US Army Corps
of Engineers
Afghanistan Engineer District

New Kabul Compound

Kabul, Afghanistan

Design/Build RFP

Proposal Requirements, Contract Forms, Conditions of the Contract

July 2006

SOLICITATION, OFFER, AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO. W917PM-06-R-0039	2. TYPE OF SOLICITATION ☐ SEALED BID (IFB) ☒ NEGOTIATED *(RFP)*	3. DATE ISSUED 15-Jul-2006	PAGE OF PAGES 1 OF 360

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

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.

7. ISSUED BY CODE W917PM	8. ADDRESS OFFER TO *(If Other Than Item 7)* CODE
AFGHANISTAN ENGINEER DISTRICT US ARMY CORPS OF ENGINEERS KABUL APO AE 09356 TEL: FAX:	**See Item 7** TEL: FAX:

9. FOR INFORMATION CALL:	A. NAME STELLA M LEJEUNE	B. TELEPHONE NO. *(Include area code)* *(NO COLLECT CALLS)*

SOLICITATION

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

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

Kabul Consolidated Compound, Phase 2; Kabul, Afghanistan
This is a Firm Fixed Price contract, work consist of the master planning, design and construction (Design-Build) of all facilities for the relocation of Kabul Consolidated Compound. The contractor shall, in accordance with Section 01010, Scope of Work in the Request for Proposal (RFP) furnish all labor, management materials, facilities, equipment and supplies to design and contruct the facilities.

Magnitude of Construction: Between $25,000,000.00 and $100,000,000.00

Written request for information must be directed to Stella LeJeune, Contract Specialist at email: Stella.LeJeune@tac01.usace.army.mil and/or Darrel Johnson@tac01.usace.army.mil, Contracting Officer. Inquiries and request that are directed to any other person(s) may not be relayed to the proper person and my not be answered. The Pre Proposal conference is scheduled for 24 July 2006 at 0900.

If the proposal is hand carried deliver to: US Army Corps of Engineers, House 1, Street 1, West Wazir Akbar Khan (behind Amani High School), Kabul, Afghanistan, prior to the time and date specified for receipt of proposals.

11. The Contractor shall begin performance within 365 calendar days and complete it within 7 calendar days after receiving ☐ award, ☒ notice to proceed. This performance period is ☒ mandatory, ☐ negotiable. *(See* Section 00800 *.)*

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

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 3 copies to perform the work required are due at the place specified in Item 8 by 05:00 PM *(hour)* local time 15 Aug 2006 *(date).* If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

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

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

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

SOLICITATION, OFFER, AND AWARD (Continued)

(Construction, Alteration, or Repair)

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)* **See Item 14**
CODE / FACILITY CODE	

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

AMOUNTS	SEE SCHEDULE OF PRICES

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 NO.										
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:

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 ☐ 10 U.S.C. 2304(c) ☐ 41 U.S.C. 253(c)
26. ADMINISTERED BY CODE		27. PAYMENT WILL BE MADE BY: CODE

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

☐ 28. NEGOTIATED AGREEMENT *(Contractor is required to sign this document and return _ _ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.

☐ 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)*
	TEL: EMAIL:
30B. SIGNATURE / 30C. DATE	31B. UNITED STATES OF AMERICA BY / 31C. AWARD DATE

Section 00010 - Solicitation Contract Form

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001	Design Costs FFP	1	Lump Sum		
0002	Site Development (Construction) FFP				
0002AA	Grading and Storm Water Management FFP	1	Lump Sum		
0002AB	Site Security FFP	1	Lump Sum		
0002AC	Water Well & Distribution System FFP	1	Lump Sum		
0002AD	Sewage Collection System FFP	1	Lump Sum		
0002AE	Electric Distribution System FFP	1	Lump Sum		
0002AF	Communications Distribution FFP	1	Lump Sum		

0002AG	Parking Roads, and Walks FFP	1	Lump Sum
0003	Buildings (Construction) FFP		
0003AA	Well House and Water Storage FFP	1	Lump Sum
0003AB	Generators & Tanks FFP	1	Lump Sum
0003AC	Sewage Treatment FFP	1	Lump Sum
0003AD	Housing Facilities FFP	1	Lump Sum
0003AE	Administrative Facility FFP	1	Lump Sum
0003AF	Dining Facility FFP	1	Lump Sum

0004 OPTION	Option No. 1 FFP Administrative Private Office Walls	1	Lump Sum
0005 OPTION	Option No. 2 Landscaping FFP		
0005AA OPTION	Design FFP	1	Lump Sum
0005AB OPTION	Construction FFP	1	Lump Sum
0006 OPTION	Option No. 3 SCIF FFP		
0006AA OPTION	Design FFP	1	Lump Sum
0006AB OPTION	Construction FFP	1	Lump Sum
0007 OPTION	Option No. 4 Battalion Aid Station		
0007AA OPTION	Design FFP	1	Lump Sum

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0007AB OPTION	Construction FFP	1	Lump Sum		

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0008	Option No. 5				
OPTION	Alteration/Sewing Shop FFP				
0008AA OPTION	Design FFP	1	Lump Sum		
0008AB OPTION	Construction Construction FFP	1	Lump Sum		
0009 OPTION	Option No. 6 Laundry Collection FFP				
0009AA OPTION	Design FFP	1	Lump Sum		
009AB OPTION	Construction FFP	1	Lump Sum		
0010	Option No. 7		Lump Sum		
OPTION	Site Clearance UXO/Demining FFP				
0010AA OPTION	Site Clearance Site Clearance UXO/Demining FFP	1	Lump Sum		

0011	Option No. 8 Provide Gravel Surface in Lieu of Asphalt Paving FFP		
0011AA	Delete 50mm Asphalt Paving FFP	50	Millimeter
0012	Option No. 9 Provide 513 sm Housing facility FFP		
0012AA	Housing Facility FFP	513	Square Meter

VICE VERSA

“All requirements set forth in the Scope of Work, but not included in the Technical Requirements, shall be considered as set forth in both, and vice versa”.

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY FULL TEXT

52.204-7 CENTRAL CONTRACTOR REGISTRATION (OCT 2003)

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

Central Contractor Registration (CCR) database means the primary Government repository for Contractor information required for the conduct of business with the Government.

Data Universal Numbering System (DUNS) number means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities.

Data Universal Numbering System +4 (DUNS+4) number means the DUNS number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see the FAR at Subpart 32.11) for the same parent concern.

Registered in the CCR database means that--

(1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, into the CCR database; and

(2) The Government has validated all mandatory data fields and has marked the record “Active”.

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

(2) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS +4” followed by the DUNS or DUNS +4 number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number--

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at http://www.dnb.com; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company Physical Street Address, City, State, and Zip Code.

(iv) Company Mailing Address, City, State and Zip Code (if separate from physical).

(v) Company Telephone Number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(d) If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.

(e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.

(f) The Contractor is responsible for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(g)(1)(i) If a Contractor has legally changed its business name, “doing business as” name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in Subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to (A) change the name in the CCR database; (B) comply with the requirements of Subpart 42.12 of the FAR; and (C) agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (g)(1)(i) of this clause, or fails to perform the agreement at paragraph (g)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the “Suspension of Payment” paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see FAR Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the “Suspension of payment” paragraph of the EFT clause of this contract.

(h) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the internet at http://www.ccr.gov or by calling 1-888-227-2423, or 269-961-5757.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.214-34 SUBMISSION OF OFFERS IN THE ENGLISH LANGUAGE (APR 1991)

Offers submitted in response to this solicitation shall be in the English language. Offers received in other than English shall be rejected.

(End of provision)

52.214-35 SUBMISSION OF OFFERS IN U.S. CURRENCY (APR 1991)

Offers submitted in response to this solicitation shall be in terms of U.S. dollars. Offers received in other than U.S. dollars shall be rejected.

(End of provision)

52.214-5000 APPARENT CLERICAL MISTAKES (MAR 1995)--EFARS

(a) For the purpose of initial evaluations of bids, the following will be utilized in the resolving arithmetic discrepancies found on the face of bidding schedule as submitted by the bidder:

(1) Obviously misplaced decimal points will be corrected;

(2) Discrepancy between unit price and extended price, the unit price will govern;

(3) Apparent errors in extension of unit prices will be corrected;

(4) Apparent errors in addition of lump-sum and extended prices will be corrected.

(b) For the purpose of bid evaluation, the government will proceed on the assumption that the bidder intends his bid to be evaluated on basis of the unit prices, the totals arrived at by resolution of arithmetic discrepancies as provided above and the bid will be so reflected on the abstract of bids.

(c) These correction procedures shall not be used to resolve any ambiguity concerning which bid is low.

(End of statement)

52.215-1 INSTRUCTIONS TO OFFERORS--COMPETITIVE ACQUISITION (JAN 2004)

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

“Discussions” are negotiations that occur after establishment of the competitive range that may, at the Contracting Officer's discretion, result in the offeror being allowed to revise its proposal.

“In writing or written” means any worded or numbered expression which can be read, reproduced, and later communicated, and includes electronically transmitted and stored information.

“Proposal modification” is a change made to a proposal before the solicitation's closing date and time, or made in response to an amendment, or made to correct a mistake at any time before award.

“Proposal revision” is a change to a proposal made after the solicitation closing date, at the request of or as allowed by a Contracting Officer as the result of negotiations.

“Time”, if stated as a number of days, is calculated using calendar days, unless otherwise specified, and will include Saturdays, Sundays, and legal holidays. However, if the last day falls on a Saturday, Sunday, or legal holiday, then the period shall include the next working day.

(b) Amendments to solicitations. If this solicitation is amended, all terms and conditions that are not amended remain unchanged. Offerors shall acknowledge receipt of any amendment to this solicitation by the date and time specified in the amendment(s).

(c) Submission, modification, revision, and withdrawal of proposals. (1) Unless other methods (e.g., electronic commerce or facsimile) are permitted in the solicitation, proposals and modifications to proposals shall be submitted in paper media in sealed envelopes or packages (i) addressed to the office specified in the solicitation, and (ii) showing the time and date specified for receipt, the solicitation number, and the name and address of the offeror. Offerors using commercial carriers should ensure that the proposal is marked on the outermost wrapper with the information in paragraphs (c)(1)(i) and (c)(1)(ii) of this provision.

(2) The first page of the proposal must show--

(i) The solicitation number;

(ii) The name, address, and telephone and facsimile numbers of the offeror (and electronic address if available);

(iii) A statement specifying the extent of agreement with all terms, conditions, and provisions included in the solicitation and agreement to furnish any or all items upon which prices are offered at the price set opposite each item;

(iv) Names, titles, and telephone and facsimile numbers (and electronic addresses if available) of persons authorized to negotiate on the offeror's behalf with the Government in connection with this solicitation; and

(v) Name, title, and signature of person authorized to sign the proposal. Proposals signed by an agent shall be accompanied by evidence of that agent's authority, unless that evidence has been previously furnished to the issuing office.

(3) Submission, modification, or revision, of proposals.

(i) Offerors are responsible for submitting proposals, and any modifications, or revisions, so as to reach the Government office designated in the solicitation by the time specified in the solicitation. If no time is specified in the solicitation, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that proposal or revision is due.

(ii)(A) Any proposal, modification, or revision received at the Government office designated in the solicitation after the exact time specified for receipt of offers is “late” and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late offer would not unduly delay the acquisition; and--

(1) If it was transmitted through an electronic commerce method authorized by the solicitation, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of proposals; or

(2) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of offers and was under the Government's control prior to the time set for receipt of offers; or

(3) It is the only proposal received.

(B) However, a late modification of an otherwise successful proposal that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(iii) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the proposal wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(iv) If an emergency or unanticipated event interrupts normal Government processes so that proposals cannot be received at the office designated for receipt of proposals by the exact time specified in the solicitation, and urgent Government requirements preclude amendment of the solicitation, the time specified for receipt of proposals will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(v) Proposals may be withdrawn by written notice received at any time before award. Oral proposals in response to oral solicitations may be withdrawn orally. If the solicitation authorizes facsimile proposals, proposals may be withdrawn via facsimile received at any time before award, subject to the conditions specified in the provision at 52.215-5, Facsimile Proposals. Proposals may be withdrawn in person by an offeror or an authorized representative, if the identity of the person requesting withdrawal is established and the person signs a receipt for the proposal before award.

(4) Unless otherwise specified in the solicitation, the offeror may propose to provide any item or combination of items.

(5) Offerors shall submit proposals in response to this solicitation in English, unless otherwise permitted by the solicitation, and in U.S. dollars, unless the provision at FAR 52.225-17, Evaluation of Foreign Currency Offers, is included in the solicitation.

(6) Offerors may submit modifications to their proposals at any time before the solicitation closing date and time, and may submit modifications in response to an amendment, or to correct a mistake at any time before award.

(7) Offerors may submit revised proposals only if requested or allowed by the Contracting Officer.

(8) Proposals may be withdrawn at any time before award. Withdrawals are effective upon receipt of notice by the Contracting Officer.

(d) Offer expiration date. Proposals in response to this solicitation will be valid for the number of days specified on the solicitation cover sheet (unless a different period is proposed by the offeror).

(e) Restriction on disclosure and use of data. Offerors that include in their proposals data that they do not want disclosed to the public for any purpose, or used by the Government except for evaluation purposes, shall--

(1) Mark the title page with the following legend: This proposal includes data that shall not be disclosed outside the Government and shall not be duplicated, used, or disclosed--in whole or in part--for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this offeror as a result of--or in connection with-- the submission of this data, the Government shall have the right to duplicate, use, or disclose the data to the extent provided in the resulting contract. This restriction does not limit the Government's right to use information contained in this data if it is obtained from another source without restriction. The data subject to this restriction are contained in sheets [insert numbers or other identification of sheets]; and

(2) Mark each sheet of data it wishes to restrict with the following legend: Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this proposal.

(f) Contract award. (1) The Government intends to award a contract or contracts resulting from this solicitation to the responsible offeror(s) whose proposal(s) represents the best value after evaluation in accordance with the factors and subfactors in the solicitation.

(2) The Government may reject any or all proposals if such action is in the Government's interest.

(3) The Government may waive informalities and minor irregularities in proposals received.

(4) The Government intends to evaluate proposals and award a contract without discussions with offerors (except clarifications as described in FAR 15.306(a)). Therefore, the offeror's initial proposal should contain the offeror's best terms from a cost or price and technical standpoint. The Government reserves the right to conduct discussions if the Contracting Officer later determines them to be necessary. If the Contracting Officer determines that the number of proposals that would otherwise be in the competitive range exceeds the number at which an efficient competition can be conducted, the Contracting Officer may limit the number of proposals in the competitive range to the greatest number that will permit an efficient competition among the most highly rated proposals.

(5) The Government reserves the right to make an award on any item for a quantity less than the quantity offered, at the unit cost or prices offered, unless the offeror specifies otherwise in the proposal.

(6) The Government reserves the right to make multiple awards if, after considering the additional administrative costs, it is in the Government's best interest to do so.

(7) Exchanges with offerors after receipt of a proposal do not constitute a rejection or counteroffer by the Government.

(8) The Government may determine that a proposal is unacceptable if the prices proposed are materially unbalanced between line items or subline items. Unbalanced pricing exists when, despite an acceptable total evaluated price, the price of one or more contract line items is significantly overstated or understated as indicated by the application of cost or price analysis techniques. A proposal may be rejected if the Contracting Officer determines that the lack of balance poses an unacceptable risk to the Government.

(9) If a cost realism analysis is performed, cost realism may be considered by the source selection authority in evaluating performance or schedule risk.

(10) A written award or acceptance of proposal mailed or otherwise furnished to the successful offeror within the time specified in the proposal shall result in a binding contract without further action by either party.

(11) If a post-award debriefing is given to requesting offerors, the Government shall disclose the following information, if applicable:

(i) The agency's evaluation of the significant weak or deficient factors in the debriefed offeror's offer.

(ii) The overall evaluated cost or price and technical rating of the successful and the debriefed offeror and past performance information on the debriefed offeror.

(iii) The overall ranking of all offerors, when any ranking was developed by the agency during source selection.

(iv) A summary of the rationale for award.

(v) For acquisitions of commercial items, the make and model of the item to be delivered by the successful offeror.

(vi) Reasonable responses to relevant questions posed by the debriefed offeror as to whether source-selection procedures set forth in the solicitation, applicable regulations, and other applicable authorities were followed by the agency.

(End of provision)

52.216-1 TYPE OF CONTRACT (APR 1984)

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

(End of clause)

52.217-5 EVALUATION OF OPTIONS (JUL 1990)

Except when it is determined in accordance with FAR 17.206(b) not to be in the Government's best interests, the Government will evaluate offers for award purposes by adding the total price for all options to the total price for the basic requirement. Evaluation of options will not obligate the Government to exercise the option(s).

(End of provision)

52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (JAN 2005)

(a) Definitions. ``Construction material,'' ``designated country construction material,'' ``domestic construction material,'' and ``foreign construction material,'' as used in this provision, are defined in the clause of this solicitation entitled ``Buy American Act--Construction Materials Under Trade Agreements'' (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material, other than designated country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic or designated country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic or designated country construction material, and the offeror shall be required to furnish such domestic or designated country construction material. An offer based on use of the foreign construction material for which an exception was requested-- (i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

52.229-7 TAXES--FIXED-PRICE CONTRACTS WITH FOREIGN GOVERNMENTS (JAN 1991)

(a) "Contract date," as used in this clause, means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

(b) The contract price, including the prices in any subcontracts under this contract, does not include any tax or duty that the Government of the United States and the Government of Afghanistan or have agreed shall not apply to expenditures made by the United States in Afghanistan or any tax or duty not applicable to this contract or any subcontracts under this contract, pursuant to the laws of Afghanistan. If any such tax or duty has been included in the contract price, through error or otherwise, the contract price shall be correspondingly reduced.

(c) If, after the contract date, the Government of the United States and the Government of Afghanistan agree that any tax or duty included in the contract price shall not apply to expenditures by the United States in Afghanistan, the contract price shall be reduced accordingly.

(d) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds $250.

(End of clause)

52.232-38 SUBMISSION OF ELECTRONIC FUNDS TRANSFER INFORMATION WITH OFFER (MAY 1999)

The offeror shall provide, with its offer, the following information that is required to make payment by electronic funds transfer (EFT) under any contract that results from this solicitation. This submission satisfies the requirement to provide EFT information under paragraphs (b)(1) and (j) of the clause at 52.232-34, Payment by Electronic Funds Transfer--Other than Central Contractor Registration.

(1) The solicitation number (or other procurement identification number).

(2) The offeror's name and remittance address, as stated in the offer.

(3) The signature (manual or electronic, as appropriate), title, and telephone number of the offeror's official authorized to provide this information.

(4) The name, address, and 9-digit Routing Transit Number of the offeror's financial agent.

(5) The offeror's account number and the type of account (checking, savings, or lockbox).

(6) If applicable, the Fedwire Transfer System telegraphic abbreviation of the offeror's financial agent.

(7) If applicable, the offeror shall also provide the name, address, telegraphic abbreviation, and 9-digit Routing Transit Number of the correspondent financial institution receiving the wire transfer payment if the offeror's financial agent is not directly on-line to the Fedwire and, therefore, not the receiver of the wire transfer payment.

(End of provision)

52.233-2 SERVICE OF PROTEST (AUG 1996)

(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 General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from US Army Corps of Engineers, House #1, Street #1, West Wazir Akbar Khan (behind Aman High School), Kabul, Afghanistan.

(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) – ALTERNATE I (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) An organized site visit has been scheduled for--

30 June 2006

(c) Participants will meet at--

U.S. Army Corps of Engineers
Qalaa House
House # 1, Street # 1,
West Wazir Akbar Khan (behind Aman High School)
Kabul, Afghanistan

(End of provision)

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)

52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

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

(b) The use in this solicitation of any Federal Acquisition Regulation C48 CFR Chapter 2) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

252.204-7001 COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING (AUG 1999)

(a) The offeror is requested to enter its CAGE code on its offer in the block with its name and address. The CAGE code entered must be for that name and address. Enter “CAGE” before the number.

(b) If the offeror does not have a CAGE code, it may ask the Contracting Officer to request one from the Defense Logistics Information Service (DLIS). The Contracting Officer will--

(1) Ask the Contractor to complete section B of a DD Form 2051, Request for Assignment of a Commercial and Government Entity (CAGE) Code;

(2) Complete section A and forward the form to DLIS; and

(3) Notify the Contractor of its assigned CAGE code.

(c) Do not delay submission of the offer pending receipt of a CAGE code.

(End of provision)

252.209-7002 DISCLOSURE OF OWNERSHIP OR CONTROL BY A FOREIGN GOVERNMENT (JUN 2005)

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

(1) "Entity controlled by a foreign government" means--

(i) Any domestic or foreign organization or corporation that is effectively owned or controlled by a foreign government; or

(ii) Any individual acting on behalf of a foreign government.

(2) "Effectively owned or controlled" means that a foreign government or any entity controlled by a foreign government has the power, either directly or indirectly, whether exercised or exercisable, to control or influence the election or appointment of the Offeror's officers, directors, partners, regents, trustees, or a majority of the Offeror's board of directors by means, e.g., ownership, contract, or operation of law.

(3) Foreign government includes the state and the government of any country (other than the United States and its outlying areas) as well as any political subdivision, agency, or instrumentality thereof.

(4) "Proscribed information" means--

(i) Top Secret information;

(ii) Communications Security (COMSEC) information, except classified keys used to operate secure telephone unites (STU IIIs);

(iii) Restricted Data as defined in the U.S. Atomic Energy Act of 1954, as amended;

(iv) Special Access Program (SAP) information; or

(v) Sensitive Compartmental Information (SCI).

(b) Prohibition on award. No contract under a national security program may be awarded to a company owned by an entity controlled by a foreign government if that company requires access to proscribed information to perform the contract, unless the Secretary of Defense or designee has waived application of 10 U.S.C.2536(a).

(c) Disclosure.
The Offeror shall disclose any interest a foreign government has in the Offeror when that interest constitutes control by a foreign government as defined in this provision. If the Offeror is a subsidiary, it shall also disclose any reportable interest a foreign government has in any entity that owns or controls the subsidiary, including reportable interest concerning the Offeror's immediate parent, intermediate parents, and the ultimate parent. Use separate paper as needed, and provide the information in the following format:

Offeror's Point of Contact for Questions about Disclosure
(Name and Phone Number with Country Code, City Code and Area Code, as applicable)

Name and Address of Offeror

Name and Address of Entity Controlled by a Foreign Government	Description of Interest, Ownership Percentage, and Identification of Foreign Government

(End of provision)

252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

Section 00600 - Representations & Certifications

CLAUSES INCORPORATED BY FULL TEXT

52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to –

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provison _____ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2005)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of this contract.

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of $100,000 shall certify and disclose accordingly.

(c) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

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)

52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (OCT 2003)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS+4” followed by the DUNS number or “DUNS+4” that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet, Inc. The DUNS+4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the

offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11) for the same parent concern.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number--

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at http://www.dnb.com; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business name.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company physical street address, city, state and Zip Code.

(iv) Company mailing address, city, state and Zip Code (if separate from physical).

(v) Company telephone number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(End of provision)

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (JAN 2006)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 236220.

(2) The small business size standard is $31,000,000.00.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b)(1) If the clause at 52.204-7, Central Contractor Registration, is included in this solicitation, paragraph (c) of this provision applies.

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (b) of this provision instead of

completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

(__) Paragraph (c) applies.

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

(c) The offeror has completed the annual representations and certifications electronically via the Online Representations and Certifications Application (ORCA) website at http://orca.bpn.gov. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically 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
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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 ORCA.

(End of Provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals-

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.222-1 NOTICE TO THE GOVERNMENT OF LABOR DISPUTES (FEB 1997)

If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this contract, the Contractor shall immediately give notice, including all relevant information, to the Contracting Officer.

(End of clause)

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 to 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)

52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)

(a) Executive Order 13148, of April 21, 2000, Greening the Government through Leadership in Environmental Management, requires submission of this certification as a prerequisite for contract award.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

( ) (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;

( ) (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

( ) (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

( ) (iv) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:

(A) Major group code 10 (except 1011, 1081, and 1094.

(B) Major group code 12 (except 1241).

(C) Major group codes 20 through 39.

(D) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(E) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

( ) (v) The facility is not located within the United States or its outlying areas.

(End of clause)

52.230-1 COST ACCOUNTING STANDARDS NOTICES AND CERTIFICATION (JUN 2000)

Note: This notice does not apply to small businesses or foreign governments. This notice is in three parts, identified by Roman numerals I through III.

Offerors shall examine each part and provide the requested information in order to determine Cost Accounting Standards (CAS) requirements applicable to any resultant contract.

If the offeror is an educational institution, Part II does not apply unless the contemplated contract will be subject to full or modified CAS coverage pursuant to 48 CFR 9903.201-2(c)(5) or 9903.201-2(c)(6), respectively.

I. DISCLOSURE STATEMENT--COST ACCOUNTING PRACTICES AND CERTIFICATION

(a) Any contract in excess of $500,000 resulting from this solicitation will be subject to the requirements of the Cost Accounting Standards Board (48 CFR Chapter 99), except for those contracts which are exempt as specified in 48 CFR 9903.201-1.

(b) Any offeror submitting a proposal which, if accepted, will result in a contract subject to the requirements of 48 CFR Chapter 99 must, as a condition of contracting, submit a Disclosure Statement as required by 48 CFR 9903.202. When required, the Disclosure Statement must be submitted as a part of the offeror's proposal under this solicitation unless the offeror has already submitted a Disclosure Statement disclosing the practices used in connection with the pricing of this proposal. If an applicable Disclosure Statement has already been submitted, the offeror may satisfy the requirement for submission by providing the information requested in paragraph (c) of Part I of this provision.

CAUTION: In the absence of specific regulations or agreement, a practice disclosed in a Disclosure Statement shall not, by virtue of such disclosure, be deemed to be a proper, approved, or agreed-to practice for pricing proposals or accumulating and reporting contract performance cost data.

(c) Check the appropriate box below:

(1) Certificate of Concurrent Submission of Disclosure Statement.

The offeror hereby certifies that, as a part of the offer, copies of the Disclosure Statement have been submitted as follows: (i) original and one copy to the cognizant Administrative Contracting Officer (ACO) or cognizant Federal agency official authorized to act in that capacity (Federal official), as applicable, and (ii) one copy to the cognizant Federal auditor.

(Disclosure must be on Form No. CASB DS-1 or CASB DS-2, as applicable. Forms may be obtained from the cognizant ACO or Federal official and/or from the loose-leaf version of the Federal Acquisition Regulation.)

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the Disclosure Statement.

(2) Certificate of Previously Submitted Disclosure Statement.

The offeror hereby certifies that the required Disclosure Statement was filed as follows:

Date of Disclosure Statement: _____ Name and Address of Cognizant ACO or Federal Official Where Filed: _____

The offeror further certifies that the practices used in estimating costs in pricing this proposal are consistent with the cost accounting practices disclosed in the applicable Disclosure Statement.

(3) Certificate of Monetary Exemption.

The offeror hereby certifies that the offeror, together with all divisions, subsidiaries, and affiliates under common control, did not receive net awards of negotiated prime contracts and subcontracts subject to CAS totaling more than $50 million (of which at least one award exceeded $1 million) in the cost accounting period immediately preceding the period in which this proposal was submitted. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

(4) Certificate of Interim Exemption.

The offeror hereby certifies that (i) the offeror first exceeded the monetary exemption for disclosure, as defined in (3) of this subsection, in the cost accounting period immediately preceding the period in which this offer was submitted and (ii) in accordance with 48 CFR 9903.202-1, the offeror is not yet required to submit a Disclosure Statement. The offeror further certifies that if an award resulting from this proposal has not been made within 90 days after the end of that period, the offeror will immediately submit a revised certificate to the Contracting Officer, in the form specified under subparagraph (c)(1) or (c)(2) of Part I of this provision, as appropriate, to verify submission of a completed Disclosure Statement.

CAUTION: Offerors currently required to disclose because they were awarded a CAS-covered prime contract or subcontract of $50 million or more in the current cost accounting period may not claim this exemption (4). Further, the exemption applies only in connection with proposals submitted before expiration of the 90-day period following the cost accounting period in which the monetary exemption was exceeded.

II. COST ACCOUNTING STANDARDS--ELIGIBILITY FOR MODIFIED CONTRACT COVERAGE

If the offeror is eligible to use the modified provisions of 48 CFR 9903.201-2(b) and elects to do so, the offeror shall indicate by checking the box below. Checking the box below shall mean that the resultant contract is subject to the Disclosure and Consistency of Cost Accounting Practices clause in lieu of the Cost Accounting Standards clause.

( ) The offeror hereby claims an exemption from the Cost Accounting Standards clause under the provisions of 48 CFR 9903.201-2(b) and certifies that the offeror is eligible for use of the Disclosure and Consistency of Cost Accounting Practices clause because during the cost accounting period immediately preceding the period in which this proposal was submitted, the offeror received less than $50 million in awards of CAS-covered prime contracts and subcontracts. The offeror further certifies that if such status changes before an award resulting from this proposal, the offeror will advise the Contracting Officer immediately.

CAUTION: An offeror may not claim the above eligibility for modified contract coverage if this proposal is expected to result in the award of a CAS-covered contract of $50 million or more or if, during its current cost accounting period, the offeror has been awarded a single CAS-covered prime contract or subcontract of $25 million or more.

III. ADDITIONAL COST ACCOUNTING STANDARDS APPLICABLE TO EXISTING CONTRACTS

The offeror shall indicate below whether award of the contemplated contract would, in accordance with subparagraph (a)(3) of the Cost Accounting Standards clause, require a change in established cost accounting practices affecting existing contracts and subcontracts.

( ) YES ( ) NO

(End of clause)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (SEP 2004)

(a) "Definitions."

As used in this provision --

(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries subject to this provision include: Cuba, Iran, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclosure such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 2005)

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

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States means the 50 States, the District of Columbia, outlying areas, and the outer Continental Shelf as defined in 43 U.S.C. 1331.

(3) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

____ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

____ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

Section 00700 - Contract Clauses

CLAUSES INCORPORATED BY FULL TEXT

52.202-1 DEFINITIONS (JUL 2004)

(a) When a solicitation provision or contract clause uses a word or term that is defined in the Federal Acquisition Regulation (FAR), the word or term has the same meaning as the definition in FAR 2.101 in effect at the time the solicitation was issued, unless--

(1) The solicitation, or amended solicitation, provides a different definition;

(2) The contracting parties agree to a different definition;

(3) The part, subpart, or section of the FAR where the provision or clause is prescribed provides a different meaning; or

(4) The word or term is defined in FAR Part 31, for use in the cost principles and procedures.

(b) The FAR Index is a guide to words and terms the FAR defines and shows where each definition is located. The FAR Index is available via the Internet at http://www.acqnet.gov at the end of the FAR, after the FAR Appendix.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed $100,000.

CLAUSES INCORPORATED BY FULL TEXT

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2005)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3),Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

State, as used in this clause, means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

(b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

(i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those agency and legislative liaison activities expressly authorized by paragraph (b)(3)(i) of this clause are permitted under this clause.

(ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those professional and technical services expressly authorized by paragraph (b)(3)(ii) of this clause are permitted under this clause.

(4) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of $25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding $100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

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

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

“Printed or copied double-sided” means printing or reproducing a document so that information is on both sides of a sheet of paper.

“Recovered material,” for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as “recovered fiber” and means the following materials:

(1) Postconsumer fiber; and

(2) Manufacturing wastes such as--

(i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and

(ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.

(b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.

(c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JAN 2005)

(a) The Government suspends or debars Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the $25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.

(b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed $25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the in the Excluded Parties List System). The notice must include the following:

(1) The name of the subcontractor.

(2) The Contractor's knowledge of the reasons for the subcontractor being in the Excluded Parties List System.

(3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion in the Excluded Parties List System.

(4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.211-15 DEFENSE PRIORITY AND ALLOCATION REQUIREMENTS (SEP 1990)

This is a rated order certified for national defense use, and the Contractor shall follow all the requirements of the Defense Priorities and Allocations System regulation (15 CFR 700).

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.215-2 AUDIT AND RECORDS--NEGOTIATION (JUN 1999)

(a) As used in this clause, "records" includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Examination of costs. If this is a cost-reimbursement, incentive, time-and-materials, labor-hour, or price redeterminable contract, or any combination of these, the Contractor shall maintain and the Contracting Officer, or an authorized representative of the Contracting Officer, shall have the right to examine and audit all records and other evidence sufficient to reflect properly all costs claimed to have been incurred or anticipated to be incurred directly or indirectly in performance of this contract. This right of examination shall include inspection at all reasonable times of the Contractor's plants, or parts of them, engaged in performing the contract.

(c) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with any pricing action relating to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

(1) The proposal for the contract, subcontract, or modification;

(2) The discussions conducted on the proposal(s), including those related to negotiating;

(3) Pricing of the contract, subcontract, or modification; or

(4) Performance of the contract, subcontract or modification.

(d) Comptroller General--(1) The Comptroller General of the United States, or an authorized representative, shall have access to and the right to examine any of the Contractor's directly pertinent records involving transactions related to this contract or a subcontract hereunder.

(2) This paragraph may not be construed to require the Contractor or subcontractor to create or maintain any record that the Contractor or subcontractor does not maintain in the ordinary course of business or pursuant to a provision of law.

(e) Reports. If the Contractor is required to furnish cost, funding, or performance reports, the Contracting Officer or an authorized representative of the Contracting Officer shall have the right to examine and audit the supporting records and materials, for the purpose of evaluating (1) the effectiveness of the Contractor's policies and procedures to produce data compatible with the objectives of these reports and (2) the data reported.

(f) Availability. The Contractor shall make available at its office at all reasonable times the records, materials, and other evidence described in paragraphs (a), (b), (c), (d), and (e) of this clause, for examination, audit, or reproduction, until 3 years after final payment under this contract or for any shorter period specified in Subpart 4.7, Contractor Records Retention, of the Federal Acquisition Regulation (FAR), or for any longer period required by statute or by other clauses of this contract. In addition--

(1) If this contract is completely or partially terminated, the Contractor shall make available the records relating to the work terminated until 3 years after any resulting final termination settlement; and

(2) The Contractor shall make available records relating to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to this contract until such appeals, litigation, or claims are finally resolved.

(g) The Contractor shall insert a clause containing all the terms of this clause, including this paragraph (g), in all subcontracts under this contract that exceed the simplified acquisition threshold, and--

(1) That are cost-reimbursement, incentive, time-and-materials, labor-hour, or price-redeterminable type or any combination of these;

(2) For which cost or pricing data are required; or

(3) That require the subcontractor to furnish reports as discussed in paragraph (e) of this clause.

The clause may be altered only as necessary to identify properly the contracting parties and the Contracting Officer under the Government prime contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.215-11 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, except that this clause does not apply to any modification if an exception under FAR 15.403-1 applies.

(b) If any price, including profit or fee, negotiated in connection with any modification under this clause, or any cost reimbursable under this contract, was increased by any significant amount because (1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data, (2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's

Certificate of Current Cost or Pricing Data, or (3) any of these parties furnished data of any description that were not accurate, the price or cost shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) of this clause.

(c) Any reduction in the contract price under paragraph (b) of this clause due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which--

(1) The actual subcontract; or

(2) The actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(d)(1) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made, the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted.

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer.

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract.

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2)(i) Except as prohibited by subdivision (d)(2)(ii) of this clause, an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if--

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the “as of” date specified on its Certificate of Current Cost or Pricing Data, and that the data were not submitted before such date.

(ii) An offset shall not be allowed if--

(A) The understated data were known by the Contractor to be understated before the “as of” date specified on its Certificate of Current Cost or Pricing Data; or

(B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the “as of” date specified on its Certificate of Current Cost or Pricing Data.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid--

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data that were incomplete, inaccurate, or noncurrent.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.215-13 SUBCONTRACTOR COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall--

(1) Become operative only for any modification to this contract involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4; and

(2) Be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modification involving a pricing adjustment expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1 applies.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in FAR 15.406-2 that, to the best of its knowledge and belief, the data submitted under paragraph (b) of this clause were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that exceeds the threshold for submission of cost or pricing data at FAR 15.403-4 on the date of agreement on price or the date of award, whichever is later.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.215-15 PENSION ADJUSTMENTS AND ASSET REVERSIONS (OCT 2004)

(a) The Contractor shall promptly notify the Contracting Officer in writing when it determines that it will terminate a defined-benefit pension plan or otherwise recapture such pension fund assets.

(b) For segment closings, pension plan terminations, or curtailment of benefits, the amount of the adjustment shall be--

(1) For contracts and subcontracts that are subject to full coverage under the Cost Accounting Standards (CAS) Board rules and regulations (48 CFR Chapter 99), the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12); and

(2) For contracts and subcontracts that are not subject to full coverage under the CAS, the amount measured, assigned, and allocated in accordance with 48 CFR 9904.413-50(c)(12), except the numerator of the fraction at 48 CFR 9904.413-50(c)(12)(vi) shall be the sum of the pension plan costs allocated to all non-CAS covered contracts and subcontracts that are subject to Federal Acquisition Regulation (FAR) Subpart 31.2 or for which cost or pricing data were submitted.

(c) For all other situations where assets revert to the Contractor, or such assets are constructively received by it for any reason, the Contractor shall, at the Government's option, make a refund or give a credit to the Government for its equitable share of the gross amount withdrawn. The Government's equitable share shall reflect the Government's participation in pension costs through those contracts for which cost or pricing data were submitted or that are subject to FAR Subpart 31.2.

(d) The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(g).

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.215-18 REVERSION OR ADJUSTMENT OF PLANS FOR POSTRETIREMENT BENEFITS (PRB) OTHER THAN PENSIONS (JUL 2005)

(a) The Contractor shall promptly notify the Contracting Officer in writing when the Contractor determines that it will terminate or reduce the benefits of a PRB plan.

(b) If PRB fund assets revert or inure to the Contractor, or are constructively received by it under a plan termination or otherwise, the Contractor shall make a refund or give a credit to the Government for its equitable share as required by 31.205-6(o)(5) of the Federal Acquisition Regulation (FAR). When determining or agreeing on the method for recovery of the Government's equitable share, the contracting parties should consider the following methods: cost reduction, amortizing the credit over a number of years (with appropriate interest), cash refund, or some other agreed upon method. Should the parties be unable to agree on the method for recovery of the Government's equitable share, through good faith negotiations, the Contracting Officer shall designate the method of recovery.

(c) The Contractor shall insert the substance of this clause in all subcontracts that meet the applicability requirements of FAR 15.408(j).

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.215-20 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data, offerors may submit a

written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable.

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Commercial item exception. For a commercial item exception, the offeror shall submit, at a minimum, information on prices at which the same item or similar items have previously been sold in the commercial market that is adequate for evaluating the reasonableness of the price for this acquisition. Such information may include--

(A) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities;

(B) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market;

(C) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The offeror grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this provision, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation , access does not extend to cost or profit information or other data relevant solely to the offeror's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the offeror is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The offeror shall prepare and submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before contract award (except for unpriced actions such as letter contracts), the offeror shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.215-21 REQUIREMENTS FOR COST OR PRICING DATA OR INFORMATION OTHER THAN COST OR PRICING DATA--MODIFICATIONS (OCT 1997)

(a) Exceptions from cost or pricing data. (1) In lieu of submitting cost or pricing data for modifications under this contract, for price adjustments expected to exceed the threshold set forth at FAR 15.403-4 on the date of the agreement on price or the date of the award, whichever is later, the Contractor may submit a written request for exception by submitting the information described in the following subparagraphs. The Contracting Officer may

require additional supporting information, but only to the extent necessary to determine whether an exception should be granted, and whether the price is fair and reasonable--

(i) Identification of the law or regulation establishing the price offered. If the price is controlled under law by periodic rulings, reviews, or similar actions of a governmental body, attach a copy of the controlling document, unless it was previously submitted to the contracting office.

(ii) Information on modifications of contracts or subcontracts for commercial items. (A) If--

(1) The original contract or subcontract was granted an exception from cost or pricing data requirements because the price agreed upon was based on adequate price competition or prices set by law or regulation, or was a contract or subcontract for the acquisition of a commercial item; and

(2) The modification (to the contract or subcontract) is not exempted based on one of these exceptions, then the Contractor may provide information to establish that the modification would not change the contract or subcontract from a contract or subcontract for the acquisition of a commercial item to a contract or subcontract for the acquisition of an item other than a commercial item.

(B) For a commercial item exception, the Contractor shall provide, at a minimum, information on prices at which the same item or similar items have previously been sold that is adequate for evaluating the reasonableness of the price of the modification. Such information may include--

(1) For catalog items, a copy of or identification of the catalog and its date, or the appropriate pages for the offered items, or a statement that the catalog is on file in the buying office to which the proposal is being submitted. Provide a copy or describe current discount policies and price lists (published or unpublished), e.g., wholesale, original equipment manufacturer, or reseller. Also explain the basis of each offered price and its relationship to the established catalog price, including how the proposed price relates to the price of recent sales in quantities similar to the proposed quantities.

(2) For market-priced items, the source and date or period of the market quotation or other basis for market price, the base amount, and applicable discounts. In addition, describe the nature of the market.

(3) For items included on an active Federal Supply Service Multiple Award Schedule contract, proof that an exception has been granted for the schedule item.

(2) The Contractor grants the Contracting Officer or an authorized representative the right to examine, at any time before award, books, records, documents, or other directly pertinent records to verify any request for an exception under this clause, and the reasonableness of price. For items priced using catalog or market prices, or law or regulation , access does not extend to cost or profit information or other data relevant solely to the Contractor's determination of the prices to be offered in the catalog or marketplace.

(b) Requirements for cost or pricing data. If the Contractor is not granted an exception from the requirement to submit cost or pricing data, the following applies:

(1) The Contractor shall submit cost or pricing data and supporting attachments in accordance with Table 15-2 of FAR 15.408.

As soon as practicable after agreement on price, but before award (except for unpriced actions), the Contractor shall submit a Certificate of Current Cost or Pricing Data, as prescribed by FAR 15.406-2.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.217-7 OPTION FOR INCREASED QUANTITY--SEPARATELY PRICED LINE ITEM (MAR 1989)

The Government may require the delivery of the numbered line item, identified in the Schedule as an option item, in the quantity and at the price stated in the Schedule. The Contracting Officer may exercise the option by written notice to the Contractor within 90. Delivery of added items shall continue at the same rate that like items are called for under the contract, unless the parties otherwise agree.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.223-5 POLLUTION PREVENTION AND RIGHT-TO-KNOW INFORMATION (AUG 2003)

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

Priority chemical means a chemical identified by the Interagency Environmental Leadership Workgroup or, alternatively, by an agency pursuant to section 503 of Executive Order 13148 of April 21, 2000, Greening the Government through Leadership in Environmental Management.

“Toxic chemical means a chemical or chemical category listed in 40 CFR 372.65.”

(b) Executive Order 13148 requires Federal facilities to comply with the provisions of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11001-11050) and the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13101-13109).

(c) The Contractor shall provide all information needed by the Federal facility to comply with the following:

(1) The emergency planning reporting requirements of section 302 of EPCRA.

(2) The emergency notice requirements of section 304 of EPCRA.

(3) The list of Material Safety Data Sheets, required by section 311 of EPCRA.

(4) The emergency and hazardous chemical inventory forms of section 312 of EPCRA.

(5) The toxic chemical release inventory of section 313 of EPCRA, which includes the reduction and recycling information required by section 6607 of PPA.

(6) The toxic chemical, priority chemical, and hazardous substance release and use reduction goals of sections 502 and 503 of Executive Order 13148.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.223-14 TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)

(a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.

(b) A Contractor-owned or -operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--

(1) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;

(2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);

(3) The facility does not meet the reporting thresholds of toxic chemicals established under of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

(4) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:

(i) Major group code 10 (except 1011, 1081, and 1094.

(ii) Major group code 12 (except 1241).

(iii) Major group codes 20 through 39.

(iv) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(v) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.)), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

(5) The facility is not located in the United States or its outlying areas.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed $100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding $100,000 (including all options), the substance of this clause, except this paragraph (e).

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.225-11 BUY AMERICAN ACT--CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (APR 2006)

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

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

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

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

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

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

Cost of components means--

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

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

Designated country means any of the following countries:

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

(2) A Free Trade Agreement country (Australia, Canada, Chile, Mexico, Morocco, or Singapore);

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

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, or Trinidad and Tobago).

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

Domestic construction material means--

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

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

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

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

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

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

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

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

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

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

(b) Construction materials. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements (FTAs) apply to this acquisition. Therefore, the Buy American Act restrictions are waived for designated country construction materials.

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

(3) The requirement in paragraph (b)(2) of this clause does not apply to the construction materials or components listed by the Government as follows: None
(4) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(3) of this clause if the Government determines that--

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the restrictions of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

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

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

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

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

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

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

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

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

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

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

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

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

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

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

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1:			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....
Item 2:			
Foreign construction material....	.....	.....	.....
Domestic construction material...	.....	.....	.....

\1\ Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

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

Include other applicable supporting information.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (FEB 2006)

(a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.

(b) Except as authorized by OFAC, most transactions involving Cuba, Iran, and Sudan are prohibited, as are most imports from North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at TerList1.html. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR chapter V and/or on OFAC's Web site at http://www.treas.gov/offices/enforcement/ofac/.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.225-14 INCONSISTENCY BETWEEN ENGLISH VERSION AND TRANSLATION OF CONTRACT (FEB 2000)

In the event of inconsistency between any terms of this contract and any translation into another language, the English language meaning shall control.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(c) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101.to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.228-3 WORKERS' COMPENSATION INSURANCE (DEFENSE BASE ACT) (APR 1984)

The Contractor shall (a) provide, before commencing performance under this contract, such workers' compensation insurance or security as the Defense Base Act (42 U.S.C. 1651, et seq.) requires and (b) continue to maintain it until performance is completed. The Contractor shall insert, in all subcontracts under this contract to which the Defense Base Act applies, a clause similar to this clause (including this sentence) imposing upon those subcontractors this requirement to comply with the Defense Base Act.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.229-6 TAXES--FOREIGN FIXED-PRICE CONTRACTS (JUN 2003)

(a) To the extent that this contract provides for furnishing supplies or performing services outside the United States and its outlying areas, this clause applies in lieu of any Federal, State, and local taxes clause of the contract.

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

"Contract date," means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

Country concerned means any country, other than the United States and its outlying areas, in which expenditures under this contract are made.

"Tax" and "taxes," include fees and charges for doing business that are levied by the government of the country concerned or by its political subdivisions.

"All applicable taxes and duties," means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract, pursuant to written ruling or regulation in effect on the contract date.

"After-imposed tax," means any new or increased tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, other than excepted tax, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date.

"After-relieved tax," means any amount of tax or duty, other than an excepted tax, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund, as the result of legislative, judicial, or administrative action taking effect after the contract date.

"Excepted tax," means social security or other employment taxes, net income and franchise taxes, excess profits taxes, capital stock taxes, transportation taxes, unemployment compensation taxes, and property taxes. "Excepted tax" does not include gross income taxes levied on or measured by sales or receipts from sales, property taxes assessed on completed supplies covered by this contract, or any tax assessed on the Contractor's possession of, interest in, or use of property, title to which is in the U.S. Government.

(c) Unless otherwise provided in this contract, the contract price includes all applicable taxes and duties, except taxes and duties that the Government of the United States and the government of the country concerned have agreed shall not be applicable to expenditures in such country by or on behalf of the United States.

(d) The contract price shall be increased by the amount of any after-imposed tax or of any tax or duty specifically

excluded from the contract price by a provision of this contract that the Contractor is required to pay or bear, including any interest or penalty, if the Contractor states in writing that the contract price does not include any contingency for such tax and if liability for such tax, interest, or penalty was not incurred through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer or to comply with the provisions of paragraph (i) below.

(e) The contract price shall be decreased by the amount of any after-relieved tax, including any interest or penalty. The Government of the United States shall be entitled to interest received by the Contractor incident to a refund of taxes to the extent that such interest was earned after the Contractor was paid by the Government of the United States for such taxes. The Government of the United States shall be entitled to repayment of any penalty refunded to the Contractor to the extent that the penalty was paid by the Government.

(f) The contract price shall be decreased by the amount of any tax or duty, other than an excepted tax, that was included in the contract and that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer or to comply with the provisions of paragraph (i) below.

(g) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds $250.

(h) If the Contractor obtains a reduction in tax liability under the United States Internal Revenue Code (Title 26, U.S. Code) because of the payment of any tax or duty that either was included in the contract price or was the basis of an increase in the contract price, the amount of the reduction shall be paid or credited to the Government of the United States as the Contracting Officer directs.

(i) The Contractor shall take all reasonable action to obtain exemption from or refund of any taxes or duties, including interest or penalty, from which the United States Government, the Contractor, any subcontractor, or the transactions or property covered by this contract are exempt under the laws of the country concerned or its political subdivisions or which the governments of the United States and of the country concerned have agreed shall not be applicable to expenditures in such country by or on behalf of the United States.

(j) The Contractor shall promptly notify the Contracting Officer of all matters relating to taxes or duties that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs. The contract price shall be equitably adjusted to cover the costs of action taken by the Contractor at the direction of the Contracting Officer, including any interest, penalty, and reasonable attorneys' fees.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEP 2002)

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

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

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

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

covered by the payment requested.

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

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

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

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

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

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

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

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

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

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

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

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

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

_____

(Name)

_____

(Title)

_____

(Date)

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

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

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

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

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

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

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

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

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

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

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

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and

(3) Presentation of release of all claims against
the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

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

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under

subparagraph (d)(2) of this clause shall be--

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

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

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-10 PAYMENTS UNDER FIXED-PRICE ARCHITECT-ENGINEER CONTRACTS (AUG 1987)

(a) Estimates shall be made monthly of the amount and value of the work and services performed by the Contractor under this contract which meet the standards of quality established under this contract. The estimates shall be prepared by the Contractor and accompanied by any supporting data required by the Contracting Officer.

(b) Upon approval of the estimate by the Contracting Officer, payment upon properly executed vouchers shall be made to the Contractor, as soon as practicable, of 90 percent of the approved amount, less all previous payments; provided, that payment may be made in full during any months in which the Contracting Officer determines that performance has been satisfactory. Also, whenever the Contracting Officer determines that the work is substantially complete and that the amount retained is in excess of the amount adequate for the protection of the Government, the Contracting Officer may release the excess amount to the Contractor.

(c) Upon satisfactory completion by the Contractor and acceptance by the Contracting Officer of the work done by the Contractor under the "Statement of Architect-Engineer Services", the Contractor will be paid the unpaid balance of any money due for work under the statement, including retained percentages relating to this portion of the work. Upon satisfactory completion and final acceptance of the construction work, the Contractor shall be paid any unpaid balance of money due under this contract.

(d) Before final payment under the contract, or before settlement upon termination of the contract, and as a condition precedent thereto, the Contractor shall execute and deliver to the Contracting Officer a release of all claims against the Government arising under or by virtue of this contract, other than any claims that are specifically excepted by the Contractor from the operation of the release in amounts stated in the release.

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

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause

or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-18 AVAILABILITY OF FUNDS (APR 1984)

Funds are not presently available for this contract. The Government's obligation under this contract is contingent upon the availability of appropriated funds from which payment for contract purposes can be made. No legal liability on the part of the Government for any payment may arise until funds are made available to the Contracting Officer for this contract and until the Contractor receives notice of such availability, to be confirmed in writing by the Contracting Officer.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts

payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-26 PROMPT PAYMENT FOR FIXED-PRICE ARCHITECT-ENGINEER CONTRACTS (OCT 2003)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) of this clause concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Due date. The due date for making invoice payments is--

(i) For work or services completed by the Contractor, the later of the following two events:

(A) The 30th day after the designated billing office receives a proper invoice from the Contractor (except as provided in paragraph (a)(1)(iii) of this clause).

(B) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice, when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the settlement.

(ii) The due date for progress payments is the 30th day after Government approval of Contractor estimates of work or services accomplished.

(iii) If the designated billing office fails to annotate the invoice or payment request with the actual date of receipt at the time of receipt, the payment due date is the 30th day after the date of the Contractor's invoice or payment request, provided the designated billing office receives a proper invoice or payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(x) of this clause. If the invoice does not comply with these requirements, the designated billing office will return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(ix) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34,Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(x) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor, Government acceptance or approval is deemed to occur constructively as shown in paragraphs (a)(4)(i)(A) and (B) of this clause. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, Contractor compliance with a contract provision, or requested progress payment amounts. These requirements also do not

compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(A) For work or services completed by the Contractor, Government acceptance is deemed to occur constructively on the 7th day after the Contractor completes the work or services in accordance with the terms and conditions of the contract.

(B) For progress payments, Government approval is deemed to occur on the 7th day after the designated billing office receives the Contractor estimates.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315, in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest is due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt, provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(iii) The additional penalty does not apply to payments regulated by other Government regulations (e.g., payments under utility contracts subject to tariffs and regulation).

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (SEP 2005)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g., 52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or

legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of $1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports—

(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with the Miller Act (40 U.S.C. 3133), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts DisputesAct of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.232-33 PAYMENT BY ELECTRONIC FUNDS TRANSFER—CENTRAL CONTRACTOR REGISTRATION (OCT 2003)

(a) Method of payment. (1) All payments by the Government under this contract shall be made by electronic funds transfer (EFT), except as provided in paragraph (a)(2) of this clause. As used in this clause, the term “EFT” refers to the funds transfer and may also include the payment information transfer.

(2) In the event the Government is unable to release one or more payments by EFT, the Contractor agrees to either--

(i) Accept payment by check or some other mutually agreeable method of payment; or

(ii) Request the Government to extend the payment due date until such time as the Government can make payment by EFT (but see paragraph (d) of this clause).

(b) Contractor's EFT information. The Government shall make payment to the Contractor using the EFT information contained in the Central Contractor Registration (CCR) database. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the CCR database.

(c) Mechanisms for EFT payment. The Government may make payment by EFT through either the Automated Clearing House (ACH) network, subject to the rules of the National Automated Clearing House Association, or the Fedwire Transfer System. The rules governing Federal payments through the ACH are contained in 31 CFR part 210.

(d) Suspension of payment. If the Contractor's EFT information in the CCR database is incorrect, then the Government need not make payment to the Contractor under this contract until correct EFT information is entered into the CCR database; and any invoice or contract financing request shall be deemed not to be a proper invoice for the purpose of prompt payment under this contract. The prompt payment terms of the contract regarding notice of an improper invoice and delays in accrual of interest penalties apply.

(e) Liability for uncompleted or erroneous transfers. (1) If an uncompleted or erroneous transfer occurs because the Government used the Contractor's EFT information incorrectly, the Government remains responsible for--

(i) Making a correct payment;

(ii) Paying any prompt payment penalty due; and

(iii) Recovering any erroneously directed funds.

(2) If an uncompleted or erroneous transfer occurs because the Contractor's EFT information was incorrect, or was revised within 30 days of Government release of the EFT payment transaction instruction to the Federal Reserve System, and--

(i) If the funds are no longer under the control of the payment office, the Government is deemed to have made payment and the Contractor is responsible for recovery of any erroneously directed funds; or

(ii) If the funds remain under the control of the payment office, the Government shall not make payment, and the provisions of paragraph (d) of this clause shall apply.

(f) EFT and prompt payment. A payment shall be deemed to have been made in a timely manner in accordance with the prompt payment terms of this contract if, in the EFT payment transaction instruction released to the Federal Reserve System, the date specified for settlement of the payment is on or before the prompt payment due date, provided the specified payment date is a valid date under the rules of the Federal Reserve System.

(g) EFT and assignment of claims. If the Contractor assigns the proceeds of this contract as provided for in the assignment of claims terms of this contract, the Contractor shall require as a condition of any such assignment, that the assignee shall register separately in the CCR database and shall be paid by EFT in accordance with the terms of this clause. Notwithstanding any other requirement of this contract, payment to an ultimate recipient other than the Contractor, or a financial institution properly recognized under an assignment of claims pursuant to subpart 32.8, is not permitted. In all respects, the requirements of this clause shall apply to the assignee as if it were the Contractor. EFT information that shows the ultimate recipient of the transfer to be other than the Contractor, in the absence of a proper assignment of claims acceptable to the Government, is incorrect EFT information within the meaning of paragraph (d) of this clause.

(h) Liability for change of EFT information by financial agent. The Government is not liable for errors resulting from changes to EFT information made by the Contractor's financial agent.

(i) Payment information. The payment or disbursing office shall forward to the Contractor available payment information that is suitable for transmission as of the date of release of the EFT instruction to the Federal Reserve System. The Government may request the Contractor to designate a desired format and method(s) for delivery of payment information from a list of formats and methods the payment office is capable of executing. However, the Government does not guarantee that any particular format or method of delivery is available at any particular payment office and retains the latitude to use the format and delivery method most convenient to the Government. If the Government makes payment by check in accordance with paragraph (a) of this clause, the Government shall mail the payment information to the remittance address contained in the CCR database.

(End of Clause)

CLAUSES INCORPORATED BY FULL TEXT

52.233-1 DISPUTES. (JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract

terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding $100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding $100,000; or

(B) Regardless of the amount claimed, when using -

(1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or

(2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).

(ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.

(iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.

(3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.

(e) For Contractor claims of $100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over $100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.

(f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.

(g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative disput resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.

(h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.

(i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.233-3 PROTEST AFTER AWARD (AUG. 1996)

(a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

(1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

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

The Contractor shall perform on the site, and with its own organization, work equivalent to at least Fifteen (15%) percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

As prescribed in 36.502, insert the following clause in solicitations and contracts when a fixed-price construction contract or a fixed-price dismantling, demolition, or removal of improvements contract is contemplated and the contract amount is expected to exceed the small purchase limitation. The Contracting Officer may insert the clause in solicitations and contracts when a fixed-price construction or a fixed-price contract for dismantling, demolition, or removal of improvements is contemplated and the contract amount is expected to be within the small purchase limitation.

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the

risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the 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 Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-13 ACCIDENT PREVENTION (NOV 1991) – ALTERNATE I (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(e) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(f) Before commencing the work, the Contractor shall-

(1) Submit a written proposed plan for implementing this clause. The plan shall include an analysis of the significant hazards to life, limb, and property inherent in contract work performance and a plan for controlling these hazards; and

(2) Meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to

submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997) - ALTERNATE I (APR 1984

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as

used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.

(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor. Upon completing the work under this contract, the Contractor shall furnish a complete set of all shop drawings as finally approved. These drawings shall show all changes and revisions made up to the time the equipment is completed and accepted.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-23 RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR (APR 1984)

(a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other services furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in its designs, drawings, specifications, and other services.

(b) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contract shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract, and the Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of the services furnished under this contract.

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

(d) If the Contractor is comprised of more than one legal entity, each such entity shall be jointly and severally liable hereunder.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-24 WORK OVERSIGHT IN ARCHITECT-ENGINEER CONTRACTS (APR 1984)

The extent and character of the work to be done by the Contractor shall be subject to the general oversight, supervision, direction, control, and approval of the Contracting Officer.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-25 REQUIREMENTS FOR REGISTRATION OF DESIGNERS (JUN 2003)

Architects or engineers registered to practice in the particular professional field involved in a State, the District of Columbia, or an outlying area of the United States shall prepare or review and approve the design of architectural, structural, mechanical, electrical, civil, or other engineering features of the work.

(End of clause)

52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting

Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or interruption, but not later than the date of final payment under the contract.

(End of clause)

52.243-4 CHANGES (AUG 1987)

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

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

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

(3) In the Government-furnished facilities, equipment, materials, services, or site; or

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

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

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

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

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

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

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

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the

general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

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

(End of clause)

52.243-6 CHANGE ORDER ACCOUNTING (APR 1984)

The Contracting Officer may require change order accounting whenever the estimated cost of a change or series of related changes exceeds $100,000. The Contractor, for each change or series of related changes, shall maintain separate accounts, by job order or other suitable accounting procedure, of all incurred segregable, direct costs (less allocable credits) of work, both changed and not changed, allocable to the change. The Contractor shall maintain such accounts until the parties agree to an equitable adjustment for the changes ordered by the Contracting Officer or the matter is conclusively disposed of in accordance with the Disputes clause.

(End of clause)

52.244-4 SUBCONTRACTORS AND OUTSIDE ASSOCIATES AND CONSULTANTS (ARCHITECT-ENGINEER SERVICES) (AUG 1998)

Any subcontractors and outside associates or consultants required by the Contractor in connection with the services covered by the contract will be limited to individuals or firms that were specifically identified and agreed to during negotiations. The Contractor shall obtain the Contracting Officer's written consent before making any substitution for these subcontractors, associates, or consultants.

(End of clause)

52.244-5 COMPETITION IN SUBCONTRACTING (DEC 1996)

(a) The Contractor shall select subcontractors (including suppliers) on a competitive basis to the maximum practical extent consistent with the objectives and requirements of the contract.

(b) If the Contractor is an approved mentor under the Department of Defense Pilot Mentor-Protege Program (Pub. L. 101–510, section 831 as amended), the Contractor may award subcontracts under this contract on a noncompetitive basis to its proteges.

(End of clause)

52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (FEB 2006)

(a) Definitions.

"Commercial item", has the meaning contained in Federal Acquistion Regulation 2.101, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) (1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (MAY 2004) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds $500,000 ($1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.222-39, Notification of Employee Rights Concerning Payment of Union Dues or Fees (DEC 2004) (E.O. 13201). Flow down as required in accordance with paragraph (g) of FAR clause 52.222-39).

(vi) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (FEB 2006) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

52.246-1 CONTRACTOR INSPECTION REQUIREMENTS (APR 1984)

The Contractor is responsible for performing or having performed all inspections and tests necessary to substantiate that the supplies or services furnished under this contract conform to contract requirements, including any applicable technical requirements for specified manufacturers' parts. This clause takes precedence over any Government inspection and testing required in the contract's specifications, except for specialized inspections or tests specified to be performed solely by the Government.

(End of clause)

52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) 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.

(d) 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 Contracting Officer's written authorization.

(e) 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 Contracting Officer. 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.

(f) 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.

(g) 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.

(h) 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 Contracting Officer 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.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

52.247-34 F.O.B. DESTINATION (NOV 1991)

(a) The term "f.o.b. destination," as used in this clause, means--

(1) Free of expense to the Government, on board the carrier's conveyance, at a specified delivery point where the consignee's facility (plant, warehouse, store, lot, or other location to which shipment can be made) is located; and

(2) Supplies shall be delivered to the destination consignee's wharf (if destination is a port city and supplies are for export), warehouse unloading platform, or receiving dock, at the expense of the Contractor. The Government shall not be liable for any delivery, storage, demurrage, accessorial, or other charges involved before the actual delivery (or "constructive placement" as defined in carrier tariffs) of the supplies to the destination, unless such charges are caused by an act or order of the Government acting in its contractual capacity. If rail carrier is used, supplies shall be delivered to the specified unloading platform of the consignee. If motor carrier (including "piggyback") is used, supplies shall be delivered to truck tailgate at the unloading platform of the consignee, except when the supplies delivered meet the requirements of Item 568 of the National Motor Freight Classification for "heavy or bulky freight." When supplies meeting the requirements of the referenced Item 568 are delivered, unloading (including movement to the tailgate) shall be performed by the consignee, with assistance from the truck driver, if requested. If the contractor uses rail carrier or freight forwarded for less than carload shipments, the contractor shall ensure that the carrier will furnish tailgate delivery, when required, if transfer to truck is required to complete delivery to consignee.

(b) The Contractor shall--

(1)(i) Pack and mark the shipment to comply with contract specifications; or

(ii) In the absence of specifications, prepare the shipment in conformance with carrier requirements;

(2) Prepare and distribute commercial bills of lading;

(3) Deliver the shipment in good order and condition to the point of delivery specified in the contract;

(4) Be responsible for any loss of and/or damage to the goods occurring before receipt of the shipment by the consignee at the delivery point specified in the contract;

(5) Furnish a delivery schedule and designate the mode of delivering carrier; and

(6) Pay and bear all charges to the specified point of delivery.

(End of clause)

52.247-63 PREFERENCE FOR U.S.-FLAG AIR CARRIERS (JUN 2003)

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

International air transportation means transportation by air between a place in the United States and a place outside the United States or between two places both of which are outside the United States.

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

U.S.-flag air carrier means an air carrier holding a certificate under 49 U.S.C. Chapter 411.

(b) Section 5 of the International Air Transportation Fair Competitive Practices Act of 1974 (49 U.S.C. 40118) (Fly America Act) requires that all Federal agencies and Government contractors and subcontractors use U.S.-flag air carriers for U.S. Government-financed international air transportation of personnel (and their personal effects) or property, to the extent that service by those carriers is available. It requires the Comptroller General of the United States, in the absence of satisfactory proof of the necessity for foreign-flag air transportation, to disallow expenditures from funds, appropriated or otherwise established for the account of the United States, for international air transportation secured aboard a foreign-flag air carrier if a U.S.-flag air carrier is available to provide such services.

(c) If available, the Contractor, in performing work under this contract, shall use U.S.-flag carriers for international air transportation of personnel (and their personal effects) or property.

(d) In the event that the Contractor selects a carrier other than a U.S.-flag air carrier for international air transportation, the Contractor shall include a statement on vouchers involving such transportation essentially as follows:

STATEMENT OF UNAVAILABILITY OF U.S.-FLAG AIR CARRIERS

International air transportation of persons (and their personal effects) or property by U.S.-flag air carrier was not available or it was necessary to use foreign-flag air carrier service for the following reasons (see section 47.403 of the Federal Acquisition Regulation): [State reasons]: _____

(End of statement)

(e) The Contractor shall include the substance of this clause, including this paragraph (e), in each subcontract or purchase under this contract that may involve international air transportation.

(End of clause)

52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

(1) Requires a change to this, the instant contract, to implement; and

(2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--

(i) In deliverable end item quantities only; or

(ii) To the contract type only.

(c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:

(1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.

(2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.

(3) A separate, detailed cost estimate for

(i) the affected portions of the existing contract requirement and

(ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.

(4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.

(5) A prediction of any effects the proposed change would have on collateral costs to the agency.

(6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.

(7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.

(d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.

(e) Government action.

(1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within the 45-day period and provide the reason for the delay and the expected date of the decision. The

Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or $100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of $50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract . . . . . , shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the Government's right to use information contained in these data if it has been obtained or is otherwise available from

the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (MAY 2004) - ALTERNATE I (SEP 1996)

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

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

(1) Stop work as specified in the notice.

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

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

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

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

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

(7) Complete performance of the work not terminated.

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

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

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 49.001 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

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

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

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

(1) For contract work performed before the effective date of termination, the total (without duplication of any items) of--

(i) The cost of this work;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(1)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(1)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(2) The reasonable costs of settlement of the work terminated, including--

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

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

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

(h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.

(i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.

(j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.

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

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

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

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

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

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

(2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.

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

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

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

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

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

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

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

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

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

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

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

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

(End of clause)

52.252-6 AUTHORIZED DEVIATIONS IN CLAUSES (APR 1984)

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

(b) The use in this solicitation or contract of any Federal Acquisition Regulation (48 CFR Chapter 2) clause with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of clause)

52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(b) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (DEC 2004)

(a) Definitions. As used in this clause—

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

(i) Attempting to obtain;

(ii) Obtaining, or

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Suspension or debarment;

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

(3) Termination of the contract for default.

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

(1) The person involved;

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

(3) The reasons for the requested waiver; and

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

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

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (301) 809-4904.

(End of clause)

252.204-7000 DISCLOSURE OF INFORMATION (DEC 1991)

(a) The Contractor shall not release to anyone outside the Contractor's organization any unclassified information, regardless of medium (e.g., film, tape, document), pertaining to any part of this contract or any program related to this contract, unless--

(1) The Contracting Officer has given prior written approval; or

(2) The information is otherwise in the public domain before the date of release.

(b) Requests for approval shall identify the specific information to be released, the medium to be used, and the purpose for the release. The Contractor shall submit its request to the Contracting Officer at least 45 days before the proposed date for release.

(c) The Contractor agrees to include a similar requirement in each subcontract under this contract. Subcontractors shall submit requests for authorization to release through the prime contractor to the Contracting Officer.

(End of clause)

252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

252.209-7004 SUBCONTRACTING WITH FIRMS THAT ARE OWNED OR CONTROLLED BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) Unless the Government determines that there is a compelling reason to do so, the Contractor shall not enter into any subcontract in excess of $25,000 with a firm, or subsidiary of a firm, that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country.

(b) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is identified, on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs, as being ineligible for the award of Defense contracts or subcontracts because it is owned or controlled by the government of a terrorist country. The notice must include the name of the proposed subcontractor notwithstanding its inclusion on the List of Parties Excluded From Federal Procurement and Nonprocurement Programs.

(End of clause)

252.215-7000 PRICING ADJUSTMENTS (DEC 1991)

The term "pricing adjustment," as used in paragraph (a) of the clauses entitled "Price Reduction for Defective Cost or Pricing Data - Modifications," "Subcontractor Cost or Pricing Data," and "Subcontractor Cost or Pricing Data - Modifications," means the aggregate increases and/or decreases in cost plus applicable profits.

(End of clause)

252.215-7002 COST ESTIMATING SYSTEM REQUIREMENTS (OCT 1998)

(a) "Definition."

"Estimating system" means the Contractor's policies, procedures, and practices for generating estimates of costs and other data included in proposals submitted to customers in the expectation of receiving contract awards. Estimating system includes the Contractor's --

(1) Organizational structure;

(2) Established lines of authority, duties, and responsibilities;

(3) Internal controls and managerial reviews;

(4) Flow of work, coordination, and communication; and

(5) Estimating methods, techniques, accumulation of historical costs, and other analyses used to generate cost estimates.1997

(b) "General."

(1) The Contractor shall establish, maintain, and comply with an estimating system that is consistently applied and produces reliable, verifiable, supportable, and documented cost estimates that are an acceptable basis for negotiation of fair and reasonable prices.

(2) The system should be --

(i) Consistent and integrated with the Contractor's related management systems; and

(ii) Subject to applicable financial control systems.

(c) "Applicability". Paragraphs (d) and (e) of this clause apply if the Contractor is a large business and either --

(1) In its fiscal year preceding award of this contract, received Department of Defense (DoD) prime contracts or subcontracts, totaling $50 million or more for which certified cost or pricing data were required; or

(2) In its fiscal year preceding award of this contract --

(i) Received DoD prime contracts or subcontracts totaling $10 million or more (but less than $50 million) for which certified cost or pricing data were required; and

(ii) Was notified in writing by the Contracting Officer that paragraphs (d) and (e) of this clause apply.

(d) "System requirements."

(1) The Contractor shall disclose its estimating system to the Administrative Contracting Officer (ACO) in writing. If the Contractor wishes the Government to protect the information as privileged or confidential, the Contractor must mark the documents with the appropriate legends before submission.

(2) An estimating system disclosure is adequate when the Contractor has provided the ACO with documentation that--

(i) Accurately describes those policies, procedures, and practices that the Contractor currently uses in preparing cost proposals; and

(ii) Provides sufficient detail for the Government to reasonably make an informed judgment regarding the acceptability of the Contractor's estimating practices.

(3) The Contractor shall --

(i) Comply with its disclosed estimating system; and

(ii) Disclose significant changes to the cost estimating system to the ACO on a timely basis.

(e) "Estimating system deficiencies."

(1) The Contractor shall respond to a written report from the Government that identifies deficiencies in the Contractor's estimating system as follows:

(i) If the Contractor agrees with the report findings and recommendations, the Contractor shall --

(A) Within 30 days, state its agreement in writing; and

(B) Within 60 days, correct the deficiencies or submit a corrective action plan showing proposed milestones and actions leading to elimination of the deficiencies.

(ii) If the Contractor disagrees with the report, the Contractor shall, within 30 days, state its rationale for disagreeing.

