will contain hazardous materials.

3.2 REPORTING AND COMPLIANCE PROCEDURES

a. On the first day of each month, furnish to the Government five copies of the combined progress reports of the special inspector's observations listing all special inspections of construction or reviews of testing performed during that month, noting all uncorrected

deficiencies, and describing the corrections made both to these deficiencies and to previously reported deficiencies. Each monthly report shall be signed by all special inspectors who performed special inspections of construction or reviewed testing during that month, regardless of whether they reported any deficiencies . Each monthly report shall be signed by the Contractor.

b. At completion of construction, each special inspector shall prepare and sign a final report attesting that all work they inspected and all testing and test reports they reviewed were completed in accordance with the approved construction documents and that deficiencies identified were satisfactorily corrected. Submit a combined final report containing the signed final reports of all the special inspectors. Sign the combined final report attesting that all final reports of special inspectors that performed work to comply with these construction documents are contained therein, and that the Contractor has reviewed and approved all of the individual inspector's final reports.

-- End of Section --

SECTION 01 50 00

TEMPORARY CONSTRUCTION FACILITIES AND CONTROLS
**08/09**

PART 1 GENERAL

1.1 SUMMARY

Requirements of this Section apply to, and are a component of, each section of the specifications.

1.2 REFERENCES

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

AMERICAN WATER WORKS ASSOCIATION (AWWA)

| | |
|---|---|
| AWWA C511 | (2007) Standard for Reduced-Pressure Principle Backflow Prevention Assembly |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 241 | (2013; Errata 2015) Standard for Safeguarding Construction,Alteration, and Demolition Operations |
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Construction site plan; G

Backflow preventers; G

SD-06 Test Reports

Backflow Preventer Tests; G

SD-07 Certificates

Backflow Tester Certification; G

Backflow Preventers Certificate of Full Approval

1.4 CONSTRUCTION SITE PLAN

Prior to the start of work, submit a site plan showing the locations and dimensions of temporary facilities (including layouts and details, equipment and material storage area onsite and offsite), and access and haul routes used for this contract. Show locations of safety and construction fences, site trailers, construction entrances, trash dumpsters, temporary sanitary facilities, and worker parking areas.

1.5 TEMPORARY UTILITIES

1.5.1 Description of Work

Furnish, install and maintain temporary utilities required for construction. Remove on completion of work.

1.5.1.1 Requirements of Regulatory Agencies

Comply with:

a. National Electrical Code.

b. Federal, State and local codes and regulations.

c. FLETC Utility requirements.

1.5.2 Materials

May be new or used, but must be adequate in capacity for the required usage. Must not create unsafe conditions. Must not violate requirements of applicable codes and standards.

1.5.2.1 Temporary Electricity

Temporary power will be extended from Government's existing power system. The Contractor will make all extensions and bear all related costs including the temporary pole and its placement. The temporary pole placement must be coordinated with Central Valley Electric and the Government. If the Contractor requires a temporary power drop from Central Valley Electric, he shall arrange for service and bear all related costs.

1.5.2.2 Temporary Telephone Service

Arrange with local telephone service company. Provide direct line telephone service at the construction site for the use of personnel and employees. Service required shall include one direct line instrument in field office and other instruments at the option of the Contractor. Pay all costs for installation, maintenance, and removal and service charges.

1.5.2.3 Temporary Water

Coordinate with the utility owner and make connections to the existing water system. The Contractor will obtain permits, pay for all temporary extensions and bear all related costs.

1.5.2.4 Temporary Toilet Facilities

Provide sanitary facilities in compliance with laws and regulations of the

State of New Mexico and County of Eddy. Service, clean, and maintain facilities and enclosures.

1.5.3 Installation

Comply with applicable requirements specified in Division 22 and 23 - Plumbing and Mechanical and in Division 26 - Electrical. Maintain and operate systems to ensure continuous service. Modify and extend service systems as work progress requires.

1.6 WEATHER PROTECTION

Take necessary precautions to ensure that roof openings and other critical openings in the building are monitored carefully. Take immediate actions required to seal off such openings when rain or other detrimental weather is imminent, and at the end of each workday. Ensure that the openings are completely sealed off to protect materials and equipment in the building from damage.

1.6.1 Building and Site Storm Protection

When a warning of gale force winds is issued, take precautions to minimize danger to persons, and protect the work and nearby Government property. Precautions shall include, but are not limited to, closing openings; removing loose materials, tools and equipment from exposed locations; and removing or securing scaffolding and other temporary work. Close openings in the work when storms of lesser intensity pose a threat to the work or any nearby Government property.

1.7 STATION OPERATION AFFECT ON CONTRACTOR OPERATIONS

1.7.1 Restricted Access Areas

The Government will monitor work in areas indicated. Notify Contracting Officer at least 14 calendar days prior to starting work in these areas.

1.7.2 FLETC Campus Access

Construction site shall be separated from the FLETC campus by a security fence. Badges and/or background checks will not be required for all workers that remain within the construction boundaries. Project Managers, Superintendents and other supervisory personnel that will require access to the FLETC campus will be required to attain proper badges.

1.8 STORAGE AREAS

Contractor shall be responsible for security of his property. The Contract Clause entitled "FAR 52.236-10, Operations and Storage Areas" and the following apply:

1.8.1 Storage Size and Location

The open site available for storage shall be as indicated.

1.8.2 Storage in Existing Buildings

The Contractor shall be working around existing buildings; the storage of material will be allowed where indicated. Provide 8 foot high security fence with a lockable gate around the storage area. Remove at the

completion of work and return existing facilities to their original condition.

1.9 TEMPORARY SANITARY FACILITIES

Provide adequate sanitary conveniences of a type approved for the use of persons employed on the work, properly secluded from public observation, and maintained in such a manner as required and approved by the Contracting Officer. Maintain these conveniences at all times without nuisance. Upon completion of the work, remove the conveniences from the premises, leaving the premises clean and free from nuisance. Coordinate with the utility provider as required and dispose of sewage through connection to a municipal, district, or station sanitary sewage system. Bear all related costs of sanitary connections and facilities. Where such systems are not available, use chemical toilets or comparably effective units, and periodically empty wastes into a municipal, district, or station sanitary sewage system, or remove waste to a commercial facility. Include provisions for pest control and elimination of odors.

1.10 TEMPORARY BUILDINGS

Temporary facilities (including trailers) shall be in like new condition. Locate these facilities where directed and within the indicated operations area. Storage of material/debris under such facilities is prohibited. Contractor shall be responsible for the security of the stored property.

1.10.1 Trailers or Storage Buildings

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

PART 2 PRODUCTS

2.1 BACKFLOW PREVENTERS

Reduced pressure principle type conforming to the applicable requirements AWWA C511. Provide backflow preventers complete with 150 pound flanged cast iron, mounted gate valve and strainer, 304 stainless steel or bronze, internal parts. Approved backflow preventers shall be installed at all temporary connections to public fire hydrants.

PART 3 EXECUTION

3.1 TEMPORARY PHYSICAL CONTROLS

3.1.1 Access Controls

3.1.1.1 Temporary Barricades

Contractor shall provide for barricading around all work areas to prevent public access.

3.1.1.2 Fencing

The fencing shall be chain link and be 8 feet in height and be placed around the perimeter of the construction site and laydown area, and likewise a plastic silt fence shall be placed around construction site and laydown area. Fencing shall be provided along the construction site at all open excavations and tunnels controlling access to unauthorized people.

Fencing must be installed to be able to restrain a force of at least 200 pounds against it.

In addition, prior to the start of work, enclose those areas at the construction site which are not within the construction fence with a temporary safety fence, including gates and warning signs, to protect the public from construction activities. The safety fence shall be made of high density polyethylene grid or approved equal, a minimum of 42 inches high, supported and tightly secured to steel posts located on minimum 10 foot centers. Remove the fence from the work site and restore to original condition upon completion of the contract.

3.1.1.3 Safety Signs

Place warning signs at the construction area perimeter designating the presence of construction hazards requiring unauthorized persons to keep out. Signs must be placed on all sides of the project, with at least one sign every 300 feet. All points of entry shall have signs designating the construction site as a hard hat area. Erect signs upon start of construction work.

3.2 TEMPORARY WIRING

Provide temporary wiring in accordance with NFPA 241 and NFPA 70, Article 305-6(b), Assured Equipment Grounding Conductor Program. Program shall include frequent inspection of all equipment and apparatus.

3.3 CONSTRUCTION SIGN

Provide a 4' x 8' marine grade plywood project construction sign as described by the drawings in this section. Include project information on the sign and locate the sign as instructed by the PM. Erect project sign within 15 days of Notice to Proceed. Remove and dispose upon project completion.

-- End of Section --

SECTION 01 52 50

SAFETY REQUIREMENTS
**04/08**

PART 1 GENERAL

1.1 RELATED SECTIONS

Requirements of this Section apply to, and are component of, each section of the specifications.

1.2 REFERENCES

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

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

| | |
|---|---|
| ANSI A10.14 | (1991) Construction and Demolition Operations - Requirements for Safety Belts, Harnesses, Lanyards and Lifelines for Construction and Demolition Use |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 241 | (2013; Errata 2015) Standard for Safeguarding Construction,Alteration, and Demolition Operations |
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |

CODE OF FEDERAL REGULATIONS (CFR)

| | |
|---|---|
| 29 CFR 1910.94 | Ventilation |
| 29 CFR 1910.120 | Hazardous Waste Operations and Emergency Response |
| 29 CFR 1926.65 | Hazardous Waste Operations and Emergency Response |

CORPS OF ENGINEERS (COE)

| | |
|---|---|
| COE EM-385-1-1 | (2003) Safety and Health Requirements Manual |

1.3 DEFINITIONS

a. Multi-employer work site (MEWS). The prime contractor is the "controlling authority" for all work site safety and health of the subcontractors.

b. Recordable Occupational Injuries or Illness. An occupational injury or illnesses which result in serious injuries, lost workday

cases, non-fatal cases or significant mishaps.

c. Serious Injuries & Fatalities. Regardless of the time between the injury and death or the length of the illness; hospitalization of three or more employees; or property damage in excess of $200,000.

d. Lost Workday Cases. Injuries, other than fatalities, that result in lost workdays.

e. Non-Fatal Cases. Cases without lost workdays which result in transfer to another job or termination of employment, or require medical treatment (other than first aid) or involve property damage in excess of $10,000 but less than $200,000 or involve: loss of consciousness or restriction of work or motion. This category also includes any diagnosed occupational illnesses which are reported to the employer but are not classified as facilities or lost workday cases.

f. Health and Safety Plan. Army term of SHP or SSHP used in COE EM-385-1-1. "USACE" property and equipment specified in COE EM-385-1-1 should be interpreted as Government property and equipment.

g. Safety Officer. The superintendent or other qualified or competent person who is responsible for the on-site safety required for the project. The Contractor Quality Control Manager cannot be the safety officer, even through the QC has safety inspection responsibilities as part of the QC duties.

h. Significant Contractor Mishap. A contractor mishap which involves falls of 4 feet or more, electrical mishaps, confined space mishaps, diving mishaps, equipment mishaps, and fire mishaps which result in a lost time injury, or property damage of $10,000 or more, but less than $200,000; or when fire department or emergency medical treatment (EMT) assistance is required.

i. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment provided by a physician or registered personnel.

j. First Aid. A one-time treatment, and follow-up visit for the purpose of observation, of minor scratches, cuts, burns, splinters, and so forth, which do not ordinarily require medical care, even though provided by a physician or registered professional personnel.

k. Lost Workdays. The number of days (consecutive or not) after, but not including, the day of injury or illness during which the employee would have worked but could not do so; that is, could not perform all or part of his normal assignment during all or any part of the workday or shift; because of the occupational injury or illness.

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident prevention plan (APP); G

Activity Hazard Analysis (AHA); G

Health and Safety Plan (HASP); G

The above must be submitted a minimum of 7 days prior to scheduled Preconstruction Conference. Government approval is required prior to Notice to Proceed and commencement of work activities.

SD-06 Test Reports

Reports

Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

1.5 QUALITY ASSURANCE

1.5.1 Qualifications

a. Qualifications of Safety Officer:

(1) Ability to manage the on-site contractor safety program through appropriate management controls,

(2) Ability to identify hazards and have the capability to expend resources necessary to abate the hazards.

(3) Must have worked on similar types of projects that are equal to or exceed the scope of the project assigned with the same responsibilities.

b. Qualification of Crane Operators. Crane operators shall meet the requirements in COE EM-385-1-1, Appendix G.

1.5.2 Meetings

1.5.2.1 Preconstruction Conference

The safety officer shall attend the preconstruction conference and routine progress meetings.

1.5.2.2 Meeting on Work Procedures

Meet with employees regularly to discuss work procedures and safety precautions required by the APP and AHA. Ensure the participation of the Contractor's Superintendent and the Quality Control Manager.

1.6 ACCIDENT PREVENTION PLAN (APP)

Prepare the APP in accordance with the required and advisory provisions of COE EM-385-1-1 including Appendix A, "Minimum Basic Outline for Preparation of Accident Prevention Plan," and as modified herein. Include the associated AHA and other specific plans, programs and procedures

listed on Pages A-3 and A-4 of COE EM-385-1-1, some of which are called out below. On-site work shall not be authorized until the Government has approved the APP.

1.6.1 Contents of the Accident Prevention Plan

a. Name and safety related qualifications of Safety Officer (including training and any certifications).

b. Qualifications of competent and of qualified persons including competent person for excavation.

c. Identify of the individual who will complete exposure data (hours worked); accident investigations, reports and logs; and immediate notification of accidents to include subcontractors.

d. Emergency response plan. Conform to COE EM-385-1-1, paragraph 01.E and include a map denoting the route to the nearest emergency care facility with emergency phone numbers. Contractor may be required to demonstrate emergency response.

e. Hazardous Material Use. Provisions to deal with hazardous materials, pursuant to the Contract Clause "FAR 52.223-3, Hazardous Material Identification and Material Safety Data." And the following:

(1) Inventory of hazardous materials to be introduced to the site with estimated quantities.

(2) Plan for protecting personnel and property during the transport, storage and use of the materials

(3) Emergency procedures for spill response and disposal, including a site map with approximate quantities on site at any given time. The site map will be attached to the inventory, showing where the hazardous substances are stored

(4) Material Safety Data Sheets for inventoried materials not required in other section of this specification.

(5) Labeling system to identify contents on all containers on-site.

(6) Plan for communicating high health hazards to employees and adjacent occupants.

f. Hazardous Energy Control Plan. For hazardous energy sources, comply with COE EM-385-1-1, paragraph 12.A.07.

g. Critical Lift Procedures. Weight handling critical lift plans will be prepared and signed in accordance with COE EM-385-1-1, paragraph 16.c.18.

h. Alcohol and Drug Abuse Plan. Description of the on-site prevention program.

i. Fall Protection Plan. The plan shall be site specific and protect all workers at elevations above 6 feet.

j. Silica Exposure Reduction. The plan shall include specific procedures to prevent employee silica inhalation exposures.

1.7 ACTIVITY HAZARD ANALYSIS (AHA)

Prepare for each phase of the work. As a minimum, define activity being performed, sequence of work, specific hazards anticipated, control measures to eliminate or reduce each hazard to acceptable levels, training requirements for all involved, and the competent person in charge of that phase of work. For work with fall hazards, including fall hazards associated with scaffold erection and removal, identify the appropriate fall arrest systems. For work with materials handling equipment, address safeguarding measures related to materials handling equipment. For work requiring excavations, include excavation safeguarding requirements. The appropriate AHA shall be reviewed and attendance documented by Contractor at the preparatory, initial, and follow-up phases of Quality Control inspection.

1.8 HEALTH AND SAFETY PLAN (HASP)

Prepare as required by 29 CFR 1910.120 and COE EM-385-1-1.

1.8.1 Contents

In addition to the requirements of COE EM-385-1-1, Table 28-1, the HASP must include:

a. Location, size, and details of control areas.

b. Location and details of decontamination systems.

c. Interface of trades involved in the construction.

d. Sequencing of work.

e. Disposal plan.

f. Sampling protocols.

g. Testing labs.

h. Protective equipment.

i. Pollution control.

j. Evidence of compliance with 29 CFR 1910.120 and 29 CFR 1926.65.

k. Training and certifications of CIH, CSP or other competent persons.

1.9 FALL HAZARD PREVENTION PROGRAM

1.9.1 Scaffolds

Delineate the fall protection requirements necessary during the erection and dismantling operation of scaffolds used on the project in the fall protection plan and activity hazard analysis for the phase of work.

1.9.2 Training

Institute a fall protection program. As part of the Fall Protection Program, contractor shall provide training for each employee who might be

exposed to fall hazards.

1.10 DUTIES OF THE SAFETY OFFICER

a. Actively participate in the development of the required safety plan submittals.

b. Monitor and ensure construction hazards are identified and corrected.

c. Maintain applicable safety reference material, including COE EM-385-1-1, on the job site.

d. Maintain a log of safety inspections performed. Report all observed safety violations and corrective actions in writing to the Government.

e. Immediately stop any work activity in the event unsafe work practices are observed which are believed to pose a serious risk to personnel safety or property.

f. Attend the pre-construction conference and routine progress meetings.

g. Provide regular safety related training and instruction to all employees performing work under this contract.

1.11 DISPLAY OF SAFETY INFORMATION

Display the following information in clear view of the on-site construction personnel:

a. Map denoting the route to the nearest emergency care facility with emergency phone numbers.

b. AHA

c. Confined space entry permit.

d. Sign with number of hours worked since last lost workday accident.

1.12 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project on site, including COE EM-385-1-1 and those others listed in the article "References." Maintain applicable equipment manufacturers' manuals.

1.13 HIGH HAZARD WORK AND LONG DURATION

Work under this contract is potentially hazardous. Pursuant to contract clause "FAR 52.236-13, Accident Prevention, Alternate I," submit in writing additional proposals for effecting accident prevention under hazardous conditions.

1.14 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. Government has no responsibility to provide.

1.15 REPORTS

1.15.1 Reporting Reports

For OSHA inspections or recordable accidents, the prime contractor will conduct a suitable investigation, provide a copy of the OSHA inspection or accident report to the Government, and identify corrective actions. Provide findings and reports to the Government within 5 calendar days of the inspection or accident.

1.15.2 Notification

Notify the Contracting Officer, within 4 hours, of any accident meeting the definition of OSHA recordable occupational injury or illness. Information shall include Contractor name; contract title; type of contract; name of activity, installation or location where mishap occurred; date and time of mishap; names of personnel injured; extent of property damage, if any; and brief description of mishap (to include type of construction equipment used, PPE used, etc.) In addition to OSHA reporting requirements, initial notification shall be made of any accident involving significant mishaps.

1.15.3 Monthly Exposure Report

Monthly exposure reporting, to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor.

1.15.4 OSHA Citations and Violations

Provide the PM and Contracting Officer with a copy of each OSHA citation, OSHA report and Contractor response. Correct violations and citations promptly and provide written corrective actions to the Government.

PART 2 PRODUCTS

2.1 FALL PROTECTION ANCHORAGE

Fall protection anchorages, used by contractors to protect their people, will be left in place and so identified for continued customer use.

PART 3 EXECUTION

3.1 CONSTRUCTION

Comply with COE EM-385-1-1, NFPA 241, the accident prevention plan, the activity hazard analysis and other related submittals and activity fire and safety regulations.

3.1.1 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocynates, lead-based paint are prohibited.

3.1.2 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and nonfriable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2 PRE-OUTAGE COORDINATION MEETING

Contractors are required to apply for utility outages a minimum of 15 days in advance. As a minimum, the request should include the location of the outage, utilities being effected, duration of outage and any necessary sketches. Once approved and prior to beginning work on the utility system requiring shut down, the Contractor shall attend a pre-outage coordination meeting with the Construction Representative to review the scope of work and the lock out/tag out procedures for worker protection.

3.3 PERSONNEL PROTECTION

3.3.1 Hazardous Noise

Provide hazardous noise signs, and hearing protection, where ever equipment and work procedures produce sound-pressure levels greater than 85 dBA steady state or 140 dBA impulse, regardless of the duration of the exposure.

3.3.2 Fall Protection

Enforce use of the fall protection device named for each activity in the AHA all times when an employee is on a surface 6 feet or more above lower levels. Personal fall arrest systems are required when working from an articulating or extendible boom, scissor lifts, swing stages, or suspended platform. Fall protection must comply with ANSI A10.14.

3.3.3 Scaffolding

Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Contractor shall ensure that scaffold erection is performed by employees that are qualified. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection plan. Minimum platform size shall be based on the platform not being greater in height than four times the dimension of the smallest width dimension for rolling scaffold. Some Baker type scaffolding has been found not to meet these requirements. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. The first tie-in shall be at the height equal to 4 times the width of the scaffold base.

3.3.4 Use of Material Handling Equipment

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufactures printed operating instructions. Crane supported work platforms shall only be used in extreme conditions if the Contractor proves that using any other access to the work location would provide a greater hazard to the workers.

b. Christmas-tree lifting (multiple rigged materials) is not allowed.

3.3.5 Excavations

The Safety Officer shall be on site when work is being performed in excavation, and shall inspect excavations prior to entry by workers. Individual must evaluate for all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly.

3.3.6 Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cable intended to be cut must be positively identified and de-energized prior to performing each cut. Perform all high voltage cutting remotely.When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personnel protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. Insulating blankets, hearing protection, and switching suits may be required, depending on the specific job and as delineated in the Contractor AHA.

3.3.7 Crystalline Silica

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with OSHA regulations, such as 29 CFR 1910.94, and COE EM-385-1-1, (Appendix C). The Contractor shall develop and implement effective exposure control and elimination procedures to include dust control systems, engineering controls, and establishment of work area boundaries, as well as medical surveillance, training, air monitoring, and personal protective equipment.

3.4 ACCIDENT SCENE PRESERVATION

For serious accidents, ensure the accident site is secured and evidence is protected remaining undisturbed until released by the Contracting Officer.

## 3.5 FIELD QUALITY CONTROL

### 3.5.1 Inspections

Include safety inspection as a part of the daily Quality Control inspections required in Section 01 45 00, "Construction Quality Control."

-- End of Section --

SECTION 01 57 20

CONSTRUCTION AND DEMOLITION WASTE MANGEMENT
**02/08**

PART 1 GENERAL

1.1 SUMMARY

1.1.1 Government Policy

Government policy is to apply sound environmental principles in the design, construction and use of facilities. As part of the implementation of that policy the Contractor shall: (1) practice efficient waste management when sizing, cutting, and installing products and materials and (2) use all reasonable means to divert construction and demolition waste from landfills and incinerators and to facilitate their recycling or reuse.

1.1.2 Management

The Contractor shall take a pro-active, responsible role in the management of construction and demolition waste and require all subcontractors, vendors, and suppliers to participate in the effort. Construction and demolition waste includes products of demolition or removal, excess or unusable construction materials, packaging materials for construction products, and other materials generated during the construction process but not incorporated into the work. In the management of waste consideration shall be given to the availability of viable markets, the condition of the material, the ability to provide the material in suitable condition and in a quantity acceptable to available markets, and time constraints imposed by internal project completion mandates. The Contractor shall be responsible for implementation of any special programs involving rebates or similar incentives related to recycling of waste. Revenues or other savings obtained for salvage, or recycling shall accrue to the Contractor. Firms and facilities used for recycling, reuse, and disposal shall be appropriately permitted for the intended use to the extent required by federal, state, and local regulations.

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Required a minimum of 7 days prior to the scheduled Preconstruction Conference. Government approval required prior to NTP and commencement of work on site.

Waste Management Plan; G

SD-11 Closeout Submittals

Records; G

1.3 WASTE MANAGEMENT PLAN

The plan shall include the following:

a. Name of individuals on the Contractor's staff responsible for waste prevention and management.

b. Actions that will be taken to reduce solid waste generation.

c. Description of the specific approaches to be used in recycling/reuse of the various materials generated, including the areas and equipment to be used for processing, sorting, and temporary storage of wastes.

d. Characterization, including estimated types and quantities, of the waste to be generated.

e. Name of landfill and/or incinerator to be used and the estimated costs for use, assuming that there would be no salvage or recycling on the project.

f. Identification of local and regional reuse programs, including non-profit organizations such as schools, local housing agencies, and organizations that accept used materials such as materials exchange networks and Habitat for Humanity.

g. List of specific waste materials that will be salvaged for resale, salvaged and reused, or recycled. Recycling facilities that will be used shall be identified.

h. Identification of materials that cannot be recycled/reused with an explanation or justification.

i. Anticipated net cost savings determined by subtracting Contractor program management costs and the cost of disposal from the revenue generated by sale of the materials and the incineration and/or landfill cost avoidance.

1.4 RECORDS

Records shall be maintained to document the quantity of waste generated; the quantity of waste diverted through sale, reuse, or recycling; and the quantity of waste disposed by landfill or incineration. The records shall be made available to the Government during construction, and a copy of the records shall be delivered to the Government upon completion of the construction.

1.5 COLLECTION

The necessary containers, bins and storage areas to facilitate effective waste management shall be provided and shall be clearly and appropriately identified. Recyclable materials shall be handled to prevent contamination of materials from incompatible products and materials and separated by one of the following methods:

1.5.1 Source Separated Method

Waste products and materials that are recyclable shall be separated from trash and sorted into appropriately marked separate containers and then

transported to the respective recycling facility for further processing.

1.5.2 Co-Mingled Method

Waste products and recyclable materials shall be placed into a single container and then transported to a recycling facility where the recyclable materials are sorted and processed.

1.6 DISPOSAL

Except as otherwise specified in other sections of the specifications, disposal shall be in accordance with the following:

1.6.1 Reuse

First consideration shall be given to salvage for reuse since little or no re-processing is necessary for this method, and less pollution is created when items are reused in their original form. Sale or donation of waste suitable for reuse shall be considered. Salvaged materials, other than those specified in other sections to be salvaged and reinstalled, shall not be used in this project.

1.6.2 Recycle

Waste materials not suitable for reuse, but having value as being recyclable, shall be made available for recycling whenever economically feasible.

1.6.3 Waste

Materials with no practical use or economic benefit shall be disposed at a landfill or incinerator.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 01 57 50

TEMPORARY ENVIRONMENTAL CONTROLS
**02/10**

PART 1 GENERAL

1.1 REFERENCES

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

FLETC Activity Hazardous Waste Management Plan (Obtained from the FLETC Environmental Office located at Building 681, phone (912)267-3322 James Jones)

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D 4355 | (2007) Deterioration of Geotextiles from Exposure to Light, Moisture and Heat in a Xenon-Arc Type Apparatus |
| ASTM D 4491 | (1999a; R 2009) Water Permeability of Geotextiles by Permittivity |
| ASTM D 4533 | (2004; R 2009) Trapezoid Tearing Strength of Geotextiles |
| ASTM D 4632 | (2008) Grab Breaking Load and Elongation of Geotextiles |
| ASTM D 4751 | (2004) Determining Apparent Opening Size of a Geotextile |
| ASTM D 4873 | (2002; R 2009) Identification, Storage, and Handling of Geosynthetic Rolls and Samples |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 29 CFR 1910.120 | Hazardous Waste Operations and Emergency Response |
| 40 CFR 241 | Guidelines for Disposal of Solid Waste |
| 40 CFR 243 | Guidelines for the Storage and Collection of Residential, Commercial, and Institutional Solid Waste |
| 40 CFR 258 | Subtitle D Landfill Requirements |
| 40 CFR 260 | Hazardous Waste Management System: General |
| 40 CFR 261 | Identification and Listing of Hazardous Waste |
| 40 CFR 262 | Standards Applicable to Generators of |

| | |
|---|---|
| | Hazardous Waste |
| 40 CFR 263 | Standards Applicable to Transporters of Hazardous Waste |
| 40 CFR 264 | Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities |
| 40 CFR 265 | Interim Status Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal Facilities |
| 40 CFR 266 | Standards for the Management of Specific Hazardous Wastes and Specific Types of Hazardous Waste Management Facilities |
| 40 CFR 268 | Land Disposal Restrictions |
| 40 CFR 270 | EPA Administered Permit Programs: The Hazardous Waste Permit Program |
| 40 CFR 271 | Requirements for Authorization of State Hazardous Waste Programs |
| 40 CFR 272 | Approved State Hazardous Waste Management Programs |
| 40 CFR 273 | Standards For Universal Waste Management |
| 40 CFR 279 | Standards for the Management of Used Oil |
| 40 CFR 280 | Technical Standards and Corrective Action Requirements for Owners and Operators of Underground Storage Tanks (UST) |
| 40 CFR 300 | National Oil and Hazardous Substances Pollution Contingency Plan |
| 40 CFR 372-SUBPART D | Specific Toxic Chemical Listings |
| 49 CFR 173 | Shippers - General Requirements for Shipments and Packagings |

## 1.2 DEFINITIONS

### 1.2.1 Sediment

Soil and other debris that have eroded and have been transported by runoff water or wind.

### 1.2.2 Solid Waste

Garbage, refuse, debris, sludge, or other discharged material (except hazardous waste as defined in paragraph entitled "Hazardous Waste" or hazardous debris as defined in paragraph entitled "Hazardous Debris"), including solid, liquid, semisolid, or contained gaseous materials resulting from domestic, industrial, commercial, mining, or agricultural operations. Material not regulated as solid waste are: nuclear source or

byproduct materials regulated under the Federal Atomic Energy Act of 1954 as amended; suspended or dissolved materials in domestic sewage effluent or irrigation return flows, or other regulated point source discharges; regulated air emissions; and fluids or wastes associated with natural gas or crude oil exploration or production.

a. Green waste: The vegetative matter from landscaping, land clearing and grubbing, including, but not limited to, grass, bushes, scrubs, small trees and saplings, tree stumps and plant roots. Marketable trees, grasses and plants that are indicated to remain, be re-located, or be re-used are not included.

b. Surplus soil: Existing soil that is in excess of what is required for this work, including aggregates intended, but not used, for on-site mixing of concrete, mortars and paving. Contaminated soil meeting the definition of hazardous material or hazardous waste is not included.

c. Inert construction and demolition debris: Broken or removed concrete, masonry, and rock asphalt paving; ceramics; roofing paper and shingles. Inert materials may not be re-enforced with or contain ferrous wire, rods, accessories and weldments.

d. Wood: Dimension and non-dimension lumber, plywood, chipboard, hardboard. Treated and/or painted wood that meets the definition of lead contaminated or lead based contaminated paint is not included.

e. Scrap metal: Scrap and excess ferrous and non-ferrous metals such as re-enforcing steel, structural shapes, pipe and wire that are recovered or collected and disposed of as scrap. Scrap metal meeting the definition of hazardous material or hazardous waste is not included.

f. Paint cans: Metal cans that are empty of paints, solvents, thinners and adhesives. If permitted by the paint can label, a thin dry film may remain in the can.

g. Recyclables: Materials, equipment and assemblies such as doors, windows, door and window frames, plumbing fixtures, glazing and mirrors that are recovered and sold as recyclable. Metal meeting the definition of lead contaminated or lead based paint contaminated may not be included as recyclable if sold to a scrap metal company. Paint cans may be included as recyclable if sold to a scrap metal company.

1.2.3 Debris

Non-hazardous solid material generated during the construction, demolition, or renovation of a structure which exceeds 2.5 inch particle size that is: a manufactured object; plant or animal matter; or natural geologic material (e.g. cobbles and boulders). A mixture of debris and other material such as soil or sludge is also subject to regulation as debris if the mixture is comprised primarily of debris by volume, based on visual inspection.

1.2.4 Hazardous Debris

As defined in paragraph entitled "Debris" of this section, debris that contains listed hazardous waste (either on the debris surface, or in its interstices, such as pore structure) per 40 CFR 261; or debris that exhibits a characteristic of hazardous waste per 40 CFR 261.

1.2.5 Chemical Wastes

This includes salts, acids, alkalies, herbicides, pesticides, and organic chemicals.

1.2.6 Garbage

Refuse and scraps resulting from preparation, cooking, dispensing, and consumption of food.

1.2.7 Hazardous Waste

Hazardous waste as defined in 40 CFR 261 or as defined by applicable Federal, State and local regulations. Any discarded material, liquid, solid, or gas, which meets the definition of hazardous material or is designated hazardous waste by the Environmental Protection Agency or State Hazardous Control Authority as defined in 40 CFR 260, 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, 40 CFR 268, 40 CFR 270, 40 CFR 271, 40 CFR 272, 40 CFR 273, 40 CFR 279, and 40 CFR 280.

1.2.8 Oily Waste

Petroleum products and bituminous materials.

1.2.9 Class I Ozone Depleting Substance (ODS)

Class I ODS is defined in Section 602(a) of The Clean Air Act and includes the following chemicals:

chlorofluorocarbon-11 (CFC-11)
chlorofluorocarbon-12 (CFC-12)
chlorofluorocarbon-13 (CFC-13)
chlorofluorocarbon-111 (CFC-111)
chlorofluorocarbon-112 (CFC-112)
chlorofluorocarbon-113 (CFC-113)
chlorofluorocarbon-114 (CFC-114)
chlorofluorocarbon-115 (CFC-115)
chlorofluorocarbon-211 (CFC-211)
chlorofluorocarbon-212 (CFC-212)
chlorofluorocarbon-213 (CFC-213)
chlorofluorocarbon-214 (CFC-214)
chlorofluorocarbon-215 (CFC-215)
chlorofluorocarbon-216 (CFC-216)
chlorofluorocarbon-217 (CFC-217)
halon-1211
halon-1301
halon-2402
carbon tetrachloride
methyl chloroform

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Required a minimum of 7 days prior to the scheduled Preconstruction Conference. Government approval is required prior to NTP and commencement of work on site.

Environmental Protection and Waste Management plan; G

Erosion and Sediment Control Measure Plan; G

Environmental Manager Appointment Letter and Training Certification; G

A letter signed by an Officer of the firm appointing the Environmental Manager and stating that he/she is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work. The letter shall document the Environmental Manager's training experience required herein. The Environmental Manager's appointment is subject to the approval of the FLETC Environmental Office.

NPDES Permit; G

SD-03 Product Data

Submit the following directing to the Environmental Office located at Building 681.

Greening the Government submittals; G

Material Safety Data Sheets; G

Submit for all Contractor and Sub-Contractor Hazardous Materials that will be used on the construction site.

Hazardous Material Usage Report; G

The Contractor shall record the amount of each hazardous material used on the construction site and submit a Monthly Hazardous Material Usage Report.

SD-06 Test Reports

Submit the following directing to the Environmental Office located at Building 681.

Laboratory Analysis; G

Submit a copy of a laboratory analysis of solid waste and debris with the potential of becoming classified as a hazardous waste (i.e., abrasive/sand blasting debris, paints, etc.). Waste stream determinations are required at the point of generation and must sufficiently document whether the waste will be a solid waste, hazardous waste, or Resource Conservation and Recovery Act (RCRA) exempt waste. Determinations must use EPA approved methods and provide written rational for whether the waste is classified as hazardous or non-hazardous. The Contractor shall bear the cost of

the waste stream determinations, and the Contracting Officer reserves the right to request waste stream determinations on questionable waste streams.

1.4 RECORDS

The records listed below may also be required as part of other submittals. Maintain records on-site in a separate three-ring Environmental Records binder(s) and submit at the completion of the project. Make separate parts to the binder corresponding to each of the applicable sub-items listed below.

a. Preconstruction survey.

b. Solid waste disposal permit.

c. Waste determination documentation.

(Note: The Contractor shall maintain a qualified and Government approved Environmental Manager trained in waste and Hazardous waste determination on site during all work hours. Required Training shall be current within the last 12 months: Hazardous Waste Management Education - 40 hours of training at a minimum. The Contractor shall provide the FLETC Environmental Office a copy of the Hazardous Waste training Certificate for the Environmental Manager.

d. Disposal documentation for all hazardous and regulated waste.

e. Contractor employees performing work on this contract are required to have 40 CFR training records "Employee Hazardous Waste Training" A minimum of 2 hours of training.

Note: All Contractor Employees and Sub -Contractor Employees shall be trained in Hazardous Waste and Hazardous Waste Identification by the Contractor. The Contractor will ensure every employee completes a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures compliance with Federal, State and local regulatory requirements for RCRA. Comply with training requirements as defined in 40 CFR 265 for a Large Quantity Generator facility.

f. A letter signed by an Officer of the firm appointing the Environmental Manager and stating that he/she is responsible for managing and implementing the Environmental Program as described in this contract. Include in this letter the Environmental Manager's authority to direct the removal and replacement of non-conforming work. The letter shall document the Environmental Manager's Environmental education and experience. The Environmental Manager shall have a minimum of 40 hours documented Hazardous Waste Training within the last 12 months.

g. Solid waste disposal report: Monthly the Contractor will submit a solid waste disposal report to the Environmental Office. For each waste, the report will state the classification (using the definitions provided in this section), amount, location, and name of the business receiving the solid waste. The Contractor will include copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, the

Contractor may submit a statement indicating the disposal location for the solid waste which is signed by an officer of the Contractor firm authorized to legally obligate or bind the firm. The sales documentation or Contractor certification will include the receiver's tax identification number and business, EPA or State registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained by the Contractor for his own use, the Contractor will submit on the solid waste disposal report the information previously described in this paragraph. Prices paid or received will not be reported unless required by other provisions or specifications of this Contract or public law.

h. Product MSDS Sheets.

1.4.1 Preconstruction Survey

Perform a preconstruction survey of the project site with the Contracting Officer, and take photographs showing existing environmental conditions in and adjacent to the site. Photographs shall be taken using a digital camera and shall be the responsibility of the Contractor. Submit a report with photos to the Environmental Office for the record.

1.4.2 Solid Waste Disposal Permit

Submit one copy of a local permit or license showing such agency's approval of the disposal plan before transporting wastes off Government property.

1.4.3 Waste Determination Documentation

The Contractor shall complete a Waste Determination form (provided by the Environmental Office at the pre-construction conference) for all contractor derived wastes to be generated. The waste determination must be based upon either a constituent listing from the manufacturer used in conjunction with consideration of the process by which the waste was generated, EPA approved analytical data, or laboratory analysis (Material Safety Data Sheets (MSDS) by themselves are not adequate). All support documentation must be attached to the Waste Determination form. As a minimum, a Waste Determination form must be provided for the following wastes (this listing is not all inclusive): oil and latex based painting and caulking products, solvents, adhesives, aerosols, petroleum products, and all containers of the original materials.

1.4.4 Regulatory Notification

The Contractor is responsible for all regulatory notification requirements in accordance with Federal, State and local regulations. The Contractor shall forward copies to the Environmental Office and the Contracting Officer prior to commencement of work activities. Typically, regulatory notifications must be provided for the following (this listing is not all inclusive): demolition, renovation, NPDES defined site work, remediation of controlled substances, asbestos, hazardous waste, lead paint).

1.4.5 Solid Waste Disposal Report

Monthly the Contractor shall submit a solid waste disposal report to the Environmental Office. For each waste, the report shall state the classification (using the definitions provided in this section), amount,

location, and name of the business receiving the solid waste. The Contractor shall include copies of the waste handling facilities' weight tickets, receipts, bills of sale, and other sales documentation. In lieu of sales documentation, the Contractor may submit a statement indicating the disposal location for the solid waste which is signed by an officer of the Contractor firm authorized to legally obligate or bind the firm. The sales documentation or Contractor certification shall include the receiver's tax identification number and business, EPA or State registration number, along with the receiver's delivery and business addresses and telephone numbers. For each solid waste retained by the Contractor for his own use, the Contractor shall submit on the solid waste disposal report the information previously described in this paragraph. Prices paid or received shall not be reported unless required by other provisions or specifications of this Contract or public law.

## 1.5 ENVIRONMENTAL PROTECTION REQUIREMENTS

Provide and maintain, during the life of the contract, environmental protection as defined. Plan for and provide environmental protective measures to control pollution that develops during normal construction practice. Plan for and provide environmental protective measures required to correct conditions that develop during the construction of permanent or temporary environmental features associated with the project. Comply with Federal, State, and local regulations pertaining to the environment, including water, air, solid waste, hazardous waste and substances, oily substances, and noise pollution.

### 1.5.1 Licenses and Permits

Obtain licenses and permits pursuant to the "Permits and Responsibilities" FAR Clause.

### 1.5.2 Contractor Liabilities for Environmental Protection

The Contractor is advised that this project and the station are subject to Federal, State, and local regulatory agency inspections to review compliance with environmental laws and regulations. The Contractor shall fully cooperate with any representative from any Federal, State or local regulatory agency who may visit the job site and shall provide immediate notification to the Environmental Office and Contracting Officer, who shall accompany them on any subsequent site inspections. The Contractor shall complete, maintain, and make available to the Contracting Officer, station, or regulatory agency personnel all documentation relating to environmental compliance under applicable Federal, State and local laws and regulations. The Contractor shall immediately notify and copy the Environmental Office and Contracting Officer if a Notice of Violation (NOV) is issued to the Contractor.

The Contractor shall be responsible for all damages to persons or property resulting from Contractor fault or negligence as well as for the payment of any civil fines or penalties which may be assessed by any Federal, State or local regulatory agency as a result of the Contractor's or any subcontractor's violation of any applicable Federal, State or local environmental law or regulation. Should a Notice of Violation (NOV), Notice of Noncompliance (NON), Notice of Deficiency (NOD), or similar regulatory agency notice be issued to the Government as facility owner/operator on account of the actions or inactions of the Contractor or one of its subcontractors in the performance of work under this contract, the Contractor shall fully cooperate with the Government in defending

against regulatory assessment of any civil fines or penalties arising out of such actions or inactions. Any penalties and fines resulting from Contractor work will be transferable to the Contractor and will not be subject to time extensions, claims or the disputes clause.

1.5.3 WHM/HW Materials Prohibition

No waste hazardous material or hazardous waste shall be disposed of on Government property. No hazardous material shall be brought onto government property that does not directly relate to requirements for the performance of this contract. The Government is not responsible for disposal of Contractor's waste material brought on the job site and not required in the performance of this contract. The intent of this provision is to dispose of that waste identified as waste hazardous material/hazardous waste as defined herein that was generated as part of this contract and existed within the boundary of the Contract limits and not brought in from offsite by the Contractor. Incidental materials used to support the contract including, but not limited to aerosol cans, waste paint, cleaning solvents, contaminated brushes, rags, clothing, etc. are the responsibility of the Contractor. The list is illustrative rather than inclusive. The Contractor is not authorized to discharge any materials to sanitary sewer, storm drain, or to the river or conduct waste treatment or disposal on Government property without written approval of the Contracting Officer.

1.5.4 Fuel Tanks

On site fuel tanks must be over drip pans, which can contain 110% of the tank's volume. The tanks and drip pans must be covered during inclement weather and when work is not in progress on the site.

1.5.5 Environmental Manager

The Contractor will appoint in writing a qualified Environmental Manager for the project site subject to the approval of the FLETC Environmental Office. The Environmental Manager will be directly responsible for coordinating contractor compliance with Federal, State, local, and station requirements. The Environmental Manager will ensure compliance with Hazardous Waste Program requirements (including hazardous waste handling, storage, manifesting, and disposal); implement the Environmental Protection Plan; ensure that all environmental permits are obtained, maintained, and closed out; ensure compliance with Storm Water Program Management requirements; ensure compliance with Hazardous Materials (storage, handling, and reporting) requirements; and coordinate any remediation of regulated substance. This can be a collateral position; however the person in this position must be trained to adequately accomplish the following duties: ensure waste segregation and storage compatibility requirements are met; inspect and manage Satellite Accumulation areas; ensure only authorized personnel add wastes to containers; ensure all Contractor personnel are trained in 40 CFR requirements in accordance with their position requirements; coordinate removal of waste containers; and maintain the Environmental Records binder(s) and required documentation, including environmental permits compliance and close-out.

1.6 ENVIRONMENTAL PROTECTION PLAN

Submit six copies a minimum of seven (7) working days before the scheduled Preconstruction Conference. Submittals require Government approval prior

to Notice to Proceed and commencement of work on site. The plan will be discussed during the Preconstruction Conference. If comments are provided during the meeting, the Contractor shall be responsible for incorporating those comments into the final Environmental Protection Plan. On-site work shall not be authorized until the Contracting Officer has approved the Preconstruction submittals.

a. Description of the Environmental Protection Plan

(1) General overview and purpose

(2) General site information

b. Protection of Natural Resources

(1) Land resources

(2) Tree protection

(3) Replacement of damaged landscape features

(4) Temporary construction

(5) Stream crossings

(6) Fish and wildlife resources

(7) Wetland areas

c. Protection of Historical and Archaeological Resources

(1) Objectives

(2) Methods

d. Storm Water Management and Control - Submit NPDES permits

Note: Contractor shall apply, pay fees and obtain the NPDES Construction Storm Water Permit. The Contractor will submit a copy of the permit 7 days prior to the Preconstruction Conference. Submit all documentation to the Environmental Office and the Contracting Officer.

(1) Ground cover

(2) Erodible soils

(3) Temporary measures

(a) Mechanical retardation and control of runoff

(b) Vegetation and mulch

e. Prevention of Releases to the Environment

(1) Procedures to prevent releases to the environment

(2) Notifications in the event of a release to the environment

f. Protection of the Environment from Waste Derived from Contractor Operations

(1) Control and disposal of solid and sanitary waste

(2) Control and disposal of hazardous waste (Hazardous Waste Management Section)

This item shall consist of the management procedures for all hazardous waste to be generated. The elements of those procedures shall coincide with the FLETC Activity Hazardous Waste Management Plan. A copy of the FLETC Activity Hazardous Waste Management Plan will be provided by the Environmental Office. As a minimum, include the following:

(a) Procedures to be employed to ensure a written waste determination is made for appropriate wastes which are to be generated;

(b) Sampling/analysis plan;

(c) Methods of hazardous waste accumulation/storage (i.e., in tanks and/or containers);

(d) Management procedures for storage, labeling, transportation, and disposal of waste (treatment of waste is not allowed unless specifically noted);

(e) Management procedures and regulatory documentation ensuring disposal of hazardous waste complies with Land Disposal Restrictions (40 CFR 268);

(f) Management procedures for recyclable hazardous materials such as lead-acid batteries, used oil, and the like;

(g) Used oil management procedures in accordance with 40 CFR 279;

(h) Pollution prevention\hazardous waste minimization procedures;

(i) Procedures to be employed to ensure all required employee training records are maintained.

(j) Procedures for Storage of fuel

1.7 UNFORESEEN HAZARDOUS OR REGULATED MATERIAL

All known hazardous or regulated materials are indicated in the contract documents. If material that is not indicated in the contract documents is encountered that may be dangerous to human health upon disturbance during construction operations, stop that portion of work and notify the Environmental Office and Contracting Officer immediately. Intent is to identify materials such as PCB, lead paint, mercury, petroleum products, and friable and nonfriable asbestos. Within 14 calendar days or upon receiving test reports the Government will determine if the material is hazardous. If the material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If the material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

PART 2 PRODUCTS

2.1 MATERIALS

A. Mulch: Use one of the following:

1. Erosion control matting or netting.

2. Cutback asphalt.

B. Grass Seed For Temporary Cover: Select a species appropriate to climate, planting season, and intended purpose. If same area will later be planted with permanent vegetation, do not use species known to be excessively competitive or prone to volunteer in subsequent seasons.

C. Silt Fence Fabric: Polypropylene geotextile resistant to common soil chemicals, mildew, and insects; non-biodegradable; in longest lengths possible; fabric including seams with the following minimum average roll lengths:

1. Average Opening Size: 30 U.S. Std. Sieve, maximum, when tested in accordance with ASTM D 4751.

2. Permittivity: 0.05 sec^-1, minimum, when tested in accordance with ASTM D 4491.

3. Ultraviolet Resistance: Retaining at least 70 percent of tensile strength, when tested in accordance with ASTM D 4355 after 500 hours exposure.

4. Tensile Strength: 100 lb-f, minimum, in cross-machine direction; 124 lb-f, minimum, in machine direction; when tested in accordance with ASTM D 4632.

5. Elongation: 15 to 30 percent, when tested in accordance with ASTM D 4632.

6. Tear Strength: 55 lb-f, minimum, when tested in accordance with ASTM D 4533.

7. Color: Manufacturer's standard, with embedment and fastener lines preprinted.

D. Silt Fence Posts: One of the following, minimum 5 feet long:

1. Steel U- or T-section, with minimum mass of 1.33 lb per linear foot.

PART 3 EXECUTION

3.1 PROTECTION OF NATURAL RESOURCES

Preserve the natural resources within the project boundaries and outside the limits of permanent work. Restore to an equivalent or improved condition upon completion of work. Confine construction activities to within the limits of the work indicated or specified.

3.1.1 Land Resources

Except in areas to be cleared, do not remove, cut, deface, injure, or destroy trees or shrubs. Do not fasten or attach ropes, cables, or guys to existing nearby trees for anchorages.

3.1.2 Protection of Trees

Provide protection of existing trees scheduled to remain.

a. Site conditions

Existing trees are shown on the drawings within contract limits. Values of trees to be protected are to be set at $200 per caliper inch of tree measured according to AAN Standard X .60-1986 for the size and species of damaged trees.

(1) Protection: Protect all individual groups of trees by erecting a barrier around each tree or group of trees. Install and maintain barrier at drip line unless otherwise approved by Contracting Officer.

(2) Guarantee: Guarantee existing trees against damage until final acceptance of the Project. Repair any damage which, in the opinion of the Government, can be satisfactorily corrected.

(3) Definitions:

Disturbance/Damage: Physical or visual change to the trees which, in the opinion of the Government is detrimental to the trees being protected. Such disturbance may be caused by equipment, material, personnel or spillage.

Violation: Damage to trees caused by any construction or delivery vehicle, construction materials storage, or disposal of solid or liquid debris shall be considered a violation.

Deductions: Deductions will be assessed in two forms if a protected tree appears to be dying prior to final acceptance of Project.

a. Trees 12" caliper or less shall be removed and replaced with a new tree of same size and similar species. Tree type will be of a variety installed on Project.

b. Trees greater than 12" in caliper shall be removed and dollar value assigned on drawings or in this Section assessed against Contractor. At the Government's option, a number of trees equal in total caliper and of similar species may be substituted for the deduction.

b. Fencing: Orange polyvinyl mesh fabric, 48" (nominal) height, manufactured by either "Alpi" or "Tenax", or pre-approved equal.

(1) Post: Studded steel "T" post, 5'-6" long with wire clips.

c. Barricade Installation.

Install prior to any mobilization on the site.

Fencing: Pull fencing taut to prevent sagging and secure to post with wire clips.

Form a complete enclosure with the fence.

d. Maintenance and Removal: Maintain barricades in a newly installed condition until their removal is approved by the Contracting Officer.

3.1.2.1 Replacement

Remove trees and other landscape features scarred or damaged by equipment operations, and replace with equivalent, undamaged trees and landscape features. Obtain Government's approval before replacement.

3.1.3 Water Resources

3.1.3.1 Oily and Hazardous Substances

Prevent oily or other hazardous substances from entering the ground, drainage areas, or local bodies of water. For oil, fuel oil, or other hazardous substance spills, verbally notify the Environmental Office and Contracting Officer immediately. Surround all temporary fuel oil or petroleum storage tanks with a temporary earth berm of sufficient size and strength to contain the contents of the tanks in the event of leakage or spillage. Provide a liner of 6 mil polyethylene, suitably taped, extending over entire area within berms and over top of the berms.

3.1.3.2 Fish and Wildlife Resources

Do not disturb fish and wildlife. Do not alter water flows or otherwise significantly disturb the native habitat adjacent to the project and critical to the survival of fish and wildlife, except as indicated or specified.

3.1.4 Historical and Archaeological Resources

Carefully protect in-place and report immediately to the Environmental Office and Contracting Officer historical and archaeological items or human skeletal remains discovered in the course of work. Stop work in the immediate area of the discovery until directed by the Contracting Officer to resume work. The Government retains ownership and control over historical and archaeological resources.

3.1.5 Erosion and Sediment Control Measure

3.1.5.1 Temporary Erosion and Sedimentation Control

Prevention of erosion due to construction activities.

Prevention of sedimentation of waterways, open drainage ways, and storm and sanitary sewers due to construction activities.

Restoration of areas eroded due to insufficient preventive measures.

Compensation of the Government for fines levied by authorities having jurisdiction due to actions by the Contractor.

3.1.5.2 References

ASTM D 4355 - Standard Test Method for Deterioration of Geotextiles by Exposure to Light, Moisture, and Heat in a Xenon Arc Type Apparatus.

ASTM D 4491 - Standard Test Methods for Water Permeability of Geotextiles by Permittivity.

ASTM D 4533 - Standard Test Method for Trapezoid Tearing Strength of Geotextiles.

ASTM D 4632 - Standard Test Method for Grab Breaking Load and Elongation of Geotextiles.

ASTM D 4751 - Standard Test Method for Determining Apparent Opening Size of a Geotextile.

ASTM D 4873 - Standard Guide for Identification, Storage, and Handling of Geosynthetic Rolls and Samples.

3.1.5.3 Performance Requirements

Comply with all requirements of U.S. Environmental Protection Agency for erosion and sedimentation control.

Comply with all requirements of State of Georgia for erosion and sedimentation control.

Best Management Practices Standard: State of Georgia Erosion and Sedimentation Control Manual.

Develop and follow an Erosion and Sedimentation Prevention Plan and submit periodic inspection reports.

Do not begin clearing, grading, or other work involving disturbance of ground surface cover until applicable permits have been obtained; furnish all documentation required to obtain applicable permits.

1. The Government will deduct payment equivalent to all fines resulting from non-compliance with applicable regulations.

Timing: Put preventive measures in place as soon as possible after disturbance of surface cover and before precipitation occurs.

Storm Water Runoff: Control increased storm water runoff due to disturbance of surface cover due to construction activities for this project.

1. Prevent runoff into storm and sanitary sewer systems, including open drainage channels, in excess of actual capacity or amount allowed by authorities having jurisdiction, whichever is less.

2. Anticipate runoff volume due to the most extreme short term and 24-hour rainfall events that might occur in 25 years.

Erosion On Site: Minimize wind, water, and vehicular erosion of soil on project site due to construction activities for this project.

1. Control movement of sediment and soil from temporary stockpiles of

soil.

2. Prevent development of ruts due to equipment and vehicular traffic.

3. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost.

Erosion Off Site: Prevent erosion of soil and deposition of sediment on other properties caused by water leaving the project site due to construction activities for this project.

1. Prevent windblown soil from leaving the project site.

2. Prevent tracking of mud onto public roads outside site.

3. Prevent mud and sediment from flowing onto sidewalks and pavements.

4. If erosion occurs due to non-compliance with these requirements, restore eroded areas at no cost.

Sedimentation of Waterways On Site: Prevent sedimentation of waterways on the project site, including streams, ponds, open drainage ways, storm sewers, and sanitary sewers.

1. If sedimentation occurs, install or correct preventive measures immediately at no cost. Remove deposited sediments; comply with requirements of authorities having jurisdiction.

2. If sediment basins are used as temporary preventive measures, pump dry and remove deposited sediment after each storm.

Sedimentation of Waterways Off Site: Prevent sedimentation of waterways off the project site, including rivers, streams, lakes, ponds, open drainage ways, storm sewers, and sanitary sewers.

1. If sedimentation occurs, install or correct preventive measures immediately at no cost. Remove deposited sediments; comply with requirements of authorities having jurisdiction.

Open Water: Prevent standing water that could become stagnant.

Maintenance: Maintain temporary preventive measures until permanent measures have been established.

3.2 SITE EXAMINATION

Examine site and identify existing features that contribute to erosion resistance; maintain such existing features to greatest extent possible.

3.3 PREPARATION

Schedule work so that soil surfaces are left exposed for the minimum amount of time.

3.3.1 Scope of Preventive Measures

In all cases, if permanent erosion resistant measures have been installed temporary preventive measures are not required.

Construction Entrances: Traffic-bearing aggregate surface.

1. Width: As required; 20 feet, minimum.

2. Length: 50 feet, minimum.

3. Provide at each construction entrance from public right-of-way.

4. Where necessary to prevent tracking of mud onto right-of-way, provide wheel washing area out of direct traffic lane, with drain into sediment trap or basin.

Linear Sediment Barriers: Made of silt fences.

1. Provide linear sediment barriers:

    a. Along downhill perimeter edge of disturbed areas, including soil stockpiles.

2. Space sediment barriers with the following maximum slope length upslope from barrier:

    a. Slope of Less Than 2 Percent: 100 feet.

    b. Slope Between 2 and 5 Percent: 75 feet.

    c. Slope Between 5 and 10 Percent: 50 feet.

    d. Slope Between 10 and 20 Percent: 25 feet.

    e. Slope Over 20 Percent: 15 feet.

Storm Drain Curb Inlet Sediment Trap: Protect each curb inlet using one of the following measures:

1. Filter fabric wrapped around hollow concrete blocks blocking entire inlet face area; use one piece of fabric wrapped at least 1-1/2 times around concrete blocks and secured to prevent dislodging; orient cores of blocks so runoff passes into inlet.

2. Straw bale row blocking entire inlet face area; anchor into pavement.

Storm Drain Drop Inlet Sediment Traps: As detailed on drawings.

Temporary Splash Pads: Stone aggregate over filter fabric; size to suit application; provide at downspout outlets and storm water outlets.

Soil Stockpiles: Protect using one of the following measures:

1. Cover with polyethylene film, secured by placing soil on outer edges.

2. Cover with mulch at least 4 inches thickness of pine needles, sawdust, bark, wood chips, or shredded leaves, or 6 inches of straw or hay.

Mulching: Use only for areas that may be subjected to erosion for less than 6 months.

1. Asphalt: Use only where no traffic, either vehicular or pedestrian,

is anticipated.

3.3.2 Installation

Traffic-Bearing Aggregate Surface:

1. Excavate minimum of 6 inches.

2. Place geotextile fabric full width and length, with minimum 12 inch overlap at joints.

3. Place and compact at least 6 inches of 1.5 to 3.5 inch diameter stone.

Silt Fences:

1. Store and handle fabric in accordance with ASTM D 4873.

2. Where slope gradient is less than 3:1 or barriers will be in place less than 6 months, use nominal 16 inch high barriers with minimum 36 inch long posts spaced at 6 feet maximum, with fabric embedded at least 4 inches in ground.

3. Where slope gradient is steeper than 3:1 or barriers will be in place over 6 months, use nominal 28 inch high barriers, minimum 48 inch long posts spaced at 6 feet maximum, with fabric embedded at least 6 inches in ground.

4. Where slope gradient is steeper than 3:1 and vertical height of slope between barriers is more than 20 feet, use nominal 32 inch high barriers with woven wire reinforcement and steel posts spaced at 4 feet maximum, with fabric embedded at least 6 inches in ground.

5. Install with top of fabric at nominal height and embedment as specified.

6. Embed bottom of fabric in a trench on the upslope side of fence, with 2 inches of fabric laid flat on bottom of trench facing upslope; backfill trench and compact.

7. Do not splice fabric width; minimize splices in fabric length; splice at post only, overlapping at least 18 inches, with extra post.

8. Fasten fabric to steel posts using wire, nylon cord, or integral pockets.

9. Wherever runoff will flow around end of barrier or over the top, provide temporary splash pad or other outlet protection; at such outlets in the run of the barrier, make barrier not more than 12 inches high with post spacing not more than 4 feet.

Temporary Seeding:

1. When hydraulic seeder is used, seedbed preparation is not required.

2. When surface soil has been sealed by rainfall or consists of smooth undisturbed cut slopes, and conventional or manual seeding is to be used, prepare seedbed by scarifying sufficiently to allow seed to lodge and germinate.

3. If temporary mulching was used on planting area but not removed, apply nitrogen fertilizer at 1 pound per 1000 sq ft.

4. On soils of very low fertility, apply 10-10-10 fertilizer at rate of 12 to 16 pounds per 1000 sq ft.

5. Incorporate fertilizer into soil before seeding.

6. Apply seed uniformly; if using drill or cultipacker seeders place seed 1/2 to 1 inch deep.

7. Irrigate as required to thoroughly wet soil to depth that will ensure germination, without causing runoff or erosion.

8. Repeat irrigation as required until grass is established.

3.3.3 Maintenance

Inspect preventive measures weekly, within 24 hours after the end of any storm that produces 0.5 inches or more rainfall at the project site, and daily during prolonged rainfall.

Repair deficiencies immediately.

Silt Fences:

1. Promptly replace fabric that deteriorates unless need for fence has passed.

2. Remove silt deposits that exceed one-third of the height of the fence.

3. Repair fences that are undercut by runoff or otherwise damaged, whether by runoff or other causes.

Clean out temporary sediment control structures weekly and relocate soil on site.

Place sediment in appropriate locations on site; do not remove from site.

3.4 CLEAN UP

Remove temporary measures after permanent measures have been installed, unless permitted to remain by the Government.

Clean out temporary sediment control structures that are to remain as permanent measures.

Where removal of temporary measures would leave exposed soil, shape surface to an acceptable grade and finish to match adjacent ground surfaces.

3.5 CONTROL AND DISPOSAL OF SOLID WASTES

Pick up solid wastes, and place in covered containers which are regularly emptied. Do not prepare or cook food on the project site. Prevent contamination of the site or other areas when handling and disposing of wastes. At project completion, leave the areas clean. Recycling is encouraged and can be coordinated with the Environmental Office activity recycling coordinator. Remove all solid waste (including non-hazardous

debris) from Government property and dispose off-site at an approved landfill. Solid waste disposal off-site must comply with most stringent local, State, and Federal requirements including 40 CFR 241, 40 CFR 243, and 40 CFR 258.

## 3.6 CONTROL OF HAZARDOUS WASTES

### 3.6.1 Hazardous Waste/Debris Management

The Contractor shall identify all construction activities which will generate hazardous waste/debris. The Contractor must provide a documented waste determination for all resultant waste streams. Hazardous waste/debris shall be identified, labeled, handled, and stored in accordance with all Federal, State, and local regulations including 40 CFR 261, 40 CFR 262, 40 CFR 263, 40 CFR 264, 40 CFR 265, 40 CFR 266, and 40 CFR 268. Hazardous waste shall also be managed in accordance with the approved Hazardous Waste Management Section of the Environmental Protection Plan. Store hazardous wastes in hazardous waste containers in accordance with 49 CFR 173. Hazardous waste generated within the confines of Government facilities shall be identified as being generated by the Government. No hazardous waste shall be brought onto Government property. Provide to the Environmental Office and Contracting Officer a copy of waste determination documentation for any solid waste streams that have any potential to be hazardous waste or contain any chemical constituents listed in 40 CFR 372-SUBPART D. For hazardous wastes spills, verbally notify the Environmental Office and Contracting Officer immediately.

### 3.6.2 Regulated Waste Storage/Satellite Accumulation/90 Day Storage Areas

If the work requires the temporary storage/collection of regulated or hazardous wastes, the Contractor may request the establishment of a Regulated Waste Storage Area, a Satellite Accumulation Area, or a 90 Day Storage Area at the point of generation, in accordance with the FLETC Hazardous Waste Management Plan. The Contractor must submit a request in writing to the Environmental Office and Contracting Officer providing the following information:

Contract Number _____ Contractor _____

Haz/Waste or
Regulated Waste POC _____ Phone Number _____

Type of Waste _____ Source of Waste _____

Emergency POC _____ Phone Number _____

Location of the Site: _____
(Attach Site Plan to the Request)

Attach a waste determination form. Allow ten working days for processing this request.

### 3.6.3 Hazardous Waste Management

The Contractor is responsible for ensuring compliance with all requirements governing the handling of hazardous waste. The disposal of all hazardous/potentially hazardous materials (i.e. paints, cleaning products, solvents, thinners, rags, brushes, rollers, propellants, etc.)

shall be accomplished in accordance with the FLETC Hazardous Waste Management Plan. The Contractor shall also comply with all EPA Hazardous Waste Regulations, State Environmental Protection Regulations/laws for all non hazardous and hazardous waste management, disposition and disposal.

a. The Contractor shall submit a Hazardous Waste Management Plan that conforms to the FLETC Hazardous Waste Plan 7 days prior to the Preconstruction Conference for approval. The Contractor shall have an approved hazardous waste plan before NTP and commencement of work on site.

b. The Contractor shall not ship hazardous waste. The shipping and disposal of Hazardous Waste will be documented under the FLETC Generator EPA ID Number. Only designated individuals from the FLETC Environmental Office will sign the Hazardous Waste Manifest as the generating activity. Hazardous waste will be managed and collected in strict accordance with the FLETC Hazardous Waste Management Plan. The Contractor will not remove hazardous waste from the FLETC. The FLETC Environmental Office will dispose, transfer and transport hazardous waste generated by the Contractor utilizing the Waste Transfer Document. The Contractor is responsible for the disposal cost of the hazardous waste generated during the construction process.

c. The Contractor's Environmental Manager will be responsible for the proper segregation, packaging and handling of hazardous waste in accordance with the FLETC Hazardous Waste Plan.

(1) The Contractor will coordinate through the Environmental Office, for all hazardous waste storage, transportation and disposal. With the Waste information provided by the contractor a Waste Inventory Document (WID) will be provided by the Government for each waste-stream per the Hazardous Waste Management Plan.

(2) All containerization, labeling and storage of waste will be in accordance with the FLETC Hazardous Waste Management Plan.

(3) Hazardous waste will be stored at a designated Satellite Accumulation Area. When the waste stream exceeds 55 gallons it will be transported, within 72 hours, to the Hazardous Waste accumulation site by contacting the FLETC Environmental Office. The Government will then transport and store the waste the waste.