(2) The ACO will evaluate the Contractor's response and notify the Contractor of the determination concerning remaining deficiencies and/or the adequacy of any proposed or completed corrective action.

(End of clause)

252.222-7002 COMPLIANCE WITH LOCAL LABOR LAWS (OVERSEAS) (JUN 1997)

(a) The Contractor shall comply with all—

(1) Local laws, regulations, and labor union agreements governing work hours; and

(2) Labor regulations including collective bargaining agreements, workers' compensation, working conditions, fringe benefits, and labor standards or labor contract matters.

(b) The Contractor indemnifies and holds harmless the United States Government from all claims arising out of the requirements of this clause. This indemnity includes the Contractor's obligation to handle and settle, without cost to the United States Government, any claims or litigation concerning allegations that the Contractor or the United States Government, or both, have not fully complied with local labor laws or regulations relating to the performance of work required by this contract.

(c) Notwithstanding paragraph (b) of this clause, consistent with paragraphs 31.205-15(a) and 31.205-47(d) of the Federal Acquisition Regulation, the Contractor will be reimbursed for the costs of all fines, penalties, and reasonable litigation expenses incurred as a result of compliance with specific contract terms and conditions or written instructions from the Contracting officer.

(End of clause)

252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

(a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;

(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)

(a) "Definitions".

As used in this clause --

(1) "Storage" means a non-transitory, semi-permanent or permanent holding, placement, or leaving of material. It does not include a temporary accumulation of a limited quantity of a material used in or a waste generated or resulting from authorized activities, such as servicing, maintenance, or repair of Department of Defense (DoD) items, equipment, or facilities.

(2) "Toxic or hazardous materials" means:

(i) Materials referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601(14)) and materials designated under section 102 of CERCLA (42 U.S.C. 9602) (40 CFR part 302);

(ii) Materials that are of an explosive, flammable, or pyrotechnic nature; or

(iii) Materials otherwise identified by the Secretary of Defense as specified in DoD regulations.

(b) In accordance with 10 U.S.C. 2692, the Contractor is prohibited from storing or disposing of non-DoD-owned toxic or hazardous materials on a DoD installation, except to the extent authorized by a statutory exception to 10 U.S.C. 2692 or as authorized by the Secretary of Defense or his designee.

(End of clause)

252.225-7005 IDENTIFICATION OF EXPENDITURES IN THE UNITED STATES (JUN 2005)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, and outlying areas.

(b) This clause applies only if the Contractor is--

(1) A concern incorporated in the United States (including a subsidiary that is incorporated in the United States, even if the parent corporation is not incorporated in the United States); or

(2) An unincorporated concern having its principal place of business in the United States.

(c) On each invoice, voucher, or other request for payment under this contract, the Contractor shall identify that part of the requested payment that represents estimated expenditures in the United States. The identification--

(1) May be expressed either as dollar amounts or as percentages of the total amount of the request for payment;

(2) Should be based on reasonable estimates; and

(3) Shall state the full amount of the payment requested, subdivided into the following categories:

(i) U.S. products--expenditures for material and equipment manufactured or produced in the United States, including end products, components, or construction material, but excluding transportation;

(ii) U.S. services--expenditures for services performed in the United States, including all charges for overhead, other indirect costs, and profit under construction or service contracts;

(iii) Transportation on U.S. carriers--expenditures for transportation furnished by U.S. flag, ocean, surface, and air carriers; and

(iv) Expenditures not identified under paragraphs (c)(3)(i) through (iii) of this clause.

(d) Nothing in this clause requires the establishment or maintenance of detailed accounting records or gives the U.S. Government any right to audit the Contractor’s books or records.

(End of clause)

252.225-7012 Preference for Certain Domestic Commodities (JUN 2004)

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

(1) Component means any item supplied to the Government as part of an end product or of another component.

(2) End product means supplies delivered under a line item of this contract.

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

(4) U.S.-flag vessel means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b) The Contractor shall deliver under this contract only such of the following items, either as end products or components, that have been grown, reprocessed, reused, or produced in the United States:

(1) Food.

(2) Clothing.

(3) Tents, tarpaulins, or covers.

(4) Cotton and other natural fiber products.

(5) Woven silk or woven silk blends.

(6) Spun silk yarn for cartridge cloth.

(7) Synthetic fabric, and coated synthetic fabric, including all textile fibers and yarns that are for use in such fabrics.

(8) Canvas products.

(9) Wool (whether in the form of fiber or yarn or contained in fabrics, materials, or manufactured articles).

(10) Any item of individual equipment (Federal Supply Class 8465) manufactured from or containing fibers, yarns, fabrics, or materials listed in this paragraph (b).

(c) This clause does not apply--

(1) To items listed in section 25.104(a) of the Federal Acquisition Regulation (FAR), or other items for which the Government has determined that a satisfactory quality and sufficient quantity cannot be acquired as and when needed at U.S. market prices;

(2) To end products incidentally incorporating cotton, other natural fibers, or wool, for which the estimated value of the cotton, other natural fibers, or wool--

(i) Is not more than 10 percent of the total price of the end product; and (ii) Does not exceed the simplified acquisition threshold in FAR part 2;

(3) To waste and byproducts of cotton or wool fiber for use in the production of propellants and explosives;

(4) To foods, other than fish, shellfish, or seafood, that have been manufactured or processed in the United States, regardless of where the foods (and any component if applicable) were grown or produced. Fish, shellfish, or seafood manufactured or processed in the United States and fish, shellfish, or seafood contained in foods manufactured or processed in the United States shall be provided in accordance with paragraph (d) of this clause;

(5) To chemical warfare protective clothing produced in the countries listed in subsection 225.872-1 of the Defense FAR Supplement; or

(6) To fibers and yarns that are for use in synthetic fabric or coated synthetic fabric (but does apply to the synthetic or coated synthetic fabric itself), if--

(i) The fabric is to be used as a component of an end product that is not a textile product. Examples of textile products, made in whole or in part of fabric, include--

(A) Draperies, floor coverings, furnishings, and bedding (Federal Supply Group 72, Household and Commercial Furnishings and Appliances);

(B) Items made in whole or in part of fabric in Federal Supply Group 83, Textile/leather/furs/apparel/findings/ tents/flags, or Federal Supply Group 84, Clothing, Individual Equipment and Insignia;

(C) Upholstered seats (whether for household, office, or other use); and

(D) Parachutes (Federal Supply Class 1670); or

(ii) The fibers and yarns are para-aramid fibers and yarns manufactured in the Netherlands.

(d)(1) Fish, shellfish, and seafood delivered under this contract, or contained in foods delivered under this contract--

(i) Shall be taken from the sea by U.S.-flag vessels; or

(ii) If not taken from the sea, shall be obtained from fishing within the United States; and

(2) Any processing or manufacturing of the fish, shellfish, or seafood shall be performed on a U.S.-flag vessel or in the United States.

(End of clause)

252.225-7014 PREFERENCE FOR DOMESTIC SPECIALTY METALS (JUN 2005)

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

(1) Qualifying country means any country listed in subsection 225.872-1 of the Defense Federal Acquisition Regulation Supplement.

(2) Specialty metals means--

(i) Steel--

(A) With a maximum alloy content exceeding one or more of the following limits: manganese, 1.65 percent; silicon, 0.60 percent; or copper, 0.60 percent; or

(B) Containing more than 0.25 percent of any of the following elements: aluminum, chromium, cobalt, columbium, molybdenum, nickel, titanium, tungsten, or vanadium;

(ii) Metal alloys consisting of nickel, iron-nickel, and cobalt base alloys containing a total of other alloying metals (except iron) in excess of 10 percent;

(iii) Titanium and titanium alloys; or

(iv) Zirconium and zirconium base alloys.

(b) Any specialty metals incorporated in articles delivered under this contract shall be melted in the United States or its outlying areas.

(c) This clause does not apply to specialty metals--

(1) Melted in a qualifying country or incorporated in an article manufactured in a qualifying country; or

(2) Purchased by a subcontractor at any tier.

(End of clause)

252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (JUN 2005)

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

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States means the 50 States, the District of Columbia, outlying areas, and the outer Continental Shelf as defined in 43 U.S.C. 1331.

(3) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

252.225-7041 CORRESPONDENCE IN ENGLISH (JUNE 1997)

The Contractor shall ensure that all contract correspondence that is addressed to the United States Government is submitted in English or with an English translation.

(End of clause)

252.225-7043 ANTITERRORISM/FORCE PROTECTION POLICY FOR DEFENSE CONTRACTORS OUTSIDE THE UNITED STATES (MAR 2006)

(a) Definition. United States, as used in this clause, means, the 50 States, the District of Columbia, and outlying areas.

(b) Except as provided in paragraph (c) of this clause, the Contractor and its subcontractors, if performing or traveling outside the United States under this contract, shall--

(1) Affiliate with the Overseas Security Advisory Council, if the Contractor or subcontractor is a U.S. entity;

(2) Ensure that Contractor and subcontractor personnel who are U.S. nationals and are in-country on a non-transitory basis, register with the U.S. Embassy, and that Contractor and subcontractor personnel who are third country nationals comply with any security related requirements of the Embassy of their nationality;

(3) Provide, to Contractor and subcontractor personnel, antiterrorism/force protection awareness information commensurate with that which the Department of Defense (DoD) provides to its military and civilian personnel and their families, to the extent such information can be made available prior to travel outside the United States; and

(4) Obtain and comply with the most current antiterrorism/force protection guidance for Contractor and subcontractor personnel.

(c) The requirements of this clause do not apply to any subcontractor that is--

(1) A foreign government;

(2) A representative of a foreign government; or

(3) A foreign corporation wholly owned by a foreign government.

(d) Information and guidance pertaining to DoD antiterrorism/force protection can be obtained from Combined Forces Command, Afghanistan, (CFC-A), Base Defense Operations Center (BDOC) Camp Eggers, Kabul, Afghanistan.

(End of clause)

252.225-7045 BALANCE OF PAYMENTS PROGRAM--CONSTRUCTION MATERIAL UNDER TRADE AGREEMENTS (FEB 2006)

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

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

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

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

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

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

Cost of components means--

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

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

Designated country means--

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

(2) A Free Trade Agreement country (Australia, Canada, Chile, Mexico, Morocco, or Singapore);

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

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, or Trinidad and Tobago).

Designated country construction material means a construction material that is a WTO GPA country construction material, a Free Trade Agreement country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

Domestic construction material means--

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

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

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

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

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

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

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

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

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

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

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

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

(b) This clause implements the Balance of Payments Program by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements apply to this acquisition. Therefore, the Balance of Payments Program restrictions are waived for designated country construction materials.

(c) The Contractor shall use only domestic or designated country construction material in performing this contract, except for--

(1) Construction material valued at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation; or

(2) The construction material or components listed by the Government as follows:

None

(End of clause)

252.227-7002 READJUSTMENT OF PAYMENTS (OCT 1966)

(a) If any license, under substantially the same patents and authorizing substantially the same acts which are authorized under this contract, has been or shall hereafter be granted within the United States, on royalty terms which are more favorable to the licensee than those contained herein, the Government shall be entitled to the benefit of such more favorable terms with respect to all royalties accruing under this contract after the date such

more favorable terms become effective, and the Contractor shall promptly notify the Secretary in writing of the granting of such more favorable terms.

(b) In the event any claim of any patent hereby licensed is construed or held invalid by decision of a court of competent jurisdiction, the requirement to pay royalties under this contract insofar as its arises solely by reason of such claim, and any other claim not materially different therefrom, shall be interpreted in conformity with the court's decision as to the scope of validity of such claims; provided, however, that in the event such decision is modified or reversed on appeal, the requirement to pay royalties under this contract shall be interpreted in conformity with the final decision rendered on such appeal.

(End of clause)

252.227-7022 GOVERNMENT RIGHTS (UNLIMITED) (MAR 1979)

The Government shall have unlimited rights, in all drawings, designs, specifications, notes and other works developed in the performance of this contract, including the right to use same on any other Government design or construction without additional compensation to the Contractor. The Contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish the original or copies of all such works on the request of the Contracting Officer.

(End of clause)

252.227-7023 DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF GOVERNMENT. (MAR 1979)

All designs, drawings, specifications, notes and other works developed in the performance of this contract shall become the sole property of the Government and may be used on any other design or construction without additional compensation to the Contractor. The Government shall be considered the "person for whom the work was prepared" for the purpose of authorship in any copyrightable work under 17 U.S.C. 201(b). With respect thereto, the Contractor agrees not to assert or authorize others to assert any rights nor establish any claim under the design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish all retained works on the request of the Contracting Officer. Unless otherwise provided in this contract, the Contractor shall have the right to retain copies of all works beyond such period.

(End of clause)

252.227-7030 TECHNICAL DATA--WITHHOLDING OF PAYMENT (MAR 2000)

(a) If technical data specified to be delivered under this contract, is not delivered within the time specified by this contract or is deficient upon delivery (including having restrictive markings not identified in the list described in the clause at 252.227-7013(e)(2) or 252.227-7018(e)(2) of this contract), the Contracting Officer may until such data is accepted by the Government, withhold payment to the Contractor of ten percent (10%) of the total contract price or amount unless a lesser withholding is specified in the contract. Payments shall not be withheld nor any other action taken pursuant to this paragraph when the Contractor's failure to make timely delivery or to deliver such data without deficiencies arises out of causes beyond the control and without the fault or negligence of the Contractor.

(b) The withholding of any amount or subsequent payment to the Contractor shall not be construed as a waiver of any rights accruing to the Government under this contract.

(End of clause)

252.227-7033 RIGHTS IN SHOP DRAWINGS (APR 1966)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

252.232-7008 ASSIGNMENT OF CLAIMS (OVERSEAS) (JUNE 1997)

(a) No claims for monies due, or to become due, shall be assigned by the Contractor unless—

(1) Approved in writing by the Contracting Officer;

(2) Made in accordance with the laws and regulations of the United States of America; and

(3) Permitted by the laws and regulations of the Contractor's country.

(b) In no event shall copies of this contract of any plans, specifications, or other similar documents relating to work under this contract, if marked “Top Secret,” “Secret,” or “Confidential” be furnished to any assignee of any claim arising under this contract or to any other person not entitled to receive such documents. However, a copy of any part or all of this contract so marked may be furnished, or any information contained herein may be disclosed, to such assignee upon the Contracting Officer's prior written authorization.

(c) Any assignment under this contract shall cover all amounts payable under this contract and not already paid, and shall not be made to more than one party, except that any such assignment may be made to one party as agent or trustee for two or more parties participating in such financing. On each invoice or voucher submitted for payment under this contract to which any assignment applies, and for which direct payment thereof is to be made to an assignee, the Contractor shall—

(1) Identify the assignee by name and complete address; and

(2) Acknowledge the validity of the assignment and the right of the named assignee to receive payment in the amount invoiced or vouchered.

(End of clause)

252.233-7001 CHOICE OF LAW (OVERSEAS) (JUNE 1997)

This contract shall be construed and interpreted in accordance with the substantive laws of the United States of America. By the execution of this contract, the Contractor expressly agrees to waive any rights to invoke the jurisdiction of local national courts where this contract is performed and agrees to accept the exclusive jurisdiction of the United States Armed Services Board of Contract Appeals and the United States Court of Federal Claims for hearing and determination of any and all disputes that may arise under the Disputes clause of this contract.

(End of clause)

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

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

(b) The price breakdown --

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

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

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

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

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

252.236-7006 COST LIMITATION (JAN 1997)

(a)Certain items in this solicitation are subject to statutory cost limitations. The limitations are stated in the Schedule.

(b)An offer which does not state separate prices for the items identified in the Schedule as subject to a cost limitation may be considered nonresponsive.

(c)Prices stated in offers for items subject to cost limitations shall include an appropriate apportionment of all costs, direct and indirect, overhead, and profit.

(d) Offers may be rejected which--

(1)Are materially unbalanced for the purpose of bringing items within cost limitations; or

(2)Exceed the cost limitations, unless the limitations have been waived by the Government prior to award.

(End of provision)

252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

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

252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

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

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

(Official's Name)

(Title)

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

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

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

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

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

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

252.244-7000 SUBCONTRACTS FOR COMMERCIAL ITEMS AND COMMERCIAL COMPONENTS

(DOD) (NOV 2005)

In addition to the clauses listed in paragraph (c) of the Subcontracts for Commercial Items clause of this contract (Federal Acquisition Regulation 52.244-6), the Contractor shall include the terms of the following clauses, if applicable, in subcontracts for commercial items or commercial components, awarded at any tier under this contract:

252.225-7014 Preference for Domestic Specialty Metals, Alternate I (10 U.S.C. 2241 note).

252.247-7023 Transportation of Supplies by Sea (10 U.S.C. 2631).

252.247-7024 Notification of Transportation of Supplies by Sea (10 U.S.C. 2631).

(End of clause)

252.247-7023 Transportation of Supplies by Sea (MAY 2002)

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

(1) "Components" means articles, materials, and supplies incorporated directly into end products at any level of manufacture, fabrication, or assembly by the Contractor or any subcontractor.

(2) "Department of Defense" (DoD) means the Army, Navy, Air Force, Marine Corps, and defense agencies.

(3) "Foreign flag vessel" means any vessel that is not a U.S.-flag vessel.

(4) "Ocean transportation" means any transportation aboard a ship, vessel, boat, barge, or ferry through international waters.

(5) "Subcontractor" means a supplier, materialman, distributor, or vendor at any level below the prime contractor whose contractual obligation to perform results from, or is conditioned upon, award of the prime contract and who is performing any part of the work or other requirement of the prime contract.

(6) "Supplies" means all property, except land and interests in land, that is clearly identifiable for eventual use by or owned by the DoD at the time of transportation by sea.

(i) An item is clearly identifiable for eventual use by the DoD if, for example, the contract documentation contains a reference to a DoD contract number or a military destination.

(ii) "Supplies" includes (but is not limited to) public works; buildings and facilities; ships; floating equipment and vessels of every character, type, and description, with parts, subassemblies, accessories, and equipment; machine tools; material; equipment; stores of all kinds; end items; construction materials; and components of the foregoing.

(7) "U.S.-flag vessel" means a vessel of the United States or belonging to the United States, including any vessel registered or having national status under the laws of the United States.

(b)(1) The Contractor shall use U.S.-flag vessels when transporting any supplies by sea under this contract.

(2) A subcontractor transporting supplies by sea under this contract shall use U.S.-flag vessels if--

(i) This contract is a construction contract; or

(ii) The supplies being transported are--

(A) Noncommercial items; or

(B) Commercial items that--

(1) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it contracts for f.o.b. destination shipment);

(2) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(3) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(c) The Contractor and its subcontractors may request that the Contracting Officer authorize shipment in foreign-flag vessels, or designate available U.S.-flag vessels, if the Contractor or a subcontractor believes that --

(1) U.S.-flag vessels are not available for timely shipment;

(2) The freight charges are inordinately excessive or unreasonable; or

(3) Freight charges are higher than charges to private persons for transportation of like goods.

(d) The Contractor must submit any request for use of other than U.S.-flag vessels in writing to the Contracting Officer at least 45 days prior to the sailing date necessary to meet its delivery schedules. The Contracting Officer will process requests submitted after such date(s) as expeditiously as possible, but the Contracting Officer's failure to grant approvals to meet the shipper's sailing date will not of itself constitute a compensable delay under this or any other clause of this contract. Requests shall contain at a minimum --

(1) Type, weight, and cube of cargo;

(2) Required shipping date;

(3) Special handling and discharge requirements;

(4) Loading and discharge points;

(5) Name of shipper and consignee;

(6) Prime contract number; and

(7) A documented description of efforts made to secure U.S.-flag vessels, including points of contact (with names and telephone numbers) with at least two U.S.-flag carriers contacted. Copies of telephone notes, telegraphic and facsimile message or letters will be sufficient for this purpose.

(e) The Contractor shall, within 30 days after each shipment covered by this clause, provide the Contracting Officer and the Maritime Administration, Office of Cargo Preference, U.S. Department of Transportation, 400 Seventh Street SW., Washington, DC 20590, one copy of the rated on board vessel operating carrier's ocean bill of lading, which shall contain the following information:

(1) Prime contract number;

(2) Name of vessel;

(3) Vessel flag of registry;

(4) Date of loading;

(5) Port of loading;

(6) Port of final discharge;

(7) Description of commodity;

(8) Gross weight in pounds and cubic feet if available;

(9) Total ocean freight in U.S. dollars; and

(10) Name of the steamship company.

(f) The Contractor shall provide with its final invoice under this contract a representation that to the best of its knowledge and belief--

(1) No ocean transportation was used in the performance of this contract;

(2) Ocean transportation was used and only U.S.-flag vessels were used for all ocean shipments under the contract;

(3) Ocean transportation was used, and the Contractor had the written consent of the Contracting Officer for all non-U.S.-flag ocean transportation; or

(4) Ocean transportation was used and some or all of the shipments were made on non-U.S.-flag vessels without the written consent of the Contracting Officer. The Contractor shall describe these shipments in the following format:

ITEM DESCRIPTION	CONTRACT LINE ITEMS	QUANTITY
TOTAL		

(g) If the final invoice does not include the required representation, the Government will reject and return it to the Contractor as an improper invoice for the purposes of the Prompt Payment clause of this contract. In the event there has been unauthorized use of non-U.S.-flag vessels in the performance of this contract, the Contracting Officer is entitled to equitably adjust the contract, based on the unauthorized use.

(h) In the award of subcontracts for the types of supplies described in paragraph (b)(2) of this clause, the Contractor shall flow down the requirements of this clause as follows:

(1) The Contractor shall insert the substance of this clause, including this paragraph (h), in subcontracts that exceed the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(2) The Contractor shall insert the substance of paragraphs (a) through (e) of this clause, and this paragraph (h), in subcontracts that are at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation.

(End of clause)

252.247-7024 Notification of Transportation of Supplies by Sea (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause)

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

The Contractor shall be required to (a) commence work under this contract within 7 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 365 calenday days from receipt of notice to proceed. * The time stated for completion shall include final cleanup of the premises.

(End of clause)

Section 00800 - Special Contract Requirements

CLAUSES INCORPORATED BY FULL TEXT

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

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of $3,392.71 for each calendar day of delay until the work is completed or accepted.

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

(End of clause)

52.211-13 TIME EXTENSIONS (SEP 2000)

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

(End of clause)

52.215-19 NOTIFICATION OF OWNERSHIP CHANGES (OCT 1997)

(a) The Contractor shall make the following notifications in writing:

(1) When the Contractor becomes aware that a change in its ownership has occurred, or is certain to occur, that could result in changes in the valuation of its capitalized assets in the accounting records, the Contractor shall notify the Administrative Contracting Officer (ACO) within 30 days.

(2) The Contractor shall also notify the ACO within 30 days whenever changes to asset valuations or any other cost changes have occurred or are certain to occur as a result of a change in ownership.

(b) The Contractor shall--

(1) Maintain current, accurate, and complete inventory records of assets and their costs;

(2) Provide the ACO or designated representative ready access to the records upon request;

(3) Ensure that all individual and grouped assets, their capitalized values, accumulated depreciation or amortization, and remaining useful lives are identified accurately before and after each of the Contractor's ownership changes; and

(4) Retain and continue to maintain depreciation and amortization schedules based on the asset records maintained before each Contractor ownership change.

The Contractor shall include the substance of this clause in all subcontracts under this contract that meet the applicability requirement of FAR 15.408(k).

(End of clause)

52.236-4 PHYSICAL DATA (APR 1984)

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

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by either surveys, cord borings, and/or reconnaissance.

(b) Weather conditions. Information regarding weather conditions is available in Technical Specification Section 01060 for examination by the bidders. If additional information concerning weather is required prospective bidders should contact the U.S. Army Corps of Engineers, Afghanistan Engineer District, House #1, Street #1; West Wazir Akbar Khan (behind Amani High School), Kabul, Afghanistan.

(c) Transportation facilities. It shall be the responsibility of the Contractor to make his own investigation of available roads for transportation, of load limits of bridges on the roads, and of other road conditions, which may effect transportation of materials, equipment, and personnel to the site of the work.

52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

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

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

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

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

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

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

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

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.
(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

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

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

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

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

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

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

(End of clause)

52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In evaluating a terminations settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

(1)Actual costs for each piece of equipment, or groups of similar serial or series
equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.

(2)If equipment costs have been allocated to a contract using predetermined rates , those charges will be adjusted to actual costs.

(3) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.
(4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).
(5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of Clause)

252.232-7003 ELECTRONIC SUBMISSION OF PAYMENT REQUESTS (JAN 2004)

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

(1) Contract financing payment and invoice payment have the meanings given in section 32.001 of the Federal Acquisition Regulation.

(2) Electronic form means any automated system that transmits information electronically from the initiating system to all affected systems. Facsimile, e-mail, and scanned documents are not acceptable electronic forms for submission of payment requests. However, scanned documents are acceptable when they are part of a submission of a payment request made using one of the electronic forms provided for in paragraph (b) of this clause.

(3) Payment request means any request for contract financing payment or invoice payment submitted by the Contractor under this contract.

(b) Except as provided in paragraph (c) of this clause, the Contractor shall submit payment requests using one of the following electronic forms:

(1) Wide Area WorkFlow-Receipt and Acceptance (WAWF-RA). Information regarding WAWF-RA is available on the Internet at https://wawf.eb.mil.

(2) Web Invoicing System (WInS). Information regarding WInS is available on the Internet at https://ecweb.dfas.mil.

(3) American National Standards Institute (ANSI) X.12 electronic data interchange (EDI) formats.

(i) Information regarding EDI formats is available on the Internet at http://www.X12.org.

(ii) EDI implementation guides are available on the Internet at http://www.dfas.mil/ecedi.

(4) Another electronic form authorized by the Contracting Officer.

(c) If the Contractor is unable to submit a payment request in electronic form, or DoD is unable to receive a payment request in electronic form, the Contractor shall submit the payment request using a method mutually agreed to by the Contractor, the Contracting Officer, the contract administration office, and the payment office.

(d) In addition to the requirements of this clause, the Contractor shall meet the requirements of the appropriate payment clauses in this contract when submitting payments requests.

(End of clause)

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

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

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

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

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

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

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

(c) In general--

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

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

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

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

Title File Drawing No.
(See Appendix Aof the RFP)
(End of clause)

ECONOMIC SURVIELLANCE

Economic Surveillance Contract Language

Contractor shall report average pay rates and employment levels, for both domestic and international employees monthly. The information will be reported by labor category (as specified by USACE) and be specific to each work active work site. In addition the contractor shall report monthly non-labor contract spending for domestic and international contract expenses. This information will be reported by category (as specified by USACE) and will be specific to each active work site.

DEFENSE BASE ACT INSURANCE

52.000-4105 WORKERS COMPSENASTION INSURACNE (DEFENSE BASE ACT) - CONSTRUCTION (NOV 2005)

(a) This clause supplements FAR Clause 52.228-3

(b) The contractor agrees to procure Defense Base Act (DBA) insurance pursuant to the terms of

the contract between the U.S. Army Corps of Engineers (USACE) and the USACE DBA insurance carrier unless the contractor has a DBA self-insurance program approved by the Department of Labor. The contractor shall submit a copy of the Department of Labor's approval to the contracting officer upon contract award. The current rate under the USACE contract is $8.50 per $100 of compensation for construction.
(c) The contractor agrees to insert a clause substantially the same as the one in all subcontracts to which DBA is applicable. Subcontractors shall be required to insert a similar clause in any of their subcontracts subject to the DBA.
(d) Should the rates for DBA insurance coverage increase or decrease during the performance of this contract, USACE shall modify the contract accordingly.
End of clause

52.000-4106 DEFENSE BASE ACT INSURANCE RATES – LIMITATION FIXED-PRICE (NOV 2005)

(e) The U.S. Army Corps of Engineers (USACE) has entered into a contract with an insurance carrier to provide all Defense Base Act (DBA) insurance to USACE contractors at a contracted rate under the OSD/USACE Centrally-Managed Pilot DBA Insurance Program. The rates for this insurance are as follows:
Services @ $5.00 per $100 of compensation; or
Construction @ $8.50 per $100 of compensation.
(f) Bidders/Offerors should compute the total compensation (direct salary plus differential, but excluding per diem, housing allowance and other miscellaneous post allowances) to be paid to employees who will be covered by DBA insurance and the cost of DBA totals in the spaces provided for the base period and whatever extension there may be thereafter, if applicable
(1) Compensation of Covered Employees:
(2) Defense Base Act Insurance Costs:
(3) Total Cost:
(g) Bidders/Offerors shall include a statement as to whether or not local nationals or third country nationals will be employed on the resultant contract
End of clause

Your insurance should be applied to each line item as they pertain to labor cost for that line item.
Do not add a separate line item for DBA insurance, if you do your bid may be considered as non-responsive.

(3) CNA Insurance – Contractor – Insurance Carrier

(4) Roger Ellickson (312) 822-4395 Roger.ellickson@cna.com

The Continental Insurance Co.
Roger Ellickson
DBA CNA Insurance
333 S. Wabash Avenue
Chicago, IL 60685-1809

- **Rutherfoord International – Insurance Broker**
  - James Walczak (703) 813-6544 jim.walczak@rutherfoord.com

Rutherfoord International
James Walczak
5500 Cherokee Avenue, Suite 300
Alexandria, VA 22312

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SECTION 00900

ATTACHMENTS

TITLE **PAGES**

1. AMENDMENTS

AMENDMENT NO. DATE

2. CONTRACTOR'S TECHNICAL PROPOSAL

AMENDMENTS: Amendments issued to this solicitation affecting the contract will be a part of the resultant contract and will be listed above at the time of award.

SECTION 01010

GENERAL PROJECT DESCRIPTION AND GENERAL REQUIREMENTS

PART 1 - GENERAL

The Contractor shall design and construct this project in accordance with the approved contract documents. Work consists of the master planning, design and construction (Design-Build) of all facilities for the relocation of Kabul Consolidated Compound. It includes all site work, utilities, site improvements, storm drain system, roads, parking, walkways, compound lighting and upgrading entry control necessary for a fully functional compound. The Contractor shall perform all site surveys (topographic, utility, etc.) to determine the existing site conditions. All requirements set forth in the Scope of Work, but not included in the Technical Requirements shall be considered as set forth in both, and vice versa. Buildings shall be built three stories with one (1) story below grade and two (2) stories above grade. Basement corridors shall be constructed of reinforced concrete or CMU to provide bomb shelter.

Major features of work under this contract include:

- Master Planning and Site Development design of the entire site, as enclosed by existing stone wall, for the following areas: Administrative Office Space (11,004 sq. meters - 118,410 sq. ft.), General Administrative Space (4,402 sq. meters - 47,364 sq. ft.), Billeting Space (6,774 sq. meters 72,880 sq. ft.), and a Dining Facility (1,190 sq. meters - 12,810 sq. ft.). Refer to Section 1.3.2 Design Program for actual square footage to be designed and built under this contract. It is the expectation of the Government that the Contractor exercise maximum flexibility and innovation in providing a quality end-product that meets or exceeds the technical requirements within Section 01015. (See Appendix A for Conceptual Building Layout.)
- Grading and Storm Water Management. Site storm water management and grading must allow for water to be drained away from the facilities, parking, and roads and out of the community without flooding or ponding.
- Facilities. Personnel Housing, Dining Facility, Administrative, and associated Community Support and Morale Facilities as noted within the Master Planning paragraph.
- Utilities. The project includes the construction of new utilities consisting of electric generators, generator fuel storage, water well, water storage, water treatment and distribution system, and waste water collection and treatment system.
- All facilities in this project will require heating, ventilation, air-conditioning, sanitary facilities/plumbing, electricity, communication, and data connections.
- Road and Parking construction (bituminous surface). Roads and parking built to AASHTO standards.
- All site development and facilities are to comply with Antiterrorism and Force Protection standards and guidance within Section 01015. Permitted construction must meet structural force protection standards as provided in this RFP.
- Provide a complete Landscaping Plan incorporating existing trees, and incorporating stone work into design.
- There is an existing Mosque in the South East quadrant of the site, Contractor shall fence off the entire building during construction. Mosque is not a part of this contract and shall not be touched. Area around Mosque shall be worked into landscape plan and landscaped as part of this project.

1.1 LOCATION

The site is to the north of Massoud Circle in the city limits of Kabul City, Afghanistan. Latitude and Longitude of the site is:

69º11'29.5" E
34º 32'16.7" N

1.2 SITE CLEARING

1.2.1 The Contractor shall remove all metal junk, debris, from site and haul it to a location designated by Contracting Officer. In conjunction with this clean up the Contractor will de-mine the entire site per item 1.2.2 this RFP.

1.2.2 The Contractor shall search, identify and clear all mines and unexploded ordnances (UXO's) from the entire site. The Contractor shall provide the Government a letter indicating that the site is clear of mines and UXO's and is available for construction operations to proceed. All mine and UXO clearing shall be done in accordance with the International Mine Action Standards (IMAS) and clearance shall be accomplished to the anticipated foundation depth. These standards can be found at http://www.mineactionstandards.org. Work will not commence in any area that has not been cleared. For any and all areas on or around the site, it is the responsibility of the Contractor to be aware of the risk of encountering mines and UXO's and to take all actions necessary to assure a safe work area to perform the requirements of this contract. The Contractor assumes the risk of any and all personal injury, property damage or other liability, arising out of and resulting from any Contractor action hereunder. In any case the Contractor shall be responsible for identifying all mines and UXO's within the entire site. Once the mines and UXO's are identified, the Contractor shall place them in a safe and secure location in accordance with IMAS. This work shall proceed in phases, concurrently with other construction efforts as determined by the Contractor. If a UXO/mine is encountered after site clearance and during project construction, UXO/mine disposal shall be handled in accordance with Section 01015, Technical Requirements, paragraph 1.4.

1.2.3 SITE SECURITY

The Contractor shall provide perimeter force protection security for the developing site. Security may include but is not limited to fence and private security guards. Perimeter security shall prevent unauthorized site access and provide safety protection to the Contractor work force and government personnel for the duration of the project. The contractor is solely responsible for security however local police should be coordinated with regarding security.

1.3 GENERAL DESIGN REQUIREMENTS

1.3.1 DESIGN CONCEPT DOCUMENTS

This section identifies documents issued with this RFP which establish the concept or basis for the project design. These requirements are minimum standards and may be exceeded by the Offeror. Deviations from these concepts and standards may be approved if considered by the Government to be in its best interests. The extent of development of these requirements in no way relieves the successful Offeror from the responsibility of completing the design, construction documentation, and construction of the facility in conformance with applicable criteria and codes.

1.3.1.1 ENGINEERING AND DESIGN CRITERIA

General design requirements are set forth in this RFP herein. The Specifications Division 02 thru 16 are the primary specifications criteria for the design and construction of the project. Documents that this RFP references, such as codes, specifications, and standards, will not be furnished by the Afghanistan Engineer District, except those which may be required for design and are not available from commercial sources or from the Construction Criteria Base (CCB) or 'Techinfo' website located at http://www.hnd.usace.army.mil/techinfo/. The CCB must be obtained by the A/E if the criteria are required or desired. All design, unless otherwise specified, shall be based on internationally recognized industry standards, criteria, and practice.

1.3.1.2 APPENDIX DOCUMENTS

See Appendices for further technical requirements, criteria and parameters that are a part of this contract.

1.3.1.3 SPECIFICATIONS

Specifications and Standards included herein shall be utilized as design criteria and minimum standards for the corresponding construction work. The successful Offeror shall develop complete construction specifications using the criteria included in this RFP.

1.3.2 DESIGN PROGRAM

Primary design features are summarized in the introductory paragraph of this section. See Section 01015 for Design Requirements. Facilities requirements to be Master Planned, Designed and Built are as follows.

See Appendix C Personnel Breakdown for mix of Departments, space allocations and Private Office vs. Open Office, etc.

Personnel Housing:

Internal Staff (29,680 Sq. ft. - 2,758 sq. meters)

- 210 rooms, each at (80 sq. ft.-7.45 net sq. meters) NOTE: This number of rooms will be less based on the amount of space required for Latrines, Corridors, Stairs, walls, etc.
- 76 rooms, each pair at (160 sq. ft. - 14.90 net sq. meters) with an interconnecting door between each group of two rooms.
- 3 units, each at (23.8 net sq. meters – 240 sq. ft.) each with a living and sleeping area, a latrine facility with a water closet, shower and lavatory.
- For rooms without a water closet inside the room, provide latrine facilities with a minimum of 1 water closet, shower, and lavatory per 10 rooms. The maximum population that a single latrine facility can serve is 110 rooms.

Base OPS Staff (7,120 Sq. ft. - 662 sq. meters)

- 79 rooms, each at (80 sq. ft.-7.45 net sq. meters) NOTE: This number of rooms will be less based on the amount of space required for Latrines, Corridors, Stairs, walls, etc.
- 5 rooms, each pair at (160 sq. ft. - 14.90 net sq. meters) with an interconnecting door between each group of two rooms.
- Latrine facilities shall be constructed with a minimum of 1 water closet, shower, and lavatory per 10 rooms. The maximum population that a single latrine facility can serve is 110 rooms.

Administrative Office Space:

Internal Staff Office Space (44,150 sq. ft. - 4,103 sq. meters) including private and open offices.

Internal Staff General Space (17,660 sq. ft. - 1,641 sq. meters)
Base OPS Office Space (6,240 sq. ft. - 580 sq. meters) including private and open offices.
Base OPS General space (2,496 sq. ft. - 232 sq. meters)

Total General Space (20,156 sq. ft. - 1,873 sq. meters)

General Space shall be used for Corridors, Stairs, Latrines, Conference Rooms, Sensitive Compartmented Information Facilities SCIF (1,600 sq. ft. - 149 sq. meters), Joint Operations Center JOC (To be determined), Tactical Control Facility TCF (1,600 sq. ft. - 149 sq. meters), Battalion Aid Station (540 sq. ft. - 50 sq. meters) , Guard Tower and Guard Houses (245 sq. ft. - 21 sq. meters) Alteration/Sewing Shop (124 sq. ft. - 12 sq. meters), and Laundry Collection(791sq. ft. - 74 sq. meters) Solid Waste Collection Points (430 sq. ft. - 40 sq. meters)

Dining facility, seating for 400 persons (325 sq. meters - 3500 sq. ft.). The DFAC can be designed and constructed as a stand alone building or as part of the Administrative Facility. Provide in Master Plan and Building design, a Plan to expand the 325 sq. meter Dining Facility to 1,190 sq. meters. Plan for keeping the 325 sq. meter Dining Facility operating during this expansion.

1.3.2.1 MASTER PLANING PROGRAM

Facilities to be included in the site Master Plan and not designed or constructed are: See Appendix C for mix of Departments, space allocations and Private Office vs. Open Office, etc.

Personnel Housing:

Defense Reform Directorate DRD, Task Force Police TFP, Police Reform Directorate PRD.
(36,080 Sq. ft. – 3,353 sq. meters)

- 220 rooms, each at (80 sq. ft.-7.45 net sq. meters) NOTE: This number of rooms will be less based on the amount of space required for Latrines, Corridors, Stairs, walls, etc.
- 128 rooms, each pair at (160 sq. ft. - 14.90 net sq. meters) with an interconnecting door between each group of two rooms.
- 1 unit, each at (23.8 net sq. meters – 240 sq. ft.) each with a living and sleeping area, a latrine facility with a water closet, shower and lavatory.
- Latrine facilities shall be constructed with a minimum of 1 water closet, shower, and lavatory per 10 rooms. The maximum population that a single latrine facility can serve is 110 rooms.

Administrative Office Space: DRD, Interpreters, TFP, PRD. (68,020 Sq. ft. – 6,321 sq. meters)
General Admin Space : DRD, Interpreters, TFP, PRD. (27,208 Sq. ft. – 2,529 sq. meters)

General Admin Space (27,208 Sq. ft. – 2,529 sq. meters) shall be used for Corridors, Latrines, Conference Rooms, Religious Support (1,624 sq. ft. - 150 sq. meters), Education Center(1,710 sq. ft. - 159 sq. meters), Mail Room/Post Office (340 sq. ft. - 32 sq. meters), Barber Shop, Beauty Shop (500 sq. ft. - 46 sq. meters), PX Store (4,243 sq. ft. - 394 sq. meters), PX Warehouse (2,090 sq. ft. - 194 sq. meters), PX Administration (750 sq. ft. - 70 sq. meters), Subway/Coffee House (988 sq. ft. - 92 sq. meters), Dining/Seating (386 sq. ft. - 36 sq. meters), MWR (2,316 sq. ft. - 215 sq. meters), Community Activity (1,853 sq. ft. - 172 sq. meters), Multipurpose Theater(1000 sq. ft. - 93 sq. meters),

The following components, building, etc. require master planning and inclusion into overall plan but are not apart of any space allowances listed above. See Appendix A Conceptual Building Layout. Maintance Building (1,250 sq. ft. - 115 sq. meters), Base Operating Support Area (7,200 sq. ft. - 670 sq. meters), Refueling Point (200 sq. ft. - 20 sq. meters), Vehicle Wash Rack (250 sq. ft. - 23 sq. meters),

The project includes the construction of new utilities consisting of electric generators, generator fuel storage, water well, water storage, water treatment and distribution system, and waste water collection and treatment system. All facilities in this project will require heating, ventilation, air-conditioning, sanitary facilities/plumbing, electricity, communication, and data connections.

Required site features include access points, roads, parking areas and one new guard tower at south wall by Massoud Circle. The new guard tower shall matching existing towers on site. Provide two (2) Guard Houses at Entry Control Points.

1.3.2.1 DESIGN CHARETTE

The Contractor awarded this contract shall schedule a five-day (minimum) design Charrette, at approximately 10% to 15% design, at Corps of Engineers Headquarters in Kabul with the Users, Contractors Design Team, and the Corps of Engineers present. The design Charrette shall ensure the fine points of the site and facility design are finalized and agreed on by all parties before going to 100% design and construction documents. The design team shall consider innovative methods of urban design and site planning to ensure Antiterrorism and Force Protection standards and guidance are fully integrated into the design.

1.4 GENERAL CONSTRUCTION REQUIREMENTS

1.4.1 SCOPE

The Contractor is responsible for designing and constructing Personnel Housing, Dining Facility, Administrative, and associated Spaces, JOC, TCF, SCIF, Battalion Aid Station, Guard Tower and Guard Houses, Alteration/Sewing, Solid Waste Collection Points and Laundry Collection Point; as indicated in 01010 1.3.2 Design Program.

The Contractor is responsible for Master Planning all items as indicated in Section 01010 1.3.2.1; Master Planning Program.

Site work includes, grading, landscaping, utilities, site improvements, storm drain system, roads, parking, walkways, security and compound lighting, and entry control for a fully functional compound. The Contractor shall perform all site surveys (topographic, utility, etc.) to determine the existing site conditions.

1.4.2 WORKMANSHIP

Workmanship of the complete project is expected to be commensurate with similar construction complexes constructed in the private sector in the United States.

1.4.3 SUBMITTALS, MATERIALS, AND CONSTRUCTION

All materials shall be free of defects and in good condition. Final products, materials and construction must meet the minimum standards as described in the Contract Documents and Scope of Work (SOW). Each Contractor shall submit the following for all materials and equipment to be provided under this section of the specification: manufacturer’s data including performance characteristics at design conditions, dimensions, performance and data.

1.4.4 SAFETY REQUIREMENTS.

The Contractor shall ensure that employees are supplied with and use proper safety equipment (i.e. hard hats, gloves, safety glasses, and boots), and follow all work procedures which protect Contractor employees. The Contractor shall establish a safety zone around the work areas and establish a safety system to prevent worker injuries. Refer to Section 01060 for Accident Prevention Plan.

1.4.5 WORKING CONDITIONS.

The Contractor is responsible for inspecting all work areas and determining actual work area conditions and work requirements. Except as provided in FAR 52.236-2 such condition will not be the basis for any modifications to the contract.

1.4.6 CLEANUP.

The Contractor shall keep work site clean, removing all debris and refuse from the site on a daily basis.

1.4.7 SUPERVISION AND QUALITY CONTROL.

Supervision and Quality Control: The Contractor shall maintain a quality control system and supervision of employees throughout the project. As requested, the Contractor shall demonstrate to the satisfaction of the Contracting Officer compliance with the specifications. The Contractor is required to apply techniques or practices as recommended by the Army QA/QC officer to improve the quality and pace of work so long as such recommendations do not change the specified actions in this contract.

(a) Contractor is responsible for the quality of work of employees.
(b) Contractor shall provide personnel with adequate training/experience to perform tasks outlined in the SOW and contract.
(c) Contractor shall provide sufficient supervision of employees.
(d) Contractor shall be responsible to provide any specified quality control inspections/tests as required in this scope of work. A copy of test results, text in English, must be provided to Contracting Officer.

1.4.8 DELIVERY AND STORAGE OF MATERIALS AND EQUIPMENT

The Contractor shall be responsible for all material storage, providing any necessary security containers, fencing and protection from the weather. At the end of the project, the Contractor shall remove all debris from the site at no additional cost to the Owner. Storage locations shall be as designated by the Contracting Officer. The Contractor shall limit his storage to the areas provided.

1.4.9 COORDINATION

Contractor shall attend a “pre-construction” meeting with the Contracting Officer to discuss the installation start date and schedule, access requirements work plan, and a project plan. Contractor shall have in his possession a copy of the SOW, design and drawings at the project site. The Contractor shall schedule the “pre-construction” meeting no later than seven calendar days after notice of bid acceptance. Contractor shall inform the Contracting Officer of the scheduled “pre-construction” meeting.

1.7 ADDITIONAL DOCUMENTS/CRITERIA FURNISHED BY THE GOVERNMENT

The following documents will be furnished to the Design/Build Contractor when requested by the Offeror or Contractor:

Design Criteria published by the Government such as Technical Manuals (TM), Engineer Manuals (EM), Engineer Technical Letters (ETL) and other documents related to the design referenced herein which are not available on the Internet or in the Construction Criteria Base CD-Rom.

Commercial design criteria and specifications will not be furnished by the Government.

Conversion of electronic media to other formats shall be the responsibility of the Design-Build Contractor.

PART 2 - PRODUCTS

2.1 DRAWINGS AND OTHER DATA TO BECOME PROPERTY OF THE GOVERNMENT

All designs, drawings, specifications, notes, and other works developed in the performance of this contract shall become the sole property of the Government and may be used on any other design without additional compensation to the Contractor. The Government shall be considered the "person for whom the work was prepared" for the purpose of authorship in a copyrightable work under 17 U.S.C. 201(b). With respect thereto, the Contractor agrees not to assert or authorize others to assert any rights or to establish any claim under the design patent or copyright laws. The Contractor for a period of three (3) years after completion of the project agrees to furnish all retained works on the request of the Contracting Officer. Unless otherwise provided in the contract, the Contractor shall have the right to retain copies of all works beyond such period.

PART 3 – EXECUTION

3.1 SCHEDULE

The Contractor and Design Team shall finalize Master Plan and concept drawings of all facilities within 45 days of award of this contract. The development of the master plan and conceptual plans will include participation in a 5 day Charrette planning meeting in Kabul to finalize design. Completion of construction documents shall be no later than 75 days after completion of the Charrette. After approval of a preliminary facility layout and landscape plan showing all vegetation (mature trees) to remain on site, the Contractor may commence demolition. Any Options to be awarded shall be awarded 210 calendar days after Notice to Proceed. Construction shall commence no later than 120 days after award of contract and the Contractor will prosecute the work diligently, and complete the entire work, ready for use, no later than 540 calendar days after Notice to Proceed. The time stated for completion shall include final cleanup of the premises. The Contractor shall survey site and verify the existing conditions and report to the Contracting Officer any interface problems that could potentially impact this work. The Contractor shall be responsible for submittals and developing and performing all operational and acceptance testing. Contractor shall construct the facilities as a Design-Build construction contract and shall be in accordance with all codes, regulations, and requirements outlined in this Request for Proposal (RFP).

END OF SECTION

SECTION 01012

SECTION 01012

DESIGN AFTER AWARD

1. GENERAL

1.1 DESCRIPTION OF THE PROJECT

Design and construct all associated site development and supporting infrastructure in accordance with the requirements of this RFP.

1.2 DESIGN QUALITY CONTROL (DQC) PLAN

The Contractor shall prepare and submit DQC Plan for Government review prior to starting any work. At a minimum the Contractor's DQC Plan shall provide and maintain an effective quality control program, which will assure that all services required by this design-build contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, competent, independent reviewers identified in the DQC Plan shall technically review all documents. The same element that produced the product shall not perform the independent technical review (ITR).

The Contractor shall include the design schedule in the master project schedule, showing the sequence of events involved in carrying out the project tasks within the specific contract period. This should be at a detailed level of scheduling sufficient to identify all major tasks including those that control the flow of work. The schedule shall include review and correction periods associated with each item. This should be a forward planning as well as a project-monitoring tool. The schedule reflects calendar days and not dates for each activity. If the schedule is changed, the Contractor shall submit a revised schedule reflecting the change within seven calendar days. The Contractor shall include in the DQC Plan the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted at each design phase as part of the project documentation.

The DQC Plan shall be implemented by an assigned person with the Contractor's organization who has the responsibility of being present during the times work is in progress, and shall be cognizant of and assure that all documents on the project have been coordinated. This individual shall be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Contractor shall notify the Contracting Officer, in writing, of the name of the individual and the name of an alternate person assigned to the position.

The Contracting Officer will notify the Contractor, in writing, of the acceptance of the DQC Plan. After acceptance, any changes proposed by the Contractor are subject to additional review and acceptance by the Contracting Officer.

1.3 DESIGN SCHEDULE

The contractor shall propose a schedule for each of the design submittal phases. As a minimum, design submittals are required at the preliminary (35%), intermediate (65%), final (99%), and the "Cleared for Construction" 100% complete phase. The requirements of each design stage are listed hereinafter. The Contractor shall show the submittal phase and schedules for each design submittal phase in the progress charts. The 35%, 65%, and Cleared for Construction 100%, submittals shall be submitted individually and each package complete, and includes each of the major categories listed in paragraph 01335 Section 3.9 “ Design Stages”.

1.4 BETTERMENTS

The Contractor shall list all betterments that are identified in their proposal. This list shall be submitted to the Contracting Officer, and also be included in each design submittal.

1.5 DEVIATING FROM THE ACCEPTED DESIGN

1.5.1 General. This RFP (Request for Proposal) contains drawings and some prescriptive specifications of some work items. The contractor shall use conceptual drawings and specifications as the basis of further design effort. The contractor is required to survey the site and use his survey as the basis of final design. Final design documents shall be done in Metric units.

1.5.1 Designer of Record Approval. The Contractor must obtain the approval of the Designer of Record and the Government's concurrence for any Contractor proposed revision to the Government reviewed and concurred with design.

1.5.2 Deviations from the Design. The Government reserves the right to non-concur with any revision to the design, which may impact furniture, furnishings or equipment selections that were made, based on the reviewed and concurred with design.

1.5.3 Modifications. Any revision to the design, which deviates from the contract requirements (i.e., the RFP and the accepted proposal), will require a modification, pursuant to the Changes clause, in addition to Government concurrence. The Government reserves the right to disapprove such a revision.

1.5.4 Government-Initiated Changes. Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense.

1.5.5 Approved Revisions. The Contractor shall track all approved revisions to the reviewed and accepted design and shall incorporate them into the as-built design documentation, in accordance with agreed procedures.

1.6 FAST TRACK DESIGN

To facilitate fast-track design-construction activities the contractor may choose to submit a 100% Site/Utility/Grading Design at the 65% design submittal. See Section 01335-32 Section 3.9.2 PRELIMINARY (65%). Following review, resolution, and incorporation of all Government comments, and submittal of a satisfactory set of site/utility design documents, the Afghanistan District will issue a limited Notice to Proceed (NTP) which will allow the contractor to proceed with site development activities within the parameters set forth in the accepted design submittal. Submittal review, comment, and resolution times from this specification apply to this initial 100% Site/Utility Design Submittal. No on-site construction activities shall begin prior to receipt of a construction NTP by the contractor.

1.7 DESIGNER OF RECORD

1.7.1 CONTRACTOR DESIGN SERVICES

Design work accomplished by the Design-Build Contractor (also referred to in this RFP as DESIGNER or DESIGNER(s) of RECORD) consists of preparation of Design Analysis, Construction Drawings and Specifications. Comprehensive Interior Design shall be performed by the DESIGNER.

1.7.2 DESIGNER OF RECORD

The Contractor shall identify, for approval, the Designer of Record for each discipline of work. One Designer of Record may be responsible for more than one discipline. A listed, registered Designer of Record shall account for all areas of design disciplines. The Designer(s) of Record shall stamp, sign, and date all design drawings under their responsible discipline at each design submittal stage (see SCR -"Registration of Designers"). The Contractor shall designate a Project Manager who shall monitor the progress of the design. This person shall insure appropriate coordination between the Construction Contractor and the Designer(s) of Record.

1.8 ENGLISH LANGUAGE

All specifications, drawings, design analysis, design calculations, shop drawings, catalog data, materials lists, and equipment schedules submitted shall be in the English language.

1.9 UNITS OF MEASUREMENT

Design documents shall be prepared in accordance with the guidance offered in SECTION 01415 METRIC MEASUREMENTS.

1.9.1 Drawings

All site layout data shall be dimensioned in meters or coordinates, as appropriate. All details and pipe sizes shall be dimensioned in millimeters. Dimensions for all other drawings shall be in millimeters using hard metric designations (example: 12 meters = 12 000). Hard metric is defined as utilizing standard metric products and the use of measurements in increments of fifty (50) and one hundred (100) millimeters.

1.9.2 Design Calculations

Calculations shall be in SI units to meet the requirements of the design. Quantities on the contract drawings stated in SI units shall also be stated in SI units in the design analysis to match the drawings.

1.9.3 Specifications

All equipment and products shall be specified according to U.S. standards and described by appropriate units as required in RFP.

1.10 WITHHOLDING OF PAYMENT FOR SUBMITTALS

Payment for Design work will not be made in whole or in part until the Government has reviewed and cleared the design for construction.

1.11 COORDINATION - WRITTEN RECORDS

The Contractor shall prepare a written record of each design site visit, meeting, or conference, either telephonic or personal, and furnish within five (5) working days copies to the Contracting Officer and all parties involved. The written record shall include subject, names of participants, outline of discussion, and recommendation or conclusions. Number each written record for the particular project under design in consecutive order. Throughout the life of his contract the Contractor shall furnish the COR a monthly "needs" list for design related items. This list shall itemize in an orderly fashion design data required by the Contractor to advance the design in a timely manner. Each list shall include a sequence number, description of action item, name of the individual or agency responsible for satisfying the action item and remarks. The list will be maintained on a continuous basis with satisfied action items checked off and new action items added as required. Once a request for information is initiated, that item shall remain on the list until the requested information has been furnished or otherwise resolved. Copies of the list will be mailed to both the Administrative Contracting Officer and the agencies tasked with supplying the information.

1.12 CHECKING AND COORDINATION

The importance of careful checking and coordination of Drawings, Specifications, and other Project Documents cannot be overemphasized. It shall be the responsibility of the DESIGNER to check and coordinate all Project data prior to all design submittals. Deficiencies, ambiguities, conflicts and inconsistencies shall be rectified prior to submittal of Documents. The letter of transmittal shall certify that all Documents have been checked, coordinated, approved, signed, and dated and that the Documents comply with Contract requirements. A principal of the Designer’s firm shall sign the transmittal letter. Submittals that are poorly checked and coordinated will be returned to the Contractor for resubmission at the contractor’s expense. Additional contract time will not be granted for resubmissions that are determined to be due to Contractor error.

2. DEFINITION AND CONTENT OF DESIGN SUBMITTALS

2.1 SITE/UTILITY DESIGN AND ROAD CONSTRUCTION SUBMITTAL (100%) “FAST TRACK” (See 01335 Section 3.9.2 PRELIMINARY (65%)

This submittal is to allow the contractor to concentrate his design efforts on site work, utilities, drainage and road construction. By allowing this work to be separated the contractor is given the opportunity to “fast track” and begin construction on site work, utilities, drainage and road construction work prior to completion of the housing unit designs.

2.1.1 All “fast track” drawings shall be developed to 100 percent completion. In addition to the individual utility plans, submit a combined utility plan drawn to the same scale as the individual utility plans.

a. General Site Layout: Scale shall be included.

b. Site Grading and Drainage Plans: Show locations of all sediment basins, diversion ditches, and other erosion control structures. Indicate the approximate drainage areas each will service. Indicate the materials, construction and capacity of each structure. Include limits of landscaping and seeded areas. General site grading and drainage shall be indicated by contour lines with an interval of not more than approximately .3 m [1 foot].

e. Utility Systems new and existing to remain: The Contractor shall prepare a design narrative for the water supply, storm drainage, and wastewater systems relating to this project. Include an analysis of the proposed distribution systems capability to supply sufficient quantity at adequate levels.

f. Storm and Sanitary Sewer Plan: Scale shall be as indicated and profiles showing location and elevation of pipe, thrust blocks, manholes, etc. Materials and construction of main and appurtenances shall be indicated.

g. Water Supply Line Plans: Scale shall be as indicated and profiles showing locations of valves, thrust blocks, connections, etc. Materials shall be indicated and specifications shall be provided for valves, pipes, etc.

h. Electrical Plan Requirements: Required diagrams and details on Site Electrical Drawings:

- On-Site Electrical Distribution Plan:
- On-Site One Line Diagram.
- On-Site Details (Generator(s), Site Lighting, Trenching, etc.).
- American-style Panel Board Schedules for all panel boards (in addition to one-line diagrams; panel board schedules must show phase-balancing, wire sizes, panel size, etc).

i. Landscaping: Show all features/elements with clear indication of existing and new landscaping.

j. Specifications: Provide final draft specifications that include all sections that apply to site/utility work.

k. Design Analysis: Design analysis shall include design calculations fully developed to support the design of the site and utility systems included in this submittal.

l. Geotechnical: Soils analysis and geotechnical report. Geotechnical information must be provided to support all assumptions and design parameters utilized in the presented site/utility design as applicable.

m. Environmental permits, as required. When environmental permits are not required, the Contractor shall provide a statement with justification to that effect.

2.2 PRELIMINARY (65%)

This submittal shall also depict any work submitted utilizing the “Fast Track” process to ensure proper coordination. This submittal shall consist of the following:

2.2.1 Civil and Geotechnical. If the Contractor has elected to “Fast Track” site and utility work, no additional site/utility design information is required for this submittal (except utility interface with each floor plan type). If the Contractor elected not to “Fast Track”, then all analysis, plans, and specifications as shown in paragraph 2.1 developed to at least 65% complete will be provided. ”(See 01335 Section 3.9.2 PRELIMINARY (65%)

2.2.3 Structural

2.2.3.1 The first sheet of the Structural plans shall include a detailed code analysis that demonstrates compliance with the RFP. State the live loads to be used for design. Include roof and floor loads; wind loads, lateral earth pressure loads, seismic loads, etc., as applicable.

2.2.3.2 Describe the method of providing lateral stability for the structural system to meet force protection, seismic and wind load requirements. Include sufficient calculations to verify the adequacy of the method.

2.2.3.3 Furnish calculations for all principal roof, floor, and foundation members.

2.2.3.4 This submittal shall include drawings showing roof and floor framing plans as applicable. Principal members will be shown on the plans. A foundation plan shall also be furnished showing main footings and grade beams where applicable. Where beam, column, and footing schedules are used, show schedules and fill in sufficient items to indicate method to be used. Show typical bar bending diagram if applicable. Typical sections shall be furnished for roof, floor, and foundation conditions. Structural drawings for proposals and submittals shall be separate from architectural drawings.

2.2.3.5 Provide any computer analyses used shall be widely accepted, commercially available programs and complete documentation of the input and output of the program.

2.2.3.6 Provide complete seismic analyses for all building structural components. Seismic calculations shall clearly demonstrate compliance with all requirements set forth in the Statement of Work.

2.2.4 Architectural

2.2.4.1 In addition to the Design Analysis the first sheet of the Architectural plans shall include a detailed code analysis that demonstrates compliance with the RFP solicitation, including all applicable NFPA and Life Safety Code requirements. Architectural Floor Plans shall indicate dimensions, columns lines, and detail references. Bathrooms and other specialized areas shall be drawn to scale and shall show any needed interior features.

2.2.4.2 Finish schedule shall indicate material, finishes, colors and any special interior design features such as soffits, fascias, and lighting troughs, etc.

2.2.4.3 All required equipment shall be shown on the drawings with an equipment list.

2.2.4.4 List any special graphics requirements that will be provided.

2.2.4.5 Schedules shall be provided for both doors and windows. These schedules shall indicate sizes, types, and details for all items shown on floor plans.

2.2.4.6 Hardware Schedule at the end of Door Hardware Specification listing all hardware groups keyed to Door Schedule using BHMA designations.

2.2.4.7 Provide Furniture lay out Plan for all occupied spaces.

2.2.5 Fire Protection and Life Safety Analysis

The facility shall be protected by automatic sprinkler protection system. Provide description of required fire protection including portable extinguishing equipment, detection equipment, and alarm equipment. Alarm and detection equipment shall interface to requirements of Electronic Systems.

Prepare a plan for each floor of each building that presents a compendium of the total fire protection features being incorporated into the design. Provide the following types of information:

a. The location and rating of any fire-resistive construction such as occupancy separations, area separations, exterior walls, shaft enclosures, corridors, stair enclosures, exit passageways, etc.

b. The location and coverage of any fire detection systems.

c. The location and coverage of any fire suppression systems (risers, standpipes, etc.).

d. The location of any other major fire protection equipment.

e. Indicate any hazardous areas and their classification.

f. Prepare a schedule describing the system with the following information: fire hazard and occupancy classifications, building construction type, GPM/ square foot sprinkler density, area of operation and other as required.

2.2.6 Plumbing Systems

2.2.6.1 The first sheet of the plumbing plans shall include a detailed code analysis that demonstrates compliance with the RFP. List all references used in the design including Government design documents and industry standards.

2.2.6.2 If known at the time of design, submit catalogue cuts, manufactures installation instructions, and other appropriate information for each plumbing fixture, in lieu of a specification.

2.2.6.3 Prepare detail calculations and indicate appropriate size for systems such as domestic water piping and sewage collection and treatment system.

2.2.6.4 Indicate locations and general arrangement of plumbing fixtures and major equipment.

2.2.6.5 Include plan diagrams of all hot water, cold water, and waste and vent piping. Piping layouts and risers should also include gas (and meter as required), and other specialty systems as applicable. Include equipment and fixture connection schedules with descriptions, capacities, locations, connection sizes and other information as required.

2.2.7 Mechanical - Heating, Ventilating, and Air Conditioning (HVAC)

All references used in the design, including Government design documents and industry standards, shall be listed. Preliminary design analysis, including psychometric analysis, shall be provided. Preliminary temperature control drawings and sequence of operation shall be provided. Preliminary equipment sizing, drawings, selections and schedules for major items, including equipment, ductwork, and piping plans and details shall be provided. Preliminary HVAC system drawings shall be provided. Provide separate drawings for HVAC piping and plumbing piping. Preliminary EMCS design drawings and interface drawings showing connections to the existing post-wide EMCS system (new Dining Facility only) shall be Provided.

2.2.8 Electrical

2.2.8.1 Interior Electrical

In a narrative, indicate electrical characteristics (phase, voltage, and number of wires) for the electrical system. Provide a justification for the system chosen (economic or special condition).

Provide a description of the lighting system(s) to be used for all areas, referencing calculations.

Also include a tabulation showing the following:

a. Room name and number.

b. Lighting intensity for each room. (State the basis for selection such as I.E.S., etc.).

c. Identify the type of fixture by manufacturers catalog cut.

d. State the type of wiring system to be used, such as insulated conductors installed in rigid or intermediate metal conduit, insulated conductors installed in electrical metallic tubing, nonmetallic sheathed cables, etc.

e. Provide a paragraph describing any special design items such as seismic design requirements, power filters, emergency power system, UPS, etc.

f. Define any hazardous classified locations by class, division, and group as defined by the National Electrical Code. Indicate the types of equipment to be used in these areas. State the reasons for the area(s) being hazardous classified locations.

g. Describe the lightning protection system to be installed. This should also include the type of grounding system planned and shown.

h. Describe the basic characteristics of panel-boards, switchgear, switchboards, motor control centers, transfer switches, UPS, and other major pieces of electrical equipment being provided. Short circuit and voltage drop calculations showing these values at all equipment with protective devices included shall be provided. Indicate equipment interrupting ratings and short circuit withstand ratings based on these calculations.

i. Describe the electrical metering equipment to be provided.

j. Provide a statement that no duct or liquid piping shall pass over and/or through any electrical space and/or room as defined by the National Electrical Code Article 384.

The power riser or one-line diagram shall be essentially complete except for finalization of conduit and wire sizes.

Panelboards, switchboards, switchgear, motor control centers, and all other utilization equipment shall be located on the floor plans. Schedules for applicable equipment

shall be provided. The schedules shall include all pertinent information to fully describe the equipment. Elevations for free standing equipment shall be provided but need not be entirely finalized.

Details of the layouts for electrical closets and rooms shall be shown.

Receptacles and lighting layouts (with wiring completed) shall be shown for typical rooms. Typical rooms are those which appear more than one time (sizes are the same) or those of the same function with different sizes.

A completed fixture schedule shall be included on the drawings.

2.2.8.2 Exterior Electrical Distribution System

In a narrative, clearly describe the electrical distribution system and state the changes to be made to the existing system to accommodate this project. State any deficiencies to be corrected and provide a description of all new work being performed.

State the electrical characteristics of the power supply from the service point to the main service equipment.

Indicate the type, number, voltage rating and connections, and kVA rating of all transformers provided.

State the type of conductor to be used and provide a justification for its use.

Include a statement describing the criteria used for the exterior design such as primary and secondary voltage drop. Describe the physical characteristics of both the underground and overhead power lines. Provide the short circuit current available at the site and state the source of this value.

Include a description of all exterior lighting systems included in the design. Identify the fixture types, poles and design lighting levels. Provide point-to-point calculations showing that all design levels have been achieved.

Describe energy conservation measures and/or techniques that are being incorporated into the design.

All of the exterior electrical design drawings shall be completed with all poles (power and lighting), conductors (overhead and underground), manholes and all pertinent components detailed. Details shall include but not limited to poles, manholes, duct banks, etc. Calculations shall support all manhole locations.

2.2.8.3 Electronic Systems: Electronic Systems responsibilities include the following: Fire Detection and Alarm System, Telephone System, Cable Television System, Special Grounding Systems, Cathodic Protection, Central Control and Monitoring System.

2.2.8.3.1 The design analysis shall include all calculations required to support design decisions and estimates at this stage of design. The analysis shall include specific criteria furnished, conference minutes and cost analyses of all systems considered.

2.2.8.3.2 Design of the fire alarm and detection system shall include layout drawings for all devices and a riser diagram showing the control panel, annunciator panel, all zones, radio transmitter and interfaces to other systems (HVAC, sprinkler, etc.).

2.2.8.3.3 The location of telephone outlets is shown on the plans. Include legend and symbol definition to indicate height above finished floor. Underground telephone distribution conduit shall be shown on the electrical plan.

2.2.8.3.4 Grounding System. The specifications and drawings shall completely reflect all of the design requirements. The specifications shall require field tests (in the construction phase), witnessed by the Contracting Officer, to determine the effectiveness of the grounding system. The design shall include drawings showing existing construction. Verification of the validity of any existing drawings and/or any other data furnished by the Government shall be the responsibility of the engineering services firm.

2.2.8.3.5 Provide a statement describing the extent of any exterior work such as telephone lines, cable television (TV) distribution cables, duct banks, etc., outside of 5 feet from the building line.

2.2.8.3.6 When cathodic protection is required, provide the name of the licensed corrosion engineer or NACE specialist. Provide the following for cathodic protection systems: Clearly define areas of structures or components in soil or water to be protected. Type system recommended, comparison of systems, cost estimates showing all equipment alternatives. Calculations on all systems that are considered showing all information and descriptions. Design of Cathodic Protection: The design shall clearly provide a thorough and comprehensive specification and drawing. The design plans and specifications shall show extent of the facilities to be protected, location and type of anodes, location of test points, and details for sectionalizing an underground piping system. This design shall be complete enough to purchase equipment and build without design changes to meet criteria of protection.

2.2.8.3.7 Exterior work to be shown on electrical site plan. Existing and new communications service lines, both overhead and underground, shall be properly identified.

2.2.8.3.8 Provide a descriptive narrative of all electronic systems that are required for project. Define any hazardous areas (as defined in the National Electric Code) and indicate the type of equipment proposed for use in such areas. Show the location of all electronic system panels, etc., on the floor plans. Show the proposed riser diagrams for all systems. Sizes of all conduit, wires, cables, panels, etc. Provide a complete symbol legend for all devices or equipment shown on the plans. For work requiring

removals or demolition, the designer shall show by use of drawings or narrative, how demolition work is to be done.

2.2.9 Specifications

2.2.9.1 See 3.9 Design Stages in Section 01335 for submittal requirements.

2.3 FINAL DESIGN SUBMITTAL (99%)

The Contractor shall submit the following documents for Final Design Review:

2.3.1 Annotated 65% review comments and responses shall be included in the Design Analysis Report.

2.3.2 The Design Analysis submitted for Final Design Review shall be in its final form and shall include all backup material previously submitted and revised as necessary. All design calculations shall be included. The Design Analysis shall contain all explanatory material and data that documents the basis for the design rationale for any significant design decisions.

2.3.3 The Contract Drawings submitted for Final Design Review will be in a design complete condition, ready for construction. It shall include the drawings previously submitted which have been revised and completed as necessary. The Contractor is expected to have completed all of his coordination checks including the incorporation of any design review comments generated during previous design reviews. If deemed appropriate by the Contracting Officer, shop drawings will be considered design drawings.

2.3.4 The Contractor may given a partial NTP to begin construction work for items the Government has reviewed, and the Final Design Submission has been determined satisfactory for purposes of beginning construction. The Administrative Contracting Officer (ACO) or COR will notify the Contractor when the all design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the ACO or COR, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

2.3.5 Civil

2.3.5.1 If the Contractor has elected to “Fast Track” site and utility work, no additional site/utility design information is required for this submittal (except utility interface with each floor plan type). However if the Contractor elected not to “Fast Track”, then site/utility plans and specification, at least 100% complete will be provided.

In addition to the items listed in the 50% submittals requirements, the following items should be addressed:

2.3.5.2 Design Analysis: Indicate all references and guidance used to develop the project such as data from Using Agency and Corps of Engineers technical manuals. The final design analysis should address all site aspects and in particular the following:

1. Storm Drainage: Describe storm drainage system and give basis for design referencing all criteria used. Include layout sketch of storm drainage areas with inlets and storm drainage piping shown. Calculate capacities of the various inlets selected for the project. Prepare storm drainage calculations indicating flow and velocity computations and include in the design analysis. Prepare and include roof drain computations. Draw a sketch of the roof areas showing drainage areas with locations and sizes of gutters, downspouts, and the roof drainage collector system. Include design calculations for the storm water management.

2. Water Service and Fire Protection: Describe proposed work, cite references, show all calculations including sketch of water system in vicinity of project. Be sure to note existing water storage facilities and capacities on Post and results of hydrant flow test.

3. Sanitary Sewers and Force Mains: TM 5-814-1. Describe proposed work, cite references, sketch of sanitary system, show all calculations including size of pumps, pump curves and strength of pipe selected.

2.3.5.3 Drawings: The final drawings are a continuation of the ones prepared for the concept submission.

2.3.5.3.1. Survey Plan.

2.3.5.3.2. Survey as required 175 + meters North East of existing sit to locate new waste water treatment plant and effluent pond.

2.3.5.3.3. Grading Plan: This plan must show new and existing contours and spot elevations in such detail that there will be no question regarding grading to provide positive drainage and indicated stormwater management facilities. Show inlets with top of frame elevations indicated, manholes, valves, hydrants, headwalls and all existing underground utilities. Do not show any new utility lines. Also, show any other features of work which will appear on the new ground surface.

2.3.5.3.4. Utilities Plan: Each existing and new utility must be clearly shown including building service connections and connections to existing lines. In addition, the locations of all new and existing fire hydrants, valves, manholes, inlets, etc., are required. Show the sizes of existing and new lines with new inlet and manhole numbers but elevations are not shown. A complete legend is required. All new piping, inlets, manholes, hydrants, etc., must be located by dimension from buildings, streets, etc. All roof drain piping to storm drains must also be shown. All storm drain piping for stormwater management must be included. In addition, sub drain piping for paved areas must be shown if required.

2.3.5.3.5. Layout Plan: This is a complete layout showing existing and new buildings, roads, streets, walks, parking and service areas, etc. Do not show any new or existing contours or spot elevations. Clearly identify the baseline information from which all new facilities are to be located. Layout must be complete with all dimensions consistent with paragraph METRIC MEASUREMENTS in this section. Stationing and curve date are required for road or street layout where applicable. Include a complete legend. The layout information may be combined with the utilities plan in those instances where the end result will not be too cluttered.

2.3.5.3.6. Profiles:

- Profiles for storm drains, sanitary sewers, and force mains are always required in those instances where each utility crosses numerous new or existing utilities and the possibility for conflicts are likely to occur. Profiles for water lines may be required if there are many utility crossings along its alignment. Utility profiles must show:
    - Existing and finished grade.
    - Manholes, inlets, headwalls, etc., with numeric designations (corresponding to those shown on utility plan).
    - Top and invert elevations.
    - Size, length, and slopes of all lines.
    - All existing and new utility crossings.
    - Type of structures (i.e., Type "E" inlet, Std. MH, etc.) required at each junction.
- Profiles for roads, streets, etc., must show:
    - Existing and finished grade with all vertical alignment geometric data shown.
    - All new and existing utility crossings.
- All profiles should be drawn on compatible scales: 1=500 horizontal corresponding to 1=50 vertical . The vertical scale may vary where profiles transverse very steep topography.

2.3.5.3.7. Details: Standard details for storm drainage, water, sanitary sewer, and miscellaneous site features shall comply with the Department of Public Work's criteria such as Installation Design Guides or, if none are available, use the respective State highway and drainage standard details. Special details for specific situations will have to be prepared by the Designer of Record.
This may include special site features such as fencing or benches. The Contracting Officer reserves the option to request a detail to be provided on the design drawings.

2.3.6 Landscape, Planting and Turfing

Final design drawing(s) shall include a complete schedule of plant materials which indicates their botanical and common names, plan symbols, quantities, sizes, condition furnished, and pertinent remarks. Drawings shall correspond with the site layout and grading plans and reference coordinates, north arrows, graphic scales and appropriate legends. An overall planting layout shall be developed and shall include enlarged detail plans of specific areas as needed, to clarify requirements. Final design drawings, indicating proposed plants by a (+) mark for the plant location and a circle which is scaled at approximately 2/3 the ultimate growth spread (diameter) of plants, shall also include a complete schedule of plant materials which indicates botanical and common names, plan symbols, quantities, sizes, condition furnished, and pertinent remarks. Final drawings shall also include the basic details for installation of tree, shrub, and ground cover planting, as well as any other applicable details for clarification of specific project requirements.

2.3.7 Geotechnical A final geotechnical report and design analysis.

2.3.8 Structural
Furnish complete checked calculations for all structural members. Incorporate any changes required by comments on 50% Design Submittal. Prior to this submittal, structural drawings shall be coordinated with all other design disciplines.

The final structural drawings shall contain the following information as a set of general notes:

- The allowable soil bearing value.
- The design stresses of structural materials used.
- The design live loads used in the design of various portions of the structures.
- The design wind speed.
- The seismic site classification "S5", "S1", and "R" values used in design.

The final structural drawings shall include all plans, sections, details, and notes to clearly describe the work involved.

2.3.9 Architectural
All architectural drawings shall be thoroughly checked, coordinated with specifications and with the other engineering disciplines. Drawings from each proceeding submission shall be completed and included, with additional drawings as necessary for a complete package. Ensure that the plans are in compliance with the applicable codes and regulations. It will be the Contractor's responsibility to implement the comments generated from any design review submittal as well as verify the consistency between plans and specification. The evaluation of the Contractor's submittals shall be based on degree to which the submittal meets the requirements set forth in this document and the specifications.

Completed working drawings shall include plans, elevations, sections, details, schedules, and all other drawings necessary to communicate design intent, and to identify, quantify, and describe project materials and their assembly.

2.3.10 Fire Protection

2.3.10.1 All Fire protection plans and analysis.

2.3.10.2 Final Plumbing Design Analysis Final plumbing system drawings.

2.3.10.3 Fire Suppression System Final fire suppression system design analysis including a file of the input data used in the computer program to design the fire suppression system.

2.3.11 Mechanical and Plumbing Requirements:

2.3.11.1 Required Plans, Diagrams, Schedules and Details on Unit Mechanical Drawings:

2.3.11.1.1 Mechanical Floor Plan: The floor plans shall show all principle architectural features of the building that will affect the mechanical design. The floor plans shall also show the following:

- Room designations.
- Mechanical legend and applicable notes.
- Location of all ductwork or piping (double line ductwork required).
- Location and capacity of all terminal units (i.e., registers, diffusers, grilles).
- Exhaust fan and range hood location.
- Size of all ductwork and piping.
- Thermostat location.
- Location of heating/cooling plant (i.e., hot water heater, furnace, condenser, heat pump wells, etc).
- Location of all air handling equipment.
- Return air paths (i.e., undercut doors, transfer grilles).
- Flue piping size and location.

2.3.11.1.2 Equipment Schedule: Complete equipment Schedules shall be provided. Schedule shall also include: Capacity, Electrical characteristics, Efficiency, Manufacturer's name, Optional features to be provided, Physical size.

2.3.11.1.3 Details: Construction details, sections, elevations, etc., shall be provided where required for clarification of methods and materials of design. Roof and exterior wall penetrations shall be detailed on the drawings.

2.3.11.2 Plumbing Floor Plan: Mechanical and Plumbing floor plans can be combined and shall show all principal architectural features of the building that will affect the plumbing design. Separate plumbing plans will not be required if sufficient information can be shown on the mechanical plans to meet the requirements shown above. The floor plan shall also show the following: Room designations, Fixture Schedule, Location of utility entrances, Waste and water pipe location and size, Fixture designations.

2.3.11.3 Design Analysis: Complete design calculations for mechanical systems. Include computations for sizing PM&E equipment, air duct design, and U-factors for ceilings, roofs and exterior walls and floors. Contractor shall employ commercially available energy analysis techniques to determine the energy performance of all passive systems and features. Use of hourly energy load computer simulation (e.g., TRNSYS, DOE 2.1 Blast, etc.) is required. These calculations can be used to size the mechanical systems. Based on the results of calculations, provide a complete list of the materials and equipment proposed for heating and plumbing, with the manufacturer's published cataloged product installation specifications and roughing-in data. The heating and cooling equipment data shall include the manufacturer's wiring diagrams, installation specifications, ARI certification, and the standard warranty for the equipment.

2.3.12 Electrical

2.3.12.1 Required Plans, Diagrams, Schedules, and Details on Unit Electrical Drawings:

2.3.12.1.1 Electrical Floor Plan. The floor plans shall show all principle architectural features of the building that will affect the electrical design. The floor plan shall also show the following: Room designations, Electrical legend and applicable notes, Lighting fixtures, properly identified, Location of smoke and CO detectors, Location of telephone and cable TV outlets, Switches for control of lighting, Receptacles, Location and designation of Panelboards, Plans should clearly indicate type of mounting required (flush or surface) and be reflected accordingly in specifications. Service entrance (conduit and main disconnect). Location, designation and rating of motors and/or equipment that requires electrical service. Show method of termination and/or connection to motors and/or equipment. Show necessary junction boxes, disconnects, controllers (approximate only), conduit stubs, and receptacles required to serve the motor and/or equipment.

2.3.12.1.2 Building Riser Diagram (from pad-mounted transformer or generator to unit load center Panelboard): Indicate the types and sizes of electrical equipment and wiring. Include grounding, lightning protection, surge suppression, and metering requirements.

2.3.12.1.3 Load Center Panelboard Schedule(s): Schedule shall indicate the following information: Panelboard Characteristics (Panel Designation, Voltage, Phase, Frequency, Wires, Main Breaker Rating and Mounting; Branch Circuit Designations; Load Designations; Circuit Breaker Characteristics (Number of Poles, Trip Rating, AIC Rating); Branch Circuit Connected Loads (AMPS); Special Features.

2.3.12.1.4 Lighting Fixture Schedule: (Schedule shall indicate the following information:) Fixture Designation, General Fixture Description, Number and Type of Lamp(s), Type of Mounting, Special Features.

2.3.12.1.5 Details: Construction details, sections, elevations, etc., shall be provided where required for clarification of methods and materials of design.

2.3.12.2 Required Electrical Design Analysis: Design analysis and calculations for the electrical systems shall be prepared by a licensed professional engineer with experience in commercial buildings and backup power, and shall be stamped as such. The design analysis shall be separately bound, in one or more volumes. Show functional and engineering criteria, design information, and calculations applicable to the project. The analysis shall be organized in a format appropriate for review, approval, and record purposes. The design calculations shall indicate methods and references identified, and shall explain assumptions and conclusions.

2.3.12.2.1 Voltage Drop (VD) Calculations: Select conductor sizes of primary feeders, site lighting circuits, service laterals, and unit feeder conductors. Calculate maximum length for each phase of each primary circuit, using a maximum allowable VD for each circuit. Calculate voltage drops for each conductor. Maximum allowable voltage drop for site lighting and service laterals is 3%. The combined voltage drop for the service laterals, unit feeders, and branch circuit cannot exceed 5%. Calculate the available fault current at the main breaker for the living unit panel. Provide a coordination study to support breaker selection.

2.3.13 Specifications

2.3.13.1 Provide final specifications. The Contractor shall make final identification of all materials and finishes at this stage. The Specifications submitted for Final Design Review shall consist of completely edited specification sections with no mark-ups. The Specifications shall contain all specification sections ready for construction.

2.4 DESIGN COMPLETE SUBMITTAL

2.4.1 Design Analysis: Complete design analysis for all design disciplines. The final Fire Protection and Life Safety Analysis shall be included in the Design Analysis.

2.4.2 Design Drawings: Drawings shall be 100% complete, signed and sealed by the designer of record. All previous review comments shall be incorporated.

2.4.3 Design Specifications: Complete design specifications for all sections of work that demonstrates compliance with the RFP. All previous review comments shall be incorporated.

2.4.4 Comment Response Package: Complete package showing all comments from all previous reviews and the respective response and disposition.

2.4.5 This submittal shall include all drawings and design information from the 100% site/utility submittal to form a complete design package.

2.4.6 Consumer Information for Accessibility Requirements: The Contractor shall furnish a report including drawings in accordance with the Uniform Federal Accessibility Standards, paragraph 4.34.4 “Consumer Information” for the modified and adaptable features of each applicable unit type of family housing.

2.4.7 Annotated Final review comments and responses.

2.4.8 Electronic Submission: All CADD files in native Autocad .dwg format, as well as all prepared technical specifications and design analysis shall be provided on CD-ROM. Two copies are required.

2.4.9 Design to construction procedure:

2.4.9.1 The Contractor shall submit the Design Complete Submittal within the number of calendar days specified in his project schedule. Final copies of drawings and specifications must be available to the Government prior to starting any construction work.

2.4.9.2 If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted with the Design Complete Submittal and are satisfactory to the Government.

2.4.9.3 Design Reviews by the Government are to primarily verify that the final design conforms to the Contract. They are not for technical verification of the design. Where possible, obvious errors and omissions will be noted and brought to the Contractor’s attention. However, the Government does not assume any responsibility either explicitly or implied for the technical adequacy of the design documents. The Government never approves the design.

2.4.9.4 Drawings. All Drawings shall bear the stamp (seal) and signature of the design discipline (Professional Engineer or Architect) responsible for the design of the Project. Upon completion of the Work, the electronic media and hard copy documentation shall become the property of the Government. Drawings shall include the following, as a minimum, in the order listed:

2.4.9.4.1 Civil Drawings.

a. Detailed Code Analysis Sheet

b. Demolition Plan – Not Required

c. Site Layout (Complete Plans and Dimensions: Site layout shall show all surface features including buildings, pavements, roadways, curbs, manholes, fire hydrants, valve boxes, culvert headwalls, utility poles, exterior lighting poles, foundations at grade, sidewalks, meters, lift station, etc.

d. Grading and Drainage Plan (1) New and existing grading contours with spot elevations and contours, at paved areas. (2) Contours shall not be greater than one (1) foot. (3) Complete storm drainage systems with manholes, inlets, headwalls, etc. (4) Identify storage area for stockpiled topsoil. (4) Identify limits of construction and limits of grading. (5) Indicate berms, swales, flumes, etc. (6) Identify temporary erosion control measures. (7) Locate area for Design/Build Contractor's storage, office, parking, and staging. (8) Locate temporary fence. (9) Under drain drainage system. (10) Set elevations for all buildings, foundations, manholes, etc. to a fixed elevation datum.

e. Site Utility Plan; Routing of sewer, water, gas, telephone, communications and electrical services.

f. Site Details (1) Profile of gravity flow systems (2) Paving section details including: (a) Transition details between pavement types (b) Pavement edge details (3) Temporary markings and barricades (4) Identify type of new surfaces and provide joint patterns in new concrete paving Concrete paving construction, contraction and expansion joints. (5) Details of at-grade foundations (6) Sidewalk details (7) Drainage inlet and outlet details (8) Manhole details (9) Curb details

g. Landscaping: (1) Identify limits (2) Provide layout of planting, seeding, sodding, and ground cover (3) Plant Lists (4) Planting and details

2.4.9.4.2 Structural Drawings

a. Code Analysis Sheet. Structural Notes: Design statements shall be made on these Drawings such as design loads, design codes, allowable soil loads, etc.

b. Foundation Plans and Details

c. Roof and Wall Framing and Construction Details

d. Steel Details

e. Schedules

2.4.9.4.3 Architectural Drawings

a. Plans (1) Code Analysis Data, Life Safety Plans (2) Overall Floor Plan (3) Enlarged Floor Plans (4) Ceiling Plans (5) Roof Plans

b. Elevations (1) Exterior Buildings- all unit combinations and types (2) Interior Elevations – Bathroom, Kitchen as required to indicate mounting heights for cabinets and accessories

c. Sections and Details (1) Building (2) Walls (3) Windows and Doors

d. Schedules (some can be provided in the Specifications) (1) Door and Windows/Hardware (2) Room Finish (can be provided in Specifications)

2.4.9.4.4 Plumbing Drawings may be combined with HVAC drawings provided they are clear and legible.

a. Plans (1) Code Analysis Data. (2) Overall Floor Plan: Layout of all plumbing and piping. (3) Enlarged Floor Plans: Mechanical rooms and rest rooms (4) Plumbing details.

b. Schedules: Plumbing equipment schedules for all items.

c. Schematics (1) Sewer Piping Schematics (2) Cold Water Piping Schematics (3) Hot Water Piping Schematics

2.4.9.4.5 Mechanical/Plumbing. HVAC Drawings may be combined with plumbing drawings as long as they are clear and legible

a. Plans (1) Code Analysis Data. (2) Overall Floor Plans: Layout of A/C units and ductwork, complete piping and equipment plans. (3) HVAC equipment piping plans may be combined with plumbing plans as long as they are clear and legible. (4) Enlarged Floor Plans: Mechanical rooms, and bathrooms.

b. Sections and Details (1) Mechanical rooms and piping trenches. User equipment piping and systems. (2) Fire protection details (risers, etc). (3) Site utilities metering details.

c. Schedules: Mechanical equipment schedules for all equipment items.

2.4.9.4.6 Electrical Drawings

a. Site Electrical Plan (1) Code Analysis Data. (2) All electrical and communication services shown and sized. (3) Transformers and vaults. (4) Exterior equipment shown with service. (5) Exterior lighting plans and details. (6) Electrical feeds to all equipment.

b. Lighting Plans (1) Code Analysis Data. (2) Layout of all lighting fixtures with circuits. (3) Lighting panels and transformer(s). (4) Lighting Panel Schedule.

c. Power Plans (1) Code Analysis Data. (2) Layout of all receptacles, including junction boxes if required. (3) Location of electrical disconnects for special equipment. (4) Power panels and transformer(s). (5) Panel schedules. (6) Location of all major equipment requiring power.

2.5 INTERIOR DESIGN REQUIREMENTS

2.5.1 General

All interior finish materials will be submitted together to allow coordination of color and finish selections. Likewise, all exterior finish materials will be submitted together to allow coordination of color and finish selections. Each submittal item will be identified with a title block that includes the Contractor's name, contract number, name and location of the project, and name of the applicable item of work being submitted. These items will also be stamped and approved by the Designer of Record and the Contractor's Quality Control Manager prior to submission. Approved items do not need to be resubmitted during subsequent design reviews.

2.5.2 Comprehensive Interior Design

2.5.2.1 Definition. The Comprehensive Interior Design (CID) shall involve the selection and sampling of all applied finishes including material, color, texture and patterns necessary to complete the building's interior architectural features. This information shall be submitted On Color boards may also be used to assemble and present Color Schemes, separate from architectural finishes. Present architectural finish samples in an orderly arrangement according to like rooms/areas receiving like finishes. Each like room receiving like finishes will be noted as a Color Scheme. Each Color Scheme shall have a written description of material used. This written description shall use the same material abbreviations and notes that appear on the Room Finish Schedule and Legend in the contract drawings. Submit the Color Boards concurrently with the architectural design submittals. Procurement and installation of freestanding furniture is not part of the contract, but the spaces shall be configured to accommodate the furniture. The Contractor is not required to procure or provide the freestanding or conventional furniture, only to prepare the furniture layout plan to indicate fit into spaces provided. The Government will procure the furniture.

2.5.2.2 Preliminary Submittals. The Contractor shall submit two complete sets of the initial Color Boards with the 65% design submittal. All Color Boards proposals shall be reviewed and approved by the Government. Each submittal will follow this method of review until the Government approves the completed Color Board package.

2.5.2.3 Final Submittal. After approval of the Preliminary Submittal, the Contractor shall submit three (2) complete sets of the approved and final Comprehensive Color Scheme package. Once the Contractor has submitted the Color Scheme and the

Government has approved the submittal, all materials, finishes, colors, textures and pattern submitted and approved for this project are then considered to be part of the Contract and the Contractor shall furnish all approved colors and finishes. No deviations will be considered. The final Color Boards shall be submitted within 14 days of the Design Complete (100%) submittal.

3. GOVERNMENT REVIEW

3.1 GENERAL

Refer to Section 01335 for all Review submittal schedules, procedures, and requirements.

4.0 SITE INSPECTION

4.1 GENERAL

The DESIGNER shall be responsible for making the necessary field visits to assess existing conditions and to obtain such detailed information as is required to complete the design. This includes, but is not limited to doing a new topographic survey and obtaining geotechnical information and data and providing a final geotechnical report. Investigations to determine existing conditions and requirements include required upgrades/improvement to existing utilities.

4.2 SITE SURVEY AND SUBSURFACE EXPLORATIONS

The Designers Soil Boring logs and basic soils design assumptions shall be shown on the DESIGNER prepared Construction Drawings. It is the responsibility of DESIGNER OF RECORD to do perform his own topographic survey, soil borings and soil testing to verify the actual site conditions regardless of the information provided with the RFP. The DESIGNER OF RECORD shall assume full responsibility for the design and design assumptions.

SECTION 01015

SECTION 01015

TECHNICAL REQUIREMENTS

1. GENERAL

1.1 The Contractor's design and construction must comply with technical requirements contained herein. The Contractor shall provide design and construction using the best blend of cost, construction efficiency, system durability, ease of maintenance and environmental compatibility. The contractor is responsible for master planning and site design; site development, including grading and storm water

management; water well, water line, sanitary sewer, and storm sewer construction; road construction; electric; security systems, communications systems and all facilities as described in this Request for Proposal.

1.2 These design and product requirements are minimum requirements. The Contractor is encouraged to propose alternate design or products (equipment and material) that are more commonly used in the region; will be equally or more cost effective or allow for more timely completion, but furnish the same system durability, ease of maintenance and environmental compatibility. The Contractor will be required to submit information as requested by the Contracting Officer to make a comparison of the proposed alternate. All variations must be approved by the Contracting Officer. Life expectation for this facility is for twenty-five (25) years. Material and methods used for this project must meet this design requirement. All requirements set forth in the Technical Requirements, but not included in the Scope of Work shall be considered as set forth in both, and vice versa. Any time two or more statements in RFP, codes, or standards are in conflict; the most stringent shall apply.

1.3 ASBESTOS CONTAINING MATERIALS

Asbestos containing material (ACM) shall not be used in the design and construction of this project. If no other material is available which will perform the required function or where the use of other material would be cost prohibitive, a waiver for the use of asbestos containing materials must be obtained from the Contracting Officer.

1.4 SAFETY

1.4.1 UXO/mine Discovery During Project Construction

It is the responsibility of the Contractor to be aware of the risk of encountering UXO and to take all actions necessary to assure a safe work area to perform the requirements of this contract. If after the entire site has been cleared of UXO/mines per the International Mine Action Standards (IMAS) and clearance is done to the anticipated foundation depth, the Contractor becomes aware of or encounters UXO or potential UXO during construction, the Contractor shall immediately stop work at the site of the encounter, move to a safe location, notify the COR, and mitigate any delays to scheduled or unscheduled contract work. The Contractor shall remove and dispose of UXO's per the International Mine Action Standards (IMAS). These standards can be found at http://www.mineactionstandards.org. The Contractor assumes the risk of any and all personal injury, property damage or other liability, arising out of and resulting from any Contractor action hereunder. In these cases the contractor shall be required to identify and dispose of the ordnance.

NOTE: For previous Demining information, the following points of contact from the UN Mine Action Center for Afghanistan are provided:

Reiko Kurihara, project manager, email reiko@unmaca.org
Cell phone: +93 070 284 686
Sandy Powell, chief Operations Officer, sandy@unmaca.org
Cell phone: +93 (0) 79 330 992

1.4.2 ACTIVITY HAZARD ANALYSIS (AHA) Briefings

a. Activity Hazard Analysis's shall be prepared in accordance with the Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1.
b. Hazard analyses will be prepared and briefed by personnel that are knowledgeable in UXO and explosives safety standards and requirements. These personnel should understand the specific operational requirement and hazard analysis methodologies. A hazard analysis will be performed for each activity to determine the significance of any potential explosive-related hazards. Explosive

residues may be discovered or exposed during UXO operations in the form of powder or various granular and powder based pellets. These contaminants can enter the body through the skin or by ingestion if proper personal hygiene practices are not followed. Explosive fillers such as white phosphorus are dangerously reactive in air and acute exposure can result in serious injury to the skin, eyes, and mucous membranes. They are also a fire hazard.

Safety requirements (or alternatives) that will either eliminate the identified hazards, mitigate or control them to reduce the associated risks to an acceptable level will be developed. The adequacy of the operational and support procedures that will be implemented to eliminate, control, or abate identified hazards or risks will then be evaluated and a second risk assessment completed to verify that a satisfactory safety level has been achieved.

1.4.3 MAN-HOUR EXPOSURE REPORTING REQUIREMENTS:

Prime Contractors are required to maintain records for both prime and subcontractor employees to include exposure work hours, a log of occupational injuries and illness and local/international economic data. The Prime Contractor shall submit the information on CEAED Form 385-1-1 to the COR by the 25th of each month. The COR shall submit the information to the Chief, Safety and the AED Economist by the end of the month. The COR shall assure that the form is properly filled out and that the complete contract number or task order number are clearly indicated. Section III of the form is the Economic Analysis Report and it must contain data itemized by location if the contract has more than one work location. It is extremely important that the economic data be broken out by work location. The contractor may develop their own spreadsheet for a contract with multiple work sites provided the spreadsheet includes the basic information detailed on the Economic Data Report. Accident exposure data does not need to be itemized by location and should be submitted as a total for the entire contract.

1.4.4 SITE SECURITY

The Contractor shall provide perimeter force protection security for the developing site. Security may include but is not limited to fence and private security guards. Perimeter security shall prevent unauthorized site access and provide safety protection to the Contractor work force and government personnel for the duration of the project. The contractor is solely responsible for security however local police should be coordinated with regarding security.

1.5 NOTIFICATION OF NONCOMPLIANCE

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

1.6 LIMITATION OF WORKING SPACE

The Contractor shall, except where required for service connections or other special reasons confine his operations strictly within the boundaries of the site. Workmen will not be permitted to trespass on adjoining property. Any operations or use of space outside the boundaries of the site shall be by arrangement with all interested parties. It must be emphasized that the Contractor must take all practical steps to prevent his workmen from entering adjoining property and in the event of trespass occurring the Contractor will be held entirely responsible.

1.7 TEMPORARY STRUCTURES

The Contractor shall erect suitable temporary fences, lighting, and necessary structures to safeguard the site, materials and plant against damage or theft and for the protection of the general public and shall adequately maintain the same throughout the course of the contract.

1.8 SUBCONTRACTORS

Compliance with the provisions of this section by subcontractors will be the responsibility of the contractor.

1.9 WARRANTY

The Contractor shall repair and/or replace all defective materials or workmanship, except for roofs, at his own cost for a warranty period of one (1) year commencing upon the date of final acceptance of the project. See roof construction under RFP for warranty.

2. SITE DEVELOPMENT

2.1 GENERAL

The site development consists of, but is not limited to, site planning and layout, design of grading, storm drainage, roads, drives, parking, utilities (water, sanitary sewer, storm sewer, electric, communication lines) signage, landscaping, security structures and systems, storm water management and erosion and sediment control. The existing site is developed land with minor demolition and clearing required. The Contractor Design Team shall master plan, develop a site grading plan, and lay out the entire site. The Contractors' plan will provide for storm water drainage, sewer system, waste water treatment plant (waste water treatment plant shall be located approximately 175 meters north of site), water lines, water treatment plant, electric generation facility, and all habitable facilities that minimizes cut and fill in a cost effective manner. The site demolition plan and site grading plan must be submitted to the government for approval. The plan must include an easement for the sanitary sewer from FEA Compound to the south and an easement from ANA Hospital to install waste water treatment approximately 175 meters to the north. Site grading plan approval is required prior to final grading and road layout. The Contractor is responsible for the design and construction of all site development features identified as the Contractors responsibility in this RFP, to include all roads, parking, water and storm sewer service lines, landscaping, electric and communication lines.

2.1.1 REFERENCE REQUIREMENTS AND STANDARDS

The following codes and standards of the most current edition shall be used as standards for new construction and life safety design. Where there is a conflict between the RFP and the building codes and standards the RFP shall apply. When codes and standards are in conflict, the most stringent shall apply. This list is not intended to be a complete list. All work shall be designed and constructed to meet all U.S. codes, standards, and laws or equivalent internationally recognized codes, standards, and laws. The contractor must reference which standard is being used.

AASHTO, A POLICY ON GEOMETRIC DESIGN OF HIGHWAYS AND STREETS, latest edition

AWWA M17, INSTALLATION, FIELD TESTING, AND MAINTENANCE OF FIRE HYDRANTS, 1989, American Water Works Association

AWWA C500, METAL-SEALED GATE VALVES FOR WATER SUPPLY SERVICE, 1993, American Water Works Association

AWWA C651, DISINFECTING WATER MAINS, 1992, American Water Works Association

OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA)

TM 5-820-4 DRAINAGE FOR AREAS OTHER THAN AIRFIELDS,
Department of the Army and the Air Force, available at http://www.hnd.usace.army.mil/techinfo/

The site plan shall show geometric design of the site, including applicable dimensions of all exterior facilities, mechanical equipment, pavements, utilities, etc. Required facilities are described in the following sections of this specification. All roads and areas where tractor-trailer vehicles will travel shall be designed for the worst case turning radius. Design and construction of roads and pavements shall be based on recommendations from geotechnical investigation required herein.

2.1.2 DEMOLITION

Selective clearing of trees and vegetation may be required. All material and debris, as a result of demolition and clearing, which will not be used in construction of the project, must be removed from the site to a location approved by the Contracting Officer.

Do not demolish or damage the existing buried sewer line and associated manholes that run north/south on the site. This sewer line is currently in use and care must be taken to prevent damaging this utility during construction. If the sewer line or manholes are damaged due to construction or demolition activities, Contractor must make complete repairs without interrupting sewer service. If additional utilities are discovered during the course of this project that are still active, immediately notify Contracting Officer to obtain a determination on how to proceed.

2.1.3 SURVEY AND MAPPINGGeneral Work to be performed - Conduct topographic survey and mapping of the project site to include any existing and/or associated utilities, wadi, hydrological, geological, botanical or other physical conditions that could impact design. Assume survey mapping and topographical maps are not obtainable, If any are existing and can be used, the accuracy shall be verified. Topographic survey data shall include horizontal and vertical (H&V) controls. Survey shall include easements for existing sewer line for FEA Compound and locating waste water treatment north of existing property.

All site plans and master plans shall be drawn in the following projection and datum for incorporation into the U.S. Army Corps of Engineers GIS system:

WGS 1984 UTM Zone 42 N
Horizontal and Vertical ControlIf monuments have been destroyed or do not exist an assumed horizontal and vertical datum shall be established, using arbitrary coordinates of 10,000n and 10,000e and an elevation of 1,000 meters. The horizontal and vertical control established on site shall be a closed loop with third order accuracy and procedures. Provide three (3) concrete survey monuments at the survey site.
All of the control points established at the site shall be plotted at the appropriate coordinate point and shall be identified by name or number, and adjusted elevations. The location of the project site, as determined by the surveyor shall be submitted in writing to the Contracting Officer. The site location shall be identified by temporary markers, approved by the Contracting Officer before proceeding with the surveying work. Topography RequirementsA sufficient quantity of horizontal and vertical control shall be established to provide a detailed topographic survey at 1:500 scale with (25) centimeter contour intervals. Intermediate elevations shall be provided as necessary to show breaks in grade and changes in terrain. The contours shall accurately express the relief detail and topographic shapes. In addition, 90 percent of the elevations or profiles interpolated from the contours shall be correct to within one-half of the contour interval and spot elevations shall be correct within plus or minus 2 centimeters. Spot elevations affecting design of facilities shall be provided. Specifically, break points or control points in grades of terrain such as tops of hills, bottoms of ditches and gullies, high bank elevations, etc.
All surface and sub-surface structures features within the area to be surveyed shall be shown and identified on the topographic maps. In addition, these features shall be located by sufficient distance ties

and labeled on the topographic sheets to permit accurate scaling and identification.

2.1.4 ENVIRONMENTAL PROTECTION

Applicable Regulations

The Contractor shall comply with all Host Nation laws, rules, regulations or standards concerning environmental pollution control and abatement with regard to discharge of liquid waste into natural streams or manmade channels.

Notification

The Contracting Officer will notify the Contractor in writing of any observed non-compliance with the foregoing provisions. The Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No extension of time or damages will be awarded to the Contractor unless it was later determined that the Contractor was in compliance.

Spillages

Measures shall be taken to prevent chemicals, fuels, oils, greases, bituminous materials, waste washings, herbicides and insecticides, and construction materials from polluting the construction site and surrounding area.

Disposal

Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be taken to a dumpsite off site and subject to the approval of the Contracting Officer. Burning at the project site for the disposal of refuse and debris will not be permitted.

2.1.5 GRADING

Grading and Drainage

The contractor will provide all necessary site grading to insure adequate drainage so that no areas will be flooded due to a rainfall of a 10-year frequency. Drainage of the area should be compatible with the existing terrain. All new facilities will be a minimum of 0.15 meters above finished grades. Positive drainage shall be provided for all areas and existing drainage ways shall be utilized to the extent possible. Swales between buildings and parking areas shall be avoided if possible, unless utilized for stormwater management On-street parking areas shall be graded such that stormwater is directed off to the side. Earthwork shall be balanced to the extent possible without compromising the design.

Ditch Slopes

Minimum grade of 1.0 percent for channelized flow.

Ditches

Ditches shall be graded at non-erodible slopes or the ditch shall be lined with an appropriate material to prevent erosion. A design storm with a return period of at least 2 years shall be used to determine erodibility of ditches and swales. The depth of ditches along pavement shoulders shall be such that the water surface from the 10-year design storm is below pavement sub-base and base courses which daylight through the adjacent shoulder.

2.1.6 STORM DRAINAGE

Design Storm Return Period

Storm drains and culverts shall be sized for a design storm with a return period of 10 years. Provisions shall be made to protect all buildings and critical structures from a major storm event with a return period of 100 years.

Stormwater Management

It shall be the responsibility of the Contractor to design a Stormwater Management (SWM) plan, submit to the Contracting Officer for approval prior to construction. The Contractor is responsible for designing the most drainage efficient inexpensive measures that are in accordance with the United States Environmental Protection Agency Best Management Practices. The of the SWM plan is to reduce erosion and scouring and to reduce the discharge of pollutants from the site.

Storm Drainage System Design

The Contractor shall be responsible for the complete design of the storm drainage system. Drainage of runoff from turfed areas onto pavements shall be minimized. New manholes or inlets placed shall be elevated 100mm above grade for turf areas and at finished grade for surface areas. If storm drain piping is required it shall comply with the requirements in this section. Where storm drain pipes are of different diameters, the pipe crown elevations should be matched at the drainage structure. Storm drain pipes shall have a minimum diameter of 300mm. Storm drain lines shall be located outside of paved areas to the extent possible. Under no circumstance shall storm drain lines be located beneath buildings. Erosion control shall be provided for all storm drain structures during construction. All storm drain pipe and structures shall comply with the requirements specified in UFGS Section 02630A STORM-DRAINAGE SYSTEM.

Hydraulic Design

New storm drain pipes shall be designed for gravity flow during the 10-year design storm unless otherwise approved by the Government. The hydraulic grade line shall be calculated for the storm drain system and all energy losses accounted for. Design computations shall adhere to procedures contained in the U.S. Army Corps of Engineers TM 5-820-4. Storm drain systems shall be designed to provide a minimum flow velocity of .75 meters per second when the drains are one-third or more full.

Manholes

Diameter of manholes shall be large enough to accommodate pipes entering/exiting the manhole. Manhole cast iron frames shall have a minimum opening diameter of 600mm. Galvanized steel ladders shall be provided in all manholes with a depth exceeding 3.7 meters in accordance with UFGS Section 02630A STORM-DRAINAGE SYSTEM.

Area Inlets

Area inlets shall be properly sized and designed to accommodate the design flows. All grates shall be of a “bicycle safe” design.

Curb Inlets

Locating parking area curb inlets at building entrances shall be avoided if possible. Curb inlets along two-lane streets shall be spaced and sized so that the flow in the gutter and ponded areas at low points do not cover the crown of the street.

Head walls and Flared End Sections

Unless otherwise approved, head walls or flared end sections shall be provided at the ends of culverts and at storm drain outfalls. Protection from erosion and scouring at head wall and flared end section outfalls shall be provided as needed.

Culverts

Culvert pipes shall have a minimum diameter of 450mm wherever possible.

Storm Drain and Culvert Pipe

The Contractor shall select the appropriate storm drain and culvert pipe materials from the options specified in UFGS Section 02630A STORM-DRAINAGE SYSTEM. Pipe, bedding, and backfill shall be of adequate strength (or stiffness) to support the earth, live, and construction loads imposed on the pipe. Only pipe materials that have a minimum design service life of 50 years shall be allowed for permanent installations. As a minimum, all pipe joints shall be soil tight. The Contractor shall specify watertight resilient pipe connectors at drainage structures when the water table is at or above the pipeline.

Concrete Pipe

Reinforced concrete pipe shall be a minimum Class III. Type I cement may be used only when sulfates in the soil are 0.1 percent or less and dissolved sulfates in the effluent are 150 ppm or less. Type II cement may be used only when sulfates in the soil are 0.2 percent or less and dissolved sulfates in the effluent are 1,500 ppm or less. Only Type V cement may be used if sulfates in the soil exceed 0.2 percent or dissolved sulfates in the effluent exceed 1,500 ppm. Concrete pipe shall be assumed to have a minimum design service life of 50 years unless the Contractor determines that conditions at the site will reduce the service life. Concrete culverts and storm drains shall be protected by a minimum of 1 meter of cover during construction to prevent damage by heavy construction equipment.

Corrugated Metal Pipe

Corrugated Metal Pipe shall not be used.

Plastic Pipe

Stiffness of the plastic pipe and soil envelope shall be such that the predicted long-term deflection shall not exceed 7.5 percent. Plastic culverts and storm drains shall be protected by a minimum of 1 meter of cover during construction to prevent damage by heavy construction equipment. Split couplers shall not be allowed for corrugated high-density polyethylene pipe. Plastic pipe shall be assumed to have a minimum design service life of 50 years unless the Contractor determines that conditions at the site will reduce the service life.

2.1.7 PAVING

Roads

Compacted gravel base roads with an asphalt topping are required as a minimum. Pre-existing conditions include undeveloped, mostly flat land and demolished building sites. The site contains mature vegetation and limited natural drainage channels. Areas with standing water must be designed to drain water off-site. All roads shall be 7.3 meters wide, graded for proper drainage, provided with necessary drainage structures and completed with prescribed surfaces in accordance with applicable sections of TM 5-822-2 and TM 5-822-5 standards. The road sections shall be surfaced with minimum 50 mm asphalt topping over a 100 mm aggregate base and 300 mm scarified sub grade. The base courses shall be compacted to 95% proctor density durable aggregate uniformly moistened and mechanically stabilized by compaction. Degree of compaction shall be expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557.

Parking Areas

Contractor shall construct parking and storage areas gravel base with an asphalt topping are required as a minimum. Pre-existing conditions include undeveloped, mostly flat land and demolished building sites. The site contains mature vegetation and limited natural drainage channels. Areas with standing water must be designed to drain water off-site. All parking shall be graded for proper drainage, provided with necessary drainage structures and completed with prescribed surfaces in accordance with applicable sections of TM 5-822-2 and TM 5-822-5 standards. The parking area shall be surfaced with minimum 50 mm asphalt topping over a 100 mm aggregate base and 300 mm scarified sub grade. The base courses shall be compacted to 95% proctor density durable aggregate uniformly moistened and mechanically stabilized by compaction. Degree of compaction shall be expressed as a percentage of the maximum density obtained by the test procedure presented in ASTM D 1557.

Street Signs

Street and traffic control sign requirements shall conform to the ASHTO Manual on Uniform Traffic Control Devices. Actual sign design shall be to United States customary standards.

2.1.8 SECURITY

Buildings shall be sited on the project site to maximize standoff distances from secured perimeter.

All areas inside and outside along the perimeter wall shall be well illuminated and night/day security cameras shall be located every 50m to 80m to provide complete coverage of the compound perimeter. An additional 15 security cameras shall be provided and located as directed by the Contracting Officer.

Vehicle parking areas inside the compound shall be located in areas removed from buildings. Vehicle parking may not be located within 25 meters of any occupied building. Removable barrier controlled fire lanes may be constructed near the buildings for emergency vehicle use only.

2.1.9 CIVIL UTILITIES

General

The design of the water system shall be sized to provide flow and discharge based on a fixture unit basis. The design drawings shall show all utility lines, line sizes, valves, manholes, disinfection systems, and applicable details associated with water system designs. The water distribution system shall be designed with the provision for the future installation of a sanitary sewer system, electric and communication lines, and a more comprehensive storm sewer than what is provided under this contract. Specifications covering water lines, valves, pumps, and controls shall be submitted as part of the design.

2.1.10 WATER

General

Design and construction of the water system shall serve the demand. The Contractor shall install a water well(s), water storage tank for consumption, water storage for fire sprinkler system, water treatment system, water distribution mains, branches, laterals, lines and service connections to include all pipe, valves, fittings and appurtenances. Exterior water line construction shall include service to all buildings as described in the Scope of Work Section 01010. The required Average Daily Demand (ADD) approximation is derived from 285 liters per capita per day (lpcd) or 75 gallons per capita per day

(gpcd). In the event potable or non-potable use water is required prior to completion of the water facilities infrastructure the Contractor may be issued a Request for Proposal to provide non-potable (tank truck) and potable (bottled or other reliable source) consumption. Provide a minimum of one (1) freeze proof outside water hydrant (hose spigot) for each building or facility.

Water Quality Sampling and Analysis

The Contractor shall perform water quality sampling and testing at the source. The Contractor shall utilize well-qualified and equipped testing capability in the project site area, if available. If professional testing services are not available in the area, the Contractor will submit an alternative practical testing source for approval. Raw water quality criteria for Water Quality and Criteria Standards, and shall address the following: PH, turbidity, conductivity, oxidation reduction potential, total dissolved solids, color, odor, total coliform/fecal coliform (bacteria) an indicator of the presence of E. coli. These baseline parameters are a partial list as presented in TM5-813-3/AFM 88-10 APPENDIX A.

Well House

At new wells construct a permanent well house with concrete slab floor. The floor of the well house shall slope away from the casing approximately 2 cm per 30 cm (1/8” per foot). Floor of well house shall be above flood plain. The well house design should be such that the well pump, motor and drop pipe could be removed readily. The well house shall protect valves and pumping equipment plus provide freeze protection for the pump discharge piping beyond the check valve. The well house shall be insulated and a heating unit with automatic thermostat installed. The well shall be protected from unauthorized use by a lockable door. Provide 2 weather proof duplex outlets inside and outside of well house.

Raw Water Disinfection

Contractor shall perform disinfection of the well water in accordance with AWWA A 100 or equivalent. Bacteriological samples shall be collected and examined in accordance with Standard Methods for the Examination of Water and Wastewater by a qualified lab as approved by the Contracting Officer.

Service Booster Pumps (Direct Pressure System)

If booster pumps are required the Contractor shall provide a booster pump station with end suction or split case double suction horizontal split case (frame mounted) centrifugal pumps arranged in parallel for pumping water storage into the main distribution system. The pumps and controls shall be designed to supply and maintain acceptable system pressure throughout the distribution network given the full range of flow conditions (low flow to peak). For conditions of low demand and to prevent short cycling of primary pumps, provide a low demand jockey pump with capacity of one-third (1/3) of the Average Daily Demand (ADD). Each booster pump shall be capable of delivering 2 times (2x) the ADD. Provide suitable expansion tank. The suction side of the service booster pumps shall have an eccentric reducer and gate valve installed. The discharge side shall have a gate valve, check valve (between the pump and the gate valve and concentric reducer, pressure gage and air relief valve.

Water Storage

Contractor shall provide a water storage tank for consumption, and one water storage tank for fire sprinkler system, a circular steel or circular concrete ground storage reservoirs GST to be located on the ground surface. Volume of the GST shall be a minimum storage volume of a full days demand. The Contractor shall verify storage volume requirements based on final design population. The storage facility shall be located above drainage areas and locations subject to flooding as approved by the Contracting Officer. The storage facility shall be located on the higher elevations of the site to promote gravity flow and reduce pumping requirements. Overflow and air vents shall be screened so that birds, rodents and debris cannot enter the reservoir. Tanks, pipes, and valves shall be designed and detailed to prevent the water freezing, Exposed insulation is not permitted. Design solution shall have a 25 year

maintance free life span.

Disinfection & Chlorination System

Use hypochlorite compounds for disinfection. A hypo-chlorinator shall be used to feed a sodium hypochlorite solution of 5-15% available chlorine into the system. Hypochlorite compound may be a liquid or solid form. The hypo chlorination system shall consist of a chemical solution tank for hypochlorite, diaphragm-type pump, power supply, water pump, pressure switch and storage tank (optional hydro-pneumatic/storage). The pump shall feed a hypochlorite solution in proportion to the water demand. The hypo-chlorinator shall have a pumping rate, liters per day (lpd) (gallons per day (gpd)) adequate to deliver 5 percent (%) available hypochlorite solution adjustable to the quantity of water being produced from the source. Dosage rate will vary somewhat depending on actual pump production rate and available residual chlorine in the system. Contractor shall determine the required dosage rate milligrams per liter (mg/l) to maintain the required chlorine residual (usually 0.2-0.4mg/l) in the distribution system. Chlorine solution tank shall be large enough to hold a three days supply of hypochlorite solution. A fresh solution shall be prepared every two or three days because the solution may lose its strength over time and this will affect the actual chlorine feed rate. The hypochlorite shall be stored in a cool dry place. Sodium hypochlorite can lose from two to four percent of its available chlorine content per month at room temperature. Contractor shall verify required minimum residual chlorine in accordance with local requirements verified and approved by the Contracting Officer. The chlorination system shall have the capability for manually adjusting the dosage rate and be installed in such a manner that the system can be easily disconnected and bypassed in the event of health safety or routine maintenance and repair. Disinfection of water mains shall be in accordance with AWWA standard C651-86 and disinfection of storage facilities in accordance with AWWA standard C652-86. Contractor shall provide a CMU building with heating and lights per chlorine manufacturer's installation requirements.

2.1.11 WATER DISTRIBUTION SYSTEM

Pipe

The Contractor shall provide pipe of adequate strength, durability and be corrosion resistant with no adverse effect on water quality. The exterior surface of the pipe must be corrosion resistant. If the pipe is installed underground pipe shall be encased with polyethylene in accordance with AWWA C105. Water distribution pipe material shall be PVC or Ductile Iron (DI). Pipe diameters used in the network shall be 300mm, 250mm, 200mm, 150mm and 100mm, as calculated, using ductile iron (DI) conforming to AWWA C104 or AWWA C151, installed in accordance with C 600 or polyvinyl chloride (PVC) as per ASTM D 1784 and 1785. DI fittings shall be suitable for 1.03MPa pressure unless otherwise specified. Fittings for mechanical joint pipe shall conform to AWWA C110. Fittings for use with push-on joint pipe shall conform to AWWA C110 and C111. Fittings and specials shall be cement mortar lined (standard thickness) in accordance with C104. Polyvinyl Chloride (PVC) pipe shall conform to ASTM D 1785. Plastic pipe coupling and fittings shall be manufactured of material conforming to ASTM D 1784, Class 12454B. PVC screw joint shall be in accordance with ASTM D 1785, etal, Schedules 40, 80 and 120. PVC pipe couplings and fittings shall be manufactured of material conforming to ASTM D 1784, Class 12454B. Pipe less than 80mm, screw joint, shall conform to dimensional requirements of ASTM D schedule 80. Elastomeric gasket-joint, shall conform to dimensional requirements of ASTM D 1785 Schedule 40. All pipe and joints shall be capable of 1.03 Mpa working pressure and 1.38 Mpa hydrostatic test pressure. Pipes should be adequate to carry the maximum quantity of water at acceptable velocities 0.9 to 1.5m/sec at maximum flows not to exceed 2.8m/sec with working pressures of 240kPa to 350kPa. Minimum pressure is 140kPa to all points of the distribution system and maximum pressure of 690kPa. If high pressures (greater than 690kPa) cannot be avoided, pressure-reducing valves shall be used. Water service connections to buildings shall vary from 19mm, 25mm or 38mm to 75mm, as calculated, depending on the usage requirement. Pipe service connections from the distribution main to the building shall be either Polyvinyl Chloride (PVC) plastic Schedule 80 ASTM D 1785 or copper tubing conforming to ASTM B 88M, Type K, annealed. After choosing piping material type, use similar piping materials for all buildings for efficiency of future maintenance activities. The

distribution network shall be laid out in a combination grid and looped pattern with dead ends not exceeding 30m. Dead end sections shall not be less than 150mm diameter and shall either have blow off valves or fire hydrants (flushing valves) installed for periodic flushing of the line. Water supply distribution shall connect to a building service at a point approximately 1.5m outside the building or structure to which the service is required. Adequate cover must be provided for frost protection. A minimum cover of 800mm is required to protect the water distribution system against freezing. Water lines less than 1.25 meters deep under road crossings shall have a reinforced concrete cover of at least 150 mm thickness around the pipe.

Valves

Valves (Gate valves w/box) shall be placed at all pipe network tee and cross intersections and the number of valves shall be one less than the number of lines leading into and away from the intersection. For isolation purposes valves shall be spaced not to exceed 300m. Gate valves shall be in accordance with AWWA C 500 and/or C509. Butterfly valves (rubber seated) shall be in accordance with C504 etal. The valves and valve boxes shall be constructed to allow a normal valve key to be readily used to open or close the valve. Provide traffic-rated valve boxes. Provide concrete pad, 1 meter square, for all valve boxes.

Vacuum and Air Release Valves

Air release valves are required to evacuate air from the main high points in the line when it is filled with water, and to allow the discharge of air accumulated under pressure. Vacuum relief valves are needed to permit air to enter a line when it is being emptied of water or subjected to vacuum. Contractor shall submit manufacturer's data for properly sized combination air and vacuum release valves and determine their locations on the distribution system subject to review and approval of the Contracting Officer.

Blow-off valves

The Contractor shall provide 40-50mm blow-off valves at ends of dead end mains. Valves should be installed at low points in the mains where the flushing water can be readily discharged to natural or manmade drainage ditches, swales or other.

Thrust Blocking

Contractor shall provide concrete thrust blocking at any point where the layout of the system changes the direction of the flow, increases the velocity, or decreases or stops the flow. At these points, the pipes and fittings must be anchored and kept from moving or pulling apart by the use of thrust blocks installed against undisturbed earth.

Hydrostatic, Leakage and Disinfection Tests

The Contracting Officer will be notified not less than 48 hours in advance of any water piping test and will be given full access for monitoring testing procedures and results. Where any section of water line is provided with concrete thrust blocking for fittings or hydrants tests shall not be made until at least 5 days after installation of the concrete thrust blocking, unless otherwise approved.

Pressure Test

After the pipe is laid, the joints completed, and the trench partially backfilled leaving the joints exposed for examination, the newly laid piping or any valved section of piping shall, unless otherwise specified, be subjected for 1 hour to a hydrostatic pressure test of 1.03 MPa. Each valve shall be opened and closed several times during the test. Exposed pipe, joints, fittings, hydrants and valves shall be carefully examined during the partially opened trench test. Joints showing visible leakage shall be replaced or

remade as necessary. Cracked or defective pipe, joints, fittings, hydrants and valves discovered following this pressure test shall be removed and replaced and retested until the test results are satisfactory.

Leakage Test

Leakage test shall be conducted after the pressure tests have been satisfactorily completed. The duration of each leakage test shall be at least 2 hours and during the test the water line shall be subjected to not less than 1.03 MPa. Leakage is defined as the quantity of water to be supplied into the newly laid pipe, or any valved or approved section, necessary to maintain pressure to within 34.5 kPa of the specified leakage test pressure after the pipe has been filled with water and the air expelled. Pipe installation will not be accepted if leakage exceeds the allowable leakage, which is determined by the following formula:

L = 0.0001351ND (P raised to 0.5 power) L = Allowable leakage in gallons per hour N = Number of joints in the length of pipeline tested D = Nominal diameter of the pipe in inches P = Average test pressure during the leakage test, in psi gauge

Should any test of pipe disclose leakage greater than that calculated by the above formula, the defective joints shall be located and repaired until the leakage is within the specified allowance, without additional cost to the government.

Bacteriological Disinfection

Disinfection Procedure

Before acceptance of potable water operation, each unit of completed waterline shall be disinfected as prescribed by AWWA C651. After pressure tests have been completed, the unit to be disinfected shall be thoroughly flushed with water until all entrained dirt and mud have been removed before introducing the chlorinating material. Flushing will be performed in a manner and sequence that will prevent recontamination of pipe that has previously been disinfected. The chlorinating material shall be liquid chlorine, calcium hypochlorite, or sodium hypochlorite. The chlorinating material shall provide a dosage of not less than 50 ppm and shall be introduced into the water lines in an approved manner. Polyvinyl Chloride (PVC) pipelines shall be chlorinated using only the above-specified chlorinating material in solution. The agent shall not be introduced into the line in a dry solid state. The treated water shall be retained in the pipe long enough to destroy all non-spore forming bacteria. Except where a shorter period is approved, the retention time shall be at least 24 hours and shall produce not less than 25 ppm of free chlorine residual throughout the line at the end of the retention period. Valves on the lines being disinfected shall be opened and closed several times during the contact period. The line shall then be flushed with clean water until the residual chlorine is reduced to less than 1.0 ppm. During the flushing period, each fire hydrant on the line shall be opened and closed several times.

Sampling

Personnel from the Contractor's commercial laboratory shall take at least 3 water samples from different points, approved by the Contracting Officer, in proper sterilized containers and perform a bacterial examination in accordance with approved methods. The commercial laboratory shall be verified to be qualified by the appropriate authority for examination of potable water.

Acceptance Requirements

The disinfection shall be repeated until tests indicate the absence of pollution for at least 2 full days. The unit will not be accepted until satisfactory bacteriological results have been obtained.

Time for Making Tests

Except for joint material setting or where concrete thrust blocks necessitate a 5-day delay, pipeline jointed with rubber gaskets, mechanical or push-on joints, or couplings may be subjected to hydrostatic pressure, inspected and tested for leakage at any time after partial completion of backfill.

Concurrent Tests

The Contractor may elect to conduct the hydrostatic tests using either or both of the following procedures. Regardless of the sequence of tests employed, the results of pressure tests, leakage tests, and disinfection shall be recorded for submission and approval. Replacement, repair or retesting required shall be accomplished by the Contractor at no additional cost to the Government. a. Pressure test and leakage test may be conducted concurrently, b. Hydrostatic tests and disinfection may be conducted concurrently, using water treated for disinfection to accomplish the hydrostatic tests. If water is lost when treated for disinfection and air is admitted to the unit being tested, or if any repair procedure results in contamination of the unit, disinfection shall be re-accomplished.

2.1.12 SANITARY SEWER

General

There is an existing, active, buried sewer collection line with manholes on site; however, it is not considered usable for this project. The existing sewer line and manholes shall remain intact. New buildings shall be two stories with a basement, toilets, showers, sinks shall be installed in basements, gravity operation if possible is preferred over sewage ejectors. Sewage collection and treatment for this project will be an independently designed and constructed system. Sewage shall be piped approximately 175 meters north to adjacent site to a packaged treatment plant and effluent holding pond, as a part of this contract provide required sewer line, package treatment plant, and effluent holding pond, (only treated wastewater can enter effluent holding pond). Coordinate with ANA Hospital regarding location on site. It shall be considered that there are no functional or salvageable sanitary sewer collection, treatment or disposal facilities at this site. The Contractor shall obtain topographic information or other maps that show vegetation, drainage channels and other land surface features such as underground utilities and related structures that may influence the design and layout of the collection system. If maps are not available, or do not provide satisfactory information or sufficient detail of the site, field surveys shall be performed. Sanitary sewers less than 1.25 meters (4 feet) under road crossings shall have reinforced concrete cover at least 150 mm (6 inch) thick around the pipe.

Exterior sanitary sewer line construction shall include service to all buildings as described in the Scope of Work Section 01010. Contractor shall design sanitary sewer collection system using approved field survey data and finished floor elevations. Depending upon the topography and building location, the most practical location of sanitary sewer lines is along one side of the street. In other cases they may be located behind buildings midway between streets. Main collection sewers will follow the most feasible route to the point of discharge. The sewer collection system shall be designed to accommodate the initial occupancy and a reasonable expansion capability. All sewers shall be located outside of the roadways as much as practical, and minimize the number of roadway crossings. A sewer line from one building shall not be constructed under another building, or remain in service where a building is subsequently constructed over it. Construction required shall include appurtenant structures and building sewers to points of connection with building drains 1.5m (5 feet) outside the building to which the sewer collection system is to be connected.

The Contractor shall use the following criteria where possible to provide a layout which is practical, economical and meets hydraulic requirements: 1) Follow slopes of natural topography, 2) avoid routing sewers through areas which require extensive restoration or underground demolition, 3) Avoid areas of high groundwater and placement of sewer below the groundwater table, 4) locate manholes at change in direction, size or slope of gravity sewers, 5) use straight sections between manholes, curved

alignment shall not be permitted, 6) locate manholes at intersections of streets where possible, 7) avoid placing manholes where the tops will be submerged or subject to surface water inflow, 8) evaluate alternative sewer routes where applicable, 9) verify that final routing selected is the most cost effective alternative that meets service requirements. In the event that facilities to be provided under the contract must be occupied prior to completion of permanent wastewater infrastructure, the Contractor will be responsible for providing temporary portable shower and bathroom facilities.

Protection of Water Supplies

The Contractor shall ensure that the sewer design meets the following criteria:

Sanitary sewers shall be located no closer than 15m (50 feet) horizontally to water wells or reservoirs to be used for potable water supply.

Sanitary sewers shall be no closer than 3m (10 feet) horizontally to potable water lines; where the bottom of the water pipe will be at least 300mm (12 inches) above the top of the sanitary sewer, horizontal spacing shall be a minimum of 1.8m (6 feet).

Sanitary sewers crossing above potable water lines shall be constructed of suitable pressure pipe or fully encased in concrete for a distance of 2.7m (9 feet) on each side of the crossing. Pressure pipe will be as required for force mains in accordance with local standards and shall have no joint closer than 1 meter (3 feet) horizontally to the crossing, unless the joint is encased in concrete.

Quantity of Wastewater

The Contractor shall verify the average daily flow considering both resident (full occupancy) and non-resident (8hr per day) population. The average daily flow will represent the total waste volume generated over a 24-hour period, and shall be based on the total population of the facility and usage rate of 285 liters per capita per day (75 gallons per capita per day). The wastewater flow rate shall be calculated as approximately 80% of water usage rate. Design criteria guideline shall be based on an average influent wastewater characteristics as BOD of 400mg/l, SS of 400mg/l, BOD load of 750ppd, and SS load of 750ppd.

Gravity Sewer

Sanitary sewers shall be designed to flow at 90 to 95 percent full. Sanitary sewer velocities shall be designed to provide a minimum velocity of 0.6 meters per second (mps) or 2.0 feet per second (fps) at the ADD flow rate and a minimum velocity of 0.8 to 1.05 mps (2.5-3.5fps) at the peak diurnal flow rate. In no case shall the velocity drop below 0.3 mps, (1.0 fps) to prevent settlement of organic solids suspended in the wastewater. Pipe slopes shall be sufficient to provide the required minimum velocities and depths of cover on the pipe. Unless otherwise indicated (see Building Connections and Service Lines), gravity sewer pipe shall be installed in straight and true runs in between manholes with constant slope and direction. Adequate cover must be provided for frost protection. A minimum cover of 800 mm (2’-8”) will be required to protect the sewer against freezing.

Manholes

The Contractor shall provide standard depth manholes (MH), (depth may vary) an inside dimension of 1.2 meters (4 feet). Manholes shall be made of cast-in-place reinforced concrete with reinforced concrete cover. Alternate precast manhole option shall taper to a 750 mm (30-inch) cast iron frame that provides a minimum clear opening of 600 mm (24 inches). In every case, the manholes, frames and covers shall be traffic rated, H-20 load rating. All manholes shall be provided with a concrete bench with a flow line trough, smoothly formed to guide waste flow to the outlet pipe from the inlet pipe(s). The top surface of the bench shall be above the crown of all pipes within the manhole. All surfaces of the bench shall be sloped smoothly toward the trough to guide flow, even under peak flow conditions.

Manhole Design Requirements

Manholes are required at junctions of gravity sewers and at each change in pipe direction, size or slope, except as noted hereinafter for building connections.

Spacing

The distance between manholes must not exceed 120 m (400 ft) in sewers of less than 460 mm (18 inches) in diameter. For sewers 460 mm (18 inches) and larger, and for outfalls from wastewater treatment facilities, a spacing of up to 180 m (600 ft) is allowed provided the velocity is sufficient to prevent the sedimentation of solids.

Pipe connections

The crown of the outlet pipe from a manhole shall be on line with or below the crown of the inlet pipe.

Pipe

Pipe shall conform to the respective specifications and other requirements as follows: Provide Polyvinyl Vinyl Chloride (PVC) conforming to ASTM D 3034, Type PSM with a maximum SDR of 35, size 380 mm (15inch) or less in diameter. PVC shall be certified as meeting the requirements of ASTM D 1784, cell Class 12454 B.

Fittings

Fittings shall be compatible with pipe supplied and shall have a strength not less than that of the pipe. Fittings shall conform to the respective specifications and requirements as follows: provide PVC fittings conforming to ASTM D 3034 for type PSM pipe.

Joints

Joints installation requirements shall comply with the manufacturers installation instructions. Flexible plastic pipe (PVC or high density polyethylene pipe) gasketed joints shall conform to ASTM D3212.

Branch Connections

Branch connections shall be made by use of regular fittings or solvent-cemented saddles as approved. Saddles for PVC pipe shall conform to Table 4 of ASTM D 3034.

Frames and Covers

Frames and covers shall be cast iron, ductile iron or reinforced concrete, traffic rated in any case to an H-20 load rating. Cast iron frames and covers shall be traffic rated, circular with vent holes.

Steps for Manholes

Steps shall be cast iron, polyethylene coated, at least 15 mm (5/8 inch) thick, not less than 400mm (16 inches) in width, spaced 300 mm (12 inches) on center.

The minimum depth of cover over the pipe crown shall be 0.8 m (2’-8”).

Building Connections and Service Lines

Building connections and service lines will be planned to eliminate as many bends as practical and provide convenience in rodding. Bends greater than 45 degrees made with one fitting should be avoided; combinations of elbows such as 45-45 or 30-60 degrees should be used with a cleanout provided. Connections to other sewers will be made directly to the pipe with standard fittings rather than through manholes. However, a manhole must be used if the connection is more than 31m from the building cleanout. Cleanouts shall be provided outside of the building. Service connection lines will be a minimum of 100 mm (4 inch) diameter and laid at a minimum 1% grade, but up to 2% as design parameters dictate. Service laterals shall be 150 mm (6 inch) and sloped to maintain the minimum velocity as described in paragraph “Gravity Sewer.”

Cleanouts

Cleanouts must be installed on all sewer-building connections to provide a means for inserting cleaning rods into the underground pipe. Install manufactured wye fittings. In lieu of a wye fitting, an inspection chamber may be installed. The inspection chamber shall be of the same construction as a manhole. Preferably the cleanout will be of the same diameter as the building sewer, and never be smaller than 100 mm (4 inch).

Field Quality Control

Field Tests and Inspections

The Contracting Officer will conduct field inspections and witness field tests specified in this section. The Contractor shall perform field tests and provide labor, equipment and incidentals required for testing.

Check each straight run of pipeline for gross deficiencies by holding a light in a manhole; it shall show a practically a full circle of light through the pipeline when viewed from the adjoining end of the line. When pressure piping is used in a non-pressure line for non-pressure use, test this piping as specified for non-pressure pipe.

Test lines for leakage by either infiltration tests or exfiltration tests. Prior to testing for leakage, backfill trench up to at least lower half of the pipe. When necessary to prevent pipeline movement during testing, place additional backfill around pipe to prevent movement during testing, but leaving joints uncovered to permit inspection. When leakage or pressure drop exceeds the allowable amount specified, make satisfactory correction and retest pipeline section in the same manner. Correct visible leaks regardless of leakage test results.

Infiltration tests and ex-filtration tests: Perform these tests for sewer lines made of specified material, not only concrete, in accordance with ASTM C 969M, ASTM C 969. Make calculations in accordance with the Appendix to ASTM C 969M, ASTM 969.

Low-pressure air tests: Perform tests as follows: 1) Concrete pipe: Test in accordance with ASTM C 924M, ASTM C 924. Allowable pressure drop shall be given in ASTM C 924M ASTM C 924. Make calculations in accordance with the Appendix to ASTM C 924M, ASTM C 924; 2) Ductile-iron pipe: Test in accordance with the applicable requirements of ASTM C 924M, ASTM C 924. Allowable pressure drop shall be as given in ASTM C 924M, ASTM C 924. Make calculations in accordance with the Appendix to ASTM C 924M, ASTM C 924; 3) PVC Plastic pipe: Test in accordance with applicable requirements of UBPPA UNI-B-6. Allowable pressure drop shall be as given in UBPPA UNI-B-6. Make calculations in accordance with the Appendix to UBPPA UNI-B-6.

Deflection Testing

Deflection testing will not be required however, field quality control shall ensure that all piping is installed in accordance with deflection requirements established by the manufacturer.

Septic Systems

Septic systems shall be designed and installed in accordance with UFC 3-240-03.

2.1.13 GEOTECHNICAL

The selected design/build firm's geotechnical engineer shall perform a site specific geotechnical exploration/testing program to accurately characterize the site and shall perform the final design for all geotechnical features of work. The Contractor is fully responsible for acceptable foundations, pavements and other geotechnical aspects of the proposed project. The additional investigation, identification of subsurface materials and laboratory testing of soils and aggregate materials shall be in accordance with applicable ASTM standards and good geotechnical practice.

Design Analysis

The selected design/build firm's geotechnical engineer shall submit a design analyses with calculations for the pavement designs. The calculations shall be legible, orderly and easily understandable. All assumptions and references to codes, standards, criteria, drawings, and computer output shall be noted as necessary. Submission shall also include soils information upon which the designs are based.

Specifications

The Design-Build Contractor shall submit specification sections in accordance with requirements listed in the this RFP package, to specify the quality, characteristics, construction and installation procedures, testing, and certification requirements for all items of the proposed pavements, and earthwork.

Compliance Verification

Compliance with the design criteria will be determined by review of the design calculations, drawings and specifications submitted; by review of construction submittals; and by field inspection.

2.1.14 LANDSCAPING

GENERAL

Landscape plan shall be designed with the use of indigenous and dominant plant species. As many as possible of the existing trees on site should be preserved. Existing shrubs should be removed. All space within twenty-five meters (25m) of each building shall be clear, except plants not exceeding 0.3 m in height may be allowed. Selective, healthy trees with lower branches removed may also remain. Consider incorporating stone work matching perimeter walls into building entries, queuing area, walk ways, outdoor eating area, barbecue patio and fire pit.

TREE PROTECTION

Existing trees, both individual and groups to be saved shall be protected with wooden tree protection fences. These shall be installed before any earthwork occurs and shall be maintained and repaired when damaged. These shall remain in place until after all the landscape work is completed. The fences shall be placed no closer than the dripline of the trees. The fence shall be made out of 100X100mm posts set no further than 200mm apart and shall have a 50X50mm top rail. The height shall be a minimum of 1.2 meters. No excavation, filling, trenching for utilities or storage of materials shall be allowed within these tree-protected areas. If there is bare earth under these existing trees a 75mm, layer of mulch shall be added to cover the area within the tree fence.

2.1.15 GENERATORS

GENERAL

See Electrical Section 6.3 for Generators, site requirements, fuel tanks, containment etc.

3.0 ALL BUILDINGS – GENERAL REQUIREMENTS

3.1 SPECIFICATIONS

Specifications shall be prepared in accordance with the Construction Specifications Institute (CSI) format. The Design-Build Contractor prepared specifications shall include as a minimum, all applicable specifications sections referenced by the CSI. Where the CSI does not reference a specification section for specific work to be performed by this contract, the Design-Build Contractor shall be responsible for creating the required specification. All materials specified shall use CSI Standards and shall be listed in Section 1.1 References of each Specification Section. It shall be the contractor's responsibility to show equivalency requirements are met if the Standard is not per (CSI) format.

Ambiguities and indefinite specifications
Ambiguities, indefinite specification requirements (e.g., highest quality, workmanlike manner, as necessary, where appropriate, as directed etc.) and language open to interpretation is unacceptable.

Industry Standards
The Codes, Standards, and Regulations listed below shall be used in the construction of this project. The publications shall be the most recent editions. Standards specified shall be ASTM or equivalent DIN, BS, or EN. Standards other than those mentioned may be accepted provided they meet the minimum requirements and the Contractor shall submit proof of equivalency to the Contracting Officer for approval. It shall be the contractor's responsibility to show equivalency requirements are met if the Standard is not per (CSI) format. Any time two or more Codes or standards conflict, the most stringent shall apply.

REFERENCES: Design shall meet the latest edition of the following criteria unless otherwise noted herein:

International Building Code (latest edition).

International Plumbing Code (latest edition).

IMC International Mechanical Code (latest edition).

ACI 318, Building Code Requirements for Structural Concrete, (Latest Edition)

National Fire Protection Association NFPA-101, Life Safety Code (latest edition).

National Fire Protection Association NFPA-70, National Electrical Code (2005 edition)

MIL-HDBK-1190, Facility Planning and Design Guide.

UFC 3-600-01, Unified Facilities Criteria (UFC), Design: Fire Protection Engineering for Facilities, 17 April 2003. (supercedes Military Handbook MIL-HDBK-1008C, Fire Protection for Facilities, Engineering, Design, and Construction).

UFC 4-010-01, United Facilities Criteria (UFC), Department of Defense Minimum Antiterrorism Standards for Buildings, 31 July 2002.

Army TM 5-810-5, Plumbing.

Army TM 5-853-1, Security Engineering Project Development, May 1994.

Army TM 5-853-2, Security Engineering Concept Design, May 1994.

Army TM 5-853-3, Security Engineering Final Design, May 1994.

Army TM 5-853-4, Security Engineering Electronic Security Systems, May 1994.

DCID 6/9 Physical Security Standards for Sensitive Compartmented Information Facilities

DCID 1/21, Manual for Physical Security Standards For Sensitive Compartmented Information Facilities (SCIF).

Army Technical Letter 1110-3-491, Sustainable Design for Military Facilities (due to the current challenges for obtaining materials and constructing facilities in Afghanistan it is intended that sustainability guidelines be complied with when practical. A sustainability rating is not required.)

Army Technical Instructions TI 800-01. Architectural and Engineering Instructions, Design Criteria, July 1998

Army Technical Instructions TI 809-04, Seismic Design for Buildings.

UFC 1-200-01 Design: General Building Requirements

Gross building area definition. Gross building area is measured to the outside face of exterior enclosure walls. Gross area includes floor areas, penthouses, mezzanines, and other spaces as follows:

Areas calculated as half space. Gross area includes one-half the area of exterior covered areas such as balconies, entries, loading platforms, breezeways, exterior corridors, and porches. Exterior covered areas are measured from the face of the enclosure wall to the edge of the covered area served. Stairs (enclosed or open) and elevator shafts count as half space for each floor they serve. In Housing buildings only, interior public corridors will be calculated as half space (circulation spaces *within* the living unit will be calculated as full area).

Excluded space. The following spaces are excluded from gross area calculations: Attic areas where average clear height does not exceed 2100 mm; crawl spaces; exterior uncovered loading platforms; open courtyards; normal roof overhangs and soffits for weather protection; uncovered ramps and steps; utility tunnels; raceways; mechanical equipment platforms and catwalks.

Gross area limitations. Maximum authorized gross building areas for each facility are included in this paragraph. Proposals that exceed authorized gross area limitations may be considered non-conforming.

Net area definition. Net area is measured to the inside face of the room or space walls.

Net Area Requirements. Net area requirements for programmed spaces are included in this RFP. If net area requirements are not specified in the Statement of Work, the space shall be sized to: accommodate the required function, comply with code requirements, comply with overall gross area limitations and other requirements of the RFP (for example, area requirements for corridors, stairs, and mechanical rooms will typically be left to the discretion of the offeror).

Functionality. Rooms shall be sized and arranged for efficient use, circulation, and furniture placement.

Finish Requirements. Room finishes stated in the following paragraphs are preferred minimums; finish selections are not limited to those listed.

Minimum Ceiling Height: All areas shall comply with code requirements for minimum ceiling height. In food preparation areas (Dining Facility), coordinate and determine actual ceiling heights by taking into account requirements and specifications of equipment manufacturers. The absolute minimum ceiling height shall be 3400 mm.

Acoustical Design: The designers must analyze and address isolation of noise from a variety of sources, and limitation of noise in open areas. Living/Sleeping Rooms in Housing Facilities shall be designed and constructed to achieve an STC rating of 54.