(4) The Contractor will coordinate with the FLETC Environmental Office, who will provide guidance and assistance with the identification of waste streams and disposal.

(5) The Environmental Office will assist in designating Storage locations, (SAA's), providing labels and waste transfer Documents, and will conduct daily inspections on SAA's using The SAA Inspection Checklist.

(6) All waste disposal accomplished through the waste accumulation Site will be the responsibility of the FLETC. The Contractor will be responsible for proper segregation, identification and classifying of his waste stream.

(7) The Contractor will contact the FLETC Environmental Office within 10 days of the award of the contract schedule Hazardous Waste Training. The Hazardous Training will take approximately one hour.

(8) The Contractor shall provide the Environmental Office with a copy off

all hazardous waste documentation upon completion of the contract.

3.6.3.1 Pollution Prevention - Hazardous Material Reduction and Waste Minimization

The Contractor shall make every attempt to reduce quantities of hazardous materials and hazardous waste by source reduction, recycling, reclamation, reuse, process change or material substitution.

The Contractor will submit a Pollution prevention, Hazardous Materials and Hazardous Waste Reduction Plan 7 days prior to the Preconstruction Conference for approval and revise the plan every 12 months during the course of the contract.

The Contractor shall actively pursue minimizing the use of hazardous materials and the generation of hazardous waste while on the FLETC. The Hazardous Waste Management Section of the Environmental Protection Plan shall include the Contractor's procedures for pollution prevention, hazardous material reduction and hazardous waste minimization. For preparing this part of the plan, the Contractor may consult the activity Environmental Office for suggestions and to obtain a copy of the installation's pollution prevention/hazardous waste minimization plan for reference material. If no written plan exists, the Contractor shall obtain information from the EPA or Private Sources. The Contractor shall describe the types of the hazardous materials expected to be used in the construction when requesting information.

3.7 GREENING THE GOVERNMENT

The Contractor shall provide a quarterly list to FLETC Environmental Office stating:

Tissue Products/Toner Cartridges/Concrete/Landscaping Timbers/Asphalt/Concrete/Park Benches and Picnic Tables/Traffic Barricades/Signage

The total dollar amount used on the above items
The dollar amount of recovered materials used (recycled) on the above items
If not able to purchase recovered materials why not

On the HAZMIN they need to adhere to the SOP attached and they must have all hazmat approved by FLETC Environmental Office before purchasing the product. http://fletcnet/evs/Hazmin%20SOP.doc

3.8 HAZARDOUS MATERIAL CONTROL

The Contractor shall include hazardous material control procedures in the Safety Plan. The procedures shall address and ensure the proper handling of hazardous materials, including the appropriate transportation requirements. The Contractor shall submit a MSDS and estimated quantities to be used for each hazardous material to the Environmental Officer prior to bringing the material on the FLETC. (Note: The Contractor shall account and submit for all Sub-Contractor Hazardous Materials.) Typical materials requiring MSDS and quantity reporting include, but are not limited to, oil and latex based painting and caulking products, solvents, adhesives, aerosol, and petroleum products. At the end of the project, the Contractor shall provide the Environmental Office with the maximum quantity of each material that was present at the site at any one time,

the dates the material was present, the amount of each material that was used during the project, and how the material was used. The Contractor shall also ensure that hazardous materials are utilized in a manner that will minimize the amount of hazardous waste that is generated. The Contractor shall ensure that all containers of hazardous materials have NFPA labels or their equivalent. Copies of the MSDS for hazardous materials shall be kept on site at all times and provided to the Contracting Officer at the end of the project. The Contractor shall certify that all hazardous materials removed from the site are hazardous materials and do not meet the definition of hazardous waste per 40 CFR 261.

3.8.1 HAZARDOUS MATERIALS MANAGEMENT

The Contractor's Hazardous material storage and flammable storage shall be in accordance with EPA, NFPA, OSHA and the FLETC Environmental and Safety Division guidelines.

3.8.1.1 Hazardous Material Inventory

The Contractor shall provide a complete list of proposed chemicals to be utilized during the course of this contract, with Material Safety Data Sheets (MSDS) and all materials shall be approved by the FLETC Environmental Office before use.

The Contractor shall supply a copy of each MSDS to the FLETC Environmental Office before a chemical product is stored or used. The Product MSDS shall be approved by the Environmental Office before the chemical product is used.

The Contractor shall comply with the FLETC Hazardous Materials Minimization Standard (HSMS).

All Contractor employees shall be trained in Hazardous Communication (HASCOM) by the Contractor and the Contractor shall maintain training records.

The Contractor shall have a written HASCOM Plan that conform to 29 CFR 1910.120.

3.8.1.2 Storage

All hazmat storage cabinets/areas and material storage are required to meet the following criteria:

a. All materials shall be stored in closed, appropriate containers inside approved cabinets, lockers or designated areas. All Material Safety Data Sheets (MSDS) are to be maintained on site.

b. Storage cabinets holding flammable liquids shall be grounded and are not to exceed the storage capacity. Storage cabinets shall be vented. Each individual stored container shall not exceed a five gallon capacity.

c. Hazardous materials shall not be placed in desks, file cabinets, personal lockers or toolboxes.

d. Incompatible materials shall be stored in separate lockers/areas.

e. Appropriate safety cans and dispensers shall be used to transport

small quantities of hazardous materials. Hazardous materials required for daily work task may be left on workbenches during the work shift. The material must be returned to an approved storage area at the end of the workday.

f. "No smoking" signs must be posted where flammable liquids and materials are stored. Smoking within fifty feet of where flammable liquids /materials are being stored, dispensed, applied or transferred from one container to another is not permitted.

g. All containers used for storing hazardous materials will be labeled with the contractors name and contents.

h. No rags, cardboard/paper boxes or wood products shall be stored with hazardous materials.

## 3.9 PETROLEUM PRODUCTS

Conduct the fueling and lubricating of equipment and motor vehicles in a manner that protects against spills and evaporation. All used oil generated on site shall be managed in accordance with 40 CFR 279 and turned over to the Government as hazardous waste. The Contractor shall determine if any used oil generated while on-site exhibits a characteristic of hazardous waste. In addition, used oil containing 1000 parts per million of solvents will be considered a hazardous waste and disposed of at Contractor's expense.Used oil mixed with a hazardous waste will also be considered a hazardous waste. All hazardous waste will be managed in accordance with the paragraph entitled Hazardous Waste/Debris Management of this section and shall be managed in accordance with the FLETC Hazardous Waste Management Plan.

### 3.9.1 Spills of Oil and Hazardous Materials

Take precautions to prevent spills of oil and hazardous material. Provide drip pans under all leaking vehicles. In the event of a spill, immediately notify the Environmental Office and Contracting Officer. Spill response shall be in accordance with 40 CFR 300 and applicable State regulations.

## 3.10 DUST CONTROL

Keep dust down at all times, including during nonworking periods. Sprinkle or treat, with dust suppressants, the soil at the site, haul roads, and other areas disturbed by operations. Dry power brooming will not be permitted. Instead, use vacuuming, wet mopping, wet sweeping, or wet power brooming.Air blowing will be permitted only for cleaning nonparticulate debris such as steel reinforcing bars. Only wet cutting will be permitted for cutting concrete blocks, concrete, and bituminous concrete. Do not unnecessarily shake bags of cement, concrete mortar, or plaster.

## 3.11 ABRASIVE BLASTING

### 3.11.1 Blasting Operations

The use of silica sand is prohibited in sandblasting. Surfaces painted with lead-containing paint or containing asbestos shall not be sandblasted.

Provide tarpaulin drop cloths and windscreens to enclose abrasive blasting operations to confine and collect dust, abrasive, agent, paint chips, and other debris.

3.11.2 Blasting Operations Disposal Requirements

Submit analytical results of the debris generated from abrasive blasting operations per paragraph entitled Laboratory Analysis of this section. Hazardous waste generated from blasting operations shall be managed in accordance with paragraph entitled "Hazardous Waste\Debris Management" of this section and with the approved HWMP.

3.12 RESTRICTED PRODUCTS

The following products or materials containing these products shall not be used or found on the job site:

Asbestos

Lead

Mercury

PCB

-- End of Section --

SECTION 01 62 35

RECYCLED / RECOVERED MATERIALS
**07/06**

PART 1 GENERAL

1.1 REFERENCES

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

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 40 CFR 247 | Comprehensive Procurement Guideline for Products Containing Recovered Materials |

1.2 OBJECTIVES

Government procurement policy is to acquire, in a cost effective manner, items containing the highest percentage of recycled and recovered materials practicable consistent with maintaining a satisfactory level of competition without adversely affecting performance requirements or exposing suppliers' employees to undue hazards from the recovered materials. The Environmental Protection Agency (EPA) has designated certain items which must contain a specified percent range of recovered or recycled materials. EPA designated products specified in this contract comply with the stated policy and with the EPA guidelines. Make all reasonable efforts to use recycled and recovered materials in providing the EPA designated products and in otherwise utilizing recycled and recovered materials in the execution of the work.

1.3 EPA DESIGNATED ITEMS INCORPORATED IN THE WORK

Various sections of the specifications contain requirements for materials that have been designated by EPA as being products which are or can be made with recovered or recycled materials. These items, when incorporated into the work under this contract, shall contain at least the specified percentage of recycled or recovered materials unless adequate justification (non-availability) for non-use is provided. When a designated item is specified as an option to a non-designated item, the designated item requirements apply only if the designated item is used in the work.

1.4 EPA PROPOSED ITEMS INCORPORATED IN THE WORK

Products other than those designated by EPA are still being researched and are being considered for future Comprehensive Procurement Guideline (CPG) designation. It is recommended that these items, when incorporated in the work under this contract, contain the highest practicable percentage of recycled or recovered materials, provided specified requirements are also met.

1.5 EPA LISTED ITEMS USED IN CONDUCT OF THE WORK BUT NOT INCORPORATED IN THE WORK

There are many products listed in 40 CFR 247 which have been designated or proposed by EPA to include recycled or recovered materials that may be

used by the Contractor in performing the work but will not be incorporated into the work. These products include office products, temporary traffic control products, and pallets. It is recommended that these non-construction products, when used in the conduct of the work, contain the highest practicable percentage of recycled or recovered materials and that these products be recycled when no longer needed.

PART 2 TITLE

Not Used

PART 3 TITLE

Not Used

-- End of Section --

SECTION 01 64 00

CUTTING AND PATCHING
**08/09**

PART 1 GENERAL

1.1 STRUCTURAL MEMBERS

Do not cut and patch in a manner which will result in reduction of load carrying capacity or load deflection ratio; submit proposal to the Government for review before proceeding.

1.2 OPERATIONAL ELEMENTS AND SAFETY RELATED COMPONENTS

Do not cut and patch in a manner which will result in reduction of capacities to perform, decrease operational life, decrease safety or increase maintenance.

1.3 WORK EXPOSED TO VIEW

Do not cut and patch in a manner which will result in reduction of visual quality or reveal substantial evidence of such work, both as judged by Architect. Remove, at no additional cost, work judged by the Government to be visually unacceptable or otherwise objectionable and replace with new materials and acceptable quality work.

PART 2 PRODUCTS

2.1 GENERAL

Utilize materials which will match and result in equal or better quality than work being cut and patched in terms of performance characteristics and visual effect.

Use products identical with the original unless authorized otherwise by the Government.

Pavement patching and markings shall utilize materials and methods that are the same as that used for the existing surface to be patched.

PART 3 EXECUTION

3.1 TEMPORARY SUPPORT AND PROTECTION

Where work is to be cut, provide adequate temporary support to prevent failure or endangering other work. During operations provide and maintain adequate protection to prevent damage to other work, including exposure to adverse weather conditions.

3.2 WORKMANSHIP

When work in place has been cut it shall be patched and finished by mechanics in such manner that the quality of workmanship and finish shall be compatible with that of adjacent work.

## 3.3 PROCEDURES

### 3.3.1 Cutting

Cut using methods least likely to damage adjacent work which will remain. Core drill holes in concrete. Cut using appropriate sawing and grinding tools.

### 3.3.2 Patching

At patches make seams as durable and invisible as possible. Inspect patches and test to demonstrate integrity of work.

### 3.3.3 Finishing

Restore finishes to exposed patches and extend onto adjoining areas in a manner to eliminate evidence of patching. Where patch occurs in a smooth painted surface, after application of primer and base coats extend final paint coat over entire unbroken surface containing patch.

### 3.3.4 Site Work

Where pavements, walks, and grassed areas are disturbed by underground work or are indicated to be modified, restore such work to the prior condition using construction techniques and materials which are the same as those used for the existing work.

Saw-cut all edges of areas of pavements and concrete to be removed.

-- End of Section --

SECTION 01 78 00

CLOSEOUT SUBMITTALS
**08/11**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM E1971 | (2005; R 2011) Stewardship for the Cleaning of Commercial and Institutional Buildings |

GREEN SEAL (GS)

| | |
|---|---|
| GS-37 | (2012) Cleaning Products for Industrial and Institutional Use |

1.2 DEFINITIONS

1.2.1 As-Built Drawings

As-built drawings are developed and maintained by the Contractor and depict actual conditions, including deviations from the Contract Documents. These deviations and additions may result from coordination required by, but not limited to: contract modifications; official responses to Contractor submitted Requests for Information; direction from the Contracting Officer; designs which are the responsibility of the Contractor, and differing site conditions. Maintain the as-builts throughout construction as red-lined hard copies on site. As-built drawings are further defined in NFAS 5252.236-9310. These files serve as the basis for the creation of the record drawings.

1.2.2 Record Drawings

The record drawings are the final compilation of actual conditions reflected in the as-built drawings.

1.3 SOURCE DRAWING FILES

Request the full set of electronic drawings, in the source format, for Record Drawing preparation, after award and at least 30 days prior to required use.

1.3.1 Terms and Conditions

Data contained on these electronic files must not be used for any purpose other than as a convenience in the preparation of construction drawings and data for the referenced project. Any other use or reuse shall be at the sole risk of the Contractor and without liability or legal exposure to the Government. The Contractor must make no claim and waives to the fullest extent permitted by law, any claim or cause of action of any nature against the Government, its agents or sub consultants that may

arise out of or in connection with the use of these electronic files. The Contractor must, to the fullest extent permitted by law, indemnify and hold the Government harmless against all damages, liabilities or costs, including reasonable attorney's fees and defense costs, arising out of or resulting from the use of these electronic files.

These electronic CAD drawing files are not construction documents. Differences may exist between the CAD files and the corresponding construction documents.The Government makes no representation regarding the accuracy or completeness of the electronic CAD files, nor does it make representation to the compatibility of these files with the Contractor hardware or software. In the event that a conflict arises between the signed and sealed construction documents prepared by the Government and the furnished Source drawing files, the signed and sealed construction documents govern. The Contractor is responsible for determining if any conflict exists. Use of these Source Drawing files does not relieve the Contractor of duty to fully comply with the contract documents, including and without limitation, the need to check, confirm and coordinate the work of all contractors for the project. If the Contractor uses, duplicates or modifies these electronic source drawing files for use in producing construction drawings and data related to this contract, remove all previous indicia of ownership (seals, logos, signatures, initials and dates).

1.4 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Warranty Management Plan
Warranty Tags
Final Cleaning
Spare Parts Data

SD-08 Manufacturer's Instructions

Posted Instructions

SD-10 Operation and Maintenance Data

Operation and Maintenance Manuals; G

SD-11 Closeout Submittals

As-Built Drawings; G

1.5 SPARE PARTS DATA

Submit two copies of the Spare Parts Data list.

a. Indicate manufacturer's name, part number, nomenclature, and stock level required for maintenance and repair. List those items that may be standard to the normal maintenance of the system.

b. Supply spare part items as required by the specifications. Provision of spare parts does not relieve the Contractor of responsibilities listed under the contract guarantee provisions.

1.6 QUALITY CONTROL

Additions and corrections to the contract drawings must be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols must the same as the original line colors, line weights, lettering, layering conventions, and symbols.

1.7 WARRANTY MANAGEMENT

1.7.1 Warranty Management Plan

Develop a warranty management plan which contains information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, submit one set of the warranty management plan. Include within the warranty management plan all required actions and documents to assure that the Government receives all warranties to which it is entitled.The plan must be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below must include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase must be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Assemble approved information in a binder and turn over to the Government upon acceptance of the work. The construction warranty period will begin on the date of project acceptance and continue for the full product warranty period. A joint 4 month and 9 month warranty inspection will be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Include within the warranty management plan , but not limited to, the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

c. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

d. A list for each warranted equipment, item, feature of construction or system indicating:

(1) Name of item.
(2) Model and serial numbers.
(3) Location where installed.
(4) Name and phone numbers of manufacturers or suppliers.
(5) Names, addresses and telephone numbers of sources of spare parts.

(6) Warranties and terms of warranty. Include one-year overall warranty of construction, including the starting date of warranty of construction. Items which have extended warranties must be indicated with separate warranty expiration dates.
(7) Cross-reference to warranty certificates as applicable.
(8) Starting point and duration of warranty period.
(9) Summary of maintenance procedures required to continue the warranty in force.
(10) Cross-reference to specific pertinent Operation and Maintenance manuals.
(11) Organization, names and phone numbers of persons to call for warranty service.
(12) Typical response time and repair time expected for various warranted equipment.

e. Procedure and status of tagging of all equipment covered by extended warranties.

f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.7.2 Performance Bond

The Performance Bond must remain effective throughout the construction period.

a. In the event the Contractor fails to commence and diligently pursue any construction warranty work required, the Contracting Officer will have the work performed by others, and after completion of the work, will charge the remaining construction warranty funds of expenses incurred by the Government while performing the work, including, but not limited to administrative expenses.

b. In the event sufficient funds are not available to cover the construction warranty work performed by the Government at the Contractor's expense, the Contracting Officer will have the right to recoup expenses from the bonding company.

c. Following oral or written notification of required construction warranty repair work, respond in a timely manner. Written verification will follow oral instructions. Failure to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.7.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty will be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, be continuously available, and be responsive to Government

inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.7.4 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. Submit a report on any warranty item that has been repaired during the warranty period. Include within the report the cause of the problem, date reported, corrective action taken, and when the repair was completed. If the Contractor does not perform the construction warranty within the timeframe specified, the Government will perform the work and back charge the construction warranty payment item established.

a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.

b. Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.

c. Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.

d. The "Construction Warranty Service Priority List" is as follows:

Code 1-Life Safety Systems
(1) Fire suppression systems.
(2) Fire alarm system(s) in place in the building.

Code 1-Air Conditioning Systems
(1) Recreational support.
(2) Air conditioning leak in part of building, if causing damage.
(3) Air conditioning system not cooling properly.

Code 1-Doors
(1) Overhead doors not operational, causing a security, fire, or safety problem.
(2) Interior, exterior personnel doors or hardware, not functioning properly, causing a security, fire, or safety problem.

Code 3-Doors
(1) Overhead doors not operational.
(2) Interior/exterior personnel doors or hardware not functioning properly.

Code 1-Electrical
(1) Power failure (entire area or any building operational after 1600 hours).
(2) Security lights
(3) Smoke detectors

Code 2-Electrical
(1) Power failure (no power to a room or part of building).
(2) Receptacle and lights (in a room or part of building).

Code 3-Electrical
Street lights.

Code 1-Gas
(1) Leaks and breaks.
(2) No gas to family housing unit or cantonment area.

Code 1-Heat
(1) Area power failure affecting heat.
(2) Heater in unit not working.

Code 2-Kitchen Equipment
(1) Dishwasher not operating properly.
(2) All other equipment hampering preparation of a meal.

Code 1-Plumbing
(1) Hot water heater failure.
(2) Leaking water supply pipes.

Code 2-Plumbing
(1) Flush valves not operating properly.
(2) Fixture drain, supply line to commode, or any water pipe leaking.
(3) Commode leaking at base.

Code 3 -Plumbing
Leaky faucets.

Code 3-Interior
(1) Floors damaged.
(2) Paint chipping or peeling.
(3) Casework.

Code 1-Roof Leaks
Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks
Where major damage to property is not occurring, check for location of leak during rain and complete repairs on a Code 2 basis.

Code 2-Water (Exterior)
No water to facility.

Code 2-Water (Hot)
No hot water in portion of building listed.

Code 3-All other work not listed above.

1.7.5 Warranty Tags

At the time of installation, tag each warranted item with a durable, oil and water resistant tag approved by the Contracting Officer. Attach each tag with a copper wire and spray with a silicone waterproof coating. Also, submit two record copies of the warranty tags showing the layout and design. The date of acceptance and the QC signature must remain blank until the project is accepted for beneficial occupancy. Show the following information on the tag.

| | |
|---|---|
| Type of product/material | |
| Model number | |
| Serial number | |
| Contract number | |
| Warranty period from/to | |
| Inspector's signature | |
| Construction Contractor | |
| Address | |
| Telephone number | |
| Warranty contact | |
| Address | |
| Telephone number | |
| Warranty response time priority code | |
| WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD. | |

PART 2 PRODUCTS

2.1 GOVERNMENT FURNISHED MATERIALS

The Government will provide an optical disc (CD or DVD) at the preconstruction conference that contains the following:

a. One set of "as-designed" electronic CAD files in the specified software and format revised to reflect all amendments and the final contract PDF drawings. The CAD files are provided to enable preparation of as-built or as-constructed drawings. If discrepancies exist between the CAD files and the contract PDF drawings, correct the CAD files to show the contract PDF drawings.

b. A submittal register data file in Word (.docx).

2.2 SYSTEM DESCRIPTION

Prepare the CAD drawing files in AutoCAD Release 2015 format compatible with a Windows 7 operating system.

PART 3 EXECUTION

3.1 AS-BUILT DRAWINGS

Provide and maintain two black line print copies of the PDF contract drawings for As-Built Drawings. Provide and maintain As-Built Drawings in accordance with NFAS 5252.236-9310. Submit As-Built Drawings 30 days prior to Beneficial Occupancy Date(BOD).

3.1.1 Markup Guidelines

Make comments and markup the drawings complete without reference to letters, memos, or materials that are not part of the As-Built drawing. Show what was changed, how it was changed, where items(s) were relocated and change related details. These working as-built markup prints must be neat, legible and accurate as follows:

a. Use base colors of red, green, and blue. Color code for changes as follows:

   (1) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes.

   (2) Deletions (Red) - Over-strike deleted graphic items (lines), lettering in notes and leaders.

   (3) Additions (Green) - Added items, lettering in notes and leaders.

b. Provide a legend if colors other than the "base" colors of red, green, and blue are used.

c. Add and denote any additional equipment or material facilities, service lines, incorporated under As-Built Revisions if not already shown in legend.

d. Use frequent written explanations on markup drawings to describe changes. Do not totally rely on graphic means to convey the revision.

e. Use legible lettering and precise and clear digital values when marking prints. Clarify ambiguities concerning the nature and application of change involved.

f. Wherever a revision is made, also make changes to related section views, details, legend, profiles, plans and elevation views, schedules, notes and call out designations, and mark accordingly to avoid conflicting data on all other sheets.

g. For deletions, cross out all features, data and captions that relate to that revision.

h. For changes on small-scale drawings and in restricted areas, provide large-scale inserts, with leaders to the applicable location.

i. Indicate one of the following when attaching a print or sketch to a markup print:

   1) Add an entire drawing to contract drawings

   2) Change the contract drawing to show

3) Provided for reference only to further detail the initial design.

j. Incorporate all shop and fabrication drawings into the markup drawings.

3.1.2 As-Built Drawings Content

Keep as-built markup drawings current on a weekly basis and at least one set available on the jobsite at all times. Changes from the contract drawings which are made during construction or additional information which might be uncovered in the course of construction must be accurately and neatly recorded as they occur by means of details and notes. Show on the as-built drawings, but not limited to, the following information:

a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, show by offset dimensions to two permanently fixed surface features the end of each run including each change in direction on the record drawings. Locate valves, splice boxes and similar appurtenances by dimensioning along the utility run from a reference point. Also record the average depth below the surface of each run.

b. The location and dimensions of any changes within the building structure.

c. Layout and schematic drawings of electrical circuits and piping.

d. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

e. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to shop drawings, fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

f. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

g. Changes or Revisions which result from the final inspection.

h. Where contract drawings or specifications present options, show only the option selected for construction on the working as-built markup drawings.

i. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, furnish a contour map of the final borrow pit/spoil area elevations.

j. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

k. Changes in location of equipment and architectural features.

j. Modifications (include within change order price the cost to change working as-built markup drawings to reflect modifications).

l. Actual location of anchors, construction and control joints, etc., in concrete.

m. Unusual or uncharted obstructions that are encountered in the contract work area during construction.

n. Location, extent, thickness, and size of stone protection particularly where it will be normally submerged by water.

3.2 OPERATION AND MAINTENANCE MANUALS

Provide project operation and maintenance manuals as specified in Section 01 78 20 OPERATION AND MAINTENANCE DATA. Provide four electronic copies of the Operation and Maintenance Manual files and one hard copy of the Operation and Maintenance Manuals. Submit to the Contracting Officer for approval within 30 calendar days of the Beneficial Occupancy Date (BOD). Update and resubmit files for final approval at BOD.

3.3 CLEANUP

Provide final cleaning in accordance with ASTM E1971 and submit two copies of the listing of completed final clean-up items. Leave premises "broom clean." Comply with GS-37 for general purpose cleaning and bathroom cleaning. Use only nonhazardous cleaning materials, including natural cleaning materials, in the final cleanup. Clean interior and exterior glass surfaces exposed to view; remove temporary labels, stains and foreign substances; polish transparent and glossy surfaces; vacuum carpeted and soft surfaces. Clean equipment and fixtures to a sanitary condition. Replace filters of operating equipment. Clean debris from roofs, gutters, downspouts and drainage systems. Sweep paved areas and rake clean landscaped areas. Remove waste and surplus materials, rubbish and construction facilities from the site.

-- End of Section --

SECTION 01 78 20

OPERATION AND MAINTENANCE DATA
**02/08**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM E1971 | (2005; R 2011) Stewardship for the Cleaning of Commercial and Institutional Buildings |

1.2 SUBMISSION OF OPERATION AND MAINTENANCE DATA

Submit Operation and Maintenance (O&M) Data specifically applicable to this contract and a complete and concise depiction of the provided equipment, product, or system, stressing and enhancing the importance of system interactions, troubleshooting, and long-term preventative maintenance and operation. The subcontractors shall compile and prepare data and deliver to the Contractor prior to the training of Government personnel. The Contractor shall compile and prepare aggregate O&M data including clarifying and updating the original sequences of operation to as-built conditions. Organize and present information in sufficient detail to clearly explain O&M requirements at the system, equipment, component, and subassembly level. Include an index preceding each submittal. Submit in accordance with this section and Section 01 33 00 SUBMITTAL PROCEDURES.

1.2.1 Package Quality

Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.

1.2.2 Package Content

Data package content shall be as shown in the paragraph titled "Schedule of Operation and Maintenance Data Packages." Comply with the data package requirements specified in the individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission.

1.2.3 Changes to Submittals

Manufacturer-originated changes or revisions to submitted data shall be furnished by the Contractor if a component of an item is so affected subsequent to acceptance of the O&M Data. Changes, additions, or revisions required by the Government for final acceptance of submitted data, shall be submitted by the Contractor within 30 calendar days of the notification of this change requirement.

1.2.4 Review and Approval

The Commissioning Authority shall review the commissioned systems and equipment submittals for completeness and applicability. The Government shall verify that the systems and equipment provided meet the requirements of the Contract documents and design intent, particularly as they relate to functionality, energy performance, water performance, maintainability, sustainability, system cost, indoor environmental quality, and local environmental impacts. The CA shall communicate deficiencies to the Government. Upon a successful review of the corrections, the CA shall recommend approval and acceptance of these O&M manuals to the Government. This work shall be in addition to the normal review procedures for O&M data.

1.2.5 O&M Database

Develop a database from the O&M manuals that contains the information required to start a preventative maintenance program.

1.3 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

1.3.1 Operating Instructions

Include specific instructions, procedures, and illustrations for the following phases of operation for the installed model and features of each system:

1.3.1.1 Safety Precautions

List personnel hazards and equipment or product safety precautions for all operating conditions.

1.3.1.2 Operator Prestart

Include procedures required to install, set up, and prepare each system for use.

1.3.1.3 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.3.1.4 Normal Operations

Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.

1.3.1.5 Emergency Operations

Include Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of all utility systems including required valve positions, valve locations and zones or portions of systems controlled.

1.3.1.6 Operator Service Requirements

Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gage readings.

1.3.1.7 Environmental Conditions

Include a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.

1.3.2 Preventive Maintenance

Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair for the installed model and features of each system. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

1.3.2.1 Lubrication Data

Include preventative maintenance lubrication data, in addition to instructions for lubrication provided under paragraph titled "Operator Service Requirements":

a. A table showing recommended lubricants for specific temperature ranges and applications.

b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.

c. A Lubrication Schedule showing service interval frequency.

1.3.2.2 Preventive Maintenance Plan and Schedule

Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

1.3.2.3 Cleaning Recommendations

Provide environmentally preferable cleaning recommendations in accordance with ASTM E1971.

1.3.3 Corrective Maintenance (Repair)

Include manufacturer's recommended procedures and instructions for correcting problems and making repairs for the installed model and features of each system. Include potential environmental and indoor air quality impacts of recommended maintenance procedures and materials.

1.3.3.1 Troubleshooting Guides and Diagnostic Techniques

Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what

conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

1.3.3.2 Wiring Diagrams and Control Diagrams

Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

1.3.3.3 Maintenance and Repair Procedures

Include instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

1.3.3.4 Removal and Replacement Instructions

Include step-by-step procedures and a list required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.

1.3.3.5 Spare Parts and Supply Lists

Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

1.3.4 Corrective Maintenance Work-Hours

Include manufacturer's projection of corrective maintenance work-hours including requirements by type of craft. Corrective maintenance that requires completion or participation of the equipment manufacturer shall be identified and tabulated separately.

1.3.5 Appendices

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

1.3.5.1 Product Submittal Data

Provide a copy of all SD-03 Product Data submittals required in the applicable technical sections.

1.3.5.2 Manufacturer's Instructions

Provide a copy of all SD-08 Manufacturer's Instructions submittals required in the applicable technical sections.

1.3.5.3 O&M Submittal Data

Provide a copy of all SD-10 Operation and Maintenance Data submittals required in the applicable technical sections.

1.3.5.4 Parts Identification

Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog.

1.3.5.5 Warranty Information

List and explain the various warranties and clearly identify the servicing and technical precautions prescribed by the manufacturers or contract documents in order to keep warranties in force. Include warranty information for primary components such as the compressor of air conditioning system.

1.3.5.6 Personnel Training Requirements

Provide information available from the manufacturers that is needed for use in training designated personnel to properly operate and maintain the equipment and systems.

1.3.5.7 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.

1.3.5.8 Testing and Performance Data

Include completed prefunctional checklists, functional performance test forms, and monitoring reports. Include recommended schedule for retesting and blank test forms.

1.3.5.9 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each Subcontractor who installed the product or equipment, or system. For each item, also provide the name address and telephone number of the manufacturer's representative and service organization that can provide replacements most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

1.4 TYPES OF INFORMATION REQUIRED IN CONTROLS O&M DATA PACKAGES

Include Data Package 5 and the following for control systems:

a. Narrative description on how to perform and apply all functions, features, modes, and other operations, including unoccupied operation, seasonal changeover, manual operation, and alarms. Include detailed technical manual for programming and customizing control loops and algorithms.

b. Full as-built sequence of operations.

c. Copies of all checkout tests and calibrations performed by the Contractor (not Cx tests).

d. Full points list. A listing of rooms shall be provided with the following information for each room:

(1) Floor

(2) Room number

(3) Room name

(4) Air handler unit ID

(5) Reference drawing number

(6) Air terminal unit tag ID

(7) Heating and/or cooling valve tag ID

(8) Minimum cfm

(9) Maximum cfm

e. Full print out of all schedules and set points after testing and acceptance of the system.

f. Full as-built print out of software program.

g. Electronic copy on disk or CD of the entire program for this facility.

h. Marking of all system sensors and thermostats on the as-built floor plan and mechanical drawings with their control system designations.

1.5 SCHEDULE OF OPERATION AND MAINTENANCE DATA PACKAGES

Furnish the O&M data packages specified in individual technical sections. The required information for each O&M data package is as follows:

1.5.1 Data Package 1

a. Safety precautions

b. Cleaning recommendations

c. Maintenance and repair procedures

d. Warranty information

e. Contractor information

f. Spare parts and supply list

1.5.2 Data Package 2

a. Safety precautions

b. Normal operations

c. Environmental conditions

d. Lubrication data

e. Preventive maintenance plan and schedule

f. Cleaning recommendations

g. Maintenance and repair procedures

h. Removal and replacement instructions

i. Spare parts and supply list

j. Parts identification

k. Warranty information

l. Contractor information

1.5.3 Data Package 3

a. Safety precautions

b. Operator prestart

c. Startup, shutdown, and post-shutdown procedures

d. Normal operations

e. Emergency operations

f. Environmental conditions

g. Lubrication data

h. Preventive maintenance plan and schedule

i. Cleaning recommendations

j. Troubleshooting guides and diagnostic techniques

k. Wiring diagrams and control diagrams

l. Maintenance and repair procedures

m. Removal and replacement instructions

n. Spare parts and supply list

o. Product submittal data

p. O&M submittal data

q. Parts identification

r. Warranty information

s. Testing equipment and special tool information

t. Testing and performance data

u. Contractor information

1.5.4 Data Package 4

a. Safety precautions

b. Operator prestart

c. Startup, shutdown, and post-shutdown procedures

d. Normal operations

e. Emergency operations

f. Operator service requirements

g. Environmental conditions

h. Lubrication data

i. Preventive maintenance plan and schedule

j. Cleaning recommendations

k. Troubleshooting guides and diagnostic techniques

l. Wiring diagrams and control diagrams

m. Maintenance and repair procedures

n. Removal and replacement instructions

o. Spare parts and supply list

p. Corrective maintenance man-hours

q. Product submittal data

r. O&M submittal data

s. Parts identification

t. Warranty information

u. Personnel training requirements

v. Testing equipment and special tool information

w. Testing and performance data

x. Contractor information

1.5.5 Data Package 5

a. Safety precautions

b. Operator prestart

c. Start-up, shutdown, and post-shutdown procedures

d. Normal operations

e. Environmental conditions

f. Preventive maintenance plan and schedule

g. Troubleshooting guides and diagnostic techniques

h. Wiring and control diagrams

i. Maintenance and repair procedures

j. Removal and replacement instructions

k. Spare parts and supply list

l. Product submittal data

m. Manufacturer's instructions

n. O&M submittal data

o. Parts identification

p. Testing equipment and special tool information

q. Warranty information

r. Testing and performance data

s. Contractor information

PART 2PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

SECTION 02 41 00

DEMOLITION
**05/10**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY OF SAFETY ENGINEERS (ASSE/SAFE)

| | |
|---|---|
| ASSE/SAFE A10.6 | (2006) Safety Requirements for Demolition Operations |

CARPET AND RUG INSTITUTE (CRI)

| | |
|---|---|
| CRI 104 | (2002) Standard for Installation Specification of Commercial Carpet |

U.S. ARMY CORPS OF ENGINEERS (USACE)

| | |
|---|---|
| EM 385-1-1 | (2014) Safety and Health Requirements Manual |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 40 CFR 61 | National Emission Standards for Hazardous Air Pollutants |

1.2 PROJECT DESCRIPTION

1.2.1 Demolition Plan

Prepare a Demolition Plan and submit proposed demolition, and removal procedures for approval before work is started.. Include in the plan procedures for careful removal and disposition of materials specified to be salvaged, coordination with other work in progress, a disconnection schedule of utility services, a detailed description of methods and equipment to be used for each operation and of the sequence of operations. Identify components and materials to be salvaged for reuse or recycling with reference to paragraph Existing Facilities to be Removed. Append tracking forms for all removed materials indicating type, quantities, condition, destination, and end use. Coordinate with Waste Management Plan. Include statements affirming Contractor inspection of the existing roof deck and its suitability to perform as a safe working platform or if inspection reveals a safety hazard to workers, state provisions for securing the safety of the workers throughout the performance of the work. Provide procedures for safe conduct of the work in accordance with EM 385-1-1. Plan shall be approved by Contracting Officer prior to work beginning.

1.2.2 General Requirements

Do not begin demolition until authorization is received from the Contracting Officer. The work of this section is to be performed in a

manner that maximizes salvage and recycling of materials. Remove rubbish and debris from the project site; do not allow accumulations inside or outside the building. The work includes demolition, salvage of identified items and materials, and removal of resulting rubbish and debris. Remove rubbish and debris from Government property daily, unless otherwise directed. Store materials that cannot be removed daily in areas specified by the Contracting Officer. In the interest of occupational safety and health, perform the work in accordance with EM 385-1-1, Section 23, Demolition, and other applicable Sections.

## 1.3 ITEMS TO REMAIN IN PLACE

Take necessary precautions to avoid damage to existing items to remain in place, to be reused, or to remain the property of the Government. Repair or replace damaged items as approved by the Contracting Officer. Coordinate the work of this section with all other work indicated. Construct and maintain shoring, bracing, and supports as required. Ensure that structural elements are not overloaded. Increase structural supports or add new supports as may be required as a result of any cutting, removal, deconstruction, or demolition work performed under this contract. Do not overload structural elements or pavements to remain. Provide new supports and reinforcement for existing construction weakened by demolition, deconstruction, or removal work. Repairs, reinforcement, or structural replacement require approval by the Contracting Officer prior to performing such work.

### 1.3.1 Existing Construction Limits and Protection

Do not disturb existing construction beyond the extent indicated or necessary for installation of new construction. Provide temporary shoring and bracing for support of building components to prevent settlement or other movement. Provide protective measures to control accumulation and migration of dust and dirt in all work areas. Remove dust, dirt, and debris from work areas daily.

### 1.3.2 Utility Service

Maintain existing utilities indicated to stay in service and protect against damage during demolition operations. Prior to start of work, utilities serving each area of alteration or removal will be shut off by the Government and disconnected and sealed by the Contractor.

### 1.3.3 Facilities

Protect electrical and mechanical services and utilities. Where removal of existing utilities and pavement is specified or indicated, provide approved barricades, temporary covering of exposed areas, and temporary services or connections for electrical and mechanical utilities. Floors, roofs, walls, columns, pilasters, and other structural components that are designed and constructed to stand without lateral support or shoring, and are determined to be in stable condition, must remain standing without additional bracing, shoring, or lateral support until demolished or deconstructed, unless directed otherwise by the Contracting Officer. Ensure that no elements determined to be unstable are left unsupported and place and secure bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, deconstruction, or demolition work performed under this contract.

1.4 BURNING

The use of burning at the project site for the disposal of refuse and debris will not be permitted.

1.5 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Existing Conditions; G

SD-07 Certificates

Demolition Plan; G
Notification; G

1.6 QUALITY ASSURANCE

Furnish timely notification of demolition and renovation projects to Federal, State, regional, and local authorities in accordance with 40 CFR 61, Subpart M. Notify the State's environmental protection agency, local air pollution control district/agency and the Contracting Officer in writing 10 working days prior to the commencement of work in accordance with 40 CFR 61, Subpart M. Comply with federal, state, and local hauling and disposal regulations.In addition to the requirements of the "Contract Clauses," conform to the safety requirements contained in ASSE/SAFE A10.6. Comply with the Environmental Protection Agency requirements specified. Use of explosives will not be permitted.

1.6.1 Dust and Debris Control

Prevent the spread of dust and debris and avoid the creation of a nuisance or hazard in the surrounding area. Do not use water if it results in hazardous or objectionable conditions such as, but not limited to, ice, flooding, or pollution.

1.7 PROTECTION

1.7.1 Traffic Control Signs

a. Where pedestrian and driver safety is endangered in the area of removal work, use traffic barricades with flashing lights. Anchor barricades in a manner to prevent displacement by wind. Notify the Contracting Officer prior to beginning such work.

1.7.2 Protection of Personnel

Before, during and after the demolition work continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the project site. No area, section, or component of floors, roofs, walls, columns, pilasters, or other structural element will be allowed to be left standing without sufficient bracing, shoring, or lateral support to prevent collapse or failure while workmen remove debris or perform other work in the immediate

area.

1.8 RELOCATIONS

Perform the removal and reinstallation of relocated items as indicated with workmen skilled in the trades involved. Items to be relocated which are damaged by the Contractor shall be repaired or replaced with new undamaged items as approved by the Contracting Officer.

1.9 EXISTING CONDITIONS

Before beginning any demolition work, survey the site and examine the drawings and specifications to determine the extent of the work. Record existing conditions in the presence of the Contracting Officer showing the condition of structures and other facilities adjacent to areas of alteration or removal. Photographs sized 4 inch will be acceptable as a record of existing conditions. Include in the record the elevation of the top of foundation walls, finish floor elevations, possible conflicting electrical conduits, plumbing lines, alarms systems, the location and extent of existing cracks and other damage and description of surface conditions that exist prior to before starting work. It is the Contractor's responsibility to verify and document all required outages which will be required during the course of work, and to note these outages on the record document.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 EXISTING FACILITIES TO BE REMOVED

3.1.1 Utilities and Related Equipment

3.1.1.1 General Requirements

Do not interrupt existing utilities serving occupied or used facilities, except when authorized in writing by the Contracting Officer. Do not interrupt existing utilities serving facilities occupied and used by the Government except when approved in writing and then only after temporary utility services have been approved and provided. Do not begin demolition work until all utility disconnections have been made. Shut off and cap utilities for future use, as indicated.

3.1.1.2 Disconnecting Existing Utilities

Remove existing utilities, as indicated and terminate in a manner conforming to the nationally recognized code covering the specific utility and approved by the Contracting Officer. When utility lines are encountered but are not indicated on the drawings, notify the Contracting Officer prior to further work in that area. Remove meters and related equipment and deliver to a location in accordance with instructions of the Contracting Officer.

3.1.2 Carpentry

Salvage for recycle lumber, millwork items, and finished boards, and sort by type and size. Chip or shred and recycle salvaged wood unfit for

reuse, except stained, painted, or treated wood. Salvage windows, doors, frames, and cabinets, and similar items as whole units, complete with trim and accessories. Do not remove hardware attached to units, except for door closers. Brace the open end of door frames to prevent damage.

3.1.3 Carpet

Remove existing carpet for reclamation in accordance with manufacturer recommendations and as follows. Remove used carpet in large pieces, roll tightly, and pack neatly in a container. Remove adhesive according to recommendations of the Carpet and Rug Institute (CRI). Adhesive removal solvents shall comply with CRI 104. Recycle removed carpet cushion.

3.1.4 Acoustic Ceiling Tile

Remove, neatly stack, and recycle acoustic ceiling tiles. Recycling may be available with manufacturer. Otherwise, priority shall be given to a local recycling organization.

3.1.5 Patching

Where removals leave holes and damaged surfaces exposed in the finished work, patch and repair these holes and damaged surfaces to match adjacent finished surfaces, using on-site materials when available. Where new work is to be applied to existing surfaces, perform removals and patching in a manner to produce surfaces suitable for receiving new work. Finished surfaces of patched area shall be flush with the adjacent existing surface and shall match the existing adjacent surface as closely as possible as to texture and finish.

3.1.6 Electrical Devices

Remove indicated electrical devices.

3.1.7 Items With Unique/Regulated Disposal Requirements

Remove and dispose of items with unique or regulated disposal requirements in the manner dictated by law or in the most environmentally responsible manner.

3.2 DISPOSITION OF MATERIAL

3.2.1 Title to Materials

Except for salvaged items specified in related Sections, all materials and equipment removed and not reused or salvaged, shall become the property of the Contractor and shall be removed from Government property. Title to materials resulting from demolition and materials and equipment to be removed, is vested in the Contractor upon approval by the Contracting Officer of the Contractor's demolition, and removal procedures, and authorization by the Contracting Officer to begin demolition and deconstruction. The Government will not be responsible for the condition or loss of, or damage to, such property after contract award. Showing for sale or selling materials and equipment on site is prohibited.

3.2.2 Unsalvageable and Non-Recyclable Material

Dispose of unsalvageable and non-recyclable combustible material off the site.

## 3.3 CLEANUP

Remove and transport the debris in a manner that prevents spillage on streets or adjacent areas. Apply local regulations regarding hauling and disposal.

## 3.4 DISPOSAL OF REMOVED MATERIALS

### 3.4.1 Regulation of Removed Materials

Dispose of debris, rubbish, scrap, and other nonsalvageable materials resulting from removal operations with all applicable federal, state and local regulations as contractually specified in the Waste Management Plan. Storage of removed materials on the project site is prohibited.

### 3.4.2 Burning on Government Property

Burning of materials removed from demolished and deconstructed structures will not be permitted on Government property.

### 3.4.3 Removal from Government Property

Transport waste materials removed from demolished and deconstructed structures, except waste soil, from Government property for legal disposal. Dispose of waste soil as directed.

-- End of Section --

SECTION 06 20 00

FINISH CARPENTRY
**02/16**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN HARDBOARD ASSOCIATION (AHA)

| | |
|---|---|
| AHA A135.4 | (1995; R 2004) Basic Hardboard |

AMERICAN LUMBER STANDARDS COMMITTEE (ALSC)

| | |
|---|---|
| ALSC PS 20 | (2015) American Softwood Lumber Standard |

AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

| | |
|---|---|
| AWPA U1 | (2015) Use Category System: User Specification for Treated Wood |

APA - THE ENGINEERED WOOD ASSOCIATION (APA)

| | |
|---|---|
| APA L870 | (2010) Voluntary Product Standard, PS 1-09, Structural Plywood |

ASME INTERNATIONAL (ASME)

| | |
|---|---|
| ASME B18.2.1 | (2012; Errata 2013) Square and Hex Bolts and Screws (Inch Series) |
| ASME B18.2.2 | (2010) Nuts for General Applications: Machine Screw Nuts, Hex, Square, Hex Flange, and Coupling Nuts (Inch Series) |
| ASME B18.6.1 | (1981; R 2008) Wood Screws (Inch Series) |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM F547 | (2006; R 2012) Nails for Use with Wood and Wood-Base Materials |

HARDWOOD PLYWOOD AND VENEER ASSOCIATION (HPVA)

| | |
|---|---|
| HPVA HP-1 | (2009) American National Standard for Hardwood and Decorative Plywood |

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

| | |
|---|---|
| ANSI/NEMA LD 3 | (2005) Standard for High-Pressure Decorative Laminates |

NATIONAL HARDWOOD LUMBER ASSOCIATION (NHLA)

| | |
|---|---|
| NHLA Rules | (2011) Rules for the Measurement & Inspection of Hardwood & Cypress |

NORTHEASTERN LUMBER MANUFACTURERS ASSOCIATION (NELMA)

| | |
|---|---|
| NELMA Grading Rules | (2013) Standard Grading Rules for Northeastern Lumber |

REDWOOD INSPECTION SERVICE (RIS) OF THE CALIFORNIA REDWOOD ASSOCIATION (CRA)

| | |
|---|---|
| RIS Grade Use | (1998) Redwood Lumber Grades and Uses |

SOUTHERN PINE INSPECTION BUREAU (SPIB)

| | |
|---|---|
| SPIB 1003 | (2002) Standard Grading Rules for Southern Pine Lumber |

WEST COAST LUMBER INSPECTION BUREAU (WCLIB)

| | |
|---|---|
| WCLIB 17 | (2004) Standard Grading Rules |

WESTERN WOOD PRODUCTS ASSOCIATION (WWPA)

| | |
|---|---|
| WWPA G-5 | (2011) Western Lumber Grading Rules |

WINDOW AND DOOR MANUFACTURERS ASSOCIATION (WDMA)

| | |
|---|---|
| WDMA I.S.4 | (2013) Preservative Treatment for Millwork |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings Indicating All Wood Assemblies; G

SD-03 Product Data

Wood Products; G

Vanities; G

Hardware and Accessories; G

SD-04 Samples

Samples; G

SD-07 Certificates

Certificates of Grade; G

1.3 DETAIL DRAWINGS

Submit detail drawings indicating all wood assemblies proposed for use in the project. Indicate materials, species, grade, density, grain, finish details of construction, location of use in the project, finishes, types, method and arrangement of fasteners, and installation details. This includes all fabricated assemblies.

1.4 PRODUCT DATA

Submit Manufacturers printed data including proposed species, grade, density grain, and finish as applicable; sufficient to demonstrate compliance with this specification for each type of wood product specified.

Provide Manufacturers printed data for hardware and all wood accessories including but not limited to edge banding, adhesives, and sealers.

1.5 SAMPLES

Samples indicating proposed species, grade, density grain, and finish for each type of wood product specified. Provide samples of sufficient size to show pattern and color ranges of proposed products.

1.6 DELIVERY, STORAGE, AND HANDLING

Deliver wood products to the jobsite in an undamaged condition. Stack materials to ensure ventilation and drainage. Protect against dampness before and after delivery. Store materials under cover in a well ventilated enclosure and protect against extreme changes in temperature and humidity. Keep materials wrapped and separated from off-gassing materials (such as drying paints and adhesives). Do not use materials that have visible moisture or biological growth. Do not store products in building until wet trade materials are dry and humidity of the space is within wood manufacturer's tolerance limits for storage.

1.7 QUALITY ASSURANCE

1.7.1 Certificates

Provide certificates of grade from the grading agency on graded but unmarked lumber or plywood attesting that materials meet the grade requirements specified herein.

1.7.2 Lumber

Identify each piece or each bundle of lumber, millwork, and trim by the grade mark of a recognized association or independent inspection agency certified by the Board of Review of the ALSC to grade the species.

1.7.3 Plywood

Provide each sheet of plywood with the mark of a recognized association or independent inspection agency that maintains continuing control over the quality of the plywood. Marks must identify plywood by species group or span rating, exposure durability classification, grade, and compliance with APA L870.

1.7.4 Hardboard

Provide materials marks or written documentation identifying the producer and the applicable standard.

1.7.5 Pressure Treated Lumber and Plywood

Inspect each treated piece in accordance with AWPA U1.

1.7.6 Non-Pressure Treated Woodwork and Millwork

Mark, stamp, or label to indicate compliance with WDMA I.S.4.

PART 2 PRODUCTS

2.1 WOOD PRODUCTS

2.1.1 Sizes and Patterns of Wood Products

Provide yard and board lumber sizes in accordance with ALSC PS 20. Provide shaped lumber and millwork in the patterns indicated and in standard patterns of the association covering the species. Size references, unless otherwise specified, are nominal sizes. Provide actual sizes within manufacturing tolerances allowed by the applicable standard.

2.1.2 Species and Grades

Provide in accordance with AWPA U1 Use Category System Tables unless otherwise specified herein.

2.1.3 Trim, Finish, and Frames

Provide species and grades listed in the table below for wood materials that must be painted. For materials that must be stained, have a natural, or a transparent finish, provide materials one grade higher than those listed in the table below. Provide trim, except window stools and aprons with hollow backs.

| TABLE OF GRADES FOR WOOD TO RECEIVE PAINT FINISH | | |
|---|---|---|
| Grading Rules | Species | Exterior and Interior Trim, Finish, and Frames |
| WWPA G-5 standard grading rules | Aspen, Douglas Fir-Larch, Douglas Fir South, Engelmann Spruce-Lodgepole Pine, Engelmann Spruce, Hem-Fir, Idaho White Pine, Lodgepole Pine, Mountain Hemlock, Mountain Hemlock-Hem-Fir, Ponderosa Pine-Sugar Pine, (Ponderosa Pine-Lodgepole Pine,) White Woods, (Western Woods,) Western Cedars, Western Hemlock | All Species: C & BTR. Select (Choice & BTR Idaho White Pine) or Superior Finish. Western Red Cedar may be graded C & BTR. Select or A & BTR in accordance with Special Western Red Cedar Rules. |
| WCLIB 17 standard grading rules | Douglas Fir-Larch, Hem-Fir, Mountain Hemlock, Sitka Spruce, Western Cedars, Western Hemlock | All Species: C & BTR VG, except A for Western Red Cedar |
| SPIB 1003 standard grading rules | Southern Pine | C & BTR |
| NHLA Rules | Cypress | C-Select |
| NELMA Grading Rules standard grading rules ** | Balsam Fir, Eastern Hemlock-Tamarack, Eastern Spruce, Eastern White Pine, Northern Pine, Northern Pine, Northern White Cedar | All Species: C-Select except C & BTR for Eastern White Pine and Norway Pine |
| RIS Grade Use standard specifications | Redwood | Clear, Clear All Heart |
| NHLA Rules | Cypress | B Finish |
| | Red Gum, Soft Elm, Birch | Select or BTR (for interior use only) |

Note: **
http://www.nelma.org/library/2013-standard-grading-rules-for-northeastern-lumber/

2.1.4 Hardwood Plywood

HPVA HP-1, Type II (Interior), Premium (A) Grade, face veneers of thickness indicated.

2.1.5 Hardboard

AHA A135.4, standard type, 1/4 inch thick.

2.2 VANITIES

2.2.1 Laminated Plastic-faced vanities

ANSI/NEMA LD 3.

2.2.1.1 Vanity Finishes

High pressure plastic laminate, Grade GP 50 or PF 42, satin or textured finish. Provide color and pattern as specified in Section 09 06 90 "COLOR SCHEDULE".

2.2.1.2 Backing Sheet

Heavy gauge, BK 20.

2.2.2 Solid Surface

For solid surface countertops refer to Section 06 61 16, SOLID POLYMER (SOLID SURFACING) FABRICATIONS.

2.3 MOISTURE CONTENT OF WOOD PRODUCTS

Air dry or kiln dry lumber. Kiln dry treated lumber after treatment. Maximum moisture content of wood products at time of delivery to the jobsite, and when installed, must be as follows:

a. Interior Finish Lumber, Trim, and Millwork: 1-1/4 Inches Nominal or Less in Thickness: 6 percent on 85 percent of the pieces and 8 percent on remainder.

b. Provide moisture content of other materials in accordance with the applicable standards.

2.4 HARDWARE AND ACCESSORIES

Provide sizes, types, and spacings of hardware and accessories as recommended in writing by the wood product manufacturer, except as otherwise specified.

2.4.1 Wood Screws

ASME B18.6.1.

2.4.2 Bolts, Nuts, Lag Screws, and Studs

ASME B18.2.1 and ASME B18.2.2.

2.4.3 Nails

Use nails of a size and type best suited for each application and in accordance with ASTM F547. Use hot-dipped galvanized or aluminum nails for exterior applications. For siding, provide nails of sufficient length to extend 1-1/2 inches into supports, including wood sheathing over framing. Where nailing is impractical, provide screws of a size and type best suited for each application.

2.5 FABRICATION

2.5.1 Quality Standards (QS)

2.5.1.1 Grades

The terms "Premium," "Custom," and "Economy" refer to the quality grades defined in AWI AWS. Provide items not otherwise specified in a specific grade as "Custom" grade.

2.5.2 Vanities

Fabricate with lumber and a core of exterior plywood, glued and screwed to form an integral unit. Bond laminated plastic under pressure to exposed surfaces, using adhesive as recommended by the plastic manufacturer, and bond a backing sheet under pressure to underside of countertop. Provide countertop units as post-formed type, no-drip nose, cove mouldings, Style A backsplash, and surfaced with ANSI/NEMA LD 3, Grade PF 42 plastic. Provide backsplashes not less than 3-1/2 inches nor more than 4-1/2 inches high.

PART 3 EXECUTION

3.1 FINISH WORK

Apply primer to finish work before installing. Where practicable, shop assemble and finish millwork items. Construct joints tight and in a manner to conceal shrinkage but to avoid cupping, twisting and warping after installation. Miter trim and mouldings at exterior angles; cope at interior angles and at returns. Provide millwork and trim in maximum practical lengths. Fasten finish work with finish nails. Provide blind nailing where practicable. Set face nails for putty stopping.

3.2 MISCELLANEOUS

3.2.1 Vanities

Conceal fastenings where practicable. Fit counters tight to adjoining surfaces and scribe where necessary. Provide scribed joints neat and flush. Provide counter sections in longest lengths practicable with a minimum number of joints. Where joints are necessary, provide tight joints drawn up with concealed type heavy pull-up bolts. Glue joints with water resistant glue and make rigid with screws, bolts, or other approved fastenings.

-- End of Section --

SECTION 06 61 16

SOLID POLYMER (SOLID SURFACING) FABRICATIONS
**08/10**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D2583 | (2007) Indentation Hardness of Rigid Plastics by Means of a Barcol Impressor |
| ASTM D570 | (1998; R 2010e1) Standard Test Method for Water Absorption of Plastics |
| ASTM D638 | (2014) Standard Test Method for Tensile Properties of Plastics |
| ASTM D696 | (2008) Standard Test Method for Coefficient of Linear Thermal Expansion of Plastics Between -30 degrees C and 30 degrees C With a Vitreous Silica Dilatometer |
| ASTM E84 | (2015b) Standard Test Method for Surface Burning Characteristics of Building Materials |
| ASTM G 21 | (2009) Determining Resistance of Synthetic Polymeric Materials to Fungi |

GREENGUARD ENVIRONMENTAL INSTITUTE (GEI)

| | |
|---|---|
| GEI | Greenguard Standards for Low Emitting Products |

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (IAPMO)

| | |
|---|---|
| IAPMO Z124.3 | (2005) Plastic Lavatories |
| IAPMO Z124.6 | (2007) Plastic Sinks |

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

| | |
|---|---|
| ANSI/NEMA LD 3 | (2005) Standard for High-Pressure Decorative Laminates |

NSF INTERNATIONAL (NSF)

| | |
|---|---|
| NSF/ANSI 51 | (2009e) Food Equipment Materials |

SCIENTIFIC CERTIFICATION SYSTEMS (SCS)

| | |
|---|---|
| SCS | Scientific Certification Systems (SCS)Indoor Advantage |

TILE COUNCIL OF NORTH AMERICA (TCNA)

| | |
|---|---|
| TCA Hdbk | (2010) Handbook for Ceramic Tile Installation |

1.2 SYSTEM DESCRIPTION

a. Work under this section includes vanities and window sills and other items utilizing solid polymer (solid surfacing) fabrication as shown on the drawings and as described in this specification. Do not change source of supply for materials after work has started, if the appearance of finished work would be affected.

b. In most instances, installation of solid polymer fabricated components and assemblies will require strong, correctly located structural support provided by other trades. To provide a stable, sound, secure installation, close coordination is required between the solid polymer fabricator/installer and other trades to ensure that necessary structural wall support, cabinet counter top structural support, proper clearances, and other supporting components are provided for the installation of wall panels, countertops, shelving, and all other solid polymer fabrications to the degree and extent recommended by the solid polymer manufacturer.

c. Appropriate staging areas for solid polymer fabrications. Allow variation in component size and location of openings of plus or minus 1/8 inch.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G

Installation; G

SD-03 Product Data

Solid polymer material

Qualifications

Fabrications

Certification

SD-04 Samples

Material; G

Vanity Tops; G

SD-06 Test Reports

Solid polymer material

SD-07 Certificates

Fabrications
Qualifications

SD-10 Operation and Maintenance Data

Clean-up

1.4 QUALITY ASSURANCE

1.4.1 Qualifications

To ensure warranty coverage, solid polymer fabricators shall be certified to fabricate by the solid polymer material manufacturer being utilized. Mark all fabrications with the fabricator's certification label affixed in an inconspicuous location. Fabricators shall have a minimum of 5 years of experience working with solid polymer materials. Submit solid polymer manufacturer's certification attesting to fabricator qualification approval.

1.4.2 Mock-ups

Submit Detail Drawings indicating locations, dimensions, component sizes, fabrication and joint details, attachment provisions, installation details, and coordination requirements with adjacent work. Prior to final approval of shop drawings, provide a full-size mock-up of a typical vanity top where multiple units are required. The mock-up shall include all solid polymer components required to provide a completed unit. The mock-up shall utilize finishes in patterns and colors indicated on the drawings. Should the mock-up not be approved, re-work or remake it until approval is secured. Remove rejected units from the jobsite. Approved mock-up may remain as part of the finished work. Detail Drawings

1.4.3 Sustainable Design Certification

Product shall be third party certified by GEI Greenguard Indoor Air Quality Certified, SCS Scientific Certification Systems Indoor Advantage or equal. Certification shall be performed annually and shall be current.

1.5 DELIVERY, STORAGE, AND HANDLING

Do not deliver materials to project site until areas are ready for installation. Deliver components and materials to the site undamaged, in containers clearly marked and labeled with manufacturer's name. Materials shall be stored indoors and adequate precautions taken to prevent damage to finished surfaces. Provide protective coverings to prevent physical damage or staining following installation, for duration of project.

1.6 WARRANTY

Provide manufacturer's warranty of ten years against defects in materials,

excluding damages caused by physical or chemical abuse or excessive heat. Warranty shall provide for material and labor for replacement or repair of defective material for a period of ten years after component installation.

PART 2 PRODUCTS

2.1 MATERIAL

Provide solid polymer material that is a homogeneous filled solid polymer; not coated, laminated or of a composite construction; meeting IAPMO Z124.3 and IAPMO Z124.6 requirements. Material shall have minimum physical and performance properties specified.Superficial damage to a depth of 0.01 inch shall be repairable by sanding or polishing. Material thickness shall be as indicated on the drawings. In no case shall material be less than 1/4 inch in thickness. Submit a minimum 4 by 4 inch sample of each color and pattern for approval. Samples shall indicate full range of color and pattern variation. Approved samples shall be retained as a standard for this work. Submit test report results from an independent testing laboratory attesting that the submitted solid polymer material meets or exceeds each of the specified performance requirements.

2.1.1 Cast, 100 Percent Acrylic Polymer Solid Surfacing Material

Cast, 100 percent acrylic solid polymer material shall be composed of acrylic polymer, mineral fillers, and pigments and shall meet the following minimum performance requirements:

| PROPERTY | REQUIREMENT (min. or max.) | TEST PROCEDURE |
|---|---|---|
| Tensile Strength | 4000 psi (min.) | ASTM D638 |
| Hardness | 55-Barcol Impressor (min.) | ASTM D2583 |
| Thermal Expansion | .000023 in/in/F (max.) | ASTM D696 |
| Boiling water Surface Resistance | No Change | ANSI/NEMA LD 3-3.05 |
| High Temperature Resistance | No Change | ANSI/NEMA LD 3-3.06 |
| Impact Resistance (Ball drop) | | ANSI/NEMA LD 3-303 |
| 1/4" sheet | 36", 1/2 lb ball, no failure | |
| 1/2" sheet | 140", 1/2 lb ball, no failure | |
| 3/4" sheet | 200", 1/2 lb ball, no failure | |
| Mold & Mildew Growth | No growth | ASTM G 21 |
| Bacteria Growth | No Growth | ASTM G 21 |

| PROPERTY | REQUIREMENT (min. or max.) | TEST PROCEDURE |
|---|---|---|
| Liquid Absorption (Weight in 24 hrs.) | 0.1% max. | ASTM D570 |
| Flammability | | ASTM E84 |
| Flame Spread | 25 max. | |
| Smoke Developed | 30 max | |
| Sanitation | "Food Contact" approval | NSF/ANSI 51 |

2.1.2 Acrylic-modified Polymer Solid Surfacing Material

Cast, solid polymer material shall be composed of a formulation containing acrylic and polyester polymers, mineral fillers, and pigments. Acrylic polymer content shall be not less than 5 percent and not more than 10 percent in order to meet the following minimum performance requirements:

| PROPERTY | REQUIREMENT (min. or max.) | TEST PROCEDURE |
|---|---|---|
| Tensile Strength | 4100 psi (min.) | ASTM D638 |
| Hardness | 50-Barcol Impressor (min.) | ASTM D2583 |
| Thermal Expansion | .000023 in/in/F (max.) | ASTM D696 |
| Boiling water Surface Resistance | No Change | ANSI/NEMA LD 3-3.05 |
| High Temperature Resistance | No Change | ANSI/NEMA LD 3-3.06 |
| Impact Resistance (Ball drop) | | ANSI/NEMA LD 3-303 |
| 1/4" sheet | 36", 1/2 lb ball, no failure | |
| 1/2" sheet | 140", 1/2 lb ball, no failure | |
| 3/4" sheet | 200", 1/2 lb ball, no failure | |
| Mold & Mildew Growth | No growth | ASTM G 21 |
| Bacteria Growth | No Growth | ASTM G 21 |
| Liquid Absorption (Weight in 24 hrs.) | 0.6% max. | ASTM D570 |

| PROPERTY | REQUIREMENT (min. or max.) | TEST PROCEDURE |
|---|---|---|
| Flammability | | ASTM E84 |
| Flame Spread | 25 max. | |
| Smoke Developed | 100 max | |
| Sanitation | "Food Contact" approval | NSF/ANSI 51 |

2.1.3 Material Patterns and Colors

Patterns and colors for all solid polymer components and fabrications shall be those indicated on the project color schedule. Pattern and color shall occur, and shall be consistent in appearance, throughout the entire depth (thickness) of the solid polymer material.

2.1.4 Surface Finish

Exposed finished surfaces and edges shall receive a uniform appearance. Exposed surface finish shall be semigloss; gloss rating of 25-50.

2.2 ACCESSORY PRODUCTS

Accessory products, as specified below, shall be manufactured by the solid polymer manufacturer or shall be products approved by the solid polymer manufacturer for use with the solid polymer materials being specified.