Furniture Plan
Contractor shall provide as part of the plans a layout of furniture for all rooms to as a part of the design package to verify fit of furniture to space.

General Design Consideration. The Contractors proposal shall indicate the Architectural features that are to be used for all facilities designed and constructed under this contract. The facilities must be designed to complement each other. All materials will be chosen for durability and low maintenance. Materials and finishes noted in this RFP should be considered to be minimum requirements. Improved finishes or betterments are encouraged.

3.2 FORCE PROTECTION REQUIREMENTS FOR INHABITED BUILDINGS:

Buildings shall be sited on the project site to maximize standoff distances from secured perimeter.

Materials: The following material minimum properties for the design of these structures.
Concrete – 4000 psi; Reinforcing Steel – 60,000 psi; Masonry – 2000 psi; Masonry Grout – 1350 psi.

MINIMUM STANDARDS TABLE 3.2

Component	Standoff			
	40-meters	50-meters	60-meters	70-meters
3-meter wall height	12-inch w/#5@12-inches OC-EF (R)	9- inch w/#4@8-inches OC-EF (R)	9- inch w/#4@10-inches OC-EF (R)	9- inch w/#4@10-inches OC-EF (R)
	9-inch w/#4@10-inches OC-EF (I)	9-inch w/#4@10-inches OC-EF (I)	9-inch w/#4@10-inches OC-EF (I)	9-inch w/#4@10-inches OC-EF (I)
3.5-meter wall height	12-inch w/#5@12-inches OC-EF (R)	9- inch w/#4@8-inches OC-EF (R)	9- inch w/#4@10-inches OC-EF (R)	9- inch w/#4@10-inches OC-EF (R)
	9-inch w/#4@10-inches OC-EF (I)	9-inch w/#4@10-inches OC-EF (I)	9-inch w/#4@10-inches OC-EF (I)	9-inch w/#4@10-inches OC-EF (I)
3.8-meter roof span	9-inch w/#4@10-inches OC-EF	9-inch w/#4@10-inches OC-EF	9-inch w/#4@10-inches OC-EF	9-inch w/#4@10-inches OC-EF
6.1-meter roof span	9-inch w/#5@12-inches OC-EF	9-inch w/#4@10-inches OC-EF	9-inch w/#4@10-inches OC-EF	9-inch w/#4@10-inches OC-EF
6.1-meter column spacing	16 x 16 w/8-#7 bars (3/side) (R)	16 x 16 w/4-#7 bars (1/corner) (R)	12 x 12 w/4-#7 bars (1/corner) (R)	12 x 12 w/4-#7 bars (1/corner) (R)
	12 x 12 w/4-#7 bars (1/corner) (I)	12 x 12 w/4-#7 bars (1/corner) (I)	12 x 12 w/4-#7 bars (1/corner) (I)	12 x 12 w/4-#7 bars (1/corner) (I)
7.6-meter column spacing	Same as 6.1-meter column spacing	Same as 6.1-meter column spacing	Same as 6.1-meter column spacing	Same as 6.1-meter column spacing
Roof beams @ 3.8-meters O.C. by 7.6-meters	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top
Roof beams @ 6.1 meters O.C. by 6.1 meters	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top	18-inch deep by 12-inch wide w/4-#7 bottom & 2-#7 top

Walls: Minimum wall reinforcing shall be 0.25% steel in a 9-inch thick concrete wall. Walls shall be designed to span vertically and have fixed-fixed end conditions. Walls shall not be tied to the columns. Reinforcing steel interrupted by openings in the wall shall be supplemented by reinforcing steel on either side of the opening. Reinforced concrete building walls shall be designed using standoff distances from the compound perimeter wall and Table 3.2. Each wall shall be designed independently based on standoff distance from the compound perimeter wall.

Roofs: Roof slabs are one-way elements with simple-fixed end conditions. Design roof as 9-inch concrete slab with 12.5-foot to 20-foot span with 0.25% steel, minimum. Reinforcing steel interrupted by openings in the slabs shall be supplemented by reinforcing steel on either side of the opening. Roof shall be designed using standoff distances from the compound perimeter wall that correlate with the table below. (All habitable spaces have concrete roof slab for Force Protection in addition to any roof covering to divert rain)

Columns: Walls shall not be tied into the columns. Shear reinforcing shall be continuous throughout the member. Columns shall be designed as specified in the table and based on standoff distance from the perimeter wall.

Beams: Fixed-fixed elements. Shearing reinforcing required at the supports. Beams shall be designed as specified in the table and based on standoff distance from the perimeter wall.

Glazing: Minimum 1-inch glass. The glass shall be 4-layers of ¼" annealed laminated glass with 0.060 layers of PVB separating the individual panes of glass. No windows shall be installed where the standoff distance is less than 60 meters. The largest glass dimension shall be 813mm (32") X 1219mm (48"). Frame bite to glazing, frame, and frame connection to jamb, sill and head shall resist 26 psi for entire glazing assembly.

Doors: Doors shall be solid wood core with 10-gage face plates, or UL Level 3 ballistic rated. Exterior doors shall open up into hallways or other unoccupied space. A foyer arrangement can be used with the doors offset. Frame, door, and frame connection to jamb, sill and head shall resist 26 psi for entire assembly. Exterior doors shall open out and be fully supported by frame and threshold.

Outdoor equipment located on the ground shall be a minimum of 9000 mm from the building wall. Equipment shall be placed on concrete pads and surrounded by a fence with a lockable gate in accordance with the Minimum Antiterrorism / Force Protection requirements. Noise from outdoor equipment must be considered when locating equipment. Airflow to and from outdoor units must not be obstructed.

3.3 FOUNDATION WATERPROOFING

Walls: Concrete walls below grade shall be waterproofed using a water stop, bentonite material (1lb per sq.ft.), with geo-cloth, gravel, and drainage pipe with pumps as required.

3.4 ROOF CONSTRUCTION

Roof slopes shall be continuous to the perimeter of the building, without interior valleys or depressions where ponds can form. Access to the roof shall be from inside the building by means of stairs or ship's ladder (a sloped ladder with railings) to facilitate servicing of rooftop equipment. A means of hoisting equipment to and from the roof through the access hatch shall also be provided.

High-sloped roof: The higher-sloped roofs shall be a standing seam metal roofing system on rigid insulation, Roof slope shall be 5 in 12 minimum. Rooftop equipment screens may be of the same material. Roof Panels: Panels shall be 22 – 24 gauge standing seam metal. Roof deck assemblies shall be Class 90 as defined in UL 580. Length of sheet shall be sufficient to cover the entire length of any unbroken roof slope when such slope is 9000 mm or less. When length of run exceeds 9000 mm and panel splices are provided, each sheet in the run shall extend over three of more supports. Sheets longer than 9000 mm may be furnished if approved by the Contracting officer. Width of sheets shall provide not more than 450 mm of coverage in place. SSMRS with roofing panels greater than 300 mm in width shall have standing seams rolled during installation by an electrically driven seaming machine. Height of standing seams shall be not less than 60 mm. All sheets shall be cut in the shop to correspond to the roof slope and may have a horizontal joint at the eave line.

Steel Panels: Zinc-coated steel conforming to ASTM A 446, G 90 coating designation. Panels shall be 22 – 24 gauge.

Aluminum Panels: Alloy conforming to ASTM B 209, temper as required for the forming operation, minimum 0.8 mm thick.

Performance Standards: The SSMRS shall be tested for wind uplift resistance in accordance with ASTM E 1592. The uplift resistance of the SSMRS shall be established as indicated in the "STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SSMRS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE". The SSMRS design shall be adequate for uplift if the established allowable pressure from testing causes no failure as defined in the Corps of Engineers' STANDARD TEST METHOD FOR STRUCTURAL PERFORMANCE OF SSMRS BY UNIFORM STATIC AIR PRESSURE DIFFERENCE. Testing to ultimate capacity is not required.

Factory Color Finish: Roof panels shall have a factory finish on the exposed side. The exterior finish shall consist of a polyvinylidene fluoride coating. Finish shall be coil-coated custom color. The Contracting Officer shall approve color. The dry film thickness of the exterior coating shall be not less than O.8 mil over a primer coat with a dry film thickness of 0.3 mils. The interior color finish shall consist of a mill finish. The exterior color finish shall meet the test requirements specified below. The manufacturer shall have conducted tests on previously manufactured sheets of the same type and finish

as proposed for the project. The term "appearance of base metal" refers to the metal coating on the steel base metal. The dry film thickness of the interior prime coat shall be not less than 0.3 mils.

Testing Requirements

Salt Spray Test: A Sample of the sheets shall withstand a salt spray test for a minimum of 1000 Hours in accordance with ASTM B 117, including the scribe requirements in the test. Immediately upon removal of the panel from the test, the coating shall receive a rating of 10, no blistering, as determined by ASTM D 714; And rating of 7, .06 mm failure at scribe, as determined by ASTM D 1654.

Formability Test: When subjected to a 180-degree bend over a 10 mm diameter mandrel in accordance with ASTM D 522, Exterior coating film shall show no evidence of fracturing to the naked eye.

Accelerated Weathering, Chalking Resistance and Color Change: A sample of the sheets shall withstand a weathering Test a minimum of 2000 hours in accordance with ASTM G 23 using a Type D apparatus, without cracking, peeling, blistering, loss of adhesion of the protective coating, or corrosion of the base metal. Protective coating that can be readily removed from the base metal with tape in accordance with ASTM D 3359, Test Method B, shall be considered as an area indicating loss of adhesion. After the 2000- hour weatherometer test, exterior coating shall not chalk greater than No. 8 rating in accordance with ASTM D 4214 test procedures. After the 2000-hour weather meter test, exterior coating color change shall not exceed 2 NBS units in accordance with ASTM D 2244.

Humidity Test: When subjected to a humidity cabinet test in accordance with ASTM D 2247 for 1000 hours, a scored panel shall show no signs of blistering, cracking, creep age or corrosion.

Impact Resistance: Factory-painted sheet shall withstand direct and reverse impact in accordance with ASTM D 2794 equal to 1.5 times metal thickness in mils, expressed in inch-pounds, with no loss of adhesion.

Abrasion Resistance Test: When subjected to the failing sand test in accordance with ASTM D 968 the coating system shall withstand a minimum of 80 liters of sand before the appearance of the base metal.

Specular Gloss: Finished surfaces shall have a specular gloss of 20 or less at an angle of 60 degrees when measured in accordance with ASTM D523.

Pollution Resistance: Coating shall show no visual effects when immersion tested in a 10 percent hydrochloric acid solution for 24 hours in accordance with ASTM D 1308.

Accessories: Accessories shall be furnished with the Standing Seam Metal Roof System. Flashing, gutters, soffits, fascias, trim, metal closure strips, caps, snow guards, and similar metal accessories shall be not less than the minimum thickness specified for roofing panels. Exposed metal accessories shall be finished to match the panels furnished. Molded closure strips shall be closed-cell or solid-cell synthetic rubber or neoprene, or polyvinyl chloride; premolded to match configuration of the covering and shall not absorb or retain water. Thermal spacer blocks and other thermal barriers at concealed clip fasteners shall be as recommended by the manufacturer.

Fasteners: Concealed fasteners for steel roof panels shall be zinc-coated steel, aluminum, corrosion resisting steel, or nylon capped steel, type and size specified below or as otherwise approved for the applicable requirements. Concealed fasteners for aluminum roof panels shall be aluminum or corrosion resisting steel. Fasteners for structural connections shall provide both tensile and shear strength of not less than 350 kilograms per fastener. Fasteners for accessories shall be the manufacturer's standard. Exposed roof fasteners shall be gasketed or have gasketed washers on the exterior side of the covering to waterproof the fastener penetration. Washer material shall be compatible with the covering; have a minimum diameter of 10 mm for structural connections; and gasketed portion of fasteners or washers shall be neoprene or other equally durable elastomeric material approximately 3 mm thick.

Screws: Screws shall be as recommended by the manufacturer to meet the strength design requirements of the panels.

Bolts: Bolts shall be not less than 6 mm diameter, shouldered or plain shank as required, with locking washers and nuts.

Structural Blind Fasteners: Blind screw-type expandable fasteners shall be not less than 6 mm diameter. Blind rivets shall be .28 mm minimum diameter.

Insulation: Insulation shall be installed on top of the roof deck. Insulation shall not be exposed to exterior. Thermal resistance of insulation shall be not less than the R-30. R-values shall be determined at 75 degrees F in accordance with ASTM C 518. Insulation shall have a flame spread not in excess of 25 and a smoke developed rating not in excess of 50 when tested in accordance with ASTM E 84; shall be a standard product of a manufacturer, factory-marked or identified with manufacturer's name or trademark and R-value. Identification shall be on individual pieces or individual packages. Facing shall be white, either of reinforced foil with a vinyl finish or sheet vinyl except unreinforced foil with a natural finish may be used in concealed locations. Insulation shall have a facing providing a permeability of 0.02 perm or less when tested in accordance with ASTM E 96. Facing shall be of 2 mil thick white vinyl backed with 150 mm by 150 mm glass scrim and 0.7 mil thick metal foil laminate. Reinforced foil with a natural finish may be used for facing in concealed locations. Facings and finishes shall be factory applied.

Rigid or Semi-rigid Board Insulation: Rigid board insulation shall conform to ASTM C 612, Form A, Class 1.

Blanket Insulation: Blanket insulation shall conform to FS HH-ISS8, Form B, Type I, Class 6. Exposed insulation shall have a white sheet vinyl face. Insulation shall not be exposed to exterior.

Insulation Retainers: Insulation retainers shall be type, size, and design necessary to adequately hold the insulation and to provide a neat appearance. Metallic retaining members shall be nonferrous or have a nonferrous coating. Nonmetallic retaining members, including adhesives used in conjunction with mechanical retainers or at insulation seams shall have a fire resistance classification not less than that permitted for the insulation.

Concealed Anchor Clips: Concealed anchor Clips shall be as recommended by the manufacturer for the roofing system furnished. Clip bases shall have factory punched or drilled holes for attachment. Clips used with panel width greater than 300 mm shall be made from multiple pieces with the allowance for the total thermal movement required to take place within the clip.

Sealant: Except as stated below, sealants shall be elastomeric type containing no oil or asphalt. Exposed sealant shall cure to a rubber like consistency. All sealants shall be the non-hardening type. Roof panel standing seam ribs shall have continuous sealant that is factory installed.

Gaskets and Insulating Compounds: Gaskets and insulating compounds shall be non-absorptive and suitable for insulating contact points of incompatible materials. Insulating compounds shall be non-running after drying.

Sub-purlins: Sub-purlins, when required by the system design, shall be formed from steel sheet as standard with the manufacturer. The uncoated thickness may be a minimum of 1.5 mm if bolts or structural blind fasteners are used for attachment of the concealed anchor Clips to the sub purlins.

Vapor Retarder: Vapor retarder material shall be polyethylene sheeting conforming to the requirements of ASTM D 4397. A fully compatible tape shall be provided which has equal or better water vapor control characteristics than the vapor retarder material. A general-purpose tape, which has some resiliency and cushioning abilities, shall also be provided.

EPDM Rubber Boots: Flashing devices around pipe penetrations shall be flexible, one-piece devices molded from weather-resistant EPDM rubber. Rubber boot material shall be as recommended by the manufacturer. The boots shall have base rings made of aluminum or corrosion resisting steel that conform to the contours of the roof panel to form a weather-tight seal.

Gutters and Downspouts: Provide eave-mounted gutters on all roof sections. Provide downspouts for all gutter locations. Roof water shall be channeled into an underground storm water collection system by way of cast iron boots (at grade) and underground PVC piping connected to the storm water system.

Warranties: The SSSMR system shall be warranted as outlined below. Any emergency temporary repairs conducted by the owner shall not negate the warranties. Such warrantees shall start upon final acceptance of the work or the date the Government takes possession, whichever is earlier.

Contractor's Weather Tightness Warranty: The SSSMR system shall be warranted by the Contractor on a no penal sum basis for a period of five years against material and workmanship deficiencies; system deterioration caused by exposure to the elements and/or inadequate resistance to specified service design loads, water leaks, and wind uplift damage. The SSSMR system covered under this warranty shall include the entire roofing system including, but not limited to, the standing seam metal roof panels, fasteners, connectors, roof securement components, and assemblies tested and approved in. In addition, the system shall consist of panel finishes, slip sheet, insulation, vapor retarder, all accessories, components, and trim and all connections with roof panels. This includes roof penetration items such as vents, curbs, and skylights; gutters and downspouts; eaves, ridge, hip, valley, rake, gable, wall, or other roof system flashings installed and any other components specified within the contract to provide a weather tight roof system; and items specified in other sections of the specifications that are part of the SSSMR system. All material and workmanship deficiencies, system deterioration caused by exposure to the elements and/or inadequate resistance to specified design loads, water leaks and wind uplift damage shall be repaired. This warranty shall warrant and cover the entire cost of repair or replacement, including all material, labor, and related markups. The Contractor shall supplement this warranty with written warranties from the installer and system manufacturer, which shall be submitted along with Contractor's warranty; however, the Contractor shall be ultimately responsible for this warranty. The Contractor's written warranty shall be as outlined in the Corps Of Engineers Guide Specifications for WARRANTY FOR STRUCTURAL STANDING SEAM METAL ROOF (SSSMR) SYSTEM, and shall start upon final acceptance of the facility. It shall be required that the Contractor provide a separate bond in an amount equal to the installed total roofing system cost in favor of the owner (Government) covering the Contractor's warranty responsibilities effective throughout the five year Contractor's warranty period for the entire SSSMR system as outlined above.

Manufacturer's Material Warranties: Contractor shall furnish, in writing, the following manufacturer's material warranties which cover all SSSMR system components such as roof panels, anchor clips and fasteners, flashing, accessories, and trim, fabricated from coil material.

A manufacturer's 20 year material warranty warranting that the aluminum, zinc-coated steel, aluminum-zinc alloy coated steel or aluminum-coated steel as specified herein will not rupture, structurally fail, fracture, deteriorate, or become perforated under normal design atmospheric conditions and service design loads. Liability under this warranty shall be limited exclusively to the cost of either repairing or replacing nonconforming, ruptured, perforated, or structurally failed coil material.

A manufacturer's 20 year exterior material finish warranty on the factory colored finish warranting that the finish, under normal atmospheric conditions at the site, will not crack, peel, or delaminate; chalk in excess of a numerical rating of eight as determined in ASTM D 4214 test procedures; or change color in excess of five CIE or Hunter Lab color difference (delta E) units in accordance with ASTM D 2244. Liability under this warranty is exclusively limited to refinishing with an air-drying version of the specified finish or replacing the defective coated material.

A roofing system manufacturer's 20-year system weather tightness warranty.

Sheet Metalwork: Flashing shall be installed in conformance with the SMACNA Architectural Sheet Metal Manual.

Low-sloped Roof: Membrane roofing shall be prefabricated modified bitumen type, reinforced with fibrous glass and be non-reactive with kitchen-produced grease and oils, installed on rigid insulation over structural deck. Walkways/traffic surfaces shall be provided to all equipment.

Warranty: The manufacturer's standard material warranty for the roofing system shall be provided, for not less than 20 years from acceptance of the work. Defective materials shall be repaired or replaced if the roof system leaks or allows the insulation below to become wet during the warranty period.

3.5 INSULATION

Provide the minimum insulation values as follows:

RSI Value "U" Value Equivalent Gross Wall 0.052, Roof 0.033.

Gross Wall U-factor is the U-factor sum of each wall component (opaque wall, windows, doors, openings, etc.) times the area of that wall component, the sum divided by the total wall area.

Thermal and sound insulation shall have a flame spread rating of 25 or less and a smoke development rating of 50 or less exclusive of the barrier when tested in accordance with ASTM E-84. A vapor barrier shall be provided on the warm side of exterior and ceiling/roof insulation where it occurs. Insulation shall have a facing providing permeability of 0.2 perm or less when tested in accordance with ASTM E 96.

Mechanical Room shall have direct exterior access. Doorways and mechanical rooms shall be sized to permit maintenance and replacement of equipment located inside. Any mechanical/electrical equipment put on the exterior of these rooms shall be located inside an enclosure wall of the same material as the exterior building wall, and shall extend to a height that conceals the equipment (not less than 2000 mm tall). Equipment in this enclosure shall have a minimum 1000 mm clearance on all sides.

3.6 MATERIALS
All walls at inhabited buildings shall meet the requirements of Table 3.2.

Concrete Walls: Minimum wall reinforcing shall be 0.25% steel in a 9-inch thick concrete wall. Walls shall be designed to span vertically and have fixed-fixed end conditions. Walls shall not be tied to the columns. Reinforcing steel interrupted by openings in the wall shall be supplemented by reinforcing steel on either side of the opening. Reinforced concrete building walls shall be designed using standoff distances from the compound perimeter wall and Table 3.2. Each wall shall be designed independently based on standoff distance from the compound perimeter wall.

Pre-engineered Metal Buildings if used shall conform to all requirements in Uniform Facility Guide Specification (UFGS) SECTION 13120 PREENGINEERED METAL BUILDINGS

Brick: Grade SW shall be used for brick in contact with earth or grade and for all exterior work. Grade SW or MW shall be used in other brickwork. Brick shall be tested for efflorescence. Clay or shale brick units shall be delivered factory-blended to provide a uniform appearance and color range in the completed wall. Solid clay or shale brick shall conform to ASTM C 216, Type FBX. Minimum compressive strength of the brick shall be 3000 psi.

Concrete Masonry Units: If used, hollow and solid concrete masonry units shall conform to ASTM C 90, Type I, Normal weight. Cement shall have low alkali content and be of one brand. Units shall be modular in size and shall include closer, jamb, header, lintel, and bond beam units and special shapes

and sizes to complete the work. Units used in exposed masonry surfaces shall have a uniform fine to medium texture and a uniform color. Concrete masonry units used in fire-rated construction shall be of minimum equivalent thickness for the fire rating indicated.

Steel Framing: If used, steel framing shall conform to American Iron and Steel Institute (AISI), Cold Formed Steel Design Manual, American Institute of Steel Construction (AISC) ASD, Manual of Steel Construction,
Allowable Stress Design, and TI 809-07, Design of Cold-Formed Load Bearing Steel Systems and Masonry Veneer/Steel Stud Walls. Cold-formed framing shall consist of steel studs, top and bottom tracks, runners, horizontal bridging, and other cold-formed members and other accessories. All members and components made of sheet steel shall be hot-dip galvanized in accordance with ASTM A 653/A 653M with a minimum coating thickness of G 60. This framing shall be used only in framing the exterior masonry veneer steel stud wall system.

Wood Framing: If used, wood framing shall conform to American Forest and Paper Association (AF & PA) Manual For Wood Frame Construction and National Design Specification For Wood Construction, AF & PA T01.

Caulking and Sealants: Caulking and sealants shall be selected according to materials it is being applied to for compatibility. These sealants and caulks shall be of either a two-component, rubber base; chemical-curing compound based on polysulfide and/or polyurethane; or a single-component, rubber base, chemical curing compound such as polysulfides, polyurethanes, and silicones. Caulking shall occur around all door frames, all window frames, and at all material changes. The minimum joint width shall be 6 mm, and joint widths in excess of 6 mm shall have a backstop material provided in the joint, and the depth of all joints shall be equal to the width. Color to match adjacent materials.

3.7 INTERIOR CONSTRUCTION

Interior Partitions: Heights shall be minimum 2400 mm. Interior partitions shall either be steel stud with gypsum wallboard finish or Concrete Masonry Unit Partitions (CMU) with veneer plaster or gypsum wallboard finish. Interior partitions shall span floor to ceiling in all occupancies. All corridors in basement locations shall be constructed of floor to ceiling reinforced Concrete Masonry Unit Partitions (CMU).

Concrete Masonry Unit Partitions (CMU): If used, hollow and solid concrete masonry units shall conform to ASTM C 90, Type I, Normal weight. Cement shall have low alkali content and be of one brand. Units shall be modular in size and shall include closer, jamb, header, lintel, and bond beam units and special shapes and sizes to complete the work. Units used in exposed masonry surfaces shall have a uniform fine to medium texture and a uniform color. Concrete masonry units used in fire-rated construction shall be of minimum equivalent thickness for the fire rating indicated.

Steel Framing: If used, Cold-formed framing shall consist of steel studs, top and bottom tracks, runners, horizontal bridging, and other coldformed members and other accessories. All members and components made of sheet steel shall be hot-dip galvanized in accordance with ASTM A 653/A 653M with a minimum coating thickness of G40. Studs shall conform to ASTM C 645. Studs shall be C-shaped, roll formed steel with minimum uncoated design thickness of .72 mm.

Concrete Masonry Unit Partitions (CMU): If used, hollow and solid concrete masonry units shall conform to ASTM C 90, Type I, Normal weight. Cement shall have low alkali content and be of one brand. Units shall be modular in size and shall include closer, jamb, header, lintel, and bond beam units and special shapes and sizes to complete the work. Units used in exposed masonry surfaces shall have a uniform fine to medium texture and a uniform color. Concrete masonry units used in fire-rated construction shall be of minimum equivalent thickness for the fire rating indicated.

Gypsum Wallboard: Gypsum wallboard shall conform to the requirements of ASTM C36 and be 1200 mm wide, 16 mm thick and tapered edged. Steel framing, furring, and related items shall conform to the

requirements of ASTM C645 and C955 where applicable. Joint treatment materials shall conform to the requirements of ASTM C475. Screws shall conform to the requirements of ASTM C 1002 and C 954 where applicable. Corner beads, edge trim, and control (expansion) joints shall conform to the requirements of ASTM C1047, and shall be corrosion protective-coated steel design 11 for its intended use. Flanges shall be free of dirt, grease, and other materials that may adversely affect the bond of joint treatment.

Acoustical Ceilings: Acoustical ceiling tile shall conform to ASTM E1264; Class A. Panel size shall be 600 mm by 600 mm. The suspension system shall conform to ASTM C635. Compression struts shall be provided at 3600 mm intervals in both directions and shall be provided 1200 mm from each wall. Hanger wires shall be provided, splayed in four directions from each compression strut and through the compression strut to the structure above per TI 809-04, Seismic Design for Buildings. Size and diameter of strut shall be derived from a standard table or arrived at by engineering calculations.

Wood Doors: Interior doors shall be 45 mm solid core flush wood doors, stain to match wood finish throughout the facility, plain sliced red oak solid core doors. Door lites on interior doors shall be sized in accordance with building codes and positioned at a height above finished floor to allow vision on both sides.

Glazing: Glass on exterior shall conform to Force Protection requirements. Interior glazing shall conform to the requirements of ASTM C1036. Glass in doors and adjacent to doors shall conform to the requirements of CFR 16 Part 1201. Glazing of interior vision panels shall conform to CFR 16 Part 1201.

Raised Floor: Raised Floor shall be all steel interchangeable square panels 600mm X 600 mm, height above finish floor as specified in RFP. Provide steps, stairs, and ramps as required. Assembly shall be designed for the highest earthquake zone. Design shall be bolted stringer capable of withstanding a 12,500 lb. uniform load and a 500 lb. rolling load. Provide two (2) panel lifting devices per room.

Ceramic Tile: Tile shall be standard grade conforming to ANSI A137.1. Tile shall be impact resistant with a minimum breaking strength for wall tile of 90 lbs and 250 lbs for floor tile in accordance with ASTM C 648. Water absorption shall be 0.5 maximum percent in accordance with ASTM C 373. Floor tile shall have a minimum static coefficient of friction of 0.5 in accordance with ASTM C 1028. Tile shall be Class III as rated by the manufacturer when tested in accordance with ASTM C 1027 for abrasion resistance as related to foot traffic. Ceramic mosaic tile and trim shall be unglazed natural clay with cushion edges. Tile size shall be 50 mm x 50 mm. Glazed wall tile and trim shall be cushion edged with matte glaze. Tile shall be 100 mm x 100 mm or 150 mm x 150 mm.

Tile setting Bed: The setting-bed shall be composed of Portland cement, sand, water, and hydrated lime. Portland cement shall conform to ASTM C 150, Type I, white for wall mortar and gray for other uses. Sand shall conform to ASTM C 144. Hydrated lime shall conform to ASTM C 206, Type S or ASTM C 207, Type S. Water shall be potable.

Tile Backer Board: All ceramic wall tiles shall be backed with cementitious backer board.

Mortar and Grout: Dry-set Portland cement Mortar shall conform to ANSI A118.1. Latex portland cement Mortar shall conform to ANSI A118.4. Ceramic tile Grout shall conform to ANSI A118.6. Tile Backer Board shall comply with ANSI A118.9. Tile adhesives shall not be used for this project.

Marble Thresholds: Marble shall be Group A as classified by MIA- 01. Marble shall have a fine sand-rubbed finish and shall be white in color as approved by the Contracting Officer. Marble abrasion shall be not less than 12.0 when tested in accordance with ASTM C 241.

Porcelain Paver Tiles: Porcelain paver tiles shall be of standard grade quality and shall conform to requirements of ANSI A137.1, ASTM C373, ASTM C501, and ASTM C648. Coefficient of friction shall be minimum O.S. Unglazed porcelain tile shall be unpolished. Porcelain tile shall be furnished in nominal 300 mm x 300 mm size. Base shall be cove type with inside and outside corners.

Resilient Flooring: Sheet vinyl shall conform to FS LF 475A (3) Type II; Grade A. Static load limit according to ASTM F 970 shall be not less than 12.5 psi. Sheet vinyl flooring shall be not less than 1800 mm wide and shall have an alkali and moisture resistant backing. Color and pattern shall be dispensed uniformly throughout the thickness of the wear layer. Integral (flash) cove is created by extending the sheet vinyl 100 mm up the wall supported by a cove stick having a minimum radius of 23 mm and adhering to the wall with manufacturer's suggested adhesive and heat welding the seams. The integral coving shall be capped with an approved cap strip installed in accordance with the manufacturer's recommendations. Wall base shall conform to FS SS-W-40, Type I or Type II; Style B. Base shall be 100 mm high, minimum 2 mm thick. Edge strips of vinyl plastic, 25 mm wide and of thickness to match flooring. Adhesive for flooring', integral coving and wall base shall be as recommended by the flooring manufacturer. To create seams that provide a strong barrier against dirt and moisture penetration, the seams shall be heat welded per manufacturer's recommendations. Polish shall conform to FS 2F 430 or FS PW 155.

Firestopping: Material shall have a flame spread of 25 or less, a smoke developed rating of 50 or less, and a fuel contribution of 50 or less when tested in accordance with ASTM E 84 or UL 723. The materials shall be nontoxic to human beings at all stages of applications and during fire conditions. Firestopping materials for through penetrations of fire resistance rated construction shall provide fire resistance rating in accordance to ASTM E 814 or UL 1479. Firestopping materials for construction joints in fire resistance rated construction shall provide a fire resistance rating in accordance to ASTM E 119 or UL 263. Construction joints include those joints used to accommodate expansion, contraction, wind or seismic movement of the building. Material shall be non-combustible when tested in accordance with ASTM E 136.

Painting: Interior surfaces, except factory prefinished material or interior surfaces receiving acoustical wallcovering or vinyl wallcovering, shall be painted a minimum of two prime coats and one finish coat. The prime coats for concrete masonry units shall be TT-F-1098. All spaces shall have satin or eggshell or semi-gloss finish on walls, semi-gloss finish on trim and eggshell or semi-gloss finish on ceilings. Stain or natural finished interior wood doors are preferable. Multi-colored paint systems shall be applied according to manufacturer's installation instructions and warranty. All exterior surfaces to be painted, including all utility appendages shall receive a minimum of one prime coat and two finish coats of paint. Water repellent sealer shall be clear, water repellent solution designed to protect vertical concrete masonry surfaces from water penetration. Application of paint. Paint shall be applied by brush or roller. Spray painting method shall be used only under approved conditions. Before start of spraying, all surfaces that do not require painting shall be completely masked and protected. Adequate drop cloths shall be provided over floors that may be stained or damaged from the spray work. The Contractor shall be liable for all damage resulting from the spray painting operation. All such damages shall be satisfactorily repaired and resolved at no additional cost to the Government. Adequate ventilation shall be provided during paint application. All persons engaged in spray painting shall wear respirators. Adjacent areas shall be protected by approved precautionary measures. Paints shall comply with State Regulations and the following Federal and Military Specifications. No lead paints are acceptable. Interior latex paints are not permitted in toilet rooms. Colors shall be as approved from schemes submitted with proposal. Each proposal shall include one basic exterior and interior color coordinated schemes and color samples. Pipes in exposed areas and in accessible pipe spaces shall be provided with color band and titles in accordance with Mil-Std. Coat floor of mechanical room with a polyurethane coating to resist oil and chemical spillage and stains.

Fire Extinguishers: Fire extinguisher cabinets shall be provided complete with 4.5 kilogram ABC fire extinguishers recessed into wall. Cabinets shall be located in accordance with NFPA standards. Fire extinguisher cabinets shall be recessed and cabinets shall have factory-finished color to match adjacent wall, with a clear, break glass door. Cabinet box shall be 18 gauge steel with satin stainless finish. Stainless steel door and trim shall be one-piece construction with a continuous hinge and door shall be lockable. Trim shall be rolled edge and finished in satin stainless finish. Door shall be 16 mm thick, one-piece hollow steel, full glazed steel frame with rubber roller catch and satin finish door handle, and brushed aluminum to match hardware finish. As a minimum, provide fire extinguisher cabinets in the

following quantities: one each in Mechanical/Electrical room(s) and in each corridor. Cabinets shall be located in accordance with the provisions of NFPA 10, which may require more than those listed here due to travel distance.

Expansion Joint Covers: Expansion joint covers if required shall be constructed of extruded aluminum with anodized satin finish for walls and ceilings and with standard mill-finish for floor covers and exterior covers.

Casework: All Casework shall meet the requirements of the Architectural Woodwork Quality Standards, Guide Specifications and Quality Certification Program as set forth by the Architectural Woodwork Institute for architectural cabinets with high-pressure decorative laminate (HPDL) Quality shall be custom grade. See section below for solid surface countertops and solid surface countertops with integral sinks.

Solid Surfaces: Solid surface components shall be solid, non-porous polymer, not coated, laminated or of composite construction similar to “Santana” or approved equal. Materials shall have minimum physical and performance properties specified. Superficial damage to a depth of 2.5 mm shall be repairable by sanding or polishing. Material for toilet partitions shall be standard 25 mm thick. Material for Counter tops and windowsills shall be standard 12 mm thick. Lavatory/sinks shall be an integral part of the counter top. Lavatory/sinks shall be attached by a seamed under mount method. Material shall be a small scale, variegated pattern to the extent possible. Solid color solid surface shall not be used. Color should be in light to medium tones as dark colors tend to show scratches and water spots more readily. Lavatory counters and toilet partitions shall be of a color to accent the finish colors in the room in which the solid surfacing material is scheduled. Sheen shall be matte satin. Edge treatment shall be eased, rounded edges.

Blinds shall be provided at all exterior windows with the exception of entrance. Horizontal blinds shall conform to FS AA-V-00200, Type 11, 25 mm slats, except as modified below. Blind units shall be capable of nominally 190-degree partial tilting operation and raising full-height. Blinds shall be inside mount. Head Channel and Slats: Head channel shall be steel not less than 0.6 mm for Type II. Slats shall be aluminum, not less than 0.2 mm thick, and of sufficient strength to prevent sag or bow in the finished blind. A sufficient amount of slats shall be provided to assure proper control, uniform spacing, and adequate overlap. Controls: The slats shall be tilted by a transparent tilting wand, hung vertically by its own weight, and shall swivel for easy operation. The tilter control shall be of enclosed construction. All moving parts and mechanical drive shall be made of compatible materials, which do not require lubrication during normal expected life. The tilter shall tilt the slats to any desired angle and hold them at that angle so that any vibration or movement of ladders and slats will not drive the tilter and change the angle of slats. A mechanism shall be included to prevent over tightening. The wand shall be of sufficient length to reach to within 1500 mm of the floor. Cord Manager shall be installed 1400 mm above the finished floor. Intermediate Brackets: Intermediate brackets shall be provided for installation of blinds over 2100 mm wide or over 2500 mm long and shall be installed as recommended by the manufacturer.

Chair Rails and Corner Guards: Chair rails and corner guards shall be provided in dining areas. Corner guards shall be used on all outside corners where vinyl wall covering or paint system occurs. Chair rails shall be wood to match wood finishes throughout this facility. Corner guards shall be high impact, plastic in accordance with ASTM D 256. Corner guards shall be floor (top of wall base) to ceiling in rooms with 2700 mm or less ceilings. Exposed surfaces are unacceptable. To the maximum extent possible, the products shall be the standard products of a single manufacturer. Installation shall be in accordance with the manufacturer's written instructions.

Recessed Foot Grille: Recessed foot grille at each exterior door or doors 1 meter long X width of door and recessed into concrete stoop. Tread rails shall be spaced 50 mm deep X 38 mm on center running perpendicular to traffic flow. Tread rails, shall be welded to frame. Entire assembly shall be hot dipped galvanized.

3.8 HARDWARE

All finish hardware in this building shall be consistent thought and shall be a brushed stainless steel #4 or satin chrome finish.

Hinges: Exterior hinges shall have non-removable pins and be stainless steel; Grade 1 anti-friction or ball bearing; and 3 each of 115 mm x 115 mm per leaf up to 900 mm wide door 125 mm x 125 mm for doors 900 mm to 1200 mm wide. Interior hinges shall be Grade 1; antifriction or ball bearing; and 3 each of 115 mm x 115 mm per leaf up to 900 mm wide door 125 mm x 125 mm for doors 900 mm to 1200 mm wide Hinges for labeled fire doors must be either steel or stainless steel. Hinges shall conform to ANSI/BHMA A156.1 and A156.7.

Locksets, Latchets, Exit Devices, and Push and Pull Plates: Exterior doors shall have mortise locks conforming to ANSI/BHMA A156.13 for metal doors. Emergency exit devices shall be Grade 1, flush mounted type. Interior doors shall have mortise locksets conforming to ANSI/BHMA A156.13, Series 1000, Grade 1. All locks and latchsets shall be the product of the same manufacturer. Locksets and latchsets shall be provided, as required, with lever handles on each side.

Cylinders: Lock cylinders shall comply with BHMA A156.5. Lock cylinder shall have seven pins. Cylinders shall have key removable type cores. Provide an extension of the existing keying system. Construction cores shall be provided. All locksets, exit devices, and padlocks shall accept same interchangeable cores.

Closers: Closers shall be provided on all exterior doors and fire-rated doors. Closers shall conform to ANSI/BHMA A156.4, Grade 1. Closers shall be surface-mounted, modern type, with cover. Closers shall be provided with options PT-4F and PT-4H (delayed action and barrier free).

Thresholds: All exterior doors (except Mech/Elect rooms) shall be provided with aluminum thresholds conforming to ANSI/BHMA A156.21. Doors at ceramic tile flooring shall be provided with marble thresholds.

Kick Plates and Mop Plates: Metal Kick plates or mop plates shall be provided on all wood doors. Match metal finish with door hardware finish as specified in this section. Kick plates and mop plates shall comply with ANSI/BHMA A156.6, shall be 400 mm high by 50 mm less than width of door. Edges shall be beveled.

Door Stops: Doorstops shall be provided on all exterior and interior doors. Doorstops shall comply with ANSI/BHMA A156.16 and shall be satin chrome bronze, Grade 1.

3.8.1 Master Keying

All submittals/shop drawings referring to keys and keying shall be submitted to the Contracting Officer for coordination and approval. A key cabinet shall be provided with a capacity 50% greater than the number of key changes used for door locks. Location of Key cabinet shall as directed by Contracting Officer.

Lock cylinder shall have not less than seven pins Small Format Interchangeable Core (SFIC)" manufactured by Best lock company. A grand master keying system shall be provided from the factory with and a construction master keying system shall be provided. Master keys and permanent cores shall be sent to the Corps directly from manufacture and installed by contractor per COR’s direction. Construction cores shall be returned to the Contractor.

Locks shall be keyed in sets or subsets as directed by the Contracting Officer. Locks shall be furnished with the manufacturer's standard construction key system. Change keys for locks shall be stamped with change number and the inscription "Do Not Duplicate". Keys shall be supplied as follows:

Locks: 3 change keys each lock
Master keyed sets: 3 keys each set
Grand Master keys: 10 total
Construction keys: 10 total

3.9 SIGNAGE

Interior Signs: Interior signage shall be provided so that a visitor entering the facility would be able to use them to find a given destination. Interior signs are to be provided as follows:

Identification Signs. Signs in this category consist of office, module room identification and service identification. Office identification signs consist of a permanent header panel with the room number and an insert panel that identifies the occupant. The insert panel is a clear sleeve, which will accept a plastic insert with the name of the occupant. Permanent header panel dimensions: 230 mm x 75 mm. The insert panel dimensions: 230 mm x 75 mm overall sign dimensions: 230 mm x 300 mm. Room number shall be Helvetica medium, 38 mm numbers, flush left. Occupant name shall be upper and lower case Helvetica medium, 12 mm capital letter height, flush left. Insert area will accommodate two lines with a maximum of 21 tiles or characters per line.

Service identification signs are used to identify toilet rooms and other like services. Service signs dimensions: 150 mm x 230 mm. The standard pictograph symbols shall be used. Service name shall be Helvetica medium upper and lower case, 25 mm capital letter height, centered. Identification signs shall consist of a permanent header panel with the room number. There will be one insert panel. The panel will contain the room name. Overall sign dimension shall be 150 mm x 150 mm. Room number shall be Helvetica medium, 38 mm numbers, flush left. The contracting officer shall approve signage.

Exterior Signs: Exterior signage shall be provided so that a visitor entering the facility would be able to use them to find a given destination. Provide signs that comply with the sign standards provided in TM 5-807-10; "Signage". Contractor shall provide drawings indicating Sign Placement Plan and details of signs. The contracting officer shall approve signage.

3.10 INTERIOR FINISHES

Interior finishes and materials shall be specified with durability, maintenance, function, life cycle costs, code requirements and aesthetics being considered. Finishes and materials shall support the architectural elements and reflect the image and style of the using agency.

One species of wood and/or stain to represent one species of wood shall be specified throughout the entire facility. This encompasses doors, casework, chair rails, trim etc.

Upon the completion of construction, the Contractor shall provide and deliver at no additional cost, to the Contracting Officer, one percent extra of each color and texture of paver tile, ceramic tile, base, carpet, acoustical ceiling tile, wall covering and sheet vinyl of each total amount of each item used on the project.

INTERIOR COLORS

Finish and color selection shall be appropriate to the interior design intent to support the occupants, their activities and their customers.

Permanent finishes include paver tile, ceramic tile, chair rails, plastic laminates, solid surface materials, and horizontal blinds.

Non-permanent finishes include carpet, paint and other items that are relatively easy and inexpensive to replace.

Colors and finishes shall be selected based on durability, maintenance, life cycle costs, code requirements, appearance and functional considerations. Variegated finishes and patterns are recommended to be implemented to the maximum extent possible as solids show wear and tear. Integral color and color through finishes shall be specified where applicable. Provide two color schemes 1 for Administration and 1 for Personnel Housing for COR approval. All colors to be used for entire project shall be submitted for approval prior to ordering material.

FURNITURE PLAN:

Provide furniture placement floor plan of all rooms showing each furniture component in the room. Provide a Furniture Placement Plan for each room that contains furniture. Furniture Placement Plans shall be at 1:50 or at 1:100 if the room is large. Furniture Plan shall be an entire floor plan for building or wing. Provide plan as part of drawing package.

The footprint of the room

The furniture/furnishings

The room names and number

A Furnishing name for each item

4.0 HEATING, VENTILATING AND AIR CONDITIONING (HVAC)

General

Final design analysis of HVAC systems shall be provided, including final load calculations and psychometric analysis. Final temperature control design drawings shall be provided. Final HVAC system drawings shall be provided, including sections of the mechanical room and congested areas where equipment, ductwork, piping is to be located. Provide separate drawings for HVAC ducts, fire sprinklers, piping and plumbing piping. Final equipment sizing and selections shall be provided for major items. Criteria listed under references shall be used in the design process. Coordinate HVAC systems with electrical light fixtures, multiple cable trays, fire sprinklers, and plumbing especially in corridors.

Submittals

Design submittals shall be in accordance with Section 01012, Design after Award. HVAC system construction shall not begin until HVAC final design has been reviewed and cleared for construction by the government. All submittals shall include adequate descriptive literature, catalog cuts, and other data for the government to ascertain that the proposed equipment and materials comply with this RFP. Catalog cuts submitted for information shall be legible and clearly identify equipment being submitted. Submittals for individual systems and equipment, assemblies that consists of more than one item or component, shall be made for the system or assembly as a whole.

Equipment

All equipment shall be factory packaged and tested. Use products of one manufacturer where two or more items of the same kind of equipment are required. Access clearance around equipment shall be per manufacturer’s requirements/recommendations. Equipment efficiencies shall meet the minimum efficiency requirements indicated from ASHRAE 90.1-2001.

Governing Codes, Regulations and Standards

Heating, ventilation and air conditioning system design shall comply with ASHRAE Standard 90.1 and with the latest provisions of the following references (if there is any conflicts between the references the most stringent shall be used):

TI 800-01 Technical Instructions – Design Criteria
TI 800-03 Technical Requirements for Design-Build
UFC 3-410-01FA Mechanical Design – HVAC
UFC 3-410-02A HVAC Control Systems
UFC 3-430-01FA Heating and Cooling Distribution Systems
TI 810-91 Indoor Radon Prevention and Mitigation
TM 5-785 Weather Data
TM 5-802-1 Economic Studies
TM 5-805-4 Noise and Vibration
ANSI Standards
ASHRAE Handbooks
ASHRAE Standard 62-2001 Ventilation
ASME Standards
ASTM Standards
UL Standards
NFPA Standards, including:
- NFPA 10, Portable Fire Extinguishers, 2002 edition
- NFPA 70, National Electrical Code, 2005 edition
- NFPA 72, National Fire Alarm Code, 2002 edition
- NFPA 90A, Air Conditioning and Ventilating Systems, 2002 edition
- NFPA 101, Life Safety Code, 2003 edition
- NFPA 110, Standard for Emergency and Standby Power Systems 2005

OSHA Safety and Health Standards
SMACNA Manuals and Guides
ICC International Mechanical Code (Latest Edition)
UFC 4-010-01 DOD Minimum Antiterrorism Standards for Buildings, 31 July 2002
TB MED 530, Occupational and Environmental Health Food Service Sanitation, November 1991
ASHRAE Standard 90.1-2001 Energy Standard for Buildings Except Low-Rise Residential Buildings
ACGIH-American Conference of Government Industrial Hygienists
UFC 3-600-01 Design: Fire Protection Engineering for Facilities
UFGS (Army Specifications)

Design Information

Outdoor Conditions. Use internationally recognized, weather data to establish outdoor conditions.

Indoor Heating and Cooling Conditions

Housing, Offices, Storage, Carryout, Toilets, Locker Room, Dining, Serving, Queuing Area, Lobby/Waiting, other areas not covered elsewhere

Summer: 23.9 degrees C, 50% RH
Winter: 20 degrees C,

Mechanical/Electrical Rooms

Summer: ventilate only, 5.6 degrees C above ambient
Winter: 12.8 degrees C

Laundry, Kitchen, Receiving, Kitchen Storage, Field Feeding, Pot & Pan Washing, and Dishwashing

Summer: 28.9

degrees C, 50% RH

Winter: 20

degrees C

Communications room

Summer/Winter:

23.9 degrees C, 50% RH

Janitor Closet

Summer: None

(Indirect Cooling from adjacent spaces)

Winter: 20

degrees C

Vestibules

Summer: None
Winter: 10

degrees C

Can Wash and Extractor Room

Summer: Ventilate

only, 5.6 degrees C above ambient, see ventilation requirements

Winter: 15.6

degrees C

Refrigerated Storage

Freezer: ------

-23.3 ±1.1 degrees C

Chill/Fruit: 80

±5% RH 1.7 ±1.1 degrees C

Cooks Box: 80

±5% RH 1.7 ±1.1 degrees C

Thaw Box: 80

±5% RH 3.3 ±1.1 degrees C

Unoccupied Setting

All AHU’s shall be setback during unoccupied hours to 12.8 degrees C in the winter and setup during unoccupied hours to 32.2 degrees C.

Ventilation

General

The following definitions apply: recirculated air is room air that can be returned for reuse. Non-recirculated air is room air that shall be exhausted. All areas located on the exterior wall shall be provided with positive pressure to prevent infiltration.

Offices, Carryout, Dining, Serving, Queuing Area, Lobby/Waiting, and other areas not covered elsewhere

Recirculated air

Kitchen, Field Feeding, Toilets, Dishwashing, Pot/Pan, Can Wash, and Janitor's Closet

Non-recirculated air (Exhausted air).

Kitchen, Serving, Carryout, Pot&Pan, and Dishwashing

Ventilation for type I and type II hoods as well a ductwork, elbows, offsets, access panels, etc. shall be as specified in accordance with NFPA 96; AHSRAE 1999 HVAC Applications Handbook (Chapter 30); the ICC International Mechanical Code, sections 506, 507, and 508; TB MED 530, and UL 710 as applicable. The most stringent requirements shall be used if there is any conflict between the references. Exhaust for grease and vapor hoods shall be discharged vertically through the roof using a hinged, up blast exhaust fan per the requirements of NFPA-96. The exhaust for the grease and vapor hoods shall be enclosed in a fire rated enclosure where required.

Minimum outside/exhaust air quantities

Offices, Dining, Serving, Queuing Area, Lobby/Waiting, and other areas not indicated elsewhere

10 L/s per occupant

Mechanical/Electrical Room(s)

No outside air requirements, except for ventilation

Communications Room

No outside air requirements

Toilet Rooms

25 L/s per water closet or urinal, air exhausted through toilet rooms to be made up from adjacent space and supply air

Janitor closet

25 L/s, air exhausted through janitor's closet to be made up from adjacent space

Vestibule

No outside air requirements

Storage

0.75 L/s per square meter

Corridor

0.25 L/s per square meters

Locker Room

2.5 L/s per square meters (make up from adjacent areas)

Kitchen

8 L/s per occupant plus make up air quantity for hood exhaust. Sum of outdoor air and transfer air shall provide a minimum exhaust rate of 7.5 L/s per square meters. Hood exhaust shall be as required in paragraph 7.3.3.2.

Can Wash

20 AC/HR

Dishwashing, Pot/Pan, and Extractor Room

20 AC/HR or manufacturers recommendation whichever is greater

Filtration of Circulated Air

General
Dry type filtration of air is to be used. The percent efficiency refers to ASHRAE Dust Spot Method of rating filters.

Housing, Offices, Dining, Serving, Carryout and other areas served by MUA units and AHUs.

AHUs: 25% efficient pre filters and 85% efficient final filters

MUA Units: 65% efficient filters

Heating and Cooling Loads

Submit computer program generated heating and cooling loads including building air balance (positive pressure to be provided to preclude any infiltration except in the kitchen-see paragraph 7.11.4.1) to substantiate design guidelines were met and to size the necessary HVAC equipment. Use a nationally recognized heating and cooling load program such as BLAST, DOE-2.1E or other program that performs 8760 hourly calculations.

Special Equipment Loads

Obtain heat gain information from the manufacturer of the equipment. Where no information is available, use ASHRAE Fundamentals, chapter 29. The following is, but not limited to, a list of possible equipment (refer to Chapter 4-Architectural for list of kitchen and miscellaneous equipment and location):

a. Vending machines
b. Copiers
c. Faxes
d. Laser Printers
e. Computers/Monitors
f. Televisions
g. Kitchen, Pot/Pan, Dishwashing, Serving, Carryout, Extractor Room, and Storage Area Equipment
h. Communication Equipment

Sound and Vibration Criteria

General

ASHRAE Applications Handbook shall be used for selecting heating and air conditioning equipment, ductwork and air supply devices.

Room Requirements

The following NC requirements apply:

Housing and Offices	NC-30
Kitchen, Pot/Pan, Dishwashing, Mech/Elec, Extraction Room	NC-45
Toilet Rooms, Comm., Others	NC-35
Serving, Carryout, Queuing/Waiting	NC-35

Energy Conservation Criteria

All envelope “U” factors shall be based on the requirements in ASHRAE 90.1 or this RFP whichever is the most stringent. All energy conservation requirements shall be based on ASHRAE 90.1.

Antiterrorist and Security Measures

A shutoff switch for the make-up air and air handler units (where used) shall be located in the Facility Manager’s office.

Utilities shall not be located on external walls.

All outside air intake louvers shall be at least 3.05 meters above grade.

Large mechanical units shall be located at least 10 meters from the building and screened by a pierced masonry enclosure/screen. If air-cooled condensing units are located adjacent to the building they will be enclosed on all sides such that 2 sides will touch the building and with a meshed top. Opening in screening materials, mesh, and gaps between the ground and the screens or walls making up an enclosure will not be greater than 150 mm. Provide a secured access opening so that unauthorized personnel cannot gain access. All units shall be provided with proper clearance for all operational and maintenance functions.

Testing, Adjusting and Balancing (TAB)

TAB of HVAC systems shall meet the requirements of UFGS 15990, Testing, Adjusting, and Balancing of HVAC Systems.

Commissioning

The commissioning of the HVAC system shall meet the requirements of UFGS 15995, Commissioning of HVAC Systems.

Seismic

All equipment shall be seismically protected in accordance with UFGS 13080, Seismic Protection for Miscellaneous Equipment and UFGS 15070, Seismic Protection for Mechanical Equipment.

5.0 PLUMBING:

5.1 GENERAL REQUIREMENTS:

Complete plumbing and gas piping (if used) systems shall be provided for all facilities. The term "plumbing installation" as used herein includes water service including all pipes, fixtures and equipment. A system includes all connections in the building to a point 5 feet outside the building. The plumbing and gas piping systems shall be designed in accordance with the following criteria and specifications unless specified otherwise herein.

a. International Plumbing Code (Latest Edition)a. National Standard Plumbing Codea. National Standard Plumbing Code3a. National Standard Plumbing Code

b. Technical Manual (TM 5-810-5) Plumbingb. Technical Manual (TM 5-810-5) Plumbingb. Technical Manual (TM 5-810-5) Plumbing3b. Technical Manual (TM 5-810-5) Plumbing

c. ASHRAE Systems and Applicationsc. ASHRAE Systems and Applicationsc. ASHRAE Systems and Applications3c. ASHRAE Systems and Applications

d. Plumbing and Drainage Institute (PDI-WH-201) water hammer arrestors d. EI 15M001 Radon Preventiond. EI 15M001 Radon Prevention3d. EI 15M001 Radon Prevention

e. Comprehensive National Energy Policy Act (PL. 102-486)

f. Indoor Radon Prevention and Mitigation (EI 15M001).e. Plumbing and Drainage Institute (PDI-WH-201) water hammer arrestorse. Plumbing and Drainage Institute (PDI-WH-201) water hammer arrestors3e. Plumbing and Drainage Institute (PDI-WH-201) water hammer arrestors

g. American National Standard for Accessible and useable Buildings and Facilities. (CABO A117.1)g. American National Standard for Accessible and useable Buildings and Facilities. (CABO A117.1)g. American National Standard for Accessible and useable Buildings and Facilities. (CABO A117.1)3g. American National Standard for Accessible and useable Buildings and Facilities. (CABO A117.1)

h. Technical Instructions Design Criteria (TI 800-01)h. Architectural and Engineering Instructions (AEI) design criteria.h. Architectural and Engineering Instructions (AEI) design criteria.3h. Architectural and Engineering Instructions (AEI) design criteria.

i. Instructions and guidance to Architects and Engineers Military Construction (Mechanical).

k. American Gas Association (AGA) - Plastic Pipe Manual for Gas Service

l. National Fire Protection Agency (NFPA-54) - National Fuel Gas Code

m. Specifications:

- UFGS 15190A – Gas Piping Systems
- UFGS 15400A – Plumbing, General Purpose

Materials and Equipment:

Materials and equipment shall be standard catalog products of manufacturers regularly engaged in production of such materials. All selected equipment shall be manufacturer's latest standard model.

Seismic Requirements:

All equipment shall be seismically protected in accordance with UFGS 13080A, Seismic Protection for Miscellaneous Equipment; and UFGS 15070A, Seismic Protection for Mechanical Equipment.

Submittals:

The Contractor shall provide design submittals in accordance with Section 01012, Design After Award. All submittals shall include adequate descriptive literature, catalog cuts, and other supporting data showing compliance with this RFP.

5.2 PLUMBING FIXTURES AND EQUIPMENT:

Plumbing Fixtures, General:

All fixtures shall be water conservation type, in accordance with the International Plumbing Code (Latest Edition) . All fixtures shall be provided complete with fittings. All fixtures, fittings, and trim in a project shall be from the same manufacturer and shall have the same finish. Faucets shall be equipped with high efficiency faucet aerators. All faucets, faucet handles, and miscellaneous trim shall be of metal construction with a polished chrome finish.

Lavatory/Sink Faucets:

Faucet shall be center set single-control type with seals and seats combined in one replaceable cartridge sized to be interchangeable among similar fixtures such as lavatories and kitchen sinks or having replaceable seals and seats removable either as a seat insert or as a part of a replaceable valve unit. Water flow for faucets shall not exceed 2.5gpm.

Countertop Lavatories:

Lavatory counter tops and sinks shall be solid surface, polymer molded, integral with counter top, and have a continuous seamless mount. The lavatory shall be the oval type with a minimum size of 480 mm by 400 mm. Lavatories shall have pop-up drain stoppers.

Wall Mounted Lavatories:

Lavatories shall be manufacturers standard sink depth, vitreous china, rectangular, wall mount, straight back and shall comply with ASME A112.19.1M or ASME A112.19.2M. Lavatories shall have a pop-up drain stopper.

Water Closets:

Water closets shall be the floor-mounted elongated vitreous china bowl type with top supply spud and white closed-front seat and cover (American style). Flushometer valve shall be large diaphragm type with non-hold open feature, backcheck angle control stop, and vacuum breaker. The minimum upper chamber inside diameter shall be not less than 67 mm at the point where the diaphragm is sealed between the upper and lower chambers.

Urinals: Vitreous china, wall hanging, with integral trap and extended shields, ASME A112.19.2M siphon jet. Top supply connection, back outlet. Flushometer valve shall be large diaphragm type with non-hold open feature, backcheck angle control stop, and vacuum breaker. The minimum upper chamber inside diameter shall be not less than 67 mm at the point where the diaphragm is sealed between the upper and lower chambers.

Sinks and Waste Disposal:

(a) Hand Lavatories:

Hand Lavatories in all work areas shall be stainless steel and be equipped with blade-type wrist-operated lever faucet.

(b) Pot and Pan Washing Areas:

A power soak sink shall be provided with 60°C hot water supplied to two compartments and 82°C supplied to the third compartment. The first compartment will measure 1524mm by 762mm. The second and third compartments will each measure 762mm by 711.2mm. Soiled ware counters shall be provided with flexible pre-wash faucets and heavy-duty waste pulping system. Pre-wash faucets shall be protected against back siphonage. Stainless steel wire baskets will be provided for immersion in the third compartment. Booster heaters shall be provided to deliver the proper water temperatures. An under-sink heater with an indicating thermometer shall be provided under the third compartment. The sink unit and counters shall be mounted against the walls and sealed and provided with a sound deadening undercoating.

(c) Vegetable Preparation Areas:

The vegetable preparation area shall consist of three sinks. A one-compartment sink, measuring 700 mm by 700 mm, shall be next to the vegetable peeler. The soiled ware counter at 1500 mm shall follow this. Immediately following the soiled ware counter, a two-compartment sink, measuring 600mm by 600mm each, with a clean counter shall be provided. All sinks shall be mounted against the walls and sealed. The sink and counter shall be provided with a sound deadening undercoating. A waste disposal machine shall also be provided.

(d) Additional Kitchen Equipment:

All other equipment shall be installed per manufacturer recommendation.

Water Supply:

(a) Hand lavatories and showers shall be provided with 38°C water.

(b) Mechanical dishwashing, and pot and pan washing equipment shall be provided with booster heaters sized to provide an adequate supply of 82°C hot water. Pot and pan washing areas shall also be provided with 60°C water. Cart and can washing areas shall be provided with 60°C hot water, and pressure spray cleaning and sanitizing equipment. An 82°C hot water outlet shall be provided in field food service equipment staging areas.

(c) Hot water lines exposed in work areas shall be insulated and protected with stainless steel metal jackets, in particular, exposed lines to dishwashing machines.

(d) All exposed pipes in the kitchen and on the exhaust hood system shall be chrome plated or stainless steel finish, 304 series.

(e) Commercial-type water hammer arresters shall be provided on hot and cold-water supplies. The location and sizing shall be in accordance with PDI WH 201. Water hammer arresters, where concealed, shall be accessible by means of access doors or removable panels. Commercial-type water hammer arresters shall conform to PDI WH 201. Vertical capped pipe columns shall not be permitted.

Floor Drains:

(a) Floor drains shall be provided in the shower areas, mechanical room(s), and janitor’s closets and in areas with condensate producing equipment. Floor drains shall be provided in cart and can washing areas, dish washing areas, kitchen areas, pot and pan washing areas, self-service areas,

serving line work areas, pot rack storage areas and toilet rooms. Floor drains shall be cast iron with integral seepage pan, and adjustable perforated or slotted chromium-plated bronze, nickel bronze, or nickel brass strainer. All floor drain traps shall be automatically primed. Trap priming unit shall include an electronic solenoid valve and 24-hour time clock. Trap priming unit shall be recess mounted in the wall in a lockable stainless steel enclosure.

(b) Floor drain troughs shall be provided in front of compartment and hand sinks, doors to walk-in prefabricated refrigerators and freezers, frying and braising pans, rinse-sanitizers and steam kettles.

(c) Floor drain troughs in front of frying and braising pans, steam kettles, and other grease producing equipment shall drain into a central grease trap and not into the main sewer system. All other floor drains shall be run to the sanitary system.

(d) Floor drain troughs for steam kettles shall be positioned directly under the drain-out faucets. Floor drain troughs for frying and braising pans shall be located so that the contents will spill directly into them.

Water Heaters: The water heaters shall be installed in mechanical rooms. Each unit shall be sized based on ASHRAE 1999 Applications, Chapter 48 (service water heating). Sizing of the water heater for the kitchen/food service area shall be based on the hot water demand for food service. Sizing of the water heater for the toilet rooms and janitor closet shall be based on the hot water demand for office buildings and dormitories. Each water heater shall be the self-contained type with storage tank, burner, controls, and safety features as a minimum. The heater shall be complete with a control system and shall have ASME rated pressure and temperature relief valves.

Hot Water Circulating Pumps: Circulating pumps shall be electrically driven, single stage, centrifugal, mechanical seals, and suitable for the intended service. Pump shall be controlled by a sensor on the re-circulation line, set for approximately 40° C.

Thermostatic Mixing Valves: Thermostatic mixing valve(s) shall be located in the mechanical room next to the water heater(s) and shall be designed and manufactured specifically for domestic hot water temperature control. The thermostatic mixing valve(s) shall be capable of maintaining a constant a constant 60°C water temperature under minimum and maximum hot water demands for the kitchen and laundry rooms, and 44° C for the remainder of the fixtures. The thermostatic mixing valve shall be equipped with a separate low-demand valve and a high-demand valve to ensure water temperature reliability at different flow rates.

Grease Interceptor: A commercially available grease interceptor shall be installed outside the dining facility. Interceptors shall be tested and rated in accordance with PDI G-101. Interceptor shall be provided for the pot and pan sink, dishwasher, and floor drains in the kitchen area, and shall be sized in accordance with good commercial practice.

PIPING (NOT INCLUDING GAS PIPING): Pipe sizes shall be per the International Plumbing Code. The plumbing systems shall conform to the requirements of the International Plumbing Code. Flow velocities in water pipe shall not exceed 2400 mm per second. All piping shall be sloped to permit complete drainage and be properly supported with allowances for expansion and contraction. Water supply piping shall not be buried under concrete floors except where other methods of installation are impracticable. All piping with the exception of individual fixture run-outs shall be completely concealed. Overhead piping shall be concealed above ceilings. Vertical stacks and risers will be concealed in pipe chases or properly protected from damage. All work shall be installed so as not to interfere with other mechanical and electrical equipment. The building shall have a shut off valve and strainer with drain in the cold water main after it enters the building. The potable water system shall be protected as to prevent contamination from non-potable sources by installing appropriate back-flow /cross-connection prevention devices.

Domestic Water Piping: All above grade water piping shall be installed inside the building thermal envelope. No piping installed on exterior walls per force protection requirements.

Above Ground Water Piping: All above ground piping shall be Type L hard-drawn copper. Fittings for hard-drawn copper shall conform to ANSI B16.22, Wrought Copper and Copper Alloy Solder Joint Pressure Fittings.

Below Ground Water Piping: All underground piping shall be seamless copper water tube, ASTM B 88 type K with brazed joints, or type F soft copper without joints. Joints under the slabs are prohibited. Under slab supply piping shall be limited to building service entrance only.

Receiving Platforms: The receiving platform will have both hot and cold water wall hydrants and will be provided with a floor drain with removable strainer basket.

Wall Hydrants: Wall hydrants shall be provided on the exterior of the building in accordance with TM 5-810-5.

Fire Sprinkler heads: Fire Sprinkler heads shall be chrome plated and semi recessed with maximum projection below ceiling of 25 mm.

Sanitary Piping: All sanitary piping shall be concealed. Sanitary sewer lines shall not be installed above eating areas, kitchen areas, serving areas or storage areas, either covered or exposed. Each fixture and piece of equipment, except water closets and urinals, requiring connection to the drainage system shall be provided with a trap.

Drain, Waste, and Vent Piping: Drain, waste, and vent piping shall be in accordance with ASTM D 2661.

Roof Drainage: Design of the roof drain system shall be in accordance with the International Plumbing Code. A secondary (emergency) roof drain system shall be provided in accordance with the International Plumbing Code. All water from roof including overflow scuppers shall be drained away from building 1500 mm minimum.

GAS PIPING (if used): The Dining Facility Contractor shall provide design calculations for sizing of pipe. Pipe size shall be based on building demand. Installation of the gas system shall be in accordance with NFPA 54, the National Fuel Gas Code, UL-06, the Gas and Oil Equipment Directory, ASME B31.8, Gas Transmission And Distribution Piping Systems – 1999 Edition, (BGE) Commercial Construction Handbook and all local/seismic codes.

Gas Connections: Final connections for gas equipment and appliances shall conform to ANSI Z21.45.

INSULATION: All domestic hot water pipes and all exposed traps for handicapped lavatories shall be insulated in accordance with UFGS 15080.

6.0 ELECTRICAL

6.1 GENERAL

Contractor shall design and construct all electrical systems for all facilities. This includes design, construction, all necessary labor, equipment, and material for a fully functional system. Secondary electrical distribution system shall be 120/208 volt, 60 hertz power. Design of the electrical system within facilities shall include, but is not limited to (a) interior secondary power distribution system, (b) lighting and power branch circuit and devices, (c) fire detection and alarm system, (d) electrical generation, and (e) power distribution. All systems shall be designed for the ultimate demand loads, plus 20% spare capacity.

All wiring of NIPR/SIPR/Centrix/JWCS/CLAS & UNCLAS phones will be handled as an ancillary contract and funded by Government. This wiring will be accomplished after building construction via surface mounted conduit.

All underground communications. runs will require a hand hole at least every 600 feet.

Contractor shall provide separate Electrical Rooms and Communications Rooms in the new facilities.

Contractor shall follow the latest edition of the following standards and criteria for the design and installation of electrical systems.

UFC 3-600-01 Design: Fire Protection Engineering for Facilities

National Electrical Safety Code (IEEE C2)

National Fire Protection Association Codes including:

NFPA 70, National Electrical Code, 2005 edition

NFPA 72, National Fire Alarm Code, 2002 edition

NFPA 90A, Air Conditioning and Ventilating Systems, 2002 edition
NFPA 101, Life Safety Code, 2003 edition
NFPA 110, Standard for Emergency and Standby Power Systems 2005

Standard Details No. 40-06-04 Lighting Fixtures

Illuminating Engineering Society of North America Lighting Handbook

UFC 3-550-03FA Design Electrical Power Supply and Distribution 1 March 2005

TM 5-811-3 Electrical Design: Lightning and Static Electricity Protection

TM 5-811-7 Electrical Design: Cathodic Protection

ETL 1110-3-440, Cathodic Protection

ETL 1110-3-474, Cathodic Protection

IEEE standard 519-1992

UFC 3-520-01 Interior Electrical Systems, 10 June 2002

UFC 3-530-01AN Design: Interior and Exterior Lighting and Controls 19 Aug 2005
UFC 3-540-04N Design: Diesel Electric Generating Plants 16 Jan 2004
UFC 3-550-03FA Design: Electrical Power Supply and Distribution Systems 1 Mar 2005
UFC 3-501-03N Electrical Engineering Preliminary Considerations
UL 467 Grounding and Bonding Equipment
Institute of Electrical and Electronics Engineers, IEEE 48
International Electrical Testing Association Inc. (NETA) Acceptance Testing Specifications for Electrical Power Distribution Equipment and Systems
EIA ANSI/TIA/EIA-607: (1994) Commercial Building Grounding/Bonding Requirement Standard
ETL 1110-3-412, “Transformer Application Guide”, 20 Oct 1989
EIA ANSI/TIA/EIA-607: (1994) Commercial Building Grounding/Bonding Requirement Standard.
ANSI/IEEE Std 81-1983
IEEE Std 81.2-1991
IEEE Std 62™-1995 (R2005)
IEEE 519 - 1992
ANSI/NETA ETT-2000

ANSI/NETA MTS 7.2.2-2001
MIL-HDBK-1012/3

Unless noted otherwise, all material used shall be in compliance with the requirements of UL standards. In the event that UL compliant materials are not available, contractor may then select applicable British Standards (BS), IEC or DIN listed material, but the contractor must prove equivalence and must provide the government with a full copy of the relevant specification(s). Material and equipment installed under this contract shall be for the appropriate application and installed in accordance with manufacturers recommendations.

Contractor shall provide separate circuits for power and lighting.

Design Criteria

Applicable Standards

a. Design shall be in the required units as stipulated herein.
b. Conflicts between criteria and/or local standards shall be brought to the attention of the Contracting Officer for resolution. In such instances, all available information shall be furnished to the Contracting Officer for approval.
c. All electrical systems and equipment shall be installed in accordance with NFPA code requirements.
d. Acceptance Testing: Contractor shall develop and submit for approval complete acceptance test procedures on all systems provided. As a minimum the testing procedures shall comply with the requirements of NFPA 70 (NEC), IEEE 48, and International Electrical Testing Association Inc. (NETA).
e. Any other applicable references listed herein.

Provide complete and functioning electrical systems. All installations shall be complete, operated and tested unless specifically stated otherwise in this document. Coordinate all electrical and control wiring requirements with other trades. Include all installation accessories, mounting hardware, equipment pads, grounding, and terminations required for an occupied, operating, safe and code compliant facility.

6.2 MATERIAL:

General:

Standard Product:

All material and equipment shall be a standard product of a manufacturer regularly engaged in the manufacture of the product and shall essentially duplicate items that have been in satisfactory use for at least two (2) years prior to bid opening.

Design Conditions: All equipment shall be rated and designed for operation in the range of -15 degrees Celsius to 50 degrees Celsius ambient temperature and minimum elevation of 1800 meters (5876 feet) above sea level.

Restrictions: Aluminum conductors shall not be specified or used. Aluminum windings in transformers shall not be used. All cable and wire conductors shall be copper.

Design Requirements

6.3 GENERATORS

Generators shall be provided for on site power. It is the contractor's responsibility to calculate the full load requirements and determine the size of the generators necessary to provide total electrical power supply to the entire compound at full load. Number of generating units shall be based on N+1 principal.

Where ‘N’ would represent number of units required to meet initial demand loads plus 20% spare capacity and ‘+1’ would represent a spare generator available at all times.

Generators shall be pad mounted with Factory Installed Sound Attenuated & Weather Protective Enclosures, Maximum generator dB levels not to exceed 70 dB (A-weighting) at 1 meter.

Power Plant enclosure under this Contract shall also provide 2 spare generator bays and necessary space for switchgear and other equipment associated with these generators to be installed at a later date. Necessary empty conduits from the spare generator bays to the spaces for future equipment shall be provided under this Contract. Power Plant enclosure shall be constructed in such a way that it can be extended to house future additional generators and equipment as per the Contractor’s Power Plant overall final design.

Generator synchronizing and load-sharing controls and related equipment shall be provided for automatic load sharing and transfer of power when switching from one generator to another; the synchronization shall prevent power outages during scheduled generator change over. Transfer shall be fully automated with a time clock, but have a manual override. Generators shall be fitted with load banks matched to the load. Generators shall be sized for total electrical load plus twenty percent (20%) spare capacity minimum. Fuel storage capacity shall be based on usage at total electrical load for a minimum of 28 days at full load for the entire duration. Provide double wall tank 4mm wall thickness (color white). Main opening 24 inches, two outlets, and one inlet. Two lifting hooks. One ladder. Slope fuel tank(s) to drain. Provide 2” valve for flushing tank at underside of tank(s). Provide vent pipe with insect screen. Provide underground piping for tank refueling. Provide a space next to the fuel tanks for enough additional fuel storage tanks for two spare generators based on a full load operation and provide a bulk fuel storage tanks of sufficient volume to meet 28 day fuel consumption. All the fuel tanks will be inside a concrete reinforced wall and water tight wall to contain any fuel spillage. The volume of the concrete reinforced wall shall be 110% of the fuel tank capacity including requirements for future generators. Provide a 50 mm diameter drain pipe with a valve thru the wall to drain water that may have cumulated inside after a rain. Contractor shall fill tanks full and refill at the end of testing before project turn over.

The contractor shall provide and install properly sized service entrance feeder from the generator system to the service entrance equipment located inside of each facility. Service entrance equipment shall include a distribution panel board properly sized to feed each facility. Contractor shall coordinate with the Contracting Officer in locating the main distribution panel board(s) as close as possible to the corresponding ATS.

Generators shall have fuel heaters for cold weather operation. Connect Generators to concrete foundation with vibration isolators. Provide a generator pad that dampens vibrations to the surrounding ground with foam plastic and sand.

Generators design shall be governed by the NEC, NESC, UFC 3-550-03FA (Design: Electrical Power Supply and Distribution), UFC 3-540-04N (Diesel Electric Generating Plants), and Army TM 5-811-01 (Electrical Power Supply and Distribution).

The Contractor shall perform a short-circuit current and relay coordination study for the complete generation system. Based on the results of this study he shall determine the proper time, pick-up, and trip ratings for the protective devices. The Contractor shall evaluate the complete system existing and new, for proper protection and coordination. The report shall be submitted to the Contracting Officer for approval.

Voltage regulation shall be plus or minus 0.5 percent for any constant load between no load and rated load for both parallel and non-parallel applications. Random voltage variation with any steady load from no load to full load shall not exceed plus or minus 0.5 percent.

Frequency regulation shall be isochronous from steady state no load to steady state rated load.

Random frequency variation with any steady load from no load to full load shall not exceed plus or minus 0.25%.

The diesel engine-generator set shall be capable of single step load pick up of 100% nameplate kW and power factor, less applicable derating factors, with the engine-generator set at operating temperature.

The alternator shall produce a clean AC voltage waveform, with not more than 5% total harmonic distortion at full linear load, when measured from line to neutral, and with not more than 3% in any single harmonic, and no 3rd order harmonics or their multiples.

The generator set shall be certified by the engine manufacturer to be suitable for use at the installed location and rating, and shall meet all applicable exhaust emission requirements at the time of commissioning.

The generator set shall share real and reactive load proportionally within plus or minus 3% with all other generator sets in the system. The time required to automatically start, accelerate to rated speed and voltage, synchronize and parallel all generator sets to the system bus on a normal power failure shall not exceed 15 seconds, assuming that the generator sets are in an ambient temperature of 40F or greater, and water jacket heaters are operating properly.

The voltage regulation system shall include provisions for reactive load sharing and electronic voltage matching for paralleling applications. Motorized voltage adjust pot is not acceptable for voltage matching.

Block heaters and fuel pre-heaters shall be provided and maintained in working order.

Contractor shall enclose entire Prime Power Plant including fuel tanks with Mil 1 Hesco walls. Hescos shall be shall be 3700 mm X 3700 mm X 1370 mm stacked two (2) high with two (2) on bottom and one (1) on top. Each Hesco shall be filled with clean sand, capped with 100 mm lean concrete and set on a 150 mm crushed rock base over 300 mm scarified sub grade. Entire area shall be sloped to drain. The base course shall be compacted to 95% proctor density durable aggregate uniformly moistened and mechanically stabilized by compaction.

A Main Distribution Panel shall be provided at the Generators. Phase imbalance shall not exceed 5% at Main Distribution Panel.

All live voltage components shall be enclosed and enclosure provided with a keyed locking mechanism per requirements of NESC, UFC 3-560-10, UFC 3-550-03, UFC 3-540 04n, NEC, Army EM 385-1-1, and other standards referenced in this document.

Generator System On-Site Acceptance Test:

The complete installation shall be tested for compliance with the specification following completion of all site work. Testing shall be conducted by representatives of the manufacturer, with required fuel supplied by Contractor. The Engineer shall be notified in advance and shall have the option to witness the tests.

Installation acceptance tests to be conducted on-site shall include a "cold start" test, a two hour full load test, and a one step rated load pickup test in accordance with NFPA 110. Provide a resistive load bank and make temporary connections for full load test, if necessary.

Perform a power failure test on the entire installed system. This test shall be conducted by opening the power supply from the utility service, and observing proper operation of the system for at least 2 hours. Coordinate timing and obtain approval for start of test with site personnel.

6.4 Electrical Distribution System

Power grid shall be properly fitted with lightning arrestors, in accordance with the NEC, NESC, UFC 3-550-03FA (Design: Electrical Power Supply and Distribution), and Army TM 5-811-01 (Electrical Power Supply and Distribution),

All panel boards shall be circuit breaker 'bolt-on' type panels. Minimum size circuit breaker shall be rated at no less than 20-amperes. Circuit breakers shall be connected to bus bar(s) within the panel boards. Daisy chain (breaker-to-breaker) connection(s) are not acceptable. Indoor distribution panels shall be flush mounted in finished areas and surface mounted in unfinished areas. All circuit breakers shall be labeled with an identification number corresponding to the panel schedule. A 3-pole circuit breaker shall be a single unit and not made up of 3 single pole circuit breakers connected with a wire or bridged to make a 3-pole breaker. All wiring shall be copper, minimum $4mm^2$ (# 12 AWG) wire. Conductor jacket or insulation shall be color coded to satisfy NEC and UFC requirements. Conductors shall be sized in accordance with NFPA 70. The use of 75 or 90 degree C (minimum) terminals and insulated conductors is required. Use of 75 degree C conductors on circuits with protective device terminals rated for 60 degree C is inappropriate. Wiring shall be recessed in finished areas and surface mounted in unfinished areas. Flush mounted panels shall be provided with spare empty conduits from panel to unfinished area for future use. All panels shall be provided with a minimum of 20% spare capacity for future load growth. Power receptacles (outlets) shall be duplex type 120 V, 60 hertz and shall be compatible with the required secondary power. All splicing and terminations of wires shall be performed in a junction or device boxes. Proper wire nuts/connectors shall be used for splicing wire. No twist-wire connections with electrical tape wrapped around it shall be acceptable. All electrical installation shall be in accordance with NFPA 70 (National Electric Code). For large panels (225 Ampere and above) provide an ammeter, voltmeter and kilowatt-hour meter to monitor energy usage. Selector switch shall be provided for reading all 3 phases. Circuits shall be provided for all mechanical equipment and final connections made. Receptacle locations shall be coordinated with architectural requirements.

Contractor shall provide (design and install) circuits for all mechanical equipment and any other equipment that requires power and make the final connections.

The system design shall limit the maximum harmonic distortion of current for each individual harmonic order, measured at the point of common coupling, to the values established in the IEEE standard 519-1992, table 10.3. In addition, the harmonic distortion of current shall have a maximum value of 10 percent at each panelboard for each individual harmonic order.

6.5 Lighting

Design levels shall be per IESNA Lighting Handbook and UFC 3-530-01AN (Design: Interior and Exterior Lighting and Controls), as a minimum. For convenience, the following lighting level table is listed. Note: all spaces listed below may not be within the work required within this contract.

Living room/Quarters	35 FC (350 Lux)
Toilets, Showers, Latrines	20 FC (200 Lux)
Mechanical/Electrical rooms	30 FC (300 Lux)
Communications rooms	50 FC (540 Lux)
Corridors and Stairways	20 FC (200 Lux)
Offices (private)	50 h/5 v FC (540 h/50 v Lux)
Offices (open)	

	30 h/5 v FC (300 h/50 v Lux)
Dining Areas	70 FC (760 Lux)
Kitchens	70 FC (760 Lux)
Conference	30 h/5 v FC(320 h/50 v Lux)
Video Conference	50 h/30 v FC (540 h/300 v Lux)
Egress path (incl. exterior)	10 Lux
Armories	30 h/3 v FC (320 h/30 v Lux)
SCIF	50FC (540 Lux)

FC = footcandle
H = horizontal component
V = vertical component

Indoor lighting for all administrative areas shall consist of fluorescent surface mounted light fixtures. Exterior lighting will be installed as referenced. Moisture resistant/waterproof fluorescent light fixtures shall be provided in high humidity and wet areas such as latrines and showers. Battery powered 'emergency' and 'exit' lights shall be provided within each building, as applicable, for safe egress during a power outage. All light fixtures shall be factory finished, complete and operational, to include but not be limited to, lens, globe, lamp, ballast etc. Industrial type fluorescent light fixtures shall not be used except in mechanical, electrical, and communications rooms. Every room shall be provided with a minimum of one light switch. Rooms with multiple entrances shall have multi-way light controls (ie, 3-way, 4-way, etc). Light switches shall be single-pole. Light fixtures shall be mounted approximately 2.5-meters (8 feet) above finished floor (AFF), minimum. Fixtures may be pendant or ceiling mounted, depending on the ceiling type and height.

Exterior lighting shall be provided above every exterior door, equipped with photocell control.

Light Fixtures

Lighting fixtures shall be a standard manufacturer's product. Fluorescent surface mounted light fixtures shall be power factor corrected and equipped with power-factor corrected high-frequency electronic ballast(s). All light fixtures shall properly operate using standard lamps available locally. Fixtures shall be fully factory wired and designed for appropriate application i.e. water-proof in latrines, kitchens, showers, etc.

Above Mirror Lights

A mirror shall be installed above each sink in each bathroom, and a small fluorescent fixture (16 to 22watts) shall be installed above each sink, attached to the wall, in each bathroom at least 2m AFF. Above sink fixture shall also be of the electronic-ballast type, as described below. Light provided by this fixture shall supplement required light levels listed above (ie, may not be used in calculating bathroom light levels).

Emergency "EXIT" Light Fixtures

Emergency "EXIT" light fixture shall be provided in accordance with NFPA requirements. Fixtures shall

be single side and for wall/ceiling mounting. Unit shall illuminate continuously and be provided with self-contained nickel cadmium battery pack, to operate on floated-battery or trickle charge circuit. Fixture shall operate satisfactorily for 90 minutes during a power outage. Unit shall have test/re-set and lamp failure indication buttons. Primary operating voltage shall be 120 volts. Lettering “EXIT” shall be color red and not less than 6 inches (150 mm) in height and on matte white background. Illuminations shall be with LEDs.

Emergency Lighting

Battery powered emergency lights shall be provided within each building per NFPA for safe egress during power outage. Fixtures shall be provided with self-contained nickel cadmium battery pack to operate on stand-by circuit for 90-minute minimum. Unit shall have test/re-set and lamp failure indication buttons. Primary operating voltage shall be 110 volts.

6.6 Electrical Equipment

Light Switches

Light switch shall be single pole. Minimum of one light switch shall be provided in every room. Lighting in large rooms/areas may be controlled from multiple switches. Three-way or Four-way lighting shall be provided in all rooms / areas with multiple entrances.

Receptacles

In general, all receptacles shall be duplex, unless a simplex, triplex, or quad receptacle is called for in a specific location in this RFP or one of the referenced standards. Standard electrical receptacles (outlets) shall be 120 volts, 60 HZ, NEMA 5-20R.

General-purpose receptacles shall be as required herein. Receptacles shall be placed at 3-meter intervals, minimum. Some areas shall have receptacles spaced closer together. Sinks will have a receptacle above, with one duplex receptacle serving two sinks that are side-by-side. Receptacles in wet/damp areas or within 1 meter of sinks, lavatories, outdoors, or wash-down areas shall be ground fault circuit interrupter (GFCI) type or Residual Current Disconnect (RCD) type, with the trip setting of 4 to 6 milliamperes or less. Total number of receptacles shall be limited to six (6) per 20-ampere circuit breaker.

All exterior doors shall have a recessed, wall mounted receptacle within 450mm of the doorway and mounted at least 21cm (8 inches) above grade. Receptacle shall be of the ground fault circuit interrupter (GFCI) type or Residual Current Disconnect (RCD) type, with the trip setting of 4 to 6 milliamperes or less. All exterior receptacles shall also have a weather-tight covering, in accordance with the NEC.

Receptacles shall be provided in laundry areas. Dedicated simplex receptacles of appropriate voltage, plug-type, and amperage shall be provided for each dryer and shall be on its own circuit breaker. Duplex receptacles shall be provided for washing-machines in accordance with the NEC and other portions of this RFP. Additionally, general-use GFCI or RCD receptacles shall be provided every 1-meter at a height of .2m above any counter-space provided for folding or sorting clothes. At least 4 general purpose (ie, not for washing machines) receptacles shall be provided in every laundry room.

Receptacles shall be provided in all kitchen, lounge, and break areas. General purpose GFCI or RCD receptacles shall be provided every 1-meter along counter tops, mounted at a height of 0.2m above the counter top. Dedicated circuits for freezers, refrigerators, ovens, stoves, and other large kitchen appliances shall be coordinated with architectural requirements. Wall space not blocked by large appliances or counter-tops shall be provided with outlets every 2-meters in accordance with the NEC and other requirements listed in this RFP.

All receptacles in a SCIF shall be isolated ground type with orange triangle on face of receptacle. Total number of duplex receptacles shall be limited to eight (8) per 20 ampere circuit. The insulated equipment-grounding conductor shall be green with a yellow stripe. Receptacles in the SCIF shall be shall be wall mounted and recessed floor mounted. Wall outlets shall be provided every 1 meters with a minimum of two outlets per wall.

Provide 2 duplex convenience receptacles outdoors near generators. Receptacle shall be of the ground fault circuit interrupter (GFCI) type or Residual Current Disconnect (RCD) type, with the trip setting of 4 to 6 milliamperes or less. All exterior receptacles shall also have a weather-tight covering, in accordance with the NEC.

A minimum of two dedicated 20 ampere 120 volt ac duplex receptacles shall be provided for equipment rack power, preferably served from a UPS power panel. Additionally, duplex convenience outlets shall be spaced at 2 m (6 ft.) intervals around the perimeter walls. There shall be no more than 4 receptacles per circuit and at least 2 circuits per communications room. Receptacles in communications rooms shall **NOT** be GFCI or RCD protected. Receptacles in communications rooms shall be mounted at a height of 1.2m AFF.

6.7 Conductors

All cable and wire conductors shall be copper, minimum 4mm^2 (# 12 AWG) wire. Conductor jacket or insulation shall be color coded to satisfy NEC and UFC requirements. Conductors shall be sized in accordance with NFPA 70. The use of 75 or 90 degree C (minimum) terminals and insulated conductors is required. Use of 75 degree C conductors on circuits with protective device terminals rated for 60 degree C is inappropriate. Wire sizes smaller than 6mm^2 shall be solid. Sizes 6mm^2 and larger shall be stranded.

6.8 Grounding and Bonding

Grounding and bonding shall comply with the requirements of NFPA 70 (NEC), NESC (IEEE C2), EIA ANSI/TIA/EIA-607, UFC 3-520-01, UL 467, and UFC 3-550-03FA. Generating equipment shall also comply with the requirements of UFC 3-540-04N. Underground connections shall be exothermal welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Insulated grounding conductor (separate from the electrical system neutral conductor) shall be installed in all feeder and branch circuit raceways. Grounding conductor shall be green-colored, and isolated grounds shall be green with a yellow stripe. Ground rods shall be copper-clad steel. Final measurement of the ground resistance shall be in compliance with the requirements of the local authority but shall not exceed 25 ohms when measured less than 48 hours after rainfall in general, and shall not exceed 5 ohms at the generating plant when measure less than 48 hours after rainfall.

Provide separate grounding conductor in each feeder conduit. Provide a separate grounding conductor in each branch circuit conduit. Provide a separate, insulated isolated ground conductor in branch circuits serving isolated ground outlets. Provide an insulated ground bus in the lighting and appliance panel boards serving isolated ground outlets, and extend an insulated ground conductor in with the feeder serving these panel boards. Bond to ground electrode only at the source. Bond all metallic enclosures, conduits and junction boxes to the equipment ground system. Contractor shall provide a copper grounding system for the communications equipment rooms as described hereinafter. Bond to the main building grounding electrode at one point only.

6.9 Enclosures

Enclosures for exterior and interior applications shall be NEMA Type 3R (IEC Classification IP54) and NEMA Type 1 (IEC Classification IP10), respectively.

6.10 Fire Detection & Alarm System

A complete Fire Detection and Alarm System shall be provided throughout the buildings and installed in accordance with NFPA 72 requirements. System shall include, but not limited to, addressable Fire Alarm Control Panel (FACP), pull (or push button) stations, horns, strobes, and smoke and/or heat detectors (with alarm verification feature). The system shall be capable of automatically transmitting the alarm signal, via telephone lines, to the local fire department/fire station or other location designated by the Contracting Officer. Fire alarm system shall be complete and a standard product of one manufacturer.

6.11 Transient Voltage Surge Suppression (TVSS)

Transient Voltage Surge Suppression shall be provided utilizing surge arresters to protect sensitive and critical equipment. As a minimum TVSS protection shall be provided at each panel. It is recommended that an active silicon-based solution be used (AC main and sub panel silicon surge protection for 208/120 VAC, 3-phase configurations 10kA surge). Transtector or similar is recommended.

6.12 Conduit Raceway System

Interior wiring shall be installed in metal conduit or in a metallic raceway meeting NEC requirements. Metal conduit system shall be complete, to include but not limited to, necessary junction and pull-boxes. Smallest conduit size shall be no less than 20mm (0.75 inch) in diameter. All empty conduits shall be furnished with pullwire. Area wire fill in conduits shall not exceed 40 percent of the interior conduit area for three or more cables. All conduits shall be installed parallel or perpendicular to walls, structural members, or intersections of vertical planes and ceilings. Conduits shall be securely and rigidly fastened in place at intervals of not more than 3 meters and within 900mm of boxes, cabinets, etc. using conduit hangars, threaded C-clamps, beam clamps, or ceiling trapeze.

Exterior conductors shall be installed in PVC conduit at a depth of 48-inches in accordance with the NEC, NESC, and UFC 3-550-03FA. Manholes (vaults) and Handholds shall also be installed in accordance with the above referenced standards.

6.13 Cable Tray Raceway System

Cable trays shall be ladder type and provided with, but not limited to, splices, end plates, dropouts and miscellaneous hardware. System shall be complete with manufacturer's minimum standard radius and shall be free of burrs and sharp edges. Nominal width of cable tray shall be 300mm (12 inch) and rung spaced at 150mm (6 inch). Nominal depth shall be 100mm (4 inch). System design and installation shall be per NFPA 70 requirements. All cable trays shall be grounded & bonded in accordance with NFPA 70 and other applicable standards listed in this RFP.

6.14 Lightning Protection System

A lightning protection system consisting of air terminals, down conductors and grounding electrodes shall be provided for the facilities containing one or more SCIFs. The system shall be designed and installed in accordance with NFPA 70, NFPA 780, and UFC 3-550-03FA. Contractor is reminded to take note of the requirements of NEC 70 article 250.60 and article 250.106.

6.15 General Requirements

Spare Parts And Consumables

The Contractor shall provide for all systems, based upon manufacturer's recommendations, a supply of spare parts, equipment and consumables necessary to maintain operations throughout the performance period and conduct preventive maintenance and repair for a 6 month period beyond the contract performance period, to include those items required to perform testing and commissioning. The

contractor shall replace any light bulbs that have been used for more than 15% of their expected life at the time of turnover to the government.

The Contractor shall provide all materials, supplies, and expendables required to conduct all testing and commissioning activities. The Contractor shall replace all oil/fuel filters during the testing and acceptance period if required by the manufacturer's recommendations. The Contractor shall assure all new fuel tanks are filled to capacity and oil/coolant levels on new generators, transformers, etc. are filled to the upper operating level at time of turnover to the Government. The cost of fuel, oil, filters, and other consumables up to the time of Government acceptance is the responsibility of the Contractor..

Operation & Maintenance (O&M) Manuals

Contractor shall furnish minimum of 5 sets of O&M manuals on each system to the Contracting Officer. Manuals shall contain manufacturer's full name, address and telephone numbers.

Safety and Working Clearances

All electrical work shall be designed in accordance with the 2005 National Electrical Code (NEC), National Electrical Safety Code (NESC), and Army EM 385-1-1 (Safety and Health Requirements) as appropriate. Safe working and maintenance clearances around the equipment shall be provided.

Identification Nameplates

Major electrical equipment, such as transformers, panel boards, and load centers, etc. shall be provided with permanently installed engraved identification nameplates.

Schedules

All panel boards and load centers shall be provided with a panel schedule. Schedule shall be typed written in English.

Single Line Diagram

Complete single line diagrams shall be provided for all systems installed. All major items in each system shall be identified and labeled for respective rating. Single line diagrams for each system, installed in a clear plastic frame, shall be provided.

6.16 Communications

Communications systems installers shall have a minimum of three years experience in installing systems of the types described herein. Contractor shall provide communications infrastructure including identification and testing. Provide a complete communications wiring system, including outlets, raceway, cables, patch panels, termination blocks, and equipment racks. Provide voice and data communication outlets in office areas and other areas where this type of outlets are required. The cross connections in the building will be done by the Government.

All work shall be in accordance with the I3A policy information system inside the facility. The premises distribution system shall be designed and installed in accordance with Telecommunication Industry Association general guidelines. EIA/TIA specifications can be found at http:///www.tiaonline.org/standards/search_n_order.html.

Interior

Contractor shall provide a 8-pin RJ-45 voice/data quad modular jacks in each of the housing room areas. This will be in addition to the LAN requirements shown below. The top jacks shall be labeled

‘voice’ and the bottom jacks labeled ‘data’. Contractor shall coordinate the exact locations with the COR. Contractor shall provide CAT 6 UTP cables from the backboard to the outlets. The 12 strand SMFOC shall be terminated in the communications room to support any future requirements. The Government will do all the cross connection in the communications room.

LAN System: Contractor shall provide one network drop(one 8-pin RJ-45 data outlet) in each of the housing rooms, all offices, and administrative areas. Provide two network drops at each cash register location, conference rooms, and facilities listed as options that are not covered in the previous list. Contractor shall coordinate the exact location of the network drops with the COR. The LAN equipment, and the computers will be provided and the final connections will be made by the Government.

6.17 Building Emergency Power Distribution System

Provide a 2KVA uninterruptible Power Supply (UPS) for the electronic equipment such as computers and cash registers and associated equipment. UPS shall be true on line UPS and shall include surge suppression, maintenance/by-pass switch, and battery cabinet capable of 20 minutes backup at 100 percent of UPS nameplate load.

6.18 CATHODIC PROTECTION SYSTEM

Contractor shall design and install a cathodic protection system in accordance with ETL 1110-3-440, and ETL 1110-3-474 for new metallic pipes and or tanks.

6.19 CABLE TV

Contractor shall provide all cable TV outlets in the housing facility and dining facility and wiring inside the building.

6.20 SENSITIVE COMPARTMENTED INFORMATION FACILITIES SCIF

The electrical installation in the SCIF shall have shall be in accordance with DCID 1/21, Manual for PHYSICAL SECURITY STANDARDS FOR SENSITIVE COMPARTMENTED INFORMATION FACILITIES (SCIF).

See receptacles section for requirements on SCIF receptacles.

6.21 Intrusion Detection System (IDS)

An Intrusion and Detection System will be provided for the JOC. Intrusion Detection System wiring and devices will be provided by user. The Contractor shall design and provide a complete empty metal conduit system, with necessary junction and pull-boxes, to facilitate installation of the wiring and devices by the user. Minimum conduit size shall be ¾-inch (20 mm). Each conduit shall have a pull wire to facilitate cable installation. In designing the raceway system, Contractor shall, as a minimum, consider IDS monitoring location and future installation of main IDS panel, balanced magnetic switches, infrared motion detectors, duress alarms and cable installed in metal conduit. Cabling, devices and equipment for JSIIDS (Joint Services Interior Intrusion Detection System) shall be provided and installed by the User. Raceway system shall be recessed in finished areas and surface mounted in unfinished areas. Conduit system shall be placed below the raised floor. The Contractor shall obtain approval of the Contracting Officer for the layout of the IDS conduit system.

7.0 HOUSING FACILITIES - FUNCTIONAL AND AREA REQUIREMENTS.

The Housing building(s) shall consist of living units, common areas, and support spaces. Each living

unit shall be designed to be occupied by one soldier Living units and common areas may comprise a single building, or multiple buildings. The successful design scheme will maximize the number of the living units, and provide the required support and common areas. Building spaces and areas shall be as follows:

Personnel Housing:

Internal Staff (29,680 Sq. ft. - 2,758 sq. meters)

- 210 rooms, each at (80 sq. ft.-7.45 net sq. meters) NOTE: This number of rooms will be less based on the amount of space required for Latrines, Corridors, Stairs, walls, etc.
- 76 rooms, each pair at (160 sq. ft. - 14.90 net sq. meters) with an interconnecting door between each group of two rooms.
- 3 units, each at (23.8 net sq. meters – 240 sq. ft.) each with a living and sleeping area, a latrine facility with a water closet, shower and lavatory.
- For rooms without a water closet inside the room, provide latrine facilities with a minimum of 1 water closet, shower, and lavatory per 10 rooms. The maximum population that a single latrine facility can serve is 110 rooms.

Function: Private bedroom and living space for one person.

Furnishings/Fixtures/Equipment: Design the room to accommodate, the following furnishings: One twin bed with headboard and footboard 102mm x 2083mm; one wardrobe 1200mm wide x 635mm deep x 2000mm high; one nightstand 485mm wide x 435mm deep x 535mm high; one desk 1524mm wide x 762 deep (with keyboard tray retracted) x 762mm high; one desk chair 500mm wide x 535mm deep x 851mm high; one 0.12 cubic meter refrigerator; and one television mount (ceiling or wall) for a 53 cm (21”) television. Provide layout as part of master plan.

Minimum Finishes:
Floor: vinyl composition tile
Base: resilient cove base
Walls: painted gypsum wallboard or painted veneer plaster
Ceiling: painted gypsum wallboard, painted veneer plaster.
Other requirements: Windows or lack of windows shall be per Force Protection requirements. Living/sleeping room shall have at least door between public corridor and living/sleeping room shall have mortise dormitory function (F13) lockset. Provide minimum of one combination telephone/data outlet in each Living /Sleeping room. Provide minimum of one cable television outlet in each Living/Sleeping room to be located at the television mount with an electric outlet. Coordinate outlet locations with furniture arrangement.

7.1 APARTMENTS. A minimum net area of 23.8 m^2, not including bathroom or common service areas. for Officers O7 and above.

Function: Private bedroom, bathroom, and living space for one person.

Adjacency requirements: The apartments shall be adjacent to each other and share a common service area. The apartments and service area shall be separated from the other housing units by a door with a mortise dormitory function (F13) lockset. Provide 600mm wide bathroom door.

Furnishings/Fixtures/Equipment: Design the sleeping room to accommodate, the following furnishings (minimum requirement): One twin bed with headboard and footboard 102mm x 2083mm; one wardrobe 1200mm wide x 635mm deep x 2000mm high; one nightstand 485mm wide x 435mm deep x 535mm high; one desk 1524mm wide x 762 deep (with keyboard tray retracted) x 762mm high; one desk chair 500mm wide x 535mm deep x 851mm high; and one television mount (ceiling or wall) for a 53 cm (21”) television. Design the living room to accommodate the following furnishings (minimum requirement): One 0.12 cubic meter refrigerator with microwave oven on top; one entertainment center for occupant’s

television and sound system 864mm wide x 635mm deep x 1930mm high; one end table 485mm wide x 435mm deep x 535mm high; one chair; and one sofa.

Minimum Finishes:
Floor: carpet
Base: wood
Walls: painted gypsum wallboard or painted veneer plaster
Ceiling: painted gypsum wallboard, painted veneer plaster

Other requirements: Windows or lack of windows shall be per Force Protection requirements. Door between living and sleeping areas .shall have privacy function (F76) lockset. Door between public corridor and living room shall have mortise dormitory function (F13) lockset. Provide minimum of one combination telephone/data outlet in each room. Provide minimum of one cable television outlet in each room. Locate the cable television outlet with a power outlet at the television mount in the sleeping room. Coordinate outlet locations with furniture arrangement.

7.1.1 APARTMENT BATHROOM. Provide one per apartment.

Function: Bathing and toilet facilities for occupant; storage for occupants' bath articles.

Adjacency requirements: Adjacent to sleeping room. Provide 600mm wide door between bathroom and sleeping area.

Furnishings/Fixtures/Equipment (FFE): Lavatory shall be minimum 475mm x 475mm self-rimming vitreous china, or cast-filled acrylic or solid surfacing material integrally molded to countertop. Provide chrome-plated washerless faucet with pop-up drain. Countertop shall be minimum 900mm wide cast-filled acrylic, acrylic solid surfacing material, or plastic laminate with integrally molded, 100mm high coved backsplash. Provide 100mm high side splash at side walls. Provide plastic laminate surfaced vanity base cabinet with hinged door(s) and minimum two 225mm wide drawers. Provide 6mm thick x minimum 1050mm high mirror glass, full width of vanity countertop, with wall mounted vanity light fixture above mirror. Provide one recessed medicine cabinet, one soap holder, one toothbrush/tumbler holder. Provide floor mounted toilet (American style) with full seat and seat cover (lid). Provide bathtub, chrome-plated brass showerhead, and anti-scald single-handle mixing valve. Provide two minimum 600mm long towel bars mounted on walls outside tub/shower enclosure, one wall mounted soap holder in the tub/shower, and one door mounted robe hook with two hooks. Provide wall mounted retractable clothesline across tub/shower. Provide mildew-resistant vinyl shower curtain with stainless steel curtain hooks and chrome-plated brass shower curtain rod. Provide single roll toilet tissue dispenser.

Minimum Finishes:
Floor: ceramic tile
Base: ceramic tile sanitary cove base
Walls: painted water-resistant gypsum wallboard or painted veneer plaster, or ceramic tile, or ceramic tile wainscot. Walls around shower/tub enclosure shall be full height ceramic tile, or material with equivalent scratch-resistance, water-resistance, and durability.
Ceiling: painted exterior gypsum soffit board, or painted veneer plaster, painted Portland cement plaster

Other requirements: Ventilation fan shall exhaust bathroom air. Door shall have privacy function (F76) lockset.

7.1.2 SERVICE AREA (ONE REQUIRED FOR APARTMENTS)

Function: Food preparation area and area for washers and dryers.

Adjacency requirements: Adjacent to living/sleeping rooms. If service area is entered from public corridor or breezeway, provide 900mm wide entry door swinging into room.

Furnishings/Fixtures/Equipment: Provide refrigerator-freezer (minimum .6 total cubic meters). Provide microwave oven (min .025 cubic meters, 800 watts) mounted under wall cabinets. Provide minimum 2-burner electric cooktop, or 2-burner electric range with self-cleaning oven. Provide range hood with exterior exhaust. Provide minimum 1500 linear mm of 600mm deep kitchen base cabinets and countertop (excluding cooktop/range width), and 2100 linear mm of 300mm deep wall cabinets. Wall cabinets shall be minimum 600mm high; provide 600 mm clear between countertop and bottom of wall cabinets at sink. Base cabinets shall have minimum of two 300 mm wide drawers. Provide plastic laminate countertop with side and backsplashes at walls. Provide single compartment, stainless steel kitchen sink with food strainer/stopper, minimum inside dimensions 400mm x 400mm x 175mm deep, with chrome-plated, single handle, washerless mixing faucet. Provide, and design room to accommodate, the following furnishings: one dining table for two persons, 750mm square x 725mm high with two armless dining chairs. Provide fire extinguisher mounted inside base cabinet. Provide two each commercial type clothes washers and dryers. Dryers shall exhaust to the exterior with as little ductwork as possible.

Minimum Finishes:
Floor: vinyl composition tile
Base: resilient cove base
Walls: painted gypsum wallboard or painted veneer plaster
Wall area between countertop and wall cabinets: ceramic tile, plastic laminate, or color coordinated back wall shield (if unitized kitchen is used)
Ceiling: painted gypsum wallboard, painted veneer plaster

Other requirements: At wall areas around dining table provide chair rail or similar wall protection to protect walls from chair and table impact. It is desirable, but not required, to have exterior window in room. Door between public corridor and service area shall have mortise dormitory function (F13) lockset.

7.2.1 LATRINES. Provide a minimum of 1 water closet, 1 shower, and 1 lavatory per 10 rooms.

Function: Bathing and toilet facilities for occupants.

Adjacency requirements: Adjacent to service area, centralized location for living/sleeping rooms. Provide a 800 mm wide door between latrine and hallway.

Furnishings/Fixtures/Equipment (FFE): Lavatory shall be minimum 475mm x 475mm self-rimming vitreous china, or cast-filled acrylic or solid surfacing material integrally molded to countertop. Provide chrome-plated washerless faucet with pop-up drain. Countertop shall be minimum 900mm wide cast-filled acrylic, acrylic solid surfacing material, or plastic laminate with integrally molded, 100mm high coved backsplash. Provide 100mm high side splash at side walls. Provide 6mm thick x minimum 1050mm high mirror glass, full width of vanity countertop, with wall mounted vanity light fixture above mirror. Provide floor mounted toilet (American style) with open front seat and seat cover (lid). Provide 900mm x 900mm terrazzo shower receptor, chrome-plated brass showerhead, and anti-scald single-handle mixing valve (. Provide two minimum 600mm long towel bars mounted on walls outside shower enclosure, two wall mounted soap holders in the shower, and one robe holder with two hooks. Provide mildew-resistant vinyl shower curtain with stainless steel curtain hooks and chrome-plated brass shower curtain rod. Provide single roll toilet tissue dispenser.

Minimum Finishes:
Floor: ceramic tile
Base: ceramic tile sanitary cove base
Walls: painted water-resistant gypsum wallboard or painted veneer plaster, or ceramic tile, or ceramic tile wainscot. Walls around shower enclosure shall be full height ceramic tile, or material with equivalent scratch-resistance, water-resistance, and durability.
Ceiling: painted exterior gypsum soffit board, or painted veneer plaster, painted Portland cement plaster

Other requirements: A constantly running fan shall exhaust bathroom air. The lavatories, water closets, urinals, and showers shall be grouped in a common area (gang latrine). The maximum population that a single latrine (water closets, urinals, showers, and lavatories) facility can serve is 220 rooms. Multiple fixtures shall be grouped into one room, “gang latrines”, and one urinal shall be provided per three water closets (one minimum if less than three water closets are used). Push/pull hardware can be used for gang latrines. Latrines must be designed to serve a female population of approximately 10 – 15 percent.

7.2.2 MECHANICAL AREA. Mechanical units may be located above ceilings, or in separate mechanical closets; for mechanical closet the following requirements will apply:

Function: Houses HVAC unit for the module. Room shall not be used for storage or any purpose not related to the mechanical system. Access will be limited to maintenance personnel.

Adjacency requirements: Adjacent to and accessible only from exterior or public corridor.

Furnishings/Fixtures/Equipment: Provide mechanical system.

Minimum Finishes:
Floor: sealed concrete
Base: none required
Walls: painted gypsum wallboard, painted veneer plaster, or painted concrete masonry units.
Ceiling: : painted gypsum wallboard, or painted veneer plaster
Other requirements: Provide swinging door sized to allow maintenance and removal of mechanical unit(s). Door shall have storeroom function (F86) lockset. Room construction shall comply with fire and smoke separation requirements of applicable codes.

7.2.3 ENTRY VESTIBULES. Provide at each exterior entrance.

Function: Entry point into the Housing facility; weather protection for interior spaces.

Minimum Finishes:
Floor: porcelain tile, or quarry tile
Base: porcelain tile or quarry tile
Walls: Match exterior wall finish material (preferred), or painted gypsum wallboard, or painted veneer plaster
Ceiling: painted gypsum wallboard, painted veneer plaster, painted Portland cement plaster
Other requirements: Provide two (2) swinging doors offset. Doors shall have storeroom function (F86) lockset. Room construction shall comply with exterior force protection requirements and applicable codes.

7.2.4 JANITOR CLOSET. Provide one for each 110 rooms. Minimum area 2.8 m^2 each.

Function: Sink, and storage of cleaning supplies.

Adjacency requirements: Near latrines, adjacent to laundry areas.

Furnishings/Fixtures/Equipment: Provide floor mop sink, mop rack for three mops, and minimum 1800 linear mm of wall mounted stainless steel shelving.

Minimum Finishes:
Floor: ceramic tile, or sealed concrete
Base: resilient cove base.ceramic tile base
Walls: painted water-resistant gypsum wallboard, or painted concrete masonry units
Ceiling: painted gypsum wallboard, painted veneer plaster

Other requirements: door shall have classroom function (F84) lockset.

7.2.5 HOUSING SUPPORT AREAS. Support areas include circulation spaces such as stairs and corridors; mechanical, electrical, and communications spaces; boot wash facilities; and outdoor storage buildings. Spaces are as follows:

7.2.5.1 INTERIOR CORRIDOR. Provide as required to allow circulation to building spaces, and comply with applicable code egress requirements. Due to security, climate, and force protection concerns, double loaded interior corridors are the preferred means of circulation between living units and other building spaces.

Function: Circulation and means of egress.

Adjacency requirements: Adjacent to vertical circulation.

Furnishings/Fixtures/Equipment (FFE): Provide mechanical and electrical systems to comply with applicable codes. Provide fire extinguishers in semi-recessed fire extinguisher cabinets to comply with applicable codes.

Finishes:
Floor: porcelain tile, quarry tile, vinyl composition tile, or integrally stained concrete.
Base: porcelain tile, quarry tile, or resilient cove base.
Walls: impact resistant gypsum wallboard with vinyl wallcovering or painted finish.
Ceiling: suspended acoustical panel ceiling, painted gypsum wallboard, painted veneer plaster, painted Portland cement plaster

7.2.5.2 INTERIOR STAIRS. Provide as required to allow circulation to upper floors of the building, and to comply with applicable code egress requirements. Due to security, climate, and force protection concerns, interior stairs are preferred over exterior stairs.

Function: Circulation and means of egress.

Adjacency requirements: Adjacent to corridors. Connects all floors of the building and roof.

Furnishings/Fixtures/Equipment (FFE): Stairs shall be steel construction with concrete-filled treads, or cast-in-place concrete construction. Open risers are prohibited. Provide mechanical and electrical systems to comply with applicable codes.

Minimum Finishes:
Landing floor: porcelain tile, quarry tile, resilient tile, vinyl composition tile, or sealed concrete.
Base: porcelain tile, quarry tile, or resilient cove base.
Treads: porcelain tile, quarry tile, resilient treads, or sealed concrete. Provide slip-resistant nosing.
Risers: painted steel, porcelain tile, quarry tile, or sealed concrete.
Walls: painted impact resistant gypsum wallboard, or painted concrete masonry units.
Ceiling: suspended acoustical panel ceiling, painted gypsum wallboard, painted veneer plaster, painted Portland cement plaster
Other requirements: Stairs shall comply with handicap accessibility requirements of applicable codes. Railings shall be painted galvanized steel, or prefinished aluminum.

7.2.5.3 EXTERIOR STAIRS. Provide as required to allow circulation to upper floors of the building, and to comply with applicable code egress requirements.

Function: Circulation and means of egress.

Adjacency requirements: Adjacent to corridors or breezeways. Connects all floors of the building.

Furnishings/Fixtures/Equipment (FFE): Exterior stairs shall be cast-in-place concrete construction (preferred), or galvanized steel construction with concrete-filled treads. Open risers and metal grating treads are prohibited.

Minimum Finishes:
Landing floor: sealed concrete with slip-resistant finish texture.
Base: none
Treads: Sealed concrete with slip-resistant finish texture. Provide slip-resistant nosing.
Risers: painted steel, or sealed concrete.
Walls: exterior wall materials
Ceiling: painted exterior gypsum soffit board, painted Portland cement plaster, or painted underside of concrete structure above

Other requirements: Railings shall be painted galvanized steel, or prefinished anodized aluminum.

7.2.5.4 MECHANICAL AREAS. Provide dedicated interior spaces and exterior areas for plumbing and HVAC equipment. Size and locate rooms to allow equipment removal and maintenance Provide floor openings and vertical shaft spaces as necessary.

Function: Mechanical support spaces for the Housing building.

Adjacency requirements: Locate main mechanical room on ground floor with doors opening to exterior. Mechanical support spaces shall not be used for storage or other purposes; access to mechanical spaces will be limited to authorized personnel. Locate exterior mechanical equipment and air intake and openings in exterior walls to comply with force protection standards. Do not locate mechanical equipment rooms adjacent to living units (shared walls).

Furnishings/Fixtures/Equipment: As required by Statement of Work.

Minimum Finishes:
Floor: sealed concrete
Base: resilient cove base, or none
Walls: painted gypsum wallboard or painted veneer plaster, or painted concrete masonry units
Ceiling: none required

Other requirements: Locate air intake and exhaust openings to provide optimum indoor air quality. Roof mounted equipment shall not be used. Provide screening around outdoor equipment areas; comply with force protection standards. Doors shall have storeroom function (F86) locksets.

7.2.5.6 ELECTRICAL ROOMS. Provide dedicated interior spaces and exterior areas for electrical equipment. Size and locate rooms to allow equipment removal and maintenance. Provide floor openings and vertical shaft spaces as necessary. Provide minimum of one electrical room per floor.

Function: Electrical support spaces for the Housing building.

Adjacency requirements: Locate main electrical equipment room on ground floor. Electrical rooms on upper floors should be located to allow efficient distribution. Size and locate rooms to allow equipment removal and maintenance. Electrical rooms shall not be used for storage or other purposes; access to electrical rooms will be limited to authorized personnel. Locate exterior electrical equipment to comply with force protection standards.

Furnishings/Fixtures/Equipment: As required by Statement of Work.

Minimum Finishes:
Floor: sealed concrete

Base: resilient cove base, or none.
Walls: painted gypsum wallboard or painted veneer plaster, or painted concrete masonry units
Ceiling: none required

Other requirements: Electrical service to the building shall be underground. Provide masonry screen walls with lockable metal access gates around outdoor equipment; it is preferable to locate transformer within the screened mechanical equipment area. Comply with force protection standards. Door shall have storeroom function (F86) lockset.

8.0 GUARD TOWERS

General

The Contractor shall design and construct one (1) new guard tower to match existing guard towers.

The Contractor shall provide and install the following to each Guard Tower (new and existing) exterior light, 2 duplex outlets, split pack heating and cooling unit, and telephone.

Minimum Finishes:
Floor: sealed or painted concrete
Base: resilient cove base, or none.
Walls: painted
Ceiling: painted

Other requirements: Electrical service to the building shall be underground. Door shall have Entry Lock (F4) lockset.

8.1 GUARD HOUSES

General

The Contractor shall design and construct two (2) new guard houses at entry control points, colors, finish and roof to match existing guard towers. Size shall be 3 meters X 3 meters, with fixed glass glazing 4 sides. Provide nonskid concrete sidewalk and reinforced concrete canopy across front of building at entry door. Incorporate stonework matching walls into guardhouses.

The Contractor shall provide and install the following to each Guard House exterior light, 2 duplex outlets, split pack heating and cooling unit, and telephone and Comms. Built in shelf/desk with pencil drawer and file drawer

Minimum Finishes:
Floor: sealed concrete
Base: resilient cove base, or none.
Walls: painted veneer plaster over reinforced concrete
Ceiling: painted concrete required

Other requirements: Electrical service to the building shall be underground. Comply with force protection standards for walls, roof construction, glazing and doors. Door shall have Entry Lock (F4) lockset.

9.0 LAUNDRY COLLECTION. Laundry collection shall be a separate facility.

Function: Facility is a collection point for dropping off soiled laundry and picking up returned clean laundry.

Adjacency requirements: Locate Laundry collection adjacent to parking area away from inhabited buildings.

Furnishings/Fixtures/Equipment: Provide an entry, service counter, loading area with double door, and floor to ceiling shelves.

Minimum Finishes:
Floor: sealed concrete
Base: resilient cove base.
Walls: painted water resistant gypsum wallboard or painted veneer plaster, or painted concrete masonry units
Ceiling: painted gypsum wallboard, painted veneer plaster, painted Portland cement plaster.

Other requirements: Provide Heating and cooling split-pack unit. Provide 900 mm wide door(s) into space. Doors shall have classroom function (F84) locksets.

9.1 ALTERATION/SEWING SHOP.

Function: Facility is a service for repairing, alternating uniforms.

Adjacency requirements: Locate Alteration/Sewing adjacent to Laundry Collection.

Furnishings/Fixtures/Equipment: Provide an entry, service counter, and 3 meters of closet pole with shelf.

Minimum Finishes:
Floor: sealed concrete
Base: resilient cove base.
Walls: painted water resistant gypsum wallboard or painted veneer plaster, or painted concrete masonry units
Ceiling: painted gypsum wallboard, painted veneer plaster, painted Portland cement plaster.

Other requirements: Provide Heating and cooling split-pack unit. Provide 900 mm wide door(s) into space. Doors shall have classroom function (F84) locksets.

10.0 DINING FACILITY (DFAC) DESIGN

A new Dining Facility (DFAC) (325 sq. meters - 3500 sq. ft.).shall be designed and constructed with all supporting utilities, building systems, equipment, and furnishings necessary for a complete, functioning facility. A total of 400 seats will be provided. The DFAC can be designed and constructed as a stand alone building, or as part of the Administrative Facility. Provide in Master Plan and Building design 35 % a layout for expansion to (1,190 sq. meters - 12,810 sq. ft.). Consider incorporating stone work matching perimeter walls into Entry, Queuing area, walks ways, outdoor eating area, barbecue patio and fire pit.

Standard criteria will be used rather than a standard Army design.

DFAC design shall be governed by UFC 4-722-01 Design: Dining Facilities.

10.1 INTERIOR BUILDING SPACE

The following interior building spaces are required. Unless otherwise indicated, all furniture/furnishings referred to in this section are to be part of the comprehensive package, installed by the government. Adjacency and Organizational Structure Diagram, and future expansion shall be developed by the

designer in consultation with the users at Charette. All floors in the kitchen shall be skid and stain resistant. Special requirements for these areas are as follows:

Women's and Men's Toilet Rooms: Toilet rooms shall be provided with floor drains.

Toilets: Toilets shall be provided at a ratio 85% male and 15% female per Plumbing Code, TM 5-810-5, or other appropriate reference based on the number of personnel served. Toilets shall be vitreous china.

Lavatories: Lavatories shall be provided at a ratio in accordance with the International Plumbing Code, TM 5-810-5, or other appropriate reference based on the number of personnel. Lavatories shall be mounted in a continuous counter. Counter shall be wall-mounted, solid surface polymer as described below in “Solid Surfaces”, with side panels, intermediate supports, and 100 mm high back splashes and ”end splashes at walls. Counters shall be sealed to walls.

Urinals: Urinals for Men’s toilets shall be provided at a ratio in accordance with the International Plumbing Code, TM 5-810-5, or other appropriate reference based on the number of personnel. Urinals shall be vitreous china.

Toilet Partitions: Toilet partitions shall be solid plastic nonporous polymer as described below in “Solid Surfaces”. Partitions shall be floor and wall mounted, not ceiling mounted. All hardware for toilet partitions shall be stainless steel.

Toilet Accessories: All toilet accessories shall be satin finish stainless steel. All toilet accessories shall be provided in-wall blocking. Toilet accessory finishes shall be compatible with one another and shall be coordinated.

Glass Mirrors: Shall be provided in conformance with FS DD-M- 411. Provide mirrors in toilet rooms.

Toilet Tissue Dispenser: Provide a wall mounted, stainless steel toilet tissue dispenser in each toilet compartment. Toilet tissue dispensers shall have two rolls of tissue stacked vertically, and shall be stainless steel.

Soap Dispenser: Provide one soap dispenser for each lavatory. Soap dispensers shall be liquid type, consisting of Type 304 stainless steel tank with holding capacity of 32 fluid ounces, with a corrosion-resistant all-purpose valve that dispenses liquid soaps, provided in combination with a wall mounted glass mirror over each lavatory.

Paper Towel Dispenser/Disposer: Provide recessed or semi-recessed, wall-mounted, stainless steel combination paper towel dispenser and disposal near lavatory in each toilet room. Dispenser/receptacle shall have a capacity of 400 sheets of C-fold, single-fold, or quarter-fold paper towels. Waste receptacle shall be designed to be locked in unit and removable for service.
Locking mechanism shall be tumbler key lock. Waste receptacle shall have a capacity of 12 gallons. Unit shall be fabricated of not less than .75 mm stainless steel welded construction with all exposed surfaces having a satin finish. Waste receptacle that accepts reusable liner standard for unit manufacturer shall be provided.

Janitor Closet: Shall have a minimum of 4500 linear millimeters of fixed, wall-mounted shelving and a floor-mounted mop sink with mop rack. Mop sink shall be provided with a backsplash.

Solid Surfaces: Solid surface components shall be solid, non-porous polymer, not coated, laminated or of composite construction similar to “Santana” or approved equal. Materials shall have minimum physical and performance properties specified. Superficial damage to a depth of 2.5 mm shall be repairable by sanding or polishing. Material for toilet partitions shall be standard 25 mm thick. Material for Counter tops and windowsills shall be standard 12 mm thick. Lavatory/sinks shall be an integral part of the counter top. Lavatory/sinks shall be attached by a seamed under mount method. Material shall be a small scale, variegated pattern to the extent possible. Solid color solid surface shall not be used. Color

should be in light to medium tones as dark colors tend to show scratches and water spots more readily. Lavatory counters and toilet partitions shall be of a color to accent the finish colors in the room in which the solid surfacing material is scheduled. Sheen shall be matte satin. Edge treatment shall be eased, rounded edges.

Mechanical Room: Doors shall open directly to the exterior and shall be minimum (2) 900 mm wide x 2100 mm high steel doors with steel frames. Provide room size required for the facility.

Electrical Room: Provide room size required for the facility.

Kitchen Janitor Closet: Janitors closet must able to support all areas of the facility. Access to the janitor's closet should not interrupt kitchen operations. Provide a floor mounted stainless steel mop sink 800 mm X 600 mm X 250 mm high. Provide drain, service faucet, mop hanger, and a hose and bracket. Space shall be conditioned with heating and ventilation.

Furnishings: Provide an 450 mm X 1500 mm long four tier shelving unit for storage of cleaning supplies.

Finishes: Floor shall be quarry tile with epoxy grout. Base shall be quarry tile with epoxy grout. Walls shall be Ceramic tile. Ceiling shall be plastic faced washable acoustical tile or non-corrosive pre-finished metal panels in a suspended grid system. Ceiling system shall be designed for use in spaces with high humidity.

Kitchen: Fruit and vegetables are bought from refrigerated storage for washing, peeling, cutting and/or chopping. Washing is performed at a wash sink. The wash sink is equipped with a mechanical disposal. Potatoes are peeled by machine, but all other peeling and cutting is done at worktables. Meats are from the tempering refrigerator and are prepared for cooking by cutting, trimming, and or seasoning. Seasonings and other ingredients are drawn from the dry storage or from refrigerated storage. Meat preparation is performed on worktables used for meat only. Other foods processed before cooking include eggs, which are shelled into individual dishes for breakfast. Rolls, pies, cakes, puddings, and casseroles all require preparation. Finished products may be stored in refrigeration without being cooked, or may be cooked in the kitchen or serving area.

Serving- Food is transferred from cooking containers to serving containers and taken to the serving lines, or temporary storage.

The size and design of the kitchen areas, types and quantities of equipment must be determined by analysis of the sample menu included and the number of diners to be served. Food service equipment should be selected to meet the necessary production capacity and serving line rates. Adequate work aisles must be provided. Aisle clearance to be minimum of 1200 mm at equipment. A minimum of 2400 mm must be provided in front of walk-in refrigerators and walk freezers.

All exposed piping in kitchen area shall be stainless steel, Type 304 with No.4 finish or brass piping with satin chrome-plated finish. Floor troughs, drains and grates as required for equipment shall be provided. Automatic water wash down system at kitchen exhaust hoods shall be provided. Water filter system for steam cookers shall be provided.

Space shall be conditioned with heating, cooling and ventilation. General air conditioning/spot air conditioning should keep temperature from exceeding 28 degrees Centigrade.

Furnishing: The equipment identified under the following areas is considered to be a minimum requirement.

Vegetable Preparation Area: Food processor, vegetable peeler, can openers, cutting board with storage space, knife racks, preparation table, (2) compartment sink, waste pulping disposer, stainless steel hand sink, quick chill box, shelf contained (one compartment) with roll–in angle rack.

Meat Preparation Area: Worktables with one compartment sink, knife racks, cutting boards with storage space, and angle slide pan racks.

Cold Preparation Area: Food preparation worktables, reach-in .7 cubic meter one section refrigerator, meat slicing machine on mobile stand, 20 liter mixer on mobile stand, table mount utensil rack, and a mobile stainless steel clean pan rack with 4 shelves.

Cooking Area: Roll-in "combi" oven, (2)double deck convection oven, (2) 150 liter tilting braising fry pans, (6) burner heavy duty modular range, (2) 150 liter steam kettles, twin 20 liter tilting steam kettles on cabinet with provided drainage, deep fat frying station (fryer, dump station with heat lamp and filter system), two compartment convection steam cooker, two compartment upright cooking and holding cabinet, single section refrigerator reach-in .7 cubic meters, cook tables, utensil racks, pots and pans storage racks, pass through food warmer to serving area and pass through food refrigerator to serving area.

Baking Preparation Area: Baker's table with space for three mobile ingredient bins and tier of three drawers, 60 liter mixer with 40 liter adapters, mixer attachment rack, angle slide pan racks, single section mobile proof cabinets, food preparation table with sink.

Finishes: Floor shall be quarry tile with epoxy grout. Base shall be quarry tile with epoxy grout. Walls are required to be glazed structural units or ceramic tile on CMU substrate is required. Ceiling shall be plastic faced washable acoustical tile or non-corrosive pre-finished metal panels in a suspended grid system. Ceiling system shall be designed for use in spaces with high humidity.

Pots and Pans Washing Area: Soiled cooking utensils, pots and pans from the preparation areas; soiled serving pans, trays and utensils from the serving lines and carry out; and the insulated food containers and vacuum jugs are staged are without obstructing circulation of others activities. Waste food is scraped away and is removed by mechanical waste disposal. The cleaning process flows through a three-compartment sink where the third sink is the final rinse with a 9 kw booster to maintain the water at a temperature of 80 degrees Centigrade. A 15 kw booster heater is required to provide 80 degrees Centigrade water to the three compartment sink. A power-wash sink system with a booster heater to raise the temperature of the hot water to 80 degrees Centigrade will also be utilized. Cleaned items are placed on stainless steel drying shelves located in a separate area to prevent contamination from unwashed items. Once dry the insulated food containers and vacuum jugs are returned to field feeding for storage. Clean utensils and other items are returned to their point of use. Adequate space shall be provided to store the soiled pot and pans.

Area must be isolated from the food preparation and handling areas to prevent contamination of food by spray, spills, or contact with waste material. Adequate space should be provided for a temporary holding area for soiled utensils, pots and pans so that kitchen and washing activities are not impeded. Shelves should be located to prevent contamination of clean pans, utensils by unwashed pans or utensils. Custom fabricated soiled and clean dish tables will be provided.

Wall bumper rails and corner guards shall be provided to prevent pot/pan carts from damaging walls.

Space shall be conditioned with heating, cooling and ventilation. General air conditioning and spot air conditioning should keep temperatures from exceeding 28 degrees Centigrade.

Equipment: A three-compartment sink will be provided with a 9 kw booster heater mounted under the rinse tank to maintain 80 degrees Centigrade water temperature for sanitation at final rinse. Sink

compartment size shall be a minimum of 700 mm x 700 mm x 400 mm deep. Provide an overflow drain sink between 1st wash compartment and 2nd compartment. Overflow drain sink must be minimum 150 mm in width. (Three-compartment sink is not required if power-wash sink system is provided. Power wash system shall have a 9kw booster heater for the final rinse sink). Stainless steel mobile shelves should be provided for proper drying of washed pots and utensils.

A power-wash sink system or a mechanical pot and pan sanitizer with a 15kw booster heater to raise the temperature of the hot water to 80 degrees Centigrade for sanitizing the final rinse and a 9kw booster heater mounted on the final rinse sink to maintain the water temperature at 80 degrees Centigrade shall be provided. Chemical sanitation will not be permitted.

Finishes: Floor shall be quarry tile with epoxy grout. Base shall be quarry tile with epoxy grout. Walls shall be glazed structural units or ceramic tile on CMU substrate is required. Ceiling shall be plastic faced washable acoustical tile or non-corrosive pre-finished metal panels in a suspended grid system. Ceiling system shall be designed for use in spaces with high humidity.

Can Wash: Must be an enclosed room and accessible to the receiving platform. Floor must be sloped to drain. Floor surface must be free of curbs or other obstructions, which will prohibit rolling garbage cans/equipment into the space. Hot water and pressure spray cleaning equipment shall be provided for cleaning garbage cans, drying racks, and hand trucks. Space shall be heated and ventilated not cooled.

Equipment: Can drying racks, mop and broom storage brackets shall be provided out of range of spray cleaning equipment. A minimum of a 50ft hose shall be provided. Exterior hose bib with hose wall bracket shall be provided inside can wash to permit cleaning of receiving platform and wash down of dumpster enclosures.

Finishes: Floor shall be sealed concrete. Base is not required. Walls shall be epoxy paint over CMU substrate. Ceiling shall be painted exposed structure. Extend perimeter walls to underside of roof structure. Seal to prevent moisture generated from can wash operations from migrating into other portions of the building.

Trash Drop Off Area/Entry: Diners bring soiled plastic/paper disposable tableware to the trash drop off area. Trash Drop Off Area must be at or near the exits. Lavatories must be provided at the entry point(s) with hot (45 degree Centigrade) and cold water. Liquid soap dispensers and paper towel dispensers and receptacles shall be located with or adjacent to the lavatories. A smooth non-absorbent kitchen rated suspended acoustical tile in suspended system grid system or 19 mm minimum epoxy painted gypsum board shall be used in kitchen area.

Bread Storage: Storage shall be sized to accommodate a three-day supply of bread products. Space should be open to kitchen. Wall bumper rails and corner guards will be provided to prevent hand trucks from damaging the walls. Space shall be conditioned with heating, cooling and ventilation.

Non Food Storage: Storage provided for non-food items: cleaning supplies and paper/plastic goods (paper towels, napkins, tableware, drinking ware, utensils). The storage area shall be located within easy access to the receiving staging area.

Furnishings: Adjustable mobile stainless steel wire mesh shelves with a 500 mm shelf depth is required. A lockable cabinet is required for storage of toxic materials (oven cleaner, etc.).

Finishes: Floor shall be vinyl composition tile. Base shall be rubber cove. Walls shall be ceramic tile or epoxy painted CMU. Ceiling shall be suspended acoustical tile in suspended system grid system.

Unisex Locker Room: Lockers shall be provided to secure personal effects, coats, hats, shoes, etc. It should not be utilized for changing of clothing. A door to the locker room is not required. Locker room should be sized based upon providing one locker each for the total staff assigned to the facility plus ten percent. (Staffing must be verified with DFAC manager.)

Finishes: Floor shall be vinyl composition tile. Base shall be rubber cove. Walls shall be painted drywall. Ceiling shall be suspended acoustical tile in a suspended system grid system.

Receiving Platform/ Receiving Staging Area: This is the primary entrance of food and supplies and removal of waste to dumpsters. When deliveries are made packages are opened, weighed, and inspected prior to being separated into smaller units. Once separated the smaller units will be moved by hand truck to the receiving staging area. The platform also serves as a pick-up and drop-off area for field-feeding mission. Configuration of the platform shall be determined from DFAC manager requirements.

Serving Area: The décor and ambiance of the serving area shall be similar to commercial cafeterias. At the approach to the serving areas diners must have access to multiple feeding stations designed to a scatter line food court-feeding concept. More than adequate circulation space must be provided to eliminate bottlenecks or cluster areas and permit smooth unobstructed traffic flow.

Attractive lighting and signage shall be provided. Space shall be conditioned with heating, cooling and ventilation. General air conditioning/spot air conditioning should keep temperatures from exceeding 28 degrees at serving stations.

Serving Stations: The serving areas shall be designed in accordance with the DFAC managers requirements. These requirements may consist of any or all of the following food stations:

- Griddle stations with hot food tables (display cooking – cook faces customer). A minimum of (2) 1500 mm self–heating griddles with hot food tables (6 full size wells) are to be provided. A 600 mm x 600 mm stainless steel food preparation table is required on one side of the griddle. Griddles are not to be located together in serving area.
- Meat carving stations
- Short order lines with carryout capability
- Salad bar/ fruit bar and soup station. Minimum of 8 cold-pan drop-ins per side for salad bar are to be provided.
- Self-serving hot and cold serving lines
- Cold sandwiches line
- Bread stations
- Specialty Stations
- Upright self-serving merchandisers (refrigerated storage for beverages)
- Display cases for cold meal carryout
- Centralized dessert stations for hot and cold pastry, cakes and pies
- Centralized ice cream stations
- Two Toaster stations
- Two Bulk Cereal counters
- Replenish beverage stations in dining area
- Condiments area

The area behind each station shall be designed to permit ease of set up, serving the food, replenishing and removing menu items, and cleaning the equipment. Water filter system for coffee makers and ice-maker machines shall be provided.

Finishes: Floors and base shall be seamless and easily maintained. Walls are required to be epoxy painted, impact resistant, gypsum board at a minimum. Ceiling shall be plastic faced washable acoustical tile or non-corrosive pre-finished metal panels in a suspended grid system or epoxy painted gypsum board. Ceiling system shall be designed for use in spaces with high humidity. Other areas – Suspended acoustical tile in a suspended system grid system.

Dining Areas: The décor and ambiance of the dining area shall be similar to the quality commercial food establishments (Applebee's, Golden Corral, Country Buffet, Bennigan's, etc.) The dining areas shall be

pleasant, comfortable, and aesthetically pleasing. Large regimented dining areas are to be avoided. Raised platforms, decorative screens, partitions and freestanding planters, etc. shall be considered in the design. Each dining area should accommodate different seating arrangements utilizing a combination of loose tables, chairs, booths, counters, and/or barstools. Flexibility is a high priority.

Finishes: Walls are shall be selected to compliment the ambience of the dining areas by using (ie. Wallcovering, paint, etc.) Ceiling shall be plastic faced washable acoustical tile or non-corrosive pre-finished metal panels in a suspended grid system.

Queuing Areas: Exterior queuing areas shall be provided at each building entrance and must be sheltered with canopies. Metal guide posts, rails and roping must be provided at interior queuing areas. The linear length of queue should be designed to allow 450 mm per person in the line. The number of diners in the queue is equal to the amount of 25 percent of the seats in the dining areas. Interior space shall be conditioned with heating, cooling and ventilation. Menu boards shall be provided.

Interior Finishes: Floor shall be tile with epoxy grout. Base shall be porcelain tile with epoxy grout. Walls shall be washable paint on drywall. Ceiling shall be suspended acoustical tile in a suspended system grid system.

Exterior Finishes: Finishes in the exterior queuing areas should match the design of the building.

Entrance/Exit Vestibule/s: Serves as an air lock to minimize the loss of conditioned air. Provide two 900 mm wide entrance doors at each end of the vestibule.

Outdoor Areas: Building identification sign shall be posted at the front and rear of the facility. Sign lettering should be a minimum of 150 mm, coordinate with signage for other facilities, and be easy to read. Outdoor seating area with tables should be considered. Provide trash containers if outdoor seating is provided. Garbage dumpster/s shall be located adjacent to the receiving platform, but a minimum of 15 meters away from the loading/ and or entrance doors. Dumpsters shall be placed on a drained, concrete hard stand and must have wash down capability. Access to the Dumpster enclosure shall be hard surfaced and accessible by vehicle. Recycled grease storage shall have a screen wall enclosure adjacent to the Dumpster enclosure, enclosure to be sized for two 200 liter drums. Must be accessible by vehicle and have wash down capabilities.

Refrigerated Storage: Storage is provided for perishable food, including frozen, uncooked, and prepared foods. The size of the storage area and number of refrigerated units must be determined by consultation with the contractor responsible for managing the DFAC. Foods are stored in the freezer in bulk, in case lots. The storage area shall be located with easy access to the receiving staging area and kitchen. Separate, dedicated boxes shall be provided for each category of storage space. One walk-in box will be dedicated as a “cooks box”. This box will be arranged and stocked by the direction of the first cook for efficient use during the daily cooking process and for storage of leftovers.

Door swings must not obstruct corridor circulation or circulation of other doors. Minimum size of doors shall be 900 mm x 2100 mm. Display or recording thermometers which show the interior temperature should be mounted on the outside of the unit. Provide bi-parting clear impact doors inside all walk-in refrigerators and freezers.

Remote refrigeration system equipment for walk-in boxes should be located at ground level at the exterior of the building directly adjacent to the refrigerated units.

The following temperature and humidity ranges for each category of storage space must be maintained:

Freezers: A minimum of two (2) 3000 mm x 4800 mm freezers are required. Refrigerated storage should consist of pre-manufactured walk-in boxes (Each unit must be provided with separate walls. A single wall separating these units is not acceptable), reach-in boxes and ice machine. An alarm system should provide notification of temperature increase above safe limits. Provide one ice machine per facility

located in Field Feeding. Ice machine must be capable of producing and storing 200 kilograms of ice. Heat produced from the ice machine must be exhausted. Water filter system shall be provided for the ice machine. Placement of ice machine must be accessible for maintenance (for filter change and clearing ice clogs) Provide dunnage racks, and stainless steel mobile shelves.

Storage Temperatures:

Category	Relative Humidity Range	Temperature
Freeze	--	-24, +/- 1 C
Chill, Fruits, Vegetables, Dairy	80%, + 5%	1, +/- 1 C
Cook Box	80%, + 5%	1, +/- 1 C
Thaw Box	80%, + 5%	3, +/- 1 C

Finishes: Floor shall be sealed concrete. Base not required. Walls/Ceiling shall be walk-in box manufacturer's standard.

Dry Food Storage: Storage is provided for semi-perishable food, including canned goods, soda, dry goods, seasonings, and condiments.

The size of the storage area will be determined in consultation with the contractor responsible for managing the DFAC. The storage shall be located within easy access to the receiving staging area. The entrance door opening shall be a minimum of 1800 mm wide. Space shall be conditioned with heating, cooling and ventilation.

Finishes: Floor shall be vinyl composition tile. Base shall be rubber cove. Walls shall be ceramic tiles or epoxy painted CMU or impact resistant gypsum board.

10.2 EQUIPMENT START-UP/DEMONSTRATION

The Contractor shall obtain the services of the manufacturer's representative experienced in the installation, adjustment, and operation of the equipment specified. The representative shall supervise the startup, adjustment, and testing of the equipment, prior to the demonstration. Equipment shall be carefully tested, adjusted, and regulated in accordance with the manufacturer's instructions and shall be so certified in writing. A thorough operational demonstration shall be provided of all equipment and instructions furnished for general and specific care and maintenance. Selected items of equipment and attendees shall be scheduled, with the Contracting Officer, at least 2 weeks in advance of demonstration periods.

10.3 KITCHEN CONSULTANT

The Contractor shall enlist services of a technically qualified kitchen consultant to assistant with the design and placement of the kitchen equipment in order to ensure flow and functional requirements of the layout is achieved. The kitchen consultant must be FCSI (Food Service Certified) certified.

10.4 DINING FACILITY EQUIPMENT

Contractor shall provide kitchen equipment from manufactured by Vulcan and Cleveland or approved equal.

10.5 ADDITIONAL EQUIPMENT

Contractor shall provide brackets in order to mount four 685 mm HDTV type flat screens throughout the dining area. Provide necessary power and cable for each HDTV.

11.0 MEDICAL AID STATION

The Medical Aid Station shall be designed in accordance with the medical staff's requirements. These requirements may consist of any or all of the following functional areas:

Medical Waiting

Provide a waiting area for 10 persons near the restrooms.

Medical Briefing

Provide ceiling mounted projector with wall mounted receptacle for future laptop computer connection, recessed powered projection screen, phone, and data receptacles.

Laboratory Room

Medical Storage

Adjustable wall hung plastic laminate finished plywood shelving- 5 shelves 18" Deep, 16" o.c. starting at 2'-0" AFF. Wall brackets at 32" o.c. secured to studs or blocking.

Serology

EKG/Cot Room

Accessories shall include a mirror and soap dispenser mounted over the wall hung lavatory, paper towel dispenser on wall near lavatory, motion activated automatic valve on faucet, and coat hook on wall.

Male Ortho

Exam Room

Accessories shall include a mirror and soap dispenser mounted over the wall hung lavatory, paper towel dispenser on wall near lavatory, automatic valve on faucet, and coat hook on wall.

Male Urinalysis/Restroom

Room shall include a water closet and lavatory. Accessories shall include a single mirror at each lavatory, wall mounted soap dispenser for each lavatory, one wall mounted paper towel dispenser, tissue dispenser/ coat hook in each toilet stall, and HC grab bars in accessible stall. Provide motion activated automatic flush valves. Provide PVC covers on exposed lavatory piping.

Chief Medical Officer

Accessories shall include a mirror and soap dispenser mounted over the wall hung lavatory, paper towel dispenser on wall near lavatory, automatic valve on faucet, and coat hook on wall.

Female Ortho/Dressing

Female Waiting

Exterior door outside of this space shall include a sign indicating “EMERGENCY EXIT ONLY”.

Female Exam Room

Female Urinalysis/Restroom

Room shall include fixtures and partitions . Accessories shall include a single mirror at each lavatory, wall mounted soap dispenser for each lavatory, one wall mounted paper towel dispenser, tissue dispenser/sanitary napkin receptor/coat hook in each toilet stall, and HC grab bars in accessible stall. Provide motion activated automatic flush valves. Provide PVC covers on exposed lavatory piping.

12.0 ADMINISTRATIVE FACILITY

Refer to Appendix C to see Department layout, number and size of private offices, cubicles, for layout of facility. Final configuration of the offices and adjacencies with other areas shall be based on consultation with the users during the design process and finalized at the design Charette.

12.1 OFFICES

Private Offices

Hard wall offices shall be provided for all private offices. All offices shall have power (per code requirement), communication (two minimum), and data (two minimum) connections. Private offices shall be designed to a minimum STC of 50.

Open Offices

The layout of the open offices shall be based on using Appendix C to see Department allowances. All workstations shall have power, communication, and data connections for which the contractor is responsible for providing connection points. Open offices shall be designed to a minimum STC of 40.