2.2.1 Seam Adhesive

Seam adhesive shall be a two-part adhesive kit to create permanent, inconspicuous, non-porous, hard seams and joints by chemical bond between solid polymer materials and components to create a monolithic appearance of the fabrication. Adhesive shall be approved by the solid polymer manufacturer. Adhesive shall be color-matched to the surfaces being bonded where solid-colored, solid polymer materials are being bonded together. The seam adhesive shall be clear or color matched where particulate patterned, solid polymer materials are being bonded together.

2.2.2 Panel Adhesive

Panel adhesive shall be neoprene based panel adhesive meeting TCA Hdbk, Underwriter's Laboratories (UL) listed. Use this adhesive to bond solid polymer components to adjacent and underlying substrates.

2.2.3 Silicone Sealant

Sealant shall be a mildew-resistant, FDA and OSHA Nationally Recognized Testing Laboratory (NRTL) listed silicone sealant or caulk in a clear formulation. The silicone sealant shall be approved for use by the solid polymer manufacturer. Use sealant to seal all expansion joints between solid polymer components and all joints between solid polymer components and other adjacent surfaces such as walls, floors, ceiling, and plumbing fixtures.

2.2.4 Conductive Tape

Conductive tape shall be manufacturer's standard foil tape, 4 mils thick, applied around the edges of cut outs containing hot or cold appliances.

2.2.5 Insulating Felt Tape

Insulating tape shall be manufacturer's standard product for use with drop-in food wells used in commercial food service applications to insulate solid polymer surfaces from hot or cold appliances.

2.2.6 Heat Reflective Tape

Heat reflective tape as recommended by the solid polymer manufacturer for use with cutouts for heat sources.

2.2.7 Mounting Hardware

Provide mounting hardware, including sink/bowl clips, inserts and fasteners for attachment of undermount sinks and lavatories.

2.3 FABRICATIONS

Components shall be factory or shop fabricated to sizes and shapes indicated, to the greatest extent practical, in accordance with approved Shop Drawings and manufacturer's requirements. Provide factory cutouts for sinks, lavatories, and plumbing fixtures where indicated on the drawings. Contours and radii shall be routed to template, with edges smooth. Defective and inaccurate work will be rejected. Submit product data indicating product description, fabrication information, and compliance with specified performance requirements for solid polymer, joint adhesive, sealants, and heat reflective tape. Both the manufacturer of materials and the fabricator shall submit a detailed description of operations and processes in place that support efficient use of natural resources, energy efficiency, emissions of ozone depleting chemicals, management of water and operational waste, indoor environmental quality, and other production techniques supporting sustainable design and products.

2.3.1 Joints and Seams

Form joints and seams between solid polymer components using manufacturer's approved seam adhesive. Joints shall be inconspicuous in appearance and without voids to create a monolithic appearance.

2.3.2 Edge Finishing

Rout and finish component edges to a smooth, uniform appearance and finish. Edge shapes and treatments, including any inserts, shall be as detailed on the drawings. Rout all cutouts, then sand all edges smooth. Repair or reject defective or inaccurate work.

2.3.3 Counter and Vanity Top Splashes

Fabricate backsplashes and end splashes from 1/2 inch thick solid surfacing material to be 4 inches high. Backsplashes and end splashes shall be provided for all counter tops and vanity tops. Backsplashes shall be shop fabricated and be permanently attached.

2.3.3.1 Permanently Attached Backsplash

Permanently attached backsplashes shall be attached with seam adhesive and to form a radiused coved transition from countertop to backsplash.

2.3.3.2 End Splashes

End splashes shall be provided loose for installation at the jobsite after horizontal surfaces to which they are to be attached have been installed.

2.3.4 Window Stools

Fabricate window stools from 1/2 inch thick solid surfacing, solid polymer material. Dimensions, edge shape, and other details shall be as indicated on the drawings.

2.3.5 Vanity Tops

Fabricate all solid surfacing, solid polymer counter top and vanity top components from 1/2 inch thick material. Edge details, dimensions, locations, and quantities shall be as indicated on the Drawings. Counter tops shall be complete with 4 inch high permanently attached with coved transition backsplash and loose endsplashes at all locations. Attach 2 inch wide reinforcing strip of polymer material under each horizontal counter top seam. Submit a minimum 1 foot wide by 6 inch deep, full size sample for each type of counter top shown on the project drawings.The sample shall include the edge profile and backsplash as detailed on the project drawings. Solid polymer material shall be of a pattern and color as indicated on the drawings. Sample shall include at least one seam. Approved sample shall be retained as standard for this work.

2.3.5.1 Vanity Tops With Bowls

a. Solid polymer bowls shall be a solid polymer manufacturer's standard, pre-molded product specifically designed for attachment to solid polymer counter tops.

2.3.6 Solid Polymer Vanity Bowls

Solid polymer vanity bowls shall be a standard product of the solid polymer manufacturer, designed specifically to be installed in solid polymer vanity tops. Bowls shall be of the same polymer composition as the adjoining counter top. Bowl design shall support a seam adhesive undermount installation method. Bowl dimensions shall be as indicated on the drawings.

PART 3 EXECUTION

3.1 INSTALLATION

3.1.1 Components

Install all components and fabricated units plumb, level, and rigid. Make field joints between solid polymer components using solid polymer manufacturer's approved seam adhesives, to provide a monolithic appearance with joints inconspicuous in the finished work. Attach metal or vitreous china sinks and lavatory bowls to counter tops using solid polymer manufacturer's recommended clear silicone sealant and mounting hardware. Solid polymer sinks and bowls shall be installed using a color-matched seam adhesive. Plumbing connections to sinks and lavatories shall be made in accordance with Section 22 00 00 PLUMBING, GENERAL PURPOSE.

3.1.1.1 Loose Counter Top Splashes

Mount loose splashes in the locations noted on the drawings. Loose splashes shall be adhered to the counter top with a color matched silicone sealant when the solid polymer components are solid colors. Use a clear silicone sealant to provide adhesion of particulate patterned solid polymer splashes to counter tops.

3.1.2 Silicone Sealant

Use a clear, silicone sealant or caulk to seal all expansion joints between solid polymer components and all joints between solid polymer components and other adjacent surfaces such as walls, floors, ceiling, and plumbing fixtures. Sealant bead shall be smooth and uniform in appearance and shall be the minimum size necessary to bridge any gaps between the solid surfacing material and the adjacent surface. Bead shall be continuous and run the entire length of the joint being sealed.

3.1.3 Plumbing

Make plumbing connections to sinks and lavatories in accordance with Section 22 00 00 PLUMBING, GENERAL PURPOSE.

3.2 CLEAN-UP

Components shall be cleaned after installation and covered to protect against damage during completion of the remaining project items. Components damaged after installation by other trades will be repaired or replaced at the General Contractor's cost. Component supplier will provide a repair/replace cost estimate to the General Contractor who shall approve estimate before repairs are made. Submit a minimum of six copies of maintenance data indicating manufacturer's care, repair and cleaning instructions. Maintenance video shall be provided,if available. Maintenance kit for matte finishes shall be submitted.

-- End of Section --

SECTION 07 92 00

JOINT SEALANTS
**02/16**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM C1193 | (2013) Standard Guide for Use of Joint Sealants |
| ASTM C1521 | (2013) Standard Practice for Evaluating Adhesion of Installed Weatherproofing Sealant Joints |
| ASTM C509 | (2006; R 2015) Elastomeric Cellular Preformed Gasket and Sealing Material |
| ASTM C734 | (2015) Low-Temperature Flexibility of Latex Sealants After Artificial Weathering |
| ASTM C834 | (2014) Latex Sealants |
| ASTM C919 | (2012) Use of Sealants in Acoustical Applications |
| ASTM C920 | (2014a) Standard Specification for Elastomeric Joint Sealants |
| ASTM D1056 | (2014) Standard Specification for Flexible Cellular Materials - Sponge or Expanded Rubber |
| ASTM D1667 | (2005; R 2011) Flexible Cellular Materials - Poly (Vinyl Chloride) Foam (Closed-Cell) |
| ASTM D217 | (2010) Cone Penetration of Lubricating Grease |
| ASTM E84 | (2015b) Standard Test Method for Surface Burning Characteristics of Building Materials |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Sealants; G

Primers; G

Bond Breakers; G

Backstops; G

SD-06 Test Reports

Field Adhesion; G

SD-07 Certificates

Sealant; G

1.3 PRODUCT DATA

Include storage requirements, shelf life, curing time, instructions for mixing and application, and accessories. Provide manufacturer's Material Safety Data Sheet (MSDS) for each solvent, primer and sealant material proposed.

1.4 ENVIRONMENTAL CONDITIONS

Apply sealant when the ambient temperature is between 40 and 90 degrees F.

1.5 DELIVERY AND STORAGE

Deliver materials to the jobsite in unopened manufacturers' sealed shipping containers, with brand name, date of manufacture, color, and material designation clearly marked thereon. Label elastomeric sealant containers to identify type, class, grade, and use. Handle and store materials in accordance with manufacturer's printed instructions. Prevent exposure to foreign materials or subjection to sustained temperatures exceeding 90 degrees F or lower than 0 degrees F. Keep materials and containers closed and separated from absorptive materials such as wood and insulation.

1.6 QUALITY ASSURANCE

1.6.1 Compatibility with Substrate

Verify that each sealant is compatible for use with each joint substrate in accordance with sealant manufacturer's printed recommendations for each application.

1.6.2 Joint Tolerance

Provide joint tolerances in accordance with manufacturer's printed instructions.

1.6.3 Mock-Up

Provide a mock-up of each type of sealant using materials, colors, and techniques approved for use on the project. Approved mock-ups may be incorporated into the Work.

1.6.4 Adhesion

Provide in accordance with ASTM C1193 or ASTM C1521.

1.6.5 Special Warranty

Guarantee sealant joint against failure of sealant and against water penetration through each sealed joint for five years.

PART 2 PRODUCTS

2.1 SEALANTS

Provide sealant products that have been tested, found suitable, and documented as such by the manufacturer for the particular substrates to which they will be applied.

2.1.1 Interior Sealants

Provide ASTM C834. Location(s) and color(s) of sealant for the following. Note, color "as selected" refers to manufacturer's full range of color options

| LOCATION | COLOR |
|---|---|
| a. Small voids between walls or partitions and adjacent lockers, casework, shelving, door frames, built-in or surface mounted equipment and fixtures, and similar items. | As selected |
| b. Perimeter of frames at doors, windows, and access panels which adjoin exposed interior concrete and masonry surfaces. | As selected |
| c. Joints of interior masonry walls and partitions which adjoin columns, pilasters, concrete walls, and exterior walls unless otherwise detailed. | As selected |
| d. Joints between edge members for acoustical tile and adjoining vertical surfaces. | As selected |
| e. Interior locations, not otherwise indicated or specified, where small voids exist between materials specified to be painted. | As selected |
| f. Joints between bathtubs and ceramic tile; joints between shower receptors and ceramic tile; joints formed where non-planar tile surfaces meet. | As selected |
| g. Joints formed between tile floors and tile base cove; joints between tile and dissimilar materials; joints occurring where substrates change. | As selected |
| h. Behind escutcheon plates at valve pipe penetrations and showerheads in showers. | As selected |

2.1.2 Exterior Sealants

For joints in vertical surfaces, provide ASTM C920, Type S or M, Grade NS, Class 25, Use NT. For joints in horizontal surfaces, provide ASTM C920, Type S or M, Grade P, Class 25, Use T. Provide location(s) and color(s) of sealant as follows. Note, color "as selected" refers to manufacturer's full range of color options:

| LOCATION | COLOR |
|---|---|
| a. Joints and recesses formed where frames and subsills of windows, doors, louvers, and vents adjoin masonry, concrete, or metal frames. Use sealant at both exterior and interior surfaces of exterior wall penetrations. | Match adjacent surface color |
| b. Joints between new and existing exterior masonry walls. | Match adjacent surface color |
| c. Masonry joints where shelf angles occur. | Match adjacent surface color |
| d. Expansion and control joints. | Match adjacent |
| e. Interior face of expansion joints in exterior concrete or masonry walls where metal expansion joint covers are not required. | Match adjacent surface color |
| f. Voids where items pass through exterior walls. | Match adjacent surface color |
| g. Metal-to-metal joints where sealant is indicated or specified. | Match adjacent surface color |
| h. Joints between ends of gravel stops, fasciae, copings, and adjacent walls. | Match adjacent surface color |

2.1.3 Floor Joint Sealants

ASTM C920, Type S or M, Grade P, Class 25, Use T. Provide location(s) and color(s) of sealant as follows. Note, color "as selected" refers to manufacturer's full range of color options:

| LOCATION | COLOR |
|---|---|
| a. Seats of metal thresholds for exterior doors. | As selected |

| LOCATION | COLOR |
|---|---|
| b. Control and expansion joints in floors, slabs, ceramic tile, and walkways. | As selected |

2.1.4 Acoustical Sealants

Rubber or polymer based acoustical sealant in accordance with ASTM C919 to have a flame spread of 25 or less and a smoke developed rating of 50 or less when tested in accordance with ASTM E84. Provide non-staining acoustical sealant with a consistency of 250 to 310 when tested in accordance with ASTM D217. Acoustical sealant must remain flexible and adhesive after 500 hours of accelerated weathering as specified in ASTM C734.

2.2 PRIMERS

Non-staining, quick drying type and consistency as recommended by the sealant manufacturer for the particular application.

2.3 BOND BREAKERS

Type and consistency as recommended by the sealant manufacturer to prevent adhesion of the sealant to the backing or to the bottom of the joint.

2.4 BACKSTOPS

Provide glass fiber roving, neoprene, butyl, polyurethane, or polyethylene foams free from oil or other staining elements as recommended by sealant manufacturer. Provide 25 to 33 percent oversized backing for closed cell and 40 to 50 percent oversized backing for open cell material, unless otherwise indicated. Provide backstop material that is compatible with sealant. Do not use oakum or other types of absorptive materials as backstops.

2.4.1 Rubber

Provide in accordance with ASTM D1056, Type 2, closed cell, Class A, Grade 2A, round cross section for cellular rubber sponge backing.

2.4.2 PVC

Provide in accordance with ASTM D1667, Grade VO 12, open-cell foam, round cross section for polyvinyl chloride (PVC) backing.

2.4.3 Synthetic Rubber

Provide in accordance with ASTM C509, Option I, Type I preformed rods or tubes for synthetic rubber backing.

2.4.4 Neoprene

Provide in accordance with ASTM D1056, closed cell expanded neoprene cord Type 2, Class C, Grade 2C2 for neoprene backing.

## 2.5 CLEANING SOLVENTS

Provide type(s) recommended by the sealant manufacturer and in accordance with environmental requirements herein.

# PART 3 EXECUTION

## 3.1 FIELD QUALITY CONTROL

Perform a field adhesion test in accordance with manufacturer's instructions and ASTM C1193, Method A or ASTM C1521, Method A, Tail Procedure. Remove sealants that fail adhesion testing; clean substrates, reapply sealants, and re-test. Test sealants adjacent to failed sealants. Submit field adhesion test report indicating tests, locations, dates, results, and remedial actions taken.

## 3.2 SURFACE PREPARATION

Prepare surfaces according to manufacturer's printed installation instructions. Clean surfaces from dirt, frost, moisture, grease, oil, wax, lacquer, paint, or other foreign matter that would destroy or impair adhesion. Remove oil and grease with solvent; thoroughly remove solvents prior to sealant installation. Wipe surfaces dry with clean cloths. When resealing an existing joint, remove existing caulk or sealant prior to applying new sealant. For surface types not listed below, provide in accordance with sealant manufacturer's printed instructions for each specific surface.

### 3.2.1 Steel Surfaces

Remove loose mill scale by sandblasting or, if sandblasting is impractical or would damage finished work, scraping and wire brushing. Remove protective coatings by sandblasting or using a residue free solvent. Remove resulting debris and solvent residue prior to sealant installation.

### 3.2.2 Aluminum or Bronze Surfaces

Remove temporary protective coatings from surfaces that will be in contact with sealant. When masking tape is used as a protective coating, remove tape and any residual adhesive prior to sealant application. For removing protective coatings and final cleaning, use non-staining solvents recommended by the manufacturer of the item(s) containing aluminum or bronze surfaces.

### 3.2.3 Concrete and Masonry Surfaces

Where surfaces have been treated with curing compounds, oil, or other such materials, remove materials by sandblasting or wire brushing. Remove laitance, efflorescence and loose mortar from the joint cavity. Remove resulting debris prior to sealant installation.

### 3.2.4 Wood Surfaces

Ensure wood surfaces that will be in contact with sealants are free of splinters, sawdust and other loose particles.

## 3.3 SEALANT PREPARATION

Do not add liquids, solvents, or powders to sealants. Mix multicomponent

elastomeric sealants in accordance with manufacturer's printed instructions.

3.4 APPLICATION

3.4.1 Joint Width-To-Depth Ratios

Acceptable Ratios:

| JOINT WIDTH | JOINT DEPTH | |
|---|---|---|
| | Minimum | Maximum |
| For metal, glass, or other nonporous surfaces: | | |
| 1/4 inch (minimum) | 1/4 inch | 1/4 inch |
| over 1/4 inch | 1/2 of width | Equal to width |
| For wood, concrete or masonry: | | |
| 1/4 inch (minimum) | 1/4 inch | 1/4 inch |
| over 1/4 inch to 1/2 inch | 1/4 inch | Equal to width |
| over 1/2 inch to 1 inch | 1/2 inch | 5/8 inch |
| Over 1 inch | prohibited | |

Unacceptable Ratios: Where joints of acceptable width-to-depth ratios have not been provided, clean out joints to acceptable depths and grind or cut to acceptable widths without damage to the adjoining work. Grinding is prohibited at metal surfaces.

3.4.2 Unacceptable Sealant Use

Do not install sealants in lieu of other required building enclosure weatherproofing components such as flashing, drainage components, and joint closure accessories, or to close gaps between walls, floors, roofs, windows, and doors, that exceed acceptable installation tolerances. Remove sealants that have been used in an unacceptable manner and correct building enclosure deficiencies to comply with contract documents requirements.

3.4.3 Masking Tape

Place masking tape on the finished surface on one or both sides of joint cavities to protect adjacent finished surfaces from primer or sealant smears. Remove masking tape within 10 minutes of joint filling and tooling.

3.4.4 Backstops

Provide backstops dry and free of tears or holes. Tightly pack the back or bottom of joint cavities with backstop material to provide joints in specified depths. Provide backstops where indicated and where backstops are not indicated but joint cavities exceed the acceptable maximum depths

specified in "Joint Width-to-Depth Ratios" Table.

3.4.5 Primer

Clean out loose particles from joints immediately prior to application of. Apply primer to joints in concrete masonry units, wood, and other porous surfaces in accordance with sealant manufacturer's printed instructions. Do not apply primer to exposed finished surfaces.

3.4.6 Bond Breaker

Provide bond breakers to surfaces not intended to bond in accordance with, sealant manufacturer's printed instructions for each type of surface and sealant combination specified.

3.4.7 Sealants

Provide sealants compatible with the material(s) to which they are applied. Do not use a sealant that has exceeded its shelf life or has jelled and cannot be discharged in a continuous flow from the sealant gun. Apply sealants in accordance with the manufacturer's printed instructions with a gun having a nozzle that fits the joint width. Work sealant into joints so as to fill the joints solidly without air pockets. Tool sealant after application to ensure adhesion. Apply sealant uniformly smooth and free of wrinkles. Upon completion of sealant application, roughen partially filled or unfilled joints, apply additional sealant, and tool smooth as specified. Apply sealer over sealants in accordance with the sealant manufacturer's printed instructions.

3.5 PROTECTION AND CLEANING

3.5.1 Protection

Protect areas adjacent to joints from sealant smears. Masking tape may be used for this purpose if removed 5 to 10 minutes after the joint is filled and no residual tape marks remain.

3.5.2 Final Cleaning

Upon completion of sealant application, remove remaining smears and stains and leave the work in a clean and neat condition.

a. Masonry and Other Porous Surfaces: Immediately remove fresh sealant that has been smeared on adjacent masonry, rub clean with a solvent, and remove solvent residue, in accordance with sealant manufacturer's printed instructions. Allow excess sealant to cure for 24 hour then remove by wire brushing or sanding. Remove resulting debris.

b. Metal and Other Non-Porous Surfaces: Remove excess sealant with a solvent moistened cloth. Remove solvent residue in accordance with solvent manufacturer's printed instructions.

-- End of Section --

SECTION 08 71 00

DOOR HARDWARE
**02/16**

PART 1 GENERAL

1.1 REFERENCES

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

BUILDERS HARDWARE MANUFACTURERS ASSOCIATION (BHMA)

| | |
|---|---|
| ANSI/BHMA A156.18 | (2012) Materials and Finishes |
| ANSI/BHMA A156.6 | (2015) Architectural Door Trim |

STEEL DOOR INSTITUTE (SDI/DOOR)

| | |
|---|---|
| SDI/DOOR A250.8 | (2003; R2008) Recommended Specifications for Standard Steel Doors and Frames |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Hardware Items; G

SD-08 Manufacturer's Instructions

Installation

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver hardware in original individual containers, complete with necessary appurtenances including fasteners and instructions.

PART 2 PRODUCTS

2.1 HARDWARE ITEMS

2.1.1 Door Protection Plates

Provide in accordance with ANSI/BHMA A156.6.

2.1.1.1 Sizes of Armor Plates at Stair Doors

2 inch less than door width for single doors; 1 inch less than door width for pairs of doors. Provide a minimum 36 inch armor plates for interim flush doors located at stairs.

2.2 FINISHES

Provide in accordance with ANSI/BHMA A156.18. Provide hardware in BHMA 629 finish (bright stainless steel.

PART 3 EXECUTION

3.1 INSTALLATION

Provide hardware in accordance with manufacturers' printed installation instructions. Fasten hardware to wood surfaces with full-threaded wood screws or sheet metal screws. Provide machine screws set in expansion shields for fastening hardware to solid concrete and masonry surfaces. Provide toggle bolts where required for fastening to hollow core construction. Provide through bolts where necessary for satisfactory installation.

3.2 HARDWARE LOCATIONS

Provide in accordance with SDI/DOOR A250.8, unless indicated or specified otherwise.

a. Armor Plates: Push side of single-acting doors. Provide Armor Plates at all interim stair doors.

3.3 FIELD QUALITY CONTROL

After installation, protect hardware from paint, stains, blemishes, and other damage until acceptance of work.

-- End of Section --

SECTION 09 06 90

SCHEDULES FOR PAINTING AND COATING
**05/09**

PART 1 GENERAL

1.1 SUMMARY

This section covers only the color of exterior and interior materials and products that are exposed to view in the finished construction. The word "color", as used herein, includes surface color and pattern. Requirements for quality, product specifications, and method of installation are covered in other appropriate sections of the specifications. Specific locations where the various materials are required are shown on the drawings if not identified in this specification. Items not designated for color in this section may be specified in other sections. When color is not designated for items, propose a color for approval.

PART 2 PRODUCTS

2.1 COLOR SCHEDULE

The color schedule information provided in the following paragraphs lists the colors, patterns and textures required for exterior and interior finishes, including both factory applied and field applied colors. Where color is shown as being specific to one manufacturer, an equivalent color by another manufacturer may be submitted for approval. Manufacturers and materials specified are not intended to limit the selection of equal colors from other manufacturers. In the case of difference between the drawings and specifications, colors identified in this specification govern.

2.2 INTERIOR FINISHES

2.2.1 Interior Floor Finishes

Provide flooring materials to match the colors listed below.

2.2.1.1 Composite Textile (CPT)

CPT1 - J & J Kintex, Umbra Stripe, 1781, Shadow Stripe
CPT2 - J & J Kintex, Pop, 1712, Rojo
CPT3 - J & J Kintex, Pop, 1712, Cielo
CPT4 - J & J Kintex, Flash, 1723, Rojo
CPT5 - J & J Kintex, Flash, 1726, Cielo
CPT6 - J & J Kintex, Boom, 1935, HipHop

2.2.2 Interior Base Finishes

Provide base materials to match the colors listed below.

2.2.2.1 Resilient Base and Moldings (RB)

RB1, Roppe, 175, slate (4" hgt.)

2.2.2.2 Composite Textile Base (CPTB)

CPTB1, J & J Kintex, Accelerate, 1594, Gain (14" hgt.)

2.2.2.3 Ceramic Tile (CT)

CT1, American Olean, 0040 Storm Gray (4" hgt.)

2.2.2.4 Grout (G)

G1, Laticrete, 44, Bright White

2.2.3 Interior Wall Finishes

Apply interior wall color to the entire wall surface, including reveals, vertical furred spaces and columns, grilles, diffusers, electrical and access panels, and piping and conduit adjacent to wall surfaces unless otherwise specified. Paint items not specified in other paragraphs to match adjacent wall surface. Provide wall materials to match the colors listed below.

2.2.3.1 Paint (P) or Epoxy Paint (EP)

P2 or EP2, Sherwin Williams, SW7064, Passive
P3, Sherwin Williams, SW7066, Gray Matters

2.2.3.2 Ceramic Tile (CT)

CT1, American Olean, 0040, Storm Gray (4" x 12")

2.2.3.3 Grout (G)

G1, Laticrete, 44, Bright White

2.2.4 Interior Ceiling Finishes

Apply ceiling colors to ceiling surfaces including soffits, furred down areas, grilles, diffusers, registers, and access panels. In addition, apply ceiling color to joists, underside of roof deck, and conduit and piping where joists and deck are exposed and required to be painted. Provide ceiling materials to match the colors listed below.

2.2.4.1 Acoustical Tile and Grid (ACT)

ACT1, Armstrong, Cortega lay-in and prelude grid, White

2.2.4.2 Paint (Soffits) (P)

P2, Sherwin Williams, SW7064, Passive

2.2.5 Interior Trim

Provide interior trim to match the colors listed below.

2.2.5.1 Steel Doors (P)

P3, Sherwin Williams, SW7066, Gray Matters

2.2.5.2 Steel Door Frames (P)

P3, Sherwin Williams, SW7066, Gray Matters

2.2.5.3 Handrails (P)

P3, Sherwin Williams, SW7066, Gray Matters

2.2.6 Interior Miscellaneous

Provide miscellaneous items to match the colors listed below.

2.2.6.1 Plastic Laminate (PL)

PL1, Formica, 909-58, Black

2.2.6.2 Solid Surfacing Material (SS)

SS1, Corian, Platinum

2.2.6.3 Window Sills (Solid Surface) (SS)

SS1, Corian, Platinum

2.2.6.4 Signage Message Color

Match SW7064, Passive

2.2.6.5 Signage Background Color

Building 261 - Match SW6321, Red Bay
Building 263 - Match SW6783, Amalfi

2.3 PLACEMENT SCHEDULE

Placement of color to be in accordance with the attachment at the end of this Section.

PART 3 EXECUTION

Not Used

-- End of Section --

SECTION 09 51 00

ACOUSTICAL CEILINGS
**08/10**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM A489 | (2012) Standard Specification for Carbon Steel Lifting Eyes |
| ASTM A641/A641M | (2009a; R 2014) Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire |
| ASTM C423 | (2009a) Sound Absorption and Sound Absorption Coefficients by the Reverberation Room Method |
| ASTM C635/C635M | (2013a) Manufacture, Performance, and Testing of Metal Suspension Systems for Acoustical Tile and Lay-In Panel Ceilings |
| ASTM C636/C636M | (2013) Standard Practice for Installation of Metal Ceiling Suspension Systems for Acoustical Tile and Lay-In Panels |
| ASTM E1264 | (2014) Acoustical Ceiling Products |
| ASTM E1477 | (1998a; R 2013) Luminous Reflectance Factor of Acoustical Materials by Use of Integrating-Sphere Reflectometers |
| ASTM E795 | (2005; R 2012) Mounting Test Specimens During Sound Absorption Tests |

1.2 SYSTEM DESCRIPTION

Provide sound controlling units mechanically mounted on a ceiling suspension system for acoustical treatment. The unit size, texture, finish, and color must be as specified. The location and extent of acoustical treatment shall be as shown on the approved detail drawings.

1.2.1 Ceiling Sound Absorption

Determine the Noise Reduction Coefficient (NRC) in accordance with ASTM C423 Test Method.

1.2.2 Light Reflectance

Determine light reflectance factor in accordance with ASTM E1477 Test

Method.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-04 Samples

Acoustical Units

SD-07 Certificates

Acoustical Units

1.4 DELIVERY, STORAGE. AND HANDLING

Deliver materials to the site in the manufacturer's original unopened containers with brand name and type clearly marked. Carefully handle and store materials in dry, watertight enclosures. Immediately before installation, store acoustical units for not less than 24 hours at the same temperature and relative humidity as the space where they will be installed in order to assure proper temperature and moisture acclimation.

1.5 ENVIRONMENTAL REQUIREMENTS

Maintain a uniform temperature of not less than 60 degrees F nor more than 85 degrees F and a relative humidity of not more than 70 percent for 24 hours before, during, and 24 hours after installation of acoustical units.

1.6 SCHEDULING

Complete and dry interior finish work such as plastering, concrete and terrazzo work before ceiling installation. Complete mechanical, electrical, and other work above the ceiling line; install and start operating heating, ventilating, and air conditioning systems in order to maintain temperature and humidity requirements.

1.7 WARRANTY

Provide manufacturer's standard performance guarantees or warranties that extend beyond a one year period. Include an agreement to repair or replace acoustical panels that fail within the warranty period in the standard performance guarantee or warranty. Failures include, but are not limited to, sagging and warping of panels; rusting and manufacturers defects of grid system.

1.8 EXTRA MATERIALS

Furnish spare tiles, from the same lot as those installed, of each color at the rate of 5 tiles for each 1000 tiles installed.

PART 2 PRODUCTS

2.1 ACOUSTICAL UNITS

Submit two samples of each type of acoustical unit and each type of

suspension grid tee section showing texture, finish, and color. Conform acoustical units to ASTM E1264, Class A, and the following requirements:

2.1.1 Units for Exposed-Grid System A (Act 1)

2.1.1.1 Type

III (non-asbestos mineral fiber with painted finish)

2.1.1.2 Flame Spread

Class A, 25 or less

2.1.1.3 Pattern

B

2.1.1.4 Minimum NRC

0.60 in rooms and areas when tested on mounting Type E-400 of ASTM E795.

2.1.1.5 Minimum Light Reflectance Coefficient
LR-1, 0.75 or greater

2.1.1.6 Nominal Size

24 by 24 inch

2.1.1.7 Edge Detail

Square

2.1.1.8 Finish

Factory-applied standard finish.

2.1.1.9 Minimum CAC

40

2.2 SUSPENSION SYSTEM

Provide standard exposed-grid standard width flange suspension system conforming to ASTM C635/C635M for intermediate-duty systems. Provide surfaces exposed to view of aluminum or steel with a factory-applied white baked-enamel finish. Provide wall molding having a flange of not less than 15/16 inch. Provide inside and outside corner caps standard corners. Suspended ceiling framing system must have the capability to support the finished ceiling, light fixtures, air diffusers, and accessories, as shown.Provide a suspension system with a maximum deflection of 1/360 of the span length.

2.3 HANGERS

Provide hangers and attachment capable of supporting a minimum 300 pound ultimate vertical load without failure of supporting material or attachment.

2.3.1 Wires

Conform wires to ASTM A641/A641M, Class 1, 0.08 inch (12 gauge) inch in diameter.

2.3.2 Eyebolts

Provide eyebolts of weldless, forged-carbon-steel, with a straight-shank in accordance with ASTM A489. Eyebolt size must be a minimum 1/4 inch.

2.4 FINISHES

Use manufacturer's standard textures, patterns and finishes as specified for acoustical units and suspension system members. Treat ceiling suspension system components to inhibit corrosion.

2.5 COLORS AND PATTERNS

Use colors and patterns for acoustical units and suspension system components as specified in Section 09 06 90 SCHEDULES FOR PAINTING AND COATING.

PART 3 EXECUTION

3.1 INSTALLATION

Examine surfaces to receive directly attached acoustical units for unevenness, irregularities, and dampness that would affect quality and execution of the work. Rid areas, where acoustical units will be cemented, of oils, form residue, or other materials that reduce bonding capabilities of the adhesive. Complete and dry interior finish work such as plastering, concrete, and terrazzo work before installation. Complete and approve mechanical, electrical, and other work above the ceiling line prior to the start of acoustical ceiling installation. Provide acoustical work complete with necessary fastenings, clips, and other accessories required for a complete installation.Do not expose mechanical fastenings in the finished work. Lay out hangers for each individual room or space. Provide hangers to support framing around beams, ducts, columns, grilles, and other penetrations through ceilings. Keep main runners and carrying channels clear of abutting walls and partitions. Provide at least two main runners for each ceiling span. Wherever required to bypass an object with the hanger wires, install a subsuspension system so that all hanger wires will be plumb.

3.1.1 Suspension System

Install suspension system in accordance with ASTM C636/C636M and as specified herein. Do not suspend hanger wires or other loads from underside of steel decking.

3.1.1.1 Plumb Hangers

Install hangers plumb and not pressing against insulation covering ducts and pipes. Where lighting fixtures are supported from the suspended ceiling system, provide hangers at a minimum of four hangers per fixture and located not more than 6 inch from each corner of each fixture.

3.1.1.2 Splayed Hangers

Where hangers must be splayed (sloped or slanted) around obstructions, offset the resulting horizontal force by bracing, countersplaying, or other acceptable means.

3.1.2 Wall Molding

Provide wall molding where ceilings abut vertical surfaces. Miter corners where wall moldings intersect or install corner caps. Secure wall molding not more than 3 inch from ends of each length and not more than 16 inch on centers between end fastenings. Provide wall molding springs at each acoustical unit in semi-exposed or concealed systems.

3.1.3 Caulking

Seal all joints around pipes, ducts or electrical outlets penetrating the ceiling. Apply a continuous ribbon of acoustical sealant on vertical web of wall or edge moldings.

3.2 CLEANING

Following installation, clean dirty or discolored surfaces of acoustical units and leave them free from defects. Remove units that are damaged or improperly installed and provide new units as directed.

-- End of Section --

SECTION 09 65 00

RESILIENT WALL BASE
**08/10**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

ASTM F1861 (2008; E 2012; R 2012) Resilient Wall Base

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Adhesives
Wall Base; G

SD-04 Samples

Resilient Wall Base; G

SD-08 Manufacturer's Instructions

Installation; G

1.3 DELIVERY, STORAGE, AND HANDLING

Deliver materials to the building site in original unopened containers bearing the manufacturer's name, style name, pattern color name and number, production run, project identification, and handling instructions. Store materials in a clean, dry, secure, and well-ventilated area with ambient air temperature maintained above 68 degrees F and below 85 degrees F, stacked according to manufacturer's recommendations. Remove resilient products from packaging to allow ventilation prior to installation. Protect materials from the direct flow of heat from hot-air registers, radiators and other heating fixtures and appliances. Observe ventilation and safety procedures specified in the MSDS. Do not store rubber surface products with materials that have a high capacity to adsorb volatile organic compound (VOC) emissions.

1.4 ENVIRONMENTAL REQUIREMENTS

Maintain areas to receive resilient flooring at a temperature above 68 degrees F and below 85 degrees F for 3 days before application, during application and 2 days after application, unless otherwise directed by the flooring manufacturer for the flooring being installed. Maintain a minimum temperature of 55 degrees F thereafter. Provide adequate

ventilation to remove moisture from area and to comply with regulations limiting concentrations of hazardous vapors.

1.5 SCHEDULING

Schedule resilient wall base application after the completion of other work which would damage the finished surface of the material.

1.6 WARRANTY

Provide manufacturer's standard performance guarantees or warranties that extend beyond a one year period.

1.7 EXTRA MATERIALS

Provide extra wall base material composed of 20 linear feet of each type, color and pattern. Package all extra materials in original properly marked containers bearing the manufacturer's name, brand name, pattern color name and number, production run, and handling instructions. Provide extra materials from the same lot as those installed. Leave extra stock at the site in location assigned by Contracting Officer.

PART 2 PRODUCTS

2.1 WALL BASE

Conform to ASTM F1861, Type TS (vulcanized thermoset rubber) or Type TP (thermoplastic rubber), Style A (straight - installed with carpet). Provide 4 inch high and a minimum 1/8 inch thick wall base. Provide preformed corners in matching height, shape, and color.

2.2 ADHESIVES

Provide adhesives for base as recommended by the manufacturer and comply with local indoor air quality standards. Submit manufacturer's descriptive data, documentation stating physical characteristics, and mildew and germicidal characteristics.

2.3 CAULKING AND SEALANTS

Provide caulking and sealants in accordance with Section 07 92 00 JOINT SEALANTS.

2.4 MANUFACTURER'S COLOR, PATTERN AND TEXTURE

Provide color, for resilient wall base in accordance with Section 09 06 90 COLOR SCHEDULE. Color listed is not intended to limit the selection of equal colors from other manufacturers.Provide material in any one continuous area or replacement of damaged material in continuous area from same production run with same shade. Submit manufacturer's descriptive data and three samples of each indicated color and type of base, sized a minimum 2-1/2 by 4 inch. Submit Data Package 1 in accordance with Section 01 78 20 OPERATION AND MAINTENANCE DATA.

PART 3 EXECUTION

3.1 EXAMINATION

Examine and verify that site conditions are in agreement with the design

package. Report all conditions that will prevent a proper installation. Do not take any corrective action without written permission from the Government. Work will proceed only when conditions have been corrected and accepted by the installer. Submit manufacturer's printed installation instructions for all flooring materials and accessories, including preparation of substrate, seaming techniques, and recommended adhesives.

3.2 PLACING WALL BASE

Install wall base in accordance with manufacturer's printed installation instructions. Prepare and apply adhesives in accordance with manufacturer's printed directions. Tighten base joints and make even with adjacent resilient flooring. Fill voids along the top edge of base at masonry walls with caulk. Roll entire vertical surface of base with hand roller, and press toe of base with a straight piece of wood to ensure proper alignment. Avoid excess adhesive in corners.

3.3 CLEANING

Immediately upon completion of installation of wall base in a room or an area, dry/clean the wall base and adjacent surfaces to remove all surplus adhesive. Clean as recommended in accordance with manufacturer's printed maintenance instructions and within the recommended time frame.

3.4 PROTECTION

From the time of installation until acceptance, protect base from damage as recommended by the flooring manufacturer. Remove and replace wall base which is not tight to wall or securely adhered.

-- End of Section --

SECTION 09 68 10

COMPOSITE MODULAR TEXTILE
**11/13**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN ASSOCIATION OF TEXTILE CHEMISTS AND COLORISTS (AATCC)

| | |
|---|---|
| AATCC 107 | (2013) Colorfastness to Water |
| AATCC 16 | (2004; E 2008; E 2010) Colorfastness to Light |
| AATCC 165 | (2013) Colorfastness to Crocking: Textile Floor Coverings - Crockmeter Method |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D3278 | (1996; R 2011) Flash Point of Liquids by Small Scale Closed-Cup Apparatus |
| ASTM D5848 | (2010; E 2010) Mass Per Unit Area of Pile Yarn Floor Coverings |
| ASTM D6859 | (2011) Standard Test Method for Pile Thickness of Finished Level Pile Yarn Floor Coverings |
| ASTM E648 | (2014c) Standard Test Method for Critical Radiant Flux of Floor-Covering Systems Using a Radiant Heat Energy Source |

CARPET AND RUG INSTITUTE (CRI)

| | |
|---|---|
| CRI CIS | (2011) Carpet Installation Standard |

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION (ISO)

| | |
|---|---|
| ISO 2551 | (1981) Machine-made Textile Floor Coverings - Determination of Dimensional Changes Due to the Effects of Varied Water and Heat Conditions |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 16 CFR 1630 | Standard for the Surface Flammability of Carpets and Rugs (FF 1-70) |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Installation Drawings; G

SD-03 Product Data

Composite Modular Textile; G

SD-04 Samples

Composite Modular Textile; G

SD-07 Certificates

Composite Modular Textile
Regulatory Requirements

SD-08 Manufacturer's Instructions

Surface Preparation
Installation

SD-10 Operation and Maintenance Data

Composite Modular Textile; G
Cleaning and Protection; G

1.3 QUALITY ASSURANCE

Provide the Carpet and Rug Institute (CRI) Indoor Air Quality (IAQ) label for composite modular flooring and adhesives or demonstrate compliance with testing criteria and frequencies through independent laboratory test results. Composite Modular Textile, composite modular flooring, and adhesives bearing the label indicate that the carpet has been tested and meets the Regulatory Requirements and criteria of the CRI IAQ Carpet Testing Program, and minimizes the impact on indoor air quality.

1.4 DELIVERY, STORAGE, AND HANDLING

Deliver materials to the site in the manufacturer's original wrappings and packages clearly labeled with the manufacturer's name, brand name, size, dye lot number, and related information. Remove materials from packaging and store them in a clean, dry, well ventilated area, protected from damage, soiling, and moisture. Do not store carpet near materials that may off gas or emit harmful fumes, such as kerosene heaters, fresh paint, or adhesives.

1.5 AMBIENT CONDITIONS

Maintain areas in which carpeting is to be installed at a temperature above 60 degrees F and below 90 degrees F for 2 days before installation, during installation, and for 2 days after installation. Provide temporary

ventilation during work of this section. Maintain a minimum temperature of 55 degrees F thereafter for the duration of the contract.

1.6 WARRANTY

Provide manufacturer's standard performance guarantees or warranties including minimum ten year wear warranty, two year material and workmanship and ten year tuft bind and delamination.

PART 2 PRODUCTS

2.1 Composite Modular Textile

Furnish first quality composite modular textiles; free of visual blemishes, streaks, poorly dyed areas, fuzzing of pile yarn, spots or stains, and other physical and manufacturing defects. Provide carpet materials and treatments as reasonably nonallergenic and free of other recognized health hazards. Provide a static control construction on all grade carpets which gives adequate durability and performance. Submit manufacturer's catalog data and printed documentation stating physical characteristics, durability, resistance to fading, and flame resistance characteristics for each type of carpet material and installation accessory. Submit manufacturer's catalog data for 1) Composite Modular Flooring, 2) Composite Base Material. Also, submit samples of the following:

a. Composite Modular Flooring: Two "Production Quality" samples 18 by 18 inches of each carpet proposed for use, showing quality, pattern, and color specified.

b. Composite Base Material: Two pieces of each type at least 12 inches long.

2.1.1 Physical Characteristics for Composite Textile

2.1.1.1 Construction

Knitted

2.1.1.2 Type

Modular tile 18 by 18 inch square and 18 x 36 with 0.15 percent growth/shrink rate in accordance with ISO 2551 and base material 14 inches height continous length.

2.1.1.3 Pile Type

Level

2.1.1.4 Pile Fiber

Polyester

2.1.1.5 Surface Pile Weight

Minimum 4.5 to 5.2 ounces per square feet. This does not include weight of backings. Determine weight in accordance with ASTM D5848.

2.1.1.6 Pile Thickness

Minimum 0.205 inch in accordance with ASTM D6859

2.1.1.7 Dye Method

Solution dyed

2.1.1.8 Backing Materials

Provide backing materials of polyester felt cushion.

2.2 PERFORMANCE REQUIREMENTS

2.2.1 Flammability and Critical Radiant Flux Requirements

Comply with 16 CFR 1630. Provide material with a minimum average critical radiant flux of 0.45 watts per square centimeter when tested in accordance with ASTM E648.

2.2.2 Colorfastness to Crocking

Comply dry and wet crocking with AATCC 165 and with a Class 4 minimum rating on the AATCC Color Transference Chart for all colors.

2.2.3 Colorfastness to Light

Comply colorfastness to light with AATCC 16, Test Option E "Water-Cooled Xenon-Arc Lamp, Continuous Light" and with a minimum 4 grey scale rating after 40 hours.

2.2.4 Colorfastness to Water

Comply colorfastness to water with AATCC 107 and with a minimum 4.0 gray scale rating and a minimum 4.0 transfer scale rating.

2.2.5 Delamination Strength

Provide delamination strength for tufted carpet with a secondary back of minimum 2.5 lbs/inch.

2.3 ADHESIVES AND CONCRETE PRIMER

Comply with applicable regulations regarding toxic and hazardous materials. Provide water resistant, mildew resistant, nonflammable, and nonstaining adhesives and concrete primers for carpet installation as required by the carpet manufacturer. Provide release adhesive for modular tile carpet as recommended by the carpet manufacturer. Provide adhesives flashpoint of minimum 140 degrees F in accordance with ASTM D3278.

2.4 COLOR, TEXTURE, AND PATTERN

Provide color, texture, and pattern in accordance with Section 09 06 90 SCHEDULES FOR PAINTING AND COATING.

## PART 3 EXECUTION

### 3.1 SURFACE PREPARATION

Do not install composite modular flooring on surfaces that are unsuitable and will prevent a proper installation. Prepare subfloor in accordance with flooring manufacturer's recommended instructions. Repair holes, cracks, depressions, or rough areas using material recommended by the carpet or adhesive manufacturer. Free floor of any foreign materials and sweep clean. Before beginning work, test subfloor with glue and carpet to determine "open time" and bond. Submit three copies of the manufacturer's printed installation instructions for the carpet, including preparation of substrate, seaming techniques, and recommended adhesives and tapes.

### 3.2 INSTALLATION

Perform all work by manufacturer's approved installers. Conduct installation in accordance with the manufacturer's printed instructions and CRI CIS. Protect edges of carpet meeting hard surface flooring with molding and install in accordance with the molding manufacturer's printed instructions. Follow ventilation, personal protection, and other safety precautions recommended by the adhesive manufacturer. Continue ventilation during installation and for at least 72 hours following installation. Do not permit traffic or movement of furniture or equipment in carpeted area for 24 hours after installation. Complete other work which would damage the carpet prior to installation of carpet. Submit three copies of installation drawings indicating areas receiving composite modular flooring, patterns and direction of pile.

#### 3.2.1 Modular Tile Installation

Install modular tiles with permanent vinyl-compatible adhesive and snug joints. Use pattern installation indicated.

#### 3.2.2 Base Material Installation

Install base material, direct glue down, smooth, uniform and secure with a minimum of seams. Neatly cut and fit cut outs at door jambs and columns securely. Do not make seams at outside corners or where base changes direction. Roll entire vertical surface of base with hand roller, and press toe of base with a straight piece of wood to ensure proper alignment. Avoid excess adhesive in corners. Provide trim piece at top edge of base as detailed.

### 3.3 CLEANING AND PROTECTION

Submit three copies of composite modular textile manufacturer's maintenance instructions describing recommended type of cleaning equipment and material, spotting and cleaning methods, and cleaning cycles.

#### 3.3.1 Cleaning

As specified in Section 01 78 00 CLOSEOUT SUBMITTALS. After installation of the composite textile, remove debris, scraps, and other foreign matter. Remove soiled spots and adhesive from the face of the carpet with appropriate spot remover. Cut off and remove protruding face yarn. Vacuum carpet clean with a high-efficiency particulate air (HEPA) filtration vacuum.

3.3.2 Protection

Protect the installed composite textile from soiling and damage with heavy, reinforced, nonstaining kraft paper, plywood, or hardboard sheets. Lap and secure edges of kraft paper protection to provide a continuous cover. Restrict traffic for at least 48 hours. Remove protective covering when directed by the Contracting Officer.

3.4 MAINTENANCE

3.4.1 Extra Materials

Provide extra material from same dye lot consisting of uncut carpet tiles for future maintenance.

-- End of Section --

SECTION 09 90 00

PAINTS AND COATINGS
**05/11**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS (ACGIH)

| | |
|---|---|
| ACGIH 0100 | (2015) Documentation of the Threshold Limit Values and Biological Exposure Indices |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D235 | (2002; R 2012) Mineral Spirits (Petroleum Spirits) (Hydrocarbon Dry Cleaning Solvent) |
| ASTM D4214 | (2007; R 2015) Standard Test Method for Evaluating the Degree of Chalking of Exterior Paint Films |
| ASTM D4263 | (1983; R 2012) Indicating Moisture in Concrete by the Plastic Sheet Method |
| ASTM D4444 | (2013) Use and Calibration of Hand-Held Moisture Meters |
| ASTM D523 | (2014) Standard Test Method for Specular Gloss |
| ASTM F1869 | (2011) Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride |

MASTER PAINTERS INSTITUTE (MPI)

| | |
|---|---|
| MPI 107 | (Oct 2009) Rust Inhibitive Primer (Water-Based) |
| MPI 116 | (Oct 2009) Epoxy Block Filler |
| MPI 141 | (Oct 2009) Interior High Performance Latex MPI Gloss Level 5 |
| MPI 50 | (Oct 2009) Interior Latex Primer Sealer |
| MPI 52 | (Oct 2009) Interior Latex, MPI Gloss Level 3 |
| MPI 77 | (Oct 2009) Epoxy Gloss |

| | |
|---|---|
| MPI 79 | (Oct 2009) Alkyd Anti-Corrosive Metal Primer |

SCIENTIFIC CERTIFICATION SYSTEMS (SCS)

| | |
|---|---|
| SCS SP-01 | (2000) Environmentally Preferable Product Specification for Architectural and Anti-Corrosive Paints |

SOCIETY FOR PROTECTIVE COATINGS (SSPC)

| | |
|---|---|
| SSPC PA 1 | (2000; E 2004) Shop, Field, and Maintenance Painting of Steel |
| SSPC PA Guide 3 | (1982; E 1995) A Guide to Safety in Paint Application |
| SSPC QP 1 | (2012; E 2012) Standard Procedure for Evaluating Painting Contractors (Field Application to Complex Industrial Structures) |
| SSPC SP 1 | (2015) Solvent Cleaning |
| SSPC SP 2 | (1982; E 2000; E 2004) Hand Tool Cleaning |
| SSPC SP 3 | (1982; E 2004) Power Tool Cleaning |
| SSPC VIS 3 | (2004) Guide and Reference Photographs for Steel Surfaces Prepared by Hand and Power Tool Cleaning |

U.S. ARMY CORPS OF ENGINEERS (USACE)

| | |
|---|---|
| EM 385-1-1 | (2014) Safety and Health Requirements Manual |

U.S. GENERAL SERVICES ADMINISTRATION (GSA)

| | |
|---|---|
| FED-STD-313 | (2014; Rev E) Material Safety Data, Transportation Data and Disposal Data for Hazardous Materials Furnished to Government Activities |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 29 CFR 1910.1000 | Air Contaminants |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

The current MPI, "Approved Product List" which lists paint by brand, label, product name and product code as of the date of contract award, will be used to determine compliance with the submittal requirements of this specification. The Contractor may choose to use a subsequent MPI

"Approved Product List", however, only one list may be used for the entire contract and each coating system is to be from a single manufacturer.All coats on a particular substrate must be from a single manufacturer. No variation from the MPI Approved Products List is acceptable.

Samples of specified materials may be taken and tested for compliance with specification requirements.

In keeping with the intent of Executive Order 13101, "Greening the Government through Waste Prevention, Recycling, and Federal Acquisition", products certified by SCS as meeting SCS SP-01 shall be given preferential consideration over registered products. Products that are registered shall be given preferential consideration over products not carrying any EPP designation.

SD-03 Product Data

Coating; G

Manufacturer's Technical Data Sheets

SD-04 Samples

Color; G

Submit manufacturer's samples of paint colors. Cross reference color samples to color scheme as indicated.

SD-07 Certificates

Applicator's qualifications

Qualification Testing laboratory for coatings; G

SD-08 Manufacturer's Instructions

Application instructions

Mixing

Detailed mixing instructions, minimum and maximum application temperature and humidity, potlife, and curing and drying times between coats.

Manufacturer's Material Safety Data Sheets

Submit manufacturer's Material Safety Data Sheets for coatings, solvents, and other potentially hazardous materials, as defined in FED-STD-313.

SD-10 Operation and Maintenance Data

Coatings:; G

Preprinted cleaning and maintenance instructions for all coating systems shall be provided.

## 1.3 APPLICATOR'S QUALIFICATIONS

### 1.3.1 Contractor Qualification

Submit the name, address, telephone number, FAX number, and e-mail address of the contractor that will be performing all surface preparation and coating application. Submit evidence that key personnel have successfully performed surface preparation and application of coatings on on a minimum of three similar projects within the past three years. List information by individual and include the following:

a. Name of individual and proposed position for this work.

b. Information about each previous assignment including:

Position or responsibility

Employer (if other than the Contractor)

Name of facility owner

Mailing address, telephone number, and telex number (if non-US) of facility owner

Name of individual in facility owner's organization who can be contacted as a reference

Location, size and description of structure

Dates work was carried out

Description of work carried out on structure

### 1.3.2 SSPC QP 1 Certification

All contractors and subcontractors that perform surface preparation or coating application shall be certified by the Society for Protective Coatings (formerly Steel Structures Painting Council) (SSPC) to the requirements of SSPC QP 1 prior to contract award, and shall remain certified while accomplishing any surface preparation or coating application. The painting contractors and painting subcontractors must remain so certified for the duration of the project. If a contractor's or subcontractor's certification expires, the firm will not be allowed to perform any work until the certification is reissued. Requests for extension of time for any delay to the completion of the project due to an inactive certification will not be considered and liquidated damages will apply. Notify the Contracting Officer of any change in contractor certification status.

## 1.4 QUALITY ASSURANCE

### 1.4.1 Field Samples and Tests

The Contracting Officer may choose up to two coatings that have been delivered to the site to be tested at no cost to the Government. Take samples of each chosen product as specified in the paragraph "Sampling Procedures." Test each chosen product as specified in the paragraph "Testing Procedure." Products which do not conform, shall be removed from the job site and replaced with new products that conform to the referenced

specification. Testing of replacement products that failed initial testing shall be at no cost to the Government.

1.4.1.1 Sampling Procedure

The Contracting Officer will select paint at random from the products that have been delivered to the job site for sample testing. The Contractor shall provide one quart samples of the selected paint materials. The samples shall be taken in the presence of the Contracting Officer, and labeled, identifying each sample. Provide labels in accordance with the paragraph "Packaging, Labeling, and Storage" of this specification.

1.4.1.2 Testing Procedure

Provide Batch Quality Conformance Testing for specified products, as defined by and performed by MPI. As an alternative to Batch Quality Conformance Testing, the Contractor may provide Qualification Testing for specified products above to the appropriate MPI product specification, using the third-party laboratory approved under the paragraph "Qualification Testing" laboratory for coatings. The qualification testing lab report shall include the backup data and summary of the test results. The summary shall list all of the reference specification requirements and the result of each test. The summary shall clearly indicate whether the tested paint meets each test requirement. Note that Qualification Testing may take 4 to 6 weeks to perform, due to the extent of testing required.

Submit name, address, telephone number, FAX number, and e-mail address of the independent third party laboratory selected to perform testing of coating samples for compliance with specification requirements. Submit documentation that laboratory is regularly engaged in testing of paint samples for conformance with specifications, and that employees performing testing are qualified. If the Contractor chooses MPI to perform the Batch Quality Conformance testing, the above submittal information is not required, only a letter is required from the Contractor stating that MPI will perform the testing.

1.5 REGULATORY REQUIREMENTS

1.5.1 Environmental Protection

In addition to requirements specified elsewhere for environmental protection, provide coating materials that conform to the restrictions of the local Air Pollution Control District and regional jurisdiction. Notify Contracting Officer of any paint specified herein which fails to conform.

1.5.2 Lead Content

Do not use coatings having a lead content over 0.06 percent by weight of nonvolatile content.

1.5.3 Chromate Content

Do not use coatings containing zinc-chromate or strontium-chromate.

1.5.4 Asbestos Content

Materials shall not contain asbestos.

1.5.5 Mercury Content

Materials shall not contain mercury or mercury compounds.

1.5.6 Silica

Abrasive blast media shall not contain free crystalline silica.

1.5.7 Human Carcinogens

Materials shall not contain ACGIH 0100 confirmed human carcinogens (A1) or suspected human carcinogens (A2).

1.6 PACKAGING, LABELING, AND STORAGE

Paints shall be in sealed containers that legibly show the contract specification number, designation name, formula or specification number, batch number, color, quantity, date of manufacture, manufacturer's formulation number, manufacturer's directions including any warnings and special precautions, and name and address of manufacturer. Pigmented paints shall be furnished in containers not larger than 5 gallons. Paints and thinners shall be stored in accordance with the manufacturer's written directions, and as a minimum, stored off the ground, under cover, with sufficient ventilation to prevent the buildup of flammable vapors, and at temperatures between 40 to 95 degrees F.Do not store paint, polyurethane, varnish, or wood stain products with materials that have a high capacity to adsorb VOC emissions. Do not store paint, polyurethane, varnish, or wood stain products in occupied spaces.

1.7 SAFETY AND HEALTH

Apply coating materials using safety methods and equipment in accordance with the following:

Work shall comply with applicable Federal, State, and local laws and regulations, and with the ACCIDENT PREVENTION PLAN, including the Activity Hazard Analysis as specified in Section 01 35 26 GOVERNMENT SAFETY REQUIREMENTS and in Appendix A of EM 385-1-1. The Activity Hazard Analysis shall include analyses of the potential impact of painting operations on painting personnel and on others involved in and adjacent to the work zone.

1.7.1 Safety Methods Used During Coating Application

Comply with the requirements of SSPC PA Guide 3.

1.7.2 Toxic Materials

To protect personnel from overexposure to toxic materials, conform to the most stringent guidance of:

a. The applicable manufacturer's Material Safety Data Sheets (MSDS) or local regulation.

b. 29 CFR 1910.1000.

c. ACGIH 0100, threshold limit values.

1.8 ENVIRONMENTAL CONDITIONS

Comply, at minimum, with manufacturer recommendations for space ventilation during and after installation.

1.8.1 Coatings

Do not apply coating when air or substrate conditions are:

a. Less than 5 degrees F above dew point;

b. Below 50 degrees F or over 95 degrees F, unless specifically pre-approved by the Contracting Officer and the product manufacturer. Under no circumstances shall application conditions exceed manufacturer recommendations.

1.9 COLOR SELECTION

Colors of finish coats shall be as indicated or specified. Where not indicated or specified, colors shall be selected by the Contracting Officer. Manufacturers' names and color identification are used for the purpose of color identification only. Named products are acceptable for use only if they conform to specified requirements. Products of other manufacturers are acceptable if the colors approximate colors indicated and the product conforms to specified requirements.

Tint each coat progressively darker to enable confirmation of the number of coats.

Color, texture, and pattern of wall coating systems shall be in accordance with Section 09 06 90 SCHEDULES FOR PAINTING AND COATING.

1.10 LOCATION AND SURFACE TYPE TO BE PAINTED

1.10.1 Painting Included

Where a space or surface is indicated to be painted, include the following unless indicated otherwise.

a. Surfaces behind portable objects and surface mounted articles readily detachable by removal of fasteners, such as screws and bolts.

b. New factory finished surfaces that require identification or color coding and factory finished surfaces that are damaged during performance of the work.

c. Existing coated surfaces that are damaged during performance of the work.

1.10.1.1 Interior Painting

Includes new surfaces, existing uncoated surfaces, and existing coated surfaces of the buildings and appurtenances as indicated and existing coated surfaces made bare by cleaning operations. Where a space or surface is indicated to be painted, include the following items, unless indicated otherwise.

a. Exposed columns, girders, beams, joists, and metal deck; and

b. Other contiguous surfaces.

1.10.2 Painting Excluded

Do not paint the following unless indicated otherwise.

a. Surfaces concealed and made inaccessible by panelboards, fixed ductwork, machinery, and equipment fixed in place.

b. Surfaces in concealed spaces. Concealed spaces are defined as enclosed spaces above suspended ceilings, furred spaces, attic spaces, crawl spaces, elevator shafts and chases.

c. Steel to be embedded in concrete.

d. Copper, stainless steel, aluminum, brass, and lead except existing coated surfaces.

e. Hardware, fittings, and other factory finished items.

1.10.3 Mechanical and Electrical Painting

Includes field coating of interior new and existing surfaces.

a. Where a space or surface is indicated to be painted, include the following items unless indicated otherwise.

(1) Exposed piping, conduit, and ductwork;

(2) Supports, hangers, air grilles, and registers;

(3) Miscellaneous metalwork and insulation coverings.

b. Do not paint the following, unless indicated otherwise:

(1) New zinc-coated, aluminum, and copper surfaces under insulation

(2) New aluminum jacket on piping

(3) New interior ferrous piping under insulation.

1.10.4 Definitions and Abbreviations

1.10.4.1 Qualification Testing

Qualification testing is the performance of all test requirements listed in the product specification. This testing is accomplished by MPI to qualify each product for the MPI Approved Product List, and may also be accomplished by Contractor's third party testing lab if an alternative to Batch Quality Conformance Testing by MPI is desired.

1.10.4.2 Batch Quality Conformance Testing

Batch quality conformance testing determines that the product provided is the same as the product qualified to the appropriate product specification. This testing shall only be accomplished by MPI testing lab.

1.10.4.3 Coating

A film or thin layer applied to a base material called a substrate. A coating may be a metal, alloy, paint, or solid/liquid suspensions on various substrates (metals, plastics, wood, paper, leather, cloth, etc.). They may be applied by electrolysis, vapor deposition, vacuum, or mechanical means such as brushing, spraying, calendaring, and roller coating. A coating may be applied for aesthetic or protective purposes or both. The term "coating" as used herein includes emulsions, enamels, stains, varnishes, sealers, epoxies, and other coatings, whether used as primer, intermediate, or finish coat. The terms paint and coating are used interchangeably.

1.10.4.4 DFT or dft

Dry film thickness, the film thickness of the fully cured, dry paint or coating.

1.10.4.5 DSD

Degree of Surface Degradation, the MPI system of defining degree of surface degradation. Five (5) levels are generically defined under the Assessment sections in the MPI Maintenance Repainting Manual.

1.10.4.6 EPP

Environmentally Preferred Products, a standard for determining environmental preferability in support of Executive Order 13101.

1.10.4.7 EXT

MPI short term designation for an exterior coating system.

1.10.4.8 INT

MPI short term designation for an interior coating system.

1.10.4.9 micron / microns

The metric measurement for 0.001 mm or one/one-thousandth of a millimeter.

1.10.4.10 mil / mils

The English measurement for 0.001 in or one/one-thousandth of an inch, equal to 25.4 microns or 0.0254 mm.

1.10.4.11 mm

The metric measurement for millimeter, 0.001 meter or one/one-thousandth of a meter.

1.10.4.12 MPI Gloss Levels

MPI system of defining gloss. Seven (7) gloss levels (G1 to G7) are generically defined under the Evaluation sections of the MPI Manuals. Traditionally, Flat refers to G1/G2, Eggshell refers to G3, Semigloss refers to G5, and Gloss refers to G6.

Gloss levels are defined by MPI as follows:

| Gloss Level | Description | Units at 60 degrees | Units at 85 degrees |
|---|---|---|---|
| G1 | Matte or Flat | 0 to 5 | 10 max |
| G2 | Velvet | 0 to 10 | 10 to 35 |
| G3 | Eggshell | 10 to 25 | 10 to 35 |
| G4 | Satin | 20 to 35 | 35 min |
| G5 | Semi-Gloss | 35 to 70 | |
| G6 | Gloss | 70 to 85 | |
| G7 | High Gloss | | |

Gloss is tested in accordance with ASTM D523. Historically, the Government has used Flat (G1 / G2), Eggshell (G3), Semi-Gloss (G5), and Gloss (G6).

1.10.4.13 MPI System Number

The MPI coating system number in each Division found in either the MPI Architectural Painting Specification Manual or the Maintenance Repainting Manual and defined as an exterior (EXT/REX) or interior system (INT/RIN). The Division number follows the CSI Master Format.

1.10.4.14 Paint

See Coating definition.

1.10.4.15 REX

MPI short term designation for an exterior coating system used in repainting projects or over existing coating systems.

1.10.4.16 RIN

MPI short term designation for an interior coating system used in repainting projects or over existing coating systems.

PART 2 PRODUCTS

2.1 MATERIALS

Conform to the coating specifications and standards referenced in PART 3. Submit manufacturer's technical data sheets for specified coatings and solvents. Comply with applicable regulations regarding toxic and hazardous materials.

PART 3 EXECUTION

3.1 PROTECTION OF AREAS AND SPACES NOT TO BE PAINTED

Prior to surface preparation and coating applications, remove, mask, or otherwise protect, hardware, hardware accessories, machined surfaces, radiator covers, plates, lighting fixtures, public and private property, and other such items not to be coated that are in contact with surfaces to be coated. Following completion of painting, workmen skilled in the trades involved shall reinstall removed items. Restore surfaces contaminated by coating materials, to original condition and repair damaged items.

3.2 SURFACE PREPARATION

Remove existing vinyl wall coverings including remaining adhesive, mold, mildew, dirt, splinters, loose particles, grease, oil, and other foreign matter and substances deleterious to coating performance as specified for each substrate before application of paint or surface treatments. Oil and grease shall be removed prior to mechanical cleaning. Cleaning shall be programmed so that dust and other contaminants will not fall on wet, newly painted surfaces. Exposed ferrous metals such as nail heads on or in contact with surfaces to be painted with water-thinned paints, shall be spot-primed with a suitable corrosion-inhibitive primer capable of preventing flash rusting and compatible with the coating specified for the adjacent areas.