Conference/Briefing Rooms

Provide five 15 person conference rooms and one 50 person briefing room. Chair rail shall be designed as a display rail. Wall surface shall be tackable. Provide ceiling mounted projector with wall mounted receptacle for future lap top computer connection, recessed powered projection screen, phone/data receptacle. Conference rooms shall be designed to a minimum STC of 50.

Coffee Area

Four kitchenettes dispersed throughout the building and one kitchenette for the command suite is required.

Function: Sink and space for coffee maker and supplies; for use by command section staff, office staff, and visitors.

Adjacency requirements: One adjacent to command staff reception area. Other four dispersed throughout the building (administrative offices). Locate to avoid conflicts with circulation pattern.

Furnishings/Fixtures/Equipment (per each kitchenette): Provide refrigerator-freezer (minimum 9 total cubic feet). Provide microwave oven (min .9 cubic feet, 800 watts) mounted under wall cabinets. Provide minimum 1500 linear mm of 600mm deep kitchen base cabinets and countertop, and 2100

linear mm of 300mm deep wall cabinets. Wall cabinets shall be minimum 600mm high; provide 600 mm clear between countertop and bottom of wall cabinets (verify with user that proposed coffee maker will fit in this space). Base cabinets shall have minimum of two 300 mm wide drawers. Provide plastic laminate countertop with side and backsplashes at walls. Provide single compartment, stainless steel kitchen sink with food strainer/stopper, minimum inside dimensions 400mm x 300mm x 175mm deep, with chrome-plated, single handle, washerless mixing faucet. Provide fire extinguisher mounted inside base cabinet. Provide dedicated electrical receptacle for coffee maker (coffee maker not in contract).

Finishes: Floor - porcelain tile, or ceramic tile.

Base - porcelain tile, or ceramic tile.

Walls - painted gypsum wallboard or painted veneer plaster.

Ceiling - suspended acoustical panel ceiling.

12.2 SUPPORT FUNCTIONS

Vestibule

Materials on the exterior walls and soffit and appearance of the storefront shall be continuous from the exterior into the building. Structural framing and roof shape shall be expressed in the Vestibule and shall continue from the exterior through the Vestibule into the Main Lobby. The Vestibule shall contain a wall mounted building directory. The vestibule shall have a recessed stainless steel floor grate at least 6 feet wide and 6 feet in length. A recessed, flush floor receptacle shall be provided for a metal detector to be installed in the future.

Female Public Rest Room (Provide a ratio of 15 % female)

Room shall provide water closets and lavatories. Accessories shall include a single mirror above the lavatory, wall mounted soap dispenser for each lavatory, wall mounted paper towel dispenser, tissue dispenser, sanitary napkin receptor, and coat hook in each stall.
Provide white PVC covers on all exposed under sink lavatory piping.

Male Public Rest Room (Provide a ratio of 85 % male)

Room shall provide water closets, urinals, and lavatories. Accessories shall include a single mirror above the lavatory, wall mounted soap dispenser for each lavatory, wall mounted paper towel dispenser, tissue dispenser/coat hook in each stall. Provide pvc covers on all exposed lavatory piping.

Janitor Closet (Per Floor)

Provide a floor mounted precast mop sink with a wall mounted stainless steel shelf including 3 mop holders.

Electrical Room

Provide two (2) spare 100 mm pvc conduits with 600 mm radius from floor adjacent to open wall area to 1500 mm outside of building wall (cap end) for future cables. Arrange equipment in room to allow equipment removal and maintenance. Electrical service to the building shall be underground. Provide masonry screen walls around outdoor equipment/mechanical equipment area with lockable metal access gates. Rooms shall have exterior doors that open to the outside of the building.

Mechanical Room

Provide dedicated interior space and exterior area for plumbing, and HVAC equipment. Plan room to allow equipment removal and maintenance. Provide floor openings and vertical shaft spaces as necessary. All equipment shall be placed on concrete house keeping pads. Locate exterior mechanical equipment and air intake and openings in exterior walls to comply with force protection standards. Rooms shall have a STC 45 minimum adjacent to occupied rooms and corridor. Provide concrete house keeping pads below all equipment. Provide exterior doors. Provide access to attic or any mezzanine space.

Covered Entry

The Exterior Entrance shall accent the entrance and provide a strong architectural image for the building while offering some protection from the weather. Columns and architectural elements shall be finished on all sides to match elevations. On the wall adjacent to the entrance shall be a cast bronze (600 mm x 400 mm) dedication plaque set in the wall. Name and graphics to be provided during the shop drawing phase.

Equipment Screen

Provide an equipment screen for all exterior mechanical and electrical equipment. Screen wall shall be as tall as tallest piece of installed equipment. Size of screen shall allow for servicing the equipment. Screening may be constructed from materials suitable for exterior use and architecturally compatible with the new facilities. Equipment shall be on concrete pads. The remainder of enclosed area may be paved with gravel or stone.

Communication

Also include in this space the Telecom Closets. Provide dedicated interior room for communication equipment including telephone, cable television and data network support spaces for . Communication service to the building shall be underground. Provide floor openings and vertical shaft spaces as necessary. Telephone backboard shall be 19 mm thick fire retardant 1200 mm x 2400 mm plywood. The communications Room is the termination point for the Intercom System, Public Address System, CCTV System IDS, and Telephone System. Provide dedicated HVAC, 24 hours per day, 365 days per year.

12.3 SECURE COMPARTMENTED INFORMATION FACILITY (SCIF)

Security Considerations: The function of this space (1,600 sq. ft. - 149 sq. meters), is used for electronic intelligence training activities and operations. One half of the SCIF will be used for “CLOSED STORAGE” and the other half will be used for “SECURED WORKING AREA”. The designer will work with the users at the Charette to determine what specific spaces and areas are required within that authorization. They will also help define the design, furnishings, equipment, and mechanical/electrical/communications systems for the SCIF. The governing criteria for SCIF design and construction is (DCID 6/9) “Manual for Physical Security Standards for Sensitive Compartmented Information Facilities (SCIF).” The manual defines several SCIF categories, and provides design and construction guidance for each. If necessary, a separate exit (or exits if two are required) can be provided to satisfy life safety/exiting requirements. There are STC rating requirements, door and wall construction requirements, and requirements affecting all mechanical, electrical, and voice data penetrations of the SCIF. Penetrations are to be minimized. No HVAC ductwork not serving the SCIF can run through its ceiling space. The SCIF HVAC equipment should be separate from other building HVAC systems. Secure telephone instruments and fax machines are required in the SCIF. The SCIF should be located at the core of the building, no windows. Furniture and similar equipment as part of the design similar to the rest of the administrative facility (designed by Contractor, purchased and installed by the Government). Fax machines, safes, servers, secure files, and similar items specific to the operation of the SCIF will be provided by the Tenants. Provide clean power, and verify grounding required for SCIF. Provide raised access floor as required for computer work area and Comm. Room. Design for 6500 BTU/Hour heat load.

Minimum Finishes:
Floor: vinyl composition tile
Base: resilient cove base.
Walls: painted gypsum wallboard or painted veneer plaster
Ceiling: painted gypsum wallboard, painted veneer plaster, or suspended acoustical panel ceiling
Other requirements: Provide minimum 900 mm wide door with storeroom function (F86) lockset. Provide floor openings and vertical shaft spaces as necessary. Provide a minimum of four (4) minimum 100 mm diameter empty conduits with 600 mm radius to exterior Actual number may be more depending on final number of buildings connected to).

12.4 JOINT OPERATIONS CENTER (JOC):

The function of a Joint Operations Center (JOC) (To be determined and finalized at Charette), is to allow a multitude of multi-disciplined personnel to receive large quantities of data in a central location, process the data, formulate a response/course-of-action and relay the compiled information and response back to the staff in the vicinity and/or to those personnel located in remote areas. This project develops the physical arrangement of facilities and infrastructure to accomplish this task.

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Structural:

- JOC operator terminals will be oriented into stadium-style sections placed for viewing a central focal point for both visual media and personnel presentations. JOC will be symmetrical about an invisible plane that originates at the focal point and divides the room in half.
    - There will be no posts/columns located in the interior of the JOC.
    - First tier will be 36 inches in height, starting at floor level.
    - The first tier will be located at least 12 feet from the forward-most wall.
    - Each remaining tiered section will be no less than 24 inches above each successive tier.
    - JOC will have four (4) tiers, with eight (8) terminals on each tier (1- 4). Total number of operator terminals is (32)
    - JOC floor will have removable panels, for access to under-floor wiring.
    - Stairs will be included to transition from/to each tier. Stairs will be located along both edges of the JOC
    - The last tier (tier number 4) will have a “media controller” room centered on the focal point (room located behind terminals).
    - Each tier will have a low partition wall, approximately 36 inches tall, at the forward-most portion of the tier. The partition wall will run the lateral length of the tier, leaving room for personnel access on the stairs, at each side. These partitions will be included on the last tier, on each side of the “media controller” room.
    - There will be at least one each, ingress/egress door located on the upper-most and lower-most levels of the JOC.
        - Doors will be securable with cipher locks.
- Space under the JOC floor will be used as office/storage/communications space as much as practical.
- The “media controller” room will be a 10-foot by 10-foot enclosed room.
    - 36 inches of the lower-portion of the wall facing the focal point will be solid. The remainder of the wall will be a large, framed opening (no glass).
    - A door to the “media controller” room will be located on one of the side walls near the back of the room.

Electrical: (based on a projector set-up with projectors displaying images on to several screens at the focal point of the room)

- A separate electrical sub-panel will be used to distribute power to the JOC area only.

    - Panel will be expandable to accommodate future expansion.
- Power outlets will be located at the following locations:
    - Each operator terminal suitable for a computer work station, small portable devices and task lighting.
    - In each side wall, one at each tier, 30 amp, general outlet
    - 5 each equally spaced in the vertical portion of the first tier, 20 amp, general outlet.
    - 5 each equally spaced in the forward-most wall of the JOC, 30 amp, general outlet.
    - 4 each in the rear-most wall (2 each equally spaced on either side of the "media controller" room) of the JOC.
    - 4 each equally spaced in the forward portion of the ceiling in the "media controller" room. (need a power draw for projectors)
    - 8 each (2 each equally spaced on each wall) of the "media controller" room. (need a power draw for equipment to be used in this room)
- Lighting:
    - "Media controller" room will have its own switched lighting.
    - Lighting in the remaining area will be on at least three different switches. On switch will be a 2-way switch that controls the forward-most row of lights. The second of the 2-way switch will be located in the "media controller's" office.
- Servers/Switches/etc:
    - Location to be determined at Charette.
    - Power requirements to be determined at Charette.
    - UPS" required for each terminal or for an entire room? To be determined at Charette.
    -

HVAC:
HVAC loading rule of thumb is 1 TON of cooling per 100 sq. ft., contractor shall verify.

- There will be one HVAC control point for the entire JOC floor and one control point for the "media controller" room.
- Heat loads for the JOC floor shall be calculated by the contractor based on number of personnel, number of computers, lights, and latent heat.
- Heat load for the media room to be determined at Charette.

12.5 TECHNICAL CONTROL FACILITY (TCF)

When deciding where the Technical Control Facility (TCF) will be located within the main building, please consider the following additional specs for the TCF. Again, the TCF is the termination point (HUB) for all backbone cabling in the main building which feed all of the Communications Closets.

Unacceptable Locations:

The Technical Control Facility (TCF) (1,600 sq. ft. - 149 sq. meters), shall be dedicated solely to telecommunications and related facilities. Equipment that does not support the TCF (e. g., pipes, duct work, distribution of building power) shall not be located in or pass through the TCF. Do not locate the TCF in any place that may be subject to water infiltration, steam infiltration, humidity from nearby water or steam, heat (e. g., direct sunlight) or any other corrosive atmospheric or adverse environmental conditions. Avoid locations that are below water level unless preventive measures against water infiltration are employed. Locate the TCF far enough away from sources of EMI to reduce interference with the telecommunications cabling, including EMI from electrical power supply transformers, motors, generators, Magnetic Resonance Imaging (MRI) and X- ray equipment, radio transmitters, radar transmitters, and induction heating devices. As TCFs are occupied by working technicians and sensitive electronic equipment, the room location should not be adjacent to sources of constant, excessive, low or high frequency noise, such as air-handling equipment, pumps, generators, and the like.

Ceiling Height:

The minimum ceiling height shall be 8.5 ft. above the finished floor with ceiling protrusions (e. g., sprinkler heads) placed to assure a minimum clear height of 8 ft. clear of obstructions, to provide space over the equipment frames for cables and suspended cable trays. To permit maximum flexibility and accessibility of cabling pathways, false ceilings are not recommended in the TCF.

Entries:

Since large equipment will be located in the TCF, a double door 6 ft. wide by 7.5 ft. tall is recommended. Doorsills are not recommended because they impede the movement of equipment. NOTE: Doors that open outward provide additional usable space and reduce constraints on the TCF layout. Since sensitive equipment will be located in the TCF, special security access requirement will apply. At minimum, all entry ways to the TCF will be secured with cipher-locks and door hinges will be secured as to prevent removal from the outside.

Depending on the size of the building, a separate Service Entrance (for loading / unloading) may be required in order to bring large equipment into the TCF. The Service Entrance shall be dedicated solely to telecommunications and related facilities.

Wall Requirements:

The TCF walls should extend from the finished floor to the structural ceiling (e. g., the slab), be covered with two coats of fire-retardant white paint and be fire-rated for, at a minimum, one hour. The TCF walls will not have windows installed, nor is it desirable to locate the TCF on perimeter/curtain walls where windows comprise the entire surface of the wall.

Lighting:

Provide adequate and uniform lighting that provides a minimum equivalent of 50 foot-candles when measured 3 ft. above the finished floor level. Locate light fixtures a minimum of 8.5 ft. above the finished floor. Locate light switches near the entrance to the TCF. Coordinate the lighting layout with the equipment layout -- especially overhead cable trays -- to ensure the light is not obstructed. Power for the lighting should not come from the same circuits as power for the telecommunications equipment.

Bonding and Grounding:

Provide a copper signal ground busbar in each Equipment Room. The busbar should not have more than 5 ohms of resistance to ground. The ground conductor shall be a 1/0 copper cable, cad-welded directly to the Under Ground or Main Building Entrance Ground, or building steel.

Flooring:

The floor must be free of dust and static electricity; therefore, the floor should be tiled instead of carpeted. If the floor is left uncovered (not tiled), it must be sealed and should be painted. The floor must be high enough to prevent any threat of flooding (because you have considered a basement location) and have a minimum floor loading specification of at least 500 pounds per square foot. Power and communications cabling will be in the space below the top level of the floor.

I want to make sure we get off on the right foot, so we are doing a little more focused research on the HVAC system requirement. We will provide this to you soonest.

HVAC:
HVAC loading rule of thumb is 1 TON of cooling per 100 sq. ft., contractor shall verify.

12.6 COMMUNICATION ROOMS: Provide in administration building dedicated interior rooms for communication equipment. Size and locate rooms to allow equipment removal and maintenance; room area shall be 7.45 sq. m. minimum. Minimum dimension shall be 2100 mm for one side of room. Provide one communication room per 1,115 sq. m. of Administration Building floor area. Provide one closet in any stand alone building less than 1,115 sq. m. if multiple computers are served. (i.e. not guard towers or posts). One closet in SCIF. One closet in JOC. Provide two separate 304 mm wide X 50 mm deep cable trays. Cable trays will be installed to convey communications cable from the communications room to individual private offices/work areas. Cable trays shall be 800 mm apart where feasible but will never be closer than 150 mm in either the horizontal or vertical direction. Closets shall be located in such a way that that any one run from the communications room to any communication drop is not greater than 85 meters. HVAC rule of thumb is 6500 BTU/Hour, contractor shall verify.

Adjacency requirements: Locate to allow efficient distribution. Communication rooms on upper floors shall be vertically stacked above each other. Communication rooms shall not be used for storage or other purposes; access will be limited to authorized personnel.

Furnishings/Fixtures/Equipment: As required by Statement of Work.

Minimum Finishes:
Floor: vinyl composition tile
Base: resilient cove base, or none.
Walls: painted gypsum wallboard or painted veneer plaster, or painted concrete masonry units
Ceiling: painted gypsum wallboard, painted veneer plaster, or suspended acoustical panel ceiling, or painted underside of concrete structure above

Other requirements: Communication service to the building shall be underground. Provide minimum 900 mm wide door with storeroom function (F86) lockset. Provide floor openings and vertical shaft spaces as necessary. Provide a minimum of three 100 mm diameter empty conduits between vertically stacked communication rooms.

13.0 SOLID WASTE MANAGEMENT

General

The Contractor shall design and construct 2 collection point's, 1 for living quarters and 1 for administration building, suitable for solid waste temporary storage areas with 2 meter high wall and metal roof, enclosure shall have two metal gates in a 2 meter opening. Storage area shall be 3 meters X 4 meters with reinforced concrete slab and CMU or stone walls. The Contractor shall prepare design plans showing location of collection points. Provide 2, indicate location on site plan. Provide next to hard surface road and 25 meters from inhabited buildings.

The Contractor shall design and construct 1 collection point suitable for solid waste disposal temporary storage area adjacent to DFAC with 2 meter high wall and metal roof, enclosure shall have two metal gates in a 2 meter opening. Storage area shall be 4 meters X 4 meters with reinforced concrete slab and CMU or stone walls. The Contractor shall prepare design plans showing location of collection point adjacent to DFAC. Provide next to hard surface road and 25 meters from DFAC.

SECTION 01060

SPECIAL CLAUSES

PART 1 GENERAL

1.1 PRECONSTRUCTION CONFERENCE

1.1.1 Schedule of Meeting

At the earliest practicable time, prior to commencement of the work, the Contractor and any Subcontractors whose presence is necessary or requested, shall meet in conference with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to the details of the administration and execution of this contract. This will include but not necessarily be limited to the Contractor's Quality Control (CQC) Program, the Contractors Accident Prevention Program, submittals, correspondence, schedule, access to the work site, security requirements, interface requirements, temporary facilities and services, hazards and risks, working after normal hours or on weekends or holidays, assignment of inspectors, representations, special requirements, phasing, and other aspects of this project that warrant clarification and understanding.

1.1.2 Meeting Minutes

It shall be the responsibility of the Contractors CQC System Manager to prepare detailed minutes of this meeting and submit those minutes to the Contracting Officer for approval within three (3) workdays. Any corrections deemed necessary by the Contracting Officer shall be incorporated and resubmitted within two (2) calendar days after receipt. Upon approval of the minutes by the Contracting Officer, the Contractor shall distribute the minutes to all parties present or concerned.

1.2 AREA USE PLAN

The Contractor shall submit to the Contracting Officer, within ten (10) calendar days after award of this task order, an Area Use Plan designating intended use of all areas within the project boundaries. This plan shall include, but not necessarily be limited to the following: the proposed location and dimensions of any area to be fenced and used by the Contractor; construction plant and building installations/the number of trailers and facilities to be used; avenues of ingress/egress to the fenced areas and details of the fence installation; drawings showing temporary electrical installations; temporary water and sewage disposal installations; material storage areas; hazardous storage areas. Any areas that may have to be graveled shall also be identified. The plan shall also include a narrative description of the building structural system, the site utility

system and the office or administration facilities. The Contractor shall also indicate if the use of a supplemental or other staging area is desired. The Contractor shall not begin construction of the mobilization facilities prior to approval by the Contracting Officer of the Area Use Plan described herein.

1.3 CONTRACTOR'S MOBILIZATION AREA

The Contractor will be permitted to use an area approved by the Contracting Officer within the contract limits for operation of his construction equipment and plants, shops, warehouses, and offices. The Contractor is responsible for obtaining any required additional mobilization area above that designated. The construction site shall be cleared of construction debris and other materials and the area restored to its final grade.

1.3.1 Contractor's Temporary Facilities

1.3.1.1 General

All facilities within the Contractor's mobilization area shall be of substantial construction suitable for the local weather conditions. Sanitary facilities shall meet the requirements of Corps of Engineers, Safety and Health Requirements Manual EM 385-1-1.

1.3.1.2 Administrative Field Offices

The Contractor may provide and maintain administrative field office facilities within the mobilization area at the designated site. Government office and warehouse facilities will not be available to the Contractor's personnel.

1.3.1.3 Storage Area

The Contractor shall construct a temporary 1.8 meter (6 foot) high chain link fence around trailers and materials. Fence posts may be driven, in lieu of concrete bases, where soil conditions permit. Trailers, materials, or equipment shall not be placed or stored outside the fenced area unless approved in writing by the Contracting Officer.

1.3.1.4 Plant Communication

Whenever the Contractor has the individual elements of its plant so located that operation by normal voice between these elements is not satisfactory, the Contractor shall install a satisfactory means of communication, such as telephone or other suitable devices. These devices shall be made available for use by Government personnel.

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1.3.1.5 Appearance of Mobilization Site Facilities and/or Trailers

Mobilization Site Facilities and/or Trailers utilized by the Contractor for administrative or material storage purposes shall present a clean and neat exterior appearance and

shall be in a state of good repair. Trailers or other transportable structures which, in the opinion of the Contracting Officer, require exterior painting or maintenance will not be allowed on the construction site until such work or maintenance has been performed to the satisfaction of the Contracting Officer.

1.3.1.6 Maintenance of Storage Area

Fencing shall be kept in a state of good repair and proper alignment. Should the Contractor elect to traverse unpaved areas which are not established roadways with construction equipment or other vehicles, such areas shall be covered with a layer of gravel as necessary to prevent rutting and the tracking of soil onto paved or established roadways; gravel gradation shall be at the Contractor's discretion.

1.3.1.7 Security Provisions

Adequate outside security lighting shall be provided at the Contractor's temporary facilities. The Contractor shall be responsible for the security of its own facilities and equipment.

1.3.1.8 Sanitation

a. Sanitary Facilities: The Contractor shall provide portable sanitation facilities for the Contractor’s use. The Contractor shall be responsible for maintaining such facilities at no expense to the Government.

b. Trash Disposal: The Contractor shall be responsible for collection and disposal of trash from the work areas and from the mobilization area. General construction debris and demolition debris shall be collected and transported by the Contractor to a location designated by the Government. Construction debris, waste materials, packaging material and the like shall be removed from the work site daily. Loose debris capable of being windblown, shall be immediately placed in sealed or covered containers to prevent it from being blown onto the base. Any dirt or soil that is tracked onto paved or surfaced roadways shall be cleaned daily. Materials resulting from demolition activities that are salvageable shall be stored within the fenced area described above. Stored material not indoors, whether new or salvaged, shall be neatly stacked when stored.

1.3.1.9 Telephone

The Contractor shall make arrangements to install and pay all costs for telephone facilities desired.

1.3.1.10 Restoration of Storage Area

Upon completion of the project and after removal of mobilization facilities, trailers, materials, and equipment from within the fenced area, the fence shall be removed and will become the property of the Contractor. Areas used by the Contractor for the storage of equipment or material, or other use, shall be restored to the original or

better condition. Gravel used to traverse unpaved areas shall be removed and all such areas restored to their original conditions.

1.3.2 Protection and Maintenance of Traffic

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the Host Nation and base authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with base traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.3.2.1 Not used.

1.3.2.2 Not used.

1.3.3 Temporary Project Safety Fencing and Barricades

The Contractor shall impose all measures necessary to limit public access to hazardous areas and to ensure the restriction of workers to the immediate area of the construction and mobilization site. The Contracting Officer may require in writing that the Contractor remove from the work any employee found to be in violation of this requirement.

1.3.3.1 Barricades

Barricades shall be required whenever safe public access to paved areas such as roads, parking areas or sidewalks is prevented by construction activities or as otherwise necessary to ensure the safety of both pedestrian and vehicular traffic. Barricades shall be securely placed, clearly visible with adequate illumination to provide sufficient visual warning of the hazard during both day and night. Travel to and from the project site shall be restricted to a route approved by the Contracting Officer.

1.3.4 Host Nation Authorizations, Permits and Licenses

It shall be the Contractor's responsibility to obtain such local authorizations, permits and licenses necessary to establish his quarry operations, batching operations and haul routes (See Special Clause entitled: COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS).

1.4 RESPONSIBILITY FOR PHYSICAL SECURITY

Prior to mobilization, the Contractor shall submit his proposed means of providing project security to prevent unauthorized access to equipment, facilities, materials and documents, and to safeguard them against sabotage, damage, and theft. The Contractor shall be responsible for physical security of all materials, supplies, and equipment of every description, including property which may be Government-furnished or owned, for all areas occupied jointly by the Contractor and the Government, as well as for all work performed.

1.5 DUST CONTROL

The Contractor shall be required to control objectionable dust in the work areas, access roadways, and haul roads by means of controlled vehicle speeds or dust palliatives. Vehicles transporting sand, cement, gravel or other materials creating a dust problem shall be covered, as directed by the Contracting Officer, or in accordance with local Laws, codes, and regulations.

1.6 DIGGING PERMITS

1.6.1 Requirements for Digging Permits

1.6.2 Not used.

Requests for Digging Permits shall be submitted to Contracting Officer a minimum of seven (7) days prior to the start of the work activity covered by the permit. The request for a Digging Permit shall include a narrative description of the work to be performed and a detailed map of the area of the excavation clearly marking the location of all known utilities or other obstructions. If the work activity covered by the Digging Permit request also requires a utility outage, a separate request for the outage shall be submitted in accordance with the paragraph entitled CONNECTIONS TO EXISTING UTILITIES.

1.6.3 Preparation of Requests for Digging Permits

Prior to submitting a request for a Digging Permit, the Contractor shall carefully review the area to be excavated to determine the location of existing utilities and other obstructions. The Contractor will review available drawings and will conduct a visual inspection of the site. The Contractor will utilize underground utility detecting devices such as metal and cable detectors to determine the location of existing utilities. All utility lines found shall be clearly flagged or marked and the location of the utility shall be shown on the drawing to be submitted with the request for Digging Permit.

1.6.4 Existing Underground Utilities

The Contractor shall exercise utmost care in researching locations of existing utilities and reducing damage to existing utilities. Any utilities damaged by the Contractor shall

be promptly repaired by the Contractor. The Contracting Officer will review and approve any proposed repairs. Any damage to existing utilities will be immediately reported to the Contracting Officer and the Base Commander.

1.7 CONNECTIONS TO EXISTING UTILITIES

1.7.1 General

Any outage involving disruption of electrical service beyond the site area shall be requested in writing at least ten (10) days in advance of the date requested for the commencement of the outage. The Contractor shall provide a request, detailing the type of outage needed (water, sewer, electrical, steam, etc.), the time needed to perform the work, the reason for the outage, and the known affected facilities. The Contracting Officer shall be contacted prior to the outage to confirm the time and date. If the Contractor fails to initiate work at the approved time, the Contracting Officer may cancel the approved outage and may direct the Contractor to resubmit a new request. No part of the time lost due to the Contractors failure to properly schedule an outage shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.7.1.1 Not used.

1.7.1.2 Exterior Night Lighting

Exterior night lighting shall be provided in conformance with EM-385-1-1 entitled Safety and Health Requirements Manual.

1.7.2 Existing Underground Utilities

The Contractor is provided notice that existing utilities may be present in the construction area. The Contractor shall exercise the utmost care in researching locations of existing utility lines by implementing control measures to eliminate, or reduce to a level acceptable to the Contracting Officer, the chance of damaging or destroying existing utilities.

1.7.2.1 Use of Underground Utility Detecting Device

Prior to any excavation, a metal and/or cable-detecting device shall be used along the route of the excavation. All underground utilities discovered by this method will be flagged a minimum distance of one-half (1/2) meter on each side of the location.

1.7.2.2 Hand Excavation

Hand excavation methods and special supervisory care shall be used between any flagged markers, in areas of known or suspected hazards, and in areas known or suspected to have multiple and/or concentrated utility lines or connections.

1.7.3 Repair of Damaged Utilities

The Contractor shall be responsible to repair any utilities damaged by him. The method of repair and schedule for performance of the repair shall be coordinated with, and subject to the approval of, the Contracting Officer. The repair work and any temporary work required to keep the system operational while repairs are being completed, shall be performed at no cost to the Government.

1.8 WATER

The Contractor shall install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be approved by the Contracting Officer. Water required for final testing, adjusting and balancing of HVAC systems is the responsibility of the Contractor. Before final acceptance of systems, or facilities, all temporary connections and piping installed by the Contractor shall be removed at his expense in a manner satisfactory to the Contracting Officer.

1.9 NOT USED

1.10 ELECTRICITY (CONTRACTOR PROVIDED)

Electrical service is not available for use under this contract; therefore all electric current required by the Contractor shall be the responsibility of the Contractor, furnished at his own expense. The Contractor shall provide diesel generators to meet his demand requirements. Electricity required for final testing systems shall be furnished by the Contractor. The means of doing so, such as by temporary distribution systems, shall be the responsibility of the Contractor. All temporary connections for electricity shall be subject to the approval of the Contracting Officer and shall comply with Corps of Engineers manual EM 385-1-1 entitled Safety and Health Requirements Manual. All temporary lines shall be furnished, installed, connected and maintained by the Contractor in a workmanlike manner satisfactory to the Contracting Officer. Before final acceptance of systems, or facilities, all temporary connections installed by the Contractor shall be removed at his expense in a manner satisfactory to the Contracting Officer.

1.11 WORK OUTSIDE REGULAR HOURS

If the Contractor desires to carry on work outside regular base duty hours, or on holidays he shall submit an application to the Contracting Officer. The Contractor shall allow ample time to enable satisfactory arrangements to be made by the Government for inspecting the work in progress. At night, exterior lighting shall be provided in conformance with EM-385-1-1 entitled "Safety and Health Requirements Manual".

1.12 SCHEDULING OF WORK IN EXISTING FACILITIES

As soon as practicable, but in any event not later than thirty (30) calendar days after award of this task order, the Contractor shall meet in conference with the Contracting

Officer, or his duly authorized representatives, to discuss and develop mutual understanding relative to the scheduling of work in and access to the existing facilities where work has to be performed under this contract, so that the Contractor's proposed construction schedule is coordinated with the operating and security requirements of the installation.

1.13 SPECIAL FACILITIES AND SERVICES TO BE FURNISHED BY THE CONTRACTOR

The Contractor shall furnish the facilities and services listed in this clause for Corps of Engineers personnel and other persons as designated by the Contracting Officer. All facilities, furnishings, materials, and equipment shall be new when furnished at the site. The Contractor shall fully maintain and repair all facilities, furnishings and equipment listed below. All facilities furnished and/or installed by the Contractor under this clause shall remain the property of the Government at the completion of the task order. Facility structures shall be modular or containerized, suitable for easy movement at a later date.

1.13.1 Field Office Facility

Field office facility sufficient for four (4) persons shall include all utilities, indoor toilet facilities, closet, small conference area, and break area with sink. The layout of the office facility shall be approved by the Contracting Officer. The facility, including electrical diagrams, shall be provided no later than 30 days after award of this task order.

Office furnishings shall include:
4 - Desks
4 - Desk chairs
1 - Conference table for 6 with six (6) chairs
2 - 4 - shelf storage units
3 - 4 - drawer file cabinets]

1.13.2 Services for the Office Facilities

a. Maintain all utility systems required to support the facilities. Provide, lighting, duplex electrical outlets @ 1200 mm o.c. and heat and air conditioning to the facilities.
b. Provide operation and maintenance of building structure, surroundings, all furnishings and equipment contained therein, including painting and incidental repairs.
c. d. Provide dust control in area adjacent of the buildings.
e. Provide vector control services, including insect and rodent control in the areas adjacent to the buildings.
f. Provide and maintain gravel road and parking area.

1.14 PREPARATION OF AS-BUILT DRAWINGS (CONTRACTOR)

1.14.1 General

Upon completion of each facility under this contract, the Contractor shall prepare and furnish as-built drawings to the Contracting Officer. The as-built drawings shall be a record of the construction as installed and completed by the Contractor. They shall include all the information shown on the contract set of drawings, and all deviations, modifications, or changes from those drawings, however minor, which were incorporated in the work, including all additional work not appearing on the contract drawings, and all changes which are made after any final inspection of the contract work. In the event the Contractor accomplished additional work that changes the as-built conditions of the facility after submission of the final as-built drawings, the Contractor shall furnish revised and/or additional drawings and drawing files as required depicting final as-built conditions. The requirements for these additional drawings shall be the same as for the as-built drawings specified in this paragraph.

1.14.2 Final As-Built Drawings

The Contractor shall update the digital contract drawing files to reflect the approved final as-built conditions and shall furnish those updated drawing files and plots of the final as-built drawings to the Contracting Officer. *As-built drawings shall include the addition of the predominant native language of the region in addition to the English language.*

a. Only personnel proficient in the use of Computer Assisted Design and Drafting (CADD) for the preparation of drawings shall be employed to modify the contract drawing files or prepare new drawing files.

b. Existing digital drawing files shall be updated to reflect as-built conditions. Independent drawing files containing only as-built information are not acceptable. The modifications shall be made by additions and deletions to the original drawing files, and where additional drawings are necessary, they shall be developed in individual digital files for each new drawing. All additions and corrections to the contract drawing files shall be clear and legible, and shall match the adjacent existing line work and text in type, size, weight, and style. New or revised information placed into the design files shall be placed on the levels and in the colors used for placement of the corresponding initial data. Similarly, the drawing size, title block, and general format of new drawings shall be consistent with the format established by the original drawings.

c. In the preparation of as-built drawings, the Contractor shall remove "Bubbles" used by the Government to highlight drawing changes made during design/construction. Triangles associated with those earlier drawing changes shall be left on the drawings and the Contractor shall not add triangles to designate modifications associated with representation of the as-built condition. The revision block identification of the drawing modifications shall be left intact and the date of completion and the words "REVISED AS-BUILT" shall be placed in the revision block above the latest existing notation. Each drawing shall have the words "DRAWING OF WORK AS-BUILT" in letters 4.5

mm (3/16") high placed below the drawing title portion of the drawing title block, between the border and the trim line.

d. The Contractor shall check all final as-built drawing files for accuracy, conformance to the initial drawing scheme and the above instructions. The Contracting Officer will review the drawings and drawing files for conformance to these standards.

e. The Contractor shall furnish the digital as-built drawing files in the format as directed within Section 01335. The Government will only accept the final product for full operation, without conversion or reformatting, in these formats.

f. Digital drawing files shall be furnished to the Contracting Officer on CD-ROM or other media and format as approved by the Contracting Officer. A transmittal sheet containing the name of the files, the date of creation, the CD-ROM number, and a short description of the contents, shall accompany the CD-ROM.

g. A sample drawing shall be furnished to the Contracting Officer before delivery of final as-built drawings as a test to demonstrate compliance with the above instructions and file format compatibility with the described CADD software.

h. One (1) complete set of the updated final Record Copy digital drawing files and one (1) paper plot or copy of the final Record drawings shall be delivered to the Contracting Officer upon completion of each facility. If upon review of the final as-built drawings, errors or omissions are found, the drawings and drawing files will be returned to the Contractor for corrections. The Contractor shall complete the corrections and return both the digital files and the as-built prints to the Contracting Officer within ten (10) calendar days.

1.15 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in accordance with Section 01335 SUBMITTAL PROCEDURES FOR DESIGN/BUILD. Each certificate shall be signed by an official authorized to certify in behalf of the manufacturing company involved and shall contain the name and address of the Contractor, the project name and location, description and the quantity of the items involved, and date or dates of shipment or delivery to which the certificates apply. Copies of laboratory test reports submitted with certificates shall contain the name and address of the testing laboratory and the date or dates of the tests to which the report applies. Certification shall not be construed as relieving the Contractor from furnishing satisfactory material.

1.16 ACCIDENT PREVENTION

The Contractor shall comply with all applicable Host Country laws and with such additional measures as the Contracting Officer may find necessary in accordance with CONTRACT CLAUSE 52.236-13 entitled ACCIDENT PREVENTION (NOV1991)-ALTERNATE 1 (APR 1984). Applicable provisions of the Corps of Engineers manual

entitled Safety and Health Requirements Manual EM 385-1-1 will be applied to all work under this contract. The referenced manual may be obtained from the Contracting Officer at the jobsite or from the Afghanistan Engineer District at Kabul, Afghanistan.

1.16.1 Accident Prevention Program

Within fifteen (15) days after award of this task order, and at least ten (10) days prior to the accident prevention pre-work conference, four (4) copies of the Accident Prevention Plan required by the CONTRACT CLAUSE 52.236-13 entitled ACCIDENT PREVENTION (NOV 1991)- ALTERNATE I shall be submitted for review by the Contracting Officer. The Contractor shall not commence physical work at the site until the Accident Prevention Plan (APP) has been reviewed and accepted by the Contracting Officer. The APP shall meet the requirements listed in Appendix "A" of EM385-1-1. The program shall include the following: TAC Form 61 " Accident Prevention Program Hazard Analysis (Activity Hazard Analysis)" fully completed and signed by an executive officer of the company in block No. 13. The Activity Hazard Analysis is a method in which those hazards likely to cause a serious injury or fatality are analyzed for each phase of operations. Corrective action is planned in advance, which will eliminate the hazards. An analysis is required for each new phase of work. On large or complex jobs the first phase may be presented in detail with the submittal of the Accident Prevention Plan rather than presenting the complete analysis. If the plan is to be presented in phases, a proposed outline for future phases must be submitted as a part of the initial Accident Prevention Plan submittal. Accident Prevention Plans will be reviewed for timeliness and adequacy at least monthly with a signature sheet signed and dated documenting that these reviews took place. Copy of company policy statement of Accident Prevention and any other guidance as required by EM 385-1-1, Appendix A.

1.16.2 Ground Fault Circuit Interrupter (GFCI) Requirement – Overseas Construction

The Corps of Engineers Health and Safety Manual, EM 385-1-1, section 11.C.05.a. states: "The GFCI device shall be calibrated to trip within the threshold values of 5 ma +/- 1 ma as specified in Underwriters Laboratory (UL) Standard 943." A variance from USACE has been granted allowing 10 ma, in lieu of 5 ma, for overseas activities that use 220 Volts (V)/50 hertz (Hz) electrical power.

1.16.3 Temporary Power - Electrical Distribution Boxes

EM 385-1-1 section 11.A.01.a. states, "All electrical wiring and equipment shall be a type listed by a nationally recognized testing laboratory for the specific application for which it is to be used." This includes temporary electrical distribution boxes. Locally manufactured electrical boxes will not be allowed. Only manufactured electrical distribution boxes that meet the European CE requirements, with 10 ma CE type GFCIs installed shall be allowed.

Contractors shall:

a. Make no modifications that might void any CE or manufacturer certification.

b. Test the installed systems to demonstrate that they operate properly and provide the 10 ma earth leakage protection.

c. Ensure GFCIs will have an integral push-to-test function. The testing shall be performed on a regular basis.

d. Check that proper grounding is checked regularly and flexible cords, connectors, and sockets inspected before each use.

1.17 HAZARDOUS MATERIALS

Should the Contractor encounter asbestos or other hazardous materials, during the construction period of this contract, he shall immediately stop all work activities in the area where the hazardous material is discovered. The Contractor shall then notify the Contracting Officer; identify the area of danger; and not proceed with work in that area until given approval from the Contracting Officer to continue work activities. Hazardous material is considered to be asbestos, explosive devices, toxic waste, or material hazardous to health and safety. The Contractor shall secure the area from daily traffic until it is safe to resume normal activities.

1.18 SPARE PARTS

1.18.1 General

The requirements of this clause are in addition to any requirements for the provision of specific spare parts to be provided by the Contractor included in Technical Provisions. The Contractor shall furnish spare parts as directed by the Contracting Officer under the provisions of this clause for all equipment for which O&M data is to be provided under Clause OPERATION AND MAINTENANCE (O&M) DATA of this contract. The term "spare parts" as used herein shall include spare parts, special tools and test equipment.

1.18.2 Selection of Spare Parts to be Furnished

The Contractor shall provide master parts lists, recommended spare parts lists and lists of special tools and test equipment as a part of the equipment O&M data required by Clause OPERATION AND MAINTENANCE (O&M) DATA. The master parts list shall include the supplier's price for each part. After review of the lists, the Contracting Officer will select spare parts and furnish written direction to the Contractor indicating quantities and types of spare parts to be furnished by the Contractor. Written directions for spare parts orders may be provided on an incremental basis as reviews of O&M data submitted by the Contractor are completed but will not necessarily be issued in the sequence in which the Contractor submitted the equipment O&M data.

1.18.3 Procurement and Delivery of Spare Parts

The Contractor shall procure and be responsible for delivery, receipt, handling, placing in storage, inventory, and turnover to the Contracting Officer all spare parts selected by the Contracting Officer. In addition to the recommended spare parts list required in paragraph SELECTION OF SPARE PARTS TO BE FURNISHED above, the Contractor is responsible to have one (1) year supply of manufacturer's recommended spare parts on site ready to turn over to the Contracting Officer at the time of acceptance of the facility.

1.18.3.1 Shipment and Delivery

The Contractor shall be responsible for the shipment and delivery of spare parts to the location on or near the site in Afghanistan as selected by the Contracting Officer. The Contractor shall provide all manpower and equipment required to receive and place into designated storage areas all spare parts purchased under this clause. The Contractor shall give the Contracting Officer thirty (30) calendar days notice of arrival at the site of the first shipment.

1.18.3.2 Turnover of Spare Parts

The Contractor shall notify the Contracting Officer seventy-two (72) hours prior to delivery of spare parts to the designated storage area. The Contractor and the Contracting Officer will perform a joint inventory of the spare parts and the spare parts will be turned over to the Contracting Officer. Spare parts purchased under this clause shall not be used by the Contractor.

1.18.3.3 Parts and Package Identification

Prior to shipment from point of purchase, each spare part shall be tagged or otherwise marked or labeled. Such labeling may be placed or affixed to the container, box or packaging in which spare parts are located when it is not feasible to place or affix such labeling directly on each spare part. Tags or labels shall include, but not necessarily be limited to; part number, description, parent equipment name and number location, project and/or other data as directed by the Contracting Officer.

1.18.3.4 Preservation and Packaging Instruction

a. Items ordered under this contract shall be preserved and packed for a minimum of three (3) years shelf life storage. All items shall be individually packaged except when the manufacturer specifies that the items are to be used in sets. Appropriate identification labels must be affixed to the items protective box or package. After the spare parts are packaged, the manufacturer shall weigh the spare parts and packaging and place the weight and size of the packaged container on the label with other information as outlined herein. Each item, not normally identified with manufacturer's name and part number, shall have an appropriate label affixed to it with manufacturer's name and part number.

b. Machined spare parts shall be lubricated or coated in order to withstand extensive periods of storage in a highly corrosive atmosphere.

c. Large items (greater than 50 lbs., or larger than one cubic foot) shall be packaged in waterproof wooden boxes and properly braced. Cushioning shall be used to prevent damage to the item and to the packaging material.

d. Solid state components, such as diodes, transistors, integrated circuits or equipment consisting of such parts that can be damaged as a result of static electricity and other stray electro-magnetic fields shall be packaged in heat-sealed, aluminum foil, laminated, flexible packages.

e. All other spare parts shall be packaged in heat sealed plastic bags or wrap. Delicate and more fragile items such as test equipment shall be cushioned or wrapped with transparent bubble wrap material prior to being inserted into the plastic package.

1.18.4 Warranty

All spare parts provided by the Contractor under this clause are subject to the general warranty clauses of this contract.

1.18.5 Payments for Spare Parts

Payments for spare parts ordered under the paragraph entitled "Selection of Spare Parts To Be Furnished" will be made under the work item of the Work Breakdown Sheet entitled "Spare Parts". Payments for spare parts specifically required elsewhere in this contract shall be considered as part of those equipment costs and shall be included in other payment items as appropriate. Payments for spare parts ordered under this clause shall be based on the invoice price (FOB supplier) plus certified invoice price of surface shipment to the site in Afghanistan. The invoice price (FOB supplier) shall include the separately listed cost for preservation and packaging by the manufacturer as specified herein. The Contractor shall provide invoices and any additional backup, which may be required to demonstrate that the invoices presented represent the cost of spare parts, preservation and packaging, and cost of surface shipment to the site. Payment for handling, delivery, inventory, turnover, customs, overhead or profit shall not be paid or allowed under this Contract Provision, and shall be included in the cost for installation of this equipment under the other appropriate payment items of this contract. Price increases over prices furnished under paragraph SELECTION OF SPARE PARTS TO BE FURNISHED shall be fully substantiated. Payment for spare parts will be made after the spare parts have been accepted at the site by the Contracting Officer. If the total payments under the work item entitled "Spare Parts" does not reduce the balance of this work item to zero, the remaining balance will be deducted from the final contract amount. If orders exceed the work item entitled "Spare Parts", a modification for equitable adjustment will be issued in accordance with Contract Clause 52.243-4 entitled CHANGES. Payments for spare parts ordered under this clause shall constitute full payment for all cost of the spare parts and associated cost of preservation and packaging, and cost of surface shipment

to the site. Other ancillary costs shall be included by the Contractor under the other appropriate work items of this contract and no additional cost except as provided herein will be allowed.

1.19 OPERATION AND MAINTENANCE (O&M) DATA

1.19.1 General

The requirements contained herein are in addition to all shop drawings submission requirements stated in other sections of the specifications. The Contractor shall include the provisions for all items required under this clause in all purchase orders and sub-contract agreements. Submittals required hereinafter will not relieve the Contractor of any responsibilities under the Warranty of Construction Provisions of this contract or under the various Guarantee Clauses of the Technical Provisions.

1.19.2 Submittals

The Contractor shall submit all items requiring submission of O&M data under this and other sections of these specifications in accordance with Section 01335 SUBMITTAL PROCEDURES FOR DESIGN/BUILD of the specifications.

1.19.3 Operation and Maintenance (O&M) Data

The Contractor shall furnish operation and maintenance manuals for all facilities constructed under this contract. The manuals shall be loose leaf, indexed and shall consist of manufacturer's brochures, manufacturer's operation and maintenance manuals, service and repair manuals, catalogs, service bulletins, instruction charts, diagrams, other information as necessary to support the operation and maintenance of the end items of equipment, assemblies and systems. Each type of facility (housing, barracks, etc.) shall be covered by a separate manual (or manuals) consisting of all data pertaining to the equipment and/or systems within that facility. Identical equipment within a single major system shall require only one submittal of data. The Contractor shall furnish all O&M manuals to the Contracting Officer not less than thirty (30) calendar days prior to contract completion. Required number of submittals (number of sets) shall be as specified in Section 01335 SUBMITTAL PROCEDURES FOR DESIGN/BUILD.

1.19.4 Recommend Spare Parts List

The Contractor shall furnish a recommended spare parts list containing equipment manufacturers' recommendations for five (5) years; two (2) years and one (1) year spare parts stock levels in Afghanistan. Current unit price and effective date, lead time, shelf life for each individual part, and total cost of all recommended parts shall be furnished.

1.19.5 Supplemental Submittals of Data

After initial submittal of O&M manuals and until final acceptance of all equipment, the Contractor shall prepare and deliver to the Contracting Officer supplemental technical data as previously described for all changes, modifications, revisions and substitutions to equipment and components. For equipment or systems introduced into the contract under change order, or modified by change order, supplemental data shall be furnished within forty-five (45) calendar days after issuance of the change order. The supplemental data furnished shall be properly prepared and identified for insertion into the O&M manuals.

1.19.6 Framed Instructions for Systems

Approved wiring and control diagrams showing the complete layout of the entire system, including equipment, piping, valves and control sequence, framed under glass or in approved laminated plastic, shall be posted, where applicable, in all mechanical equipment rooms. In addition, detailed operating instructions explaining safe starting and stopping procedures for all systems shall be prepared in typed form along with the inspections required to insure normal safe operations. The instructions shall be framed as specified above for the wiring and control diagrams and posted beside the diagram. Proposed diagrams, instructions, and other sheets shall be submitted for approval prior to posting. Operating instructions shall be posted before acceptance testing of the systems and verified during acceptance testing.

1.19.7 Additional Submittals/Resubmittals

The Contracting Officer reserves the right to determine whether the above specified information, as furnished by the Contractor, is adequate and complete and to require such additional submittals by the Contractor as necessary to insure that adequate information has been furnished to provide the satisfactory operation and maintenance of the various items of equipment and to fulfill the intent of the specifications. Additional submittals or resubmittals supplementing incorrect or incomplete data shall be made within thirty (30) calendar days after receiving notice by the Contracting Officer. All costs arising from these resubmissions shall be borne by the Contractor.

1.20 INSTRUCTIONS AND TRAINING FOR OPERATION AND MAINTENANCE

1.20.1 General

The Contractor shall be responsible for the instruction and training of operating and maintenance personnel as specified below and in the Technical Provisions of the specifications. Unless otherwise indicated in the Technical Provisions, operating and maintenance instructions shall be given for a minimum period as follows:

Title	Duration of Training
Mechanical Systems	10 Days
Electrical Systems	10 Days

1.20.2 Operation and Maintenance Training

The Contractor shall provide competent instructors for training of personnel designated by the Contracting Officer to operate mechanical and electrical building systems and equipment, perform the required preventive maintenance to minimize breakdown, and to perform necessary repairs when malfunction or breakdown of equipment occurs. Such training shall consist of classroom and on-the-equipment training for the period specified, which shall be completed prior to acceptance of a system or equipment, as applicable. The instructor(s) shall have no other duties during the period of training. Classroom instruction shall not exceed fifty percent (50%) of the total training time, with the balance devoted to on-the-equipment demonstration and familiarization. Emphasis will be given to both electrical and mechanical features, in accordance with approved training plans.

1.20.3 Arrangements

The training shall be for not less than the periods of time specified, five (5) days per week, and eight (8) hours per day, subject to review and approval by the Contracting Officer. Each individual training session shall be presented one time only, shall be video taped in a television system compatible with the local area, and be scheduled in a manner acceptable to the Contracting Officer. At the completion of training, the videotapes shall become the property of the Government. In addition to the Contractor's requirements to video tape each training section, the Government reserves the right to record, in any manner, the subject training material, or training sessions given by the Contractor, without additional cost to the Government. Recordings obtained will be used in future training by the Government. The operating and maintenance manual data, as specified to be furnished in these Special Clauses, shall be used as the base material for training.

1.20.4 Scheduling

The Contractor shall contact the Contracting Officer for the purpose of preliminary planning, scheduling, and coordination of training, to maximize effectiveness of the training program for available operating and maintenance personnel. The Contractor shall initiate and make arrangements for such contact within thirty (30) calendar days after receipt of notification of award of contract; and shall include all significant times in scheduling and completing training in his PROJECT SCHEDULE. The Contractor shall provide a draft outline of training outline in sufficient detail to provide a broad indication of the type of scope of training to be given. It shall include but not be limited to; (a) a list of subjects to be presented; (b) estimated amounts of classroom and on-the-equipment instruction for each subject; (c) a list of minimum qualifications for instructors; and (d) discussions concerning the types and amounts of visual aids, reference materials, tools and test equipment, mock-up and other training materials that will be employed during training.

1.20.5 Preliminary Plan

The Contractor shall submit seven (7) copies of an outline of his proposed training plan

to the Contracting Officer for review and approval not later than 60 calendar days after award of this task order. The plan will be reviewed and coordinated with the content of the O&M manuals.

1.20.6 Plan

The Contractor shall submit seven (7) copies of his proposed training plan to the Contracting Officer for approval not later than ninety (90) calendar days prior to start of any training. The plan shall include the following; (a) a weekly outline showing overall form and design of training presentation; (b) a day-by-day schedule showing time intervals, the major and subordinate subjects to be covered in each, the name of the instructor(s) and qualification summary of each, and identification of related handouts; (c) summary of the number of hours of classroom and on-the-equipment training; (d) a list of reference materials to be provided by the Contractor to the trainees; and (e) a list and description of the training materials to be used, such as text, visual aids, mock-up, tools, etc. The Contractor shall be responsible for furnishing all training materials except the following: The Government will provide space, chairs, and tables for classroom training, and three (3) sets of the five (5) sets of O&M Manuals required by the Contractor per Section 01335 SUBMITTAL PROCEDURES FOR DESIGN/BUILD of the specifications. Provision of these manuals is solely for reference purposes, and in no way relieves the Contractor from providing all instruction and materials necessary for training personnel designated by the Government. All costs for resubmission of training plans, training materials, etc., as requested by the Contracting Officer shall be borne by the Contractor. Resubmittals shall be made within twenty (20) days of notice from the Contracting Officer.

1.20.7 Attendance Roster/TAC Form 356

The Contractor shall develop an attendance roster or a similar document indicating each student’s attendance, prior to the start of each class, subject and/or topic. This includes both "Hands-On" and classroom training. It is strongly recommended that each student trained be required to sign this document at the beginning of each class day for each and every class, subject and/or topic taught on that day. The Contractor's failure to have student attendance verified in writing may be cause for the Government to order the Contractor to repeat schooling where evidence of attendance cannot be verified. No part of the time lost due to such repeat instruction shall be made the subject of claim for extension of time or for excess costs or damage by the Contractor. Within ten (10) working days after completion of Operation and Maintenance Training conducted in accordance with this clause and/or applicable Technical Provision section, the Contractor shall complete and submit TAC Form 356 "Operation and Maintenance Training Validation Certificate". The attendance roster shall be included as an attachment to TAC Form 356.

1.21 CONTRACTOR FURNISHED EQUIPMENT LISTS

The Contractor shall furnish a list of all items, other than integral construction type items, furnished under the contract. Items such as furniture, drapes, rugs, vehicles,

office machines, appliances, etc., shall fall under this category. The Contractor's list shall describe the item; give the unit price and total quantities of each. Model and serial numbers for equipment shall be provided when applicable. The Contractor shall keep an up-to-date register of all covered items and make this information available to the Contracting Officer at all times. Prior to acceptance, the Contractor shall submit the complete register to the Contracting Officer.

1.22 TIME EXTENSIONS FOR UNUSUALLY SEVERE WEATHER

1.22.1 General

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract Clause 52.249-10 entitled DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984. The listing below defines the anticipated monthly unusually severe weather for the contract period and is based on National Oceanic and Atmospheric Administration (NOAA) or similar data for the geographic location of the project. The schedule of anticipated unusually severe weather will constitute the baseline for determining monthly weather time evaluations. Upon award of this task order and continuing throughout the contract each month, actual unusually severe weather days will be recorded on a calendar day basis (including weekends and holidays) and compared to the monthly anticipated unusually severe weather in the schedule below. The term "actual unusually severe weather days" shall include days actually impacted by unusually severe weather. The Contractor's schedule must reflect the anticipated unusually severe weather days on all weather dependent activities.

MONTHLY ANTICIPATED UNUSUALLY SEVERE WEATHER CALENDAR DAYS	
January	4 Days
February	2 Days
March	2 Days
April thru December	0 Days

1.22.2 Time Extensions

The number of actual unusually severe weather days shall be calculated chronologically from the first to the last day in each month. Unusually severe weather days must prevent work for fifty percent (50%) or more of the Contractor's workday and delay work critical to the timely completion of the project. If the number of actual unusually severe weather days exceeds the number of days anticipated in the paragraph above, the Contracting Officer will determine whether the Contractor is entitled to a time extension. The Contracting Officer will convert any qualifying delays to calendar days and issue a modification in accordance with the Contract Clause 52.249-10 entitled DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984.

1.23 STANDARDIZATION

Where two or more items of the same type or class of product, system or equipment furnished in this project are required, the units shall be products of the same manufacturer and shall be interchangeable when of the same size, capacity, performance characteristics, and rating. The only exception to this requirement is where the items are interchangeable due to conformance with industry standards (valves, fittings, etc.); they need not be by the same manufacturer. This requirement applies to all manufactured items in the project that normally require repair or replacement during the life of the equipment.

1.24 COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS

The laws of Host Country may prohibit access to certain areas of the country that are under military control. The Contractor shall furnish the Contracting Officer the names of personnel, type, and amounts of equipment, dates and length of time required at the site, and the purpose of entering the host country. It is understood that areas to which rights of entry are provided by the Host Government are to be used only for work carried out under the contract and no destruction or damages shall be caused, except through normal usage, without concurrence of the Host Government.

1.24.1 Contractor's Responsibilities

The following items are the sole responsibility of the Contractor to investigate, estimate as to cost, and assume the risk, as normally encountered by Contractors. The Contractor shall be responsible for determining the effect of the following on his own cost of performance of the contract and for including sufficient amount in the contract price:

a. Official language and type of accounts required to satisfy the officials of the Local Government.

b. Entry and exit visas, residence permits, and residence laws applicable to aliens. This includes any special requirements of the Host Government, including those required by local Labor Offices, which the Contractor may have to fulfill before an application for a regular block of visas will be accepted.

c. Passports, health and immunization certificates, and quarantine clearance.

d. Compliance with local labor and insurance laws, including payment of employer's share of contribution, collecting balance from employee and paying into insurance funds.

e. Strikes, demonstrations and work stoppage.

f. Collection through withholding and payment to local Government, of any Host Country income tax on employees subject to tax.

g. Arranging to perform work in the Host Country, to import personnel, to employ non-indigenous labor, to receive payments and to remove such funds from the country.

h. Operating under local laws, practices, customs and controls, and with local unions, in connection with hiring and firing, mandatory wage scales, vacation pay, severance pay, overtime, holiday pay, 7th day of rest, legal notice or pay in lieu thereof for dismissal of employees, slowdown and curtailed schedules during religious holidays and ratio of local labor employed in comparison to others.

i. Possibility of claims in local bureaus, litigation in local courts, or attachment of local bank accounts.

j. Compliance with workmen's compensation laws and contributions into funds. Provisions of necessary medical service for Contractor employees.

k. Special license required by the local Government for setting up and operating any manufacturing plant in the Host Country, e.g. concrete batching, precast concrete, concrete blocks, etc.

l. Sales within the host country of Contractor-owned materials, and equipment.

m. Special licenses for physicians, mechanics, tradesmen, drivers, etc.

n. Identification and/or registration with local police of imported personnel.

o. Stamp tax on documents, payments and payrolls.

p. Base passes for permanent staff, day laborers, motor vehicles, etc.

q. Compliance with all customs and import rules, regulations and restrictions, including, but not limited to, local purchase requirements.

1.25 Not used.

1.25.1 Employee Identification

The Contractor shall be responsible for furnishing to each employee and for requiring each employee engaged on the work, to display identification as approved and directed by the Contracting Officer. Prescribed identification shall immediately be delivered to the Contracting Officer for cancellation upon release of any employee. When required, the Contractor shall obtain and provide fingerprints of persons employed on the project. Contractor and subcontractor personnel shall wear identifying markings on hard hats clearly identifying the company for whom the employee works.

1.25.2 Identification of Contractor Vehicles

The Contractor shall be responsible for requiring each vehicle engaged in the work to

display permanent vehicular identification as approved and directed by the Contracting Officer. A valid license plate shall be displayed at all times. Contractor vehicles operated on Government property shall be maintained in a good state of repair, shall be insured, and shall be registered in accordance with Afghan Law.

1.25.3 Security Plan

The Contractor shall submit to the Contracting Officer, within ten (10) calendar days after award of this task order, his proposed personnel and vehicular access plan. This plan shall cover all elements for issuance of the access passes, safeguarding of unissued passes, construction security operations, lost passes, temporary vehicle passes, and collection of passes for employee's and vehicles on 1)- temporary absence; 2)- termination or release; and 3)- termination or completion of contract. The plan shall address in detail the contractors proposed procedures, and organization necessary to produce and maintain effective security within the contract limits twenty-four (24) hours a day seven (7) days a week.

1.26 RADIO TRANSMITTER RESTRICTIONS

To preclude accidental actuation of sensitive electronic equipment, the Contractor shall not use radio-transmitting equipment without prior approval of the Contracting Officer.

1.27 Not used.

1.28 PUBLIC RELEASE OF INFORMATION

1.28.1 Prohibition

There shall be no public release of information or photographs concerning any aspect of the materials or services relating to this bid, contract, purchase order, or other documents resulting there from without the prior written approval of the Contracting Officer.

1.28.2 Subcontract and Purchase Orders

The Contractor agrees to insert the substance of this clause in all purchase orders and subcontract agreements issued under this contract.

1.29 ATTACHMENTS

TAC FORM 61 - Accident Prevention Program Hazard Analysis

TAC FORM 356 - Operation and Maintenance Training Validation Certificate

-- End of Section --

SECTION 01312

SPECIFICATION SECTION 01312

QUALITY CONTROL SYSTEM (QCS)

PART 1: GENERAL

1.1 GENERAL

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor shall use the Government-furnished Construction Contractor Module of RMS, referred to as QCS, to record, maintain, and submit various information throughout the contract period. The Contractor module, user manuals, updates, and training information can be downloaded from the RMS web site: the Contractor can obtain the current address from the Government. This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

Administration
Finances
Quality Control
Submittal Monitoring
Scheduling
Import/Export of Data

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record shall also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to specifications “SUBMITTAL PROCEDURES”, “CONTRACTOR QUALITY CONTROL”, "PROJECT SCHEDULE", and Contract Clause, "Payments", which have a direct relationship to the reporting to be accomplished through QCS. Also, there is no separate payment for establishing and maintaining the QCS database; all costs associated therewith shall be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. Prior to the Pre-Construction Conference, the Contractor shall be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Any program updates of QCS will be made available to the Contractor via the Government RMS Website as they become available. It shall be the responsibility of the contractor to maintain the QCS software and install updates as they become available.

1.3 SYSTEM REQUIREMENTS

The following listed hardware and software is the minimum system configuration that the Contractor shall have to run QCS. No separate payment shall be made for updating or maintaining the necessary hardware configurations necessary to run QCS: Hardware

IBM-compatible PC with 1000 MHz Pentium or higher processor
256+ MB RAM for workstation / 512+ MB RAM for server
1 GB hard drive disk space for sole use by the QCS system
Digital Video Disk (DVD)-Compact Disk (CD) Reader-Writer (RW/ROM)
Monitor with a resolution of AT LEAST 1024x768, 16bit colors
Mouse or other pointing device
Windows compatible printer. (Laser printer must have 4 MB+ of RAM)
Connection to the Internet, minimum 56k BPS

Software

MS Windows 2000 or higher
QAS-Word Processing software: MS Word 2000 or newer
Internet browser supporting HTML 4.0 or higher
Electronic mail (E-mail) MAPI compatible
Virus protection software regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, the Contractor shall download instructions for the installation and use of QCS from the Government RMS Internet Website; the Contractor can obtain the current address from the Government. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control (CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class. The government will provide QCS training if requested by the contractor.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government shall provide the Contractor with basic contract award data to use for QCS. The Government will provide data updates to the Contractor as needed, generally by files attached to E-mail or via CD-ROM. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

The Contractor shall establish, maintain, and update data for the contract in the QCS database throughout the duration of the contract. Data updates to the Government shall be submitted via either E-mail or electronic media with printed/file attachments, e.g., daily reports, schedule updates, payment requests. If permitted by the Contracting Officer. The QCS database typically shall include current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

The database shall contain the Contractor's name, address, telephone numbers, management staff, and other required items. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver Contractor administrative data in electronic format via E-mail.

1.6.1.2 Subcontractor Information

The database shall contain the name, trade, address, phone numbers, and other required information for all subcontractors. A subcontractor must be listed separately for each trade to be performed. Each subcontractor/trade shall be assigned a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, the Contractor shall deliver subcontractor administrative data in electronic format via E-mail.

1.6.1.3 Correspondence

All Contractor correspondence to the Government shall be identified with a serial number. Correspondence initiated by the Contractor's site office shall be prefixed with "S". Letters initiated by the Contractor's home (main) office shall be prefixed with "H". Letters shall be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

The Contractor's QCS database shall contain a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Inspection checklists.

1.6.2 Finances

1.6.2.1 Pay Activity Data

The QCS database shall include a list of pay activities that the Contractor shall develop in conjunction with the construction schedule. The sum of all pay activities shall be equal to the total contract amount, including modifications. Pay activities shall be grouped by Contract Line Item Number (CLIN), and the sum of the activities shall equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

All progress payment requests shall be prepared using QCS. The Contractor shall complete the payment request worksheet and include it with the payment request. The work completed under the contract, measured as percent or as specific quantities, shall be updated at least monthly. After the update, the Contractor shall generate a payment request report using QCS. A signed paper copy of the approved payment request is also required, which shall govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other contractor QC requirements. The Contractor shall maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Daily CQC Report generated by QCS shall be the Contractor's official report. Data from any supplemental reports by the Contractor shall be summarized and consolidated onto the QCS-generated Daily CQC Report. Daily CQC Reports shall be submitted as required by specification 01451 “CONTRACTOR QUALITY CONTROL”.

1.6.3.2 Deficiency Tracking.

The Contractor shall use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. The Contractor shall maintain a current log of its QC punch list items in the QCS database. The Government will log the deficiencies it has identified using its QA punch list items. The Government's QA punch list items will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of both QC and QA punch list items.

1.6.3.3 Three-Phase Control Meetings

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.4 Accident/Safety Tracking.

The Government will issue safety comments, directions, or guidance whenever safety deficiencies are observed. The Government's safety comments will be included in its export file to the Contractor. The Contractor shall regularly update the correction status of the safety comments. In addition, the Contractor shall utilize QCS to advise the Government of any accidents occurring on the jobsite. This brief supplemental entry is not to be considered as a substitute for completion of

mandatory reports.

1.6.3.5 Features of Work

The Contractor shall include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.6 QC Requirements

The Contractor shall develop and maintain a complete list of QC testing, transferred and installed property, and user training requirements in QCS. The Contractor shall update all data on these QC requirements as work progresses, and shall promptly provide this information to the Government via QCS.

1.6.4 Submittal Management

The Contractor shall maintain a complete list of all submittals, including completion of all data columns. Dates on which submittals are received and returned by the Government will be included in its export file to the Contractor. The Contractor shall use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update, ENG Form 4288, shall be produced using QCS. RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

The Contractor shall develop a construction schedule consisting of pay activities, in accordance with Specification Section Project Schedule. This schedule shall be input and maintained in the QCS database either manually or by using the Standard Data Exchange Format (SDEF). The updated schedule data shall be included with each pay request submitted by the Contractor.

1.6.6 Requests for Information (RFI)

The Contractor shall use the two-way RFI system contained in QCS for tracking all RFI’s generated during the contract. Hard copies of all RFI’s shall be provided to the government, and will govern in the event of a discrepancy between electronic and printed mediums.

1.6.7 Import/Export of Data

QCS includes the ability to export Contractor data to the Government and to import submittal register and other Government-provided data, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. The Contractor shall ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA COMPUTER DISKETTE OR CD-ROM

The Government-preferred method for Contractor's submission of updates, payment requests, correspondence and other data is by E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of computer diskettes or CD-ROM for data transfer.

Data on the disks or CDs shall be exported using the QCS built-in export function.

1.9 MONTHLY COORDINATION MEETING

The Contractor shall update the QCS database each workday. At least monthly, the Contractor shall generate and submit an export file to the Government with schedule update and progress payment request. As required in Contract Clause "Payments", at least one week prior to submittal, the Contractor shall meet with the Government representative to review the planned progress payment data submission for errors and omissions. The Contractor shall make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification.

-- End of Section --

SECTION 01321

PROJECT SCHEDULE

PART 1 GENERAL

1.1 SUBMITTALS

The following shall be submitted for Government approval in accordance with Section 01335 SUBMITTAL PROCEDURES: SD-07 Schedules Project Schedule. Horizontal Bar Chart and Periodic Payment Request Updates. Projected Earnings Curve and Periodic Payment Request Updates. Revisions to the Project Schedule and Projected Earnings Curve for Modifications Issued to this Contract shall be coordinated with the Contracting Officer.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL

The Contractor shall furnish a Project Schedule as described below. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project should also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.2 BASIS FOR PAYMENT

The schedule shall be the basis for measuring Contractor progress. Lack of an approved schedule or scheduling personnel shall result in an inability of the Contracting Officer to evaluate Contractor progress for the purposes of payment. Failure of the Contractor to provide all information, as specified below, shall result in the disapproval of the entire Project Schedule submission and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. In the case where Project Schedule revisions have been directed by the Contracting Officer and those revisions have not been included in the Project Schedule, then the Contracting Officer may hold retainage up to the maximum allowed by contract, each payment period, until revisions to the Project Schedule have been made.

3.3 PROJECT SCHEDULE

3.3.1 Schedule of Construction

Within seven (7) calendar days after award of the task order, the Contractor shall prepare and submit a Construction Schedule to the Contracting Officer for approval. This schedule shall address each payment line item and/or sub-line item listed in the Proposal Schedule separately.

3.3.2 Non-Compliance

Failure of the Contractor to comply with the requirements of the Contracting Officer shall be grounds for determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

3.3.3 Horizontal Bar Chart

The required schedule shall utilize an automated scheduling program and shall be in the form of a horizontal bar chart. The line or sub-line item schedule of activities shall be listed down the left side of the page. A time scale shall run across the bottom of the page. Each work item shall be represented by a bar starting with the schedule start date and running continuously to the completion date.

3.3.4 Cost

Listed with each work item shall be a corresponding cost representing the total cost, such as material, labor, equipment, and overhead associated with that item. The total cost of the work items shall be equal to the Bid Price for that sub-line item of the Proposal Schedule.

3.3.5 Scheduled Project Completion

The schedule interval shall extend from Notice-To-Proceed to the contract completion date.

3.3.6 Projected Earning Curve

Submitted with the Construction Schedule shall be a Projected Earning Curve. The Projected Earning Curve is a plot of the Contractor's earnings on the vertical axis and the contract duration on the horizontal axis. The earnings figure shall relate to the complete value of the contract and need not reflect each facility separately.

3.3.7 Construction Schedule

The Construction Schedule shall be on one page with a maximum dimension of 90 cm by 120 cm. The Contractor shall submit the Projected Earnings Curve on the same page. The initial submittal shall

include one (1) reproducible and four (4) copies, one (1) copy of which will be returned to the Contractor when approved.

3.3.8 Submission With Partial Payment Estimate

Each time the Contractor submits a payment request under this contract he shall also submit three (3) copies of the Bar Chart. The Bar Chart shall be annotated by indicating the percent complete for each activity directly on the bar. The Projected Earnings Curve shall be annotated by plotting actual earnings versus time on the same graph. Those work items reflecting performance which is behind schedule by fifteen (15) calendar days or more shall be fully explained in detail giving the reason for delay and the Contractor's plan for timely completion within the schedule.

3.3.9 Modifications

The Construction Schedule and Projected Earning Curve shall be revised to reflect any and all modifications issued to this contract as they are issued. Format and numbers of copies as defined in paragraph CONSTRUCTION SCHEDULE shall be submitted for approval by the Contracting Officer.

3.4 PERIODIC PROGRESS MEETINGS

Progress meetings to discuss payment shall include a monthly on-site meeting or shall be conducted at other regular intervals mutually agreed to at the preconstruction conference. During this meeting the Contractor shall describe, on an activity-by-activity basis, all proposed revisions and adjustments to the project schedule required to reflect the current status of the project. The Contracting Officer will approve activity progress, proposed revisions, and adjustments as appropriate.

3.4.1 Update Submission Following Progress Meeting

A complete update of the project schedule containing all approved progress, revisions, and adjustments, based on the regular progress meeting, shall be submitted not later than four (4) working days after the monthly progress meeting.

3.4.2 Progress Meeting Contents

Update information, including Actual Start Dates, Actual Finish Dates, Remaining Durations, and Cost to Date, shall be subject to the approval of the Contracting Officer.

3.4.3 Earnings Report

A compilation of the Contractor's Total Earnings on the project from the Notice-to-Proceed until the most recent Monthly Progress Meeting. This report shall reflect the Earnings of specific activities based on the agreements made in the field and approved between the Contractor and the Contracting Officer at the most recent Monthly Progress Meeting. Provided that the Contractor has provided a complete schedule update, this report shall serve as the basis of determining Contractor Payment. This report shall: sum all activities and provide a percent complete by individual activity and total project percent complete. The report shall contain, for each activity: activity identification, activity description, original budgeted amount, total quantity, quantity to date, percent complete (based on cost), and earnings to date.

3.4.4 Cost Completion

The earnings for each activity started shall be reviewed. Payment shall be based on earnings for each in-progress or completed activity. Payment for individual activities shall not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

3.4.5 Network Analysis System

The Contractor may, as an option, submit to the Contracting Officer for approval, a time related network analysis in lieu of the previously specified bar chart.

-- End of Section --

SECTION 01335

SECTION 01335

SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

PART 1 GENERAL

1.1 SUBMITTAL CLASSIFICATION

Submittals are classified as follows:

1.2.1 DESIGN SUBMITTALS

Contractor Furnished design submittals are the various design documents which primarily consist of specifications, drawings and design analysis and calculations. The Design-Build Contractor shall not begin construction work until the Government has reviewed the Design-Build Contractor's final design and has cleared it for construction. Clearance for construction shall not be construed as meaning Government approval. Unless otherwise indicated, the risk for the design is the sole responsibility of the Design-Build Contractor.

1.2.2 CONSTRUCTION SUBMITTALS

1.2.3 Contractor Furnished Government Approved Construction Submittals

Government approved construction submittals are primarily related to plans (Contractor Quality Control, Accident Prevention, Resident Management System, Area Use, etc.) schedules (Project Schedule/Network Analysis), and certificates of compliance. They may also include proposed variations to approved design documents in accordance with the paragraph entitled "VARIATIONS".

1.2.4 For Information Only Construction Submittals (FIO)

All submittals not requiring Designer of Record or Government approval will be for information only.

1.3 SUBMITTAL CERTIFICATION

The CQC organization shall be responsible for certifying that all submittals and deliverables have been reviewed in detail for completeness, are correct, and are in strict conformance with the contract drawings, specifications, and reference documents.

1.3.1 Effective Quality Control System

The Design-Build Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with Contract Clause 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION - ALTERNATE I and specification section 01451 CONTRACTOR QUALITY CONTROL.

1.3.1.1 Organizational Responsibility

The quality control system shall cover all design, construction, subcontractor, manufacturer, vendor, and supplier operations at any tier, both onsite and offsite.

1.3.1.2 CQC System Manager Review and Approval

Prior to submittal, all items shall be checked and approved by the Design-Build Contractor's Quality Control (CQC) System Manager. If found to be in strict conformance with the contract requirement, each item shall be stamped, signed, and dated by the CQC System Manager. Copies of the CQC organizations review comments indicating action taken shall be included within each submittal.

1.3.1.3 Determination of Compliance

Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer. The contractor shall submit all required documentation with submittals. The U.S. Army Corps of Engineer (USACE) will not accept partial submittals.

1.3.2 Responsibility for Errors or Omissions

It is the sole responsibility of the Design-Build Contractor to ensure that submittals do or do not comply with the contract documents. Government review, clearance for construction, or approval by the Contracting Officer shall not relieve the Design-Build Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.

1.3.2.1 Government Review

Government review, clearance for construction, or approval of post design construction submittals shall not be construed as a complete check, but will indicate only that the

general method of construction, materials, detailing and other information are satisfactory.

1.3.3 Substitutions

After design submittals have been reviewed and cleared for construction by the Contracting Officer, no resubmittal for the purpose of substituting materials or equipment will be considered unless justified as indicated in the paragraph entitled VARIATIONS.

1.3.4 Additional Submittals

In conjunction with Contract Clause 52.236-5 MATERIAL AND WORKMANSHIP. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work.

1.3.5 Untimely and Unacceptable Submittals

If the Design-Build Contractor fails to submit submittals in a timely fashion, or repetitively submits submittals that are incomplete or not in strict conformance with the contract documents, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Design-Build Contractor.

1.3.6 Stamps

Stamps shall be used by the Design-Build Contractor on all design and post design construction submittals to certify that the submittal meets contract requirements and shall be similar to the following:

Design-Build Contractor (Firm Name)
Contract Number
Contract Name

I certify that this submittal accurate, is in strict conformance with all contract requirements, has been thoroughly coordinated and cross checked against all other applicable disciplines to prevent the omission of vital information, that all conflicts have been resolved, and that repetition has been avoided and, it is complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer.

Name of CQC System Manager: _____

Signature of CQC System Manager: _____

Date: _____

1.4 ENGLISH LANGUAGE

All specifications, drawings, design analysis, design calculations, shop drawings, catalog data, materials lists, and equipment schedules submitted shall be in the English language.

1.5 UNITS OF MEASUREMENT

Design documents shall be prepared in accordance with the guidance offered in SECTION 01415 METRIC MEASUREMENTS.

The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960.

1.5.1 Drawings

1.5.1.1 All site layout data shall be dimensioned in meters or coordinates, as appropriate. All details and pipe sizes shall be dimensioned in millimeters.

EXAMPLE: Masonry openings shall be a U.S. module to suit a standard U.S. door. The dimensions of the opening shall be given in SI units. Metric dimensions for site plans shall be in meters and fraction thereof. Dimensions for all other drawings shall be in millimeters using hard metric designations (example: 12 meters = 12 000). Hard metric is defined as utilizing standard metric products and the use of measurements in increments of fifty (50) and one hundred (100)millimeters.

1.5.1.2 All site plans shall be georeferenced using the WGS 1984 coordinate system, specifically the following: WGS 1984 UTM one 42 N. If the designer is not able to use the stated coordinate system the coordinate system used shall be correlated to the stated coordinate system. A table shall be provided within the site drawing set cross referencing the WGS84 system to that utilized. This is required to allow AED to incorporate the plans into GIS for storage, map production, and possible geospatial analysis of the different work sites.

1.5.2 Design Calculations

Calculations shall be in SI units to meet the requirements of the design. Quantities on the contract drawings stated in SI units, shall also be stated in SI units in the design analysis to match the drawings.

1.5.3 Specifications

All equipment and products shall be specified according to U.S. standards and described by appropriate units as required herein.

1.6 WITHHOLDING OF PAYMENT FOR SUBMITTALS

1.6.1 Design Submittals

Payment for Design work will not be made in whole or in part until the Government has reviewed and cleared the design for construction.

1.6.2 Construction Submittals

Payment for materials incorporated in the work will not be made if required approvals have not been obtained. In event under separate clause of the contract, the Design-Build Contractor is allowed partial or total invoice payment for materials shipped from the Continental United States (CONUS), and/or stored at the site, the Design-Build Contractor shall with his request for such payment, submit copies of approvals (ENG Form 4025) certifying that the materials that are being shipped and/or stored have been approved and are in full compliance with the contract technical specifications.

PART 2 PRODUCTS

2.1 GENERAL

The following are contract deliverables which expound upon and finalize the design parameters/requirements outlined within the contract documents. They shall be prepared in such a fashion that the Prime Contractor is responsible to the Government and not as an internal document between the Prime Contractor and its Subcontractors, Vendors, Suppliers, etc.

2.2 DESIGN ANALYSIS

2.2.1 A design analysis, written in the English Language with SI units of measure shall be submitted for review by the Government. The design analysis is a written explanation of the project design which is expanded and revised (updated) as the design progresses. The design analysis shall contain all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer reviewing the final drawings and specifications. Provide sufficient information to permit manual checks of the results. The design analysis contains the criteria for and the history of the project design, including criteria furnished by the Government, letters, codes, references, conference minutes, and pertinent research. Design calculations, computerized and manual, are included in the design analysis. Narrative descriptions of design solutions are also included. Written material may be illustrated by diagrams and sketches to convey design concepts. Catalog cuts and manufacturer's data for all equipment, hardware, and items, shall be submitted. Copies of all previous design phase review comments and the actions assigned to them shall be included with each submission of the design analysis. Specific requirements for the design analysis, listed by submittal phase, are contained herein.

2.2.2 Architectural Code Analysis

Provide Code Analysis for each building based on the following items and code sections. The following analysis information is required for all buildings submitted in this proposal.

Analysis Items	Code References
1. Occupancy Classification	IBC Chapter 3 and Table 302.3.2
2. Type of Construction	IBC Chapter 6
3. Actual Allowable Area	IBC 503, 505-508 & Table 503
4. Actual Allowable Height	IBC 504 & Table 503
5 Occupant Load (per use)	IBC 1004 & Table 1004.1.2
6. Exits Required/Provided	IBC 1004 & Table 1004.1.2 IBC 1014, 1018, and 1018.2
7. Required Opening Protection	IBC Table 602
8. Fire Resistive Construction	IBC Table 601

2.3 DESIGN CALCULATIONS

When they are voluminous, they shall be bound separately from the narrative part of the design analysis. The design calculations shall be presented in a clean and legible form incorporating a title page and index for each volume. A table of contents, which shall be an index of the indices, shall be furnished when there is more than one volume. The source of loading conditions, supplementary sketches, graphs, formulae, and references shall be identified. Assumptions and conclusions shall be explained. Calculation sheets shall carry the names or initials of the computer and the checker and the dates of calculations and checking. No portion of the calculations shall be computed and checked by the same person.

2.3.1 Automatic Data Processing Systems (ADPS)

When ADPS are used to perform design calculations, the design analysis shall include descriptions of the computer programs used and copies of the ADPS input data and output summaries. When the computer output is large, it may be divided into volumes at logical division points.

2.3.1.1 Computer Printouts

Each set of computer printouts shall be preceded by an index and by a description of the computation performed. If several sets of computations are submitted, they shall be accompanied by a general table of contents in addition to the individual indices.

2.3.1.2 Preparation of the Description

Preparation of the description which must accompany each set of ADPS printouts shall include the following.

a. Explain the design method, including assumptions, theories and formulae.

b. Include applicable diagrams, adequately identified.

c. State exactly the computation performed by the computer.

d. Provide all necessary explanations of the computer printout format, symbols, and abbreviations.

e. Use adequate and consistent notation.

2.4 SPECIFICATIONS

Specifications shall be prepared in accordance with the Construction Specifications Institute (CSI) format. The Design-Build Contractor prepared specifications shall include as a minimum, all applicable specification sections referenced by the CSI. Where the CSI does not reference a specification section for specific work to be performed by this contract, the Design-Build Contractor shall be responsible for creating the required specification.

Construction Specifications Institute
http://www.csinet.org/s_csi/index.asp
601 Madison Street
Alexandria, Virginia
22314-1791

2.4.1 Preparation of Proprietary Non-Generic Design Documents

During the course of design, the designer shall specify specific proprietary materials, equipment, systems, and patented processes by trade name, make, or catalog number. The subsequent use of construction submittals to supplant and/or supplement incomplete design effort is unacceptable. Design submittals containing non-proprietary and/or generic design criteria where proprietary items are available, will be returned for resubmission.

2.4.2 Use of Unified Facilities Guide Specifications (UFGS)

If UFGS are used, it is the sole responsibility of the Design-Build Contractor to prepare these specifications in strict conformance with the paragraph entitled PREPARATION OF PROPRIETARY NON-GENERIC DESIGN DOCUMENTS. UFGS containing non-proprietary and/or generic design criteria, where proprietary items are available, will be returned for resubmission. If the UFGS contains a "SUBMITTALS" paragraph, the Design-Build Contractor shall delete it and incorporate all required information directly into the design documents. Under no circumstances will the Design-Build Contractor be permitted to use submittals and shop drawings to finalize an incomplete design. UFGS (Uniform Federal Guide Specifications) are required for this project when U.S. products and systems are required or used. Current UFGS information may be obtained at the following location: http://www.wbdg.org/ccb/browse_org.php?o=70.

Specifications for UFGS are in SpecsIntact format. SpecsIntact is government sponsored software used to edit specifications for government contracts. The software is available at the following link: http://specsintact.ksc.nasa.gov/index.asp.

2.4.3 Quality Control and Testing

Specifications shall include required quality control and further indicate all testing to be conducted by the Design-Build Contractor, its subcontractors, vendors and/or suppliers.

2.4.4 Ambiguities and indefinite specifications

Ambiguities, indefinite specification requirements (e.g., highest quality, workmanlike manner, as necessary, where appropriate, as directed etc) and language open to interpretation is unacceptable.

2.4.5 Binding

All volumes of specifications shall be 8.5 inches X 11 inches, and firmly bound, covers shall be of a heavier bond than the drawing sheets. All specifications shall be bound in sets with Chicago Screws to fasten sheets together, the drilled holes on the bond edges of the sheets shall be on 100 mm centers maximum, and 40 mm maximum from edges.

2.4.5 Industry Standards

2.4.5.1 U.S. Industry Standards

The Specifications shall be based on internationally accepted U.S. industry Standards. Customarily accepted publications may be found in the UNIFIED MASTER REFERENCE LIST (UMRL) which may be located at the following URL: http://www.hnd.usace.army.mil/techinfo/UFGS/UFGSref.htm.

To access the UMRL select the “Unified Facilities Guide Specifications” tab and scroll down to Unified Master Reference List (UMRL) (PDF version).

Examples of U.S. standards are: National Fire Protection Association (NFPA), International Building Code (IBC), American Concrete Institute (ACI), American Water Works Association (AWWA), ADAAG (ADA Accessibility Guidelines) for Buildings and Facilities, etc. Standards referenced shall be by specific issue; the revision letter, date or other specific identification shall be included.

This document lists publications referenced in the Unified Facilities Guide Specifications (UFGS) of the Corps of Engineers (USACE), the Naval Facilities Engineering Command (NAVFAC), the Air Force Civil Engineer Support Agency (AFCESA), and the guide specifications of the National Aeronautics and Space Administration (NASA). This document is maintained by the National Institute of Building Sciences (NIBS) based on information provided by the agencies involved and the standards producing organizations. The listing is current with information available to NIBS on the date of this publication.

Standards referenced in specifications and drawings prepared by the Design-Build Contractor shall be by specific issue; the revision letter, date or other specific identification shall be included.

2.4.5.2 Non U.S. Industry Standards

The Codes, Standards, and Regulations listed below shall be used in the construction of this project. The publications shall be the most recent editions. Standards specified shall be ASTM or equivalent DIN, BS, or EN. Standards other than those mentioned may be accepted provided they meet the minimum requirements and the Contractor shall submit proof of equivalency to the Contracting Officer for approval. It shall be the contractor’s responsibility to show equivalency requirements are met if the Standard is not per specified format. Any time two or more Codes or standards conflict, the most stringent shall apply.

2.4.6 Incorporation of Government review comments

Subsequent to submission to the Government, the specifications shall be finalized by the incorporation of Government review comments.

2.5 DRAWINGS

Drawings, prepared in the English language with SI units of measure, are a part of each submittal. The working drawings shall be adequately labeled and cross-referenced for review. Complete, thoroughly checked and coordinated contract drawings shall be submitted. The contract drawings submitted for final review shall include the drawings previously submitted which have been revised and completed as necessary. The Design-Build Contractor shall have incorporated any design review

comments generated by previous design review(s), have completed all of his constructability and coordination checks, and have the drawings in a Ready-to-Build condition. The drawings shall be complete at this time and contain all the details necessary to ensure a clear understanding of the work throughout construction.

2.5.1 Drawing Size

If project is required to be in (SI) Metric units, all drawings shall be prepared in size "A1" sheets (594mm by 841mm). If project is required to be in English units, all drawings shall be modified Architectural D size (24 inches by 36 inches) sheets. Design submissions may be prepared in half size (11 inches by 17 inches) to save paper and for ease of review. All final contract drawing sets shall be prepared with full size sheets. Drawings shall be trimmed to size if necessary.

2.5.2 Computer Assisted Design and Drafting (CADD)

Computer Assisted Design and Drafting (CADD) is required for all work related to this contract. The CADD deliverables shall meet the requirements of the AEC CAD Standard Release 2.0. Emphasis is on drawings meeting sheet layout standards, level/layer naming standards and sheet naming conventions. CAD standards may be found at the following link: https://tsc.wes.army.mil/products/standards/aec/aecstdweb.asp. Transatlantic Programs Center Design Instructions Manual, Chapter 22 entitled COMPUTER ASSISTED DESIGN AND DRAFTING. The Contractor shall furnish the digital as-built drawing files in .DWG file format utilizing AutoDesk AutoCAD revision 2005 or later. Drawings shall not be prepared in another Cad format and converted into AutoCAD.

2.5.3 Plotter Prepared Original Drawings

Plotter prepared original drawings shall be prepared on 20 pound bond paper, unless otherwise approved and shall be plotted on the matte side. Raster plotters must provide a minimum resolution of 400 dpi while vector plotters shall provide a minimum resolution of 0.0010 inch with an accuracy of +0.1% of the move and a repeatability error of not more than 0.005 inch. Drawings produced from dot matrix plotters are not acceptable. Plots accompanied by the digital design file may be prepared on vellum: translucent bond is not acceptable. Line density shall be equivalent to that produced by black India ink: half-tones and gray scale plots are not acceptable unless otherwise approved. Manual changes to plotted originals are not acceptable.

2.5.4 Half-Size Reduction

Preparation of all work shall accommodate half size reduction unless project is required to meet SI units or shall be instructed otherwise by the Contracting Officer.

2.5.5 Symbols and Abbreviations

Symbols and abbreviations shall be in accordance with AEC CAD Standard Release 2.0 or later /or conform to the symbols used with a CADD program such AutoDesk AutoCAD release 2000 or greater.

2.5.6 Design Discipline Designation Format

Referencing AEC CAD Standard Release 2.0, the drawing package shall be divided into the following proposed divisions:

Discipline Designation	Discipline
Use the following for AEC CAD Standard Release 2.0:	
C	Civil
S	Structural
A	Architectural
F	Fire Protection
P	Plumbing
M	Mechanical
E	Electrical

Each drawing for the particular facility shall be designated by the discipline designation and sheet number and shall be consecutive within each discipline. AEC CAD Standard, referenced herein, shall be adhered to, especially with regard to sheet naming, numbering and level/layer naming standards. Copies of level/layer naming standards are available at the following locations (in comma delimited format - .CSV) and may be imported into Microstation and/or AutoCAD release 2000 or later:

Public FTP site: ftp://anonymous:anonymous@ftp.usace.army.mil/pub/aed/Standards/AEC_Nat_CAD_Std/level_libs/
SharePoint site: https://aedsharepoint.tac.usace.army.mil/C16/Drawings/Document%20Library/AEC_CAD_level_templates.ZIP

2.5.7 Grouping Drawings

A building or individual facility design shall, except for site development drawings, be grouped in the design drawing package so that a single building may be withdrawn by deleting or removing a consecutive block of sheets.

2.5.8 Title and Revision Block

Title and revision block shall match FIGURES 1 through 5 furnished in the paragraph entitled ATTACHMENTS.

2.5.9 Drawing Scales

The scales indicated on the following list shall, in general, be used for all drawings. The Contractor may, at its option, make exceptions to scales indicated, if approved in writing by the Contracting Officer.

Site, Grading and Utility Plans - 1:500, if in SI units

Key Plans as large as practical

Cross Sections/elevations (as large scale as possible to adequately show required detail) - 1:100, if in SI units

Details - 1:10 minimum, if in SI units

2.5.10 Binding

All volumes of drawing prints shall be firmly bound and shall have covers of heavier bond than the drawing sheets. All drawings shall be bound in sets with Chicago Screws to fasten sheets together, the drilled holes on the bond edges of the sheets shall be on 200 mm centers maximum, and 50 mm maximum from edges. Maximum thickness of each set of drawings shall be 40 mm.

2.5.11 Typical Sheets

Typical sheets of standard details uniformly used on all buildings are authorized and encouraged. Sheets of standard details may be prepared so that they can be reused if the design package must be divided into separate construction packages. Each typical detail drawing sheet may be limited to a particular design discipline. Standard detail sheets shall be organized by discipline as are the other drawing sheets. Details peculiar to one facility shall not be shown in the standard details but with the group of drawings for the facility to which it pertains.

2.5.12 Index Sheet(s)

The first sheet of each volume in a project shall be a cover sheet. In general, the second sheet shall be the first index. The third sheet shall be a legend with all symbols and abbreviations used in drawings listed. Multiple index sheets may be required, depending on the project size. All index sheets shall be included with each volume of drawings and shall be an index of all the individual drawings in all volumes. The index shall list sequentially the site development drawings, each facility's drawings, and the standard details drawings (if any), and shall locate them by volume and file number. Each index sheet shall be signed and stamped by a principal of the Design-Build Contractor.

2.5.13 Drawing File Number

The File Number is unique to each drawing and is a combination of a project location code, project number, facility designator and the CADD file name. Unassigned numbers or skipped sheets shall be labeled as "Not Used" on the index sheets. Cover sheets are not numbered.

2.5.14 Specifications Placed on the Drawings

Details of standard products or items which are adequately covered by specifications shall not be included on the drawings.

2.5.15 Legends

For each submittal, legends of symbols and lists of abbreviations shall be placed on the drawings. They shall include all of the symbols and abbreviations used in the drawing set, but shall exclude any symbols and abbreviations not used. Since many symbols are limited to certain design disciplines, there is a definite advantage to the use of separate legends on the initial sheet of each design discipline or in the Standard Details package for each discipline. If legends have not been shown by discipline, a legend shall be placed on the third drawing.

2.5.16 Location Grid

To facilitate the location of project elements and the coordination of the various disciplines' drawings, all plans shall indicate a column line or planning grid, and all floor plans (except structural plans) shall show room numbers.

2.5.17 Composite and Key Plans

If the plan of a large building or structure must be placed on two or more sheets in order to maintain proper scale, the total plan shall be placed on one sheet at a smaller scale. Appropriate key plans and match lines shall appear on segmented drawings. Key plans shall be used not only to relate large scale plans to total floor plans but also to relate individual buildings to complexes of buildings. Key plans shall be drawn in a convenient location and shall indicate the relative location of the represented plan area by crosshatching.

2.5.18 Revisions

Drawing revisions shall be prepared only on the original CADD files. A revision area is required on all sheets.

PART 3 EXECUTION

3.1 GENERAL

3.1.1 Design Concept Coordination Meeting

In addition to regular meetings with the Government the Contractor shall conduct formal status briefings on a bi-weekly basis, as a minimum, to provide a management overview of design development. Shortly after contract award the Government may choose to conduct meetings with the Design-Build Contractor to refine proposal concept features. The purpose of the meeting is to assure attention to project requirements and to suggest ways of improving the design prior to tentative level submissions.

3.1.2 Government Design Changes

Government design changes which do not increase construction costs shall be made at no charge to the Government. The Contracting Officer may request design submittals in addition to those listed when deemed necessary to adequately describe the work covered in the contract documents. Submittals shall be made in the respective number of copies and to the respective addresses set forth in the paragraph entitled SUBMITTAL PROCEDURE. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

3.2 SUBMITTAL REGISTERS

3.2.1 Contractor-Furnished Design Documents Submittal Register (TAC Form 122-E)

3.2.1.1 General

The Contractor shall submit as part of his Project Schedule, information regarding the submittal and clearance for construction of Contractor furnished design documents. In addition, the Contractor shall provide a complete submittal register in the sample format (TAC Form 122-E - Contractor Furnished Design Documents Submittal Register) which is attached to this section. The Contractor shall, within fifteen (15) calendar days after approval of the Project Schedule, submit 3 copies of his finalized Contractor Furnished Design Document Submittal Register to the Contracting Officer for approval. The submittal register shall consist of a tabulation of all the Contractor furnished design documents with the indicated dates integrated into the Design Progress Schedule. The Contractor shall post all actual dates of submittal actions (including clearance for construction) as they occur. Revisions shall be made at minimum on a monthly basis to keep the submittal register in agreement with the scheduled dates shown in the network mathematical analysis.

3.2.1.2 Additions or Revisions

Any additions or changes required to be made to the TAC Form 122-E as a result of the Contracting Officer's review shall be incorporated into the TAC Form 122-E by the Contractor and (3) copies shall be affected within five (5) calendar days after receipt of the Contracting Officer's review comments.

3.2.1.3 Submission Requirements

A copy of the initial TAC Form 122-E and each monthly update prepared by the Contractor, shall be submitted to

AFGHANISTAN ENGINEER DISTRICT

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District
House # 1, St. #1 West
West Wazir Akbar High School
Behind Amani High School
Kabul, Afghanistan
Attn.: Tony Lijewski

(2) U.S. Postal Service:
USACE AED
ATTN: QALAA House
APO AE 09356

3.2.2 Construction Submittal Register (ENG Form 4288)

Attached to this section is ENG Form 4288 which the Contractor is responsible for developing for this contract. All construction submittals shall be shown on this register. The submittal register shall be the controlling document and will be used to control all construction submittals throughout the life of the contract. The Contractor shall maintain and update the register on a monthly basis for the Contracting Officer's approval.

3.3 TRANSMITTAL FORM (ENG Form 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both design and construction submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.4 PROGRESS SCHEDULE

The Contractor shall prepare and submit a design progress schedule to the Contracting Officer. The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The progress schedule shall show, as a percentage of the total design price, the various items included in the contract and the order in which the Contractor proposes to carry on the work, with dates on which he will start the features of the work and the contemplated dates for completing same.

Significant milestones such as review submittals shall be annotated. The Contractor shall assign sufficient technical, supervisory and administrative personnel to insure the prosecution of the work in accordance with the progress schedule. The Contractor shall correct the progress schedule at the end of each month and shall deliver Submittal section AED (3) copies to the Contracting Officer. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.5 SCHEDULING

3.5.1 Design Submittals

Note: all design submittal phases shall consist of Designs, Specifications, Design analysis, One full size and 2 Half size sets of drawings bound with a CD-ROM electronic files of all the listed here in.

Adequate time (a minimum of fifteen (15) calendar days exclusive of mailing time) shall be allowed for review and clearance for construction. If the Contractor fails to submit design submittals in a timely fashion, or repetitively submits design submittals that are not in strict conformance with the contract documents, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.5.2 Post Design Construction Submittals

Submittals covering component items forming a system or items that are interrelated shall be scheduled to be coordinated and submitted concurrently. Certifications to be submitted with the pertinent drawings shall be so scheduled. Adequate time a minimum of fifteen (15) calendar days exclusive of mailing time) shall be allowed for review and approval. If the Contractor fails to submit post design construction submittals in a timely fashion, or repetitively submits submittals that are not in strict conformance with the contract documents, no part of the time lost due to actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.5.3 Incorporation of Government Review Comments

The Contractor shall use DrChecks$_{SM}$, as the communication mechanism for the Government's review comments. The review will be for conformance with the technical requirements and parameters of the contract documents. The Contractor shall either incorporate each comment or, if the Contractor disagrees technically and does not intend to comply with the comment(s), the Contractor shall clearly outline, with ample justification, its reasons for its noncompliance within five (5) days after receipt of the comment(s) in DrChecks$_{SM}$, Additionally, the Contractor is cautioned in that if it believes the action required by any comment exceeds the requirements of this contract, that he should take no action and notify the Contracting Officer in writing immediately. The DR Checks review comments and the submittal material for each

design review will become the basis for any ensuing design work. Copies of the DrChecks$_{SM}$, design review comments with the action taken on each comment noted shall be bound in all succeeding volumes of the design analysis.

3.6 SUBMITTAL PROCEDURE

3.6.1 Design Submittals

3.6.1.1 Afghanistan Engineer District (AED

Two (2) hard copies and one soft copy_(1) copies of all design submittals shall be transmitted to the Government at the following address by means of ENG Form 4025:

AFGHANISTAN ENGINEER DISTRICT

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District
House # 1, St. #1 West
West Wazir Akbar High School
Behind Amani High School
Kabul, Afghanistan

(2) U.S. Postal Service:
USACE AED
ATTN: QALAA House
APO AE 09356

One (1) set of designs (3) copies of all design submittals shall be transmitted to the Government at the following address by means of ENG Form 4025:

The drawings shall be submitted in full size and half size formats unless otherwise noted.

For the Afghanistan Engineer District and/or field office, the Contractor shall submit two (1) full size and one (2) half size sets of drawings and a complete set of specification, design analysis and a soft copy on CD-ROM of all of the listed herein.

3.6.1.2 Resident/Area Engineer Office

Two (2) half size copies and one (1) full size additional copy of each design submittal shall be transmitted to the overseas field office administering the construction portion of the contract at the following address:

3.6.1.3 Deliverables "Cleared for Construction"

Once the Design Documents have been "Cleared for Construction" by the Contracting Officer, the Design-Build Contractor shall clearly identify each document by annotating it as “Cleared for Construction”. One (1) complete hardcopy and CD set of all finalized design documents shall be submitted to the Government as follows:

AFGHANISTAN ENGINEER DISTRICT

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District
House # 1, St. #1 West
West Wazir Akbar High School
Behind Amani High School
Kabul, Afghanistan

(2) U.S. Postal Service:
USACE AED
ATTN: QALAA House
APO AE 09356

Resident Area Engineer Office AED

Field office or site location of design project.

This is a Design-Build project and in accordance with Contract Clause 52.227-7022 GOVERNMENT RIGHTS (UNLIMITED), the Government has non-exclusive rights to use the design on other projects. Therefore, the As-Builts furnished to the Government must be in an editable format.

3.6.1.4 Editable CADD Format As-Builts

One (1) set of the Government approved As-Builts shall be submitted to the following address in an editable CADD format:

AFGHANISTAN ENGINEER DISTRICT

(1)
DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District
House # 1, St. #1 West
West Wazir Akbar High School
Behind Amani High School

Kabul, Afghanistan

(2) U.S. Postal Service:

USACE AED
ATTN: QALAA House
APO AE 09356

This requirement is in addition to all other submission requirements stated elsewhere in the contract.

3.6.1.5 Digital Transmission of Design Submittals

The Design-Build Contractor shall submit design deliverables addressed by this specification in digital format. The following procedure shall be followed:

a. USE OF FILE TRANSFER PROTOCOL (FTP) SERVER. The Design-Build contractor will download all design files on either its own File Transfer Protocol (FTP) Server, the Corps FTP Server or as otherwise directed. Afghanistan Engineer District (AED) prefers that the contractor provide the soft copy of design submittals be burned to CD-ROM and submitted as such. The procedure to be followed will be established at the Pre-Construction Conference and the appropriate log-in and password information will be exchanged between the Government and the Design-Build Contractor.

NOTE: AED accepts AutoCAD release 2005 or higher drawing file format as the standard due to the fact that the local region does not support Microstation

b. TRANSLATED OR CONVERTED FILES DRAWING FILES. Digital drawing files shall be prepared as indicated in the paragraph entitled COMPUTER ASSISTED DESIGN AND DRAFTING (CADD). Under NO circumstances shall the Design-Build Contractor translate (or convert) the files from Bentley Microstation to AutoDesk AutoCAD.

c. NOTIFICATION. The Design-Build Contractor shall notify all recipients by email that the Design submittal has been downloaded to the designated FTP server or electronically provided on a CD and is ready for Government review. This email shall include a scanned copy of the ENG Form 4025 signed by the Design-Build Contractor's Contractor Quality Control (CQC) Organization. It shall also include an updated digital copy of TAC Form 122-E. The Government will use the digital submittal as an advance copy pending receipt of an official hardcopy version in accordance with the paragraph entitled SUBMITTAL PROCEDURE. Subsequent to a period of demonstrated successful performance, the Government may elect to eliminate the requirement to submit an official hardcopy version.

The TAC Form 122-E shall be prepared in a spread sheet software that readily allows the file to be saved as a *.CSV file that can subsequently be imported into the Corps of Engineers Resident Management System (RMS) software.

d. RETURN OF GOVERNMENT REVIEWED SUBMITTALS. Subsequent to the Government review, the Eng Form 4025 with comments (if applicable) will be returned to the Design-build Contractor digitally by email. Hardcopies of these documents will subsequently be submitted to the Design-Build Contractor via the United States Postal Service (USPS). The Government may elect to stop sending hardcopies if it deems that digital transmission of design submittals is progressing satisfactorily.

e. SUPPLEMENTAL ACTIONS. All supplemental actions, resubmittals, and subsequently scheduled submissions shall be performed by the Design-Build contractor as indicated within this paragraph.

AED: As-builts shall be prepared and submitted in .DWG format utilizing AutoDesk AutoCAD release 2000 or higher format.

3.6.2 Post Design Construction Submittals

Three (3) copies of all post design construction submittals shall be transmitted to the overseas district office administering the construction portion of the contract at the following address:

AFGHANISTAN ENGINEER DISTRICT

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District
House # 1, St. #1 West
West Wazir Akbar High School
Behind Amani High School
Kabul, Afghanistan

(2) U.S. Postal Service:
USACE AED
ATTN: QALAA House
APO AE 09356

Submittal area of the AED engineering section

One (1) additional copy of each Post Design Construction submittal shall be transmitted to the Government at the following stateside address by means of ENG Form 4025:

Submittals of Operations and Maintenance (O & M) Manuals in sets of (3) three copies shall be as follows:

AFGHANISTAN ENGINEER DISTRICT

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District
House # 1, St. #1 West
West Wazir Akbar High School
Behind Amani High School
Kabul, Afghanistan

(2) U.S. Postal Service:
USACE AED
ATTN: QALAA House
APO AE 09356

3.6.3 Submittal Numbering System

Instructions on the numbering system to be used for construction submittals follows:

3.6.3.1 Submittals

Shop drawings and materials are listed on the Submittal Register (ENG Form 4288) as follows:

a. List is prepared according to contract specifications and drawings, picking up all items involved in the project.

b. This list is divided into sections as indicated in the specifications for example:

Sec	01015	"Technical Requirements"
Sec.	02831	"Chain-Link Fence"
Sec.	02710	"Subdrainage System"
Sec	03300	"Concrete For Building Construction"
Sec.	04200	"Masonry"

3.6.3.2 Numbering procedures for transmittal on ENG FORM 4025

a. Each section, may include a list of items. All these items will then be listed with a progressive number within the sections they belong to, for example:

Sec. 01015 will have 01015.00 (Basic number)
Item x " " 01015.01

Item y " " 01015.02
Item z " " 01015.03

Sec. 02710 will have 02710.00 (Basic number)
Item x " " 02710.01
Item y " " 02710.02
Item z " " 02710.03

Sec. 02600 will have 02600.00 (Basic number)
Item x " " 02600.01
Item y " " 02600.02

Sec. 03300 will have 03300.00 (Basic number)
Item x " " 03300.01
Item y " " 03300.02
etc.

b. It is evident a transmittal will never show a Section number i.e., 02831.00, 03300.00, etc., since these are only the basic numbers of the system. Numbers on transmittals will be the item numbers, i.e., 01015.01, 02710.01, 02710.02, 02710.03, 03300.01, 03300.02, etc. All items, as listed on the Submittal Register, will be submitted via a separate transmittal form ENG FORM 4025 thus avoiding getting together more than one item (as listed) and more than one number. There are items, on the other hand, which may be submitted all together on the same transmittal form. This must be established before submission is made.

c. Sec. 10800 "Toilet Accessories" - this section will have basic number 10800.00 - all items relative to it will be listed one by one on separate lines. ONLY one transmittal number will then be given for all of these "10800.01" which will include i.e., robe hook, toilet paper holder, mirror, soap holder, cabinet for paper towels, etc. Each one of these items will be listed on the same Transmittal Number 10800.01 as item 1, item 2, item 3, etc.

For design reviews the standard Corps of Engineers method of review is through DrChecks$_{SM}$, through Projnet https://www.projnet.org/projnet/binKornHome/index.cfm All of AED design submittal reviews shall be done through DrChecks.

3.6.3.3 Resubmittals

Should the Contractor be required to resubmit any transmittal, it will be accomplished by utilizing the same transmittal number followed by the number "-1" for the first resubmittal, "-2" for the second resubmittal, "-3" for the third resubmittal, etc. For example, a first resubmittal would be "SUBMITTAL PROCEDURES FOR DESIGN BUILD PROJECT" 01335.01-1, a second resubmittal 01335.01-2, etc. The purpose of this system is to avoid deviations from Submittal Register and, to avoid confusion arising from the use of more than one number on transmittal when more than one item

is submitted on the same form. This system will also facilitate the use, wherever required, on machine printouts.

3.6.4 Variations

If design documents or construction submittals show variations from the contract parameters and/or requirements, the Contractor shall justify such variations in writing, at the time of submission. Additionally, the Contractor shall also annotate block "h" entitled "variation" of ENG FORM 4025. After design submittals have been reviewed and cleared for construction by the Contracting Officer, no resubmittal for the purpose of substituting materials, equipment, systems, and patented processes will be considered unless accompanied by the following:

a. Reason or purpose for proposed variation, substitution, or revision.

b. How does quality of variation compare with quality of the specified item? This shall be in the form of a technical evaluation tabulating differences between the item(s) originally specified and what is proposed.

c. Provide a cost comparison. This shall include an acquisition and life cycle cost comparison.

d. For proprietary materials, products, systems, and patented processes a certification signed by an official authorized to certify in behalf of the manufacturing company that the proposed substitution meets or exceeds what was originally specified.

e. For all other actions, a certification signed by a licensed professional engineer or architect certifying that the proposed variation or revision meets or exceeds what was originally specified.

f. Advantage to the Government, if variation is approved, i.e. Operation and Maintenance considerations, better product, etc.

g. Ramifications and impact, if not approved.

If the Government review detects any items not in compliance with contract requirements or items requiring further clarification, the Contractor will be so advised. Lack of notification by the Contracting Officer of any non-complying item does not relieve the Contractor of any contractual obligation.

3.6.5 Non-Compliance

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an

order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.7 REVIEW OF CONTRACTOR PREPARED DESIGN DOCUMENTS

3.7.1 General

The work under contract will be subject to continuous review by representatives of the Contracting Officer. Additionally, joint design review conferences with representation by all organizations having a direct interest in the items under review may be held. The Design-Build Contractor shall furnish copies of all drawings and related documents to be reviewed at the review conference on or before the date indicated by the Government. Additional conferences pertaining to specific problems may be requested by the Design-Build Contractor or may be directed by the Contracting Officer as necessary to progress the work. The Design-Build Contractor shall prepare minutes of all conferences and shall furnish two copies to the Contracting Officer within seven (7) days after the conference.

Note: All design submittal reviews shall be reviewed and comments entered in DrChecks$_{SM}$, located on the web at:
https://www.projnet.org/projnet/binKornHome/index.cfm

3.7.2 Independent Design Review

The Design-Build Contractor shall have someone other than the Designer or Design Team perform an independent review of all specifications, drawings, design analysis, calculations, and other required data prior to submission to the Government. Upon completion of this review, the Design-Build Contractor shall certify that each design submittal is complete, accurate, is in strict conformance with all contract requirements, that repetition has been avoided, that all conflicts have been resolved, and that the documents have thoroughly coordinated and cross checked against all the applicable disciplines to prevent the omission of vital information.

3.7.3 Contractor's Quality Control Organization Review

This review shall be for the purposes of eliminating errors, interferences, and inconsistencies, and of incorporating design criteria, review comments, specifications, and any additional information required. Design submittals submitted to the Contracting officer without evidence of the Contractor's certified approval will be returned for resubmission. No part of the time lost due to such resubmissions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

Action Code on Eng Form 4025 the “G – Other (specify)" Code must be used. ENG Forms 4025 and 4026 will be annotated as follows:

A – Cleared for Construction

B – Cleared for Construction, except as noted in attached comments

D – Cleared for Construction, except as noted in attached comments, resubmission required

E -- NOT Cleared for Construction, see attached comments, resubmission required

FX – Receipt acknowledged, does not comply as noted with contract requirements.

NOTE: Cleared for construction does not relieve the Design-Build Contractor from the responsibility for any errors or omissions in the design, nor from responsibility for complying with the requirements of this contract.

3.7.4 Government Review

Within 14 days after Notice to Proceed, the Contractor shall submit, for approval, a complete design schedule with all submittals and review times indicated in calendar dates. The Contractor shall update this schedule bi-weekly. After receipt, the Government will be allowed fifteen (15) days to review and comment on each 35%, and 65% design submittal and fifteen (15) days to review and comment on each 99% design and 100% submittal, except as noted below. For each design review submittal, comments from the various design sections and from other concerned agencies involved in the review process will be made in the on-line review management system DrChecks$_{SM}$, (https://www.projnet.org/projnet/binKornHome/index.cfm). Contractor shall coordinate with the Contracting Officer and/or Representative(s) to register for DrChecks$_{SM}$, use. Contractor shall be responsible for accessing DrChecks$_{SM}$ on a daily basis during Government Review period for comments pertaining to package submitted. The review will be for conformance with the technical requirements of the solicitation and the Successful Offeror's (Contractor's) RFP proposal.

If a design submittal is deficient, it will be returned for correction and resubmission. The review time will begin when the corrected submittal is received.

See table of submittals and meetings at the end of this section..

The contractor shall not begin construction work until the Government has reviewed the contractor's design and has cleared it for construction. Clearance for construction does not mean Government approval. Government review shall not be construed as a complete check but will evaluate the general design approach and adherence to contract parameters. The Government Review is often limited in time and scope. Therefore, the Contractor shall not consider any review performed by the Government as an excuse for incomplete work. Upon completion of the review, all comments will be forwarded to the Contractor. The Contracting Officer will indicate whether the design submittal has or has not been cleared for construction using the following action codes:

A – Cleared for Construction

B – Cleared for Construction, except as noted in attached comments

C – Cleared for Construction, except as noted in attached comments, resubmission required

E - NOT Cleared for Construction, see attached comments, resubmission required

FX – Receipt acknowledged, does not comply as noted with contract requirements.

These codes shall NOT be used by the Design-Build Contractor. Design-Build Contractor's Quality Control Organization will annotate Block "g" entitled "FOR CONTRACTOR USE CODE" of Eng Form 4025-R using the action codes listed on the reverse side of the form.

Design submittals Cleared for Construction by the Contracting Officer shall not relieve the Contractor from responsibility for any design errors or omissions and any liability associated with such errors, nor from responsibility for complying with the requirements of this contract.

3.7.4.1 Incorporation of Government Review Comments

If the Contractor disagrees technically with any comment or comments and does not intend to comply with the comment, he must clearly outline, with ample justification, the reasons for noncompliance within five (5) days after close of review period in order that the comment can be resolved. The Contractor shall furnish disposition of all comments in DrChecks$_{SM}$, with the next scheduled submittal. The disposition shall identify action taken with citation of location within the relevant design document. Generalized statements of intention such as "will comply" or "will revise the specification" are not acceptable. The Contractor is cautioned that if he believes the action required by any comment exceeds the requirements of this contract, that he should flag the comment in DrChecks$_{SM}$ as a scope change, and notify the COR in writing immediately. If a design submittal is over one (1) day late in accordance with the latest design schedule, the Government review period may be extended 7 days. Submittals date revisions must be made in writing at least five (5) days prior to the submittal. During the design review process, comments will be made on the design submittals that will change the drawings and specifications. The Government will make no additional payments to the Contractor for the incorporation of comments. Review comments are considered part of the design-build process.

The Contractor will be furnished comments from the various design sections of the Corps of Engineers, Afghanistan Engineer District (AED) as well as from other concerned agencies involved in the review process. The review will be for

conformance with the technical requirements and parameters of the contract documents. The Contractor shall either incorporate each comment or, if the Contractor disagrees technically and does not intend to comply with the comment(s), the contractor shall clearly outline, with ample justification, its reasons for its noncompliance within five (5) days after receipt of the comment(s). Additionally, the Contractor is cautioned in that if it believes the action required by any comment exceeds the requirements of this contract, that he should take no action and notify the Contracting Officer in writing immediately. The disposition of all comments shall be furnished in writing with the next scheduled submittal. The review comments and the submittal material for each design review will become the basis for any ensuing design work. Copies of the design review comments with the action taken on each comment noted, shall be bound in all succeeding volumes of the design analysis.

3.7.4.2 Conferences

As necessary, conferences will be conducted between the Design-Build contractor and the Government to resolve review comments.

One review conference will be held for each design submittal as necessary. The review conference will be held at the will be held at the Corps District Office in Kabul, Afghanistan. The Contractor shall bring the personnel that developed the design submittal to the review conference. These conferences when required will take place the week after the fifteen (15) day review periods respectively.

3.7.4.3 Design Deficiencies

Design deficiencies noted by the Government shall be corrected prior to the start of design for subsequent features of work which may be affected by, or need to be built upon, the deficient design work.

3.7.5 Design Discrepancies

The Design-Build Contractor shall be responsible for the correction of incomplete design data, omissions, and design discrepancies which become apparent during construction. The Design-Build Contractor shall provide the Contracting Officer with a proposed recommendation for correcting a design error, within three (3) calendar days after notification by the Contracting Officer. The Contracting Officer will notify the Design-Build Contractor of any detected noncompliance with the foregoing requirements. The Design-Build Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Design-Build Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Design-Build Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Design-Build Contractor. Should extensions of design, fabrication plans and/or specific manufacturer's details be required as a result of a Government issued Change Order,

the Government will make an equitable adjustment in accordance with Contract Clause 52.243-4 entitled CHANGES.

3.8 PHASED OR “FAST-TRACK” DESIGN

3.8.1 General

If approved by the Government, design and construction sequencing may be effected on an incremental basis as each approved phase or portion (e.g., demolition, geotechnical, site work, exterior utilities, foundations, substructure, superstructure, exterior closure, roofing, interior construction, mechanical, electrical, etc.) of the design is completed.

3.8.1.1 Design Phases

Complete or partial design phasing may or may not have been specified by the Government elsewhere in this contract. For construction sequencing or phasing that the Government has not specifically mandated, the Design-Build Contractor may submit a proposed phasing plan. Design phasing proposed by the Design-Build Contractor shall be submitted to the Government for approval in accordance with TAC Form 122-E CONTRACTOR FURNISHED DESIGN DOCUMENTS.

3.8.2 Sequence of Design-Construction (Fast-Track)

After receipt of the Contract Notice to Proceed (NTP) the Contractor shall initiate design, comply with all design submission requirements and obtain Government review of each submission. The contractor may begin construction on portions of the work for which the Government has reviewed the final design submission and has determined satisfactory for purposes of beginning construction. The Contracting Officer will notify the Contractor when the design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the Government, the initial submission failed to meet the minimum quality requirements as set forth in the contract.

3.8.3 Notice-to-Proceed for Limited Construction

If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

3.8.4 In-Place Construction Payment

No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

3.8.5 Commencement of Construction

Construction of work may begin after receipt of the clearance for construction (Notice to Proceed) for each design phase. Any work performed by the Contractor prior to receipt of the clearance for construction, shall be at the Contractor's own risk and expense. Work cleared for construction that does not conform to the design parameters and/or requirements of this contract shall be corrected by the Contractor at no additional cost or time to the Government.

3.9 DESIGN STAGES

The Contractor shall schedule the number and composition of the design submittal phases. Design submittals are required at the Concept (35%), Preliminary (65%) and Final (99%) design stages and at the "Cleared for Construction" (100%) phase. The requirements of each design stage are listed hereinafter. The number and contents of the design submittals phases shall be reflected in TAC Form 122-E as well as in the Contractor's design progress schedule.

3.9.1 DESIGN SUBMITTAL (35%)

The review of this submittal is primarily to ensure that the Contractor has taken an inventory of the existing conditions at proposed site, has incorporated all requirements from the Design Charette, has established the most desirable functional relationships between the various project elements, has provided the technical solution to how the functional and technical requirements will be met, and to show Contractor compliance (or justify noncompliance) with the design parameters and/or requirements. Refer to requirements herein for specific submittal requirements.

The following documents shall be submitted:

a. 35% Design Analysis. The Design Analysis shall be in outline form Listing Executive Summary, Building Types, complete Code Analysis, all codes and standards to be incorporated in design. It shall include all backup material previously submitted and revised as necessary; The Design Analysis shall contain all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer reviewing.

b. 35% Construction Specifications. A Draft Outline of all Specifications to be used in project.

c. 35% Construction Drawings. The Contract Drawings submitted for 35% Review shall include Site Plan, Building Plans, and one each of Section thru each Building, and Exterior Elevation of each building. The Contractor is expected to have completed all of his coordination checks and have the drawings at a 35% design level.

3.9.2 PRELIMINARY (65%)

a. Design Analysis, developed to a 65% design stage. The Design Analysis shall be near final form. It shall include all backup material previously submitted and revised as necessary. Half of the design calculations shall be included. The Design Analysis shall contain all explanatory material giving the design rationale for any design decisions which would not be obvious to an engineer.

b. 65% Complete Construction Specifications. The Draft Specifications on all items of work submitted for 65% Review shall consist of marked-up proprietary specifications with 65% of specification edited.

c. 65% Complete Construction Drawings. The Contract Drawings submitted for Final Review shall include the drawings previously submitted which have been revised and completed as necessary. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall be finalized at this time including the incorporation of any design review comments generated by the Preliminary design review.

d. The Contractor shall incorporate Government's 35 % Design Review Comments with the Contractor's annotation to each comment.

e. The Contractor may at this time submit for approval the following drawings 1. thru 3. for approval to begin 3.8 PHASED OR “FAST-TRACK” DESIGN.

1. 100% drawings for site plan, grading, utilities, roads, and foundation
2. Geotechnical report
3. Site topographic survey

3.9.3 FINAL DESIGN REVIEW SUBMITTAL 99%

b. 99% Complete Construction Specifications. The Specifications on all items of work submitted for Final Review shall consist of a complete 99 % edited set of specifications.

c. 99% Complete Construction Drawings. The Contract Drawings submitted for Final Review shall include the drawings previously submitted which have been revised and completed as necessary. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall be finalized at this time including the incorporation of any design review comments generated by the Preliminary design review. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout construction.

d. The Contractor shall incorporate Government's 35% and, 65% Design Review Comments with the Contractor's annotation to each comment.

3.9.4 "Cleared for Construction" Design Review Submittal (100%)

After the FINAL DESIGN REVIEW SUBMITTAL review, the Contractor shall revise the Contract Documents by incorporating any comments generated during the FINAL DESIGN REVIEW SUBMITTAL and shall prepare final hard copy Construction Specifications. The Contractor shall submit the following documents for the design complete submittal:

a. Complete Design Analysis

b. Construction Specifications

c. Construction Drawings

d. A soft copy (CD) of the design drawings, specifications, and design analysis shall be submitted at this stage and all other subsequent stages of the design process.

e. The Contractor shall incorporate Government’s 99% Design Review Comments with the Contractor's annotation to each comment.

f. The Government's FINAL (99%) DESIGN REVIEW SUBMITTAL comments with the Contractor's annotation to each comment.

Once the design documents have been "Cleared for Construction" by the Contracting Officer, the Design-Build Contractor shall clearly identify each document by annotating it as "Cleared for Construction."

3.9.5 Partial Design Submittals

In the interest of expediting construction, the Contracting Officer may approve partial design submittals, procurement of materials and equipment, as well as issue the Notice To Proceed (NTP) for construction of those elements of the design which have been cleared for construction. Such partial notices to proceed shall be solely at the discretion of the Contracting Officer.

3.9.6 Design Submittals not in compliance with the contract documents

The Contractor shall, without additional compensation, correct or revise any errors or deficiencies in its design analysis, specifications, and drawings, and promptly furnish a corrected submittal in the form and number of copies as specified for the initial submittal. No part of the time lost due to such resubmissions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor. If the Contractor considers any correction indicated on the submittals to constitute a change to the contract, a notice shall be given promptly to the Contracting Officer.

3.10 GENERAL DESIGN INSTRUCTIONS

3.10.1 Responsibility of the Design-Build Contractor

3.10.1.1 Professional Quality, Technical Accuracy, and Coordination

The Design-Build Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all design specifications, drawings, and other services furnished under this contract. Work must be organized in a manner that will assure thorough coordination between various details on drawings, between the various sections of the specifications, and between the drawings and specifications. The Design-Build Contractor shall thoroughly cross-check and coordinate all work until he is professionally satisfied that no conflicts exist, vital information has not been omitted, and that indefinite language open to interpretation has been resolved.

3.10.1.2 Deviating From The “Cleared-For-Construction” Design

(a.) The Contractor must obtain the approval of the Designer of Record (DOR) and the Government’s concurrence for any Contractor proposed revision to the professionally stamped and sealed design reviewed and Cleared for Construction by the Government, before proceeding with the revision.

(b.) The Government reserves the right to non-concur with any revision to the design, which may impact furniture, furnishings, equipment selections or operations decisions that were made, based on the reviewed and cleared for construction design.

(c.) Any revision to the design, which deviates from the contract requirements (i.e., the RFP and the accepted proposal), will require a modification, pursuant to the Changes clause, in addition to Government concurrence. The Government reserves the right to disapprove such a revision.

(d.) Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense.

(e.) The Contractor shall track all approved revisions to the reviewed and cleared for construction design and shall incorporate them into the as-built design documentation. The Designer of Record shall document its professional concurrence on the As-Builts for any revisions by affixing its stamp and seal on the drawings and specifications.

3.10.1.3 Government Oversight

The extent and character of the work to be done by the Design-Build Contractor shall be subject to the general oversight, supervision, direction, control, and review by the Contracting Officer.

3.10.1.4 Unlimited Drawing Rights

The Government shall have unlimited rights in all drawings, designs, specifications, notes and all other works developed in the performance of this contract, including the right to use same on any other Government design or construction without additional compensation to the Design-Build Contractor. The Design-Build Contractor hereby grants to the Government a paid-up license throughout the world to all such works to which he may assert or establish any claim under design patent or copyright laws.

3.10.1.5 Conflicts

Any conflicts, ambiguities, questions or problems encountered by the Design-Build Contractor in following the criteria shall be immediately submitted in writing to the Contracting Officer with the Design-Build Contractor's recommendations. Prior to submission to the Government the Design-Build Contractor shall take appropriate measures to obtain clarification of design criteria requirements, to acquire all pertinent design information, and to incorporate such information in the work being performed.

3.10.1.6 Design Specialists

Whenever a design specialist is required, the Design-Build Contractor shall submit for the approval by Contracting Officer, the name of the designated specialist along with the individual's educational background, experience, and licenses or registrations held, before design work commences. The design specialists shall be registered architects, registered professional engineers, or recognized consultants with a background of at least five (5) years design experience in the appropriate specialty. Services of design specialists may be required for the following specialties:

Fire Protection	Landscape Design
Medical Design	Site grading
Acoustical Design	Hardened Structures
Security	Shielding
Telecommunications	Audio Visual, PA, TV, etc.
Geotechnical Design	Asbestos Abatement

3.10.2 Conduct of Work

In the performance of contract the Design-Build contractor shall:

3.10.2.1 Performance

Perform the work diligently and aggressively, and promptly advise the Contracting Officer of all significant developments.

3.10.2.2 Telephone Conversations

Prepare a summary, and promptly furnish a copy thereof to the Contracting Officer, of all telephone conversations relating to the design work under this contract.

3.10.2.3 Cooperation with Others

Cooperate fully with other firms, consultants and contractors performing work under the program to which this contract pertains, upon being advised by the Contracting Officer that such firms or individuals have a legitimate interest in the program, have need-to-know status, and proper security clearance where required.

3.10.2.4 Technical Criteria

All designs, drawings, and specifications shall be prepared in accordance with the contract documents and with the applicable publications referenced therein. As soon as possible, the Design-Build Contractor shall obtain copies of all publications applicable to this contract. Availability of publications (where to purchase) is contained in Specification Section 01420 entitled: SOURCES FOR REFERENCE PUBLICATIONS. Any deviations from the technical criteria contained in the contract documents or in the applicable publications, including the use of criteria obtained from the user or other sources, must receive prior approval of the Contracting Officer. Where the technical criteria contained or referred to herein are not met, the Design-Build Contractor will be required to conform his design to the same at his own time and expense.

3.10.3 Design Priorities

The design of this project shall consider the remote location and harsh environment of this project and the impact this will have on sources of technical supply, the cost of construction, the low level of maintenance, and the difficulty of obtaining replacement parts. Unless stated otherwise in this contract, the following design priorities shall be followed:

3.10.3.1 CONSTRUCTION LIFE-SPAN LEVEL

Permanent Construction. Buildings and facilities shall be designed and constructed to serve a life expectancy of more than 25 years, to be energy efficient, and to have finishes, materials, and systems that are low maintenance and low life-cycle cost.

3.10.3.2 Operability

Systems including but not necessarily limited to mechanical, electrical, communications, etc., must be simple to operate and easy to maintain.

3.10.3.3 Standardization

Use of standardized materials, products, equipment, and systems is necessary to minimize the requirements for replacement parts, storage facilities, and service requirements.

3.10.3.4 Overseas Work

Use of construction materials or techniques shall be utilized which are suitable for overseas work in harsh climates and environments.

3.10.4 Topographic Surveys, Easements, and Utilities

Unless otherwise stated in the contract, the Design-Build Contractor will be responsible for detailed topographic mapping, available easements, and utility information for the project.

3.10.4.1 Horizontal and Vertical Control

The mapping shall be based on the base coordinate system. If the base system cannot be found, the surveyor shall use any established monuments. If monuments have been destroyed or do not exist, an assumed horizontal and vertical datum shall be established, using arbitrary coordinates of 10,000n and 10,000e and an elevation of 1,000 meters. The horizontal and vertical control established on site shall be a closed loop with third order accuracy and procedures. Provide three (3) concrete survey monuments at the survey site. All of the control points established at the site shall be plotted at the appropriate coordinate point and shall be identified by name or number, and adjusted elevations. The location of the project site, as determined by the surveyor shall be submitted in writing to the Contracting Officer. The site location shall be identified by temporary markers, approved by the Contracting Officer before proceeding with the surveying work.

3.10.4.2 Topography Requirements

A sufficient quantity of horizontal and vertical control shall be established to provide a detailed topographic survey at 1:500 scale with one quarter meter contour intervals minimum. Intermediate elevations shall be provided as necessary to show breaks in grade and changes in terrain.

The contours shall accurately express the relief detail and topographic shapes. In addition, 90 percent of the elevations or profiles interpolated from the contours shall be correct to within one-half of the contour interval and spot elevations shall be correct within plus or minus 20 millimeters.

Spot elevations affecting design of facilities shall be provided. Specifically, break points or control points in grades of terrain such as tops of hills, bottoms of ditches and gullies, high bank elevations, etc.

All surface and sub-surface structures features within the area to be surveyed shall be shown and identified on the topographic maps. In addition, these features shall be located by sufficient distance ties and labeled on the topographic sheets to permit accurate scaling and identification.

The location and sizes of potable, sanitary, electrical and mechanical utilities within the survey site shall be shown on the survey map. Sanitary manholes and appurtenances shall show top elevations and invert elevations.

3.10.5 Geotechnical Investigation

Unless otherwise stated in the contract, the Design-Build Contractor will be responsible for Geotechnical investigation, including subsurface explorations, sampling, field and laboratory testing, and water studies where applicable.

3.10.6 Cathodic Protection and Earth Resistance

Unless otherwise stated in the contract, the Design-Build Contractor will be responsible for determining whether cathodic protection on buried structures and underground utility systems are needed for special electrical grounding and counterpoise systems, and for gathering the field data necessary for design.

3.10.7 Water Supply and Quality Data

Unless otherwise stated in the contract, the Design-Build Contractor will be responsible for obtaining all water supply and water quality data. This data will include information on the locations and depths of all viable water supply sources at the site(s) involved and a water quantity and water quality analysis for each source.

3.10.8 Occupational Safety and Health Act

The facilities, systems, and equipment designed under this contract shall comply with the Occupational Safety and Health Act (OSHA), Code of Federal Regulations, Title 29, Chapter XVII, Parts 1910 and 1926. Any problems in incorporating these standards due to conflicts with other technical criteria shall be submitted to the Contracting Officer for resolution.

3.10.9 Asbestos Containing Materials

Asbestos containing material (ACM) will not be used in the design of new structures or systems. In the event no other material is available which will perform the required function or where the use of other material would be cost prohibitive, a waiver for the use of asbestos containing materials must be obtained from CETAC.

3.10.9.1 Existing Construction

Asbestos containing materials (ACM) presently included in existing construction to be rehabilitated or otherwise modified as a result of this project, shall be removed and a non-asbestos containing material substituted in lieu thereof.

3.10.9.2 Suspected Asbestos Containing Materials

All such structures and systems shall be inspected to determine the presence or probable presence of ACM. When ACM is suspected, a documented survey will be performed. The survey will be developed into an abatement design and will be made a part of the design documents. In the event no other material is available which will perform the required function or the use of a substitute material would be cost prohibitive due to initial cost and tear-out of existing construction, a waiver for the retention of the asbestos containing material must be obtained from the Contracting Officer.

3.11 VALUE METHODOLOGY/VALUE ENGINEERING

The Design-Build Contractor during the course of his design shall be alert for and shall identify those high-cost low-value items or areas which he considers may be accomplished in different ways that will increase the value of the project at the same or less cost. Potential value engineering study items shall be reported to the Value Engineer through the Contracting Officer.

3.11.1 Performance Oriented Value Engineering Change Proposal (VECP)

In reference to Contract Clause 52.248-3, "Value Engineering - Construction", the Government may refuse to entertain a "Value Engineering Change Proposal" (VECP) for those "performance oriented" aspects of the Contract Documents which were addressed in the Design-Build Contractor's accepted contract proposal and which were evaluated in competition with other Proposers for award of this contract. For purposes of this clause, the term "performance oriented" refers to those aspects of the design criteria or other contract requirements which allow the Proposer or the Design-Build Contractor certain latitude, choice of and flexibility to propose in its accepted contract offer a choice of design, technical approach, design solution, construction approach or other approach to fulfill the contract requirements. Such requirements generally tend to be expressed in terms of functions to be performed, performance required or essential physical characteristics, without dictating a specific process or specific design solution for achieving the desired result.

3.11.2 Prescriptive Oriented Value Engineering Change Proposal (VECP)

The Government may consider a VECP for those "prescriptive" aspects of the Solicitation documents, not addressed in the Design-Build Contractor's accepted contract proposal or addressed but evaluated only for minimum conformance with the Solicitation requirements. For purposes of this clause, the term "prescriptive" refers to those aspects of the design criteria or other Solicitation requirements wherein the Government expressed the design solution or other requirements in terms of specific

materials, approaches, systems and/or processes to be used. Prescriptive aspects typically allow the Proposers little or no freedom in the choice of design approach, materials, fabrication techniques, methods of installation or other approach to fulfill the contract requirements.

3.12 SUBMITTAL OF CONTRACTOR FURNISHED DESIGN DOCUMENTS

The requirements of this paragraph pertain to the submittal of design documents, specifications, design calculations, surveys, testing reports and other documents prepared by the Design-Build Contractor to meet the design requirements of this project.

3.12.1 Geo-technical

3.12.1.1 Design Analysis

The Design-Build Contractor shall submit in the design analysis catalog cuts, manufacturer's data for the following:

3.12.1.2 Specifications

Specifications for all civil utilities shall include:

3.12.1.3 Design Drawings

1 ea. Full Size, 2 ea. Half-Size Design drawings shall be submitted for the following:

Afghanistan Engineer District (AED)

3.12.1.4 Manufacturer's recommendations, instructions, and certifications

Shall be submitted for the following:

Afghanistan Engineer District (AED)

3.12.1.5 Samples

Samples shall be submitted for the following:

Afghanistan Engineer District (AED)

3.12.1.6 Schedules

Schedules shall be submitted for the following:

Afghanistan Engineer District (AED)

3.12.1.7 Reports

Reports shall be submitted for the following:

Afghanistan Engineer District (AED)

3.12.1.8 Records

Records shall be submitted for the following:

Afghanistan Engineer District (AED)

Engineering Studies. Occasionally, in addition to the items previously mentioned, engineering studies that relate to specific problems or surveys may be required. The necessary instructions regarding the preparation of such reports must be added by the Specification Writer as appropriate.

3.12.2 Civil, Site Planning and Layout

3.12.3 Water, Wastewater, and Solid Waste Systems

3.12.4 Architectural/Interior Design

3.12.5 Structural

3.12.6 Force Protection Design Procedures for the Protection of United States Forces

3.12.7 Fire Protection and Life Safety

3.12.8 Heating, Ventilating, and Air Conditioning

3.12.9 Plumbing

3.12.10 Special Mechanical Systems and Equipment

3.12.11 Electrical

3.12.12 Power Generation

3.12.13 Power Transmission and Distribution

3.12.14 Communications

3.12.15 Corrosion Prevention and Control

3.12.16 Renovation Design

3.12.17 Accident Prevention and Safety

3.13 SUBMITTAL OF CONTRACTOR FURNISHED DESIGN DRAWINGS

3.13.1 Geo-technical

3.13.2 Civil, Site Planning and Layout

3.13.3 Water, Wastewater, and Solid Waste Systems

3.13.4 Architectural/Interior Design

3.13.5 Structural

3.13.6 Force Protection Design Procedures for the Protection of United States Forces

3.13.7 Fire Protection and Life Safety

3.13.8 Heating, Ventilating, and Air Conditioning

3.13.9 Plumbing

3.13.10 Special Mechanical Systems and Equipment

3.13.11 Electrical

3.13.12 Power Generation

3.13.13 Power Transmission and Distribution

3.13.14 Communications

3.13.15 Corrosion Prevention and Control

3.13.16 Renovation Design

3.13.17 Accident Prevention and Safety

3.14 GOVERNMENT APPROVED CONSTRUCTION SUBMITTALS (Required During Construction)

3.14.1 General

Since this contract requires that the drawings and specifications specify specific proprietary materials, equipment, systems, and patented processes by trade name,

make, or catalog number, it is anticipated that construction shop drawings will primarily be limited to testing, construction plans (e.g., Contractor Quality Control, Accident Prevention, Resident Management System, Area Use etc), schedules (Project Schedule/Network Analysis), certificates of compliance, reports, records/statements and variations.

3.14.1.1 Variations

After design submittals have been reviewed and cleared for construction by the Contracting Officer, no submittal for the purpose of substituting materials, equipment, systems, and patented processes will be considered by the Government unless submitted in accordance with the paragraph entitled VARIATIONS.

3.14.1.2 Additional Shop Drawings and Submittals

In accordance with the paragraph entitled DESIGN DISCREPANCIES, the Government may request the Design-Build Contractor to provide additional shop drawing and submittal type data subsequent to completion of the design.

3.14.2 Incomplete Design

The Design-Build Contractor shall not use construction submittals as a means to supplant and/or supplement an incomplete design effort.

3.14.3 Government Approval of Construction Submittals

The approval of construction submittals by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of design construction, materials, detailing and other information are satisfactory. Approval will not relieve the Design-Build Contractor of the responsibility for any error which may exist, as it is the sole responsibility of the Design-Build Contractor to certify that each submittal has been reviewed in detail and is in strict conformance with all the contract documents and design criteria referenced therein.

Virtually all design related construction submittals can and must be incorporated directly into the design specifications and drawings prepared by the Design-Build Contractor. Since the Design-Build Contractor has sole responsibility for the design, procurement, and construction, impediments do not exist which would impair his ability to specifically identify what is being furnished to the Government prior to the start of construction. Generic/non-proprietary specifications are indicative of an incomplete design effort and as such must be rejected as unacceptable

3.14.4 Submittals

Submittals (other than shop drawings) shall be limited to items such as Plans (e.g., Quality Control Plan, Accident Prevention Plan, Area Use Plan etc.),Certificates of Compliance, Installation Instructions, Manufacturer's Catalog Data, Descriptive

Literature/Illustrations, Factory and Field Test Reports, Performance and Operational Test Data Reports, Records, Operation and Maintenance Manuals, and required variations.

3.14.5 Government Review

Upon completion of review of construction submittals requiring Government approval, the submittals will be identified as having received approval by being so stamped and dated. two (2) copies of the submittal will be retained by the Contracting Officer and one (1) copy of the submittal will be returned to the Design-Build Contractor.

3.15 FOR INFORMATION ONLY SUBMITTALS

These submittals shall be checked, stamped, signed and dated by the Design-Build Contractor's Quality Control Engineer, certifying that such submittal complies with the contract requirements. All Contractor submittals shall be subject to review by the Government at any time during the course of the contract. Any Contractor submittal found to contain errors or omissions shall be resubmitted as one requiring "approval". No adjustment for time or money will be allowed for corrections required as a result of noncompliance with plans or specifications. Normally submittals for information only will not be returned. Approval of the Contracting Officer is not required on information only submittals. These submittals will be used for information purposes. The Government reserves the right to require the Design-Build Contractor to resubmit any item found not to comply with the contract. This does not relieve the Design-Build Contractor from the obligation to furnish material conforming to the plans and specifications and will not prevent the Contracting Officer from requiring removal and replacement if nonconforming material is incorporated in the work.

3.16 ATTACHMENTS

The following attachments form an integral part of this specification:

ENG FORM 4025 - Transmittal of Shop Drawings , Equipment Data, Material Samples, or Manufacturer's Certificate of Compliance (2 pages)

TAC FORM 122-E - Contractor Furnished Design Documents Submittal Register

ENG FORM 4288 - Submittal Register

Select one of the following:
AED projects:

Figure 1 - sheet/number description; AED title block per AEC CADD standards

Figure 2 - A-E logo/designed by/submitted my; AED title block per AEC CADD standards

Figure 3 - revision block; AED title block per AEC CADD standards

Figure 4 - Finished Format Size per AEC CADD standards

-- End of Section -

SECTION 01415

SECTION 01415

METRIC MEASUREMENTS

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 E 621	(1994; R 1999e1) Use of Metric (SI) Units in Building Design and Construction (Committee E-6 Supplement to E380)
ASTM SI 10	(2002) American National Standard for Use of the International System of Units (SI): The Modern Metric System

1.2 GENERAL

This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the11th CGPM in 1960. A number of circumstances require that both metric SI units and English inch-pound (I-P) units be included in a section of the specifications. When both metric and I-P measurements are included, the section may contain measurements for products that are manufactured to I-P dimensions and then expressed in mathematically converted metric value(soft metric) or, it may contain measurements for products that are manufactured to an industry recognized rounded metric (hard metric)dimensions but are allowed to be substituted by I-P products to comply with the law. Dual measurements are also included to indicate industry and/or Government standards, test values or other controlling factors, such as the code requirements where I-P values are needed for clarity or to trace back to the referenced standards, test values or codes.

1.3 USE OF MEASUREMENTS IN SPECIFICATIONS

Measurements in specifications shall be either in SI or I-P units as indicated, except for soft metric measurements or as otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

1.3.1 Hard Metric

A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

1.3.2 Soft Metric

(5) A soft metric measurement is indicated by an SI value which is a mathematical conversion of the I-P value shown in parentheses (e.g. 38.1 mm (1-1/2 inches)). Soft metric measurements are used for measurements pertaining to products, test values, and other situations where the I-P units are the standard for manufacture, verification, or other controlling factor. The I-P value shall govern while the metric measurement is provided for information.

(6) A soft metric measurement is also indicated for products that are manufactured in industry designated metric dimensions but are required by law to allow substitute I-P products. These measurements are indicated by a manufacturing hard metric product dimension followed by the substitute I-P equivalent value in parentheses (e.g., 190 x 190 x 390 mm (7-5/8 x 7-5/8 x 15-5/8inches)).

1.3.3 Neutral

A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

1.4 COORDINATION

Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

1.5 RELATIONSHIP TO SUBMITTALS

Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use ASTM SI 10 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

-- End of Section -

SECTION 01451

SPECIFICATION SECTION 01451

CONTRACTOR QUALITY CONTROL

PART 1: GENERAL

1.1 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 1110-1-12 (1993)	Quality Management
EM 385-1-1	Safety and Health Requirements Manual

1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION

3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clauses and this specification section. The quality control system shall consist of plans, procedures, and organization necessary to produce an end product which complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence. The site project superintendent will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with the quality requirements specified in the contract. The site project superintendent in this context shall be the highest level manager responsible for the overall construction activities at the site, including quality and production. The site project superintendent shall maintain a physical presence at the site at all times, except as otherwise

acceptable to the Contracting Officer, and shall be responsible for all construction and construction related activities at the site.

3.2 QUALITY CONTROL PLAN

The Contractor shall furnish for review by the Government, not later than five (5) days after receipt of Notice-to-Proceed (NTP) the proposed Contractor Quality Control (CQC) Plan. The plan shall identify personnel, procedures, control, instructions, records, and forms to be used.