3.2.1 Additional Requirements for Preparation of Surfaces With Existing Coatings

Before application of coatings, perform the following on surfaces covered by soundly-adhered coatings, defined as those which cannot be removed with a putty knife:

a. Test existing finishes for lead before sanding, scraping, or removing. If lead is present, refer to paragraph Toxic Materials.

b. Wipe previously painted surfaces to receive solvent-based coatings, except stucco and similarly rough surfaces clean with a clean, dry cloth saturated with mineral spirits, ASTM D235. Allow surface to dry. Wiping shall immediately precede the application of the first coat of any coating, unless specified otherwise.

c. Sand existing glossy surfaces to be painted to reduce gloss. Brush, and wipe clean with a damp cloth to remove dust.

d. The requirements specified are minimum. Comply also with the application instructions of the paint manufacturer.

e. Previously painted surfaces specified to be repainted or damaged during vinyl wall covering removal shall be thoroughly cleaned of all grease, dirt, dust or other foreign matter.

f. Blistering, cracking, flaking and peeling or other deteriorated coatings shall be removed.

g. Chalk shall be removed so that when tested in accordance with ASTM D4214, the chalk resistance rating is no less than 8.

h. Slick surfaces shall be roughened. 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.

i. Edges of chipped paint shall be feather edged and sanded smooth.

j. Rusty metal surfaces shall be cleaned as per SSPC requirements. Solvent, mechanical, or chemical cleaning methods shall be used to provide surfaces suitable for painting.

k. New, proposed coatings shall be compatible with existing coatings.

3.2.2 Existing Coated Surfaces with Minor Defects

Sand, spackle, and treat minor defects to render them smooth. Minor defects are defined as scratches, nicks, cracks, gouges, spalls, alligatoring, chalking, and irregularities due to partial peeling of previous coatings.

3.2.3 Removal of Existing Coatings

Remove existing coatings from the following surfaces:

a. Surfaces containing large areas of minor defects;

b. Surfaces containing more than 20 percent peeling area; and

c. Surfaces designated by the Contracting Officer, such as surfaces where rust shows through existing coatings.

3.2.4 Substrate Repair

a. Repair substrate surface damaged during coating or vinyl wall covering removal;

b. Sand edges of adjacent soundly-adhered existing coatings so they are tapered as smooth as practical to areas involved with coating removal; and

c. Clean and prime the substrate as specified.

3.3 PREPARATION OF METAL SURFACES

3.3.1 Existing and New Ferrous Surfaces

a. Ferrous Surfaces including Shop-coated Surfaces and Small Areas That Contain Rust, Mill Scale and Other Foreign Substances: Solvent clean or detergent wash in accordance with SSPC SP 1 to remove oil and grease. Where shop coat is missing or damaged, clean according to SSPC SP 2. Shop-coated ferrous surfaces shall be protected from corrosion by treating and touching up corroded areas immediately upon detection.

3.3.2 Final Ferrous Surface Condition:

For tool cleaned surfaces, the requirements are stated in SSPC SP 2 and SSPC SP 3. As a visual reference, cleaned surfaces shall be similar to photographs in SSPC VIS 3.

3.4 PREPARATION OF CONCRETE AND CEMENTITIOUS SURFACE

3.4.1 Concrete Masonry

a. Surface Cleaning: Remove the following deleterious substances.

(1) Dirt, Chalking, Grease, and Oil: Wash existing coated surfaces with a suitable detergent and rinse thoroughly.

(2) Fungus and Mold: Wash existing coated, surfaces with a solution composed of 1/2 cup trisodium phosphate, 1/4 cup household detergent, 1 quart 5 percent sodium hypochlorite solution and 3

quarts of warm water. Rinse thoroughly with fresh water.

(3) Paint and Loose Particles: Remove by wire brushing.

b. Cosmetic Repair of Minor Defects: Repair or fill mortar joints and minor defects, including but not limited to spalls, in accordance with manufacturer's recommendations and prior to coating application.

c. Allowable Moisture Content: Latex coatings may be applied to damp surfaces, but not to surfaces with droplets of water. Do not apply epoxies to damp vertical surfaces as determined by ASTM D4263 or horizontal surfaces that exceed 3 lbs of moisture per 1000 square feet in 24 hours as determined by ASTM F1869. In all cases follow manufacturers recommendations. Allow surfaces to cure a minimum of 30 days before painting.

3.4.2 Gypsum Board, Plaster, and Stucco

a. Surface Cleaning: Gypsum board shall be dry. Remove loose dirt and dust by brushing with a soft brush, rubbing with a dry cloth, or vacuum-cleaning prior to application of the first coat material. A damp cloth or sponge may be used if paint will be water-based.

b. Repair of Minor Defects: Prior to painting, repair joints, cracks, holes, surface irregularities, and other minor defects with patching plaster or spackling compound and sand smooth.

c. Allowable Moisture Content: Latex coatings may be applied to damp surfaces, but not surfaces with droplets of water. Do not apply epoxies to damp surfaces as determined by ASTM D4263. New plaster to be coated shall have a maximum moisture content of 8 percent, when measured in accordance with ASTM D4444, Method A, unless otherwise authorized. In addition to moisture content requirements, allow new plaster to age a minimum of 30 days before preparation for painting.

3.5 APPLICATION

3.5.1 Coating Application

Painting practices shall comply with applicable federal, state and local laws enacted to insure compliance with Federal Clean Air Standards. Apply coating materials in accordance with SSPC PA 1. SSPC PA 1 methods are applicable to all substrates, except as modified herein.

At the time of application, paint shall show no signs of deterioration. Uniform suspension of pigments shall be maintained during application.

Unless otherwise specified or recommended by the paint manufacturer, paint may be applied by brush, roller, or spray. Use trigger operated spray nozzles for water hoses. Rollers for applying paints and enamels shall be of a type designed for the coating to be applied and the surface to be coated. Wear protective clothing and respirators when applying oil-based paints or using spray equipment with any paints.

Paints, except water-thinned types, shall be applied only to surfaces that are completely free of moisture as determined by sight or touch.

Thoroughly work coating materials into joints, crevices, and open spaces. Special attention shall be given to insure that all edges, corners,

crevices, welds, and rivets receive a film thickness equal to that of adjacent painted surfaces.

Each coat of paint shall be applied so dry film shall be of uniform thickness and free from runs, drops, ridges, waves, pinholes or other voids, laps, brush marks, and variations in color, texture, and finish. Hiding shall be complete.

Touch up damaged coatings before applying subsequent coats. Interior areas shall be broom clean and dust free before and during the application of coating material.

a. Drying Time: Allow time between coats, as recommended by the coating manufacturer, to permit thorough drying, but not to present topcoat adhesion problems. Provide each coat in specified condition to receive next coat.

b. Primers, and Intermediate Coats: Do not allow primers or intermediate coats to dry more than 30 days, or longer than recommended by manufacturer, before applying subsequent coats. Follow manufacturer's recommendations for surface preparation if primers or intermediate coats are allowed to dry longer than recommended by manufacturers of subsequent coatings. Each coat shall cover surface of preceding coat or surface completely, and there shall be a visually perceptible difference in shades of successive coats.

c. Finished Surfaces: Provide finished surfaces free from runs, drops, ridges, waves, laps, brush marks, and variations in colors.

3.5.2 Mixing and Thinning of Paints

Reduce paints to proper consistency by adding fresh paint, except when thinning is mandatory to suit surface, temperature, weather conditions, application methods, or for the type of paint being used. Obtain written permission from the Contracting Officer to use thinners. The written permission shall include quantities and types of thinners to use.

When thinning is allowed, paints shall be thinned immediately prior to application with not more than 1 pint of suitable thinner per gallon. The use of thinner shall not relieve the Contractor from obtaining complete hiding, full film thickness, or required gloss. Thinning shall not cause the paint to exceed limits on volatile organic compounds. Paints of different manufacturers shall not be mixed.

3.5.3 Coating Systems

a. Systems by Substrates: Apply coatings that conform to the respective specifications listed in the following Tables:

Table

Division 4. Interior Concrete Masonry Units Paint Table
Division 5. Interior Metal, Paint Table
Division 9: Interior, Gypsum Board, Paint Table

b. Minimum Dry Film Thickness (DFT): Apply paints, primers, varnishes, enamels, undercoats, and other coatings to a minimum dry film thickness of 1.5 mil each coat unless specified otherwise in the Tables. Coating thickness where specified, refers to the minimum dry

film thickness.

c. Coatings for Surfaces Not Specified Otherwise: Coat surfaces which have not been specified, the same as surfaces having similar conditions of exposure.

d. Existing Surfaces Damaged During Performance of the Work, Including New Patches In Existing Surfaces: Coat surfaces with the following:

(1) One coat of primer.

(2) One coat of undercoat or intermediate coat.

(3) One topcoat to match adjacent surfaces.

e. Existing Coated Surfaces To Be Painted: Apply coatings conforming to the respective specifications listed in the Tables herein, except that pretreatments, sealers and fillers need not be provided on surfaces where existing coatings are soundly adhered and in good condition. Do not omit undercoats or primers.

3.6 COATING SYSTEMS FOR METAL

Apply coatings of Tables in Division 5 for Interior.

a. Apply specified ferrous metal primer on the same day that surface is cleaned, to surfaces that meet all specified surface preparation requirements at time of application.

b. Inaccessible Surfaces: Prior to erection, use one coat of specified primer on metal surfaces that will be inaccessible after erection.

c. Shop-primed Surfaces: Touch up exposed substrates and damaged coatings to protect from rusting prior to applying field primer.

d. Surface Previously Coated with Epoxy or Urethane: Apply MPI 101, 1.5 mils DFT immediately prior to application of epoxy or urethane coatings.

e. Pipes and Tubing: The semitransparent film applied to some pipes and tubing at the mill is not to be considered a shop coat, but shall be overcoated with the specified ferrous-metal primer prior to application of finish coats.

f. Exposed Nails, Screws, Fasteners, and Miscellaneous Ferrous Surfaces. On surfaces to be coated with water thinned coatings, spot prime exposed nails and other ferrous metal with latex primer MPI 107.

3.7 COATING SYSTEMS FOR CONCRETE MASONRY AND CEMENTITIOUS SUBSTRATES

Apply coatings of Tables in Division 4 and 9 for Interior.

3.8 INSPECTION AND ACCEPTANCE

In addition to meeting previously specified requirements, demonstrate mobility of moving components, including swinging and sliding doors, cabinets, and windows with operable sash, for inspection by the Contracting Officer. Perform this demonstration after appropriate curing and drying times of coatings have elapsed and prior to invoicing for final

payment.

3.9 PAINT TABLES

All DFT's are minimum values.

3.9.1 INTERIOR PAINT TABLES

DIVISION 4: INTERIOR CONCRETE MASONRY UNITS PAINT TABLE

A. Uncoated Existing Concrete masonry:

1. Epoxy
MPI INT 4.2G-G6 (Gloss)

| Filler: | Primer: | Intermediate: | Topcoat: |
|---|---|---|---|
| MPI 116 | N/A | MPI 77 | MPI 77 |

System DFT: 10 mils

Fill all holes in masonry surface

B. Existing, previously painted, concrete masonry units.

1. Epoxy
MPI RIN 4.2D-G6 (Gloss)

| Spot Primer: | Intermediate: | Topcoat: |
|---|---|---|
| MPI 77 | MPI 77 | MPI 77 |

System DFT: 5 mils

DIVISION 5: INTERIOR METAL, FERROUS AND NON-FERROUS PAINT TABLE

INTERIOR STEEL / FERROUS SURFACES

A. Metal surfaces adjacent to painted surfaces (Match surrounding finish), and miscellaneous metal items not otherwise specified except floors, hot metal surfaces, and new prefinished equipment:

1. High Performance Architectural Latex

MPI INT 5.1R-G5 (Semigloss)

| Primer: | Intermediate: | Topcoat: |
|---|---|---|
| MPI 79 | MPI 141 | MPI 141 |

System DFT: 5 mils

DIVISION 9: INTERIOR GYPSUM BOARD, PAINT TABLE

A. New and Existing, previously painted Wallboard not otherwise specified:

1. Latex

New; MPI INT 9.2A-G3 (Eggshell) / Existing; RIN 9.2A-G3 (Eggshell)

| Primer: | Intermediate: | Topcoat: |
|---|---|---|
| MPI 50 | MPI 52 | MPI 52 |

System DFT: 4 mils

B. New and Existing, previously painted Wallboard in corridors not otherwise specified.:

1. Epoxy
New; MPI INT 9.2E-G6 (Gloss) / Existing; MPI RIN 9.2D-G6 (Gloss)

DIVISION 9: INTERIOR GYPSUM BOARD, PAINT TABLE

| Primer: | Intermediate: | Topcoat: |
|---|---|---|
| MPI 50 | MPI 77 | MPI 77 |

System DFT: 4 mils

-- End of Section --

SECTION 10 14 00.20

INTERIOR SIGNAGE
**11/12**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN ARCHITECTURAL MANUFACTURERS ASSOCIATION (AAMA)

| | |
|---|---|
| AAMA 2604 | (2013) Voluntary Specification, Performance Requirements and Test Procedures for High Performance Organic Coatings on Aluminum Extrusions and Panels |

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

| | |
|---|---|
| ANSI Z97.1 | (2009; Errata 2010) Safety Glazing Materials Used in Buildings - Safety Performance Specifications and Methods of Test |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D635 | (2014) Standard Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 36 CFR 1191 | Americans with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities; Architectural Barriers Act (ABA) Accessibility Guidelines |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Detail Drawings; G

SD-03 Product Data

Installation; G
Warranty; G

SD-04 Samples

Interior Signage; G

SD-10 Operation and Maintenance Data

Approved Manufacturer's Instructions; G
Protection and Cleaning; G

1.3 QUALITY ASSURANCE

1.3.1 Samples

Submit interior signage samples of each of the following sign types showing typical quality, workmanship and color: Directional sign, Standard Room sign and Changeable message sign. The samples may be installed in the work, provided each sample is identified and location recorded.

1.3.2 Detail Drawings

Submit detail drawings showing elevations of each type of sign, dimensions, details and methods of mounting or anchoring, mounting height, shape and thickness of materials, and details of construction. Include a schedule showing the location, each sign type, and message.

1.4 DELIVERY, STORAGE, AND HANDLING

Materials shall be packaged to prevent damage and deterioration during shipment, handling, storage and installation. Product shall be delivered to the jobsite in manufacturer's original packaging and stored in a clean, dry area in accordance with manufacturer's instructions.

1.5 WARRANTY

Warrant the interior signage for a period of 2 years against defective workmanship and material. Warranties shall be signed by the authorized representative of the manufacturer. Submit warranty accompanied by the document authenticating the signer as an authorized representative of the guarantor. Guarantee that the signage products and the installation are free from any defects in material and workmanship from the date of delivery.

PART 2 PRODUCTS

2.1 STANDARD PRODUCTS

Signs shall be the standard product of a manufacturer regularly engaged in the manufacture of such products that essentially duplicate signs that have been in satisfactory use at least 2 years prior to bid opening. Obtain signage from a single manufacturer with edges and corners of finished letterforms and graphics true and clean.

2.2 ROOM IDENTIFICATION/DIRECTIONAL SIGNAGE SYSTEM

2.2.1 Standard Room Signs

Signs shall consist of acrylic plastic 0.080 inch thickness minimum conforming to ANSI Z97.1 and shall conform to the following:

a. Frames shall be molded acrylic 1/4 inch thick.

b. End caps shall be molded acrylic round style corners.

c. Units shall be frameless. Corners of signs shall be rounded to 1/2 radius.

2.2.2 Changeable Message Strip Signs

Changeable message signs shall be of same construction as standard room signs to include a clear sleeve that will accept a paper insert identifying changeable text.

2.2.3 Type of Mounting For Signs

Surface mounted signs shall be mounted with 1/16 inch thick closed cell vinyl foam with adhesive backing. Adhesive shall be transparent, long aging, high tech formulation on two sides of the vinyl foam fabricated from materials that are not corrosive to sign material and mounting surface.

2.2.4 Graphics

Signage graphics for modular signs shall conform to the following:

2.2.4.1 Engraved Copy

Machine engrave letters, numbers, symbols, and other graphics into panel sign on face to produce precisely formed copy and sharp images, incised to uniform depth. Melamine plastic engraving stock used for ADA compliant graphic shall be three-ply lamination contrasting color core meeting ASTM D635.

2.2.5 Character Proportions and Heights

Letters and numbers on signs conform to 36 CFR 1191.

2.2.6 Tactile Letters, Symbols and Braille

Raised letters and numbers on signs shall conform to 36 CFR 1191.

2.3 BUILDING DIRECTORIES

2.3.1 Non-Illuminated Unit

2.3.1.1 Message Strips

Message strips shall be updatable by user. Message strips shall be sized to accept a full sheet of 8-1/2 x 11 inch paper. Letters and numbers shall be provided in accordance with the schedule shown on the drawings.

2.4 ORGANIC COATING

Organic coating shall conform to AAMA 2604, with total dry film thickness not less than 1.2 mils.

2.5 FABRICATION AND MANUFACTURE

2.5.1 Factory Workmanship

Holes for bolts and screws shall be drilled or punched. Drilling and punching shall produce clean, true lines and surfaces. Exposed surfaces of work shall have a smooth finish and exposed riveting shall be flush. Fastenings shall be concealed where practicable.

2.5.2 Dissimilar Materials

Where dissimilar metals are in contact, the surfaces will be protected to prevent galvanic or corrosive action.

2.6 COLOR, FINISH, AND CONTRAST

Color shall be in accordance with Section 09 06 90 SCHEDULES FOR PAINTING AND COATING. Finish of all signs shall be eggshell, matte, or other non-glare finish as required in handicapped-accessible buildings.

2.7 TYPEFACE

ADA-ABA compliant font for Room Signs.

PART 3 EXECUTION

3.1 INSTALLATION

Signs shall be installed plumb and true and in accordance with approved manufacturer's instructions at locations shown on the detail drawings. Submit six copies of operating instructions outlining the step-by-step procedures required for system operation. The instructions shall include simplified diagrams for the system as installed, the manufacturer's name, model number, service manual, parts list, and brief description of all equipment and their basic operating features. Each set shall be permanently bound and shall have a hard cover. The following identification shall be inscribed on the covers: the words "OPERATING AND MAINTENANCE INSTRUCTIONS", name and location of the facility, name of the Contractor, and contract number. Mounting height and mounting location shall conform to 36 CFR 1191. Required blocking shall be installed. Signs on doors or other surfaces shall not be installed until finishes on such surfaces have been installed. Signs installed on glass surfaces shall be installed with matching blank back-up plates in accordance with manufacturer's instructions.

3.1.1 Anchorage

Anchorage shall be in accordance with approved manufacturer's instructions. Anchorage not otherwise specified or shown shall include slotted inserts, expansion shields, and powder-driven fasteners when approved for concrete; toggle bolts and through bolts for masonry; machine carriage bolts for steel; lag bolts and screws for wood. Exposed anchor and fastener materials shall be compatible with metal to which applied and shall have matching color and finish.

a. Signs mounted to painted gypsum board surfaces shall be removable for painting maintenance.

b. Mount signs mounted to lay-in ceiling grids with clip connections to

ceiling tees.

c. Install signs mounted on metal surfaces with magnetic tape.

d. Install signs mounted on fabric surfaces with hook and loop tape or pin mount.

3.1.2 Protection and Cleaning

Protect the work against damage during construction. Hardware and electrical equipment shall be adjusted for proper operation. Glass, frames, and other sign surfaces shall be cleaned at completion of sign installation in accordance with the manufacturer's approved instructions and the requirements of Section 01 78 20 OPERATION AND MAINTENANCE DATA, Package 1. Submit six copies of maintenance instructions listing routine procedures, repairs, and guides.

-- End of Section --

SECTION 22 00 00

PLUMBING, GENERAL PURPOSE
**05/10**

PART 1 GENERAL

1.1 REFERENCES

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

AIR-CONDITIONING, HEATING AND REFRIGERATION INSTITUTE (AHRI)

| | |
|---|---|
| AHRI 1010 | (2002) Self-Contained, Mechanically Refrigerated Drinking-Water Coolers |

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

| | |
|---|---|
| ASHRAE 90.1 - IP | (2010; ERTA 2011-2014; Thru INT 24 2015) Energy Standard for Buildings Except Low-Rise Residential Buildings |

AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE)

| | |
|---|---|
| ASSE 1003 | (2009) Performance Requirements for Water Pressure Reducing Valves for Domestic Water Distribution Systems |

AMERICAN WATER WORKS ASSOCIATION (AWWA)

| | |
|---|---|
| AWWA B300 | (2004) Hypochlorites |
| AWWA B301 | (2004) Liquid Chlorine |
| AWWA C203 | (2008) Coal-Tar Protective Coatings and Linings for Steel Water Pipelines - Enamel and Tape - Hot-Applied |
| AWWA C606 | (2006) Grooved and Shouldered Joints |
| AWWA C651 | (2005; Errata 2005) Standard for Disinfecting Water Mains |
| AWWA C652 | (2002) Disinfection of Water-Storage Facilities |

AMERICAN WELDING SOCIETY (AWS)

| | |
|---|---|
| AWS A5.8/A5.8M | (2011) Specification for Filler Metals for Brazing and Braze Welding |
| AWS B2.2 | (1991) Standard for Brazing Procedure and Performance Qualification |

ASME INTERNATIONAL (ASME)

| | |
|---|---|
| ASME A112.14.1 | (2003; R 2008) Backwater Valves |
| ASME A112.19.2 | (2003; R 2008) Standard for Vitreous China Plumbing Fixtures and Hydraulic Requirements for Water Closets and Urinals |
| ASME A112.19.3/CSA B45.4 | (2008) Stainless Steel Plumbing Fixtures |
| ASME A112.36.2M | (1991; R 2008) Cleanouts |
| ASME A112.6.1M | (1997; R 2008) Floor Affixed Supports for Off-the-Floor Plumbing Fixtures for Public Use |
| ASME B1.20.1 | (1983; R 2006) Pipe Threads, General Purpose (Inch) |
| ASME B16.12 | (2009) Cast Iron Threaded Drainage Fittings |
| ASME B16.15 | (2006) Cast Bronze Alloy Threaded Fittings Classes 125 and 250 |
| ASME B16.18 | (2001; R 2005) Cast Copper Alloy Solder Joint Pressure Fittings |
| ASME B16.21 | (2005) Nonmetallic Flat Gaskets for Pipe Flanges |
| ASME B16.22 | (2001; R 2010) Standard for Wrought Copper and Copper Alloy Solder Joint Pressure Fittings |
| ASME B16.23 | (2002; R 2006) Cast Copper Alloy Solder Joint Drainage Fittings - DWV |
| ASME B16.24 | (2006) Cast Copper Alloy Pipe Flanges and Flanged Fittings: Classes 150, 300, 600, 900, 1500, and 2500 |
| ASME B16.29 | (2007) Wrought Copper and Wrought Copper Alloy Solder Joint Drainage Fittings - DWV |
| ASME B16.3 | (2006) Malleable Iron Threaded Fittings, Classes 150 and 300 |
| ASME B16.34 | (2009) Valves - Flanged, Threaded and Welding End |
| ASME B16.39 | (2009) Standard for Malleable Iron Threaded Pipe Unions; Classes 150, 250, and 300 |
| ASME B16.4 | (2006) Standard for Gray Iron Threaded Fittings; Classes 125 and 250 |
| ASME B16.5 | (2009) Standard for Pipe Flanges and Flanged Fittings: NPS 1/2 Through NPS 24 |

| | |
|---|---|
| ASME B31.1 | (2010) Power Piping |
| ASME B31.5 | (2010) Refrigeration Piping and Heat Transfer Components |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM A 105/A 105M | (2009) Standard Specification for Carbon Steel Forgings for Piping Applications |
| ASTM A 183 | (2003; R 2009) Standard Specification for Carbon Steel Track Bolts and Nuts |
| ASTM A 193/A 193M | (2009) Standard Specification for Alloy-Steel and Stainless Steel Bolting Materials for High-Temperature Service |
| ASTM A 47/A 47M | (1999; R 2009) Standard Specification for Steel Sheet, Aluminum-Coated, by the Hot-Dip Process |
| ASTM A 515/A 515M | (2003; R 2007) Standard Specification for Pressure Vessel Plates, Carbon Steel, for Intermediate- and Higher-Temperature Service |
| ASTM A 516/A 516M | (2006) Standard Specification for Pressure Vessel Plates, Carbon Steel, for Moderate- and Lower-Temperature Service |
| ASTM A 518/A 518M | (1999; R 2008) Standard Specification for Corrosion-Resistant High-Silicon Iron Castings |
| ASTM A 53/A 53M | (2007) Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless |
| ASTM A 536 | (1984; R 2009) Standard Specification for Ductile Iron Castings |
| ASTM A 733 | (2003; R 2009e1) Standard Specification for Welded and Seamless Carbon Steel and Austenitic Stainless Steel Pipe Nipples |
| ASTM A 74 | (2009) Standard Specification for Cast Iron Soil Pipe and Fittings |
| ASTM A 888 | (2009) Standard Specification for Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications |
| ASTM B 117 | (2009) Standard Practice for Operating Salt Spray (Fog) Apparatus |
| ASTM B 152/B 152M | (2009) Standard Specification for Copper Sheet, Strip, Plate, and Rolled Bar |

| | |
|---|---|
| ASTM B 306 | (2009) Standard Specification for Copper Drainage Tube (DWV) |
| ASTM B 32 | (2008) Standard Specification for Solder Metal |
| ASTM B 370 | (2009) Standard Specification for Copper Sheet and Strip for Building Construction |
| ASTM B 42 | (2002e1) Standard Specification for Seamless Copper Pipe, Standard Sizes |
| ASTM B 43 | (2009) Standard Specification for Seamless Red Brass Pipe, Standard Sizes |
| ASTM B 584 | (2009) Standard Specification for Copper Alloy Sand Castings for General Applications |
| ASTM B 75 | (2002) Standard Specification for Seamless Copper Tube |
| ASTM B 813 | (2000; R 2009) Standard Specification for Liquid and Paste Fluxes for Soldering of Copper and Copper Alloy Tube |
| ASTM B 828 | (2002) Standard Practice for Making Capillary Joints by Soldering of Copper and Copper Alloy Tube and Fittings |
| ASTM B 88 | (2009) Standard Specification for Seamless Copper Water Tube |
| ASTM B 88M | (2005) Standard Specification for Seamless Copper Water Tube (Metric) |
| ASTM C 1053 | (2000; R 2005) Standard Specification for Borosilicate Glass Pipe and Fittings for Drain, Waste, and Vent (DWV) Applications |
| ASTM C 564 | (2009) Standard Specification for Rubber Gaskets for Cast Iron Soil Pipe and Fittings |
| ASTM D 1785 | (2006) Standard Specification for Poly(Vinyl Chloride) (PVC), Plastic Pipe, Schedules 40, 80, and 120 |
| ASTM D 2000 | (2008) Standard Classification System for Rubber Products in Automotive Applications |
| ASTM D 2235 | (2004) Standard Specification for Solvent Cement for Acrylonitrile-Butadiene-Styrene (ABS) Plastic Pipe and Fittings |
| ASTM D 2239 | (2003) Standard Specification for Polyethylene (PE) Plastic Pipe (SIDR-PR) Based on Controlled Inside Diameter |

| | |
|---|---|
| ASTM D 2241 | (2009) Standard Specification for Poly(Vinyl Chloride) (PVC) Pressure-Rated Pipe (SDR Series) |
| ASTM D 2447 | (2003) Standard Specification for Polyethylene (PE) Plastic Pipe, Schedules 40 and 80, Based on Outside Diameter |
| ASTM D 2464 | (2006) Standard Specification for Threaded Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 |
| ASTM D 2466 | (2006) Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40 |
| ASTM D 2467 | (2006) Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 80 |
| ASTM D 2564 | (2004e1) Standard Specification for Solvent Cements for Poly(Vinyl Chloride) (PVC) Plastic Piping Systems |
| ASTM D 2661 | (2008) Standard Specification for Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40, Plastic Drain, Waste, and Vent Pipe and Fittings |
| ASTM D 2665 | (2009) Standard Specification for Poly(Vinyl Chloride) (PVC) Plastic Drain, Waste, and Vent Pipe and Fittings |
| ASTM D 2672 | (1996a; R 2009) Joints for IPS PVC Pipe Using Solvent Cement |
| ASTM D 2683 | (2004) Standard Specification for Socket-Type Polyethylene Fittings for Outside Diameter-Controlled Polyethylene Pipe and Tubing |
| ASTM D 2737 | (2003) Polyethylene (PE) Plastic Tubing |
| ASTM D 2846/D 2846M | (2009b) Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Hot- and Cold-Water Distribution Systems |
| ASTM D 2855 | (1996; R 2002) Standard Practice for Making Solvent-Cemented Joints with Poly(Vinyl Chloride) (PVC) Pipe and Fittings |
| ASTM D 2996 | (2001; R 2007e1) Filament-Wound "Fiberglass" (Glass-Fiber-Reinforced Thermosetting-Resin) Pipe |
| ASTM D 3035 | (2008) Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside |

| | |
|---|---|
| | Diameter |
| ASTM D 3122 | (1995; R 2009) Solvent Cements for Styrene-Rubber (SR) Plastic Pipe and Fittings |
| ASTM D 3138 | (2004) Solvent Cements for Transition Joints Between Acrylonitrile-Butadiene-Styrene (ABS) and Poly(Vinyl Chloride) (PVC) Non-Pressure Piping Components |
| ASTM D 3139 | (1998; R 2005) Joints for Plastic Pressure Pipes Using Flexible Elastomeric Seals |
| ASTM D 3212 | (2007) Standard Specification for Joints for Drain and Sewer Plastic Pipes Using Flexible Elastomeric Seals |
| ASTM D 3261 | (2003) Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing |
| ASTM D 3311 | (2009a) Drain, Waste, and Vent (DWV) Plastic Fittings Patterns |
| ASTM D 4101 | (2009) Standard Specification for Polypropylene Injection and Extrusion Materials |
| ASTM F 1760 | (2001; R 2005e1) Coextruded Poly(Vinyl Chloride) (PVC) Non-Pressure Plastic Pipe Having Reprocessed-Recycled Content |
| ASTM F 2389 | 2007e1) Standard Specification for Pressure-rated Polypropylene (PP) Piping Systems |
| ASTM F 409 | (2002; R 2008) Thermoplastic Accessible and Replaceable Plastic Tube and Tubular Fittings |
| ASTM F 437 | (2009) Standard Specification for Threaded Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80 |
| ASTM F 438 | (2009) Standard Specification for Socket-Type Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 40 |
| ASTM F 439 | (2009) Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe Fittings, Schedule 80 |
| ASTM F 441/F 441M | (2009) Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe, Schedules 40 and 80 |

| | |
|---|---|
| ASTM F 442/F 442M | (2009) Standard Specification for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe (SDR-PR) |
| ASTM F 477 | (2008) Standard Specification for Elastomeric Seals (Gaskets) for Joining Plastic Pipe |
| ASTM F 493 | (2004) Solvent Cements for Chlorinated Poly(Vinyl Chloride) (CPVC) Plastic Pipe and Fittings |
| ASTM F 628 | (2008) Acrylonitrile-Butadiene-Styrene (ABS) Schedule 40 Plastic Drain, Waste, and Vent Pipe with a Cellular Core |
| ASTM F 877 | (2007) Crosslinked Polyethylene (PEX) Plastic Hot- and Cold- Water Distribution Systems |
| ASTM F 891 | (2009) Coextruded Poly (Vinyl Chloride) (PVC) Plastic Pipe with a Cellular Core |

CAST IRON SOIL PIPE INSTITUTE (CISPI)

| | |
|---|---|
| CISPI 301 | (2004) Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications |
| CISPI 310 | (2004) Coupling for Use in Connection with Hubless Cast Iron Soil Pipe and Fittings for Sanitary and Storm Drain, Waste, and Vent Piping Applications |

COPPER DEVELOPMENT ASSOCIATION (CDA)

| | |
|---|---|
| CDA A4015 | (1994; R 1995) Copper Tube Handbook |

CSA AMERICA, INC. (CSA/AM)

| | |
|---|---|
| CSA/AM Z21.22 | (1999; Addenda A 2000, Addenda B 2001; R 2004) Relief Valves for Hot Water Supply Systems |

INTERNATIONAL ASSOCIATION OF PLUMBING AND MECHANICAL OFFICIALS (IAPMO)

| | |
|---|---|
| IAPMO PS 117 | (2005) Press Type Or Plain End Rub Gasketed W/ Nail CU & CU Alloy Fittings for Install On CU Tubing |

INTERNATIONAL CODE COUNCIL (ICC)

| | |
|---|---|
| ICC IPC | (2009) International Plumbing Code |
| ICC/ANSI A117.1 | (2009) Accessible and Usable Buildings and Facilities |

MANUFACTURERS STANDARDIZATION SOCIETY OF THE VALVE AND FITTINGS INDUSTRY (MSS)

| | |
|---|---|
| MSS SP-25 | (2008) Standard Marking System for Valves, Fittings, Flanges and Unions |
| MSS SP-44 | (2006) Steel Pipeline Flanges |
| MSS SP-58 | (2009) Pipe Hangers and Supports - Materials, Design and Manufacture, Selection, Application, and Installation |
| MSS SP-67 | (2002a) Butterfly Valves |
| MSS SP-69 | (2003; R 2004) Standard for Pipe Hangers and Supports - Selection and Application |
| MSS SP-73 | (2003) Brazing Joints for Copper and Copper Alloy Pressure Fittings |
| MSS SP-78 | (2005a) Cast Iron Plug Valves, Flanged and Threaded Ends |
| MSS SP-83 | (2006) Class 3000 Steel Pipe Unions Socket Welding and Threaded |

NSF INTERNATIONAL (NSF)

| | |
|---|---|
| NSF/ANSI 14 | (2008e) Plastics Piping System Components and Related Materials |
| NSF/ANSI 61 | (2009) Drinking Water System Components - Health Effects |

PLASTIC PIPE AND FITTINGS ASSOCIATION (PPFA)

| | |
|---|---|
| PPFA-01 | (2004) Firestopping: Plastic Pipe in Fire Resistive Construction |

PLUMBING AND DRAINAGE INSTITUTE (PDI)

| | |
|---|---|
| PDI WH 201 | (2006) Water Hammer Arresters Standard |

SOCIETY OF AUTOMOTIVE ENGINEERS INTERNATIONAL (SAE)

| | |
|---|---|
| SAE J1508 | (2009) Hose Clamp Specifications |

U.S. ENVIRONMENTAL PROTECTION AGENCY (EPA)

| | |
|---|---|
| EPA SM 9223 | (2004) Enzyme Substrate Coliform Test |
| PL 93-523 | (1974; A 1999) Safe Drinking Water Act |

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 40 CFR 50.12 | National Primary and Secondary Ambient Air Quality Standards for Lead |
| PL 109-58 | Energy Policy Act of 2005 (EPAct05) |

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-03 Product Data

Fixtures

List of installed fixtures with manufacturer, model, and flow rate.

Countertop lavatories

Drinking-water coolers; G

Vibration-Absorbing Features; G

Details of vibration-absorbing features, including arrangement, foundation plan, dimensions and specifications.

Plumbing System

Diagrams, instructions, and other sheets proposed for posting. Manufacturer's recommendations for the installation of bell and spigot and hubless joints for cast iron soil pipe.

SD-06 Test Reports

Tests, Flushing and Disinfection

Test reports in booklet form showing all field tests performed to adjust each component and all field tests performed to prove compliance with the specified performance criteria, completion and testing of the installed system. Each test report shall indicate the final position of controls.

1.3 STANDARD PRODUCTS

Specified materials and equipment shall be standard products of a manufacturer regularly engaged in the manufacture of such products. Specified equipment shall essentially duplicate equipment that has performed satisfactorily at least two years prior to bid opening. Standard products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year use shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been for sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2 year period.

1.3.1 Alternative Qualifications

Products having less than a two-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturer's factory or laboratory tests, can be shown.

1.3.2 Service Support

The equipment items shall be supported by service organizations. Submit a certified list of qualified permanent service organizations for support of the equipment which includes their addresses and qualifications. These service organizations shall be reasonably convenient to the equipment installation and able to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

1.3.3 Manufacturer's Nameplate

Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

1.3.4 Modification of References

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction", or words of similar meaning, to mean the Contracting Officer.

1.3.4.1 Definitions

For the International Code Council (ICC) Codes referenced in the contract documents, advisory provisions shall be considered mandatory, the word "should" shall be interpreted as "shall." Reference to the "code official" shall be interpreted to mean the "Contracting Officer." For Navy owned property, references to the "owner" shall be interpreted to mean the "Contracting Officer." For leased facilities, references to the "owner" shall be interpreted to mean the "lessor." References to the "permit holder" shall be interpreted to mean the "Contractor."

1.3.4.2 Administrative Interpretations

For ICC Codes referenced in the contract documents, the provisions of Chapter 1, "Administrator," do not apply. These administrative requirements are covered by the applicable Federal Acquisition Regulations (FAR) included in this contract and by the authority granted to the Officer in Charge of Construction to administer the construction of this project. References in the ICC Codes to sections of Chapter 1, shall be applied appropriately by the Contracting Officer as authorized by his administrative cognizance and the FAR.

1.4 DELIVERY, STORAGE, AND HANDLING

Handle, store, and protect equipment and materials to prevent damage before and during installation in accordance with the manufacturer's recommendations, and as approved by the Contracting Officer. Replace damaged or defective items.

1.5 REGULATORY REQUIREMENTS

Unless otherwise required herein, plumbing work shall be in accordance with ICC IPC. Energy consuming products and systems shall be in accordance with PL 109-58 and ASHRAE 90.1 - IP

1.6 PROJECT/SITE CONDITIONS

The Contractor shall become familiar with details of the work, verify dimensions in the field, and advise the Contracting Officer of any discrepancy before performing any work.

1.7 INSTRUCTION TO GOVERNMENT PERSONNEL

When specified in other sections, furnish the services of competent instructors to give full instruction to the designated Government personnel in the adjustment, operation, and maintenance, including pertinent safety requirements, of the specified equipment or system. Instructors shall be thoroughly familiar with all parts of the installation and shall be trained in operating theory as well as practical operation and maintenance work.

Instruction shall be given during the first regular work week after the equipment or system has been accepted and turned over to the Government for regular operation. The number of man-days (8 hours per day) of instruction furnished shall be as specified in the individual section. When more than 4 man-days of instruction are specified, use approximately half of the time for classroom instruction. Use other time for instruction with the equipment or system.

When significant changes or modifications in the equipment or system are made under the terms of the contract, provide additional instruction to acquaint the operating personnel with the changes or modifications.

1.8 ACCESSIBILITY OF EQUIPMENT

Install all work so that parts requiring periodic inspection, operation, maintenance, and repair are readily accessible. Install concealed valves, expansion joints, controls, dampers, and equipment requiring access, in locations freely accessible through access doors.

PART 2 PRODUCTS

2.1 Materials

Materials for various services shall be in accordance with TABLES I and II. PVC pipe shall contain a minimum of 25 percent recycled content, with a minimum of 5 percent post-consumer recycled content. HDPE pipe shall contain a minimum of 100 percent post-consumer recycled content. Steel pipe shall contain a minimum of 25 percent recycled content, with a minimum of 16 percent post-consumer recycled content. Pipe schedules shall be selected based on service requirements. Pipe fittings shall be compatible with the applicable pipe materials. Plastic pipe, fittings, and solvent cement shall meet NSF/ANSI 14 and shall be NSF listed for the service intended. Plastic pipe, fittings, and solvent cement used for potable hot and cold water service shall bear the NSF seal "NSF-PW." Polypropylene pipe and fittings shall conform to dimensional requirements of Schedule 40, Iron Pipe size and shall comply with NSF/ANSI 14, NSF/ANSI 61 and ASTM F 2389. Polypropylene piping that will be exposed to UV light shall be provided with a Factory applied UV resistant coating.. Pipe threads (except dry seal) shall conform to ASME B1.20.1. Grooved pipe couplings and fittings shall be from the same manufacturer. Material or equipment containing lead shall not be used in any potable water system. In line devices such as water meters, building valves, check

valves, meter stops, valves, fittings and back flow preventers shall comply with PL 93-523 and NSF/ANSI 61, Section 8. End point devices such as drinking water fountains, lavatory faucets, supply stops and end point control valves used to dispense water for drinking must meet the requirements of NSF/ANSI 61, Section 9.

2.1.1 Pipe Joint Materials

Grooved pipe and hubless cast-iron soil pipe shall not be used under ground. Solder containing lead shall not be used with copper pipe. Cast iron soil pipe and fittings shall be marked with the collective trademark of the Cast Iron Soil Institute. Joints and gasket materials shall conform to the following:

a. Coupling for Cast-Iron Pipe: for hub and spigot type ASTM A 74, AWWA C606. For hubless type: CISPI 310

b. Coupling for Steel Pipe: AWWA C606.

c. Couplings for Grooved Pipe: Ductile Iron ASTM A 536 (Grade 65-45-12) or Malleable Iron ASTM A 47/A 47M, Grade 32510.

d. Flange Gaskets: Gaskets shall be made of non-asbestos material in accordance with ASME B16.21. Gaskets shall be flat, 1/16 inch thick, and contain Aramid fibers bonded with Styrene Butadiene Rubber (SBR) or Nitro Butadiene Rubber (NBR). Gaskets shall be the full face or self centering flat ring type. Gaskets used for hydrocarbon service shall be bonded with NBR.

e. Brazing Material: Brazing material shall conform to AWS A5.8/A5.8M, BCuP-5.

f. Brazing Flux: Flux shall be in paste or liquid form appropriate for use with brazing material. Flux shall be as follows: lead-free; have a 100 percent flushable residue; contain slightly acidic reagents; contain potassium borides; and contain fluorides.

g. Solder Material: Solder metal shall conform to ASTM B 32.

h. Solder Flux: Flux shall be liquid form, non-corrosive, and conform to ASTM B 813, Standard Test 1.

i. PTFE Tape: PTFE Tape, for use with Threaded Metal or Plastic Pipe.

j. Rubber Gaskets for Cast-Iron Soil-Pipe and Fittings (hub and spigot type and hubless type): ASTM C 564.

k. Rubber Gaskets for Grooved Pipe: ASTM D 2000, maximum temperature 230 degrees F.

l. Flexible Elastomeric Seals: ASTM D 3139, ASTM D 3212 or ASTM F 477.

m. Bolts and Nuts for Grooved Pipe Couplings: Heat-treated carbon steel, ASTM A 183.

n. Solvent Cement for Transition Joints between ABS and PVC Nonpressure Piping Components: ASTM D 3138.

o. Plastic Solvent Cement for ABS Plastic Pipe: ASTM D 2235.

p. Plastic Solvent Cement for PVC Plastic Pipe: ASTM D 2564 and ASTM D 2855.

q. Plastic Solvent Cement for CPVC Plastic Pipe: ASTM F 493.

r. Flanged fittings including flanges, bolts, nuts, bolt patterns, etc., shall be in accordance with ASME B16.5 class 150 and shall have the manufacturer's trademark affixed in accordance with MSS SP-25. Flange material shall conform to ASTM A 105/A 105M. Blind flange material shall conform to ASTM A 516/A 516M cold service and ASTM A 515/A 515M for hot service. Bolts shall be high strength or intermediate strength with material conforming to ASTM A 193/A 193M.

s. Plastic Solvent Cement for Styrene Rubber Plastic Pipe: ASTM D 3122.

t. Press fittings for Copper Pipe and Tube: Copper press fittings shall conform to the material and sizing requirements of ASME B16.18 or ASME B16.22 and performance criteria of IAPMO PS 117. Sealing elements for copper press fittings shall be EPDM, FKM or HNBR. Sealing elements shall be factory installed or an alternative supplied fitting manufacturer. Sealing element shall be selected based on manufacturer's approved application guidelines.

u. Copper tubing shall conform to ASTM B 88, Type K, L or M.

v. Heat-fusion joints for polypropylene piping: ASTM F 2389.

2.1.2 Miscellaneous Materials

Miscellaneous materials shall conform to the following:

a. Water Hammer Arrester: PDI WH 201. Water hammer arrester shall be diaphragm or piston type.

b. Copper, Sheet and Strip for Building Construction: ASTM B 370.

c. Hose Clamps: SAE J1508.

d. Supports for Off-The-Floor Plumbing Fixtures: ASME A112.6.1M.

e. Metallic Cleanouts: ASME A112.36.2M.

f. Plumbing Fixture Setting Compound: A preformed flexible ring seal molded from hydrocarbon wax material. The seal material shall be nonvolatile nonasphaltic and contain germicide and provide watertight, gastight, odorproof and verminproof properties.

g. Coal-Tar Protective Coatings and Linings for Steel Water Pipelines: AWWA C203.

h. Hypochlorites: AWWA B300.

i. Liquid Chlorine: AWWA B301.

## 2.2 PIPE HANGERS, INSERTS, AND SUPPORTS

Pipe hangers, inserts, and supports shall conform to MSS SP-58 and MSS SP-69.

## 2.3 VALVES

Valves shall be provided on supplies to equipment and fixtures. Valves 2-1/2 inches and smaller shall be bronze with threaded bodies for pipe and solder-type connections for tubing. Valves 3 inches and larger shall have flanged iron bodies and bronze trim. Pressure ratings shall be based upon the application. Grooved end valves may be provided if the manufacturer certifies that the valves meet the performance requirements of applicable MSS standard. Valves shall conform to the following standards:

| Description | Standard |
|---|---|
| Butterfly Valves | MSS SP-67 |
| Cast-Iron Plug Valves, Flanged and Threaded Ends | MSS SP-78 |
| Steel Valves, Socket Welding and Threaded Ends | ASME B16.34 |
| Backwater Valves | ASME A112.14.1 |
| Vacuum Relief Valves | CSA/AM Z21.22 |
| Water Pressure Reducing Valves | ASSE 1003 |

### 2.3.1 Backwater Valves

Backwater valves shall be either separate from the floor drain or a combination floor drain, P-trap, and backwater valve, as shown. Valves shall have cast-iron bodies with cleanouts large enough to permit removal of interior parts. Valves shall be of the flap type, hinged or pivoted, with revolving disks. Hinge pivots, disks, and seats shall be nonferrous metal. Disks shall be slightly open in a no-flow no-backwater condition. Cleanouts shall extend to finished floor and be fitted with threaded countersunk plugs.

### 2.3.2 Thermostatic Mixing Valves

Provide thermostatic mixing valve for lavatory faucets. Mixing valves, thermostatic type, pressure-balanced or combination thermostatic and pressure-balanced shall be line size and shall be constructed with rough or finish bodies either with or without plating. Each valve shall be constructed to control the mixing of hot and cold water and to deliver water at a desired temperature regardless of pressure or input temperature changes. The control element shall be of an approved type. The body shall be of heavy cast bronze, and interior parts shall be brass, bronze, corrosion-resisting steel or copper. The valve shall be equipped with necessary stops, check valves, unions, and sediment strainers on the inlets. Mixing valves shall maintain water temperature within 5 degrees F of any setting.

## 2.4 FIXTURES

Fixtures shall be water conservation type, in accordance with ICC IPC.

Fixtures for use by the physically handicapped shall be in accordance with ICC/ANSI A117.1. ASME A112.19.3/CSA B45.4 302 stainless steel or Vitreous China, nonabsorbent, hard-burned, and vitrified throughout the body shall be provided. Porcelain enameled ware shall have specially selected, clear white, acid-resisting enamel coating evenly applied on surfaces. No fixture will be accepted that shows cracks, crazes, blisters, thin spots, or other flaws. Fixtures shall be equipped with appurtenances such as traps, faucets, stop valves, and drain fittings. Each fixture and piece of equipment requiring connections to the drainage system, except grease interceptors, shall be equipped with a trap. Brass expansion or toggle bolts capped with acorn nuts shall be provided for supports, and polished chromium-plated pipe, valves, and fittings shall be provided where exposed to view. Fixtures with the supply discharge below the rim shall be equipped with backflow preventers.

2.4.1 Lavatories

Vitreous china lavatories shall be provided with two integral molded lugs on the back-underside of the fixture and drilled for bolting to the wall in a manner similar to the hanger plate.

2.4.2 Countertop Lavatories

ASME A112.19.2, white vitreous china, self-rimming, minimum dimensions of 19 inches wide by 17 inches front to rear, with supply openings for use with top mounted centerset faucets. Furnish template and mounting kit by lavatory manufacturer. Provide aerator with faucet. Water flow rate shall not exceed 0.5 gpm when measured at a flowing water pressure of 60 psi. Mount counter with the top surface 34 inches above floor and with 29 inches minimum clearance from bottom of the counter face to floor.

2.4.3 Drinking-Water Coolers

AHRI 1010 with more than a single thickness of metal between the potable water and the refrigerant in the heat exchanger, wall-hung, bubbler style, air-cooled condensing unit, 4.75 gph minimum capacity, stainless steel splash receptor and basin, bottle filler and stainless steel cabinet. Bubblers shall be controlled by push levers or push bars, front mounted or side mounted near the front edge of the cabinet. Bubbler spouts shall be mounted at maximum of 36 inches above floor and at front of unit basin. Spouts shall direct water flow at least 4 inches above unit basin and trajectory parallel or nearly parallel to the front of unit. Provide filters for chlorine in supply piping to faucets. Provide ASME A112.6.1M concealed steel pipe chair carriers.

2.4.4 Wheelchair Drinking Water cooler

AHRI 1010, wall-mounted bubbler style with ASME A112.6.1M concealed chair carrier, air-cooled condensing unit, 4.75 gph minimum capacity, stainless steel splash receptor, and all stainless steel cabinet, with 27 inch minimum knee clearance from front bottom of unit to floor and 36 inch maximum spout height above floor. Bubblers shall also be controlled by push levers, by push bars, or touch pads one on each side or one on front and both sides of the cabinet. Provide filters for chlorine in supply piping to faucets.

2.5 TRAPS

Unless otherwise specified, traps shall be plastic per ASTM F 409 or

copper-alloy adjustable tube type with slip joint inlet and swivel. Traps shall be with a cleanout. Provide traps with removable access panels for easy clean-out at sinks and lavatories. Tubes shall be copper alloy with walls not less than 0.032 inch thick within commercial tolerances, except on the outside of bends where the thickness may be reduced slightly in manufacture by usual commercial methods. Inlets shall have rubber washer and copper alloy nuts for slip joints above the discharge level. Swivel joints shall be below the discharge level and shall be of metal-to-metal or metal-to-plastic type as required for the application. Nuts shall have flats for wrench grip. Outlets shall have internal pipe thread, except that when required for the application, the outlets shall have sockets for solder-joint connections. The depth of the water seal shall be not less than 2 inches. The interior diameter shall be not more than 1/8 inch over or under the nominal size, and interior surfaces shall be reasonably smooth throughout. A copper alloy "P" trap assembly consisting of an adjustable "P" trap and threaded trap wall nipple with cast brass wall flange shall be provided for lavatories. The assembly shall be a standard manufactured unit and may have a rubber-gasketed swivel joint.

## 2.6 MISCELLANEOUS PIPING ITEMS

### 2.6.1 Escutcheon Plates

Provide one piece or split hinge metal plates for piping entering floors, walls, and ceilings in exposed spaces. Provide chromium-plated on copper alloy plates or polished stainless steel finish in finished spaces. Provide paint finish on plates in unfinished spaces.

### 2.6.2 Pipe Sleeves

Provide where piping passes entirely through walls, ceilings, roofs, and floors. Sleeves are not required where drain, waste, and vent (DWV) piping passes through concrete floor slabs located on grade, except where penetrating a membrane waterproof floor.

### 2.6.3 Pipe Hangers (Supports)

Provide MSS SP-58 and MSS SP-69, Type 1 with adjustable type steel support rods, except as specified or indicated otherwise. Attach to steel joists with Type 19 or 23 clamps and retaining straps. Attach to Steel W or S beams with Type 21, 28, 29, or 30 clamps. Attach to steel angles and vertical web steel channels with Type 20 clamp with beam clamp channel adapter. Attach to horizontal web steel channel and wood with drilled hole on centerline and double nut and washer. Attach to concrete with Type 18 insert or drilled expansion anchor. Provide Type 40 insulation protection shield for insulated piping.

# PART 3 EXECUTION

## 3.1 GENERAL INSTALLATION REQUIREMENTS

Installation of plastic pipe where in compliance with NFPA may be installed in accordance with PPFA-01.

### 3.1.1 Water Pipe, Fittings, and Connections

#### 3.1.1.1 Utilities

The piping shall be extended to fixtures, outlets, and equipment. The

hot-water and cold-water piping system shall be arranged and installed to permit draining. The supply line to each item of equipment or fixture, except faucets, flush valves, or other control valves which are supplied with integral stops, shall be equipped with a shutoff valve to enable isolation of the item for repair and maintenance without interfering with operation of other equipment or fixtures.

3.1.1.2 Cutting and Repairing

The work shall be carefully laid out in advance, and unnecessary cutting of construction shall be avoided. Damage to building, piping, wiring, or equipment as a result of cutting shall be repaired by mechanics skilled in the trade involved.

3.1.1.3 Protection of Fixtures, Materials, and Equipment

Pipe openings shall be closed with caps or plugs during installation. Fixtures and equipment shall be tightly covered and protected against dirt, water, chemicals, and mechanical injury. Upon completion of the work, the fixtures, materials, and equipment shall be thoroughly cleaned, adjusted, and operated. Safety guards shall be provided for exposed rotating equipment.

3.1.2 Joints

Installation of pipe and fittings shall be made in accordance with the manufacturer's recommendations. Mitering of joints for elbows and notching of straight runs of pipe for tees will not be permitted. Joints shall be made up with fittings of compatible material and made for the specific purpose intended.

3.1.2.1 Threaded

Threaded joints shall have American Standard taper pipe threads conforming to ASME B1.20.1. Only male pipe threads shall be coated with graphite or with an approved graphite compound, or with an inert filler and oil, or shall have a polytetrafluoroethylene tape applied.

3.1.2.2 Mechanical Couplings

Mechanical couplings may be used in conjunction with grooved pipe for aboveground, ferrous or non-ferrous, domestic hot and cold water systems, in lieu of unions, brazed, soldered, welded, flanged, or threaded joints.

Mechanical couplings are permitted in accessible locations including behind access plates. Flexible grooved joints will not be permitted, except as vibration isolators adjacent to mechanical equipment. Rigid grooved joints shall incorporate an angle bolt pad design which maintains metal-to-metal contact with equal amount of pad offset of housings upon installation to ensure positive rigid clamping of the pipe.

Designs which can only clamp on the bottom of the groove or which utilize gripping teeth or jaws, or which use misaligned housing bolt holes, or which require a torque wrench or torque specifications will not be permitted.

Rigid grooved pipe couplings shall be for use with grooved end pipes, fittings, valves and strainers. Rigid couplings shall be designed for not less than 125 psi service and appropriate for static head plus the pumping

head, and shall provide a watertight joint.

Grooved fittings and couplings, and grooving tools shall be provided from the same manufacturer. Segmentally welded elbows shall not be used. Grooves shall be prepared in accordance with the coupling manufacturer's latest published standards. Grooving shall be performed by qualified grooving operators having demonstrated proper grooving procedures in accordance with the tool manufacturer's recommendations.

The Contracting Officer shall be notified 24 hours in advance of test to demonstrate operator's capability, and the test shall be performed at the work site, if practical, or at a site agreed upon. The operator shall demonstrate the ability to properly adjust the grooving tool, groove the pipe, and to verify the groove dimensions in accordance with the coupling manufacturer's specifications.

3.1.2.3 Unions and Flanges

Unions, flanges and mechanical couplings shall not be concealed in walls, ceilings, or partitions. Unions shall be used on pipe sizes 2-1/2 inches and smaller; flanges shall be used on pipe sizes 3 inches and larger.

3.1.2.4 Grooved Mechanical Joints

Grooves shall be prepared according to the coupling manufacturer's instructions. Grooved fittings, couplings, and grooving tools shall be products of the same manufacturer. Pipe and groove dimensions shall comply with the tolerances specified by the coupling manufacturer. The diameter of grooves made in the field shall be measured using a "go/no-go" gauge, vernier or dial caliper, narrow-land micrometer, or other method specifically approved by the coupling manufacturer for the intended application. Groove width and dimension of groove from end of pipe shall be measured and recorded for each change in grooving tool setup to verify compliance with coupling manufacturer's tolerances. Grooved joints shall not be used in concealed locations.

3.1.2.5 Copper Tube and Pipe

a. Brazed. Brazed joints shall be made in conformance with AWS B2.2, MSS SP-73, and CDA A4015 with flux and are acceptable for all pipe sizes. Copper to copper joints shall include the use of copper-phosphorus or copper-phosphorus-silver brazing metal without flux. Brazing of dissimilar metals (copper to bronze or brass) shall include the use of flux with either a copper-phosphorus, copper-phosphorus-silver or a silver brazing filler metal.

b. Soldered. Soldered joints shall be made with flux and are only acceptable for piping 2 inches and smaller. Soldered joints shall conform to ASME B31.5 and CDA A4015. Soldered joints shall not be used in compressed air piping between the air compressor and the receiver.

c. Copper Tube Extracted Joint. Mechanically extracted joints shall be made in accordance with ICC IPC.

d. Press connection. Copper press connections shall be made in **strict** accordance with the manufacturer's installation instructions for manufactured rated size. The joints shall be pressed using the tool(s) approved by the manufacturer **of that joint**. Minimum distance

between fittings shall be in accordance with the manufacturer's requirements.

3.1.2.6 Plastic Pipe

Acrylonitrile-Butadiene-Styrene (ABS) pipe shall have joints made with solvent cement. PVC and CPVC pipe shall have joints made with solvent cement elastomeric, threading, (threading of Schedule 80 Pipe is allowed only where required for disconnection and inspection; threading of Schedule 40 Pipe is not allowed), or mated flanged.

3.1.2.7 Polypropylene Pipe

Joints for polypropylene pipe and fittings shall be made by heat fusion welding socket-type or butt-fusion type fittings and shall comply with ASTM F 2389.

3.1.2.8 Other Joint Methods

3.1.3 Dissimilar Pipe Materials

Connections between ferrous and non-ferrous copper water pipe shall be made with dielectric unions or flange waterways. Dielectric waterways shall have temperature and pressure rating equal to or greater than that specified for the connecting piping. Waterways shall have metal connections on both ends suited to match connecting piping. Dielectric waterways shall be internally lined with an insulator specifically designed to prevent current flow between dissimilar metals. Dielectric flanges shall meet the performance requirements described herein for dielectric waterways. Connecting joints between plastic and metallic pipe shall be made with transition fitting for the specific purpose.

3.1.4 Pipe Sleeves and Flashing

Pipe sleeves shall be furnished and set in their proper and permanent location.

3.1.4.1 Pipe Penetrations

Provide sealants for all pipe penetrations. All pipe penetrations shall be sealed to prevent infiltration of air, insects, and vermin.

3.1.5 Supports

3.1.5.1 General

Hangers used to support piping 2 inches and larger shall be fabricated to permit adequate adjustment after erection while still supporting the load. Pipe guides and anchors shall be installed to keep pipes in accurate alignment, to direct the expansion movement, and to prevent buckling, swaying, and undue strain. Piping subjected to vertical movement when operating temperatures exceed ambient temperatures shall be supported by variable spring hangers and supports or by constant support hangers. In the support of multiple pipe runs on a common base member, a clip or clamp shall be used where each pipe crosses the base support member. Spacing of the base support members shall not exceed the hanger and support spacing required for an individual pipe in the multiple pipe run. Threaded sections of rods shall not be formed or bent.

3.1.5.2 Pipe Hangers, Inserts, and Supports

Installation of pipe hangers, inserts and supports shall conform to MSS SP-58 and MSS SP-69, except as modified herein.

a. Types 5, 12, and 26 shall not be used.

b. Type 3 shall not be used on insulated pipe.

c. Type 18 inserts shall be secured to concrete forms before concrete is placed. Continuous inserts which allow more adjustment may be used if they otherwise meet the requirements for type 18 inserts.

d. Type 19 and 23 C-clamps shall be torqued per MSS SP-69 and shall have both locknuts and retaining devices furnished by the manufacturer. Field-fabricated C-clamp bodies or retaining devices are not acceptable.

e. Type 20 attachments used on angles and channels shall be furnished with an added malleable-iron heel plate or adapter.

f. Type 24 may be used only on trapeze hanger systems or on fabricated frames.

g. Type 39 saddles shall be used on insulated pipe 4 inches and larger when the temperature of the medium is 60 degrees F or higher. Type 39 saddles shall be welded to the pipe.

h. Type 40 shields shall:

(1) Be used on insulated pipe less than 4 inches.

(2) Be used on insulated pipe 4 inches and larger when the temperature of the medium is 60 degrees F or less.

(3) Have a high density insert for all pipe sizes. High density inserts shall have a density of 8 pcf or greater.

i. Horizontal pipe supports shall be spaced as specified in MSS SP-69 and a support shall be installed not over 1 foot from the pipe fitting joint at each change in direction of the piping. Pipe supports shall be spaced not over 5 feet apart at valves. Operating temperatures in determining hanger spacing for PVC or CPVC pipe shall be 120 degrees F for PVC and 180 degrees F for CPVC. Horizontal pipe runs shall include allowances for expansion and contraction.

j. Vertical pipe shall be supported at each floor, except at slab-on-grade, at intervals of not more than 15 feet nor more than 8 feet from end of risers, and at vent terminations. Vertical pipe risers shall include allowances for expansion and contraction.

k. Type 35 guides using steel, reinforced polytetrafluoroethylene (PTFE) or graphite slides shall be provided to allow longitudinal pipe movement. Slide materials shall be suitable for the system operating temperatures, atmospheric conditions, and bearing loads encountered. Lateral restraints shall be provided as needed. Where steel slides do not require provisions for lateral restraint the following may be used:

(1) On pipe 4 inches and larger when the temperature of the medium is

60 degrees F or higher, a Type 39 saddle, welded to the pipe, may freely rest on a steel plate.

(2) On pipe less than 4 inches a Type 40 shield, attached to the pipe or insulation, may freely rest on a steel plate.

(3) On pipe 4 inches and larger carrying medium less that 60 degrees F a Type 40 shield, attached to the pipe or insulation, may freely rest on a steel plate.

l. Pipe hangers on horizontal insulated pipe shall be the size of the outside diameter of the insulation. The insulation shall be continuous through the hanger on all pipe sizes and applications.

m. Where there are high system temperatures and welding to piping is not desirable, the type 35 guide shall include a pipe cradle, welded to the guide structure and strapped securely to the pipe. The pipe shall be separated from the slide material by at least 4 inches or by an amount adequate for the insulation, whichever is greater.

n. Hangers and supports for plastic pipe shall not compress, distort, cut or abrade the piping, and shall allow free movement of pipe except where otherwise required in the control of expansion/contraction.

3.1.5.3 Structural Attachments

Attachment to building structure concrete and masonry shall be by cast-in concrete inserts, built-in anchors, or masonry anchor devices. Inserts and anchors shall be applied with a safety factor not less than 5. Supports shall not be attached to metal decking. Supports shall not be attached to the underside of concrete filled floor or concrete roof decks unless approved by the Contracting Officer. Masonry anchors for overhead applications shall be constructed of ferrous materials only.

3.1.6 Welded Installation

Plumbing pipe weldments shall be as indicated. Changes in direction of piping shall be made with welding fittings only; mitering or notching pipe to form elbows and tees or other similar type construction will not be permitted. Branch connection may be made with either welding tees or forged branch outlet fittings. Branch outlet fittings shall be forged, flared for improvement of flow where attached to the run, and reinforced against external strains. Beveling, alignment, heat treatment, and inspection of weld shall conform to ASME B31.1. Weld defects shall be removed and repairs made to the weld, or the weld joints shall be entirely removed and rewelded. After filler metal has been removed from its original package, it shall be protected or stored so that its characteristics or welding properties are not affected. Electrodes that have been wetted or that have lost any of their coating shall not be used.

3.1.7 Pipe Cleanouts

Pipe cleanouts shall be the same size as the pipe except that cleanout plugs larger than 4 inches will not be required. A cleanout installed in connection with cast-iron soil pipe shall consist of a long-sweep 1/4 bend or one or two 1/8 bends extended to the place shown. An extra-heavy cast-brass or cast-iron ferrule with countersunk cast-brass head screw plug shall be caulked into the hub of the fitting and shall be flush with the floor. Cleanouts in connection with other pipe, where indicated,

shall be T-pattern, 90-degree branch drainage fittings with cast-brass screw plugs, except plastic plugs shall be installed in plastic pipe. Plugs shall be the same size as the pipe up to and including 4 inches. Cleanout tee branches with screw plug shall be installed at the foot of soil and waste stacks, at the foot of interior downspouts, on each connection to building storm drain where interior downspouts are indicated, and on each building drain outside the building. Cleanout tee branches may be omitted on stacks in single story buildings with slab-on-grade construction or where less than 18 inches of crawl space is provided under the floor. Cleanouts on pipe concealed in partitions shall be provided with chromium plated bronze, nickel bronze, nickel brass or stainless steel flush type access cover plates. Round access covers shall be provided and secured to plugs with securing screw. Square access covers may be provided with matching frames, anchoring lugs and cover screws. Cleanouts in finished walls shall have access covers and frames installed flush with the finished wall. Cleanouts installed in finished floors subject to foot traffic shall be provided with a chrome-plated cast brass, nickel brass, or nickel bronze cover secured to the plug or cover frame and set flush with the finished floor. Heads of fastening screws shall not project above the cover surface. Where cleanouts are provided with adjustable heads, the heads shall be cast iron.

## 3.2 FIXTURES AND FIXTURE TRIMMINGS

Polished chromium-plated pipe, valves, and fittings shall be provided where exposed to view. Angle stops, straight stops, stops integral with the faucets, or concealed type of lock-shield, and loose-key pattern stops for supplies with threaded, sweat or solvent weld inlets shall be furnished and installed with fixtures. Where connections between copper tubing and faucets are made by rubber compression fittings, a beading tool shall be used to mechanically deform the tubing above the compression fitting. Exposed traps and supply pipes for fixtures and equipment shall be connected to the rough piping systems at the wall, unless otherwise specified under the item. Floor and wall escutcheons shall be as specified. Drain lines and hot water lines of fixtures for handicapped personnel shall be insulated and do not require polished chrome finish. Plumbing fixtures and accessories shall be installed within the space shown.

### 3.2.1 Fixture Connections

Where space limitations prohibit standard fittings in conjunction with the cast-iron floor flange, special short-radius fittings shall be provided. Connections between earthenware fixtures and flanges on soil pipe shall be made gastight and watertight with a closet-setting compound or neoprene gasket and seal. Use of natural rubber gaskets or putty will not be permitted. Fixtures with outlet flanges shall be set the proper distance from floor or wall to make a first-class joint with the closet-setting compound or gasket and fixture used.

### 3.2.2 Height of Fixture Rims Above Floor

Lavatories shall be mounted with rim 31 inches above finished floor. Wall-hung drinking fountains and water coolers shall be installed with rim 42 inches above floor. Wall-hung service sinks shall be mounted with rim 28 inches above the floor. Installation of fixtures for use by the physically handicapped shall be in accordance with ICC/ANSI A117.1.

3.2.3 Fixture Supports

Fixture supports for off-the-floor lavatories, urinals, water closets, and other fixtures of similar size, design, and use, shall be of the chair-carrier type. The carrier shall provide the necessary means of mounting the fixture, with a foot or feet to anchor the assembly to the floor slab. Adjustability shall be provided to locate the fixture at the desired height and in proper relation to the wall. Support plates, in lieu of chair carrier, shall be fastened to the wall structure only where it is not possible to anchor a floor-mounted chair carrier to the floor slab.

3.2.3.1 Support for Solid Masonry Construction

Chair carrier shall be anchored to the floor slab. Where a floor-anchored chair carrier cannot be used, a suitable wall plate shall be imbedded in the masonry wall.

3.2.3.2 Support for Concrete-Masonry Wall Construction

Chair carrier shall be anchored to floor slab. Where a floor-anchored chair carrier cannot be used, a suitable wall plate shall be fastened to the concrete wall using through bolts and a back-up plate.

3.2.3.3 Support for Steel Stud Frame Partitions

Chair carrier shall be used. The anchor feet and tubular uprights shall be of the heavy duty design; and feet (bases) shall be steel and welded to a square or rectangular steel tube upright. Wall plates, in lieu of floor-anchored chair carriers, shall be used only if adjoining steel partition studs are suitably reinforced to support a wall plate bolted to these studs.

3.2.3.4 Support for Wood Stud Construction

Where floor is a concrete slab, a floor-anchored chair carrier shall be used. Where entire construction is wood, wood crosspieces shall be installed. Fixture hanger plates, supports, brackets, or mounting lugs shall be fastened with not less than No. 10 wood screws, 1/4 inch thick minimum steel hanger, or toggle bolts with nut. The wood crosspieces shall extend the full width of the fixture and shall be securely supported.

3.2.3.5 Wall-Mounted Water Closet Gaskets

Where wall-mounted water closets are provided, reinforced wax, treated felt, or neoprene gaskets shall be provided. The type of gasket furnished shall be as recommended by the chair-carrier manufacturer.

3.2.4 Traps

Each trap shall be placed as near the fixture as possible, and no fixture shall be double-trapped. Traps installed on cast-iron soil pipe shall be cast iron. Traps installed on steel pipe or copper tubing shall be recess-drainage pattern, or brass-tube type. Traps installed on plastic pipe may be plastic conforming to ASTM D 3311. Traps for acid-resisting waste shall be of the same material as the pipe.

3.2.5 General

The floor of each individual shower, the shower-area portion of combination shower and drying room, and the entire shower and drying room where the two are not separated by curb or partition, shall be made watertight with a shower pan fabricated in place. The shower pan material shall be cut to size and shape of the area indicated, in one piece to the maximum extent practicable, allowing a minimum of 6 inches for turnup on walls or partitions, and shall be folded over the curb with an approximate return of 1/4 of curb height. The upstands shall be placed behind any wall or partition finish. Subflooring shall be smooth and clean, with nailheads driven flush with surface, and shall be sloped to drain. Shower pans shall be clamped to drains with the drain clamping ring.

3.3 VIBRATION-ABSORBING FEATURES

Mechanical equipment, including compressors and pumps, shall be isolated from the building structure by approved vibration-absorbing features, unless otherwise shown. Each foundation shall include an adequate number of standard isolation units. Each unit shall consist of machine and floor or foundation fastening, together with intermediate isolation material, and shall be a standard product with printed load rating. Piping connected to mechanical equipment shall be provided with flexible connectors.

3.4 ESCUTCHEONS

Escutcheons shall be provided at finished surfaces where bare or insulated piping, exposed to view, passes through floors, walls, or ceilings, except in boiler, utility, or equipment rooms. Escutcheons shall be fastened securely to pipe or pipe covering and shall be satin-finish, corrosion-resisting steel, polished chromium-plated zinc alloy, or polished chromium-plated copper alloy. Escutcheons shall be either one-piece or split-pattern, held in place by internal spring tension or setscrew.

3.5 PAINTING

Painting of pipes, hangers, supports, and other iron work, either in concealed spaces or exposed spaces, is specified in Section 09 90 00 PAINTS AND COATINGS.

3.5.1 PAINTING OF NEW EQUIPMENT

New equipment painting shall be factory applied or shop applied, and shall be as specified herein, and provided under each individual section.

3.5.1.1 Factory Painting Systems

Manufacturer's standard factory painting systems may be provided subject to certification that the factory painting system applied will withstand 125 hours in a salt-spray fog test, except that equipment located outdoors shall withstand 500 hours in a salt-spray fog test. Salt-spray fog test shall be in accordance with ASTM B 117, and for that test the acceptance criteria shall be as follows: immediately after completion of the test, the paint shall show no signs of blistering, wrinkling, or cracking, and no loss of adhesion; and the specimen shall show no signs of rust creepage beyond 0.125 inch on either side of the scratch mark.

The film thickness of the factory painting system applied on the equipment shall not be less than the film thickness used on the test specimen. If manufacturer's standard factory painting system is being proposed for use on surfaces subject to temperatures above 120 degrees F, the factory painting system shall be designed for the temperature service.

3.5.1.2 Shop Painting Systems for Metal Surfaces

Clean, pretreat, prime and paint metal surfaces; except aluminum surfaces need not be painted. Apply coatings to clean dry surfaces. Clean the surfaces to remove dust, dirt, rust, oil and grease by wire brushing and solvent degreasing prior to application of paint, except metal surfaces subject to temperatures in excess of 120 degrees F shall be cleaned to bare metal.

Where more than one coat of paint is specified, apply the second coat after the preceding coat is thoroughly dry. Lightly sand damaged painting and retouch before applying the succeeding coat. Color of finish coat shall be aluminum or light gray.

a. Temperatures Less Than 120 Degrees F: Immediately after cleaning, the metal surfaces subject to temperatures less than 120 degrees F shall receive one coat of pretreatment primer applied to a minimum dry film thickness of 0.3 mil, one coat of primer applied to a minimum dry film thickness of one mil; and two coats of enamel applied to a minimum dry film thickness of one mil per coat.

b. Temperatures Between 120 and 400 Degrees F: Metal surfaces subject to temperatures between 120 and 400 degrees F shall receive two coats of 400 degrees F heat-resisting enamel applied to a total minimum thickness of 2 mils.

c. Temperatures Greater Than 400 Degrees F: Metal surfaces subject to temperatures greater than 400 degrees F shall receive two coats of 600 degrees F heat-resisting paint applied to a total minimum dry film thickness of 2 mils.

3.6 TESTS, FLUSHING AND DISINFECTION

3.6.1 Plumbing System

The following tests shall be performed on the plumbing system in accordance with ICC IPC, except that the drainage and vent system final test shall include the smoke test. The Contractor has the option to perform a peppermint test in lieu of the smoke test. If a peppermint test is chosen, the Contractor must submit a testing procedure to the Contracting Officer for approval.

a. Drainage and Vent Systems Test. The final test shall include a smoke test.

b. Water Supply Systems Tests.

3.6.2 Defective Work

If inspection or test shows defects, such defective work or material shall be replaced or repaired as necessary and inspection and tests shall be repeated. Repairs to piping shall be made with new materials. Caulking

of screwed joints or holes will not be acceptable.

3.6.3 System Flushing

3.6.3.1 During Flushing

Before operational tests or disinfection, potable water piping system shall be flushed with hot potable water. Sufficient water shall be used to produce a water velocity that is capable of entraining and removing debris in all portions of the piping system. This requires simultaneous operation of all fixtures on a common branch or main in order to produce a flushing velocity of approximately 4 fps through all portions of the piping system. In the event that this is impossible due to size of system, the Contracting Officer (or the designated representative) shall specify the number of fixtures to be operated during flushing. Contractor shall provide adequate personnel to monitor the flushing operation and to ensure that drain lines are unobstructed in order to prevent flooding of the facility. Contractor shall be responsible for any flood damage resulting from flushing of the system. Flushing shall be continued until entrained dirt and other foreign materials have been removed and until discharge water shows no discoloration. All faucets and drinking water fountains, to include any device considered as an end point device by NSF/ANSI 61, Section 9, shall be flushed a minimum of 0.25 gallons per 24 hour period, ten times over a 14 day period.

3.6.3.2 After Flushing

System shall be drained at low points. Strainer screens shall be removed, cleaned, and replaced. After flushing and cleaning, systems shall be prepared for testing by immediately filling water piping with clean, fresh potable water. Any stoppage, discoloration, or other damage to the finish, furnishings, or parts of the building due to the Contractor's failure to properly clean the piping system shall be repaired by the Contractor. When the system flushing is complete, the hot-water system shall be adjusted for uniform circulation. Flushing devices and automatic control systems shall be adjusted for proper operation according to manufacturer's instructions. Comply with ASHRAE 90.1 - IP for minimum efficiency requirements. Unless more stringent local requirements exist, lead levels shall not exceed limits established by 40 CFR 50.12 Part 141.80(c)(1). The water supply to the building shall be tested separately to ensure that any lead contamination found during potable water system testing is due to work being performed inside the building.

3.6.4 Operational Test

Upon completion of flushing and prior to disinfection procedures, the Contractor shall subject the plumbing system to operating tests to demonstrate satisfactory installation, connections, adjustments, and functional and operational efficiency. Such operating tests shall cover a period of not less than 8 hours for each system and shall include the following information in a report with conclusion as to the adequacy of the system:

a. Time, date, and duration of test.

b. Water pressures at the most remote and the highest fixtures.

c. Operation of each fixture and fixture trim.

d. Operation of each valve and faucet.

e. Temperature of each domestic hot-water supply.

3.6.5 Disinfection

After all system components are provided and operational tests are complete, the entire domestic hot- and cold-water distribution system shall be disinfected. Before introducing disinfecting chlorination material, entire system shall be flushed with potable water until any entrained dirt and other foreign materials have been removed.

Water chlorination procedure shall be in accordance with AWWA C651 and AWWA C652 as modified and supplemented by this specification. The chlorinating material shall be hypochlorites or liquid chlorine. The chlorinating material shall be fed into the water piping system at a constant rate at a concentration of at least 50 parts per million (ppm). Feed a properly adjusted hypochlorite solution injected into the system with a hypochlorinator, or inject liquid chlorine into the system through a solution-feed chlorinator and booster pump until the entire system is completely filled.

Test the chlorine residual level in the water at 6 hour intervals for a continuous period of 24 hours. If at the end of a 6 hour interval, the chlorine residual has dropped to less than 25 ppm, flush the piping including tanks with potable water, and repeat the above chlorination procedures. During the chlorination period, each valve and faucet shall be opened and closed several times.

After the second 24 hour period, verify that no less than 25 ppm chlorine residual remains in the treated system. The 24 hour chlorination procedure must be repeated until no less than 25 ppm chlorine residual remains in the treated system.

Upon the specified verification, the system including tanks shall then be flushed with potable water until the residual chlorine level is reduced to less than one part per million. During the flushing period, each valve and faucet shall be opened and closed several times.

Take addition samples of water in disinfected containers, for bacterial examination, at locations specified by the Contracting Officer Test these samples for total coliform organisms (coliform bacteria, fecal coliform, streptococcal, and other bacteria) in accordance with EPA SM 9223. The testing method used shall be EPA approved for drinking water systems and shall comply with applicable local and state requirements.

Disinfection shall be repeated until bacterial tests indicate the absence of coliform organisms (zero mean coliform density per 100 milliliters) in the samples for at least 2 full days. The system will not be accepted until satisfactory bacteriological results have been obtained.

3.7 WASTE MANAGEMENT

Place materials defined as hazardous or toxic waste in designated containers. Return solvent and oil soaked rags for contaminant recovery and laundering or for proper disposal. Close and seal tightly partly used sealant and adhesive containers and store in protected, well-ventilated,

fire-safe area at moderate temperature. Place used sealant and adhesive tubes and containers in areas designated for hazardous waste. Separate copper and ferrous pipe waste in accordance with the Waste Management Plan and place in designated areas for reuse.

3.8 POSTED INSTRUCTIONS

Framed instructions under glass or in laminated plastic, including wiring and control diagrams showing the complete layout of the entire system, shall be posted where directed. Condensed operating instructions explaining preventive maintenance procedures, methods of checking the system for normal safe operation, and procedures for safely starting and stopping the system shall be prepared in typed form, framed as specified above for the wiring and control diagrams and posted beside the diagrams. The framed instructions shall be posted before acceptance testing of the systems.

3.9 TABLES

TABLE I
PIPE AND FITTING MATERIALS FOR
DRAINAGE, WASTE, AND VENT PIPING SYSTEMS

| | | SERVICE | | | | | |
|---|---|---|---|---|---|---|---|
| Item # | Pipe and Fitting Materials | A | B | C | D | E | F |
| 1 | Cast iron soil pipe and fittings, hub and spigot, ASTM A 74 with compression gaskets. Pipe and fittings shall be marked with the CISPI trademark. | X | X | X | X | X | |
| 2 | Cast iron soil pipe and fittings hubless, CISPI 301 and ASTM A 888. Pipe and fittings shall be marked with the CISPI trademark. | | X | X | X | X | |
| 3 | Cast iron drainage fittings, threaded, ASME B16.12 for use with Item 10 | X | | X | X | | |
| 4 | Cast iron screwed fittings (threaded) ASME B16.4 for use with Item 10 | | | | X | X | |
| 5 | Grooved pipe couplings, ferrous and non-ferrous pipe ASTM A 536 and ASTM A 47/A 47M | X | X | | X | X | |
| 6 | Ductile iron grooved joint fittings for ferrous pipe ASTM A 536 and ASTM A 47/A 47M for use with Item 5 | X | X | | X | X | |
| 7 | Bronze sand casting grooved joint pressure fittings for non-ferrous pipe ASTM B 584, for use with Item 5 | X | X | | X | X | |
| 8 | Wrought copper grooved joint pressure | X | X | | | | |

TABLE I
PIPE AND FITTING MATERIALS FOR
DRAINAGE, WASTE, AND VENT PIPING SYSTEMS

| Item # | Pipe and Fitting Materials | SERVICE A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|
| | pressure fittings for non-ferrous pipe ASTM B 75 C12200, ASTM B 152/B 152M, C11000, ASME B16.22 ASME B16.22 for use with Item 5 | | | | | | |
| 9 | Malleable-iron threaded fittings, galvanized ASME B16.3 for use with Item 10 | | | | X | X | |
| 10 | Steel pipe, seamless galvanized, ASTM A 53/A 53M, Type S, Grade B | X | | | X | X | |
| 11 | Seamless red brass pipe, ASTM B 43 | | X | X | | | |
| 12 | Bronzed flanged fittings, ASME B16.24 for use with Items 11 and 14 | | | | X | X | |
| 13 | Cast copper alloy solder joint pressure fittings, ASME B16.18 for use with Item 14 | | | | X | X | |
| 14 | Seamless copper pipe, ASTM B 42 | | | | X | | |
| 15 | Cast bronze threaded fittings, ASME B16.15 | | | | X | X | |
| 16 | Copper drainage tube, (DWV), ASTM B 306 | X* | X | X* | X | X | |
| 17 | Wrought copper and wrought alloy solder-joint drainage fittings. ASME B16.29 | X | X | X | X | X | |
| 18 | Cast copper alloy solder joint drainage fittings, DWV, ASME B16.23 | X | X | X | X | X | |
| 19 | Acrylonitrile-Butadiene-Styrene (ABS) plastic drain, waste, and vent pipe and fittings ASTM D 2661, ASTM F 628 | | X | X | X | X | X |
| 20 | Polyvinyl Chloride plastic drain, waste and vent pipe and fittings, ASTM D 2665, ASTM F 891, (Sch 40) ASTM F 1760 | X | X | X | X | X | X |

TABLE I
PIPE AND FITTING MATERIALS FOR
DRAINAGE, WASTE, AND VENT PIPING SYSTEMS

| Item # | Pipe and Fitting Materials | SERVICE A | B | C | D | E | F |
|---|---|---|---|---|---|---|---|
| 21 | Process glass pipe and fittings, ASTM C 1053 | | | | | | X |
| 22 | High-silicon content cast iron pipe and fittings (hub and spigot, and mechanical joint), ASTM A 518/A 518M | | X | | | X | X |
| 23 | Polypropylene (PP) waste pipe and fittings, ASTM D 4101 | | | | | | X |
| 24 | Filament-wound reinforced thermosetting resin (RTRP) pipe, ASTM D 2996 | | | | | | X |

SERVICE:

A - Underground Building Soil, Waste and Storm Drain
B - Aboveground Soil, Waste, Drain In Buildings
C - Underground Vent
D - Aboveground Vent
E - Interior Rainwater Conductors Aboveground
F - Corrosive Waste And Vent Above And Belowground
* - Hard Temper

TABLE II
PIPE AND FITTING MATERIALS FOR PRESSURE PIPING SYSTEMS

| Item No. | Pipe and Fitting Materials | SERVICE A | B | C | D |
|---|---|---|---|---|---|
| 1 | Malleable-iron threaded fittings, | X | X | X | X |
| | a. Galvanized, ASME B16.3 for use with Item 4a | | | | |
| | b. Same as "a" but not galvanized for use with Item 4b | | | X | |
| 2 | Grooved pipe couplings, ferrous pipe ASTM A 536 and ASTM A 47/A 47M, non-ferrous pipe, ASTM A 536 and ASTM A 47/A 47M, | X | X | X | |
| 3 | Ductile iron grooved joint fittings for ferrous pipe ASTM A 536 and ASTM A 47/A 47M, for use with Item 2 | X | X | X | |
| 4 | Steel pipe: | X | X | X | X |

TABLE II
PIPE AND FITTING MATERIALS FOR PRESSURE PIPING SYSTEMS

| Item No. | Pipe and Fitting Materials | SERVICE A | B | C | D |
|---|---|---|---|---|---|
| | a. Seamless, galvanized, ASTM A 53/A 53M, Type S, Grade B | | | | |
| | b. Seamless, black, ASTM A 53/A 53M, Type S, Grade B | | | X | |
| 5 | Seamless red brass pipe, ASTM B 43 | X | X | | X |
| 6 | Bronze flanged fittings, ASME B16.24 for use with Items 5 and 7 | X | X | | X |
| 7 | Seamless copper pipe, ASTM B 42 | X | X | | X |
| 8 | Seamless copper water tube, ASTM B 88, ASTM B 88M | X** | X** | X** | X*** |
| 9 | Cast bronze threaded fittings, ASME B16.15 for use with Items 5 and 7 | X | X | | X |
| 10 | Wrought copper and bronze solder-joint pressure fittings, ASME B16.22 for use with Items 5, 7 and 8 | X | X | X | X |
| 11 | Cast copper alloy solder-joint pressure fittings, ASME B16.18 for use with Item 8 | X | X | X | X |
| 12 | Bronze and sand castings grooved joint pressure fittings for non-ferrous pipe ASTM B 584, for use with Item 2 | X | X | X | |
| 13 | Polyethylene (PE) plastic pipe, Schedules 40 and 80, based on outside diameter ASTM D 2447 | X | | | X |
| 14 | Polyethylene (PE) plastic pipe (SDR-PR), based on controlled outside diameter, ASTM D 3035 | X | | | X |
| 15 | Polyethylene (PE) plastic pipe (SIDR-PR), based on controlled inside diameter, ASTM D 2239 | X | | | X |
| 16 | Butt fusion polyethylene (PE) plastic | X | | | X |

TABLE II
PIPE AND FITTING MATERIALS FOR PRESSURE PIPING SYSTEMS

| Item No. | Pipe and Fitting Materials | SERVICE A | B | C | D |
|---|---|---|---|---|---|
| | pipe fittings, ASTM D 3261 for use with Items 14, 15, and 16 | | | | |
| 17 | Socket-type polyethylene fittings for outside diameter-controlled polyethylene pipe, ASTM D 2683 for use with Item 15 | X | | | X |
| 18 | Polyethylene (PE) plastic tubing, ASTM D 2737 | X | | | X |
| 19 | Chlorinated polyvinyl chloride (CPVC) plastic hot and cold water distribution system, ASTM D 2846/D 2846M | X | X | | X |
| 20 | Chlorinated polyvinyl chloride (CPVC) plastic pipe, Schedule 40 and 80, ASTM F 441/F 441M | X | X | | X |
| 21 | Chlorinated polyvinyl chloride (CPVC) plastic pipe (SDR-PR) ASTM F 442/F 442M | X | X | | X |
| 22 | Threaded chlorinated polyvinyl chloride (chloride CPVC) plastic pipe fittings, Schedule 80, ASTM F 437, for use with Items 20, and 21 | X | X | | X |
| 23 | Socket-type chlorinated polyvinyl chloride (CPVC) plastic pipe fittings, Schedule 40, ASTM F 438 for use with Items 20, 21, and 22 | X | X | | X |
| 24 | Socket-type chlorinated polyvinyl chloride (CPVC) plastic pipe fittings Schedule 80, ASTM F 439 for use with Items 20, 21, and 22 | X | X | | X |
| 25 | Polyvinyl chloride (PVC) plastic pipe, Schedules 40, 80, and 120, ASTM D 1785 | X | | | X |
| 26 | Polyvinyl chloride (PVC) pressure-rated pipe (SDR Series), ASTM D 2241 | X | | | X |
| 27 | Polyvinyl chloride (PVC) plastic pipe fittings, Schedule 40, ASTM D 2466 | X | | | X |
| 28 | Socket-type polyvinyl chloride (PVC) plastic pipe fittings, schedule 80, | X | | | X |

TABLE II
PIPE AND FITTING MATERIALS FOR PRESSURE PIPING SYSTEMS

| Item No. | Pipe and Fitting Materials | SERVICE A | B | C | D |
|---|---|---|---|---|---|
| | ASTM D 2467 for use with Items 26 and 27 | | | | |
| 29 | Threaded polyvinyl chloride (PVC) plastic pipe fittings, schedule 80, ASTM D 2464 | X | | | X |
| 30 | Joints for IPS PVC pipe using solvent cement, ASTM D 2672 | X | | | X |
| 31 | Polypropylene (PP) plastic pipe and fittings; ASTM F 2389 | X | X | | X |
| 32 | Steel pipeline flanges, MSS SP-44 | X | X | | |
| 33 | Fittings: brass or bronze; ASME B16.15, and ASME B16.18 ASTM B 828 | X | X | | |
| 34 | Carbon steel pipe unions, socket-welding and threaded, MSS SP-83 | X | X | X | |
| 35 | Malleable-iron threaded pipe unions ASME B16.39 | X | X | | |
| 36 | Nipples, pipe threaded ASTM A 733 | X | X | X | |
| 37 | Crosslinked Polyethylene (PEX) Plastic Pipe ASTM F 877 | X | X | | X |
| 38 | Press Fittings | X | X | | |

A - Cold Water Service Aboveground
B - Hot and Cold Water Distribution 180 degrees F Maximum Aboveground
C - Compressed Air Lubricated
D - Cold Water Service Belowground
Indicated types are minimum wall thicknesses.
** - Type L - Hard
*** - Type K - Hard temper with brazed joints only or type K-soft temper without joints in or under floors
**** - In or under slab floors only brazed joints

-- End of Section --

SECTION 26 00 00.00 20

BASIC ELECTRICAL MATERIALS AND METHODS
**07/06**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM D 709 | (2001; R 2007) Laminated Thermosetting Materials |

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

| | |
|---|---|
| IEEE 100 | (2000; Archived) The Authoritative Dictionary of IEEE Standards Terms |
| IEEE C2 | (2012; Errata 1 2012; INT 1-4 2012; Errata 2 2013; INT 5-7 2013; INT 8-10 2014; INT 11 2015) National Electrical Safety Code |

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

| | |
|---|---|
| NEMA 250 | (2014) Enclosures for Electrical Equipment (1000 Volts Maximum) |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |

1.2 RELATED REQUIREMENTS

This section applies to all sections of Division 26 ELECTRICAL, of this project specification unless specified otherwise in the individual sections.

1.3 DEFINITIONS

a. Unless otherwise specified or indicated, electrical and electronics terms used in these specifications, and on the drawings, shall be as defined in IEEE 100.

b. The technical sections referred to herein are those specification sections that describe products, installation procedures, and equipment operations and that refer to this section for detailed description of submittal types.

c. The technical paragraphs referred to herein are those paragraphs in PART 2 - PRODUCTS and PART 3 - EXECUTION of the technical

sections that describe products, systems, installation procedures, equipment, and test methods.

1.4 ELECTRICAL CHARACTERISTICS

Electrical characteristics for this project shall be 60 Hz, and 480 volts secondary, three phase, four wire.

1.5 ADDITIONAL SUBMITTALS INFORMATION

Submittals required in other sections that refer to this section must conform to the following additional requirements as applicable.

1.5.1 Shop Drawings (SD-02)

Include wiring diagrams and installation details of equipment indicating proposed location, layout and arrangement, control panels, accessories, piping, ductwork, and other items that must be shown to ensure a coordinated installation. Wiring diagrams shall identify circuit terminals and indicate the internal wiring for each item of equipment and the interconnection between each item of equipment. Drawings shall indicate adequate clearance for operation, maintenance, and replacement of operating equipment devices.

1.5.2 Product Data (SD-03)

Submittal shall include performance and characteristic curves.

1.6 QUALITY ASSURANCE

1.6.1 Regulatory Requirements

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction," or words of similar meaning, to mean the Contracting Officer. Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory provisions of NFPA 70 unless more stringent requirements are specified or indicated.

1.6.2 Standard Products

Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship. Products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year period shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been on sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2-year period. Where two or more items of the same class of equipment are required, these items shall be products of a single manufacturer; however, the component parts of the item need not be the products of the same manufacturer unless stated in the technical section.

1.6.2.1 Alternative Qualifications

Products having less than a 2-year field service record will be acceptable

if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturers' factory or laboratory tests, is furnished.

1.6.2.2 Material and Equipment Manufacturing Date

Products manufactured more than 3 years prior to date of delivery to site shall not be used, unless specified otherwise.

1.7 WARRANTY

The equipment items shall be supported by service organizations which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

1.8 POSTED OPERATING INSTRUCTIONS

Provide for each system and principal item of equipment as specified in the technical sections for use by operation and maintenance personnel. The operating instructions shall include the following:

a. Wiring diagrams, control diagrams, and control sequence for each principal system and item of equipment.

b. Start up, proper adjustment, operating, lubrication, and shutdown procedures.

c. Safety precautions.

d. The procedure in the event of equipment failure.

e. Other items of instruction as recommended by the manufacturer of each system or item of equipment.

Print or engrave operating instructions and frame under glass or in approved laminated plastic. Post instructions where directed. For operating instructions exposed to the weather, provide weather-resistant materials or weatherproof enclosures. Operating instructions shall not fade when exposed to sunlight and shall be secured to prevent easy removal or peeling.

1.9 MANUFACTURER'S NAMEPLATE

Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

1.10 FIELD FABRICATED NAMEPLATES

ASTM D 709. Provide laminated plastic nameplates for each equipment enclosure, relay, switch, and device; as specified in the technical sections or as indicated on the drawings. Each nameplate inscription shall identify the function and, when applicable, the position. Nameplates shall be melamine plastic, 0.125 inch thick, white with black center core. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the core. Minimum size of nameplates shall be one by 2.5 inches. Lettering shall be a minimum of

0.25 inch high normal block style.

1.11 ELECTRICAL REQUIREMENTS

Electrical installations shall conform to IEEE C2, NFPA 70, and requirements specified herein.

1.12 INSTRUCTION TO GOVERNMENT PERSONNEL

Where specified in the technical sections, furnish the services of competent instructors to give full instruction to designated Government personnel in the adjustment, operation, and maintenance of the specified systems and equipment, including pertinent safety requirements as required. Instructors shall be thoroughly familiar with all parts of the installation and shall be trained in operating theory as well as practical operation and maintenance work. Instruction shall be given during the first regular work week after the equipment or system has been accepted and turned over to the Government for regular operation. The number of man-days (8 hours per day) of instruction furnished shall be as specified in the individual section. When more than 4 man-days of instruction are specified, use approximately half of the time for classroom instruction. Use other time for instruction with equipment or system. When significant changes or modifications in the equipment or system are made under the terms of the contract, provide additional instructions to acquaint the operating personnel with the changes or modifications.

PART 2 PRODUCTS

2.1 FACTORY APPLIED FINISH

Electrical equipment shall have factory-applied painting systems which shall, as a minimum, meet the requirements of NEMA 250 corrosion-resistance test and the additional requirements specified in the technical sections.

PART 3 EXECUTION

3.1 FIELD APPLIED PAINTING

Paint electrical equipment as required to match finish of adjacent surfaces or to meet the indicated or specified safety criteria. Painting shall be as specified in Section 09 90 00 PAINTS AND COATINGS or in the section specifying the associated electrical equipment.

3.2 FIELD FABRICATED NAMEPLATE MOUNTING

Provide number, location, and letter designation of nameplates as indicated. Fasten nameplates to the device with a minimum of two sheet-metal screws or two rivets.

3.3 WARNING SIGN MOUNTING

Provide the number of signs required to be readable from each accessible side, but space the signs a maximum of 30 feet apart.

-- End of Section --

SECTION 26 09 23.00 40

LIGHTING CONTROL DEVICES
**08/10**

PART 1 GENERAL

1.1 REFERENCES

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

GREEN SEAL (GS)

| | |
|---|---|
| GC-12 | (1997) Occupancy Sensors |

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

| | |
|---|---|
| NEMA ICS 1 | (2000; R 2005; R 2008) Standard for Industrial Control and Systems: General Requirements |
| NEMA ICS 2 | (2000; Add/Errata 2000; Errata 2006; R 2005; Errata 2008) Standard for Controllers, Contactors, and Overload Relays Rated 600 V |
| NEMA ICS 6 | (1993; R 2001; R 2006) Enclosures |

UNDERWRITERS LABORATORIES (UL)

| | |
|---|---|
| UL 20 | (2010) General-Use Snap Switches |

1.2 GENERAL REQUIREMENTS

Section 26 00 00.00 20 BASIC ELECTRICAL MATERIALS AND METHODS applies to work specified in this section.

Submit Installation Drawings for light-sensitive and occupancy sensitive control devices in accordance with the manufacturer's recommended instructions for installation.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

The occupancy sensors equipment vendor shall provide shop drawings that provide a dimensioned layout for each device in the facility. The coverage range and recommended device settings shall be indicated on the shop drawings.

SD-03 Product Data

Submit Installation Drawings for occupancy sensors in accordance with paragraph entitled, "General Requirements," of this section.

Dimming ballast controls; G

Light Level Sensor; G

Dimmer Switch; G

Lighting Contactor; G

Occupancy Sensors; G

SD-06 Test Reports

Submit test reports for System Operation Tests in the presence of the Contracting Officer.

SD-08 Manufacturer's Instructions

Submit operational instructions for occupancy sensorsconsisting of the manufacturer's recommended procedures for operation.

PART 2 PRODUCTS

2.1 DIMMING BALLAST CONTROLS

The single slide dimming ballast control dimmer with on/off control, compatible with the ballast and control the ballast light output over the full dimming range, which are approved by the ballast manufacturer.

2.2 LIGHT LEVEL SENSOR

Provide UL listed light level sensor capable of detecting changes in ambient lighting levels, with a dimming range of 20 percent to 100 percent, minimum, and designed for use with dimming ballast and voltage system to which they are connected. Provide with sensor capable of controlling 40 electronic dimming ballast, minimum, with a sensor light level adjustable with a set level range from 10 to 100 footcandles, minimum. Provide a sensor with a bypass function to electrically override sensor control.

2.3 FLUORESCENT DIMMER SWITCH

UL 20, single-pole, 600 watt, 120 volt ac, full-range rotary on-off type with built-in electromagnetic interference filter. Wattage rating shall be selected based on load. Fluorescent dimmer switch must be compatible with dimming ballast of controlled fixture.

2.4 LIGHTING CONTACTOR

Provide NEMA ICS 2, electrically held contactor, rated 120/277 volts, 30 amperes, and 8 poles, with coils rated 120 volts. Provide in NEMA 4 enclosure conforming to NEMA ICS 6. Provide contactor with silver alloy double-break contacts requiring no arcing contacts. Provide contactor with hand-off-automatic selector switch.

## 2.5 OCCUPANCY SENSORS

Provide UL listed occupancy sensor complying with GC-12. Design occupancy sensors and power packs to operate on the voltage indicated. Provide sensors and power packs with circuitry that only allows load switching at or near zero current crossing of supply voltage, with mounting as indicated. Provide sensor with an LED occupant detection indicator, manual off button, adjustable sensitivity, and adjustable delayed-off time range of 5 minutes to 15 minutes. Provide color matching the adjacent wall plates as specified in Section 26 20 00 ELECTRICAL DISTRIBUTION SYSTEM, wall mounted sensors, and white ceiling mounted sensors. Provide ceiling mounted sensors with 360 degree coverage unless otherwise indicated. Provide the types of sensors shown on the drawings. They are of the following general types:

a. Provide crystal controlled ultrasonic sensor which does not cause detection interference between adjacent sensors.

b. Provide infrared sensors with a daylight filter, and a fresnel lens that is applicable to space to be controlled.

c. Ultrasonic/Infrared Combination Sensor

d. Microwave and audiophonic sensors.

(1) Occupancy detection to turn lights on requires both ultrasonic and infrared sensor detection, such that the lights remain on if either the ultrasonic or infrared sensor detects movement. Provide infrared sensor with a lens selected for indicated usage and daylight filter to prevent short wavelength infrared interference. Provide crystal controlled ultrasonic sensor frequency.

## 2.6 EQUIPMENT IDENTIFICATION

### 2.6.1 Manufacturer's Nameplate

Provide each item of equipment with a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in an inconspicuous place; the nameplate of the distributing agent is not acceptable.

### 2.6.2 Labels

Provide labeled control devices, clearly marked for operation of specific lighting functions according to type. Note the following devices characteristics in the format "Use Only_____":

Make markings related to control device type clear and locate to be readily visible to service personnel, but unseen from normal viewing angles when devices are in place.

# PART 3 EXECUTION

## 3.1 INSTALLATION

### 3.1.1 Photoconductive Control Devices

Install photoconductive control devices in accordance with the

manufacturer's installation instructions.

3.1.2 Time Control Switches

Install switches with not less than four 1/4 inch bolts. The use of sheet metal screws is not allowed.

3.1.3 Manual and Safety Switches

Coordinate terminal lugs with the wire size. Securely fasten switches to the supporting structure or wall using not less than four 1/4 inch bolts. The use of sheet metal screws is not allowed.

3.1.4 Magnetic Contactors

Provide magnetic contactors electrically held, electrically operated, conforming to NEMA ICS 1 and NEMA ICS 2, suitable for 120 volts or 277 volts as shown, single phase, 60 Hz, with coil voltage of 120 volts. Provide with maximum continuous ampere rating and number of poles as indicated on drawings. Provide enclosures for contactors mounted indoors conforming to NEMA ICS 6, Type 1. Provide each contactor with a spare, normally open auxiliary contact.

Coordinate terminal lugs with the wire size. Securely fasten switches to the supporting structure or wall using not less than four 1/4 inch bolts. The use of sheet metal screws is not allowed.

3.2 FIELD TESTING

Demonstrate that photoconductive control devices operate satisfactorily in the presence of the Contracting Officer.

Perform System Operation Tests in accordance with referenced standards in this section.

-- End of Section --

SECTION 26 20 00

ELECTRICAL DISTRIBUTION SYSTEM
**08/08**

PART 1 GENERAL

1.1 REFERENCES

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

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM B 1 | (2001; R 2007) Standard Specification for Hard-Drawn Copper Wire |
| ASTM B 8 | (2004) Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft |
| ASTM D 709 | (2001; R 2007) Laminated Thermosetting Materials |

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

| | |
|---|---|
| IEEE 100 | (2000; Archived) The Authoritative Dictionary of IEEE Standards Terms |
| IEEE C2 | (2012; Errata 1 2012; INT 1-4 2012; Errata 2 2013; INT 5-7 2013; INT 8-10 2014; INT 11 2015) National Electrical Safety Code |

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

| | |
|---|---|
| ANSI C80.1 | (2005) American National Standard for Electrical Rigid Steel Conduit (ERSC) |
| ANSI C80.3 | (2005) American National Standard for Electrical Metallic Tubing (EMT) |
| ANSI C80.5 | (2005) American National Standard for Electrical Rigid Aluminum Conduit |
| ANSI Z535.4 | (2007) American National Standard for Product Safety Signs and Labels |
| NEMA 250 | (2014) Enclosures for Electrical Equipment (1000 Volts Maximum) |
| NEMA FU 1 | (2002; R 2007) Low Voltage Cartridge Fuses |
| NEMA ICS 1 | (2000; R 2005; R 2008) Standard for Industrial Control and Systems: General Requirements |
| NEMA ICS 2 | (2000; Add/Errata 2000; Errata 2006; R |

| | |
|---|---|
| | 2005; Errata 2008) Standard for Controllers, Contactors, and Overload Relays Rated 600 V |
| NEMA ICS 4 | (2005) Terminal Blocks |
| NEMA ICS 6 | (1993; R 2001; R 2006) Enclosures |
| NEMA KS 1 | (2001; R 2006) Enclosed and Miscellaneous Distribution Equipment Switches (600 V Maximum) |
| NEMA RN 1 | (2005) Polyvinyl-Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit |
| NEMA ST 20 | (1992; R 1997) Standard for Dry-Type Transformers for General Applications |
| NEMA TC 2 | (2003) Standard for Electrical Polyvinyl Chloride (PVC) Conduit |
| NEMA TC 3 | (2004) Standard for Polyvinyl Chloride (PVC) Fittings for Use With Rigid PVC Conduit and Tubing |
| NEMA VE 1 | (2009) Standard for Metal Cable Tray Systems |
| NEMA WD 1 | (1999; R 2005) Standard for General Color Requirements for Wiring Devices |
| NEMA WD 6 | (2002; R 2008) Wiring Devices Dimensions Specifications |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |
| NFPA 70E | (2015; ERTA 1 2015) Standard for Electrical Safety in the Workplace |
| NFPA 780 | (2011) Standard for the Installation of Lightning Protection Systems |

TELECOMMUNICATIONS INDUSTRY ASSOCIATION (TIA)

| | |
|---|---|
| TIA J-STD-607-A | (2002) Commercial Building Grounding (Earthing) and Bonding Requirements for Telecommunications |
| TIA-568-C.1 | (2009) Commercial Building Telecommunications Cabling Standard |
| TIA-569-B | (2004; Amd 1 2009) Commercial Building Standard for Telecommunications Pathways |

and Spaces

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

| | |
|---|---|
| 29 CFR 1910.147 | Control of Hazardous Energy (Lock Out/Tag Out) |

UNDERWRITERS LABORATORIES (UL)

| | |
|---|---|
| UL 1 | (2005; R 2007) Standard for Flexible Metal Conduit |
| UL 1010 | (2006) Receptacle-Plug Combinations for Use in Hazardous (Classified) Locations |
| UL 1063 | (2006) Machine-Tool Wires and Cables |
| UL 1242 | (2006; Rev thru Jul 2007) Standard for Electrical Intermediate Metal Conduit -- Steel |
| UL 1449 | (2006; R 2009 - R 2010) Surge Protective Devices |
| UL 1660 | (2004; R thru 2008) Liquid-Tight Flexible Nonmetallic Conduit |
| UL 198M | (2003; R 2007) Standard for Mine-Duty Fuses |
| UL 20 | (2010) General-Use Snap Switches |
| UL 360 | (2009; R 2009) Liquid-Tight Flexible Steel Conduit |
| UL 4248 | (2007) UL Standard for Safety Fuseholders |
| UL 44 | (2005; R 2005) Thermoset-Insulated Wires and Cables |
| UL 467 | (2007) Grounding and Bonding Equipment |
| UL 486A-486B | (2003; R 2004 - R 2010) Wire Connectors |
| UL 486C | (2004; R 2010) Splicing Wire Connectors |
| UL 489 | (2009) Molded-Case Circuit Breakers, Molded-Case Switches, and Circuit-Breaker Enclosures |
| UL 498 | (2001; R 2001 - R 2010) Attachment Plugs and Receptacles |
| UL 5 | (2004; R 2007; R2009; R2010) Surface Metal Raceways and Fittings |
| UL 50 | (2007) Enclosures for Electrical Equipment, Non-environmental Considerations |
| UL 506 | (2008; R 2010) Specialty Transformers |

| | |
|---|---|
| UL 508 | (1999; R 1999 - R 2010) Industrial Control Equipment |
| UL 510 | (2005; R 2008) Polyvinyl Chloride, Polyethylene and Rubber Insulating Tape |
| UL 514A | (2004; R 2005 ; R 2007; R 2009; R 2010) Metallic Outlet Boxes |
| UL 514B | (2004; R 2006; R 2007; R 2009) Conduit, Tubing and Cable Fittings |
| UL 514C | (1996; Rev thru Sep 2009) Nonmetallic Outlet Boxes, Flush-Device Boxes, and Covers |
| UL 6 | (2007) Electrical Rigid Metal Conduit-Steel |
| UL 651 | (2005; R thru 2010) Standard for Schedule 40 and 80 Rigid PVC Conduit and Fittings |
| UL 67 | (2009) Standard for Panelboards |
| UL 674 | (2003; R thru 2008) Electric Motors and Generators for Use in Division 1 Hazardous (Classified) Locations |
| UL 698 | (2006) Industrial Control Equipment for use in Hazardous (Classified) Locations |
| UL 6A | (2008) Electrical Rigid Metal Conduit - Aluminum, Red Brass, and Stainless Steel |
| UL 797 | (2007) Electrical Metallic Tubing -- Steel |
| UL 817 | (2001; R thru 2009) Standard for Cord Sets and Power-Supply Cords |
| UL 83 | (2008) Thermoplastic-Insulated Wires and Cables |
| UL 869A | (2006) Reference Standard for Service Equipment |
| UL 877 | (1993; R thru 2009) Standard for Circuit Breakers and Circuit-Breaker Enclosures for Use in Hazardous (Classified) Locations |
| UL 886 | (1994; R thru 2005) Standard for Outlet Boxes and Fittings for Use in Hazardous (Classified) Locations |
| UL 943 | (2006; R 2008; R 2010) Ground-Fault Circuit-Interrupters |

1.2 DEFINITIONS

Unless otherwise specified or indicated, electrical and electronics terms

used in these specifications, and on the drawings, shall be as defined in IEEE 100.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Panelboards; G

Transformers; G

Cable trays; G

Include wiring diagrams and installation details of equipment indicating proposed location, layout and arrangement, control panels, accessories, piping, ductwork, and other items that must be shown to ensure a coordinated installation. Wiring diagrams shall identify circuit terminals and indicate the internal wiring for each item of equipment and the interconnection between each item of equipment. Drawings shall indicate adequate clearance for operation, maintenance, and replacement of operating equipment devices.

Marking strips drawings; G

SD-03 Product Data

Receptacles; G

Circuit breakers; G

Switches; G

Transformers; G

Enclosed circuit breakers; G

Motor controllers; G

Manual motor starters; G

CATV outlets; G

Telecommunications Grounding Busbar; G

Surge protective devices; G

Submittals shall include performance and characteristic curves.

SD-06 Test Reports

600-volt wiring test; G

Grounding system test; G

Ground-fault receptacle test; G

SD-07 Certificates

Fuses; G

SD-10 Operation and Maintenance Data

Electrical Systems, Data Package 5; G

Submit operation and maintenance data in accordance with Section 01 78 20, OPERATION AND MAINTENANCE DATA and as specified herein.

1.4 QUALITY ASSURANCE

1.4.1 Fuses

Submit coordination data as specified in paragraph, FUSES of this section.

1.4.2 Regulatory Requirements

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word, "shall" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction," or words of similar meaning, to mean the Contracting Officer. Equipment, materials, installation, and workmanship shall be in accordance with the mandatory and advisory provisions of NFPA 70 unless more stringent requirements are specified or indicated.

1.4.3 Standard Products

Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship. Products shall have been in satisfactory commercial or industrial use for 2 years prior to bid opening. The 2-year period shall include applications of equipment and materials under similar circumstances and of similar size. The product shall have been on sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the 2-year period. Where two or more items of the same class of equipment are required, these items shall be products of a single manufacturer; however, the component parts of the item need not be the products of the same manufacturer unless stated in this section.

1.4.3.1 Alternative Qualifications

Products having less than a 2-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturers' factory or laboratory tests, is furnished.

1.4.3.2 Material and Equipment Manufacturing Date

Products manufactured more than 3 years prior to date of delivery to site shall not be used, unless specified otherwise.

1.5 MAINTENANCE

1.5.1 Electrical Systems

Submit operation and maintenance manuals for electrical systems that provide basic data relating to the design, operation, and maintenance of the electrical distribution system for the building. This shall include:

a. Single line diagram of the "as-built" building electrical system.

b. Schematic diagram of electrical control system (other than HVAC, covered elsewhere).

c. Manufacturers' operating and maintenance manuals on active electrical equipment.

1.6 WARRANTY

The equipment items shall be supported by service organizations which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

PART 2 PRODUCTS

2.1 MATERIALS AND EQUIPMENT

Materials, equipment, and devices shall, as a minimum, meet requirements of UL, where UL standards are established for those items, and requirements of NFPA 70.

2.2 CONDUIT AND FITTINGS

Shall conform to the following:

2.2.1 Rigid Metallic Conduit

2.2.1.1 Rigid, Threaded Zinc-Coated Steel Conduit

ANSI C80.1, UL 6.

2.2.1.2 Rigid Aluminum Conduit

ANSI C80.5, UL 6A.

2.2.2 Rigid Nonmetallic Conduit

PVC Type EPC-40 in accordance with NEMA TC 2,UL 651.

2.2.3 Intermediate Metal Conduit (IMC)

UL 1242, zinc-coated steel only.

2.2.4 Electrical, Zinc-Coated Steel Metallic Tubing (EMT)

UL 797, ANSI C80.3.

2.2.5 Plastic-Coated Rigid Steel and IMC Conduit

NEMA RN 1, Type 40( 40 mils thick).

2.2.6 Flexible Metal Conduit

UL 1.

2.2.6.1 Liquid-Tight Flexible Metal Conduit, Steel

UL 360.

2.2.7 Fittings for Metal Conduit, EMT, and Flexible Metal Conduit

UL 514B. Ferrous fittings shall be cadmium- or zinc-coated in accordance with UL 514B.

2.2.7.1 Fittings for Rigid Metal Conduit and IMC

Threaded-type. Split couplings unacceptable.

2.2.7.2 Fittings for EMT

Steel compression type.

2.2.8 Fittings for Rigid Nonmetallic Conduit

NEMA TC 3 for PVC, and UL 514B.

2.2.9 Liquid-Tight Flexible Nonmetallic Conduit

UL 1660.

2.3 SURFACE RACEWAY

2.3.1 Surface Metal Raceway

UL 5, two-piece painted steel, totally enclosed, snap-cover type. Provide multiple outlet-type raceway with grounding-type receptacle where indicated. Receptacles shall be as specified herein and shall be spaced minimum of one every 24 inches.

2.4 CABLE TRAYS

NEMA VE 1. Cable trays shall form a wireway system, and shall be of nominal 3 inch depth. Cable trays shall be constructed of steel that has been zinc-coated after fabrication. Trays shall include splice and end plates, dropouts, and miscellaneous hardware. Edges, fittings, and hardware shall be finished free from burrs and sharp edges. Fittings shall have not less than load-carrying ability of straight tray sections and shall have manufacturer's minimum standard radius. Radius of bends shall be 12 inches.

2.4.1 Basket-Type Cable Trays

Provide size as indicated.

## 2.5 OUTLET BOXES AND COVERS

UL 514A, cadmium- or zinc-coated, if ferrous metal. UL 514C, if nonmetallic.

### 2.5.1 Floor Outlet Boxes

Boxes shall be adjustable and concrete tight. Each outlet shall consist of cast-metal body with threaded openings, for conduits, adjustable brass flange ring, and cover plate with duplex receptacle type flip open brass covers for both power and communications components.

### 2.5.2 Outlet Boxes for Telecommunications System

Provide standard type 4 inches square by 2 1/8 inches deep. Depth of boxes shall be large enough to allow manufacturers' recommended conductor bend radii. Outlet boxes for fiber optic telecommunication outlets shall include a minimum 3/8 inch deep single or two gang plaster ring as shown and installed using a minimum 1 inch conduit system.

### 2.5.3 Clock Outlet for Use in Other Than Wired Clock System

Provide outlet box with plastic cover, where required, and single receptacle with clock outlet plate. Receptacle shall be recessed sufficiently within box to allow complete insertion of standard cap, flush with plate. Suitable clip or support for hanging clock shall be secured to top plate. Material and finish of plate shall be as specified in paragraph DEVICE PLATES of this section.

## 2.6 CABINETS, JUNCTION BOXES, AND PULL BOXES

Volume greater than 100 cubic inches, UL 50, hot-dip, zinc-coated, if sheet steel.

## 2.7 WIRES AND CABLES

Wires and cables shall meet applicable requirements of NFPA 70 and UL for type of insulation, jacket, and conductor specified or indicated. Wires and cables manufactured more than 12 months prior to date of delivery to site shall not be used.

### 2.7.1 Conductors

Conductors No. 8 AWG and larger diameter shall be stranded. Conductors No. 10 AWG and smaller diameter shall be solid, except that conductors for remote control, alarm, and signal circuits, classes 1, 2, and 3, shall be stranded unless specifically indicated otherwise. Conductor sizes and capacities shown are based on copper, unless indicated otherwise. All conductors shall be copper. Conductors indicated to be No. 6 AWG or smaller diameter shall be copper.

#### 2.7.1.1 Minimum Conductor Sizes

Minimum size for branch circuits shall be No. 12 AWG; for Class 1 remote-control and signal circuits, No. 14 AWG; for Class 2 low-energy, remote-control and signal circuits, No. 16 AWG; and for Class 3 low-energy, remote-control, alarm and signal circuits, No. 22 AWG.

2.7.2 Color Coding

Provide for service, feeder, branch, control, and signaling circuit conductors. Color shall be green for grounding conductors and white for neutrals; except where neutrals of more than one system are installed in same raceway or box, other neutrals shall be white with a different colored (not green) stripe for each. Color of ungrounded conductors in different voltage systems shall be as follows:

a. 208/120 volt, three-phase

(1) Phase A - black

(2) Phase B - red

(3) Phase C - blue

b. 480/277 volt, three-phase

(1) Phase A - brown

(2) Phase B - orange

(3) Phase C - yellow

c. On three-phase, four-wire delta system, high leg shall be orange, as required by NFPA 70.

2.7.3 Insulation

Unless specified or indicated otherwise or required by NFPA 70, power and lighting wires shall be 600-volt, Type THWN/THHN conforming to UL 83 where run in dry locations or Type XHHW conforming to UL 44 in wet locations, wire may be type TW conforming to UL 83; remote-control and signal circuits shall be Type TW or TF, conforming to UL 83. Where lighting fixtures require 90-degree Centigrade (C) conductors, provide only conductors with 90-degree C insulation or better.

2.7.4 Bonding Conductors

ASTM B 1, solid bare copper wire for sizes No. 8 AWG and smaller diameter; ASTM B 8, Class B, stranded bare copper wire for sizes No. 6 AWG and larger diameter.

2.7.4.1 Telecommunications Bonding Backbone (TBB)

Provide a copper conductor TBB in accordance with TIA J-STD-607-A. The TBB shall be a minimum No. 1 AWG.

2.7.4.2 Bonding Conductor for Telecommunications

Provide a copper conductor Bonding Conductor for Telecommunications between the telecommunications main grounding busbar (TMGB) and the electrical service ground in accordance with TIA J-STD-607-A. The bonding conductor for telecommunications shall be sized the same as the TBB.

2.7.5 Cord Sets and Power-Supply Cords

UL 817.

## 2.8 SPLICES AND TERMINATION COMPONENTS

UL 486A-486B for wire connectors and UL 510 for insulating tapes. Connectors for No. 10 AWG and smaller diameter wires shall be insulated, pressure-type in accordance with UL 486A-486B or UL 486C (twist-on splicing connector). Provide solderless terminal lugs on stranded conductors.

## 2.9 DEVICE PLATES

Provide UL listed, one-piece device plates for outlets to suit the devices installed. For metal outlet boxes, plates on unfinished walls shall be of zinc-coated sheet steel or cast metal having round or beveled edges. Plates on finished walls shall be satin finish stainless steel or brushed-finish aluminum, minimum 0.03 inch thick. Screws shall be machine-type with countersunk heads in color to match finish of plate. Sectional type device plates will not be permitted. Plates installed in wet locations shall be gasketed and UL listed for "wet locations."

## 2.10 SWITCHES

### 2.10.1 Toggle Switches

NEMA WD 1, UL 20, single pole, double pole, three-way, and four-way, totally enclosed with bodies of thermoplastic or thermoset plastic and mounting strap with grounding screw. Handles shall be thermoplastic of color selected by the Contracting Officer. Wiring terminals shall be screw-type, side-wired or of the solderless pressure type having suitable conductor-release arrangement. Contacts shall be silver-cadmium and contact arm shall be one-piece copper alloy. Switches shall be rated quiet-type ac only, 120/277 volts, with current rating and number of poles indicated.

### 2.10.2 Switch with Red Pilot Handle

NEMA WD 1. Provide pilot lights that are integrally constructed as a part of the switch's handle. The pilot light shall be red and shall illuminate whenever the switch is closed or "on". The pilot lighted switch shall be rated 20 amps and 120 volts or 277 volts as indicated. Provide the circuit's neutral conductor to each switch with a pilot light.

### 2.10.3 Breakers Used as Switches

For 120- and 277-Volt fluorescent fixtures, mark breakers "SWD" in accordance with UL 489.

### 2.10.4 Disconnect Switches

NEMA KS 1. Provide heavy duty-type switches where indicated, where switches are rated higher than 240 volts, and for double-throw switches. Fused switches shall utilize Class R fuseholders and fuses, unless indicated otherwise. Switches serving as motor-disconnect means shall be horsepower rated. Provide switches in NEMA 1 enclosure where installed indoors and NEMA 3R enclosures where installed outdoors per NEMA ICS 6.

## 2.11 FUSES

NEMA FU 1. Provide complete set of fuses for each fusible switch.

Time-current characteristics curves of fuses serving motors or connected in series with circuit breakers or other circuit protective devices shall be coordinated for proper operation. Submit coordination data for approval. Fuses shall have voltage rating not less than circuit voltage.

2.11.1 Fuseholders

Provide in accordance with UL 4248.

2.11.2 Cartridge Fuses, Current Limiting Type (Class R)

UL 198M, Class RK-1 time-delay type. Associated fuseholders shall be Class R only.

2.11.3 Cartridge Fuses, High-Interrupting Capacity, Current Limiting Type (Classes J, L, and CC)

UL 198M, Class J for zero to 600 amperes, Class L for 601 to 6,000 amperes, and Class CC for zero to 30 amperes.

2.11.4 Cartridge Fuses, Current Limiting Type (Class T)

UL 198M, Class T for zero to 1,200 amperes, 300 volts; and zero to 800 amperes, 600 volts.

2.12 RECEPTACLES

UL 498, hard use, heavy-duty, grounding-type. Ratings and configurations shall be as indicated. Bodies shall be of color selected by the Contracting Officer as per NEMA WD 1. Face and body shall be thermoplastic supported on a metal mounting strap. Dimensional requirements shall be per NEMA WD 6. Provide screw-type, side-wired wiring terminals. Connect grounding pole to mounting strap. The receptacle shall contain triple-wipe power contacts and double or triple-wipe ground contacts.

2.12.1 Weatherproof Receptacles

Provide in cast metal box with gasketed, weatherproof, cast-metal cover plate and gasketed cap over each receptacle opening. Provide caps with a spring-hinged flap. Receptacle shall be UL listed for use in "wet locations with plug in use."

2.12.2 Ground-Fault Circuit Interrupter Receptacles

UL 943, duplex type for mounting in standard outlet box. Device shall be capable of detecting current leak of 6 milliamperes or greater and tripping per requirements of UL 943 for Class A GFCI devices. Provide screw-type, side-wired wiring terminals or pre-wired (pigtail) leads.

2.12.3 Special Purpose Receptacles

Receptacles indicated with other configurations shown shall be of industrial grade quality, and shall be furnished with appropriate flush mount boxes with brushed stainless steel wall plates.

2.12.4 Plugs

Provide heavy-duty, rubber-covered cord of required size, install plugs

thereon, and attach to equipment. Plugs shall be UL listed with receptacles, complete with grounding blades. Where equipment is not available, turn over plugs and cord assemblies to the Government.

2.12.5 Range Receptacles

NEMA 14-50 configuration, rated 50 amperes, 125/250 volts. Furnish one matching plug with 6 foot cord, with each receptacle.

2.12.6 Dryer Receptacles

NEMA 14-30 configuration, rated 30 amperes, 125/250 volts. Furnish one matching plug with 6 foot cord, with each receptacle.

2.12.7 Tamper-Resistant Receptacles

Provide duplex receptacle with mechanical sliding shutters that prevent the insertion of small objects into its contact slots.

2.13 PANELBOARDS

UL 67 and UL 50 having a short-circuit current rating as indicated. Panelboards for use as service disconnecting means shall additionally conform to UL 869A. Panelboards shall be circuit breaker-equipped. Design shall be such that individual breakers can be removed without disturbing adjacent units or without loosening or removing supplemental insulation supplied as means of obtaining clearances as required by UL. "Specific breaker placement" is required in panelboards to match the breaker placement indicated in the panelboard schedule on the drawings. Use of "Subfeed Breakers" is not acceptable unless specifically indicated otherwise. Main breaker shall be "separately" mounted "above" or "below" branch breakers. Where "space only" is indicated, make provisions for future installation of breakers.Directories shall indicate load served by each circuit in panelboard. Directories shall also indicate source of service to panelboard (e.g., Panel PA served from Panel MDP). Provide new directories for existing panels modified by this project as indicated. Type directories and mount in holder behind transparent protective covering. Panelboards shall be listed and labeled for their intended use. Panelboard shall have nameplates in accordance with paragraph FIELD FABRICATED NAMEPLATES.

2.13.1 Enclosure

Enclosures shall meet the requirements of UL 50. All cabinets shall be fabricated from sheet steel of not less than No. 10 gauge if flush-mounted or mounted outdoors, and not less than No. 12 gauge if surface-mounted indoors, with full seam-welded box ends. Cabinets mounted outdoors or flush-mounted shall be hot-dipped galvanized after fabrication. Cabinets shall be painted in accordance with paragraph PAINTING. Outdoor cabinets shall be of NEMA 3R raintight with conduit hubs welded to the cabinet. Front edges of cabinets shall be form-flanged or fitted with structural shapes welded or riveted to the sheet steel, for supporting the panelboard front. All cabinets shall be so fabricated that no part of any surface on the finished cabinet shall deviate from a true plane by more than 1/8 inch. Holes shall be provided in the back of indoor surface-mounted cabinets, with outside spacers and inside stiffeners, for mounting the cabinets with a 1/2 inch clear space between the back of the cabinet and the wall surface. Flush doors shall be mounted on hinges that expose only the hinge roll to view when the door is

closed. Each door shall be fitted with a combined catch and lock, except that doors over 24 inches long shall be provided with a three-point latch having a knob with a T-handle, and a cylinder lock. Two keys shall be provided with each lock, and all locks shall be keyed alike. Finished-head cap screws shall be provided for mounting the panelboard fronts on the cabinets.

2.13.2 Panelboard Buses

All panelboard buses shall be copper or tin-plated copper. Support bus bars on bases independent of circuit breakers. Main buses and back pans shall be designed so that breakers may be changed without machining, drilling, or tapping. Provide isolated neutral bus in each panel for connection of circuit neutral conductors. Provide separate ground bus identified as equipment grounding bus per UL 67 for connecting grounding conductors; bond to steel cabinet.

2.13.3 Circuit Breakers

UL 489, thermal magnetic-type or solid state-type having a minimum short-circuit current rating equal to the short-circuit current rating of the panelboard in which the circuit breaker shall be mounted. Breaker terminals shall be UL listed as suitable for type of conductor provided. Where indicated on the drawings, provide circuit breakers with shunt trip devices. Series rated circuit breakers and plug-in circuit breakers are unacceptable.

2.13.3.1 Multipole Breakers

Provide common trip-type with single operating handle. Breaker design shall be such that overload in one pole automatically causes all poles to open. Maintain phase sequence throughout each panel so that any three adjacent breaker poles are connected to Phases A, B, and C, respectively.

2.13.3.2 Circuit Breaker With GFCI

UL 943 and NFPA 70. Provide with "push-to-test" button, visible indication of tripped condition, and ability to detect and trip on current imbalance of 6 milliamperes or greater per requirements of UL 943 for Class A GFCI GFI devices, for personnel protection, and 20 milliamperes or greater per requirements of UL 943 for Class B GFCI per equipment protection.

2.13.3.3 Circuit Breakers for HVAC Equipment

Circuit breakers for HVAC equipment having motors (group or individual) shall be marked for use with HACR type and UL listed as HACR type.

2.14 ENCLOSED CIRCUIT BREAKERS

UL 489. Individual molded case circuit breakers with voltage and continuous current ratings, number of poles, overload trip setting, and short circuit current interrupting rating as indicated. Enclosure type as indicated. Provide solid neutral.

2.15 TRANSFORMERS

NEMA ST 20, general purpose, dry-type, self-cooled, ventilated. Provide transformers in NEMA 1 enclosure. Transformer shall have 220 degrees C

insulation system for transformers 15 kVA and greater, and shall have 180 degrees C insulation for transformers rated 10 kVA and less, with temperature rise not exceeding 150 degrees C under full-rated load in maximum ambient of 40 degrees C.

## 2.16 MOTOR CONTROLLERS

UL 508, NEMA ICS 1, and NEMA ICS 2. Controllers shall have thermal overload protection in each phase and shall have one spare normally open and one spare normally closed auxiliary contact. Provide controllers for motors rated 1-hp and above with electronic phase-voltage monitors designed to protect motors from phase-loss, undervoltage, and overvoltage. Provide protection for motors from immediate restart by a time adjustable restart relay. Magnetic-type motor controllers shall have undervoltage protection when used with momentary-contact pushbutton stations or switches and shall have undervoltage release when used with maintained-contact pushbutton stations or switches. When used with pressure, float, or similar automatic-type or maintained-contact switch, controller shall have hand/off/automatic selector switch. Connections to selector switch shall be such that only normal automatic regulatory control devices are bypassed when switch is in "hand" position. Safety control devices, such as low and high pressure cutouts, high temperature cutouts, and motor overload protective devices, shall be connected in motor control circuit in "hand" and "automatic" positions. Control circuit connections to hand/off/automatic selector switch or to more than one automatic regulatory control device shall be made in accordance with indicated or manufacturer's approved wiring diagram. For each motor not in sight of controller or where controller disconnecting means is not in sight of motor location and driven machinery location, controller disconnecting means shall be capable of being locked in open position. As an alternative, provide a manually operated, lockable, nonfused switch which disconnects motor from supply source within sight of motor. Overload protective devices shall provide adequate protection to motor windings; be thermal inverse-time-limit type; and include manual reset-type pushbutton on outside of motor controller case. Cover of combination motor controller and manual switch or circuit breaker shall be interlocked with operating handle of switch or circuit breaker so that cover cannot be opened unless handle of switch or circuit breaker is in "off" position. Minimum short circuit withstand rating of combination motor controller shall be the same as the panelboard from which it is served. Provide controllers in hazardous locations with classifications as indicated.

### 2.16.1 Control Wiring

All control wire shall be stranded tinned copper switchboard wire with 600-volt flame-retardant insulation Type SIS meeting UL 44, or Type MTW meeting UL 1063, and shall pass the VW-1 flame tests included in those standards. Hinge wire shall have Class K stranding. Current transformer secondary leads shall be not smaller than No. 10 AWG. The minimum size of control wire shall be No. 14 AWG. Power wiring for 480-volt circuits and below shall be of the same type as control wiring and the minimum size shall be No. 12 AWG. Special attention shall be given to wiring and terminal arrangement on the terminal blocks to permit the individual conductors of each external cable to be terminated on adjacent terminal points.

2.16.2 Control Circuit Terminal Blocks

NEMA ICS 4. Control circuit terminal blocks for control wiring shall be molded or fabricated type with barriers, rated not less than 600 volts. The terminals shall be removable binding, fillister or washer head screw type, or of the stud type with contact and locking nuts. The terminals shall be not less than No. 10 in size and shall have sufficient length and space for connecting at least two indented terminals for 10 AWG conductors to each terminal. The terminal arrangement shall be subject to the approval of the Contracting Officer and not less than four (4) spare terminals or 10 percent, whichever is greater, shall be provided on each block or group of blocks. Modular, pull apart, terminal blocks will be acceptable provided they are of the channel or rail-mounted type. The Contractor shall submit data showing that the proposed alternate will accommodate the specified number of wires, are of adequate current-carrying capacity, and are constructed to assure positive contact between current-carrying parts.

2.16.2.1 Types of Terminal Blocks

a. Short-Circuiting Type: Short-circuiting type terminal blocks shall be furnished for all current transformer secondary leads and shall have provision for shorting together all leads from each current transformer without first opening any circuit. Terminal blocks shall meet the requirements of paragraph CONTROL CIRCUIT TERMINAL BLOCKS above.

b. Load Type: Load terminal blocks rated not less than 600 volts and of adequate capacity shall be provided for the conductors for NEMA Size 3 and smaller motor controllers and for other power circuits, except those for feeder tap units. The terminals shall be of either the stud type with contact nuts and locking nuts or of the removable screw type, having length and space for at least two indented terminals of the size required on the conductors to be terminated. For conductors rated more than 50 amperes, screws shall have hexagonal heads. Conducting parts between connected terminals shall have adequate contact surface and cross-section to operate without overheating. Each connected terminal shall have the circuit designation or wire number placed on or near the terminal in permanent contrasting color.

2.16.3 Control Circuits

Control circuits shall have maximum voltage of 24 volts derived from control transformer in same enclosure. Transformers shall conform to UL 506, as applicable. Transformers, other than transformers in bridge circuits, shall have primaries wound for voltage available and secondaries wound for correct control circuit voltage. Size transformers so that 80 percent of rated capacity equals connected load. Provide disconnect switch on primary side. Provide fuses in each ungrounded primary feeder. One secondary lead shall be fused; other shall be grounded.

2.16.4 Enclosures for Motor Controllers

NEMA ICS 6.

2.16.5 Multiple-Speed Motor Controllers and Reversible Motor Controllers

Across-the-line-type, electrically and mechanically interlocked.

Multiple-speed controllers shall have compelling relays and shall be multiple-button, station-type with pilot lights for each speed.

2.16.6 Pushbutton Stations

Provide with "start/stop" momentary contacts having one normally open and one normally closed set of contacts, and red lights to indicate when motor is running. Stations shall be heavy duty, oil-tight design.

2.17 MANUAL MOTOR STARTERS (MOTOR RATED SWITCHES)

Single, Double or Three pole as appropriate for the application designed for flush mounting unless otherwise noted with overload protection.

2.18 LOCKOUT REQUIREMENTS

Provide disconnecting means capable of being locked out for machines and other equipment to prevent unexpected startup or release of stored energy in accordance with 29 CFR 1910.147. Mechanical isolation of machines and other equipment shall be in accordance with requirements of Division 23, "Mechanical."

2.19 TELECOMMUNICATIONS SYSTEM

Provide system of telecommunications wire-supporting structures (pathway), including: outlet boxes, conduits with pull wires wireways, cable trays, and other accessories for telecommunications outlets and pathway in accordance with TIA-569-B and as specified herein.

2.20 COMMUNITY ANTENNA TELEVISION (CATV) SYSTEM

2.20.1 CATV Outlets

Provide flush mounted, 75-ohm, F-type connector outlet rated from 5 to 1000 MHz in faceplate of standard electrical outlet boxes. Faceplate shall be identical to those for switches and receptacles.

2.20.2 Backboards

Provide void-free, fire rated interior grade plywood, 3/4 inch thick, 4 by 8 feet or as indicated. Do not cover the fire stamp on the backboard. Paint with two coats of white flame-retardant paint.

2.21 GROUNDING AND BONDING EQUIPMENT

2.21.1 Ground Rods

UL 467. Ground rods shall be copper-clad steel, with minimum diameter of 3/4 inch and minimum length of 10 feet.

2.21.2 Ground Bus

A copper ground bus shall be provided in the electrical equipment rooms as indicated.

2.21.3 Telecommunications and CATV Grounding Busbar

Provide corrosion-resistant grounding busbar suitable for indoor installation in accordance with TIA J-STD-607-A. Busbars shall be plated

for reduced contact resistance. If not plated, the busbar shall be cleaned prior to fastening the conductors to the busbar, and an anti-oxidant shall be applied to the contact area to control corrosion and reduce contact resistance. Provide a telecommunications main grounding busbar (TMGB) in the telecommunications entrance facility. The telecommunications main grounding busbar (TMGB) shall be sized in accordance with the immediate application requirements and with consideration of future growth. Provide telecommunications grounding busbars with the following:

a. Predrilled copper busbar provided with holes for use with standard sized lugs,

b. Minimum dimensions of 0.25 in thick x 4 in wide with length of 18 inches minimum;

c. Listed by a nationally recognized testing laboratory.

2.22 HAZARDOUS LOCATIONS

Electrical materials, equipment, and devices for installation in hazardous locations, as defined by NFPA 70, shall be specifically approved by Underwriters' Laboratories, Inc., or Factory Mutual for particular "Class," "Division," and "Group" of hazardous locations involved. Boundaries and classifications of hazardous locations shall be as indicated. Equipment in hazardous locations shall comply with UL 877 for circuit breakers, UL 886 for outlet boxes and fittings, UL 1010 for receptacles, UL 674 for motors, and UL 698 for industrial controls.

2.23 MANUFACTURER'S NAMEPLATE

Each item of equipment shall have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

2.24 FIELD FABRICATED NAMEPLATES

ASTM D 709.Provide laminated plastic nameplates for each equipment enclosure, relay, switch, and device; as specified or as indicated on the drawings. Each nameplate inscription shall identify the function and, when applicable, the position. Nameplates shall be melamine plastic, 0.125 inch thick, white with black center core. Surface shall be matte finish. Corners shall be square. Accurately align lettering and engrave into the core. Minimum size of nameplates shall be one by 2.5 inches. Lettering shall be a minimum of 0.25 inch high normal block style.

2.25 WARNING SIGNS

Provide warning signs for flash protection in accordance with NFPA 70E and ANSI Z535.4 for switchboards, panelboards, industrial control panels, and motor control centers that are in other than dwelling occupancies and are likely to require examination, adjustment, servicing, or maintenance while energized. Provide field installed signs to warn qualified persons of potential electric arc flash hazards when warning signs are not provided by the manufacturer. The marking shall be clearly visible to qualified persons before examination, adjustment, servicing, or maintenance of the equipment.

2.26 FIRESTOPPING MATERIALS

Provide firestopping around electrical penetrations.

2.27 WIREWAYS

Wireways, gutters or electrical troughs shall not be used.

2.28 SURGE PROTECTIVE DEVICES

Provide parallel type surge protective devices which comply with UL 1449 at the service entrance, panelboards and all downstream panelboards. Provide surge protectors in a NEMA 1 enclosure per NEMA ICS 6. Provide the following modes of protection:

FOR SINGLE PHASE AND THREE PHASE WYE CONNECTED SYSTEMS-
Each phase to neutral ( L-N )
Neutral to ground ( N-G )
Phase to ground ( L-G )

Surge protective devices at the service entrance shall have a minimum surge current rating of 80,000 amperes per mode minimum. The maximum line to neutral (L-N) Suppressed Voltage Rating (SVR) shall be:

500V for 208Y/120V, three phase system
900V for 480Y/277V, three phase system

The minimum MCOV (Maximum Continuous Operating Voltage) rating shall be:

300/150V for 208Y/120V, three phase system
600/320V for 480Y/277V, three phase system

EMI/RFI filtering shall be provided for each mode with the capability to attenuate high frequency noise. Minimum attenuation shall be 20db.

2.29 FACTORY APPLIED FINISH

Electrical equipment shall have factory-applied painting systems which shall, as a minimum, meet the requirements of NEMA 250 corrosion-resistance test and the additional requirements as specified herein. Interior and exterior steel surfaces of equipment enclosures shall be thoroughly cleaned and then receive a rust-inhibitive phosphatizing or equivalent treatment prior to painting. Exterior surfaces shall be free from holes, seams, dents, weld marks, loose scale or other imperfections. Interior surfaces shall receive not less than one coat of corrosion-resisting paint in accordance with the manufacturer's standard practice. Exterior surfaces shall be primed, filled where necessary, and given not less than two coats baked enamel with semigloss finish. Equipment located indoors shall be ANSI Light Gray, and equipment located outdoors shall be ANSI Light Gray. Provide manufacturer's coatings for touch-up work and as specified in paragraph FIELD APPLIED PAINTING.

PART 3 EXECUTION

3.1 INSTALLATION

Electrical installations, including weatherproof and hazardous locations and ducts, plenums and other air-handling spaces, shall conform to

requirements of NFPA 70 and IEEE C2 and to requirements specified herein.

3.1.1 Wiring Methods

Provide insulated conductors installed in rigid steel conduit, IMC, rigid nonmetallic conduit, or EMT, except where specifically indicated or specified otherwise or required by NFPA 70 to be installed otherwise. Grounding conductor shall be separate from electrical system neutral conductor. Provide insulated green equipment grounding conductor for circuit(s) installed in conduit and raceways. Minimum conduit size shall be 1/2 inch in diameter for low voltage lighting and power circuits. Conduit which penetrates fire-rated walls, fire-rated partitions, or fire-rated floors shall be firestopped.

3.1.1.1 Pull Wire

Install pull wires in empty conduits. Pull wire shall be plastic having minimum 200-pound force tensile strength, unless otherwise noted. Leave minimum 36 inches of slack at each end of pull wire.

3.1.2 Conduit Installation

Unless indicated otherwise, conceal conduit under floor slabs and within finished walls, ceilings, and floors. Keep conduit minimum 6 inches away from parallel runs of flues and steam or hot water pipes. Install conduit parallel with or at right angles to ceilings, walls, and structural members where located above accessible ceilings and where conduit will be visible after completion of project.

3.1.2.1 Restrictions Applicable to Aluminum Conduit

a. Do not install underground or encase in concrete or masonry.

b. Do not use brass or bronze fittings.

c. Do not use when the enclosed conductors must be shielded from the effects of High-altitude Electromagnetic Pulse (HEMP).

3.1.2.2 Restrictions Applicable to EMT

a. Do not install underground.

b. Do not encase in concrete, mortar, grout, or other cementitious materials.

c. Do not use in areas subject to severe physical damage including but not limited to equipment rooms where moving or replacing equipment could physically damage the EMT.

d. Do not use in hazardous areas.

e. Do not use outdoors.

f. Do not use in fire pump rooms.

g. Do not use when the enclosed conductors must be shielded from the effects of High-altitude Electromagnetic Pulse (HEMP).

3.1.2.3 Restrictions Applicable to Nonmetallic Conduit

a. PVC Schedule 40

(1) Do not use in areas where subject to severe physical damage, including but not limited to, mechanical equipment rooms, electrical equipment rooms, hospitals, power plants, missile magazines, and other such areas.

(2) Do not use in hazardous (classified) areas.

(3) Do not use in fire pump rooms.

(4) Do not use in penetrating fire-rated walls or partitions, or fire-rated floors.

(5) Do not use above grade.

(6) Do not use when the enclosed conductors must be shielded from the effects of High-altitude Electromagnetic Pulse (HEMP).

3.1.2.4 Restrictions Applicable to Flexible Conduit

Use only as specified in paragraph FLEXIBLE CONNECTIONS. Do not use when the enclosed conductors must be shielded from the effects of High-altitude Electromagnetic Pulse (HEMP).

3.1.2.5 Underground Conduit Other Than Service Entrance

Plastic-coated rigid steel; PVC, Type EPC-40. Use PVC coated galvanized rigid steel elbows and PVC coated galvanized rigid steel for vertical runs.

3.1.2.6 Conduit Installed Under Floor Slabs

Conduit run under floor slab shall be located a minimum of 12 inches below the vapor barrier. Seal around conduits at penetrations thru vapor barrier.

3.1.2.7 Conduit Through Floor Slabs

Where conduits rise through floor slabs, curved portion of bends shall not be visible above finished slab.

3.1.2.8 Conduit Support

Support conduit by pipe straps, wall brackets, hangers, or ceiling trapeze. Fasten by wood screws to wood; by toggle bolts on hollow masonry units; by concrete inserts or expansion bolts on concrete or brick; and by machine screws, welded threaded studs, or spring-tension clamps on steel work. Threaded C-clamps may be used on rigid steel conduit only. Do not weld conduits or pipe straps to steel structures. Load applied to fasteners shall not exceed one-fourth proof test load. Fasteners attached to concrete ceiling shall be vibration resistant and shock-resistant. Holes cut to depth of more than 1 1/2 inches in reinforced concrete beams or to depth of more than 3/4 inch in concrete joints shall not cut main reinforcing bars. Fill unused holes. In partitions of light steel construction, use sheet metal screws. In suspended-ceiling construction, run conduit above ceiling. Do not support conduit by ceiling support

system or any type of hanger wires. Conduit and box systems shall be supported independently of both (a) tie wires supporting ceiling grid system, and (b) ceiling grid system into which ceiling panels are placed. Supporting means shall not be shared between electrical raceways and mechanical piping or ducts. Installation shall be coordinated with above-ceiling mechanical systems to assure maximum accessibility to all systems. Spring-steel fasteners shall not be used. Where conduit crosses building expansion joints, provide suitable watertight expansion fitting that maintains conduit electrical continuity by bonding jumpers or other means. For conduits greater than 2 1/2 inches inside diameter, provide supports to resist forces of 0.5 times the equipment weight in any direction and 1.5 times the equipment weight in the downward direction.

3.1.2.9 Directional Changes in Conduit Runs

Make changes in direction of runs with symmetrical bends or cast-metal fittings. Make field-made bends and offsets with hickey or conduit-bending machine. Do not install crushed or deformed conduits. Avoid trapped conduits. Prevent plaster, dirt, or trash from lodging in conduits, boxes, fittings, and equipment during construction. Free clogged conduits of obstructions.

3.1.2.10 Locknuts and Bushings

Fasten conduits to sheet metal boxes and cabinets with two locknuts where required by NFPA 70, where insulated bushings are used, and where bushings cannot be brought into firm contact with the box; otherwise, use at least minimum single locknut and bushing. Locknuts shall have sharp edges for digging into wall of metal enclosures. Install bushings on ends of conduits, and provide insulating type where required by NFPA 70.

3.1.2.11 Flexible Connections

Provide flexible steel conduit between 3 and 6 feet in length for recessed and semirecessed lighting fixtures; for equipment subject to vibration, noise transmission, or movement; and for motors. Install flexible conduit to allow 20 percent slack. Minimum flexible steel conduit size shall be 1/2 inch diameter. Provide liquidtight flexible metallic conduit in wet and damp locations for equipment subject to vibration, noise transmission, movement or motors. Provide separate ground conductor across flexible connections.

3.1.2.12 Telecommunications and Signal System Pathway

Install telecommunications pathway in accordance with TIA-569-B.

a. Horizontal Pathway: Telecommunications pathways from the work area to the telecommunications room shall be installed and cabling length requirements in accordance with TIA-568-C.1. Size conduits, and cable trays in accordance with TIA-569-B and as indicated.

b. Backbone Pathway: Telecommunication pathways from the telecommunications entrance facility to telecommunications rooms, and, telecommunications equipment rooms (backbone cabling) shall be installed in accordance with TIA-569-B. Size conduits 2 inch for telecommunications risers in accordance with TIA-569-B and as indicated.

3.1.3 Cable Tray Installation

Install and ground in accordance with NFPA 70. In addition, install and ground telecommunications cable tray in accordance with TIA-569-B, and TIA J-STD-607-A. Install cable trays parallel with or at right angles to ceilings, walls, and structural members. Support in accordance with manufacturer recommendations but at not more than 6 foot intervals. Adjacent cable tray sections shall be bonded together by connector plates of an identical type as the cable tray sections. For grounding of cable tray system provide No. 2 AWG bare copper wire throughout cable tray system, and bond to each section,. Terminate cable trays 10 inches from both sides of smoke and fire partitions. Conductors run through smoke and fire partitions shall be installed in 4 inch rigid steel conduits with grounding bushings, extending 12 inches beyond each side of partitions. Seal conduit on both ends to maintain smoke and fire ratings of partitions. Penetrations shall be firestopped. Provide supports to resist forces of 0.5 times the equipment weight in any direction and 1.5 times the equipment weight in the downward direction.

Edges, fittings, and hardware shall be finished free from burrs and sharp edges.

3.1.4 Boxes, Outlets, and Supports

Provide boxes in wiring and raceway systems wherever required for pulling of wires, making connections, and mounting of devices or fixtures. Boxes for metallic raceways shall be cast-metal, hub-type when located in wet locations, when surface mounted on outside of exterior surfaces, when surface mounted on interior walls exposed up to 7 feet above floors and walkways, or when installed in hazardous areas and when specifically indicated. Boxes in other locations shall be sheet steel, except that aluminum boxes may be used with aluminum conduit, and nonmetallic boxes may be used with nonmetallic conduit system. Each box shall have volume required by NFPA 70 for number of conductors enclosed in box. Boxes for mounting lighting fixtures shall be minimum 4 inches square, or octagonal, except that smaller boxes may be installed as required by fixture configurations, as approved. Boxes for use in masonry-block or tile walls shall be square-cornered, tile-type, or standard boxes having square-cornered, tile-type covers. Provide gaskets for cast-metal boxes installed in wet locations and boxes installed flush with outside of exterior surfaces. Provide separate boxes for flush or recessed fixtures when required by fixture terminal operating temperature; fixtures shall be readily removable for access to boxes unless ceiling access panels are provided. Support boxes and pendants for surface-mounted fixtures on suspended ceilings independently of ceiling supports. Fasten boxes and supports with wood screws on wood, with bolts and expansion shields on concrete or brick, with toggle bolts on hollow masonry units, and with machine screws or welded studs on steel. In open overhead spaces, cast boxes threaded to raceways need not be separately supported except where used for fixture support; support sheet metal boxes directly from building structure or by bar hangers. Where bar hangers are used, attach bar to raceways on opposite sides of box, and support raceway with approved-type fastener maximum 24 inches from box.When penetrating reinforced concrete members, avoid cutting reinforcing steel.

3.1.4.1 Boxes

Boxes for use with raceway systems shall be minimum 1 1/2 inches deep, except where shallower boxes required by structural conditions are

approved. Boxes for other than lighting fixture outlets shall be minimum 4 inches square, except that 4 by 2 inch boxes may be used where only one raceway enters outlet.

3.1.4.2 Pull Boxes

Construct of at least minimum size required by NFPA 70 of code-gauge aluminum or galvanized sheet steel, except where cast-metal boxes are required in locations specified herein. Provide boxes with screw-fastened covers. Where several feeders pass through common pull box, tag feeders to indicate clearly electrical characteristics, circuit number, and panel designation.

3.1.4.3 Extension Rings

Extension rings are not permitted for new construction. Use only on existing boxes in concealed conduit systems where wall is furred out for new finish.

3.1.5 Mounting Heights

Mount panelboards, enclosed circuit breakers, motor controller and disconnecting switches so height of operating handle at its highest position is maximum 78 inches above floor. Mount lighting switches and handicapped telecommunications stations 48 inches above finished floor. Mount receptacles and telecommunications outlets 18 inches above finished floor, unless otherwise indicated. Mount other devices as indicated. Measure mounting heights of wiring devices and outlets in non-hazardous areas to center of device or outlet. Measure mounting heights of receptacle outlet boxes in the hazardous area to the bottom of the outlet box.

3.1.6 Conductor Identification

Provide conductor identification within each enclosure where tap, splice, or termination is made. For conductors No. 6 AWG and smaller diameter, color coding shall be by factory-applied, color-impregnated insulation. For conductors No. 4 AWG and larger diameter, color coding shall be by plastic-coated, self-sticking markers; colored nylon cable ties and plates; or heat shrink-type sleeves.

3.1.6.1 Marking Strips

White or other light-colored plastic marking strips, fastened by screws to each terminal block, shall be provided for wire designations. The wire numbers shall be made with permanent ink. The marking strips shall be reversible to permit marking both sides, or two marking strips shall be furnished with each block. Marking strips shall accommodate the two sets of wire numbers. Each device to which a connection is made shall be assigned a device designation in accordance with NEMA ICS 1 and each device terminal to which a connection is made shall be marked with a distinct terminal marking corresponding to the wire designation used on the Contractor's schematic and connection diagrams. The wire (terminal point) designations used on the Contractor's wiring diagrams and printed on terminal block marking strips may be according to the Contractor's standard practice; however, additional wire and cable designations for identification of remote (external) circuits shall be provided for the Government's wire designations. Prints of the marking strips drawings submitted for approval will be so marked and returned to the Contractor

for addition of the designations to the terminal strips and tracings, along with any rearrangement of points required.

3.1.7 Splices

Make splices in accessible locations. Make splices in conductors No. 10 AWG and smaller diameter with insulated, pressure-type connector. Make splices in conductors No. 8 AWG and larger diameter with solderless connector, and cover with insulation material equivalent to conductor insulation.

3.1.8 Covers and Device Plates

Install with edges in continuous contact with finished wall surfaces without use of mats or similar devices. Plaster fillings are not permitted. Install plates with alignment tolerance of 1/16 inch. Use of sectional-type device plates are not permitted. Provide gasket for plates installed in wet locations.

3.1.9 Electrical Penetrations

Seal openings around electrical penetrations through fire resistance-rated walls, partitions, floors, or ceilings.

3.1.10 Grounding and Bonding

Provide In accordance with NFPA 70 and NFPA 780. Ground exposed, non-current-carrying metallic parts of electrical equipment, metallic raceway systems, grounding conductor in metallic and nonmetallic raceways, telecommunications system grounds, and neutral conductor of wiring systems. Make ground connection at main service equipment, and extend grounding conductor to point of entrance of metallic water service. Make connection to water pipe by suitable ground clamp or lug connection to plugged tee. If flanged pipes are encountered, make connection with lug bolted to street side of flanged connection. Supplement metallic water service grounding system with additional made electrode in compliance with NFPA 70. Make ground connection to driven ground rods on exterior of building. Interconnect all grounding media in or on the structure to provide a common ground potential. This shall include lightning protection, electrical service, telecommunications system grounds, as well as underground metallic piping systems. Interconnection to the gas line shall be made on the customer's side of the meter. Use main size lightning conductors for interconnecting these grounding systems to the lightning protection system. In addition to the requirements specified herein, provide telecommunications grounding in accordance with TIA J-STD-607-A. Where ground fault protection is employed, ensure that connection of ground and neutral does not interfere with correct operation of fault protection.

3.1.10.1 Ground Bus

A copper ground bus shall be provided in the electrical equipment rooms as indicated. Noncurrent-carrying metal parts of equipment shall be effectively grounded by bonding to the ground bus. The ground bus shall be bonded to both the entrance ground, and to a ground rod or rods as specified above having the upper ends terminating approximately 4 inches above the floor. Connections and splices shall be of the brazed, welded, bolted, or pressure-connector type, except that pressure connectors or bolted connections shall be used for connections to removable equipment.

For raised floor equipment rooms in computer and data processing centers, a minimum of 4, one at each corner, ground buses shall be provided and connected to the building grounding system. Connections shall be bolted type in lieu of thermoweld, so they can be changed as required by additions and/or alterations.

3.1.10.2 Resistance

Maximum resistance-to-ground of grounding system shall not exceed 5 ohms under dry conditions. Where resistance obtained exceeds 5 ohms, contact Contracting Officer for further instructions.

3.1.11 Equipment Connections

Provide power wiring for the connection of motors and control equipment under this section of the specification. Except as otherwise specifically noted or specified, automatic control wiring, control devices, and protective devices within the control circuitry are not included in this section of the specifications but shall be provided under the section specifying the associated equipment.

3.1.12 Government-Furnished Equipment

Contractor shall rough-in for Government-furnished equipment to make equipment operate as intended, including providing miscellaneous items such as plugs, receptacles, wire, cable, conduit, flexible conduit, and outlet boxes or fittings.

3.1.13 Repair of Existing Work

Repair of existing work, demolition, and modification of existing electrical distribution systems shall be performed as follows:

3.1.13.1 Workmanship

Lay out work in advance. Exercise care where cutting, channeling, chasing, or drilling of floors, walls, partitions, ceilings, or other surfaces is necessary for proper installation, support, or anchorage of conduit, raceways, or other electrical work. Repair damage to buildings, piping, and equipment using skilled craftsmen of trades involved.

3.1.13.2 Existing Concealed Wiring to be Removed

Existing concealed wiring to be removed shall be disconnected from its source. Remove conductors; cut conduit flush with floor, underside of floor, and through walls; and seal openings.

3.1.13.3 Removal of Existing Electrical Distribution System

Removal of existing electrical distribution system equipment shall include equipment's associated wiring, including conductors, cables, exposed conduit, surface metal raceways, boxes, and fittings, back to equipment's power source as indicated.

3.1.13.4 Continuation of Service

Maintain continuity of existing circuits of equipment to remain. Existing circuits of equipment shall remain energized. Circuits which are to remain but were disturbed during demolition shall have circuits wiring and

power restored back to original condition.

3.1.14 Surge Protective Devices

Connect the surge protective devices in parallel to the power source, keeping the conductors as short and straight as practically possible.

3.2 FIELD FABRICATED NAMEPLATE MOUNTING

Provide number, location, and letter designation of nameplates as indicated. Fasten nameplates to the device with a minimum of two sheet-metal screws or two rivets.

3.3 WARNING SIGN MOUNTING

Provide the number of signs required to be readable from each accessible side. Space the signs in accordance with NFPA 70E.

3.4 FIELD APPLIED PAINTING

Paint electrical equipment as required to match finish of adjacent surfaces or to meet the indicated or specified safety criteria. Where field painting of enclosures for panelboards, load centers or the like is specified to match adjacent surfaces, to correct damage to the manufacturer's factory applied coatings, or to meet the indicated or specified safety criteria, provide manufacturer's recommended coatings and apply in accordance to manufacturer's instructions.

3.5 FIELD QUALITY CONTROL

Furnish test equipment and personnel and submit written copies of test results. Give Contracting Officer 5 working days notice prior to each test.

3.5.1 Devices Subject to Manual Operation

Each device subject to manual operation shall be operated at least five times, demonstrating satisfactory operation each time.

3.5.2 600-Volt Wiring Test

Test wiring rated 600 volt and less to verify that no short circuits or accidental grounds exist. Perform insulation resistance tests on wiring No. 6 AWG and larger diameter using instrument which applies voltage of approximately 500 volts to provide direct reading of resistance. Minimum resistance shall be 250,000 ohms.

3.5.3 Ground-Fault Receptacle Test

Test ground-fault receptacles with a "load" (such as a plug in light) to verify that the "line" and "load" leads are not reversed.

3.5.4 Grounding System Test

Test grounding system to ensure continuity, and that resistance to ground is not excessive. Test each ground rod for resistance to ground before making connections to rod; tie grounding system together and test for resistance to ground. Make resistance measurements in dry weather, not earlier than 48 hours after rainfall. Submit written results of each test

to Contracting Officer, and indicate location of rods as well as resistance and soil conditions at time measurements were made.

-- End of Section --

SECTION 26 51 00

INTERIOR LIGHTING
**05/16**

PART 1 GENERAL

1.1 REFERENCES

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

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

| | |
|---|---|
| ASHRAE 189.1 | (2011) Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings |
| ASHRAE 90.1 - IP | (2010; ERTA 2011-2014; Thru INT 24 2015) Energy Standard for Buildings Except Low-Rise Residential Buildings |

ASTM INTERNATIONAL (ASTM)

| | |
|---|---|
| ASTM A1008/A1008M | (2015) Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy and High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardened |
| ASTM A580/A580M | (2015) Standard Specification for Stainless Steel Wire |
| ASTM A641/A641M | (2009a; R 2014) Standard Specification for Zinc-Coated (Galvanized) Carbon Steel Wire |
| ASTM A653/A653M | (2015) Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process |
| ASTM B164 | (2003; R 2014) Standard Specification for Nickel-Copper Alloy Rod, Bar, and Wire |
| ASTM B633 | (2015) Standard Specification for Electrodeposited Coatings of Zinc on Iron and Steel |

ILLUMINATING ENGINEERING SOCIETY (IES)

| | |
|---|---|
| IES LM-79 | (2008) Electrical and Photometric Measurements of Solid-State Lighting Products |
| IES LM-80 | (2015) Measuring Lumen Maintenance of LED Light Sources |

| | |
|---|---|
| IES RP-16 | (2010; Addendum A 2008; Addenda B 2009; Addendum C 2016) Nomenclature and Definitions for Illuminating Engineering |
| IES TM-21 | (2011) Projecting Long Term Lumen Maintenance of LED Light Sources |

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

| | |
|---|---|
| IEEE 100 | (2000; Archived) The Authoritative Dictionary of IEEE Standards Terms |
| IEEE C2 | (2012; Errata 1 2012; INT 1-4 2012; Errata 2 2013; INT 5-7 2013; INT 8-10 2014; INT 11 2015) National Electrical Safety Code |

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

| | |
|---|---|
| NEMA 250 | (2014) Enclosures for Electrical Equipment (1000 Volts Maximum) |
| NEMA ANSLG C78.377 | (2015) American National Standard for Electric Lamps— Specifications for the Chromaticity of Solid State Lighting Products |
| NEMA C82.77 | (2002) Harmonic Emission Limits - Related Power Quality Requirements for Lighting Equipment |
| NEMA SSL 1 | (2010) Electronic Drivers for Led Devices, Arrays, or Systems |
| NEMA SSL 3 | (2011) High-Power White LED Binning for General Illumination |

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 101 | (2015; ERTA 2015) Life Safety Code |
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |

UNDERWRITERS LABORATORIES (UL)

| | |
|---|---|
| UL 1598 | (2008; Reprint Oct 2012) Luminaires |
| UL 8750 | (2009; Reprint May 2014) UL Standard for Safety Light Emitting Diode (LED) Equipment for Use in Lighting Products |
| UL 924 | (2006; Reprint Dec 2015) Standard for Emergency Lighting and Power Equipment |

1.2 RELATED REQUIREMENTS

Materials not considered to be luminaires or luminaire accessories are specified in Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

1.3 DEFINITIONS

a. Unless otherwise specified or indicated, electrical and electronics terms used in these specifications, and on the drawings, must be as defined in IEEE 100 and IES RP-16.

b. For LED luminaire light sources, "Useful Life" is the operating hours before reaching 70 percent of the initial rated lumen output (L70) with no catastrophic failures under normal operating conditions. This is also know as 70 percent "Rated Lumen Maintenance Life" as defined in IES LM-80.

c. For LED luminaires, "Luminaire Efficacy" (LE) is the appropriate measure of energy efficiency, measured in lumens/watt. This is gathered from LM-79 data for the luminaire, in which absolute photometry is used to measure the lumen output of the luminaire as one entity, not the source separately and then the source and housing together.

d. Total harmonic distortion (THD) is the root mean square (RMS) of all the harmonic components divided by the total fundamental current.

1.4 SUBMITTALS

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

SD-02 Shop Drawings

Luminaire Drawings; G

SD-03 Product Data

Luminaires; G

Light Sources; G

Drivers, Ballasts and Generators; G

LED Luminaire Warranty; G

Luminaire Design Data; G

Exit Signs; G

Emergency Lighting Unit (EBU); G

LED Emergency Drivers; G

SD-06 Test Reports

LED Luminaire - IES LM-79 Test Report; G

LED Light Source - IES LM-80 Test Report; G

LED Light Source - IES TM-21 Test Report; G

Energy Efficiency; G

SD-07 Certificates

Luminaire Useful Life Certificate; G

LED Driver and Dimming Switch Compatibility Certificate; G

1.5 QUALITY CONTROL

1.5.1 Luminaire Drawings

Include dimensions, accessories, and installation and construction details. Photometric data, including zonal lumen data, average and minimum ratio, aiming diagram, and computerized candlepower distribution data must accompany shop drawings.

1.5.2 LED Driver and Dimming Switch Compatibility Certificate

Submit certification from the luminaire, driver, or dimmer switch manufacturer that ensures compatibility and operability between devices.

1.5.3 Luminaire Design Data

a. Provide safety certification and file number for the luminaire family that must be listed, labeled, or identified per the NFPA 70 (NEC). Applicable testing bodies are determined by the US Occupational Safety Health Administration (OSHA) as Nationally Recognized Testing Laboratories (NRTL) and include: CSA (Canadian Standards Association), ETL (Edison Testing Laboratory), and UL (Underwriters Laboratories).

b. Provide long term lumen maintenance projections for each LED luminaire in accordance with IES TM-21. Data used for projections must be obtained from testing in accordance with IES LM-80.

1.5.4 LED Luminaire - IES LM-79 Test Report

Submit test report on manufacturer's standard production model luminaire. Include all applicable and required data as outlined under "14.0 Test Report" in IES LM-79.

1.5.5 LED Light Source - IES LM-80 Test Report

Submit report on manufacturer's standard production LED light source (package, array, or module). Include all applicable and required data as outlined under "8.0 Test Report" in IES LM-80.

1.5.6 LED Light Source - IES TM-21 Test Report

Submit test report on manufacturer's standard production LED light source (package, array or module). Include all applicable and required data, as well as required interpolation information as outlined under "7.0 Report" in IES TM-21.

1.5.7 Test Laboratories

Test laboratories for the IES LM-79 and IES LM-80 test reports must be one of the following:

a. National Voluntary Laboratory Accreditation Program (NVLAP) accredited for solid-state lighting testing as part of the Energy-Efficient Lighting Products laboratory accreditation program for both LM-79 and LM-80 testing.

b. One of the qualified labs listed on the Department of Energy - LED Lighting Facts Approved Testing Laboratories List at  for LM-79 testing.

c. One of the EPA-Recognized Laboratories listed at  for LM-80 testing.

1.5.8 Regulatory Requirements

In each of the publications referred to herein, consider the advisory provisions to be mandatory, as though the word "must" had been substituted for "should" wherever it appears. Interpret references in these publications to the "authority having jurisdiction," or words of similar meaning, to mean the Contracting Officer. Equipment, materials, installation, and workmanship must be in accordance with the mandatory and advisory provisions of NFPA 70, unless more stringent requirements are specified or indicated.

1.5.9 Standard Products

Provide materials and equipment that are products of manufacturers regularly engaged in the production of such products which are of equal material, design and workmanship. Products must have been in satisfactory commercial or industrial use for two years prior to bid opening. The two-year period must include applications of equipment and materials under similar circumstances and of similar size. The product must have been on sale on the commercial market through advertisements, manufacturers' catalogs, or brochures during the two-year period. Where two or more items of the same class of equipment are required, these items must be products of a single manufacturer; however, the component parts of the item need not be the products of the same manufacturer unless stated in this section.

1.5.9.1 Alternative Qualifications

Products having less than a 2-year field service record will be acceptable if a certified record of satisfactory field operation for not less than 6000 hours, exclusive of the manufacturers' factory or laboratory tests, is furnished.

1.5.9.2 Material and Equipment Manufacturing Date

Products manufactured more than six months prior to date of delivery to site must not be used, unless specified otherwise.

1.5.9.3 Energy Efficiency

Submit data indicating lumens per watt efficacy and color rendering index of light source.

1.6 WARRANTY

Support all equipment items by service organizations which are reasonably convenient to the equipment installation in order to render satisfactory service to the equipment on a regular and emergency basis during the warranty period of the contract.

1.6.1 LED Luminaire Warranty

a. Provide a written 10 year on-site replacement warranty for material, fixture finish, and workmanship. On-site replacement includes transportation, removal, and installation of new products.

(1) Include finish warranty to include failure and substantial deterioration such as blistering, cracking, peeling, chalking, or fading.

(2) Material warranty must include:

(a) All drivers.

(b) Replacement when more than 10 percent of LED sources in any lightbar or subassembly(s) are defective or non-starting.

b. Warranty period must begin on date of beneficial occupancy. Provide the Contracting Officer with signed warranty certificates prior to final payment.

1.6.1.1 Provide Luminaire Useful Life Certificate

Submit certification from the manufacturer indicating the expected useful life of the luminaires provided. The useful life must be directly correlated from the IES LM-80 test data using procedures outlined in IES TM-21. Thermal properties of the specific luminaire and local ambient operating temperature and conditions must be taken into consideration.

PART 2 PRODUCTS

2.1 PRODUCT COORDINATION

Products and materials not considered to be luminaires, luminaire controls, or associated equipment are specified in Section 26 20 00 INTERIOR DISTRIBUTION SYSTEM.

2.2 LUMINAIRES

UL 1598, NEMA C82.77, and UL 8750. Provide luminaires as indicated in luminaire schedule and NL plates or details on project plans. Provide luminaires complete with light sources of quantity, type, and wattage indicated. Provide all luminaires of the same type by the same manufacturer. Luminaires must be specifically designed for use with the driver, ballast or generator and light source provided.

2.2.1 LED Luminaires

Provide luminaires complete with power supplies (drivers) and light sources. Provide design information including lumen output and design life in luminaire schedule on project plans for LED luminaires. LED luminaires must meet the minimum requirements in the following table:

| LUMINAIRE TYPE | MINIMUM LUMINAIRE EFFICACY (LE) | MINIMUM COLOR RENDERING INDEX (CRI) |
|---|---|---|
| LED TROFFER -<br>1 x 4<br>2 x 2<br>2 x 4 | 90 LPW | 80 |
| LED Downlight | 50 LPW | 90 |
| LED Track or Accent | 40 LPW | 80 |
| LED Low Bay/High Bay | 80 LPW | 70 |
| LED Linear Ambient | 80 LPW | 80 |

LED luminaires must also meet the following minimum requirements:

a. Luminaires must have a minimum 10 year manufacturer's warranty.

b. Luminaires must have a minimum L70 lumen maintenance value of 50,000 hours as calculated by IES TM-21, with data obtained per IES LM-80 requirements.

c. Luminaire drive current value must be identical to that provided by test data for luminaire in question.

d. Luminaires must be tested to IES LM-79 and IES LM-80 standards, with the results provided as required in the Submittals paragraph of this specification.

e. Luminaires must be listed with the DesignLights Consortium 'Qualified Products List' when falling into category of "General Application" luminaires, i.e. Interior Directional, Display Case, Troffer, Linear Ambient, or Low/High Bay. Requirements are shown in the Designlights Consortium "Technical Requirements Table" at https://data.energystar.gov/dataset/EPA-Recognized-Laboratories-For-Lighting-Produ

f. Provide Department of Energy 'Lighting Facts' label for each luminaire.

2.3 DRIVERS, BALLASTS and GENERATORS

2.3.1 LED Drivers

NEMA SSL 1, UL 8750. LED drivers must be electronic, UL Class 1, constant-current type and comply with the following requirements:

a. Output power (watts)and luminous flux (lumens) as shown in luminaire schedule for each luminaire type to meet minimum luminaire efficacy (LE) value provided.

b. Power Factor (PF) greater than or equal to 0.9 over the full dimming range when provided.

c. Current draw Total Harmonic Distortion (THD) of less than 20 percent.

d. Class A sound rating.

e. Operable at input voltage of 120-277 volts at 60 hertz.

f. Minimum 10 year manufacturer's warranty.

g. RoHS compliant.

h. Integral thermal protection that reduces or eliminates the output power if case temperature exceeds a value detrimental to the driver.

i. UL listed for dry or damp locations typical of interior installations.

j. Fully-dimmable.

2.4 LIGHT SOURCES

NEMA ANSLG C78.377, NEMA SSL 3. Provide type and wattage as indicated in luminaire schedule on project plans.

2.4.1 LED Light Sources

a. Correlated Color Temperature (CCT) of 4000 degrees K.

b. Minimum Color Rendering Index (CRI) R9 value of 80.

c. High power, white light output utilizing phosphor conversion (PC) process.

d. RoHS compliant.

e. Provide light source color consistancy by utilizing a binning tolerance within a 4 step McAdam ellipse.

2.5 EXIT AND EMERGENCY LIGHTING EQUIPMENT

UL 924, NFPA 101, and NFPA 70 compliant.

2.5.1 Exit Signs

Provide exit signs consuming a maximum of five watts total.

2.5.1.1 LED Self-Powered Exit Signs

Provide in painted, die-cast aluminum housing, configured for universal ceiling or wall mounting. Provide 6 inch high, 3/4 inch stroke red lettering on face of sign. Provide chevrons on either side of lettering to indicate direction where indicated. Provide single or double face as indicated. Equip with automatic power failure device, test switch, and pilot light, and fully automatic high/low trickle charger in a self-contained power pack. Battery must be sealed, maintenance free nickel-cadmium type, and must operate unattended for a period of not less than five years. Emergency run time must be a minimum of 1 1/2 hours. LEDs must have a minimum rated life of 10 years. Provide self-diagnostic circuitry integral to emergency LED driver.

2.5.2 Emergency Lighting Unit (EBU)

Provide in housing type as indicated. Emergency lighting units must be rated for 12 volts, except units having no remote-mounted lamps and having no more than two unit-mounted light sources may be rated six volts. Equip units with brown-out sensitive circuit to activate battery when input voltage falls to 75 percent of normal. Equip with two LED, type light sources, automatic power failure device, test switch, and pilot light, and

fully automatic high/low trickle charger in a self-contained power pack. Battery must be sealed, maintenance free nickel-cadmium type, and must operate unattended for a period of not less than five years. Emergency run time must be a minimum of 1 1/2 hours. LEDs must have a minimum rated life of 10 years. Provide self-diagnostic circuitry integral to emergency LED driver.

2.5.3 LED Emergency Drivers

Provide LED emergency driver with automatic power failure detection, test switch and LED indicator (or combination switch/indicator) located on luminaire exterior, and fully-automatic solid-state charger, battery and inverter integral to a self-contained housing. Provide self-diagnostic function integral to emergency driver.Integral nickel-cadmium battery is required to supply a minimum of 90 minutes of emergency power at constant output. Driver must be RoHS compliant, rated for installation in plenum-rated spaces and damp locations, and be warranted for a minimum of five years.

2.5.4 Self-Diagnostic Circuitry for LED and Fluorescent Emergency Drivers/Ballasts

Provide emergency lighting unit with fully-automatic, integral self-testing/diagnostic electronic circuitry. Circuitry must provide for a one minute diagnostic test every 28 days, and a 30 minute diagnostic test every six months, minimum. Any malfunction of the unit must be indicated by LED(s) visible from the exterior of the luminaire. A manual test switch must also be provided to perform a diagnostic test at any given time.

2.6 LUMINAIRE SUPPORT HARDWARE

2.6.1 Wire

ASTM A641/A641M; Galvanized, soft tempered steel, minimum 0.11 inches in diameter, or galvanized, braided steel, minimum 0.08 inches in diameter.

2.6.2 Wire for Humid Spaces

ASTM A580/A580M; Composition 302 or 304, annealed stainless steel, minimum 0.11 inches in diameter.

ASTM B164; UNS NO4400, annealed nickel-copper alloy, minimum 0.11 inches in diameter.

2.6.3 Threaded Rods

Threaded steel rods, 3/16 inch diameter, zinc or cadmium coated.

2.6.4 Straps

Galvanized steel, one by 3/16 inch, conforming to ASTM A653/A653M, with a light commercial zinc coating or ASTM A1008/A1008M with an electrodeposited zinc coating conforming to ASTM B633, Type RS.

## 2.7 EQUIPMENT IDENTIFICATION

### 2.7.1 Manufacturer's Namplate

Each item of equipment must have a nameplate bearing the manufacturer's name, address, model number, and serial number securely affixed in a conspicuous place; the nameplate of the distributing agent will not be acceptable.

## 2.8 FACTORY APPLIED FINISH

Provide all luminaires and lighting equipment with factory-applied painting system that as a minimum, meets requirements of NEMA 250 corrosion-resistance test.

## 2.9 RECESS- AND FLUSH-MOUNTED LUMINAIRES

Provide access to lamp and ballast from bottom of luminaire. Provide trim and lenses for the exposed surface of flush-mounted luminaires as indicated on project drawings and specifications.

# PART 3 EXECUTION

## 3.1 INSTALLATION

Electrical installations must conform to IEEE C2, NFPA 70, and to the requirements specified herein. Install luminaires and lighting controls to meet the requirements of ASHRAE 90.1 - IP and ASHRAE 189.1. To encourage consistancy and uniformity, install luminaires of the same manufacture and model number when residing in the same facility or building.

### 3.1.1 Light Sources

When light sources are not provided as an integral part of the luminaire, deliver light sources of the type, wattage, lumen output, color temperature, color rendering index, and voltage rating indicated to the project site and install just prior to project completion, if not already installed in the luminaires from the factory.

### 3.1.2 Luminaires

Set luminaires plumb, square, and level with ceiling and walls, in alignment with adjacent luminaires and secure in accordance with manufacturers' directions and approved drawings. Installation must meet requirements of NFPA 70. Mounting heights specified or indicated must be to the bottom of the luminaire for ceiling-mounted luminaires and to center of luminaire for wall-mounted luminaires. Obtain approval of the exact mounting height on the job before commencing installation and, where applicable, after coordinating with the type, style, and pattern of the ceiling being installed. Recessed and semi-recessed luminaires must be independently supported from the building structure by a minimum of four wires, straps or rods per luminaire and located near each corner of the luminiare. Ceiling grid clips are not allowed as an alternative to independently supported luminaires. Round luminaires or luminaires smaller in size than the ceiling grid must be independently supported from the building structure by a minimum of four wires, straps or rods per luminaire, spaced approximately equidistant around. Do not support luminaires by acoustical tile ceiling panels. Where luminaires of sizes

less than the ceiling grid are indicated to be centered in the acoustical panel, support each independently and provide at least two 3/4 inch metal channels spanning, and secured to, the ceiling tees for centering and aligning the luminiare. Provide wires, straps, or rods for luminaire support in this section. Luminaires installed in suspended ceilings must also comply with the requirements of Section 09 51 00 ACOUSTICAL CEILINGS.

3.1.3 Ballasts, Generators and Power Supplies

Typically, provide ballasts, generators, and power supplies (drivers) integral to luminaire as constructed by the manufacturer.

3.1.4 Exit Signs and Emergency Lighting Units

Wire exit signs and emergency lighting units ahead of the local switch, to the normal lighting circuit located in the same room or area.

3.2 FIELD APPLIED PAINTING

Paint lighting equipment as required to match finish of adjacent surfaces or to meet the indicated or specified safety criteria. Provide painting as specified in Section 09 90 00 PAINTS AND COATINGS.

-- End of Section --

SECTION 26 52 00.00 40

EMERGENCY LIGHTING
**08/11**

PART 1 GENERAL

1.1 REFERENCES

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

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 101 | (2015; ERTA 2015) Life Safety Code |
| NFPA 70 | (2014; AMD 1 2013; Errata 1 2013; AMD 2 2013; Errata 2 2013; AMD 3 2014; Errata 3-4 2014; AMD 4-6 2014) National Electrical Code |

UNDERWRITERS LABORATORIES (UL)

| | |
|---|---|
| UL 924 | (2006; Reprint Dec 2015) Standard for Emergency Lighting and Power Equipment |

1.2 ADMINISTRATIVE REQUIREMENTS

Section 26 00 00.00 20 BASIC ELECTRICAL MATERIALS AND METHODS applies to work specified in this section.

1.2.1 Pre-Installation Meetings

Submit Material, Equipment, and Fixture Lists showing manufacturer's style or catalog numbers, specification and drawing reference numbers, sample warranty, and fabrication site location. Also submit manufacturer's catalog data and Certificates of Conformance for the following items:

a. Emergency Fluorescent Lighting
b. Accessories

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Material, Equipment, and Fixture Lists; G

Sample warranty; G

SD-03 Product Data

Emergency Fluorescent Lighting; G

Accessories; G

SD-06 Test Reports

System Operational Tests; G

SD-07 Certificates

Certificates of Conformance; G

Warranty; G

PART 2 PRODUCTS

2.1 SYSTEM DESCRIPTION

Furnish emergency lighting units completely assembled with wiring and mounting devices, ready for installation at the locations indicated. Equip fixtures with lamps. Ensure emergency lighting units are suitable for operation on the ac supply circuit to which they are to be electrically connected.

2.1.1 Performance Requirements

Provide emergency lighting units conforming to UL 924 and NFPA 101.

2.2 MANUFACTURED UNITS

2.2.1 Emergency Fluorescent Lighting

Provide each unit with an automatic power failure device, test switch, pilot light, and fully automatic high/low trickle charger in a self-contained solid-state, temperature-compensated power-pack. Provide Ni-Cd type battery with capacity as required to supply power to provide a minimum of 3000 lumens using a 32-watt rapid start lamp. They shall be dual voltage rated for 120V or 277V operation.

2.2.2 Self-Testing Module

Provide self-testing module for emergency lighting equipment which performs the following functions:

a. Continuous monitoring of charger operation and battery voltage with visual indication of normal operation and of malfunction.

b. Monthly discharge cycling of battery with monitoring of transfer circuit function, battery capacity and emergency lamp operation with visual indication of malfunction. Conduct the battery capacity test using a synthetic load.

c. Manual test switch to simulate a discharge test cycle.

d. Provide module with low voltage battery disconnect (LVD) and brown-out protection circuit.

## PART 3 EXECUTION

### 3.1 INSTALLATION

Install wiring for each unit in accordance with NFPA 70. Use the same panel bus or branch circuit as that serving the normal lighting in the area for the branch circuit feeding the unit equipment, and connect ahead of area switches.

### 3.2 FIELD TESTING

Demonstrate emergency lighting units to operate satisfactorily in the presence of the Contracting Officer.

Perform and submit System Operational Tests in accordance with referenced standards in this section.

### 3.3 WARRANTY

Submit 6 copies of warranty, signed by an authorized representative, designating the Government as warrantee, to the Contracting Officer, 5 days prior to project closeout.

-- End of Section --

SECTION 26 53 00.00 40

EXIT SIGNS
**11/08**

PART 1 GENERAL

1.1 REFERENCES

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

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

| | |
|---|---|
| NFPA 101 | (2015; ERTA 2015) Life Safety Code |

U.S. DEPARTMENT OF ENERGY (DOE)

| | |
|---|---|
| DOE LT-4 | (2000) How to Buy Energy-Efficient Exit Signs |

UNDERWRITERS LABORATORIES (UL)

| | |
|---|---|
| UL 924 | (2006; Reprint Dec 2015) Standard for Emergency Lighting and Power Equipment |

1.2 GENERAL REQUIREMENTS

Section 26 00 00.00 20 BASIC ELECTRICAL MATERIALS AND METHODS applies to work specified in this section.

Material, Equipment, and Fixture Lists shall be submitted for the following showing manufacturer's style or catalog numbers, specification and drawing reference numbers, warranty information, and fabrication site.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. The following shall be submitted in accordance with Section 01 33 00 SUBMITTAL PROCEDURES::

SD-01 Preconstruction Submittals

Material, Equipment, and Fixture Lists shall be submitted for the following in accordance with paragraph entitled, "General Requirements," of this section.

Exit Lighting Units
Contemporary Fixtures

SD-02 Shop Drawings

Installation drawings shall be submitted for Exit Lighting Units in accordance with the paragraph entitled, "Installation," of this section.

Outline drawings shall be submitted for Exit Lighting Units

indicating overall physical features, dimensions, ratings, service requirements, and weights of equipment.

SD-03 Product Data

Manufacturer's catalog data shall be submitted for the following items:

Exit Lighting Units
Contemporary Fixtures

SD-06 Test Reports

Test reports shall be submitted showing results of Operational Tests of exit lighting systems.

SD-07 Certificates

Certificates shall be submitted showing compliance with the following requirements.

Efficiencies

PART 2 PRODUCTS

2.1 PRODUCT STANDARDS

Emergency exit lighting fixtures shall conform to UL 924, NFPA 101, and as specified.

Exit lighting fixtures shall be furnished completely assembled with wiring and mounting devices and ready for installation at the locations indicated. Ceiling-mounted fixtures shall be designed to be supported independent of the ceiling. Fixtures shall be equipped with lamps.

2.1.1 Efficiencies

Exit lighting fixtures shall have efficiencies in accordance with the recommended levels specified in DOE LT-4.

2.2 CONTEMPORARY FIXTURES

Contemporary exit lighting fixture shall have a fixture body with edge-lighted plastic exit-sign panels, face trims, lamps, lampholders, and mounting brackets for top, back, and end mounting to walls and ceilings in accordance with NFPA 101, as indicated. Illumination shall be provided by LED's.

Fixtures shall be universal mounting and have universal directional indicators that are field selected and attached.

Fixtures shall be single or double face as shown on the drawings with thin wedge-shaped vertical cross sections. Top edge of double-face fixtures shall be not more than 2-3/4-inches thick. Top edge of single-face fixtures shall be not more than 2-inches thick. Bottom edge of double-face fixtures shall be not more than 1-3/4-inches thick. Bottom edge of single-face fixtures shall be not more than 1-1/4-inches thick.

Double faced panels shall have a mirrored separator panel. Plastic sign

panels shall be acrylic with green translucent letters and directional arrows, as required. Letters shall be 6-inches high with stroke not less than 3/4 inch wide.

Wireway cover and plastic sign backup plate shall be anodized sheet aluminum with a matte finish.

Mounting plates and brackets formed from sheet aluminum or plate shall have a brushed-satin finish. Mounting plates shall be not less than 4-1/2 inches square and designed to secure the fixture to a 4 inch square outlet box.

2.3 EMERGENCY POWER LOSS EXIT LIGHTING UNITS

Each self-contained unit shall have an automatic power failure device, test switch, pilot light, and fully automatic high/low solid-state trickle charger in a self-contained power pack. Battery shall be the sealed-wet or gelled-electrolyte type and shall be maintenance-free for a period of not less than 10-years under normal operating conditions. Units shall be dual voltage 120/277V.

PART 3 EXECUTION

3.1 FIELD TESTING

Exit lighting shall be demonstrated to operate satisfactorily in the presence of the Contracting Officer.

Operational Tests shall be performed in accordance with referenced standards in this section.

-- End of Section --

# BG0093 Bathrooms, Hallways, 140 &160 Suite Upgrades FY26

## FEDERAL LAW ENFORCEMENT TRAINING CENTERS

**BRUNSWICK (GLYNCO), GEORGIA**

# PROJECT MANUAL

**8/12/2026**

**FOR OFFICIAL USE ONLY**

# PART 1 – GENERAL

## 1.1 REFERENCES

The following publications are incorporated by reference and form a part of this specification to the extent cited. References are identified within the text by their basic designation only:

1.1.1 **ASTM E 2114 (2008)** – *Standard Terminology for Sustainability Relative to the Performance of Buildings*
1.1.2 **Americans with Disabilities Act (ADA)** – *Accessibility Guidelines for Buildings and Facilities*

## 1.2 DEFINITIONS

Definitions related to sustainable development are as outlined in Reference 1.1.1 and as specified below:

- **Environmentally Preferable Products**: Products that have a reduced environmental impact compared to conventional alternatives, considering factors such as raw material acquisition, production, manufacturing, packaging, distribution, reuse, operation, maintenance, and disposal.
- **Indoor Environmental Quality**: The physical characteristics of a building's interior that impact occupants, including air quality, illumination, acoustics, occupant control, thermal comfort, daylighting, and views.
- **Operational Performance**: The functional behavior of the building as a whole or its individual components.
- **Sustainability**: The balance of environmental, economic, and societal considerations.

## 1.3 SUBMITTALS

The contractor shall submit the following items as required by the MATOC specification sections:

- Project Schedule
- Activity Hazard Analysis (AHA)
- Painting Samples
- Plumbing/ Fixtures
- Counter tops Samples

## 1.4 WORK COVERED BY CONTRACT DOCUMENTS

### 1.4.1 Project Description

**PHASE 1 Bathrooms**

This contractor shall verify all areas being renovated. Project involves replacing partition walls in men and women's restroom. Installing new LED light fixtures. Replacing back splash, counter tops, plumbing fixtures and sinks, soap dispenser urinals, plumbing pipes, hardware, wall trash dispensers, paper towel dispensers, in each stall. Removing all wallpaper from walls patch, skim the walls, sand walls, priming walls and painting two coats of paint. Installing all new Highchair toilets in both men and women's restrooms. The contractor shall repair all ceiling stains, prime and paint 2 coats of paint on the ceiling and walls in both restrooms. Contractors shall demo all tiles on walls and floors in the men's and women's restroom. The contractor will make repairs and prep all sheetrock where tiles on walls are being removed in both restrooms. Contractor shall install new tile and base board in men and women's restroom floors. The contractor shall install all new handicap rails, and additional grab bars to each partition wall in both restrooms. The Contractor shall field verify and replace all plumbing. Contractors shall field verify all sewer, plumbing lines and drain lines are open and clear for all toilets, urinals and sink drains are properly draining in both bathrooms. Contractors shall cut out sections of the concrete flooring to main sewer lines in hallways and replace all main sewer lines in the men's and women's restroom throughout the interior and exterior of the building. Replacing main sewer pipe all the way out to the main. Contractors are responsible for all locates & purchasing all materials and labor for making all repairs to all sewer drained lines for all restrooms. See utility and plumbing floor plans attached below. Contractor is responsible for coordinating with COR when phasing. The contractor should always secure work areas and have safety signs always posted. Contractors shall replace all grills, vents and returns in restrooms. Contractor shall provide modular restrooms available for men and women outside building 93 during the entire renovation. Contractor must clean and provide soap, toilet tissue & paper towels throughout contract.

**PHASE 2 Hallways**

This project involves demolition of all the tile in the main hallways. Reinstalling the hall with all new glue down LVP flooring and baseboard selected by staff. The contractor will remove all the wallpaper from the hallways. Make all repairs to sheet rock including patch, skim walls, sand walls, priming walls and painting two coats of paint. The contractor is responsible for moving all signs, pictures, furniture, desks, tables, chairs & protecting them during construction. Contractor responsible for coordinating with staff when phasing. The contractor should always secure work areas and have safety signs always posted. Contractors shall replace 28 VAV hot water valves throughout the entire building. See attached BG 93 Phasing Floor plan. Contractors should do a test and balance on the entire HVAC's systems throughout entire building and make all necessary changes to adjust and balance air flow through out hallways and building office space. See separate mechanical As-Builts attachments.

**PHASE 3 Suite 160**

The project involves removing all the old carpet and baseboard out of the entire 160 Suite. Install all new 4-inch baseboards with new LVP flooring selected by the Stake Holder. Contractor shall field verify the flooring after all carpet has been removed to make sure the entire Suite floor is level. Contractors are responsible for providing materials to level floors before installing glue down LVP. The contractor will

remove all wallpaper in hallway areas & repair sheet rock, patch, skim the walls, sand walls, prime walls and painting two coats of paint. The contractor will paint all offices walls and door frames in the entire Suite. The contractor is responsible for moving all signs, bulletin boards, pictures, shelves, furniture, desks, tables, chairs, files cabinets & similar items protecting them during construction. Contractor responsible for coordinating with staff when phasing work. The contractor should always secure work areas and have safety signs posted throughout construction. Contractors will have to work closely with COR to access each office.

**PHASE 4 Suite 140**

The project involves removing all the old carpet and baseboard out of the entire Suite. Install all new 4-inch baseboards with new glue down LVP flooring selected by the Stake Holder. Contractor shall field verify the flooring after all carpet has been removed to make sure entire Suite floor is level. Contractors are responsible for providing materials to level floors before installing glue down LVP. Contractor shall disassemble all cubicles, electrical in Suite and reassemble all cubicles and electrical to install new LVP flooring. See attached photo. The contractor will remove all wallpaper in hallway areas, offices & repair sheet rock, patch, skim the walls, sand walls, prime walls and painting two coats of paint. The contractor will paint all offices walls and door frames in the entire Suite. The contractor is responsible for moving all signs, bulletin boards, pictures, and furniture, desks, shelves, tables, chairs, files cabinets & similar items protecting them during construction. Contractor is responsible for coordinating with COR when phasing work. The contractor should always secure work areas and have safety signs posted throughout construction. Contractors will have to work closely with COR to access each office and cubicle area.

**REFRENCE: Temporary Toilet example (or approved equal)**

**Basic Configuration**

1. 240V Electrical sourced from outlet at BG93, with dedicated water hose supply. (Protect from trip hazard)
2. At least (4) Separate Restroom Stations: Each station includes a toilet, ensuring that multiple users can access the facilities at the same time, helping to reduce waiting times during high-traffic events.
3. Air Conditioning & Heating: With climate control features like air conditioning and heating, this trailer ensures comfort regardless of the outdoor temperature.
4. Sinks with Running Water: Each station is equipped with a sink, offering running water for handwashing, ensuring high standards of hygiene.
5. Toilets & Urinals: The trailer is designed to accommodate several users, with multiple toilets and urinals available to streamline traffic and minimize congestion.
6. Tissue Dispensers and Paper Towels: Each restroom station includes a tissue dispenser, while the sink areas feature paper towel dispensers for convenience and hygiene.
7. Lighting: LED lighting provides bright, energy-efficient illumination inside each station, making it easy to use the restroom at any time of day or night.
8. Storage Space: Dedicated storage areas are available for maintenance tools, cleaning supplies, and extra paper products, ensuring that the trailer is always well-stocked and ready for use.
9. Contractors should inspect restrooms twice a week for supplies and clean restrooms.




Install Temporary Trailer Restrooms
ELECTRICAL AND WATER CONNECTIONS IN FRONT OF BUILDING
BG -93

### 1.4.2 Location

The work will take place inside BG0093 at FLETC Glynco. The Contracting Officer Representative (COR) will identify the exact location.

---

## 1.5 CONTRACT DRAWINGS

[Reserved for applicable drawings and diagrams.] Please see the attached floor plan showing the locations of the men's and women's restroom. Also attached are photos of the men's restroom 1-4. And the women's restroom 1-4.

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## 1.6 WORK RESCHEDULING

All work shall be completed within 334 calendar days of the notice to proceed. Standard work hours are 7:00 a.m. to 5:00 p.m., Monday through Friday. Requests for work outside these hours must be submitted in writing to the Contracting Officer at least 7 days in advance.

---

## 1.7 PROJECT ENVIRONMENTAL GOALS

The contractor shall distribute copies of the Environmental Goals to all subcontractors and the Contracting Officer. The overarching goal is to design, construct, and operate in alignment with sustainability principles. Specific goals include:

a. Preserving and restoring the site ecosystem and biodiversity while minimizing offsite environmental impact.
b. Minimizing energy, water, and material usage while selecting energy- and water-efficient equipment.
c. Utilizing environmentally preferable products and reducing material toxicity.
d. Incorporating renewable energy and material resources.
e. Optimizing operational performance through commissioning efforts to ensure energy-efficient equipment operates as intended.
f. Managing construction sites to prevent negative impacts on indoor environmental quality.
g. Reducing construction waste through reuse, recycling, and supplier take-back programs.

---

## 1.8 EXISTING WORK

In addition to "FAR 52.236-9, Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements":

a. Existing work shall be removed or altered to prevent damage to any portions that remain.
b. Altered portions of the existing work shall be repaired or replaced to match the original condition or adjoining work, as approved by the Contracting Officer. Upon completion, all existing work shall be restored to a condition equal to or better than its original state.

---

### 1.9 ON-SITE PERMITS

#### 1.9.1 Utility Outage and Connection Requests

a. Notify the Contracting Officer Representative at least 48 hours before commencing excavation work. The contractor is responsible for marking and verifying all utilities not marked.
b. Verify the elevations of existing piping, utilities, and underground obstructions not specified for removal but indicated to be transversed by piping, ducts and other work to be performed located in areas where new work will be installed.

c. Contact the local utility providers to obtain permits, verify tap fees and coordinate authorization to connect to their respective utilities. All utility connection cost shall be borne by the Contractor. Contractors are encouraged to contact all local utilities to confirm any connections, tap fees, ect.
d. Schedule work to minimize utility outages.
e. Submit utility outage and connection requests in writing to the Contracting Officer at least 3 calendar days in advance. Requests must specify the system involved, the area affected, the approximate duration, and the nature of the work.

f. Contractor is responsible for getting all permits

---

### 1.10 LOCATION OF UNDERGROUND FACILITIES

#### 1.10.1 Notification Prior to Excavation

Notify the Contracting Officer at least 48 hours before excavation. Contact Georgia and Glynn County utility locate organizations 48 hours before excavation. The contractor is responsible for marking all utilities not identified by the locate service.

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## PART 2 – PRODUCTS

All products shall conform to MATOC specification sections as amended by this Summary of Work.

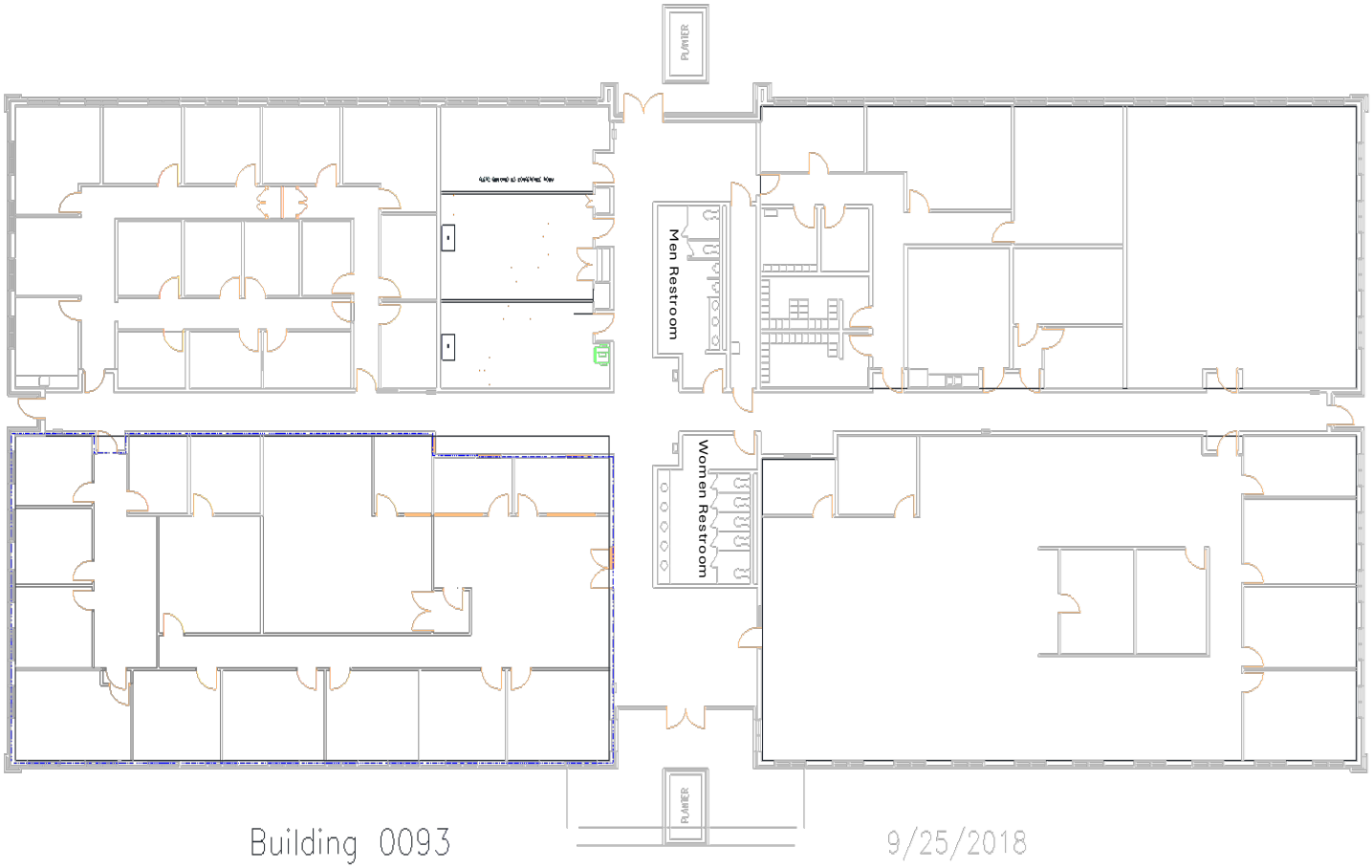
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## PART 3 – EXECUTION

- Work shall be performed during standard business hours (6:00 a.m. to 6:00 p.m., Monday through Friday).
- Requests for work during off-hours, weekends, or holidays must be submitted in writing to COR as soon as possible.

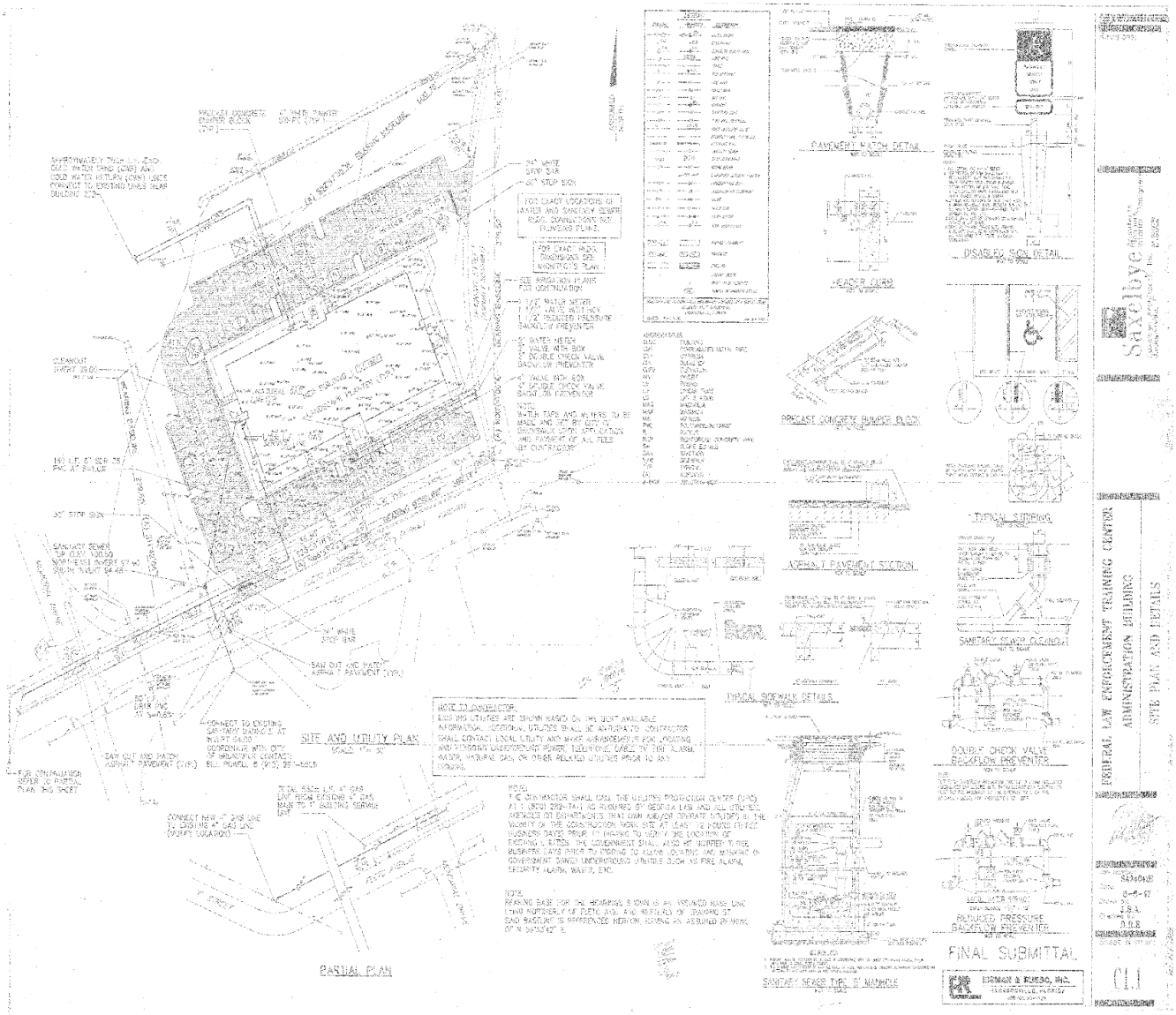
Attachment BG 93 Floor Plan

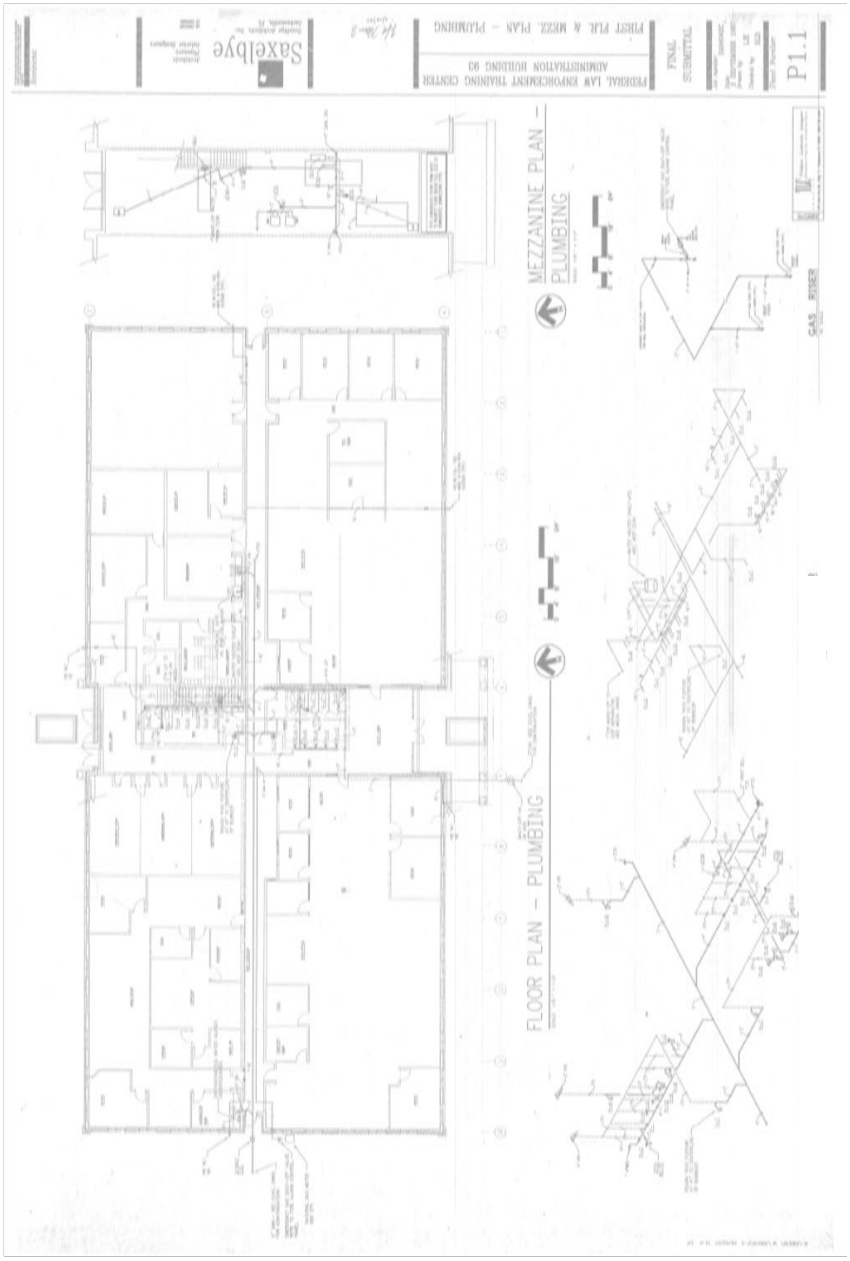


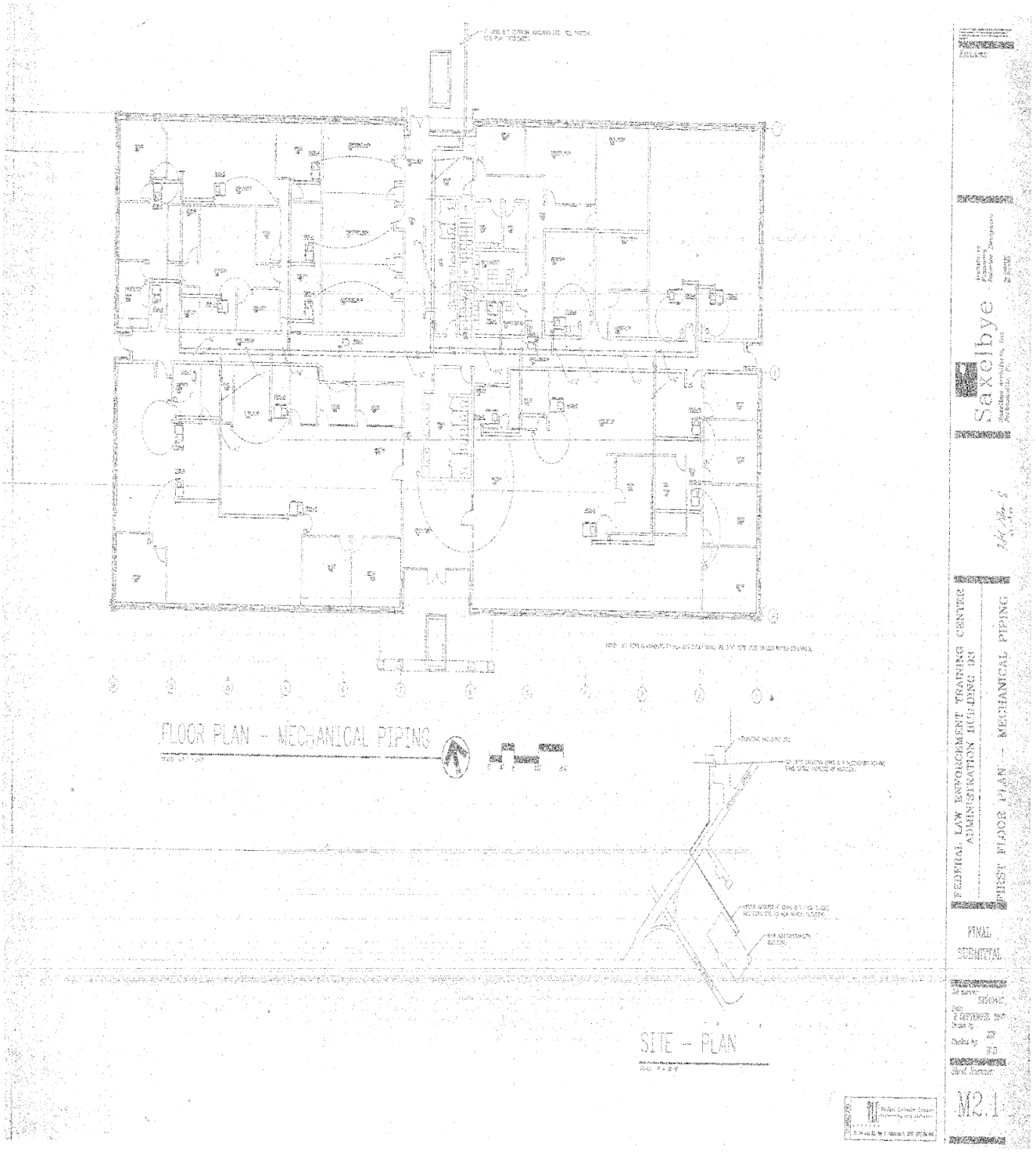
# BG 93 PHASED FLOOR PLAN

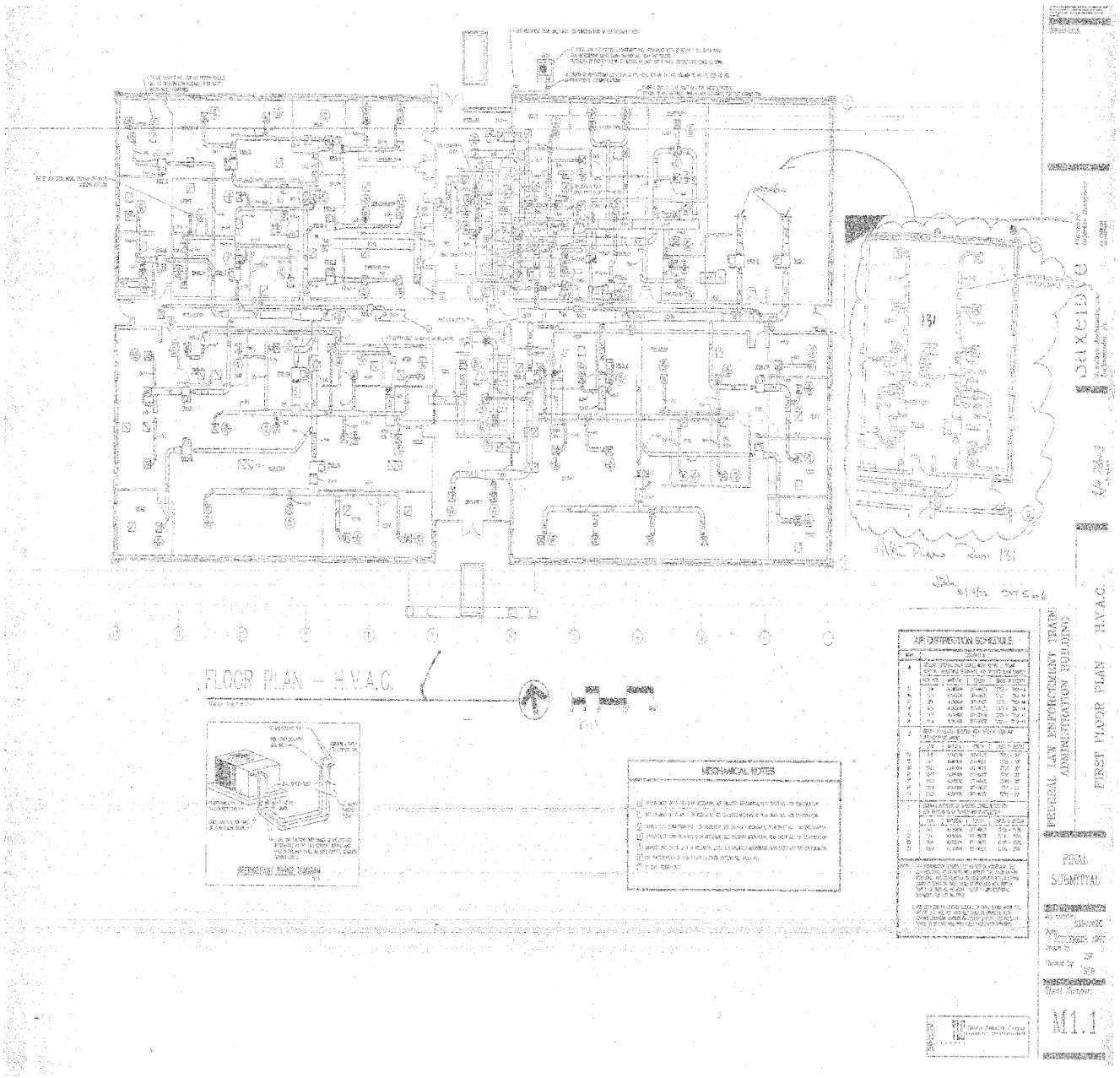



PLANTER
Men Restroom
Women Restroom
PLANTER
Building 0093
9/25/2018


SITE AND UTILITY PLAN
PARTIAL PLAN
PAVEMENT PATCH DETAIL
DISABLED SIGN DETAIL
HEADER CURB
PRECAST CONCRETE BUMPER BLOCK
ASPHALT PAVEMENT SECTION
TYPICAL STRIPING
SANITARY SEWER CLEANOUT
TYPICAL SIDEWALK DETAILS
DOUBLE CHECK VALVE BACKFLOW PREVENTER
REDUCED PRESSURE BACKFLOW PREVENTER
SANITARY SEWER TYPE 'S' MANHOLE
FINAL SUBMITTAL
FEDERAL LAW ENFORCEMENT TRAINING CENTER
ADMINISTRATION BUILDING
SITE PLAN AND DETAILS


FEDERAL LAW ENFORCEMENT TRAINING CENTRE
ADMINISTRATION BUILDING 93
FIRST FLR. & MEZZ. PLAN - PLUMBING
FINAL SUBMITTAL
P1.1
Saxelbye
MEZZANINE PLAN - PLUMBING
FLOOR PLAN - PLUMBING
GAS RISER


FLOOR PLAN - MECHANICAL PIPING
SITE - PLAN
FEDERAL LAW ENFORCEMENT TRAINING CENTER
ADMINISTRATION BUILDING 93
FIRST FLOOR PLAN - MECHANICAL PIPING
FINAL
SUBMITTAL
M2.1


FLOOR PLAN – H.V.A.C.
MECHANICAL NOTES
AIR DISTRIBUTION SCHEDULE
FEDERAL LAW ENFORCEMENT TRAINING
ADMINISTRATION BUILDING
FIRST FLOOR PLAN – H.V.A.C.
FINAL
SUBMITTAL
M1.1

# Attachment #1 photo Men's Restroom



# Attachment #2 photo Men's Restroom



# Attachment #3 Photo Men's Restroom



# Attachment #4 Photo Men's Restroom



# Attachment # 1 Photo Women's Restroom



# Attachment #2 Photo Women's Restroom



# Attachment #3 photo Women's Restroom



# Attachment #4 Photo Women's Restroom



# Hallway



# Hallway



# Hallway



# Hallway



# Hallway



# Legal Suite 160



# Legal Suite 160



# Legal Suite 160



# Legal Suite 160



# Legal Suite 160



# Legal Suite 160



# Legal Suite 160



# Legal Suite 160



# Legal Suite 140



# Legal Instructors Suite 140



# Legal Instructors Suite 140



# Legal Instructors Suite 140



# Legal Instructors Suite 140



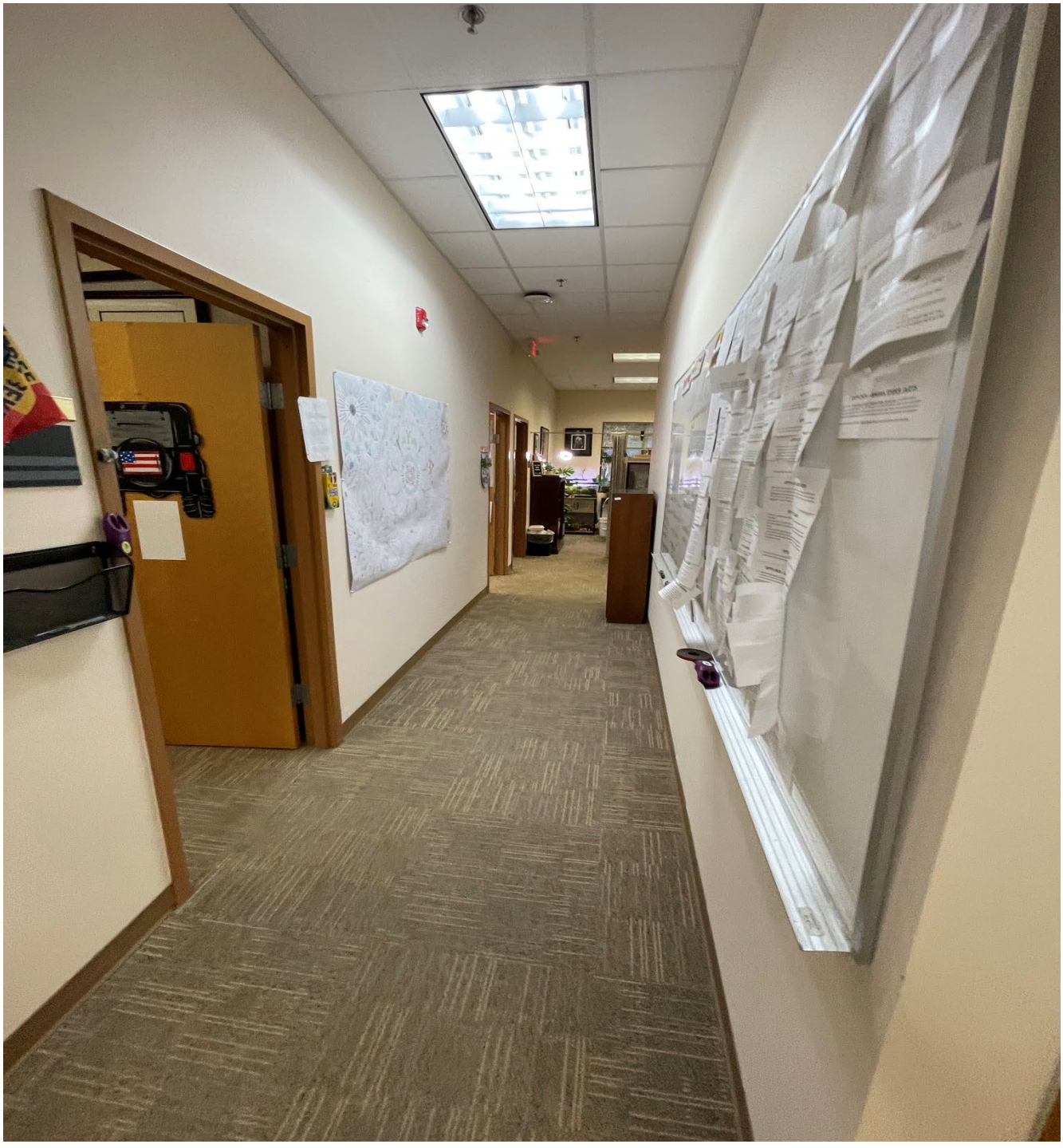
# Legal Instructors Suite 140



# Legal Instructors Suite 140



# Legal Instructors Suite 140



# Legal Instructors Suite 140



# Legal Instructors Suite 140



THE END

REQUIRED FORMAT FOR IRREVOCABLE LETTER OF CREDIT
(As stated in FAR 52.228-14 and prescribed in FAR 28.204-4)

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

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

Issue Date _____

Irrevocable Letter of Credit No. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____ (*for reference only*)

To: *[U.S. Government agency]*
*[U.S. Government Agency's Address]*

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

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

3. *[This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.]* It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

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

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ *[state of confirming financial institution, if any, otherwise state of issuing financial institution]*.

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

Sincerely,

_____
*[Issuing financial institution]*

**REQUIRED FORMAT FOR FINANCIAL INSTITUTION TO CONFIRM AN IRREVOCABLE LETTER OF CREDIT**
**(As stated in FAR 28.228-14 and prescribed in FAR 28.204-4)**

**The following format shall be used by the financial institution to confirm an ILC:**

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

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ *[U.S. Government agency]*

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

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

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

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

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

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

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

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ *[state of confirming financial institution]*.

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

Sincerely,

_____
*[Confirming financial institution]*

FTC-FAC-70 (9/01)

# CONSTRUCTION CONTRACTOR'S INVOICE

Contractor's Name and Address (As shown on Contract)

OFFICIAL DATE OF RECEIPT BY GOVERNMENT

For FLETC Use Only

**CONTRACTOR MUST ALSO COMPLETE CERTIFICATION ON REVERSE OR PAYMENT WILL NOT BE MADE**

Contract No. _____ Invoice No. _____ Invoice Date _____

Delivery Order No. _____ Work Order No. _____

Total Contract Amount _____ Through Change Order No. _____ Dated _____

Value of Work Completed _____

Total of Prior Invoices _____

Amount of this Invoice _____

Signature and Title _____
(Authorized Contractor Representative)

---

GOVERNMENT CERTIFICATION OF INVOICE Date _____

FROM: Contracting Officer's Technical Representative (COTR)
THRU: (1) Chief, Design-Construction Branch (FMD/D-CB)
(2) Contracting Officer (PRO/CCB)
TO: Budget and Finance Division (BFD/FIN)

CONTRACT WORK CERTIFIED COMPLETE $ _____

LESS: Retention $ _____

Previous Payments $ _____

Other (Deductions) $ _____

Liquid Damages @ $ _____ /day X _____ Days = $ _____

AMOUNT CERTIFIED FOR PAYMENT $ _____

Remarks:

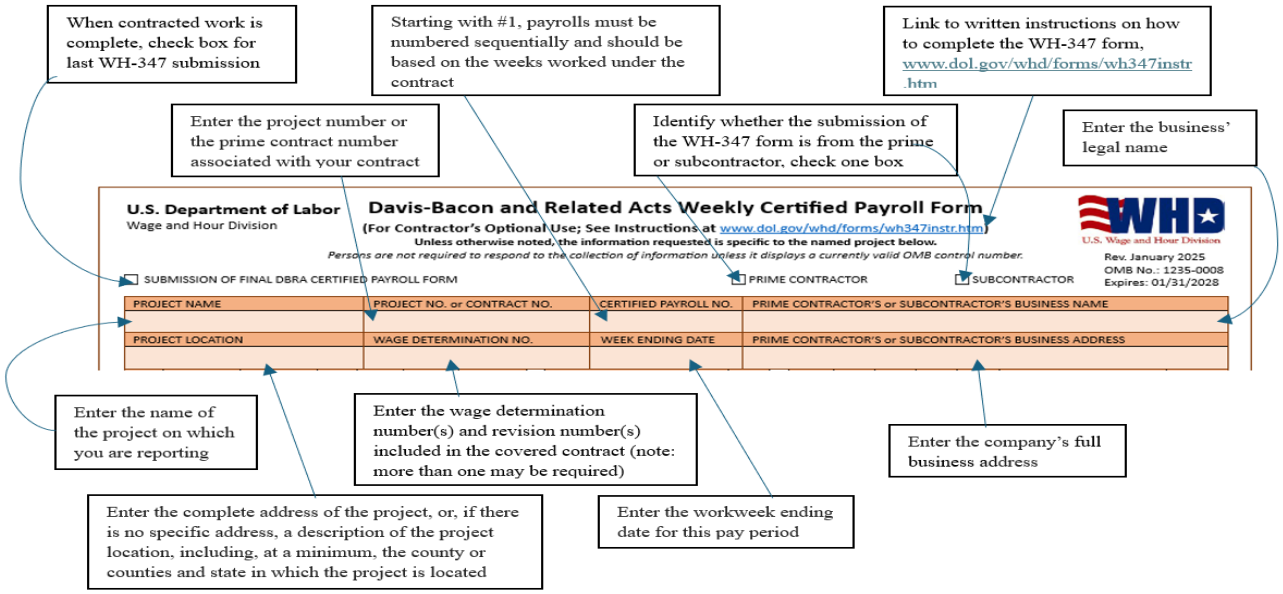
Evaluated By: _____
COTR/PM (FMD)

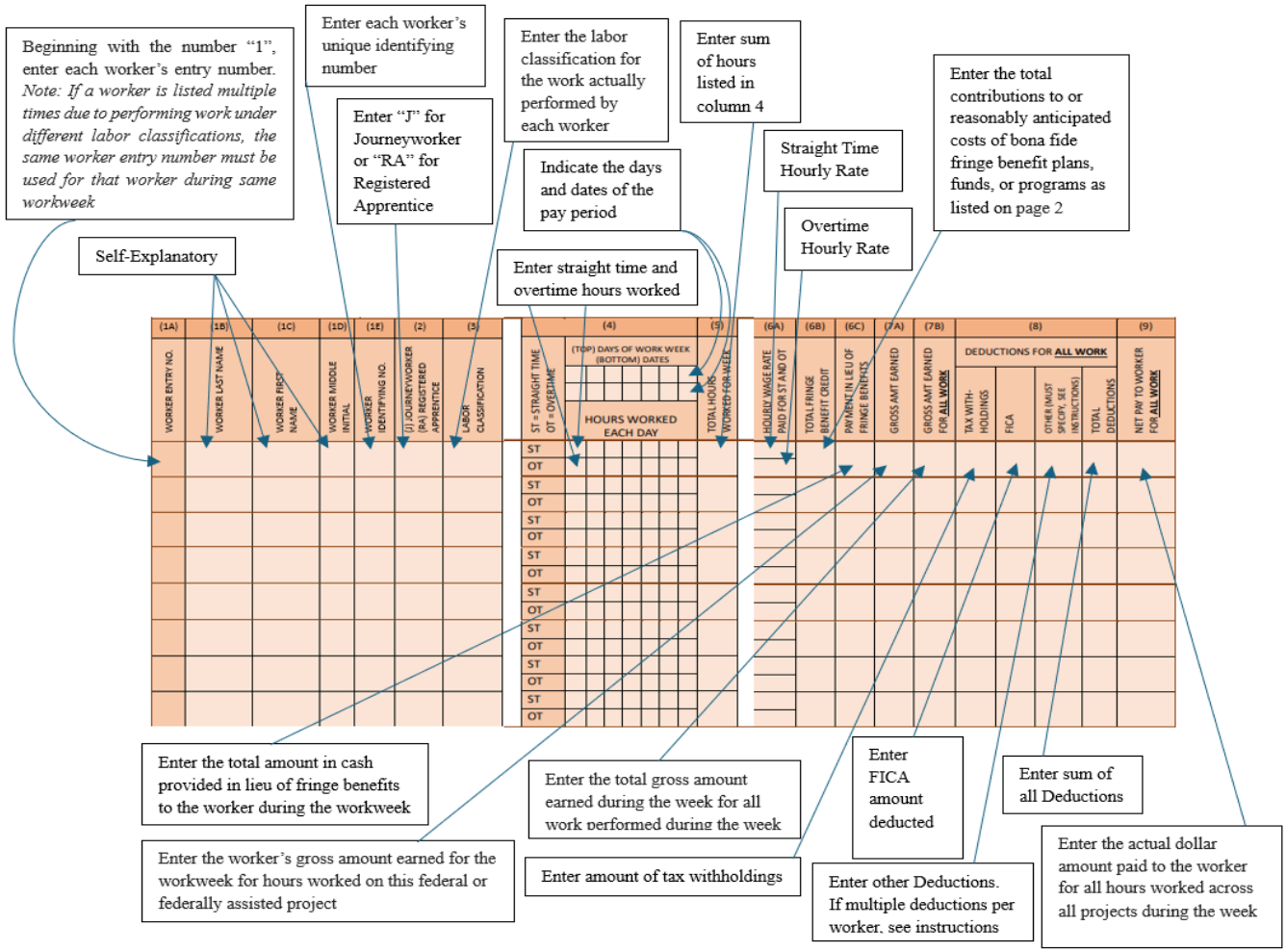
Payment Approved By: _____
Contracting Officer (PRO/CCB)

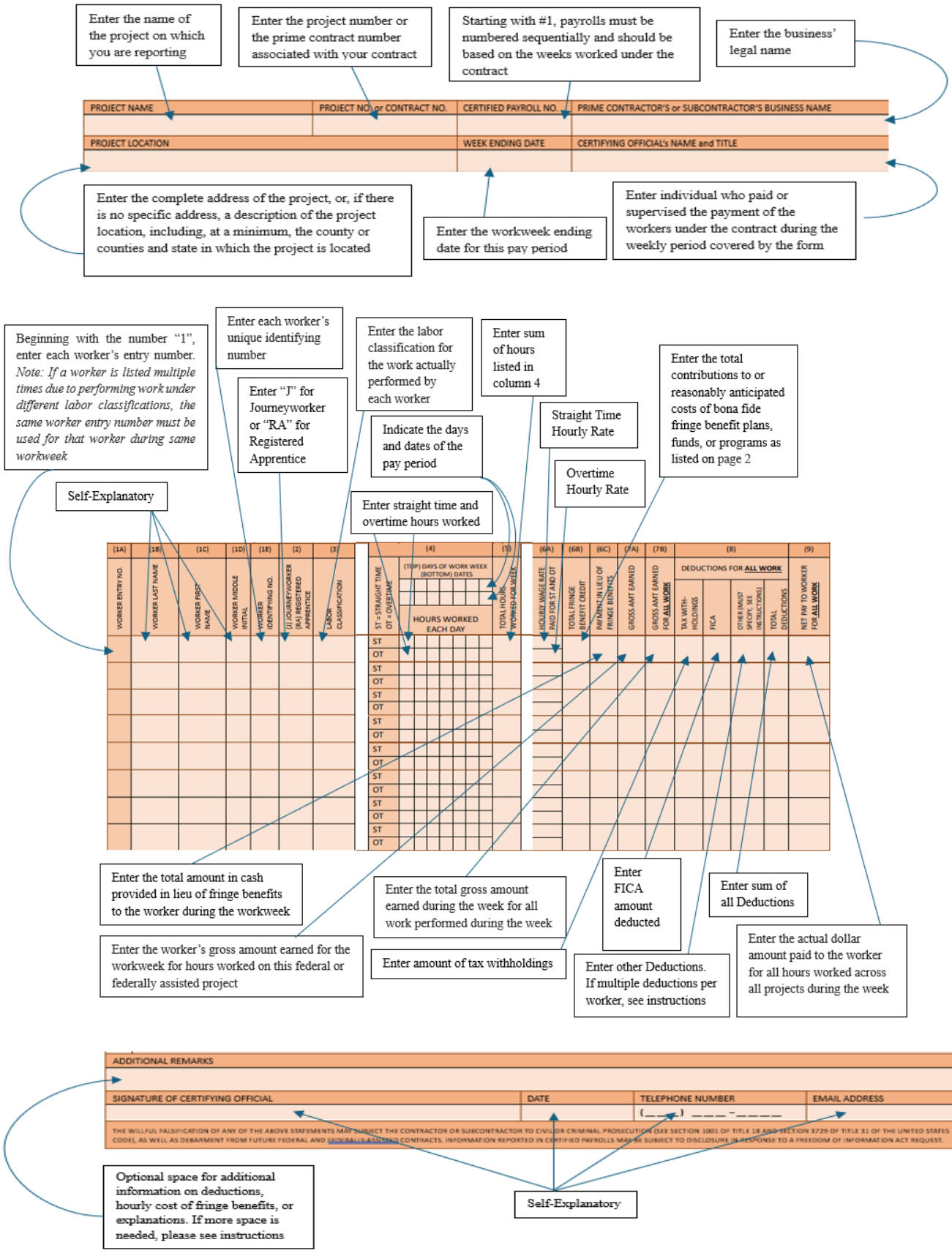
Reviewed By _____
Chief, Design/Construction Branch (FMD)

**How to correctly fill out the Davis-Bacon and Related Acts Weekly Certified Payroll WH-347 Form**

The completion of the WH-347 Davis Bacon and Related Acts Weekly Certified Payroll Form is optional; The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired.




Enter the name of the project on which you are reporting
Enter the project number or the prime contract number associated with your contract
Starting with #1, payrolls must be numbered sequentially and should be based on the weeks worked under the contract
Enter the business' legal name
PROJECT NAME
PROJECT NO. or CONTRACT NO.
CERTIFIED PAYROLL NO.
PRIME CONTRACTOR'S or SUBCONTRACTOR'S BUSINESS NAME
PROJECT LOCATION
WEEK ENDING DATE
CERTIFYING OFFICIAL's NAME and TITLE
Enter the complete address of the project, or, if there is no specific address, a description of the project location, including, at a minimum, the county or counties and state in which the project is located
Enter the workweek ending date for this pay period
Enter individual who paid or supervised the payment of the workers under the contract during the weekly period covered by the form
Beginning with the number "1", enter each worker's entry number. Note: If a worker is listed multiple times due to performing work under different labor classifications, the same worker entry number must be used for that worker during same workweek
Enter each worker's unique identifying number
Enter "J" for Journeyworker or "RA" for Registered Apprentice
Enter the labor classification for the work actually performed by each worker
Indicate the days and dates of the pay period
Enter sum of hours listed in column 4
Straight Time Hourly Rate
Overtime Hourly Rate
Enter the total contributions to or reasonably anticipated costs of bona fide fringe benefit plans, funds, or programs as listed on page 2
Self-Explanatory
Enter straight time and overtime hours worked
(1A) WORKER ENTRY NO.
(1B) WORKER LAST NAME
(1C) WORKER FIRST NAME
(1D) WORKER MIDDLE INITIAL
(1E) WORKER IDENTIFYING NO.
(2) (J) JOURNEYWORKER (RA) REGISTERED APPRENTICE
(3) LABOR CLASSIFICATION
(4) ST = STRAIGHT TIME OT = OVERTIME
(TOP) DAYS OF WORK WEEK (BOTTOM) DATES
HOURS WORKED EACH DAY
(5) TOTAL HOURS WORKED FOR WEEK
(6A) HOURLY WAGE RATE PAID FOR ST AND OT
(6B) TOTAL FRINGE BENEFIT CREDIT
(6C) PAYMENT IN LIEU OF FRINGE BENEFITS
(7A) GROSS AMT EARNED
(7B) GROSS AMT EARNED FOR ALL WORK
(8) DEDUCTIONS FOR ALL WORK
TAX WITHHOLDINGS
FICA
OTHER (MUST SPECIFY, SEE INSTRUCTIONS)
TOTAL DEDUCTIONS
(9) NET PAY TO WORKER FOR ALL WORK
ST
OT
Enter the total amount in cash provided in lieu of fringe benefits to the worker during the workweek
Enter the worker's gross amount earned for the workweek for hours worked on this federal or federally assisted project
Enter the total gross amount earned during the week for all work performed during the week
Enter amount of tax withholdings
Enter FICA amount deducted
Enter other Deductions. If multiple deductions per worker, see instructions
Enter sum of all Deductions
Enter the actual dollar amount paid to the worker for all hours worked across all projects during the week
ADDITIONAL REMARKS
SIGNATURE OF CERTIFYING OFFICIAL
DATE
TELEPHONE NUMBER
EMAIL ADDRESS
(___) ___-____
THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION (SEE SECTION 1001 OF TITLE 18 AND SECTION 3729 OF TITLE 31 OF THE UNITED STATES CODE), AS WELL AS DEBARMENT FROM FUTURE FEDERAL AND FEDERALLY ASSISTED CONTRACTS. INFORMATION REPORTED IN CERTIFIED PAYROLLS MAY BE SUBJECT TO DISCLOSURE IN RESPONSE TO A FREEDOM OF INFORMATION ACT REQUEST.
Optional space for additional information on deductions, hourly cost of fringe benefits, or explanations. If more space is needed, please see instructions
Self-Explanatory

**U.S. Department of Labor**
Wage and Hour Division

# Davis-Bacon and Related Acts Weekly Certified Payroll Form

**(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)**

**Unless otherwise noted, the information requested is specific to the named project below.**

*Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.*

U.S. Wage and Hour Division

Rev. January 2025
OMB No.: 1235-0008
Expires: 01/31/2028

☐ SUBMISSION OF FINAL DBRA CERTIFIED PAYROLL FORM ☐ PRIME CONTRACTOR ☐ SUBCONTRACTOR

| PROJECT NAME | PROJECT NO. or CONTRACT NO. | CERTIFIED PAYROLL NO. | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME |
|---|---|---|---|
| | | | |
| **PROJECT LOCATION** | **WAGE DETERMINATION NO.** | **WEEK ENDING DATE** | **PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS ADDRESS** |
| | | | |

| (1A) | (1B) | (1C) | (1D) | (1E) | (2) | (3) | | (4) | | (5) | | (6A) | (6B) | (6C) | (7A) | (7B) | (8) | | | | (9) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| WORKER ENTRY NO. | WORKER LAST NAME | WORKER FIRST NAME | WORKER MIDDLE INITIAL | WORKER IDENTIFYING NO. | (J) JOURNEYWORKER (RA) REGISTERD APPRENTICE | LABOR CLASSIFICATION | | ST = STRAIGHT TIME OT = OVERTIME | (TOP) DAYS OF WORK WEEK (BOTTOM) DATES HOURS WORKED EACH DAY | TOTAL HOURS WORKED FOR WEEK | | HOURLY WAGE RATE PAID FOR ST AND OT | TOTAL FRINGE BENEFIT CREDIT | PAYMENT IN LIEU OF FRINGE BENEFITS | GROSS AMT EARNED | GROSS AMT EARNED FOR **ALL WORK** | DEDUCTIONS FOR **ALL WORK** | | | | NET PAY TO WORKER FOR **ALL WORK** |
| | | | | | | | | ST | | | | | | | | | TAX WITH-HOLDINGS | FICA | OTHER (MUST SPECIFY, SEE INSTRUCTIONS) | TOTAL DEDUCTIONS | |
| | | | | | | | | OT | | | | | | | | | | | | | |
| | | | | | | | | ST | | | | | | | | | | | | | |
| | | | | | | | | OT | | | | | | | | | | | | | |
| | | | | | | | | ST | | | | | | | | | | | | | |
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| | | | | | | | | OT | | | | | | | | | | | | | |

While use of Form WH-347 itself is optional, covered contractors and subcontractors performing work on Federal or federally assisted construction contracts are required by the DBRA regulations and the contract clauses to submit payroll information on a weekly basis. The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federal or federally financed construction contracts to, on a weekly basis, "furnish a statement on the wages paid each employee during the prior week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors and subcontractors to submit weekly certified payrolls to the appropriate Federal agency if the agency is a party to the contract (or, if the agency is not such a party, to the applicant, sponsor, owner, or other entity, as the case may be, that maintains such records, for transmission to the Federal agency). Each certified payroll must be accompanied by a signed "Statement of Compliance" (e.g., page 2 of the WH-347 or another document with identical wording) indicating that the certified payrolls are accurate and complete, and that each laborer or mechanic has been paid not less than the required Davis-Bacon prevailing wage rate(s) (including any fringe benefits) for the work performed. DOL and contracting agencies receiving this information review the information to determine whether workers have received legally required wages and fringe benefits.

**Public Burden Statement**

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

(over)

| PROJECT NAME | PROJECT NO. or CONTRACT NO. | PAYROLL NO. | PRIME CONTRACTOR'S/SUBCONTRACTOR'S BUSINESS NAME |
|---|---|---|---|
| | | | |
| **PROJECT LOCATION** | | **WEEK ENDING DATE** | **CERTIFYING OFFICIAL's NAME AND TITLE** |
| | | | |

I paid or supervised the payment of the laborers or mechanics working on the above project during the stated time period. I certify the following:

☐ The payroll information submitted with this statement is correct and complete for the above project during the above period, and the wage and fringe benefit rates paid to the workers, including credit taken for the reasonably anticipated costs of a bona fide fringe benefit plan, fund or program, are not less than the applicable wage and fringe benefits rates for the classification(s) of work actually performed, as specified in the wage determination(s) incorporated into the contract.

☐ All regular payrolls and all other basic records that the contractor is required to maintain for this payroll period are complete and accurate and will be made available upon request from the agency or the Department of Labor.

☐ The classifications reported for each laborer or mechanic are the classification(s) of work that each worker actually performed.

☐ Any workers paid as apprentices during the above period are duly registered in a bona fide apprenticeship program registered with the Office of Apprenticeship, Employment and Training Administration, United States Department of Labor ("OA"), or a State Apprenticeship Agency ("SAA") recognized by Department of Labor. I have verified the registered apprenticeship program information provided below as accurate and applicable to any apprentices identified on page 1 of this form.

| APPRENTICESHIP PROGRAM NAME | REGISTERED | | NAME OF LABOR CLASSIFICATION |
|---|---|---|---|
| | ☐ OA | ☐ SAA | |
| | ☐ OA | ☐ SAA | |
| | ☐ OA | ☐ SAA | |

☐ Fringe benefits have been paid in cash and/or to bona fide fringe benefit plans, funds, or programs. Where the contractor is claiming an hourly credit for their contributions to or reasonably anticipated costs of a bona fide fringe benefit plan, fund, or program, provide plan information and the hourly credit claimed for each worker listed on the previous page of this form.

**HOURLY CREDIT FOR FRINGE BENEFITS**

*If an amount is listed in (6B) on the first page of this certified payroll form, enter the hourly credit claimed under each plan name, type and number for each worker and check whether the plan is funded or unfunded.*

| NAME OF WORKER | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | FB NAME / FB TYPE / PLAN NO. / ☐ Funded ☐ Unfunded | TOTAL HOURLY CREDIT |
|---|---|---|---|---|---|---|---|
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | $ |
| | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hourly Credit $ | Hrly Credit $ | $ |

☐ All workers on the project have been paid the full weekly wages earned, and no rebates or deductions have been or will be made either directly or indirectly, other than permissible deductions as defined in 29 CFR part 3.

ADDITIONAL REMARKS

| SIGNATURE OF CERTIFYING OFFICIAL | DATE | TELEPHONE NUMBER | EMAIL ADDRESS |
|---|---|---|---|
| | | (___) ___ -____ | |

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION (SEE SECTION 1001 OF TITLE 18 AND SECTION 3729 OF TITLE 31 OF THE UNITED STATES CODE), AS WELL AS DEBARMENT FROM FUTURE FEDERAL AND FEDERALLY-ASSISTED CONTRACTS. INFORMATION REPORTED IN CERTIFIED PAYROLLS MAY BE SUBJECT TO DISCLOSURE IN RESPONSE TO A FREEDOM OF INFORMATION ACT REQUEST.

# DAILY REPORT TO INSPECTOR

| CONTRACT NO. | TITLE AND LOCATION | DATE |
|---|---|---|
| | | REPORT NO. |

| CONTRACTOR (Prime or Subcontractor) | NAME OF SUPERINTENDENT OR FOREMAN |
|---|---|
| WEATHER - A.M. | TEMPERATURE - A.M. |
| WEATHER - P.M. | TEMPERATURE - P.M. |

| PRIME CONTRACTOR / SUBCONTRACTOR WORKFORCE (Use additional sheets if required) | | | | LOCATION AND DESCRIPTION OF WORK PERFORMED |
|---|---|---|---|---|
| NUMBER | TRADE | HOURS | EMPLOYER | |
| | | | | |
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| | | |
|---|---|---|
| TOTAL WORK HOURS ON JOB SITE THIS DATE | | WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? |
| CUMULATIVE TOTAL OF HOURS FROM PREVIOUS REPORT | | ☐ YES ☐ NO |
| TOTAL WORK HOURS FROM START OF CONSTRUCTION | | |

| INSPECTION AND / OR TESTING PERFORMED TODAY - - FOLLOW WITH REPORT | LOCATION AND / OR ELEMENT OF WORK | REMARKS RESULTS OF INSPECTION TESTING |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

| SPEC.PARA. AND / OR DRAWING NO. | EQUIPMENT / MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (Description, Sizes, Quantity) | SUBMITTAL NO. OR CERTIFICATION | DATE APPROV |
|---|---|---|---|
| | | | |
| | | | |

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|---|---|---|---|
| | | | |

DEPARTMENT OF HOMELAND SECURITY

# NON-DISCLOSURE AGREEMENT

The person listed below is an individual official, employee, consultant, or subcontractor of or to the Authorized Entity listed above, intending to be legally bound, hereby consent to the terms in this Agreement in consideration of my being granted conditional access to certain information, specified below, that is owned by, produced by, or in the possession of the United States Government.

| |
|---|
| Full Name |
| Authorized Entity |

*Signer will acknowledge the category or categories of information that he or she may have access to, and the signer's willingness to comply with the standards for protection by placing his or her initials in front of the applicable category or categories.*

| PROTECTED CRITICAL INFRASTRUCTURE INFORMATION (PCII) | |
|---|---|
| Initials | I attest that I am familiar with, and I will comply with all requirements of the PCII program set out in the Critical Infrastructure Information Act of 2002 (CII Act) (Title II, Subtitle B, of the Homeland Security Act of 2002, Public Law 107-296, 196 Stat. 2135, 6 USC 101 et seq.), as amended, the implementing regulations thereto (6 CFR Part 29), as amended, and the applicable PCII Procedures Manual, as amended, and with any such requirements that may be officially communicated to me by the PCII Program Manager or the PCII Program Manager's designee. |

| SENSITIVE SECURITY INFORMATION (SSI) | |
|---|---|
| Initials | I attest that I am familiar with, and I will comply with the standards for access, dissemination, handling, and safeguarding of SSI information as cited in this Agreement and in accordance with 49 CFR Part 1520, "Protection of Sensitive Security Information," "Policies and Procedures for Safeguarding and Control of SSI," as amended, and any supplementary guidance issued by an authorized official of the Department of Homeland Security. |

| OTHER SENSITIVE BUT UNCLASSIFIED (SBU) | |
|---|---|
| Initials | As used in this Agreement, sensitive but unclassified information is an over-arching term that covers any information, not otherwise indicated above, which the loss of, misuse of, or unauthorized access to or modification of could adversely affect the national interest or the conduct of Federal programs, or the privacy to which individuals are entitled under Section 552a of Title 5, as amended, but which has not been specifically authorized under criteria established by an Executive Order or an Act of Congress to be kept secret in the interest of national defense or foreign policy. This includes information categorized by DHS or other government agencies as: For Official Use Only (FOUO); Official Use Only (OUO); Sensitive Homeland Security Information (SHSI); Limited Official Use (LOU); Law Enforcement Sensitive (LES); Safeguarding Information (SGI); Unclassified Controlled Nuclear Information (UCNI); and any other identifier used by other government agencies to categorize information as sensitive but unclassified.<br><br>I attest that I am familiar with, and I will comply with the standards for access, dissemination, handling, and safeguarding of the information to which I am granted access as cited in this Agreement and in accordance with the guidance provided to me relative to the specific category of information. |

| ACKNOWLEDGEMENT |
|---|
| 1. I hereby acknowledge that I have received a security indoctrination concerning the nature and protection of information to which I have been provided conditional access, including the procedures to be followed in ascertaining whether other persons to whom I contemplate disclosing this information have been approved for access to it, and that I understand these procedures. |

2. By being granted conditional access to the information indicated above, the United States Government has placed special confidence and trust in me and I am obligated to protect this information from unauthorized disclosure, in accordance with the terms of this Agreement and the laws, regulations, and directives applicable to the specific categories of information to which I am granted access.

3. I attest that I understand my responsibilities and that I am familiar with and will comply with the standards for protecting such information that I may have access to in accordance with the terms of this Agreement and the laws, regulations, and/or directives applicable to the specific categories of information to which I am granted access. I understand that the United States Government may conduct inspections, at any time or place, for the purpose of ensuring compliance with the conditions for access, dissemination, handling and safeguarding information under this Agreement.

4. I will not disclose or release any information provided to me pursuant to this Agreement without proper authority or authorization. Should situations arise that warrant the disclosure or release of such information I will do so only under approved circumstances and in accordance with the laws, regulations, or directives applicable to the specific categories of information. I will honor and comply with any and all dissemination restrictions cited or verbally relayed to me by the proper authority.

    (a) For PCII - (1) Upon the completion of my engagement as an employee, consultant, or subcontractor under the contract, or the completion of my work on the PCII Program, whichever occurs first, I will surrender promptly to the PCII Program Manager or his designee, or to the appropriate PCII officer, PCII of any type whatsoever that is in my possession.

5. (2) If the Authorized Entity is a United States Government contractor performing services in support of the PCII Program, I will not request, obtain, maintain, or use PCII unless the PCII Program Manager or Program Manager's designee has first made in writing, with respect to the contractor, the certification as provided for in Section 29.8(c) of the implementing regulations to the CII Act, as amended.

6. (b) For SSI and SBU - I hereby agree that material which I have in my possession and containing information covered by this Agreement, will be handled and safeguarded in a manner that affords sufficient protection to prevent the unauthorized disclosure of or inadvertent access to such information, consistent with the laws, regulations, or directives applicable to the specific categories of information. I agree that I shall return all information to which I have had access or which is in my possession 1) upon demand by an authorized individual; and/or 2) upon the conclusion of my duties, association, or support to DHS; and/or 3) upon the determination that my official duties do not require further access to such information.

7. I hereby agree that I will not alter or remove markings, which indicate a category of information or require specific handling instructions, from any material I may come in contact with, in the case of SSI or SBU, unless such alteration or removal is consistent with the requirements set forth in the laws, regulations, or directives applicable to the specific category of information or, in the case of PCII, unless such alteration or removal is authorized by the PCII Program Manager or the PCII Program Manager's designee. I agree that if I use information from a sensitive document or other medium, I will carry forward any markings or other required restrictions to derivative products and will protect them in the same matter as the original.

8. I hereby agree that I shall promptly report to the appropriate official, in accordance with the guidance issued for the applicable category of information, any loss, theft, misuse, misplacement, unauthorized disclosure, or other security violation, I have knowledge of and whether or not I am personally involved. I also understand that my anonymity will be kept to the extent possible when reporting security violations.

9. If I violate the terms and conditions of this Agreement, such violation may result in the cancellation of my conditional access to the information covered by this Agreement. This may serve as a basis for denying me conditional access to other types of information, to include classified national security information.

    (a) With respect to SSI and SBU, I hereby assign to the United States Government all royalties, remunerations, and emoluments that have resulted, will result, or may result from any disclosure, publication, or revelation of the information not consistent with the terms of this Agreement.

    (b) With respect to PCII I hereby assign to the entity owning the PCII and the United States Government, all royalties, remunerations, and emoluments that have resulted, will result, or may result from any disclosure, publication, or revelation of PCII not consistent with the terms of this Agreement.

10. This Agreement is made and intended for the benefit of the United States Government and may be enforced by the United States Government or the Authorized Entity. By granting me conditional access to information in this context, the United States Government and, with respect to PCII, the Authorized Entity, may seek any remedy available to it to enforce this Agreement including, but not limited to, application for a court order prohibiting disclosure of information in breach of this Agreement. I understand that if I violate the terms and conditions of this Agreement, I could be subjected to administrative, disciplinary, civil, or criminal action, as appropriate, under the laws, regulations, or directives applicable to the category of information involved and neither the United States Government nor the Authorized Entity have waived any statutory or common law evidentiary privileges or protections that they may assert in any administrative or court proceeding to protect any sensitive information to which I have been given conditional access under the terms of this Agreement.
11. Unless and until I am released in writing by an authorized representative of the Department of Homeland Security (if permissible for the particular category of information), I understand that all conditions and obligations imposed upon me by this Agreement apply during the time that I am granted conditional access, and at all times thereafter.
12. Each provision of this Agreement is severable. If a court should find any provision of this Agreement to be unenforceable, all other provisions shall remain in full force and effect.
13. My execution of this Agreement shall not nullify or affect in any manner any other secrecy or non-disclosure Agreement which I have executed or may execute with the United States Government or any of its departments or agencies.
14. These provisions are consistent with and do not supersede, conflict with, or otherwise alter the employee obligations, rights, or liabilities created by existing statute or Executive Order relating to (1) classified information, (2) communications to Congress, (3) the reporting to an Inspector General or the Office of Special Counsel of a violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or (4) any other whistleblower protection. The definitions, requirements, obligations, rights, sanctions, and liabilities created by controlling Executive Orders and statutory provisions are incorporated into this agreement and are controlling.
15. Signing this Agreement does not bar disclosures to Congress, the Special Counsel, the Inspector General of any agency, or any other agency component responsible for internal investigation or review of any information that relates to any violation of any law, rule, or regulation, or mismanagement, a gross waste of funds, an abuse of authority, or a substantial and specific danger to public health or safety, or any other whistleblower protection. In addition, signing this agreement does not bar disclosure to an authorized official of an executive agency or the Department of Justice that are essential to reporting a substantial violation of law.
16. I represent and warrant that I have the authority to enter into this Agreement.
17. I have read this Non-Disclosure Agreement carefully. The briefing officer (e.g., Special Security Officer) has answered any questions that I had. I acknowledge that the briefing officer has made available to me any laws, regulations, or directives referenced in this document so that I may read them at this time, if I so choose. By applying my digital signature below, the briefing officer accepts that the signature is valid and meets the terms of non-repudiation.

I understand and agree to the following terms and conditions of my access to the information indicated above.

| | | | |
|---|---|---|---|
| Full Name | | | |
| Government/Department/Agency/Business Address | | | |
| City | State | Zip Code | Phone |
| I make this Agreement in good faith, without mental reservation or purpose of evasion. | | | |
| Signature | | | Date |

**PRIVACY ACT STATEMENT**

**Authority:** Homeland Security Act of 2002; and DHS Management Directive 11042.1, "SAFEGUARDING SENSITIVE BUT UNCLASSIFIED (FOR OFFICIAL USE ONLY) INFORMATION".

**Principle Purpose:** To execute an agreement between DHS and contractors (or consultants) working for, or on behalf of DHS, to protect DHS Sensitive but Unclassified Information from unauthorized disclosure.

**Routine Use(s):** The information collected on this form may be disclosed as generally permitted under 5 U.S.C. §552a (b) of the Privacy Act of 1974, as amended. This includes using the information as necessary and authorized by the routine uses published in "DHS/ALL-023 Personnel Security Management System of Records".

**Disclosure:** Providing this information is voluntary; however, failure to provide this information may prevent the individual from being granted access to DHS Sensitive but Unclassified Information.

# Employment Eligibility Verification

**Department of Homeland Security**

U.S. Citizenship and Immigration Services

**USCIS Form I-9**

OMB No.1615-0047

Expires 05/31/2027

**START HERE: Employers must ensure the form instructions are available to employees when completing this form. Employers are liable for failing to comply with the requirements for completing this form. See below and the Instructions.**

**ANTI-DISCRIMINATION NOTICE:** All employees can choose which acceptable documentation to present for Form I-9. Employers cannot ask employees for documentation to verify information in **Section 1**, or specify which acceptable documentation employees must present for **Section 2** or Supplement B, Reverification and Rehire. Treating employees differently based on their citizenship, immigration status, or national origin may be illegal.

## Section 1. Employee Information and Attestation: Employees must complete and sign Section 1 of Form I-9 no later than the first day of employment, but not before accepting a job offer.

| Last Name (Family Name) | First Name (Given Name) | Middle Initial (if any) | Other Last Names Used (if any) |
|---|---|---|---|
| | | | |

| Address (Street Number and Name) | Apt. Number (if any) | City or Town | State | ZIP Code |
|---|---|---|---|---|
| | | | | |

| Date of Birth (mm/dd/yyyy) | U.S. Social Security Number | Employee's Email Address | Employee's Telephone Number |
|---|---|---|---|
| | | | |

**I am aware that federal law provides for imprisonment and/or fines for false statements, or the use of false documents, in connection with the completion of this form. I attest, under penalty of perjury, that this information, including my selection of the box attesting to my citizenship or immigration status, is true and correct.**

Check one of the following boxes to attest to your citizenship or immigration status (See page 2 and 3 of the instructions.):

- ☐ 1. A citizen of the United States
- ☐ 2. A noncitizen national of the United States (See Instructions.)
- ☐ 3. A lawful permanent resident (Enter USCIS or A-Number.) _____
- ☐ 4. An alien authorized to work until _____ (exp. date, if any)

If you check **Item Number 4.**, enter one of these:

| USCIS A-Number | OR | Form I-94 Admission Number | OR | Foreign Passport Number and Country of Issuance |
|---|---|---|---|---|
| | | | | |

| Signature of Employee | Today's Date (mm/dd/yyyy) |
|---|---|
| | |

**If a preparer and/or translator assisted you in completing Section 1, that person MUST complete the Preparer and/or Translator Certification on Page 3.**

## Section 2. Employer Review and Verification: Employers or their authorized representative must complete and sign Section 2 within three business days after the employee's first day of employment, and must physically examine, or examine consistent with an alternative procedure authorized by the Secretary of DHS, documentation from List A OR a combination of documentation from List B and List C. Enter any additional documentation in the Additional Information box; see Instructions.

| | List A | OR | List B | AND | List C |
|---|---|---|---|---|---|
| **Document Title 1** | | | | | |
| Issuing Authority | | | | | |
| Document Number (if any) | | | | | |
| Expiration Date (if any) | | | | | |
| **Document Title 2 (if any)** | | | | | |
| Issuing Authority | | | | | |
| Document Number (if any) | | | | | |
| Expiration Date (if any) | | | | | |
| **Document Title 3 (if any)** | | | | | |
| Issuing Authority | | | | | |
| Document Number (if any) | | | | | |
| Expiration Date (if any) | | | | | |

**Additional Information**

☐ Check here if you used an alternative procedure authorized by DHS to examine documents.

**Certification: I attest, under penalty of perjury, that (1) I have examined the documentation presented by the above-named employee, (2) the above-listed documentation appears to be genuine and to relate to the employee named, and (3) to the best of my knowledge, the employee is authorized to work in the United States.**

First Day of Employment (mm/dd/yyyy):

| Last Name, First Name and Title of Employer or Authorized Representative | Signature of Employer or Authorized Representative | Today's Date (mm/dd/yyyy) |
|---|---|---|
| | | |

| Employer's Business or Organization Name | Employer's Business or Organization Address, City or Town, State, ZIP Code |
|---|---|
| | |

**For reverification or rehire, complete Supplement B, Reverification and Rehire on Page 4.**

# LISTS OF ACCEPTABLE DOCUMENTS

All documents containing an expiration date must be unexpired.
* Documents extended by the issuing authority are considered unexpired.
Employees may present one selection from List A or a
combination of one selection from List B and one selection from List C.
**Examples of many of these documents appear in the Handbook for Employers (M-274).**

| LIST A<br>Documents that Establish Both Identity and Employment Authorization | OR | LIST B<br>Documents that Establish Identity | AND | LIST C<br>Documents that Establish Employment Authorization |
|---|---|---|---|---|
| **1.** U.S. Passport or U.S. Passport Card | | **1.** Driver's license or ID card issued by a State or outlying possession of the United States provided it contains a photograph or information such as name, date of birth, sex, height, eye color, and address | | **1.** A Social Security Account Number card, unless the card includes one of the following restrictions:<br>**(1)** NOT VALID FOR EMPLOYMENT<br>**(2)** VALID FOR WORK ONLY WITH INS AUTHORIZATION<br>**(3)** VALID FOR WORK ONLY WITH DHS AUTHORIZATION |
| **2.** Permanent Resident Card or Alien Registration Receipt Card (Form I-551) | | **2.** ID card issued by federal, state or local government agencies or entities, provided it contains a photograph or information such as name, date of birth, sex, height, eye color, and address | | **2.** Certification of report of birth issued by the Department of State (Forms DS-1350, FS-545, FS-240) |
| **3.** Foreign passport that contains a temporary I-551 stamp or temporary I-551 printed notation on a machine-readable immigrant visa | | **3.** School ID card with a photograph | | **3.** Original or certified copy of birth certificate issued by a State, county, municipal authority, or territory of the United States bearing an official seal |
| **4.** Employment Authorization Document that contains a photograph (Form I-766) | | **4.** Voter's registration card | | **4.** Native American tribal document |
| **5.** For an individual temporarily authorized to work for a specific employer because of his or her status or parole:<br>**a.** Foreign passport; and<br>**b.** Form I-94 or Form I-94A that has the following:<br>**(1)** The same name as the passport; and<br>**(2)** An endorsement of the individual's status or parole as long as that period of endorsement has not yet expired and the proposed employment is not in conflict with any restrictions or limitations identified on the form. | | **5.** U.S. Military card or draft record | | **5.** U.S. Citizen ID Card (Form I-197) |
| | | **6.** Military dependent's ID card | | **6.** Identification Card for Use of Resident Citizen in the United States (Form I-179) |
| | | **7.** U.S. Coast Guard Merchant Mariner Card | | **7.** Employment authorization document issued by the Department of Homeland Security<br>For examples, see **Section 7** and **Section 13** of the M-274 on **uscis.gov/i-9-central**.<br>The Form I-766, Employment Authorization Document, is a List A, **Item Number 4.** document, not a List C document. |
| **6.** Passport from the Federated States of Micronesia (FSM) or the Republic of the Marshall Islands (RMI) with Form I-94 or Form I-94A indicating nonimmigrant admission under the Compact of Free Association Between the United States and the FSM or RMI | | **8.** Native American tribal document | | |
| | | **9.** Driver's license issued by a Canadian government authority | | |
| | | **For persons under age 18 who are unable to present a document listed above:** | | |
| | | **10.** School record or report card | | |
| | | **11.** Clinic, doctor, or hospital record | | |
| | | **12.** Day-care or nursery school record | | |

## Acceptable Receipts

May be presented in lieu of a document listed above for a temporary period.
For receipt validity dates, see the M-274.

| | | | |
|---|---|---|---|
| • Receipt for a replacement of a lost, stolen, or damaged List A document.<br>• Form I-94 issued to a lawful permanent resident that contains an I-551 stamp and a photograph of the individual.<br>• Form I-94 with “RE” notation or refugee stamp issued to a refugee. | **OR** | Receipt for a replacement of a lost, stolen, or damaged List B document. | Receipt for a replacement of a lost, stolen, or damaged List C document. |

*Refer to the Employment Authorization Extensions page on **I-9 Central** for more information.

# Supplement A,
# Preparer and/or Translator Certification for Section 1

**Department of Homeland Security**
U.S. Citizenship and Immigration Services

**USCIS**
**Form I-9**
**Supplement A**
OMB No. 1615-0047
Expires 05/31/2027

| Last Name *(Family Name)* from **Section 1.** | First Name *(Given Name)* from **Section 1.** | Middle initial (if any) from **Section 1.** |
|---|---|---|
| | | |

**Instructions:** This supplement must be completed by any preparer and/or translator who assists an employee in completing Section 1 of Form I-9. The preparer and/or translator must enter the employee's name in the spaces provided above. Each preparer or translator must complete, sign, and date a separate certification area. Employers must retain completed supplement sheets with the employee's completed Form I-9.

**I attest, under penalty of perjury, that I have assisted in the completion of Section 1 of this form and that to the best of my knowledge the information is true and correct.**

| Signature of Preparer or Translator | | | Date *(mm/dd/yyyy)* |
|---|---|---|---|
| Last Name *(Family Name)* | First Name *(Given Name)* | | Middle Initial *(if any)* |
| Address *(Street Number and Name)* | City or Town | State | ZIP Code |
| | | | |

**I attest, under penalty of perjury, that I have assisted in the completion of Section 1 of this form and that to the best of my knowledge the information is true and correct.**

| Signature of Preparer or Translator | | | Date *(mm/dd/yyyy)* |
|---|---|---|---|
| Last Name *(Family Name)* | First Name *(Given Name)* | | Middle Initial *(if any)* |
| Address *(Street Number and Name)* | City or Town | State | ZIP Code |
| | | | |

**I attest, under penalty of perjury, that I have assisted in the completion of Section 1 of this form and that to the best of my knowledge the information is true and correct.**

| Signature of Preparer or Translator | | | Date *(mm/dd/yyyy)* |
|---|---|---|---|
| Last Name *(Family Name)* | First Name *(Given Name)* | | Middle Initial *(if any)* |
| Address *(Street Number and Name)* | City or Town | State | ZIP Code |
| | | | |

**I attest, under penalty of perjury, that I have assisted in the completion of Section 1 of this form and that to the best of my knowledge the information is true and correct.**

| Signature of Preparer or Translator | | | Date *(mm/dd/yyyy)* |
|---|---|---|---|
| Last Name *(Family Name)* | First Name *(Given Name)* | | Middle Initial *(if any)* |
| Address *(Street Number and Name)* | City or Town | State | ZIP Code |
| | | | |

# Supplement B,
# Reverification and Rehire (formerly Section 3)

**Department of Homeland Security**
U.S. Citizenship and Immigration Services

**USCIS**
**Form I-9**
**Supplement B**
OMB No. 1615-0047
Expires 05/31/2027

| Last Name *(Family Name)* from **Section 1.** | First Name *(Given Name)* from **Section 1.** | Middle initial (if any) from **Section 1.** |
|---|---|---|
| | | |

**Instructions: This supplement replaces Section 3 on the previous version of Form I-9. Only use this page if your employee requires reverification, is rehired within three years of the date the original Form I-9 was completed, or provides proof of a legal name change. Enter the employee's name in the fields above. Use a new section for each reverification or rehire. Review the Form I-9 instructions before completing this page. Keep this page as part of the employee's Form I-9 record. Additional guidance can be found in the Handbook for Employers: Guidance for Completing Form I-9 (M-274)**

| Date of Rehire *(if applicable)* | New Name *(if applicable)* | | |
|---|---|---|---|
| Date *(mm/dd/yyyy)* | Last Name (Family Name) | First Name (Given Name) | Middle Initial |
| | | | |

Reverification: If the employee requires reverification, your employee can choose to present any acceptable List A or List C documentation to show continued employment authorization. Enter the document information in the spaces below.

| Document Title | Document Number (if any) | Expiration Date (if any) (mm/dd/yyyy) |
|---|---|---|
| | | |

**I attest, under penalty of perjury, that to the best of my knowledge, this employee is authorized to work in the United States, and if the employee presented documentation, the documentation I examined appears to be genuine and to relate to the individual who presented it.**

| Name of Employer or Authorized Representative | Signature of Employer or Authorized Representative | Today's Date *(mm/dd/yyyy)* |
|---|---|---|
| | | |

Additional Information (Initial and date each notation.)

☐ Check here if you used an alternative procedure authorized by DHS to examine documents.

| Date of Rehire *(if applicable)* | New Name *(if applicable)* | | |
|---|---|---|---|
| Date *(mm/dd/yyyy)* | Last Name (Family Name) | First Name (Given Name) | Middle Initial |
| | | | |

Reverification: If the employee requires reverification, your employee can choose to present any acceptable List A or List C documentation to show continued employment authorization. Enter the document information in the spaces below.

| Document Title | Document Number (if any) | Expiration Date (if any) (mm/dd/yyyy) |
|---|---|---|
| | | |

**I attest, under penalty of perjury, that to the best of my knowledge, this employee is authorized to work in the United States, and if the employee presented documentation, the documentation I examined appears to be genuine and to relate to the individual who presented it.**

| Name of Employer or Authorized Representative | Signature of Employer or Authorized Representative | Today's Date *(mm/dd/yyyy)* |
|---|---|---|
| | | |

Additional Information (Initial and date each notation.)

☐ Check here if you used an alternative procedure authorized by DHS to examine documents.

| Date of Rehire *(if applicable)* | New Name *(if applicable)* | | |
|---|---|---|---|
| Date *(mm/dd/yyyy)* | Last Name (Family Name) | First Name (Given Name) | Middle Initial |
| | | | |

Reverification: If the employee requires reverification, your employee can choose to present any acceptable List A or List C documentation to show continued employment authorization. Enter the document information in the spaces below.

| Document Title | Document Number (if any) | Expiration Date (if any) (mm/dd/yyyy) |
|---|---|---|
| | | |

**I attest, under penalty of perjury, that to the best of my knowledge, this employee is authorized to work in the United States, and if the employee presented documentation, the documentation I examined appears to be genuine and to relate to the individual who presented it.**

| Name of Employer or Authorized Representative | Signature of Employer or Authorized Representative | Today's Date *(mm/dd/yyyy)* |
|---|---|---|
| | | |

Additional Information (Initial and date each notation.)

☐ Check here if you used an alternative procedure authorized by DHS to examine documents.

# Contractor Specific Regulations Handout

This exhibit outlines security requirements of Contractor Personnel granted access of any type or duration to the Federal Law Enforcement Training Center (FLETC) to ensure effective and continual security and safety at all FLETC facilities. These requirements apply to all persons entering, transiting, working upon, or departing FLETC facilities (i.e., FLETC/Glynco, GA; FLETC/Artesia, NM; FLETC/Charleston, SC; and FLETC/Cheltenham, MD) for any reason; and any other applicable properties or facilities owned, leased, or otherwise controlled or administered by the FLETC.

The security procedures described herein contains security elements including, but not limited to, Physical Security, Personnel Security, Operations Security, and Administrative Security under the authority of the FLETC Office of Security and Emergency Management (SEM). Adherence to this layered security approach is mandatory and is for the protection of all persons, property, and sensitive information. All references to FLETC manuals, directives, or higher headquarters instructions are intended as the most current versions.

**These security elements apply to all Contractor Personnel who access any FLETC facility or location for whatever reason. The term "Contractor Personnel" means all contractors, subcontractors, their employees and representatives.**

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## BUILDING/AREA SECURITY AND ACCESS

**DEFINITIONS:**

A. **FLETC Facility** is defined as any training site under the administrative and operational control of the FLETC.

**RESPONSIBILITIES:** It is the responsibility of the FLETC to provide effective building/area security and access control for all personnel and property.

A. **Contractor Supervisors/Managers.** All Contractor supervisors/managers will ensure that subordinate personnel and staff adhere to the requirements of this manual, as applicable. These personnel are responsible for:

- Ensuring that senior and supervisory level ownership of building/area security and access is established and maintained.

- Ensuring controlled access to their respective assigned buildings and areas.

- Maintaining close control and accountability over the keys and combinations assigned to them for building/area security and access.

- Coordinating any requests for additional security services involving building/area access control, to include issues having enterprise-wide ramifications, through the COR.

- Providing effective emergency access by ensuring the site-specific Lock and Key Control Officer is provided with duplicate keys to all applicable

locks.

- Ensuring areas required for classified national security information, weapons, ammunition, explosives, controlled substances and/or other security interests are coordinated with the COR to ensure strict control.

- Designating personnel to respond for emergency building/area access assistance to the SEM/PHY and/or the applicable Field Site Security Officer.

B. **All Contractor Personnel.** All Contractor Personnel will adhere to the requirements of this manual, as applicable. These personnel are responsible for:

- Ensuring assigned buildings, areas, and security interests are secured at the end of the business day.

- Ensuring control and accountability of assigned keys and combinations providing access to building/security areas.

- Ensuring they properly wear their FLETC identification badges in accordance with FLETC procedures to aid in ensuring only authorized personnel are allowed access to FLETC facilities, buildings and areas.

**PROCEDURES:**

A. **Building/Area Security.**

- All FLETC facilities, buildings, and areas will be designated as or in one of the following types of security areas: Property Protection Area (PPA), Limited Area (LA), or Exclusion Area (EA).

i. PPA. A PPA is established to protect government-owned property against damage, destruction, or theft and also to protect sensitive but unclassified (SBU) information. Examples of PPAs are the general areas within a FLETC site's perimeter fence, property storage warehouses, offices, classroom buildings, etc.

ii. LA. An LA is a security area designated for the protection of classified national security information, weapons, explosives, ammunition, pyrotechnics, controlled substances, and other critical security interests. Examples of an LA include buildings/areas designated for the use and storage of classified national security information, weapons storage, etc.; and vaults containing controlled substances.

iii. EA. An EA is a security area in which an individual's mere presence may result in access to classified matter. Examples of an EA are a Secure Compartmented Information Facility and an area approved for open storage of classified national security information.

B. **Security of Buildings and Areas.**

- Both exterior and interior (where possible) doors of buildings must be secured at the close of the business day for those buildings not occupied and/or in use.

- All buildings, areas, vaults, vault-type rooms, and security containers and other storage facilities containing classified national security information, weapons, explosives, ammunition, pyrotechnics, controlled

substances, and other security interests must remain secured when not in use. For the purposes of this requirement, "in use" is under the actual physical control of authorized personnel.

- All areas, offices, and/or storage containers containing SBU information must be secured when not in use.

- The FLETC Security Police will conduct after hours exterior security checks of general areas, buildings, site-specific interior and other security interests, under the terms of the current Security Police contract.

C. **Building /Area Access.**

- Access to FLETC facilities, buildings, and areas will be allowed to authorized individuals only.

- Access to other personnel not regularly assigned to buildings/areas must be in accordance with all applicable FLETC directives and be coordinated through FLETC SEM and/or the site-specific File Site Security Officer (FSSO).

- After hours or other approved access to FLETC buildings/areas to which authorized personnel do not have keys and/or combinations must be coordinated in advance with the COR.

- Keys and combinations providing access to buildings and areas will be issued in accordance with all applicable FLETC directives.

D. **Emergency and After Hours Building/Area Access.**

- FLETC/Glynco, Georgia. Emergency access service may be obtained by calling FLETC SEM and requesting the required service. After normal working hours, emergency requests must be directed to the FLETC Security Police at 912-267-2461.

- FLETC/Artesia, New Mexico. Emergency access service may be obtained by calling the FLETC/Artesia FSSO and requesting the required service. After normal working hours, emergency requests must be directed to the FLETC Security Police at 575-748-8136.

- FLETC/Cheltenham, Maryland. Emergency access service may be obtained by calling the FLETC/Cheltenham FSSO and requesting the required service. After normal working hours, emergency requests must be directed to the FLETC Security Police at 301- 877-8400.

- FLETC/Charleston, South Carolina. Emergency access service may be obtained by calling the FLETC/Charleston FSSO and requesting the required service. After normal working hours, emergency requests must be directed to the FLETC Security Police at 843-974-6305.

# FIREARMS AND AMMUNITION

**DEFINITIONS:**

A. **FLETC Facility** is defined as any training site under the administrative and operational control of the FLETC.

B. **Firearms** are defined as any operable or inoperable gun, to include: revolvers, pistols, semi-auto handguns, shotguns, automatic firearms/guns, air pistols and rifles, BB/pellet and cap guns. This also includes Practical Exercise and Laser Guns as defined below.

C. **Weapons** are any device capable of propelling darts or arrows, such as operable bows (re-curve, compound or cross), launcher devices (used to launch gas/pepper/stun grenades) and knives, other than pocket knives with blades of four inches or less.

D. **Ammunition** describes a cartridge or family of cartridges, including blank ammunition and Non-Lethal Training Ammunition (NLTA), intended for use in various types of firearms identified herein.

**RESPONSIBILITIES:**

A. **FLETC and PO Contracting Officers (COs) and Contracting Officers Representatives (CORs).** All FLETC and PO COs and CORs will ensure that contractor personnel adhere to the requirements of this manual, as applicable.

B. **Contractors.** All contractor personnel will adhere to the requirements of this manual, as applicable.

**PROCEDURES:**

E. **General.**

- Signs advising of the policy on introduction of firearms or weapons onto FLETC facilities will be prominently posted at all installation entrances. Upon entering any FLETC facility, ALL personnel must declare possession of any firearm or weapon and/or ammunition to the appropriate security personnel at that site.

- It is the policy of the FLETC that personnel are prohibited from bringing personal (non-government issued) firearms/weapons onto any FLETC facility.

  - Visitors authorized by federal or state permit to carry a firearm on their person or in their vehicle must make alternate storage arrangements for the firearm/weapon prior to entry to a FLETC site.

- If a person is carrying or transporting a personal firearm/weapon not authorized by the provisions of FM 70-09.J, *Firearms and Ammunition*, and/or FM 71-01, *Physical Access Control*, access to the FLETC facility will be denied until alternative storage arrangements for the firearm/weapon have been made.

- Commercial vendors approved through the FLETC vendor demonstration procedures may introduce firearms/weapons/ammunition for demonstrations and review by the FLETC. The Chief, Firearms Division

(FAD) at the respective FLETC sites will be responsible for escort and/or transport of these firearms to and from the appropriate FLETC Range.

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## IDENTIFICATION BADGES, CREDENTIALS, AND SHEILDS

**DEFINITIONS:**

A. **FLETC Identification Badges** – Official FLETC ID devices issued to all persons authorized long and short term access to a FLETC facility (i.e., FLETC or Partner Organization (PO) Personal Identity Verification (PIV) card, non-PIV FLETC ID badge (e.g., FLETC or PO Staff badge, FLETC or PO Temporary Staff badge, Frequent Visitor badge, Contractor badge, etc.) are considered sensitive and controlled items.

B. **DHS/FLETC Credentials** – Official DHS/FLETC ID devices (non-Law Enforcement Officer (LEO) and LEO credentials) that are uniquely serial-numbered; that display official FLETC personnel titles; the signatures of the Secretary, DHS, and the bearer; and a photograph of the bearer; that are issued to authorized FLETC Federal staff members that meet specific criteria. These official ID devices are considered sensitive, controlled, and accountable items.

C. **Long-Term Physical Access**. Physical access required on FLETC sites/facilities for extended periods, but not less than six months.

D. **Short-Term Physical Access**. Physical access required on FLETC sites/facilities for short and intermittent periods, but not longer than six months.

**RESPONSIBILITIES:**

C. **FLETC and PO Contracting Officers (COs) and Contracting Officers Representatives (CORs).** All FLETC and PO COs and CORs will ensure that contractor personnel adhere to the requirements of this manual, as applicable.

- Ensure that Contractor supervisors retrieve issued FLETC Contractor ID badges from their employees who complete their assignment, resign, or have their employment terminated prior to the ID badge expiration date.

- Ensure that Contractor supervisors return all issued FLETC Contractor ID badges to the applicable FLETC and/or PO CO or COR upon termination of or completion of a contract.

- Return all retrieved issued FLETC Contractor ID badges to the FLETC Site Security Force.

D. **Contractors.** All contractor personnel will adhere to the requirements of this manual, as applicable.

- As applicable, ensure the safeguarding and accountability for issued FLETC ID badges.

- Immediately report the loss/theft of any issued FLETC ID badge to the respective CO or COR.

- As applicable, ensure the proper use, accountability, and return of issued ID badges in accordance with the provisions of this manual.

**PROCEDURES:**

F. **FLETC Identification Badges.**

- ***Issue of FLETC ID Badges.*** The FLETC will issue all applicable contractors, a FLETC ID badge (for long- term access or short-term access) which depicts authorized access to a FLETC facility upon meeting proof of identification and background – clearance criteria.

- ***Wearing of FLETC Issued FLETC ID Badges.*** Except as otherwise expressly provided by this handout, the issued ID badge shall be worn at all times while on all FLETC facilities. The ID badge shall be worn right-side up on the front portion of the body situated between the neck and waistline, displaying the photograph side of the ID badge, and be readily visible.

- ***Exceptions to the Requirement to Wear FLETC Issued ID Badges.*** The **ONLY EXCEPTIONS** to the requirement to wear issued FLETC ID badges are:

i. Those persons engaged in individual physical exercise activities inside of the FLETC Sites' buildings that are officially designated for physical training while wearing the issued FLETC issued physical training uniform.

ii. Those persons engaged in group physical activities (i.e., scheduled student physical exercise/training activities) inside and outside of the FLETC sites' buildings that are officially designated for physical training while wearing the FLETC issued physical training uniform and in the presence/control of FLETC and/or PO instructional staff.

iii. Those persons engaged in physical, work-related activities and/or a supervised, authorized training laboratory or practical exercise scenario where wearing an issued ID badge may jeopardize an individual's safety or negatively impact the training laboratory or scenario. However, all such persons must carry their issued ID badge on their person, readily available for presentation upon request.

1. For the purposes of Contractor Personnel performing FLETC and PO work-related activities, this exception shall apply to them as well only while actually conducting such work and where open display of the ID badge may jeopardize an individual's safety. However, all Contractor Personnel must carry their issued ID badge on their person, readily available for presentation upon request.

iv. Those persons engaged in personal, unscheduled (i.e., before work, during work hours, lunch, after work) and individual physical training/exercise outside of the FLETC Sites' buildings that are officially designated for physical training while wearing or not wearing the FLETC issued physical training uniform, shall wear their issued ID badge or carry their FLETC issued ID badge on their person, readily available for presentation upon request.

v. ***Return of Issued FLETC ID Badges.*** Upon completion of official business with the FLETC, the bearer of a FLETC ID badge shall return their issued badge to the FLETC. Upon completion of contract work, all contractors will return their FLETC ID badge during the checkout process to their contractor supervisor, who will then be responsible for returning ID badges en masse to the FLETC Security Force at the respective FLETC Visitor Control Center for accountability. In addition, contractor ID badges are to be immediately turned over ***to an authorized FLETC official upon*** being officiall***y*** notified that he/she is no longer authorized to possess it.

- ***Loss or Theft of a FLETC Issued ID Badge.*** The loss/theft of an issued ID badge will be reported to the FLETC Site Security Force at the appropriate FLETC facility immediately upon discovery of the loss and an Incident Report completed to document the loss/theft.

i. A Be-On-the-Lookout notice (BOLO) will be submitted for the lost/stolen ID badge to the FLETC Security Forces and posted at all FLETC sites' access control points to ensure it is not used for unauthorized entry.

ii. ***NOTE:*** For more specific FLETC ID badge requirements, refer to FLETC Manual (FM) 71-01, *Physical Access Control*.

G. **Accountability of DHS/FLETC Issued Identification Badges.**

All issued FLETC ID badges are sensitive, controlled, and accountable items. Physical accountability of issued ID badges is conducted by the bearer. Accountability tracking of issued ID badges by a badging data base is conducted by the SEM/PHY and the applicable Field Site Security Officer for the FLETC Field Sites. At all times, FLETC maintains proprietary ownership of FLETC-issued ID badges. FLETC SEM may demand accountability from FLETC Federal and Partner Organization Staff members, and Contractor Personnel at any time.

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## PHYSICAL ACCESS

**DEFINITIONS:**

A. **Foreign Nationals (FNs) with Lawful Permanent Resident (LPR) Status.** A non-U.S. citizen who has been officially granted immigration benefits, which include permission to reside and take employment in the U.S.

B. **Long-Term Physical Access.** Physical access required on FLETC sites/facilities for extended periods, but not less than six months.

C. **Personal Identity Verification (PIV) Card.** A Government-wide identification (ID) card which provides for a standardized, secure, and reliable form of ID issued by the Federal Government to its employees and contractor personnel, and approved physical and logical (information technology systems) access.

D. **Short-Term Physical Access.** Physical access required on FLETC sites/facilities for short and intermittent periods, but not longer than six months.

E. **Service Dog.** A guide dog or signal dog individually trained to do work or perform tasks for the benefit of an individual with a disability.

**RESPONSIBILITIES:**

A. **FLETC and PO Contracting Officers (COs) and Contracting Officers Representatives (CORs).** All FLETC and PO COs and CORs will ensure that contractor personnel adhere to the requirements of this manual, as applicable.

B. **Contractors.** All contractor personnel will adhere to the requirements of this manual, as applicable.

**PROCEDURES:**

A. **Physical Access Control.** To ensure the well-being of all persons while they are on FLETC sites/facilities, and the protection of all property and sensitive information thereon, policies and procedures have been developed to control physical access to the facilities. Procedures for the physical access and control of persons at all FLETC sites/facilities are based on the purpose and the length of time the physical access is needed. All permanent physical access is issued from the applicable FLETC Site Visitors Center. All FLETC issued physical access control documents (badges, passes, etc.) are required to be returned upon termination of official business or visit. All students, FLETC staff, PO staff, contractors, and visitors are required to obtain authorized admission to FLETC facilities in accordance with applicable procedures documented in this manual.

- **Issue of FLETC ID Badges for Long Term Physical Access.** Two forms of ID (e.g., driver's license; social security card; passport; Department of Defense ID card; Federal, state, or local agency issued ID card; birth certificate, voter registration card, etc.; one of which must be a picture ID) are required for the issue of a long term physical access (over six months) FLETC ID badge (i.e., PIV ID card, non-PIV ID badge, FLETC or PO Temporary Staff ID badge, Frequent Visitor badge, FLETC Retiree ID badge.). ***(NOTE: The only exceptions to this two ID requirement are for the issue of Frequent Visitor ID badges to FLETC and PO staff minor (less than 16 years of age) family members (no form of ID is required).***

a. **Contractors.** Contractor Personnel seeking physical access to the FLETC facilities shall complete a FTC-SEM-17 and submit through the applicable FLETC and/or PO CO, COR, or other Federal staff sponsor, to the applicable FLETC Visitors Center. The expiration date of the Contractor ID badge is determined by SEM's Physical Security Branch (SEM/PHY) or a FLETC Field Site's Field Site Security Officer (SEM/FSSO), based upon contract requirements. Contractor supervisors are responsible for retrieving FLETC-issued Contractor ID badges from their employees who complete their assignment, resign, or have their employment terminated prior to the ID badge expiration date. Contractor supervisors are responsible for returning all Contractor ID badges to the applicable FLETC and/or PO CO or COR upon termination of or completion of a contract.

b. **FNs.** FN FLETC and PO Staff, Frequent Visitors, Contractors (with or without LPR status) seeking long term physical access to the FLETC facilities shall complete FLETC form FTC-SEM-17 and submit through the respective FLETC and PO Federal sponsor to the applicable Visitors Center.

i. In addition to the requirements of the paragraphs above, long-term physical access for FN FLETC and PO staff (including Temporary staff), Contractors, and Frequent Visitors, must be properly coordinated with and authorized by the FLETC Internal Security Program Chief (SEM/INS), at least ten business days for FNs with LPR status and at least 30 business days for FNs without LPR status, prior to physical access being granted.

ii. For full information and requirements to allow FH/LPR contractor personnel access to the FLETC, review *Employment and Prime Contractor Requirements for Non-U.S. Citizens* under Section H of the contract.

- **Issue of FLETC ID Badges for Short Term Physical Access.** Two forms of ID (e.g., driver's license; social security card; passport; Department of Defense ID card; Federal, state, or local agency issued ID card; birth certificate, voter registration card; one of which must be a picture ID) are also required for the issue of a short-term physical access (less than six months) FLETC ID badge (i.e., Student ID badge, non-PIV FLETC Staff ID badge, FLETC or PO Temporary Staff badge, Day Pass, Temporary Pass, etc.).

a. **Day Pass for Vendors.** For vendors (contractors, consultants, etc.) providing the FLETC with authorized and necessary services of an immediate and pressing nature, the FLETC Federal office or agency involved is required to sponsor the vendor and is responsible for the vendor(s) actions while on a FLETC facility. The FLETC or PO Federal sponsor will provide the name, company, and confirmation of U.S. citizenship to the applicable FLETC Visitors Center. Such physical access is restricted to one day in length. Should longer physical access be required then completion of FLETC form FTC-SEM-17 is required. (NOTE: Day Pass physical access is strictly the exception and not the norm. Day Pass physical access for any FNs, including LPRs, is strictly prohibited.)

b. **Infrequent Vendor Deliveries.** Vendors making infrequent deliveries such as freight items, etc., will be issued a Temporary Vehicle Pass and Temporary Visitor's Badge. Physical access will not be permitted unless the vendor presents a formal bill of lading, confirmation of an order, or the applicable Federal FLETC, PO, and/or agency customer is contacted and the physical access requirement is verified. Physical access will be restricted to the delivery point and upon completion of the delivery the vendor must exit the facility without any intermediate stops, returning the Temporary Vehicle Pass and Visitor Badge at a FLETC gate post as they egress.

c. **Frequent Vendor Physical Access.** Vendors requiring frequent and regular physical access (e.g., food deliveries, taxis, shuttle services, etc.) are considered to be contractors and must meet the physical access requirements outlined in this instruction.

i. FN vendors requiring frequent and regular physical access (e.g., food deliveries, taxis, shuttle services, etc.) are considered to be contractors and must meet the additional physical access requirements for FNs outlined in this exhibit and Section H of the contract.

B. **Contractor Sponsorship of Guests.** Contractors on any FLETC facility are prohibited from sponsoring a badge application for a person to gain entry to FLETC.

C. **Employment Applicants.** Persons seeking employment as contract personnel on any FLETC facility will be placed in contact with the specific contractor who will arrange for an interview or meeting to take place at the applicable Visitors Center or other location outside the FLETC facility perimeter.

D. **Additional Restrictions.** Additional restrictions related to the physical access of persons at all FLETC facilities may be employed at a FLETC facility based upon FLETC and the DHS National Terrorism Advisory System's (NTAS) current threat level.

E. **Trade or Business on Center.** Unless authorized by the Office of the Director or higher authority, no contractor personnel, either for himself/herself or for another, will engage in trade or business on any FLETC facility or introduce any article for purposes of trade within or sale thereof business on any FLETC facility or introduce any article for purposes of trade within or sale thereof (e.g., a personal business such as selling magazines, kitchen products, cleaning products; a mobile vehicle cleaning and detailing service; selling privately owned vehicles, motorcycles, and boats, etc.).

F. **Cases Not Covered Herein.** The issuance of FLETC ID badges or pass requirements not covered by this manual will be at the discretion of the FLETC Chief Security Officer (CSO), SEM Physical Security Program Chief, Field Site Security Officers, or any SEM Program Chief acting in an authoritative capacity, and be considered on an individual case by case basis.

G. **Ingress/Egress.** Except as listed below, all vehicles and persons entering/exiting FLETC properties will be controlled by FLETC Security Force personnel assigned to the respective physical access points on the facility.

a. Contractor personnel shall not enter the FLETC outside their normal work hours unless authorized individuals (the applicable CO or COR) make prior notification to the SEM/PHY and/or the Field Site Security Officer, as applicable.

b. The FLETC Security Force, SEM/PHY personnel, FLETC Office of Professional Responsibility (OPR) agents, or those FLETC personnel possessing U.S. Marshals Service (USMS) Special Deputy Appointment and/or USC Title 40, Section 1315 LE authority, will/may make visual identification verifications and inspections of all personnel entering FLETC property.

c. All registrations and badging procedures to allow physical access to FLETC facilities will occur inside the site's Visitors Center.

H. **Prohibition of Introduction of Firearms, Explosives, Other Weapons, and Other Contraband.** While on FLETC facilities, contractors are not allowed to enter with, carry, or possess unauthorized firearms (including disassembled parts/pieces), ammunition, other weapons, explosives, or other contraband (i.e., controlled substances and illegal drugs), either openly or concealed; on their persons or in a vehicle. (NOTE: For the purposes of this policy "other weapons" are defined as: bow(s) and arrow(s), blank/pellet/BB air firearms, blow gun(s) and dart(s), and other such similar weapons.)

I. **Denial and Restriction of Physical Access.** The nature of the work accomplished at the FLETC requires a high standard of personal conduct, past and present. A screening process (background verification, security clearance, etc.) for personnel visitation or employment on FLETC facilities is in place. Physical access to FLETC facilities is a privilege, not a right, and any person may be denied physical access to FLETC facilities or have their physical access privileges to FLETC facilities revoked.

a. Denial of Physical Access. Individuals may have their physical access to FLETC facilities denied if they have a criminal history consisting of specific criminal convictions, their physical access is not in the best interests of the FLETC, they are officially placed in a restricted status, they receive an unfavorable adjudication of their background investigation, or they are the subject of a debarment issued by the Office of Personnel Management (OPM).

i. Criminal History. The criminal history consists of specific convictions, including, but not limited to, any felony conviction within the last six years; any misdemeanor conviction of a serious nature within the last three years, multiple misdemeanor convictions within the last six years, an active "habitual offender" classification for any violation of the law, any conviction for drug sales and trafficking activity, violence against Law Enforcement Officers (LEOs), disdain of legal authority, violations of moral turpitude (e.g., child brutality, child molestation, rape, wrongful death of another, etc.), other crimes of violence, an active arrest warrant for any of the aforementioned crimes, and/or past incidents that would reflect badly on the FLETC in the eyes of the public or that would otherwise pose a threat to the safety and security of FLETC personnel or property. The Personnel Security Officer/Program Chief, SEM/Personnel Security Program, based upon Federal, DHS, and FLETC Personnel Security Program policies and guidance, will make the determination of what constitutes a "serious" misdemeanor. The discontinuance of a "habitual offender" status will not automatically afford the individual physical access to the FLETC. A period of waiting, designated on a case-by-case basis, will be observed prior to permission being granted for physical access to a FLETC facility. (NOTE: In egregious situations, the time periods shown above may be extended or the individual may face debarment in accordance with 5 CFR 731 mandates.)

ii. Not in the Best Interests of the FLETC. Person(s) found to be engaged in activities or behaviors that are not in the best interests of the FLETC (e.g., loss of physical access sponsorship, requesting physical access without official business, involved in domestic situations or disputes, engaging in work stoppages or other disruptions, demonstrations, etc.).

b. **Restriction of Physical Access**. Those persons restricted from physical access to FLETC facilities are notified formally by issue of a Restriction Letter. The Restriction Letter serves as formal and official notice to the recipient that any FLETC-issued passes and/or ID badges previously issued have been rescinded and physical access has been restricted. Restriction Letters may be hand delivered to a recipient or sent to a recipient via certified mail. Any person violating the terms of a Restriction Letter is subject to prosecution for trespassing under the applicable Federal code or state criminal code in which the FLETC facility/site is physically located. The final decision to issue and rescind a Restriction Letter rests solely with the FLETC.

i. **Contractor Personnel and Guests**. Contractor personnel and guests are applicable to this regulation and may be issued a Restriction Letter. Contractor personnel issued a Restriction Letter are not denied an opportunity to work since they can return to work with their employing agency at a site or location other than on a FLETC facility. However, during workplace violence investigations or other investigations regarding conduct by employees or staff which is of a criminal nature or causes security or safety concerns for others, the CSO may temporarily restrict the affected personnel from unfettered physical access to FLETC property and may require FLETC Security Force escort for any authorized physical access.

J. **Inspections of Persons and Vehicles.**

Persons and vehicles physically entering and/or operating on FLETC facilities are subject to inspection for the safety of personnel and the security of government property, equipment, and materials and to prevent the introduction of dangerous, controlled, or illegal substances onto FLETC property. These inspections may be conducted by the FLETC Security Force; SEM/PHY, OPR, and FLETC Federal personnel possessing USMS Special Deputy Appointment and/or USC Title 40, Section 1315 LE authority.

- Individuals physically entering and operating vehicles on FLETC facilities are deemed to have consented to such inspection by entering FLETC facilities in full view of the prominently displayed notices at the entrance(s) advising of this inspection policy.

- Operators of personally owned vehicles (POVs) and government owned vehicles (GOVs) attempting to access a FLETC facility are subject to have their vehicles inspected. ALL contractor vehicles (e.g., those designated as such by signage, that carry equipment, serve as contractor supplied transportation for multiple contractor personnel, that are used as a work vehicle, etc.) attempting to access a FLETC facility are required to be inspected.

- Vehicle operators may decline such an inspection; however, their physical access onto a FLETC facility will be denied until they comply with this requirement.

- Inspections of personally owned vehicles and government vehicles may be conducted on up to a 100 percent of vehicles entering during a given time frame based upon current FLETC and/or DHS security levels and requirements, or conducted using an approved random methodology. Inspections do not necessarily have to be conducted at defined FLETC site physical access points. The inspection may be conducted at internal points onboard a FLETC facility.

- When circumstances warrant (e.g. – elevated DHS and/or FLETC security levels, during a random inspection probable cause is found that a crime is/has/will be committed, an ongoing investigation incidental to an arrest, etc.) an inspection of any person or vehicle entering, exiting, operated by, or located on a FLETC facility may be conducted by security personnel as outlined above.

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## WORKPLACE VIOLENCE

The FLETC maintains a "zero tolerance" position concerning acts of violence and/or threats of violence on the FLETC. Any acts of violence, to include physical attacks, property damage, direct and indirect threats, however communicated, along with any form of intimidation or harassment employed by any means, will not be tolerated and will warrant an immediate response by the FLETC's management officials with the application of the appropriate corrective action. Additionally, the FLETC ensures fair and consistent administration of this program.

**DEFINITIONS:**

A. **An Act of Violence:**

- Is any intentional infliction of physical harm or attempt to inflict physical harm against another or aggressive or threatening behavior which results in emotional harm or otherwise places a person's safety and productivity at risk, or deliberate tampering or damage to another's possessions or property, including any government property; and

- Is any verbal, written, or other behavior communicated by any means to include facsimiles, computer-generated communications such as electronic mail, or in any other electronic form which a reasonable person would interpret as a threat to inflict physical harm against another or another's possessions or property, including threats of deliberate tampering with or damage to government property.

B. **Workplace Violence:**

- Is any act or threat of violence committed by an employee or other person against an employee, an employee's family member, a visitor at FLETC facilities or on FLETC property, or anyone with business or official ties to the FLETC when it occurs at a FLETC work site or when it occurs elsewhere if a reasonable person would conclude that the motivation of the perpetrator or the precipitant of the violent act was clearly related to any person's employment at the FLETC.

- Does NOT generally include other aggressive behavior which staff might engage in off duty such as domestic or other types of assault (unless the acts of violence or threats are carried over to property or facilities under the control of the FLETC such as in domestic violence situations involving defined FLETC personnel occurring in the community then continuing onto the FLETC). It also does not include harassment of others, which is not intended to threaten physical harm to another or his or her property, but is otherwise intimidating or creates an unsafe, disruptive, or hostile work environment. However, such behavior is unacceptable and will result in appropriate corrective action being taken against the perpetrator.

C. "**Employee**" includes all FLETC employees, students, Partner Organization and contractor personnel.

D. "**Visitor**" includes guests, family members of the groups identified above, visiting dignitaries and staff, customers, and suppliers.

**RESPONSIBILITIES:**

A. All employees are expected to interact with each other in ways which promote cooperation and mutual respect, and shall comply with the provisions of this manual.

B. Supervisory personnel and employees should be observant for the following factors, which have been identified as predictive indicators ("Red Flags"), or dangerous behaviors:

- Makes open threats against the agency and managers.
- Obsessively talks of weapons such as "I have quite a gun collection".
- Have open episodes of aggression.
- Engages in sexually explicit conversations or written communications.
- Have had recent physical, financial or family problems.
- Inability to take criticism, overly sensitive.
- History of mental illness, criminal activity, or violent behaviors.
- Continuously tests the limits of acceptable behavior.
- Verbalizes suicidal or homicidal ideations.
- Use of alcohol or drugs or abuse of alcohol or drugs.
- Unexplained fear reactions among co-workers.
- Taking up extra amounts of the manager's time with behavior or performance problems.
- Stalking behaviors.
- Reckless disregard for safety of others.
- Sees violence as only solution to the problem.
- Paranoid obsessions.
- Has an intense sense of injustice or entitlement.
- Expresses fear of losing self-control.

- Self-destructive behaviors, or self-mutilation.

- Recent loss of job, promotion, arbitration or status through disciplinary means (Jacobs, J. and Porter, W., 1999, p. 206).

NOTE: No one can positively identify a potential perpetrator or positively predict an act of workplace violence. Only through awareness and early intervention can such acts be minimized or prevented.

C. Managers. During a threatening situation, the most important role of management above the immediate supervisor is to provide support to the supervisor dealing directly with the threatening employee. Support may include:

- Meeting with the immediate supervisor;

- Contacts with a representative of the CISM/Peer Support Branch (PSP);

- Arranging for or participation in CISM/PSP sponsored counseling sessions for employees; considering temporary relief for the supervisor from regular duties while dealing with the threatening situation; etc.

At all times, managers are responsible for identifying and immediately addressing underlying workplace situations or risk factors that may give rise to stress and/or violence in the workplace.

**PROCEDURES:**

A. Any employee who is the victim of violence in the FLETC workplace shall take only that action necessary to prevent injury or reduce the risk of further injury to themselves.

B. Employees will immediately notify the nearest supervisor, FLETC Security Police, the Security Specialist at the particular FLETC facility, and/or the SEM when they become aware of or are the victim of any threat or act of violence made in the FLETC workplace against them personally, against their family, or against another individual. The employee will provide the name, if known, and present location of the person making the threat, the specific nature of the threat, and the employee's assessment of the subject's present ability to carry out the threat (e.g., is there evidence that a person who has threatened to shoot someone is actually carrying a gun?).

- Acts of Violence - When any act of violence occurs, FLETC Security Police shall be contacted immediately at 912-267-2911 for FLETC/Glynco; 575-748-8136 for FLETC/Artesia; 301-877-8400 for FLETC/Cheltenham; and 843-974-6305 for FLETC/Charleston.

- Reports of Threats of Violence - When a threat of violence is reported to a supervisor, the supervisor shall forward that reported threat to FLETC Security Police and/or SEM immediately.

  - Direct the individual threatened to a safe area away from the alleged perpetrator. If the threat is immediate and there is reason to believe the perpetrator has the present ability to carry out the threat, the supervisor shall attempt to isolate the perpetrator by directing other employees, customers, visitors, etc., away from the site; if the subject is armed or thought to be armed, no personnel other than FLETC Security Police,

SEM, or respective site Active Shooter Response Team (ASRT) members should attempt to contain or control the subject.

- Weapon Present - Should the active threat or reported threat involve any weapon, immediate contact must be made with FLETC Security Police at 912-267-2911 for FLETC/Glynco; 575-748-8136 for FLETC/Artesia; 301-877-8400 for FLETC/Cheltenham; and 843-974-6305 for FLETC/Charleston.

- After Action: Threats or assaults on the personal safety of employees in the workplace usually have lingering after-effects that must be dealt with in order to restore the employees' mental and emotional wellbeing and enable them to resume full productivity. The victim is not the only person affected; when the safety of one employee is put in jeopardy, all employees experience a reaction which may range from anxiety to fear, depression, insomnia, etc. Professional assistance may be required to relieve these reactions. If necessary, employees may be referred to the Critical Incident Stress Management/Peer Support Program (CISM/PSP), and the Employee Counseling Service Program (ECSP) provider for assistance. CISM/PSP personnel and the ECSP provider are available to counsel the threatening employee and make appropriate referrals, provide support and consultation to victims and supervisors, and participate in debriefing sessions regarding the incident.

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## OPERATIONS SECURITY (OPSEC) REQUIREMENTS

The FLETC OPSEC Program (SEM/OPS) acts to secure against the inadvertent release or unauthorized disclosure of such information outside established control procedures. Specific, unclassified facts about the FLETC's mission, intentions, capabilities, or activities are considered critical information and must be protected to ensure our adversaries are not successful. OPSEC measures pertaining to a contract require additional requirements to consider such as:

a. FLETC must determine if there is critical information associated with the contract or activities involved in the contract that warrants the inclusion of OPSEC requirements. Consideration shall be given to the type of work being performed and the environment and circumstances in which contract performance will occur. Potential Critical Information that must be protected includes but is not limited to:

(1) Indications of when and where activities will occur (such as tests) which can possibly be targeted and present collection opportunities by foreign intelligence.

(2) The duration of a contract and indications of results (such as in ads, status reports and brochures).

(3) The existence of a contract, services involved and what is being developed in U.S. press releases, stock prospective, etc.

(4) Pictures indicating classified design features or approaches.

(5) The lettering of contracts and identity of subcontractors.

(6) Maps, Aerial Photographs, Floor Plans of the project.

(7) Photographs including facial images.

(8) Official and Personal websites (including social networking sites) revealing details of the project.

(9) Contract specifications detailing how project and contractor personnel are handling/protecting Sensitive But Unclassified (SBU) information.

b. To ensure uniformity in the way OPSEC requirements are presented to industry, the following guidance shall be followed:

(1) Guidance will be appended to basic solicitations or contracts and labeled "OPSEC Requirements."

(2) OPSEC guidance will include Critical Information pertinent to contractual activities and essential secrecy to be maintained and statement of harm if adversaries derive accurate estimates.

c. If OPSEC requirements are necessary, an OPSEC review shall be conducted of the statement of work (SOW) for contracts prior to the time the CO releases the SOW to contract offerors/bidders. The SOW is a publicly released document that can reveal critical information or indicators of critical information. It is important that COs, CORs and PCs work with SEM/OPS and project coordinators, e.g., FLETC Facilities Management Division (FMD), PRO, etc. to identify OPSEC requirements for the scope of work to be performed. The SOW should also undergo a formal content review prior to its release to the public.

d. FLETC and PO COs, CORs, and contractor managers are responsible for ensuring that their respective PCs are aware of this policy and adhere to these requirements. This includes responding to contractor personnel inquiries what photography is permissible and what is not, as well as researching and coordinating interpretation of the policy with SEM/OPS.

e. Contractor personnel may be required to participate in formal OPSEC classroom and/or computer based training (CBT) and briefings, as required.

f. Contractor personnel use of personal still and video photography (including cell phone cameras) is prohibited.

g. Contractor personnel use of still and video photography is limited to ONLY those authorized activities on FLETC facilities that have been approved by the applicable FLETC Training Directorate and/or PO Academy, are part of official visits and media activities coordinated through the FLETC Public Affairs Office (PAO), and/or are part of contract requirements coordinated through the respective CO, COR, and SEM/OPS.

h. Photographing of ANY training activity must be approved in writing by the applicable FLETC Training Directorate and/or PO Academy.

i. Contractor personnel to whom access to FLETC-related SBU and critical information is granted will:

(1) Be aware of and comply with FLETC safeguarding requirements for OPSEC, as applicable.

(2) Be aware that not protecting DHS and FLETC critical information may result in administrative or disciplinary action.

(3) Participate in formal OPSEC classroom and/or CBT and briefings, as required.

j. The Prime Contractor (PC) will coordinate with Project Coordinators, e.g., FMD, and SEM/OPS the conduct of OPSEC reviews, assessments, and evaluations of FLETC contractor products designated for external distribution or publication to include television, radio, film, video, print, photography, and electronic products, for those assigned contracts.

k. As applicable, the PC will ensure that all subordinate contractor personnel will participate with these reviews, surveys, assessments, development of countermeasures, etc., for their respective organization.

l. The PC will ensure documentation of individual contractor personnel attendance at OPSEC briefings and training occurs by following established training documentation procedures, as applicable. Submit all applicable contractor OPSEC training documentation to the respective COR.

**SECURITY TRAINING LIST**

**Company Name:**
**Contract and/or Task-Delivery-Purchase Order Number:**
**Subcontract Company Name:**

| Name | Prime Contractor Employee (Y/N) | Subcontractor Employee (Y/N) | Date Report On Center | Date Of Training |
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As the authorized representative of (insert company name) concerning Contract Number HSFLxx-xx-x-xxxxx, I hereby certify that the information provided is true and accurate as reported.

**Name and Title** **Date**

**SECURITY TRAINING LIST**

**Company Name:**
**Contract and/or Task-Delivery-Purchase Order Number:**
**Subcontract Company Name:**

| Name | Prime Contractor Employee (Y/N) | Subcontractor Employee (Y/N) | Date Report On Center | Date Of Training |
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As the authorized representative of (insert company name) concerning Contract Number HSFLxx-xx-x-xxxxx, I hereby certify that the information provided is true and accurate as reported.

**Name and Title** **Date**

"General Decision Number: GA20260315 05/18/2026

State: Georgia

Construction Types: Building

Counties: Georgia Counties of
Brantley, Glynn and McIntosh

| Modification Number | Publication Date |
|---|---|
| 1 | 01/23/2026 |
| 2 | 05/18/2026 |

ASBE0048-003 04/01/2025

| | Rates | Fringes |
|---|---|---|
| ASBESTOS WORKER/HEAT & FROST INSULATOR | $ 33.90 | 18.80 |

ELEC0508-012 09/01/2025

| | Rates | Fringes |
|---|---|---|
| ELECTRICIAN | $ 33.35 | 13.40 |

ENGI0926-005 08/01/2025

| | Rates | Fringes |
|---|---|---|
| OPERATOR: CRANE | $ 38.53 | 16.08 |

ENGI0926-006 08/01/2025

| | Rates | Fringes |
|---|---|---|
| OPERATOR: FORKLIFT | $ 32.93 | 16.08 |

IRON0387-002 01/01/2025

| | Rates | Fringes |
|---|---|---|
| IRONWORKER: ORNAMENTAL | $ 32.00 | 15.05 |
| IRONWORKER, STRUCTURAL | $ 32.00 | 15.05 |

IRON0387-002 01/28/2025

| | Rates | Fringes |
|---|---|---|
| IRONWORKER: ORNAMENTAL | $ 32.00 | 15.05 |
| IRONWORKER, STRUCTURAL | $ 32.00 | 15.05 |

PLUM0188-003 08/01/2025

| | Rates | Fringes |
|---|---|---|
| PLUMBER | $ 35.45 | 17.55 |
| PIPEFITTER | $ 35.45 | 17.55 |

SHEE0085-023 07/01/2025

| | Rates | Fringes |
|---|---|---|
| SHEET METAL WORKER | $ 38.29 | 17.40 |

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SUGA2017-030 04/15/2021

| | Rates | Fringes |
|---|---|---|
| PAINTER: SPRAY | $ 16.29 | 0.00 |
| PAINTER (BRUSH AND ROLLER) | $ 16.14 | 0.00 |
| OPERATOR: ROLLER | $ 14.05 | 0.00 |
| OPERATOR: LOADER | $ 14.86 | 0.00 |
| OPERATOR: GRADER/BLADE | $ 16.80 | 0.00 |
| OPERATOR: BULLDOZER | $ 15.23 | 0.00 |
| OPERATOR: BOBCAT/SKID STEER/SKID LOADER | $ 26.53 | 12.32 |
| OPERATOR: BACKHOE/EXCAVATOR/TRACKHOE | $ 19.78 | 10.28 |
| LABORER: PIPELAYER | $ 12.55 | 1.90 |
| LABORER: COMMON OR GENERAL | $ 12.69 | 0.58 |
| CEMENT MASON/CONCRETE FINISHER | $ 10.00 | 0.00 |
| CARPENTER | $ 19.13 | 0.30 |

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UAVGGA0001 01/01/2025

| | Rates | Fringes |
|---|---|---|
| IRONWORKER: REINFORCING | $ 31.31 | 17.68 |

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WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at https://www.dol.gov/agencies/whd/government-contracts.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least $13.65 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract from May 11, 2026, through December 31, 2026. The applicable Executive Order minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (iii)).

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The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than "SU", "UAVG", "SA", or "SC" denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The "SU" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

"SU" wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the

discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The SA identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the SA identifier took effect under state law in the state from which the rates were adopted.

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WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

a) a survey underlying a wage determination
b) an existing published wage determination
c) an initial WHD letter setting forth a position on a wage determination matter
d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2) If an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor

200 Constitution Avenue, N.W.
Washington, DC 20210.

==========

END OF GENERAL DECISION

"

# FINANCIAL QUESTIONNAIRE

**(To be completed by Financial Institution and submitted by Offeror)**

The Department of Homeland Security (DHS), Federal Law Enforcement Training Centers (FLETC), is considering award of a contract to this firm. Prior to award, the FLETC requests the financial information listed below with regard to this firm. To be responsive to FLETC's needs, it is requested that you complete this financial questionnaire with regard to this firm and upon completion **place the completed questionnaire in a sealed envelope showing the return address of the financial institution and forward it to the Offeror shown below**. The requested information must be received by the contractor **no later than** _____

*Prospective Contractor for which information is being requested:*

Name: _____

Address: _____

_____

Phone Number: _____

Point of Contact: _____

_____

Signature of Prospective Contractor or Contractor Representative Requesting Financial Information

Name of Financial Institution: _____

Address: _____

_____

Phone Number: _____

Account Number: _____

Type of Account: _____

Average Balance Figure : _____

Does the Contractor have a line of credit? ☐ Yes ☐ No

What is the limitation? _____

Remaining Balance: _____

What is the Contractor's relationship with the bank?

☐ Outstanding ☐ Satisfactory ☐ Other (explain): _____

How long has the Contractor been a client? _____

Name and Title of person providing the above information: _____

_____

Signature of person providing the above information

Please provide any additional comments that may help determine the business and financial reputation and integrity of the prospective contractor on a separate sheet.

# EMPLOYEE RIGHTS

## UNDER THE FAIR LABOR STANDARDS ACT

## FEDERAL MINIMUM WAGE

# $7.25 PER HOUR

**BEGINNING JULY 24, 2009**

**The law requires employers to display this poster where employees can readily see it.**

### OVERTIME PAY

At least 1½ times the regular rate of pay for all hours worked over 40 in a workweek.

### CHILD LABOR

An employee must be at least 16 years old to work in most non-farm jobs and at least 18 to work in non-farm jobs declared hazardous by the Secretary of Labor. Youths 14 and 15 years old may work outside school hours in various non-manufacturing, non-mining, non-hazardous jobs with certain work hours restrictions. Different rules apply in agricultural employment.

### TIP CREDIT

Employers of "tipped employees" who meet certain conditions may claim a partial wage credit based on tips received by their employees. Employers must pay tipped employees a cash wage of at least $2.13 per hour if they claim a tip credit against their minimum wage obligation. If an employee's tips combined with the employer's cash wage of at least $2.13 per hour do not equal the minimum hourly wage, the employer must make up the difference.

### PUMP AT WORK

The FLSA requires employers to provide reasonable break time for a nursing employee to express breast milk for her nursing child for one year after the child's birth each time the employee needs to express breast milk. Employers must provide a place, other than a bathroom, that is shielded from view and free from intrusion from coworkers and the public, which may be used by the employee to express breast milk.

### ENFORCEMENT

The Department has authority to recover back wages and an equal amount in liquidated damages in instances of minimum wage, overtime, and other violations. The Department may litigate and/or recommend criminal prosecution. Employers may be assessed civil money penalties for each willful or repeated violation of the minimum wage or overtime pay provisions of the law. Civil money penalties may also be assessed for violations of the FLSA's child labor provisions. Heightened civil money penalties may be assessed for each child labor violation that results in the death or serious injury of any minor employee, and such assessments may be doubled when the violations are determined to be willful or repeated. The law also prohibits retaliating against or discharging workers who file a complaint or participate in any proceeding under the FLSA.

### ADDITIONAL INFORMATION

- Certain occupations and establishments are exempt from the minimum wage, and/or overtime pay provisions. Certain narrow exemptions also apply to the pump at work requirements.
- Special provisions apply to workers in American Samoa, the Commonwealth of the Northern Mariana Islands, and the Commonwealth of Puerto Rico.
- Some state laws provide greater employee protections; employers must comply with both.
- Some employers incorrectly classify workers as "independent contractors" when they are actually employees under the FLSA. It is important to know the difference between the two because employees (unless exempt) are entitled to the FLSA's minimum wage and overtime pay protections and correctly classified independent contractors are not.
- Certain full-time students, student learners, apprentices, and workers with disabilities may be paid less than the minimum wage under special certificates issued by the Department of Labor.

**WAGE AND HOUR DIVISION**
UNITED STATES DEPARTMENT OF LABOR

**1-866-487-9243**
**www.dol.gov/agencies/whd**

WH1088 REV 04/23

ATTACHMENT 26

**FLETC PAST PERFORMANCE QUESTIONNAIRE (Form PPQ-0)**

**CONTRACT INFORMATION (Contractor to complete Blocks 1-4)**

**1. Contractor Information**

Firm Name: CAGE Code:
Address: DUNs
Number:
Phone Number:
Email Address:
Point of Contact: Contact Phone Number:

**2. Work Performed as**: ☐ Prime Contractor ☐ Sub Contractor
☐ Joint Venture ☐ Other (Explain)
Percent of project work performed:
If subcontractor, who was the prime (Name/Phone #):

**3. Contract Information**

Contract Number:
Delivery/Task Order Number (if applicable):
Contract Type: ☐ Firm Fixed Price ☐ Cost Reimbursement ☐ Other
(Please specify):
Contract Title:
Contract Location:

Award Date (mm/dd/yy):
Contract Completion Date (mm/dd/yy):
Actual Completion Date (mm/dd/yy):
Explain Differences:

Original Contract Price (Award Amount):
Final Contract Price (*to include all modifications, if applicable*):
Explain Differences:

**4. Project Description:**

Complexity of Work ☐ High ☐ Med ☐ Routine
How is this project relevant to project of submission? (*Please provide details such as similar equipment, requirements, conditions, etc.*)

| |
|---|
| |
| **CLIENT INFORMATION (Client to complete Blocks 5-8)** |
| **5. Client Information**<br>Name:<br>Title:<br>Phone Number:<br>Email Address: |
| **6. Describe the client's role in the project:** |
| **1. 7. Date Questionnaire was completed** (mm/dd/yy)**:** |
| **8. Client's Signature:** |

**NOTE: FLETC REQUESTS THAT THE CLIENT COMPLETES THIS QUESTIONNAIRE AND SUBMITS DIRECTLY BACK TO THE OFFEROR. THE OFFEROR WILL SUBMIT THE COMPLETED QUESTIONNAIRE TO FLETC WITH THEIR PROPOSAL, AND MAY DUPLICATE THIS QUESTIONNAIRE FOR FUTURE SUBMISSION ON FLETC SOLICITATIONS. CLIENTS ARE HIGHLY ENCOURAGED TO SUBMIT QUESTIONNAIRES DIRECTLY TO THE OFFEROR. HOWEVER, QUESTIONNAIRES MAY BE SUBMITTED DIRECTLY TO FLETC. PLEASE CONTACT THE OFFEROR FOR FLETC POC INFORMATION. THE GOVERNMENT RESERVES THE RIGHT TO VERIFY ANY AND ALL INFORMATION ON THIS FORM.**

ATTACHMENT 26, TAB F

*ADJECTIVE RATINGS AND DEFINITIONS TO BE USED TO BEST REFLECT YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE*

| RATING | DEFINITION | NOTE |
|---|---|---|
| **(E) Exceptional** | Performance meets contractual requirements and exceeds many to the Government/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor was highly effective. | To justify an Exceptional rating, identify multiple significant events and state how they were of benefit to the Government. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified. |
| **(VG) Very Good** | Performance meets contractual requirements and exceeds some to the Government's/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective. | To justify a Very Good rating, identify a significant event and state how it was a benefit to the Government. There should have been no significant weaknesses identified. |
| **(S) Satisfactory** | Performance meets minimum contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory. | To justify a Satisfactory rating, there should have been only minor problems, or major problems the contractor recovered from without impact to the contract/order. There should have been NO significant weaknesses identified. A fundamental principle of assigning ratings is that contractors will not be evaluated with a rating lower than Satisfactory solely for not performing beyond the requirements of the contract/order. |

| | | |
|---|---|---|
| **(M) Marginal** | Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented. | To justify Marginal performance, identify a significant event in each category that the contractor had trouble overcoming and state how it impacted the Government. A Marginal rating should be supported by referencing the management tool that notified the contractor of the contractual deficiency (e.g., management, quality, safety, or environmental deficiency report or letter). |
| **(U) Unsatisfactory** | Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains serious problem(s) for which the contractor's corrective actions appear or were ineffective. | To justify an Unsatisfactory rating, identify multiple significant events in each category that the contractor had trouble overcoming and state how it impacted the Government. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating. An Unsatisfactory rating should be supported by referencing the management tools used to notify the contractor of the contractual deficiencies (e.g., management, quality, safety, or environmental deficiency reports, or letters). |
| **(N) Not Applicable** | No information or did not apply to your contract | Rating will be neither positive nor negative. |

**ATTACHMENT 26, TAB F**
**TO BE COMPLETED BY CLIENT**

**PLEASE CIRCLE THE ADJECTIVE RATING WHICH BEST REFLECTS YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE.**

| | | | | | |
|---|---|---|---|---|---|
| **1. QUALITY:** | | | | | |
| a) Quality of technical data/report preparation efforts | E N | VG | S | M | U |
| b) Ability to meet quality standards specified for technical performance | E N | VG | S | M | U |
| c) Timeliness/effectiveness of contract problem resolution without extensive customer guidance | E N | VG | S | M | U |
| d) Adequacy/effectiveness of quality control program and adherence to contract quality assurance requirements (without adverse effect on performance) | E N | VG | S | M | U |
| **2. SCHEDULE/TIMELINESS OF PERFORMANCE:** | | | | | |
| a) Compliance with contract delivery/completion schedules including any significant intermediate milestones. *(If liquidated damages were assessed or the schedule was not met, please address below)* | E N | VG | S | M | U |
| b) Rate the contractor's use of available resources to accomplish tasks identified in the contract | E N | VG | S | M | U |
| **3. CUSTOMER SATISFACTION:** | | | | | |
| a) To what extent were the end users satisfied with the project? | E N | VG | S | M | U |
| b) Contractor was reasonable and cooperative in dealing with your staff (including the ability to successfully resolve disagreements/disputes; responsiveness to administrative reports, businesslike and communication) | E N | VG | S | M | U |
| c) To what extent was the contractor cooperative, businesslike, and concerned with the interests of the customer? | E N | VG | S | M | U |
| d) Overall customer satisfaction | E N | VG | S | M | U |
| **4. MANAGEMENT/ PERSONNEL/LABOR** | | | | | |
| a) Effectiveness of on-site management, including management of subcontractors, suppliers, materials, and/or labor force? | E | VG | S N | M | U |

| | | | | | |
|---|---|---|---|---|---|
| b) Ability to hire, apply, and retain a qualified workforce to this effort | E | VG | S<br>N | M | U |
| c) Government Property Control | E | VG | S<br>N | M | U |
| d) Knowledge/expertise demonstrated by contractor personnel | E | VG | S<br>N | M | U |
| e) Utilization of Small Business concerns | E | VG | S<br>N | M | U |
| f) Ability to simultaneously manage multiple projects with multiple disciplines | E | VG | S<br>N | M | U |
| g) Ability to assimilate and incorporate changes in requirements and/or priority, including planning, execution and response to Government changes | E | VG | S<br>N | M | U |
| h) Effectiveness of overall management (including ability to effectively lead, manage and control the program) | E | VG | S<br>N | M | U |
| **5. COST/FINANCIAL MANAGEMENT** | | | | | |
| a) Ability to meet the terms and conditions within the contractually agreed price(s)? | E | VG | S<br>N | M | U |
| b) Contractor proposed innovative alternative methods/processes that reduced cost, improved maintainability or other factors that benefited the client | E | VG | S<br>N | M | U |
| c) If this is/was a Government cost type contract, please rate the Contractor's timeliness and accuracy in submitting monthly invoices with appropriate back-up documentation, monthly status reports/budget variance reports, compliance with established budgets and avoidance of significant and/or unexplained variances (under runs or overruns) | E | VG | S<br>N | M | U |
| d) Is the Contractor's accounting system adequate for management and tracking of costs? *If no, please explain in Remarks section.* | Yes | | | No | |
| e) If this is/was a Government contract, has/was this contract been partially or completely terminated for default or convenience or are there any pending terminations? *Indicate if show cause or cure notices were issued, or any default action in comment section below.* | Yes | | | No | |
| f) Have there been any indications that the contractor has had any financial problems? *If yes, please explain below.* | Yes | | | No | |
| **6. SAFETY/SECURITY** | | | | | |
| a) To what extent was the contractor able to maintain an environment of safety, adhere to its approved safety plan, | E | VG | S<br>N | M | U |

| | |
|---|---|
| and respond to safety issues? (Includes: following the users rules, regulations, and requirements regarding housekeeping, safety, correction of noted deficiencies, etc.) | |
| b) Contractor complied with all security requirements for the project and personnel security requirements. | E VG S N M U |
| **7. GENERAL** | |
| a) Ability to successfully respond to emergency and/or surge situations (including notifying COR, PM or Contracting Officer in a timely manner regarding urgent contractual issues). | E VG S N M U |
| b) Compliance with contractual terms/provisions *(explain if specific issues)* | E VG S N M U |
| c) Would you hire or work with this firm again? *(If no, please explain below)* | Yes No |
| d) In summary, provide an overall rating for the work performed by this contractor. | E VG S N M U |

**ATTACHMENT 26**

**Please provide responses to the questions above (*if applicable*) and/or additional remarks. Furthermore, please provide a brief narrative addressing specific strengths, weaknesses, deficiencies, or other comments which may assist our office in evaluating performance risk** *(please attach additional pages if necessary)***:**

# Building 93 Renovations Solicitation
# 70LGLY26RSSB00037

## BID SCHEDULE

### Various repairs in BG 93 FLETC Glynco campus

Base Contract CLIN'S

| CLIN | Description | | CLIN Total |
|---|---|---|---|
| **Base Bid** | | | |
| 0001 | BG093 General Labor | | |
| **Contract CLIN's** | | | |
| 0002 | BG093 HVAC testing & balancing | | |
| 0003 | BG093 New Restroom plumbing fixtures | | |
| 0004 | BG093 Restroom demolition | | |
| 0005 | BG093 Concrete demolition & repalcement in hall way | | |
| 0006 | BG093 Trailer restroom rental | | |
| 0007 | BG093 New painting hall ways and Suites | | |
| 0008 | BG093 New LVP flooring Intallation | | |
| 0009 | BG093 Furniture relocation | | |
| 0010 | BG093 Electrical | | |
| 0011 | BG093 Carpet demolition | | |
| 0012 | BG093 Sewer Line Replacement | | |
| 0013 | BG093 Restroom lighting replacement | | |
| 0014 | BG093 excavation | | |
| | | | |
| **Total Proposed Sum CLIN 0001 thru CLIN 0014** | | | |