3.2.1 Content of the CQC Plan

The CQC Plan shall include, as a minimum, the following to cover all construction operations, both on site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, consultants, and purchasing agents. These procedures shall be in accordance with Specification 01335 SUBMITTAL PROCEDURES.

e. Control, verification, and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person responsible for each test.

f. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.

g. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable features under a particular section. This list will be agreed upon during the coordination meeting.

3.2.2 Additional Requirements for Design Quality Control (DQC) Plan

The following additional requirements apply to the Design Quality Control

(DQC) plan:

(1) The Contractor shall provide and maintain a Design Quality Control (DQC) Plan as an effective quality control program which will assure that all services required by this design contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents shall be technically reviewed by competent, independent reviewers identified in the DQC Plan. The same element that produced the product shall not perform the independent technical review (ITR). The Contractor shall correct errors and deficiencies in the design documents prior to submitting them to the Government.

(2) The Contractor shall include the design schedule in the master project schedule, showing the sequence of events involved in carrying out the project design tasks within the specific contract period. This should be at a detailed level of scheduling sufficient to identify all major design tasks, including those that control the flow of work. The schedule shall include review and correction periods associated with each item. This should be a forward planning as well as a project monitoring tool. The schedule reflects calendar days and not dates for each activity. If the schedule is changed, the Contractor shall submit a revised schedule reflecting the change within 7 calendar days. The Contractor shall include in the DQC Plan the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted at each design phase as part of the project documentation. Exampl echecklists can be found in ER 1110-1-12.

(3) The DQC Plan shall be implemented by an Design Quality Control Manager who has the responsibility of being cognizant of and assuring that all documents on the project have been coordinated. This individual shall be a person who has verifiable engineering or architectural design experience and is a registered professional engineer or architect. The Contractor shall notify the Contracting Officer, in writing, of the name of the individual, and the name of an alternate person assigned to the position.

The Contracting Officer will notify the Contractor in writing of the acceptance of the DQC Plan. After acceptance, any changes proposed by the Contractor are subject to the acceptance of the Contracting Officer.

3.2.3 Acceptance of Plan

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

3.2.4 Notification of Changes

Notification of Changes. After acceptance of the QC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

3.3 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the Quality Control Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The CQC Plan shall be submitted for review a minimum of 5 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both on-site and off-site work, and the interrelationship of Contractor's Management and control with the

Government’s Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings and/or address deficiencies in the CQC system or procedures, which may require corrective action by the Contractor.

3.4 QUALITY CONTROL ORGANIZATION

3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager, and sufficient number of additional qualified personnel to ensure safety and contract compliance. Personnel identified in the technical provisions as requiring specialized skills to assure the required work is being performed properly will also be included as part of the CQC organization. The Contractor's CQC staff shall maintain a presence at the site at all times during progress of the work and have complete authority and responsibility to take any action necessary to ensure contract compliance. The CQC staff shall be subject to acceptance by the Contracting Officer. The Contractor shall provide adequate office space, filing systems and other resources as necessary to maintain an effective and fully functional CQC organization. Complete records of all letters, material submittals, shop drawing submittals, schedules and all other project documentation shall be promptly furnished to the CQC organization by the Contractor. The CQC organization shall be responsible to maintain these documents and records at the site at all times, except as otherwise acceptable to the Contracting Officer.

3.4.2 CQC System Manager

The Contractor shall identify an individual within his organization at the site of the work who shall be responsible for overall management of the CQC and have the authority to act in all CQC matters for the Contractor. The CQC system manager shall be a graduate engineer, graduate architect, or a graduate construction manager, with experience on construction projects similar in type to this contract OR a construction person with a minimum of ten (10) years in related work. The CQC System Manager shall be on the site at all times during construction and shall be employed by the Contractor. The CQC System Manager shall be assigned no other duties. An alternate for the CQC System Manager will be identified in the plan to serve in the event of the CQC system manager’s absence. The requirements for the alternate will be the same as for the designated CQC manager.

3.4.3 Not Used.

3.4.4 Additional Requirement

In addition to the above experience and/or education requirements, the CQC System Manager shall have completed the course entitled "Construction Quality Management For Contractors". This course is periodically offered by the government, and inquiries as to the next course offering may be directed to the local construction field office.

3.4.5 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in the STR titled SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of the construction work as follows:

3.6.1 Preparatory Phase.

This phase shall be performed prior to beginning work on each definable feature of work, after all required documents and materials are approved/accepted, and after copies are at the work site. This phase shall include:

a. A review of each paragraph of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards, in the English language unless specifically approved otherwise by the Contracting Officer, applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.

b. A review of the contract drawings.

c. A check to assure that all materials and/or equipment have been tested, submitted, and approved.

d. A check to assure that provisions have been made to provide required control inspection and testing.

e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.

f. A physical examination of required materials, equipment, and sample work to verify that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.

g. Reviews of the appropriate activity hazard analysis to ensure safety requirements are met.

h. Discussion of procedures for constructing the work including repetitive deficiencies, construction tolerances and workmanship standards for that feature of work.

i. A check to ensure that the Contracting Officer has accepted the portion of the plan for the work to be performed.

j. Discussion of the initial control phase.

k. The Government shall be notified at least 24 hours in advance of beginning any of the required action of the preparatory phase. This phase shall include a meeting conducted by the CQC system manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC system manager and attached to the daily QC report. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

3.6.2 Initial Phase.

This phase shall be accomplished at the beginning of a definable feature of work. The following shall be accomplished:

a. A check of preliminary work to ensure that it is in compliance with contract requirements. Review minutes of the preparatory meeting.

b. Verification of full contract compliance. Verify required control inspection and testing.

c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with sample panels as appropriate.

d. Resolve all differences.

e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.

f. The Government shall be notified at least 24 hours in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC system manager and attached to the daily QC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.

g. The initial phase should be repeated for each new crew to work on-site, or any time acceptable specified quality standards are not being met.

3.6.3 Follow-up Phase.

Daily checks shall be performed to assure continuing compliance with contract requirements, including control testing, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted, and all noted deficiencies corrected, prior to the start of additional features of work that may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases may be required by the Contracting Officer on the same definable features of work if the quality of on-going work is unacceptable; if there are changes in the applicable QC staff or in the on-site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

3.7 TESTS

3.7.1 Testing Procedure

The Contractor shall perform tests specified or required to verify that control measures are adequate to provide a product that conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Costs incidental to the transportation of samples or materials shall be borne by the Contractor.

Testing includes operation and/or acceptance tests when specified. A list of tests to be performed shall be furnished as a part of the CQC plan. The list shall give the test name, frequency, specification paragraph containing the test requirements, the personnel and laboratory responsible for each type of test, and an estimate of the number of tests required. The Contractor shall perform the following activities and record and provide the following data:

a. Verify that testing procedures comply with contract requirements.

b. Verify that facilities and testing equipment are available and comply with testing standards.

c. Check test instrument calibration data against certified standards.

d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.

e. Results of all tests taken, both passing and failing tests, shall be recorded on the Quality Control report for the date taken. Specification paragraph/item reference, location where tests were taken, and the sequential control number identifying the test will be given. Actual test reports may be submitted later, if approved by the Contracting Officer, with a reference to the test number and date taken. An information copy of tests performed by an off-site or commercial test facility will be provided directly to the Contracting Officer. Failure to submit timely test reports, as stated, may result in nonpayment for related work performed and disapproval of the test facility for this contract.

3.8 COMPLETION INSPECTION

3.8.1 Punch-Out Inspection

Near the end of the work, or any increment of the work established by a time stated in the SPECIAL CONTRACT REQUIREMENTS Clause, "Commencement, Prosecution, and Completion of Work", or by the specifications, the CQC Manager shall conduct an inspection of the work. A punch list of items which do not conform to the approved drawings and specifications shall be prepared and included in the CQC documentation, as required by paragraph DOCUMENTATION. The list of deficiencies shall include the estimated date by which the deficiencies will be corrected. The CQC System Manager or staff shall make a second inspection to ascertain that all deficiencies have been corrected. Once this is accomplished, the Contractor shall notify the Government that the facility is ready for the Government Pre-Final inspection.

3.8.2 Pre-Final Inspection

The Government will perform the pre-final inspection to verify that the facility is complete and ready to be occupied. A Government Pre-Final Punch List may be developed as a result of this inspection. The Contractor's CQC System Manager shall ensure that all items on this list have been corrected before notifying the Government, so that a Final inspection with the customer can be scheduled. Any items noted on the Pre-Final inspection shall be corrected in a timely manner. These inspections and any deficiency corrections required by this paragraph shall be accomplished within the time slated for completion of the entire work or any particular increment of the work if the project is divided into increments by separate completion dates.

3.8.3 Final Acceptance Inspection

The Contractor's Quality Control Inspection personnel, plus the superintendent or other primary management person, and the Contracting Officer's Representative shall be in attendance at the final acceptance inspection. Additional Government personnel including, but not limited to, those from Base/Post Civil Facility Engineer user groups, and major commands may also be in attendance. The final acceptance inspection will be formally scheduled by the Contracting Officer based upon results of the Pre-Final inspection. Notice shall be given to the Contracting Officer at least 14 days prior to the final acceptance inspection and shall include the Contractor's assurance that all specific items previously identified to the Contractor as being unacceptable, along with all remaining work performed under the contract, will be complete and acceptable by the date scheduled for the final acceptance inspection. Failure of the Contractor to have all contract work acceptably complete for

this inspection will be cause for the Contracting Officer to bill the Contractor for the Government's additional inspection cost in accordance with the contract clause titled "Inspection of Construction".

3.9 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.

g. Offsite surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within forty-eight (48) hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.10 SAMPLE FORMS

In accordance with Specification 01312 QUALITY CONTROL SYSTEM, the contractor shall use the forms produced by and printed from QCS. Samples of any forms required to meet the requirements of this section which are not produced by that system shall be included in the contractors Quality Control Plan.

3.11 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End of Section --

SECTION 01525

SPECIFICATION SECTION 01525

SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

For contractor safety on projects associated with this program, compliance with EM 385-1-1 safety requirements will be the long-term goal reached by growing a safety culture. This compliance will, by necessity, be achieved through a phased-in process. In the Commander's letter at the preface of the EM 385-1-1, he acknowledges that in OCONUS locations, strict compliance with the manual may not be possible – and through the hazard analysis process, safety measures can be developed to attain the same degree of safety.

This specification consists of two parts:

1) Sections 1.1 through 3.12.1, which are the standard safety specifications for work in Europe District and;

2) Appendix A, Phasing approach for safety in emerging countries where there is little or no national safety standards.

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 NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.32	Personal Fall Protection - Safety Requirements for Construction and Demolition Operations
ANSI Z359.1(1992; R 1999)	Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components
ANSI/ASSE A10.34(2001)	Protection of the Public on or Adjacent to Construction Sites
ASME B30.3(1996)	Construction Tower Cranes

ASME INTERNATIONAL (ASME)

ASME B30.22(2000)	Articulating Boom Cranes
ASME B30.5(2004)	Mobile and Locomotive Cranes

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10(2002)	Portable Fire Extinguishers
NFPA 241(2000)	Safeguarding Construction, Alteration, and Demolition Operations
NFPA 51B(2003)	Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70(2005)	National Electrical Code
NFPA 70E(2004)	Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1(2003) Safety	Safety and Health Requirements

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

29 CFR 1910	Occupational Safety and Health Standards (OSHA)
29 CFR 1910.146	Permit-required Confined Spaces
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 CFR 1919	Gear Certification
29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.500	Fall Protection

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. The following shall be submitted in accordance with SR SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, ACC

Activity Hazard Analysis (AHA); G, ACC

Crane Critical Lift Plan; G, ACC

Proof of qualification for Crane Operators; G, ACC

SD-06 Test Reports

Reports: Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports

Monthly Exposure Reports

Crane Reports

Regulatory Citations and Violations

SD-07 Certificates

Confined Space Entry Permit

Contractor Safety Self-Evaluation Checklist; G, ACC

Submit one copy of each permit/certificate attached to each Daily Quality Control Report.

1.3 DEFINITIONS

a. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

b. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

c. 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 even through provided by a physician or registered personnel.

d. Qualified Person for Fall Protection. A person with a recognized degree or professional certificate, extensive knowledge, training and experience in the field of fall protection who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.

e. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

(1) Death, regardless of the time between the injury and death, or the length of the illness;

(2) Days away from work (any time lost after day of injury/illness onset);

(3) Restricted work;

(4) Transfer to another job;

(5) Medical treatment beyond first aid;

(6) Loss of consciousness; or

(7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

f. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

1.4 DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.5 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, work performed shall comply with USACE EM 385-1-1, and in particular, the requirements of the European Union Council Directive 92/57/EEC of 24 June 1992 on the implementation of minimum safety and health requirements at temporary or mobile construction sites. 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 shall apply.

1.6 SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.6.1 Personnel Qualifications

1.6.1.1 Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The Contractor Quality Control (QC) person can only be the SSHO on this project if approved by the Contracting Officer. Any project exceeding 1 Million US dollars in value shall have a full time SSHO. The SSHO shall meet the following requirements: A minimum of 5 years safety work on similar projects; 30-hour OSHA construction safety class or European Union equivalent within the last 5 years; an average of at least 24 hours of formal safety training each year for the past 5 years. Competent person training as needed.

1.6.1.2 Competent Person for Confined Space Entry

Provide a competent person meeting the requirements of EM 385-1-1 who is assigned in writing by the Government Designated Authority (GDA) to assess confined spaces and who possesses demonstrated knowledge, skill and ability to:

a. Identify the structure, location, and designation of confined and permit-required confined spaces where work is done;

b. Calibrate and use testing equipment including but not limited to, oxygen indicators, combustible gas indicators, carbon monoxide indicators, and carbon dioxide indicators, and to interpret accurately the test results of that equipment;

c. Perform all required tests and inspections specified in Section 06.I of EM 385-1-1;

d. Assess hazardous conditions including atmospheric hazards in confined space and adjacent spaces and specify the necessary protection and precautions to be taken;

e. Determine ventilation requirements for confined space entries and operations;

f. Assess hazards associated with hot work in confined and adjacent space and determine fire watch requirements; and,

g. Maintain records required.

1.6.1.3 Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16 and Appendix G. In addition, crane operators shall be designated as qualified by a source that qualifies crane operators (i.e., union, a government agency, or and organization that tests and qualifies crane operators). Proof of current qualification shall be provided.

1.6.2 Personnel Duties

1.6.2.1 Site Safety and Health Officer (SSHO)/Superintendent

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. Safety inspection logs shall be attached to the Contractors' daily quality control report.

b. Conduct mishap investigations and complete required reports. Maintain an accident/injury log such as the OSHA Form 300 or host nation equivalent, and Daily Production reports for prime and sub-contractors.

c. Maintain applicable safety reference material on the job site.

d. Attend the pre-construction conference, pre-work meetings including preparatory inspection meeting, and periodic in-progress meetings.

e. Implement and enforce accepted APPS and AHAs.

f. Maintain a safety and health deficiency tracking system that monitors outstanding deficiencies until resolution. A list of unresolved safety and health deficiencies shall be posted on the safety bulletin board.

g. Ensure sub-contractor compliance with safety and health requirements.

Failure to perform the above duties will result in dismissal of the superintendent and/or SSHO, and a project work stoppage. The project work stoppage will remain in effect pending approval of a suitable replacement.

1.6.3 Meetings

1.6.3.1 Preconstruction Conference

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, 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. The Contractor shall 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's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

c. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

d. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.

1.6.3.2 Safety Meetings

Shall be conducted and documented as required by EM 385-1-1. Minutes showing contract title, signatures of attendees and a list of topics discussed shall be attached to the Contractors' daily quality control report.

1.7 TRAINING

1.7.1 New Employee Indoctrination

New employees (prime and sub-contractor) will be informed of specific site hazards before they begin work. Documentation of this orientation shall be kept on file at the project site.

1.7.2 Periodic Training

Provide Safety and Health Training in accordance with USACE EM 385-1-1 and the accepted APP. Ensure all required training has been accomplished for all onsite employees.

1.7.3 Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected

1.8 ACCIDENT PREVENTION PLAN (APP)

The Contractor shall use a qualified person to prepare the written site-specific APP in both English and in the host nation language. Prepare the APP in accordance with the format and requirements of USACE EM 385-1-1 and as supplemented herein. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan". Specific requirements for some of the APP elements are described below. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. 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 shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer.

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 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 will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the Contracting Officer within 24 hours of discovery. In the interim, all necessary action shall be taken to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer's office and at the job site.

The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.8.1 EM 385-1-1 Contents

In addition to the requirements outlines in Appendix A of USACE EM 385-1-1, the following is required:

a. Names and qualifications (resumes including education, training, experience and certifications) of all 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. The duties of each position shall be specified.

b. Qualifications of competent and of qualified persons. As a minimum, competent persons shall be designated and qualifications submitted 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; personal protective equipment and clothing to include selection, use and maintenance.

c. Confined Space Entry Plan. Develop a confined space entry plan in accordance with USACE EM 385-1-1, Section 06.I, and any other federal, state and local regulatory requirements identified in this contract. Identify the qualified person's name and qualifications, training, and experience. Delineate the qualified person's authority to direct work stoppage in the event of hazardous conditions. Include procedure for rescue by contractor personnel and the coordination with emergency responders. (If there is no confined space work, include a statement that no confined space work exists and none will be created.)

d. Crane Critical Lift Plan. Prepare and sign weight handling critical lift plans for lifts over 75 percent of the capacity of the crane or hoist (or lifts over 50 percent of the capacity of a barge mounted mobile crane's hoists) at any radius of lift; lifts involving more than one crane or hoist; lifts of personnel; and lifts involving non-routine rigging or operation, sensitive equipment, or unusual safety risks. The plan shall be submitted 15 calendar days prior to on-site work and include the requirements of USACE EM 385-1-1, paragraph 16.C.18. and the following:

(1) For lifts of personnel, the plan shall demonstrate compliance with the requirements of EM 385-1-1, Section 22.F.

(2) For barge mounted mobile cranes, barge stability calculations identifying barge list and trim based on anticipated loading; and load charts based on calculated list and trim. The amount of list and trim shall be within the crane manufacturer's requirements.

e. Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6 feet). A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Fall Protection and Prevention Plan shall be revised every six months for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1, and shall be written in both English and the host nation language. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

The activity hazard analyses shall be developed using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

1.10 DISPLAY OF SAFETY INFORMATION

Within 1 calendar day after commencement of work, erect a safety bulletin board at the job site. The safety bulletin board shall include information and be maintained as required by EM 385-1-1, section 01.A.06.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project. Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors will arrange for their own emergency medical treatment. The Government has no responsibility to provide emergency medical treatment. Military medical clinics may provide emergency treatment for serious injuries; the contractor is responsible for coordination with the local military medical clinic prior to mobilization.

1.13 REPORTS

1.13.1 Accident Reports

For recordable injuries and illnesses, and property damage accidents resulting in at least $2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the

Contracting Officer within 5 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

1.13.2 Accident Notification

Notify the Contracting Officer as soon as practical, but not later than four hours, after any accident meeting the definition of Recordable Injuries or Illnesses or High Visibility Accidents, property damage equal to or greater than $2,000. Information shall 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 (to include type of construction equipment used, PPE used, etc.). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted.

1.13.3 Monthly Exposure Reports

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. The Contracting Officer will provide copies of any special forms.

1.13.4 Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix H and as specified herein with Daily Reports of Inspections.

1.14 HOT WORK

Prior to performing "Hot Work" (welding, cutting, etc.) or operating other flame-producing/spark producing devices, a written permit shall be requested from the Installation. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) six kilogram ABC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, 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 shall be trained in fire fighting techniques and remain on-site for a minimum of 120 minutes after completion of the task or as specified on the hot work permit.

When starting work in the facility, Contractors shall require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency phone numbers. ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED TO THE RESPONSIBLE FIRE DIVISION/DEPARTMENT IMMEDIATELY.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 CONSTRUCTION AND/OR OTHER WORK

Before initiation of work at the job site, an accident prevention plan, written by the Contractor for the specific work and hazards of the contract and implementing in detail the pertinent requirements of EM 385-1-1, will be reviewed and found acceptable by designated Government personnel. Specific requirements for development of the accident prevention plan are found in sections 01.A and Appendix A of EM 385-1-1.

Before beginning each activity 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, activity hazard analysis (AHA) shall be prepared by the Contractor performing the work activity. See paragraph 01.A.09 of EM 385-1-1.

The Contractor shall require subcontractors to submit their plan of operations showing methods they propose to use in accomplishing major phases of work.

The Contractor shall be prepared to discuss the plans in conferences convened by the Contracting Officer prior to starting work on each major phase of operation. Plans shall include all pertinent information such as layout of haul roads, access roads, storage areas, electrical distribution lines, methods of providing minimum exposure to overhead loads, and methods of access to work areas. The plan for accomplishing the initial work phase shall be submitted within 15 calendar days after award of the contract. Plans for subsequent major phases of work shall be submitted not later than 15 calendar days prior to initiation of work on each major phase.

All areas where construction, demolition, alteration, building, or similarly related activities take place, all workers shall have the following minimum personal protective clothing and equipment:

1. Short sleeve shirt.
2. Long trousers.
3. Steel-toed safety boots.
4. Hard hat.

3.1.1 Falling Object Protection

All areas must be barricaded to safeguard employees. When working overhead, barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

3.1.2 Hazardous Material Use

Each hazardous material must receive approval 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. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

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 USACE 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-isocynates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.1.4 Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable 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 FALL HAZARD PROTECTION AND PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall include company policy, identify 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.

3.2.1 Training

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 21.A.16.

3.2.2 Fall Protection Equipment and Systems

The Contractor shall enforce use of the fall protection equipment and systems designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is exposed to a fall hazard. Employees shall be protected from fall hazards as specified in EM 385-1-1, section 21. In addition to the required fall protection systems, safety skiff, personal floatation devices, life rings etc., are required when working above or next to water in accordance with USACE EM 385-1-1, paragraphs 05.H. and 05.I. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall arrest systems are required when operating other equipment such as scissor lifts if the work platform is capable of being positioned outside the wheelbase. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, or travel. Fall protection must comply with USACE EM 385-1-1 and host nation requirements, whichever is more stringent.

3.2.2.1 Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1 or European Union equivalent. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall 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. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 1.8 m (6 feet). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

3.2.3 Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 1.8 m (6 feet) of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized.

(2) For work greater than 1.8 m (6 feet) from an edge, warning lines shall be erected and installed in accordance with USACE EM 385-1-1.

b. Steep-Sloped Roofs: Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

3.2.4 Existing Anchorage

Existing anchorages, to be used for attachment of personal fall arrest equipment, shall be certified (or re-certified) by a qualified person for fall protection in accordance with ANSI Z359.1 or European Union equivalent. Exiting horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

3.2.5 Horizontal Lifelines

Horizontal lifelines shall 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.

3.2.6 Guardrails and Safety Nets

Guardrails and safety nets shall be designed, installed and used in accordance with EM 385-1-1 or Host Nation requirements, whichever is more stringent.

3.2.7 Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. A Rescue and Evacuation Plan shall be prepared by the contractor and 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. The Rescue and Evacuation Plan shall be included in 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).

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. Access to scaffold platforms greater than 6 m in height shall be accessed by use of a scaffold stair system. Vertical ladders commonly provided by scaffold system manufacturers shall not be used for accessing scaffold platforms greater than 6 m in height. The use of an adequate gate is required. Contractor shall ensure that employees are qualified to perform scaffold erection and dismantling. 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 and prevention plan.

Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward. Special care shall be given to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base. Work platforms shall be placed on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet. Delineate fall protection requirements when working above six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

3.4 EQUIPMENT

3.4.1 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 manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be trained/licensed in accordance with Host Nation requirements.

3.4.2 Weight Handling Equipment

a. Cranes and derricks shall be equipped as specified in EM-385-1-1 section 16.

b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person. All testing shall be performed in accordance with the manufacturer's recommended procedures.

d. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.

e. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11.

f. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves to the satisfaction of the Contracting Officer that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

g. Portable fire extinguishers shall be inspected, maintained, and recharged.

h. All employees shall be kept clear of loads about to be lifted and of suspended loads.

i. The Contractor shall use cribbing when performing lifts on outriggers.

j. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

k. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

l. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

m. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

n. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

o. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations the contractor shall set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load being lifted, experience of operators and riggers, and hazards on the work site. This maximum wind speed determination shall be included as part of the activity hazard analysis plan for that operation.

3.5 EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly.

3.5.1 Utility Locations

Prior to any excavation, all underground utilities in the work area must be positively identified by the contractor utilizing a) a private utility locating service in addition to any station locating service, and/or b) a metal and/or cable-detecting device along the route of the excavation. All underground utilities discovered will be flagged a distance of one-half (1/2) meter on each side of the location, and any markings made during the utility investigation must be maintained throughout the contract.

Damage occurring to existing utilities, when the above procedures are not followed, will be repaired at the Contractor’s expense.

3.5.2 Utility Location Verification

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within 0.61 m (2 feet) of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

3.5.3 Shoring Systems

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the

registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

3.5.4 Trenching Machinery

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file at the project site.

3.6 UTILITIES WITHIN CONCRETE SLABS

Utilities located within concrete slabs or pier structures, bridges, and the like, are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever contract work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems shall 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.

3.7 ELECTRICAL

3.7.1 Conduct of Electrical Work

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. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. 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 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 personal 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. In addition, provide 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.

3.7.2 Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70 or European Union equivalent.

3.8 WORK IN CONFINED SPACES

The Contractor shall comply with the requirements in Section 06.I of USACE EM 385-1-1. Any potential for a hazard in the confined space requires a permit system to be used.

a. Entry Procedures. Prohibit entry into a confined space by personnel for any purpose, including hot work, until the qualified person has conducted appropriate tests to ensure the confined or enclosed space is safe for the work intended and that all potential hazards are controlled or eliminated and documented. (See Section 06.I.06 of USACE EM 385-1-1 for entry procedures). All hazards pertaining to the space shall be reviewed with each employee during review of the AHA.

b. Forced air ventilation is required for all confined space entry operations and the minimum air exchange requirements must be maintained to ensure exposure to any hazardous atmosphere is kept below its' action level.

c. Ensure the use of rescue and retrieval devices in confined spaces greater than 1.5 m (5 feet) in depth. Conform to Sections 06.I.08, 06.I.09 and 06.I.10 of USACE EM 385-1-1.

d. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

e. Include training information for employees who will be involved as entrants and attendants for the work. Conform to Section 06.I.07 of USACE EM 385-1-1.

f. Daily Entry Permit. Post the permit in a conspicuous place close to the confined space entrance.

3.9 CRYSTALLINE SILICA

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with USACE 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.

3.10 DEMOLITION

3.101.1 Demolition Plan

The Contractor shall submit a written demolition plan for all demolition work to be carried on the site. In addition, the demolition plan shall be signed by a Professional Registered Engineer and meet the requirements of the Corps of Engineers Safety and Health Manual, EM 385-1-1, section 23. The demolition plan shall be submitted to the COR at least 1 week before the beginning of the work, including structural calculations for the demolition, if necessary. The demolition work shall not begin before the Contractor has received a written approval from the COR.

3.12.1 Protection of Personnel

During the demolition work the Contractor shall continuously evaluate the condition of the structure being demolished and take immediate action to protect all personnel working in and around the demolition 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 workers remove debris or perform other work in the immediate area.

3.10.1 Protection of Structures

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, shall remain standing without additional bracing, shoring, or lateral support until demolished, unless directed otherwise by the COR. The Contractor shall ensure that no elements determined to be

unstable are left unsupported and shall be responsible for placing and securing bracing, shoring, or lateral supports as may be required as a result of any cutting, removal, or demolition work performed under this contract.

Interior concrete or masonry walls shall be demolished from the top down unless a Registered Engineer can demonstrate that an alternate method poses no additional safety hazards

3.11 HOUSEKEEPING

3.11.1 Clean-Up

The Contractor shall be responsible for cleaning up. The Contractor shall require his personnel to keep the immediate work site clean of all dirt and debris resulting from work under this contract. Accumulated dirt and debris shall be hauled off and disposed of in accordance with local law and at least once a week by the Contractor. Additionally, all debris in work areas shall be cleaned up daily or more frequently if necessary. Construction debris may be temporarily located in an approved location, however garbage accumulation must be removed each day.

Stairwells used by the Contractor during execution of work shall be cleaned daily. Cloths, mops, and brushes containing combustible materials shall be disposed of or stored outside of the buildings in tight covered metal containers. Paints and thinners shall not be poured into inlets of the interior or exterior sewage system. Paint, stains, and other residues on adjacent surfaces or fixtures caused by the Contractor shall be carefully removed and cleaned to original finish. Upon completion of the work, the Contractor shall remove all construction equipment, materials and debris resulting from the work. The entire work site and the area used by Contractor personnel shall be left clean.

ATTACHMENT

STR 01525O – SAFETY AND OCCUPATIONAL HEALTH PHASING PLAN

- End of Section -

A. PURPOSE AND RESPONSIBILITIES:

1. The purpose of this SOH Phasing Plan is to establish controls and procedures to reduce the safety and occupational health risks on associated projects to an acceptable level. This SOH Phasing Plan is not intended to address all program SOH requirements, but provides general emphasis to certain procedures and requirements addressed in: EM 385-1-1, U.S. Army Corps of Engineers Safety and Health Requirements Manual

2. For contractor safety on projects associated with this program, compliance with EM 385-1-1 safety requirements will be the long-term goal reached by growing a safety culture. This compliance will, by necessity, be achieved through a phased-in process. In the Commander's letter at the preface of the EM 385-1-1, he acknowledges that in OCONUS locations, strict compliance with the manual may not be possible – and through the hazard analysis process, safety measures can be developed to attain the same degree of safety.

a. The exact timeline and methods of compliance, based generally on the Phase plan below will be determined by in-theater Project Delivery Team (PDT) partners responsible for safety, to include USACE Field Engineering/Construction/ Safety personnel, Prime Contractors and Local Subcontractors. The Prime Contractor, in partnership with the USACE and subcontractors, will develop a Safety and occupational Health Plan (SOHP) consisting of a specific Accident Prevention Plan (APP) and Activity Hazard Analysis for each project.

b. Each project SOHP will evolve as a living document, starting by dividing into phases to provide a goal with a timeline. Focus for the project safety program areas will be based on the following time-based phases.

Phase I: "Saving Lives". Establish achievable compliance methods and basic worker safety education to eliminate or reduce to an acceptable level the life-threatening conditions associated with high hazard construction activities.

- The initial high-hazard focus areas shall include:
  - Excavations
  - Fall Hazards
  - Electrical Work
  - Mobile Construction Equipment
  - Machinery
  - Confined Spaces
- Develop a basic worker safety and health practices manual/ guide and associated mandatory training for each Focus area listed above. These will be in English and local language, based on local conditions and practices and targeted at high-hazard activities.
- On all contract sites, the basic life-support will include First Aid Kits, and emergency communication.
- Contractor Accident Prevention Plans, Activity Hazard Analyses, and other safety-related systems under development with assistance by PDT

Phase II: "Building A Safety Culture" (Approximately one year, beginning at end of Phase I) Advanced safety education of local contractors and LN work force. Full contractor compliance with
USACE safety standards related to high-hazard situations, increased application of standards on all work.

- Workforce education and training to include all applicable requirements of EM 385-1-1 and International Safety Standards
- All required Personal Protective Equipment (PPE) available and used by workers in applicable work practices, as outlined in the EM 385-1-1.

- Contractor Accident Prevention Plans, Activity Hazard Analyses, and other safety-related systems refined to meet standard USACE expectations with assistance by PDT
- Standard Contractor Safety administrative responsibilities required, i.e.: Accident reporting, man-hour tracking, training documentation, First Aid personnel certification, fire protection, etc.

Phase III, "Full Performance" (beginning at end of Phase II) Full performance in compliance with EM 385-1-1 and other applicable laws, regulations, design codes and standards.
Where standard compliance is not possible, local methods may be used in accordance with implementing letter of EM 385-1-1 or through formal waiver process.

3. The PDT shall employ the "Plan, Do, Check, Act" process for implementing this SOHP as a living document. Each PDT member is responsible for planning for safety and health management within their area of responsibility, implementing agreed-on mitigation, checking to assure that the SOHP is being implemented and acting to adjust plans and implementation with a goal of continuous improvement. This plan will be reviewed and revised as needed at the initiation of each Phase listed above.

4. The PDT members shall cooperate in developing a listing of potential hazards associated with each project.

B. GOALS AND OBJECTIVES:

1. Goals. The safety and health goals of all projects are:
   a. Be accident free
   b. Detect and address safety and health problems early in the life of each project
   c. Do not accept unnecessary risk
   d. Every team member, to include contractors shall contribute to the safety and health of their fellow team members and assure that the product is free of inherent hazards to the user.
   e. Educate the workforce and promote Safety as a new way of doing business, show how the project and the employee benefit from Safety.

2. Objectives. The safety and health objectives of this program are:
   a. Managers, supervisors, and workers shall be held accountable, based on the current Phase, for safety and health.
   b. Safety and health expectations shall be communicated with the work force in their native language through the use of banners, flyers, and periodic safety meetings
   c. The work force shall have the safety and health training needed to perform the work at hand, based on the Phase.
   d. Injury and property damage shall be avoided through early detection and management of hazards

Phase I Interim Safety and Occupational Health Work Practices for USACE Contractor Projects

Phase I Safety Program

1. Contractors shall strive to maintain full compliance with the USACE Safety Requirements Manual, EM 385-1-1. This may not be easily achieved during this Phase, due to a number of factors. The focus for safety and health efforts during this Phase is Saving Lives – the prevention of deaths, permanently disabling injuries, and major property loss. The goal during this period is to provide the equipment and methods needed to save lives and to train the workforce in working safely and using the correct personal Protective Equipment (PPE).

2. In order to assist in achieving this goal immediately, the following interim standards shall be used (as a minimum acceptable standard) when full compliance with the EM 385-1-1 is not possible. Contractors shall provide these standards in to their workforce in the local language and shall provide training as needed to ensure worker awareness.

Basic Safety and Health Standards for Construction

A. USACE and the contractors must form a team to assure safety on every job site and prevent serious accidents. All unsafe conditions must be reported and the hazard reduced before work may proceed.

B. Personal Protective Equipment (PPE) may not always be available to every worker during this Phase. Where the equipment required by the USACE Safety Manual, EM 385-1-1, cannot be provided in a timely manner, the contractor shall develop methods that will provide a similar degree of safety (as accepted by USACE) and not expose the workers to serious risk. The mandatory minimum standards for all PPE are:

- Footwear: Closed-toe durable shoes or boots shall be worn by all workers on the project site. No sandals or sports shoes will be allowed, at no time will workers be allowed on the project site with bare feet. Safety footwear (steel-toe or other protection) should be worn by workers using steel rollers, tampers, jack hammers or carrying heavy objects (metal, concrete, stone)
- Head Protection: When they are available, hard hats should be worn by all construction workers when they are at the project. Hard Hats must be worn in overhead hazard areas including material hoisting/ lifting operations, areas below scaffolds and other elevated work, in excavations, and low ceiling areas that have sharp or hazardous projections. If they are not available, then workers must be kept away from these and other overhead hazard areas.
- Respirators: Workers exposed to toxic chemicals, vapors, gases and dusts must wear proper respiratory protection. Such exposure is expected in asbestos removal/ repair work, working with paints and solvents in rooms or enclosed spaces, and fuel production facilities. The employer must train the workers in the uses of the respirator and how to properly wear it. The minimum acceptable respirator is a negative pressure filter or cartridge half-face respirator that is correctly equipped for the hazard. Contractors shall consult and follow the ACGIH guidance for length of allowable exposure to the contaminant and workers shall not exceed the recommended time for exposure. Dust Masks will be worn when the work is producing visible dust.
- Eye Protection: Workers shall wear protective glasses, goggles, or visors when exposed to eye hazards. These hazards include concrete dust, stone and concrete chips from hammering, sandblasting, and power tool cutting or milling. Workers performing welding and cutting with torches or arc-welding equipment shall wear the proper shaded lenses in face shields and/ or goggles.
- Hearing Protection: Protective ear plugs shall be worn when workers are exposed to potentially damaging noise including jack hammers, flight line operations, power saws and grinders, and combustion engines without mufflers.
- Gloves: All workers shall have protective gloves appropriate to the task.
- Clothing: Workers shall wear clothing that protects their skin from damage – shirts and long pants at a minimum. Workers exposed to welding operations, chemicals, abrasive blasting, wet concrete, asbestos, and other hazardous contaminants will wear appropriate clothing for the hazard. Workers using power tools or operating equipment shall not wear very loose or flowing clothing that may get caught in the equipment.

C. Work Methods for Highly Hazardous Work: The following types of work and hazards are recognized as the leading cause of serious injuries and deaths in construction work. Each type of work has specific PPE and safety equipment that is required to do the work and also specific

procedures that must be followed every time the work is done. These interim measures are the minimum acceptable precautions. For each project, an Activity Hazard Analysis (AHA) shall be completed and, when possible, compliance with more restrictive methods of the EM 385-1-1 shall be achieved.

Workers shall be trained on the following safety precautions, the nature of the hazards involved, and any additional work methods used before performing each type of work

- Excavations
  - The Site Safety and Health Officer will be contacted for inspection of the work prior to digging. The SSHO will assist in any safety equipment or techniques that are required to avoid injury. They will also provide a safety check on the location to assure the there are no underground hazards at the site.
  - All excavations or unsafe areas will be marked with barricades or warning tape. These warnings must be maintained and visible until the area is restored to a safe condition.
  - When workers will enter trenches, the walls shall be sloped according to the type of soil or shoring, trench boxes, or other structures will be used to protect workers from collapsing walls
  - Soil removed from trenches will not be placed at the edge of the trench – it must be placed back at least 1 meter from the edge.
  - Vehicles and construction equipment must not be parked closer than 2 meters from the edge of an excavation.
  - Excavation walls shall be inspected regularly during each day to check for cracks, bulges, large stones, sandy areas, and failure of the wall. If these conditions are found, nobody may enter the excavation and the damaged area must be dug out or braced.

- Fall Hazards
  - When working above 2 meters from the ground or another level, all workers shall be protected from falling. The SSHO will inspect prior to beginning work to be sure the work methods are safe. Inspection will include work on ladders, scaffolds, and other elevated work areas.
  - Protection systems shall be sturdy railings, walls, or other structures
  - If there are no structures to protect workers, body belts or harnesses shall be used along with lanyards.
  - Body belts should be mainly be used only to prevent a worker from falling over an edge or off a structure.
  - Body belts and harnesses can both be used as fall protection (stopping a falling worker). The lanyard shall be rope strong enough to withstand the shock of stopping the worker's weight, and they shall be as short as possible, to limit the shock force. Lanyards shall never allow a worker to fall more than 2 meters. It is recommended that lanyards without shock absorber devices be no longer than 1 meter.
- Electrical Work
  - All circuits, wires, and electrical devices shall be tested with a volt meter and found to be de-energized before workers touch the energized parts
  - Controls, switches, and other means for energizing the circuit or equipment shall be tagged "do not operate"
  - Workers shall not work closer to energized systems than the distances listed in the USACE manual.
  - Temporary electrical systems shall be grounded and tested for good ground resistance before use.

- Power tools shall be protected from water and damage, and their cords must be insulated. Cords must be factory installed or equivalent replacements, including safety grip plug and cord boot.
- Extension cords will be in safe, good working order.

- Mobile Construction Equipment
  - If equipment, particularly cranes, are damaged the repairs shall be done by a competent repair person and verified by the SSHO prior to being brought back into service.
  - Nobody may ride outside the cab of construction equipment. Specifically, no riders may ever be in loader buckets, bulldozer blades, on forklift forks, or suspended by a crane.
  - When workers are nearby, construction equipment must have reverse signal alarms or shall use a spotter standing away from the equipment. The spotter must be visible by the driver and positioned to see the area behind the equipment.
  - Construction equipment must work a safe distance from electrical systems, based on the voltage.
  - Cranes must be used according to the manufacturer. If no manufacturer data is available, a load chart shall be developed by a qualified engineer.
  - Workers should stay out of the radius of the crane boom during a lift.
  - Lifting ropes shall be inspected daily for breaks and failure of hardware and fittings.
  - Nobody shall ever ride the hook or load of a crane.

- Machinery
  - Rotating shafts, wheels, blades, and other hazardous parts shall have guards to prevent workers from being injured.
  - Fuel-powered machinery must not be operated indoors or near enclosed areas without using powered ventilation to prevent toxic CO build-up.
  - Metal housings of electrically powered equipment must be grounded

- Confined Spaces
  - The SSHO will pre-approve any work in a confined space, such as in a tank, sewer, manhole or any other enclosed area. The SSHO will inspect the work and assist with any safety equipment or techniques that are required.
  - All permit-required confined spaces (PRCS) on a project shall have signs prohibiting entry.
  - Entrants, supervisors, and attendants for PRCS shall be properly trained.
  - When available, oxygen/flammable/toxic gas meters shall be used for all PRCS. This equipment must be used to evaluate the air in all spaces known or suspected to have contained flammable or toxic chemicals or contain sewage, rotting vegetation or other organic matter.
  - For spaces not meeting the above criteria, mechanical ventilation fans shall be used to clear the air in the space when meters are not available. Based on the air flow of the fan, it shall exhaust the total volume of the space a minimum of seven times prior to entry.
  - All entrants shall wear a harness, body belt, or other device attached to a rope sufficient to retrieve the worker in an emergency.
  - Permits should be used during PRCS entry. If not possible, then some visible means, such as flags or tags outside the entrance, shall be used so supervisors can see when workers are in the space.

- Gas Cylinders
  - Pressurized gas cylinders, such as Oxygen and Acetylene tanks will be stored in a holding stand/ cart to prevent them from falling over. Cylinders will not be placed free on the ground or standing free. If the bottle is not in use the valve will be removed.

D. Child Labor. Minors under the age of 18 may not perform any of the above hazardous work. Additionally, these minors can not perform any hazardous work such as operating dangerous power tools (circular saws, jack hammers, lathes, etc), driving vehicles, be exterior assistants for vehicle operators or operating mobile construction equipment, explosives work, work at heights over 2 meters without standard railings, electrical work, entering excavations, and work with toxic substances.

-- End of Section --

SECTION 01770

SPECIFICATION SECTION 01770

CLOSEOUT PROCEDURES

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. The following shall be submitted in accordance with Section 01335 SUBMITTAL PROCEDURES:

SD-10 Operation and Maintenance Data
Equipment/Product Warranty List; G
Submit Data Package 1 in accordance with Section 01781 OPERATION AND MAINTENANCE DATA.

SD-11 Closeout Submittals
As-Built Drawings; G
Record Of Materials; G
Equipment/Product Warranty Tag; G

1.2 PROJECT RECORD DOCUMENTS

1.2.1 As-Built Drawings

As built drawings shall be submitted in accordance with Section 01015 SPECIAL CONDITIONS

1.2.2 As-Built Record of Materials

Furnish a record of materials.

Where several manufacturers' brands, types, or classes of the item listed have been used in the project, designate specific areas where each item was used. Designations shall be keyed to the areas and spaces depicted on the contract drawing. Furnish the record of materials used in the following format:

MATERIALS DESIGNATION	SPECIFICATION	MANUFACTURER	MATERIALS USED (MANUFACTURER'S DESIGNATION)	WHERE USED

1.3 EQUIPMENT/PRODUCT WARRANTIES

1.3.1 Equipment/Product Warranty List

The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall 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 shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be 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. 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.

c. A list for each warranted equipment, item, feature of construction or system indicating:
(7) Name of item.
(8) Model and serial numbers.
(9) Location where installed.
(10) Name and phone numbers of manufacturers or suppliers.
(11) Names, addresses and telephone numbers of sources of spare parts.
(12) Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
(13) Cross-reference to warranty certificates as applicable.
(14) Starting point and duration of warranty period.
(15) Summary of maintenance procedures required to continue the warranty in force.
(16) Cross-reference to specific pertinent Operation and Maintenance manuals.
(17) Organization, names and phone numbers of persons to call for warranty service.
(18) Typical response time and repair time expected for various warranted equipment.

d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

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.

1.3.2 Performance of Warranty Work

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.

Following oral or written notification of required construction warranty repair work, the Contractor shall respond in a timely manner. Written verification will follow oral instructions. Failure of the Contractor to respond will be cause for the Contracting Officer to proceed against the Contractor.

1.3.3 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall 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 shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall 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, shall be continuously available, and shall 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.

1.3.4 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

a. Type of product/material _____
b. Model number _____
c. Serial number _____
d. Contract number _____
e. Warranty period _____ from _____ to _____
f. Inspector's signature _____
g. Construction Contractor _____
   Address _____
   Telephone number _____
h. Warranty contact _____
   Address _____
   Telephone number _____
i. Warranty response time priority code _____
j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.4 MECHANICAL TESTING AND BALANCING

All contract requirements for testing/adjusting/balancing shall be fully completed, including all testing, prior to contract completion date. The time required to complete all testing/adjusting/balancing is included in the allotted calendar days for completion.

1.5 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be replaced. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

SECTION 1780A

SECTION 01780A

CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01335 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

As-Built Drawings

Drawings showing final as-built conditions of the project. The final CADD as-built drawings shall consist of one set of electronic CADD drawing files in the specified format, one set of mylar drawings, 2 sets of blue-line prints of the mylars, and one set of the approved working as-built drawings.

SD-03 Product Data

As-Built Record of Equipment and Materials

Two copies of the record listing the as-built materials and equipment incorporated into the construction of the project.

Warranty Management Plan

One set of the warranty management plan containing information relevant to the warranty of materials and equipment incorporated into the construction project, including the starting date of warranty of construction. The Contractor shall furnish with each warranty the name, address, and telephone number of each of the guarantor's representatives nearest to the project location.

Warranty Tags

Two record copies of the warranty tags showing the layout and design.

Final Cleaning

Two copies of the listing of completed final clean-up items.

1.2 PROJECT RECORD DOCUMENTS

1.2.1 As-Built Drawings

This paragraph covers as-built drawings complete, as a requirement of the contract. The terms "drawings," "contract drawings," "drawing files," "working as-built drawings" and "final as-built drawings" refer to contract drawings which are revised to be used for final as-built drawings.

1.2.1.1 Government Furnished Materials

One set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the preconstruction conference for projects requiring CADD file as-built drawings.

1.2.1.2 Working As-Built and Final As-Built Drawings

The Contractor shall revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be 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, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

b. The location and dimensions of any changes within the building structure.

c. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

d. 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 fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

e. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

f. Changes or modifications which result from the final inspection.

g. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

h. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

i. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

j. Modifications (change order price shall include the Contractor's cost to change working and final as-built drawings to reflect modifications) and compliance with the following procedures.

(1) Directions in the modification for posting descriptive changes shall be followed.

(2) A Modification Circle shall be placed at the location of each deletion.

(3) For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

(4) For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

(5) For major changes to a drawing, a Modification Circle shall be placed by the title of the affected plan, section, or detail at each location.

(6) For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

(7) The Modification Circle size shall be 12.7 mm 1/2 inch diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.2.1.3 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any

drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.2.1.4 Computer Aided Design and Drafting (CADD) Drawings

Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare additional new drawings. Additions and corrections to the contract drawings shall be equal in quality and detail to that of the originals. Line colors, line weights, lettering, layering conventions, and symbols shall be the same as the original line colors, line weights, lettering, layering conventions, and symbols. If additional drawings are required, they shall be prepared using the specified electronic file format applying the same graphic standards specified for original drawings. The title block and drawing border to be used for any new final as-built drawings shall be identical to that used on the contract drawings. Additions and corrections to the contract drawings shall be accomplished using CADD files. The Contractor will be furnished "as-designed" drawings in AutoCAD Release 2005.The electronic files will be supplied on compact disc, read-only memory (CD-ROM). The Contractor shall be responsible for providing all program files and hardware necessary to prepare final as-built drawings. The Contracting Officer will review final as-built drawings for accuracy and the Contractor shall make required corrections, changes, additions, and deletions.

a. CADD colors shall be the "base" colors of red, green, and blue. Color code for changes shall be as follows:

(1) Deletions (red) - Deleted graphic items (lines) shall be colored red with red lettering in notes and leaders.

(2) Additions (Green) - Added items shall be drawn in green with green lettering in notes and leaders.

(3) Special (Blue) - Items requiring special information, coordination, or special detailing or detailing notes shall be in blue.

b. The Contract drawing files shall be renamed in a manner related to the contract number (i.e., 98-C-10.DGN) as instructed in the Pre-Construction conference. Marked-up changes shall be made only to those renamed files. All changes shall be made on the layer/level as the original item. There shall be no deletions of existing lines; existing lines shall be over struck in red. Additions shall be in green with line weights the same as the drawing. Special notes shall be in blue on layer#63.

c. When final revisions have been completed, the cover sheet drawing shall show the wording "RECORD DRAWING AS-BUILT" followed by the name of the Contractor in letters at least 5 mm 3/16 inch high. All other contract drawings shall be marked either "AS-Built" drawing denoting no revisions on the sheet or "Revised As-Built" denoting one or more revisions. Original contract drawings shall be dated in the revision block.

d. Within 20days for contracts $5 million and above after Government approval of all of the working as-built drawings for a phase of work, the Contractor shall prepare the final CADD as-built drawings for that phase of work and submit two sets of blue-lined prints of these drawings for Government review and approval. The Government will promptly return one set of prints annotated with any necessary corrections. Within 10 days for contracts $5 million and above the Contractor shall revise the CADD files accordingly at no additional cost and submit one set of final prints for the completed phase of work to the Government. Within 20 days for contracts $5 million and above of substantial completion of all phases of work, the Contractor shall submit the final as-built drawing package for the entire project. The submittal shall consist of one set of electronic files on compact disc, read-only memory (CD-ROM), one set of mylars, two sets of blue-line prints and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right

to reject any drawing files it deems incompatible with the customer's CADD system. Paper prints, drawing files and storage media submitted will become the property of the Government upon final approval. Failure to submit final as-built drawing files and marked prints as specified shall be cause for withholding any payment due the Contractor under this contract. Approval and acceptance of final as-built drawings shall be accomplished before final payment is made to the Contractor.

1.2.1.5 Payment

No separate payment will be made for as-built drawings required under this contract, and all costs accrued in connection with such drawings shall be considered a subsidiary obligation of the Contractor.

1.2.2 As-Built Record of Equipment and Materials

The Contractor shall furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 2 days after final inspection with Government comments. Two sets of final record of equipment and materials shall be submitted 10 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

RECORD OF DESIGNATED EQUIPMENT AND MATERIALS DATA

Description	Specification Section	Manufacturer and Catalog, Model, and Serial Number	Composition and Size	Where Used

1.2.3 Final Approved Shop Drawings

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed facility.

1.2.4 Construction Contract Specifications

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

1.2.5 Real Property Equipment

The Contractor shall furnish a list of installed equipment furnished under this contract. The list shall include all information usually listed on manufacturer's name plate. The "EQUIPMENT-IN-PLACE LIST" shall include, as applicable, the following for each piece of equipment installed: description of item, location (by room number), model number, serial number, capacity, name and address of manufacturer, name and address of equipment supplier, condition, spare parts list, manufacturer's catalog, and warranty. A draft list shall be furnished at time of transfer. The final list shall be furnished 30 days after transfer of the completed facility.

1.3 WARRANTY MANAGEMENT

1.3.1 Warranty Management Plan

The Contractor shall develop a warranty management plan which shall contain information relevant to the clause Warranty of Construction. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government

receives all warranties to which it is entitled. The plan shall 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 shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be 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. 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.

c. 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. This shall include one-year overall warranty of construction. Items which have extended warranties shall 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.

d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

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.

1.3.2 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall 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 shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall 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, shall be continuously

available, and shall 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.

1.3.3 Contractor's Response to Construction Warranty Service Requirements

Following oral or written notification by the Contracting Officer, the Contractor shall respond to construction warranty service requirements in accordance with the "Construction Warranty Service Priority List" and the three categories of priorities listed below. The Contractor shall submit a report on any warranty item that has been repaired during the warranty period. The report shall include 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 timeframes 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-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.

1.3.5 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

a. Type of product/material_____.

b. Model number_____.

c. Serial number_____.

d. Contract number_____.

e. Warranty period_____from_____to_____.

f. Inspector's signature_____.

g. Construction Contractor_____.
Address_____. Telephone number_____.

h. Warranty contact_____.
Address_____. Telephone number_____.

i. Warranty response time priority code_____.

j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.4 MECHANICAL TESTING, ADJUSTING, BALANCING, AND COMMISSIONING

Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing, adjusting, balancing, and commissioning of mechanical systems shall be submitted to and approved by the Contracting Officer as specified inapplicable technical specification sections.

1.5 OPERATION AND MAINTENANCE MANUALS

Operation manuals and maintenance manuals shall be submitted as specified. Operation manuals and maintenance manuals provided in a common volume shall be clearly differentiated and shall be separately indexed.

1.6 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be replaced. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

-- End of Section -

SPECIFICATION SECTION 01781

OPERATION AND MAINTENANCE DATA

PART 1 GENERAL

1.1 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. 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 01335 SUBMITTAL PROCEDURES.

1.1.1 Package Quality

Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.

1.1.2 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.

1.1.3 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 Contracting Officer 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 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

1.2.1 Operating Instructions

Include specific instructions, procedures, and illustrations for the following phases of operation:

1.2.1.1 Safety Precautions

List personnel hazards and equipment or product safety precautions for all operating conditions.

1.2.1.2 Operator Prestart

Include procedures required to set up and prepare each system for use.

1.2.1.3 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.2.1.4 Normal Operations

Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.

1.2.1.5 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.

1.2.1.6 Operator Service Requirements

Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gage readings.

1.2.1.7 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.

1.2.2 Preventive Maintenance

Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair.

1.2.2.1 Lubrication Data

Include preventative maintenance lubrication data, in addition to instructions for lubrication provided under paragraph titled "Operator Service Requirements":

(19) A table showing recommended lubricants for specific temperature ranges and applications.
(20) Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.
(21) A Lubrication Schedule showing service interval frequency.

1.2.2.2 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.

1.2.3 Corrective Maintenance (Repair)

Include manufacturer's recommended procedures and instructions for correcting problems and making repairs.

1.2.3.1 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.

1.2.3.2 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.

1.2.3.3 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.

1.2.3.4 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.

1.2.3.5 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.

1.2.4 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.

1.2.5 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:

1.2.6 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

1.2.6.1 Warranty Information

List and explain the various warranties and include 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.

1.2.6.2 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.

1.2.6.3 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.

1.2.6.4 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 most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 TRAINING

Unless provided for elsewhere, the Contractor shall provide operational and maintenance training for all systems furnished under this contract in accordance with this section. The training shall not take place until the operation and maintenance manuals are submitted and approved.

Training will be given to personnel responsible for the operation and maintenance of the system at the installation. Orient training to the specific system being installed under this contract. Use operation and maintenance manual as the primary instructional aid in contractor provided activity personnel training. Manuals shall be delivered for each trainee with two additional sets delivered for archiving at the project site. Submit a training course schedule, syllabus, and training materials 14 days prior to the start of training. Obtain approval of the training course before beginning that phase of training. Furnish a qualified instructor approved by the system manufacturer to conduct training for the specific system.

Training manuals shall include an agenda, defined objectives and a detailed description of the subject matter for each lesson. Furnish audio-visual equipment and all other training materials and supplies. A training day is defined as 8 hours of classroom or lab instruction, including two 15 minute breaks and excluding lunch time, Monday through Friday, during the daytime shift in effect at the training facility. For guidance, the Contractor should assume the attendees will have a high school education.

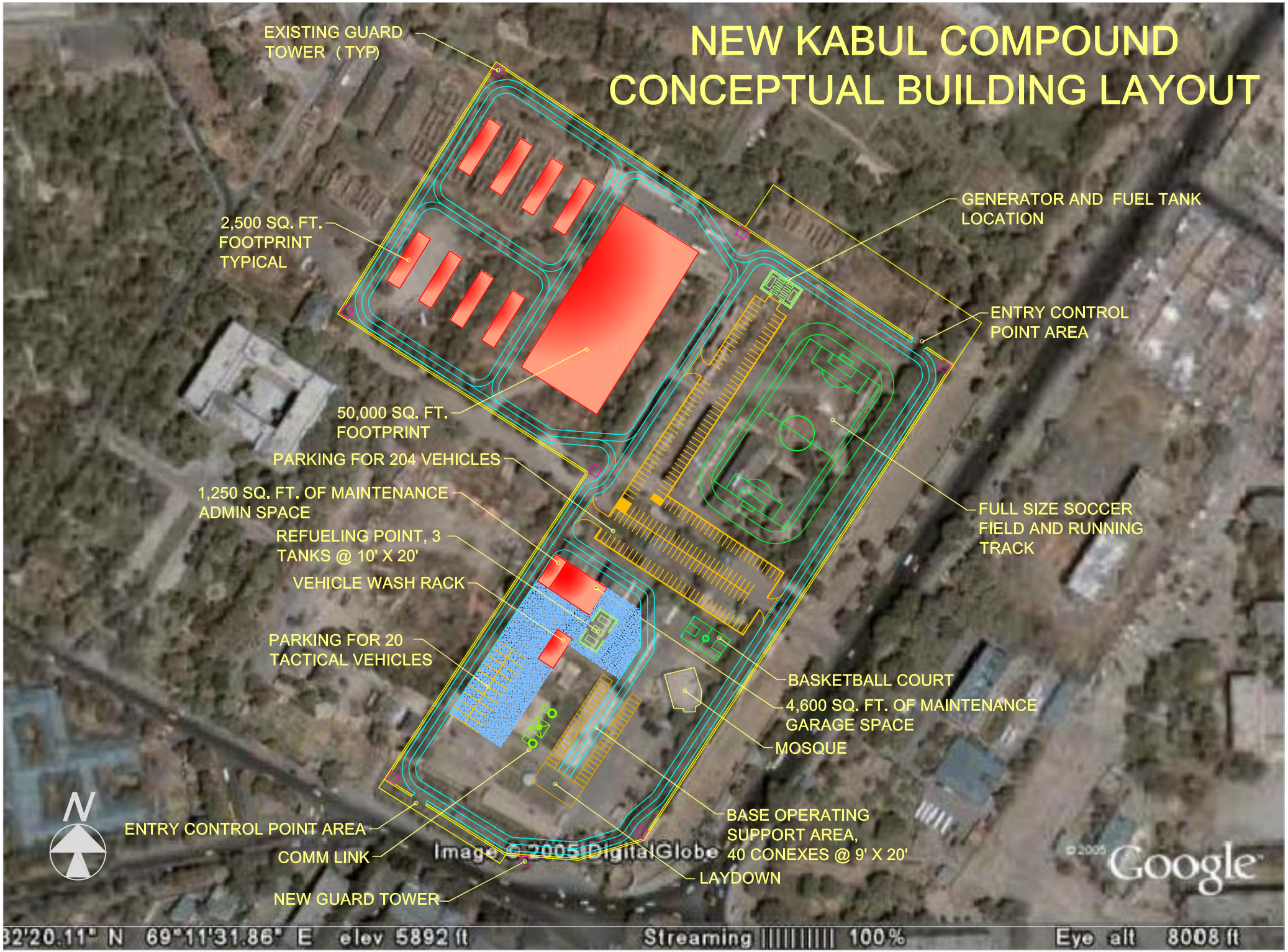
The Contractor shall videotape the training session on VHS tapes and provide the tapes to the Government.

-- End of Section --

APPENDIX A

Appendix A

Conceptual Building Layout


NEW KABUL COMPOUND
CONCEPTUAL BUILDING LAYOUT
EXISTING GUARD TOWER (TYP)
2,500 SQ. FT. FOOTPRINT TYPICAL
GENERATOR AND FUEL TANK LOCATION
ENTRY CONTROL POINT AREA
50,000 SQ. FT. FOOTPRINT
PARKING FOR 204 VEHICLES
1,250 SQ. FT. OF MAINTENANCE ADMIN SPACE
REFUELING POINT, 3 TANKS @ 10' X 20'
VEHICLE WASH RACK
FULL SIZE SOCCER FIELD AND RUNNING TRACK
PARKING FOR 20 TACTICAL VEHICLES
BASKETBALL COURT
4,600 SQ. FT. OF MAINTENANCE GARAGE SPACE
MOSQUE
N
ENTRY CONTROL POINT AREA
COMM LINK
NEW GUARD TOWER
BASE OPERATING SUPPORT AREA, 40 CONEXES @ 9' X 20'
LAYDOWN
Image © 2005 DigitalGlobe
© 2005 Google
32'20.11" N 69°11'31.86" E elev 5892 ft
Streaming 100%
Eye alt 8008 ft

Appendix B

SCIFF Manual

(DCID 6/9)-- MANUAL

Physical Security Standards for Sensitive Compartmented Information Facilities

(Effective 18 November 2002)
(Administrative Corrections 23 December 2002)

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PREFACE

DCID 6/9, Physical Security Standards for Sensitive Compartmented Information Facilities (SCIFs), was approved by the Director of Central Intelligence (DCI) on 30 January 1994.

A complete copy of DCID 6/9 consists of the basic DCID, and this Manual and its annexes A through G. The annexes are as follows:

Annex A - SCIF Checklist (effective 27 May 1994)

Annex B - Intrusion Detection Systems (effective 18 November 2002)

Annex C - Tactical Operations/Field Training (effective 27 May 1994)

Part I - Ground Operation
Part II- Aircraft/Airborne Operation
Part III - Shipborne Operation

Annex D - Part I - Electronic Equipment in SCIFs (effective 30 January 1994)

Part II - Handling and Disposal of Laser Toner Cartridges (effective 5 June 1998)

Annex E - Acoustical control and Sound Masking Techniques (effective 30 January 1994)

Annex F - Personnel Access Controls (effective 18 November 2002)

Annex G - Telephone Security (effective 18 November 2002)

1. POLICY AND CONCEPT

1.1 Policy Statement

1.1.1 Physical security standards are hereby established governing the construction and protection of facilities for storing, processing, and discussing Sensitive Compartmented Information (SCI) that requires extraordinary security safeguards. Compliance with this DCID 6/9 Implementing Manual (hereafter referred to as the "Manual") is mandatory for all Sensitive Compartmented Information Facilities (SCIFs) established after the effective date of this manual, including those that make substantial renovations to existing SCIFs. Those SCIFs approved prior to the effective date of this Manual will not require modification to meet these standards.

1.1.2 The physical security safeguards set forth in this Manual are the standards for the protection of SCI. Senior Officials of the Intelligence Community (SOICs), with DCI concurrence, may impose more stringent standards if they believe extraordinary conditions and circumstances warrant. SOICs may not delegate this authority. Additional cost resulting from more stringent standards should be borne by the requiring Agency, Department, or relevant contract.

1.1.3 In situations where conditions or unforeseen factors render full compliance to these standards unreasonable, the SOIC or designee may waive specific requirements in accordance with this Manual. However, this waiver must be in writing and specifically state what has been waived. The Cognizant Security Authority (CSA) must notify all co-utilizing agencies of any waivers it grants.

1.1.4 All SCIFs must be accredited by the SOIC or designee prior to conducting any SCI activities.

1.1.5 One person is now authorized to staff a SCIF, which eliminates the two-person rule (the staffing of a SCIF with two or more persons in such proximity to each other to deter unauthorized copying or removal of SCI).

1.2 Concept

1.2.1 SCIF design must balance threats and vulnerabilities against appropriate security measures in order to reach an acceptable level of risk. Each security concept or plan must be submitted to the CSA for approval. Protection against surreptitious entry, regardless of SCIF location, is always required. Security measures must be taken to deter technical surveillance of activities taking place within the SCIF.

TEMPEST security measures must be considered if electronic processing of SCI is involved.

1.2.2 On military and civilian compounds, there may exist security controls such as identification checks, perimeter fences, police patrols, and other security measures. When considered together with the SCIF location and internal security systems, those controls may be sufficient to be used in lieu of certain physical security or construction requirements contained in this Manual.

1.2.3 Proper security planning for a SCIF is intended to deny foreign intelligence services and other unauthorized personnel the opportunity for undetected entry into those facilities and exploitation of sensitive activities. Faulty security planning and equipment installation not only jeopardizes security but wastes money. Adding redundant security features causes extra expense, which could be used on other needed features. When security features are neglected during initial construction, retrofitting of existing facilities to comply with security requirements is necessary.

1.3 American Disabilities Act (ADA) Review

1.3.1 Nothing in this manual shall be construed to contradict or inhibit compliance with the law or building codes. CSAs shall work to meet appropriate security needs according to the intent of this Manual at acceptable cost.

2. GENERAL ADMINISTRATIVE

2.1 SCI Facilities (SCIFs)

A SCIF is an accredited area, room, group of rooms or buildings, or installation where SCI may be stored, used, discussed, and/or electronically processed. SCIFs will be afforded personnel access control to preclude entry by unauthorized personnel. Non-SCI indoctrinated personnel entering a SCIF must be continuously escorted by an indoctrinated employee who is familiar with the security procedures of that SCIF. The physical security protection for a SCIF is intended to prevent as well as detect visual, acoustical, technical, and physical access by unauthorized persons. Physical security criteria are governed by whether the SCIF is in the United States or not, according to the following conditions: closed storage, open storage, continuous operations, secure working area.

2.2 Physical Security Preconstruction Review and Approval

CSAs shall review physical security preconstruction plans for SCIF construction, expansion or modification. All documentation pertaining to SCIF construction will be appropriately controlled and restricted on a need-to-know basis. The approval or disapproval of a physical security preconstruction plan shall be made a matter of record.

2.2.1 The requester shall submit a Fixed Facility Checklist (FFC, Annex A) to the respective CSA for review and approval.

2.2.2 The Checklist submission shall include floor plans, diagrams of electrical communications, heating, ventilation, air conditioning (HVAC) connections, security equipment layout (to include the location of intrusion detection equipment), etc. All diagrams or drawings must be submitted on legible and reproducible media.

2.2.3 The CSA shall be responsible for providing construction advice and assistance and pre-approving SCIF construction or modification.

2.3 Accreditation

The CSA will ensure SCIFs comply with DCID 6/9. The CSA is authorized to inspect any SCIF, direct action to correct any deficient situation, and withdraw SCIF accreditation. The procedures for establishment and accreditation of SCIFs are prescribed below:

2.3.1 The procedures for establishment and accreditation of SCIFs from conception through construction must be coordinated and approved by the SOIC or CSA.

2.3.2 SCI shall never be handled, processed, discussed, or stored in any facility other than a properly accredited SCIF unless written authorization is granted by the CSA.

2.3.3 An inspection of the SCIF shall be performed by the CSA or appointed representative prior to accreditation. Periodic reinspections shall be based on threat, physical modifications, sensitivity of programs, and past security performance. Inspections may occur at any time, announced or unannounced. The completed fixed facility checklist will be reviewed during the inspection to ensure continued compliance. TSCM evaluations may be required at the discretion of the CSA, as conditions warrant. Inspection reports shall be retained within the SCIF and by the CSA.

All SCIFs shall maintain on site, current copies of the following documents:

a. DCID 6/9 Fixed Facility Checklist

b. Accreditation authorization documents (e.g., physical, TEMPEST, and AIS).

c. Inspection reports, including TSCM reports, for the entire period of SCIF accreditation

d. Operating procedures, Special Security Officer Contractor Special Security Officer (SSO/CSSO) appointment letters, Memoranda *of* Agreement (MOAs), Emergency Action Plans, etc.

e. Copies of any waivers granted by the CSA.

2.3.4 Inspection: Authorized inspectors shall be admitted to a SCIF without delay or hindrance when inspection personnel are properly certified to have the appropriate level of security clearance and SCI indoctrination for the security level of the SCIF. Short notice or emergency conditions may warrant entry without regard to the normal SCIF duty hours. Government owned equipment, needed to conduct SCIF inspections, will be admitted into SCIF without delay.

2.3.5 Facilities, which are presently accredited, under construction or in the approval process at the date of implementation of this Manual, shall not require modification to conform to these standards.

2.3.5.1 Facilities undergoing major modification may be required to comply entirely with the provisions of this Manual. Approval for such modifications shall be requested through the CSA and received prior to any modifications taking place within the SCIF.

2.3.5.2 In the event a need arises to reopen a SCIF after the accreditation has been terminated, the CSA may approve the use of a previously accredited SCIF based upon a review of an updated facility accreditation package.

2.3.6 Withdrawal of Accreditation:

2.3.6.1 Termination of Accreditation: When it has been determined that a SCIF is no longer required, withdrawal of accreditation action will be initiated by the SSO/CSSO. Upon notification, the CSA will issue appropriate SCI withdrawal correspondence. The CSA or

appointed representative will conduct a close out inspection of the facility to ensure that all SCI material has been removed.

2.3.6.2 Suspension or Revocation of Accreditation: When the CSA determines that there is a danger of classified information being compromised or that security conditions in a SCIF are unsatisfactory, SCI accreditation will be suspended or revoked. All appropriate authorities must be notified of such action immediately.

2.4 Co-Utilization

2.4.1 Agencies desiring to co-utilize a SCIF should accept the current accreditation and any waivers. Any security enhancements required by an agency or department requesting co-utilization should be funded by that organization, and must be approved by the SOIC with DCI concurrence prior to implementation. A co-utilization agreement must be established prior to occupancy.

2.4.2 Special Access Programs (SAP) co-located within a SCIF will meet the physical security requirements of this Manual and DCI Special Access Programs (SAP) Policy, January 4, 1989.

2.5 Personnel Controls

2.5.1 Access rosters listing all persons authorized access to the facility shall be maintained at the SCIF point of entry. Electronic systems, including coded security identification cards or badges may be used in lieu of security access rosters.

2.5.2 Visitor identification and control: Each SCIF shall have procedures for identification and control of visitors seeking access to the SCIF.

2.6 Control of Combinations

2.6.1 Combinations to locks installed on security containers/safes, perimeter doors, windows and any other openings should be changed whenever:

a. A combination lock is first installed or used;

b. A combination has been subjected, or believed to have been subjected to compromise; and

c. At other times when considered necessary by the CSA.

2.6.2 All combinations to SCIF entrance doors should be stored in another SCIF of equal or higher accreditation level. When this is not feasible, alternate arrangements will be made in coordination with the CSA.

2.7 Entry/Exit Inspections

The CSA shall prescribe procedures for inspecting persons, their property, and vehicles at the entry or exit points of SCIFs, or at other designated points of entry to the building, facility, or compound. The purpose of the inspection is to deter the unauthorized removal of classified material, and deter the introduction of prohibited items or contraband. This shall include determination of whether inspections are randomly conducted or mandatory for all, and whether they apply for visitors only or for the entire staff assigned. All personnel inspection procedures should be reviewed by the facility's legal counsel prior to promulgation.

2.8 Control of Electronic Devices and Other Items

2.8.1 The CSA shall ensure that procedures are instituted for control of electronic devices and other items introduced into or removed from the SCIF. See Annex D for guidance.

2.8.2 The prohibition against electronic equipment in SCIFs does not apply to those needed by the disabled or for medical or health reasons (e.g., motorized wheelchairs, hearing aids, heart pacemakers, amplified telephone headsets, teletypewriters for the hearing impaired). However, the SSO or CSSO shall establish procedures for notification that such equipment is being entered in to the SCIF.

2.8.3 Emergency and police personnel and their equipment, including devices carried by emergency medical personnel responding to a medical crisis within a SCIF, shall be admitted to the SCIF without regard to their security clearance status. Emergency personnel will be escorted to the degree practical. However, debriefing of emergency personnel will be accomplished as soon as possible, if appropriate.

2.8.4 Equipment for TEMPEST or Technical Surveillance Countermeasures (TSCM) testing shall be admitted to a SCIF as long as the personnel operating the equipment are certified to have the appropriate level of security clearance and SCI indoctrination.

3. PHYSICAL SECURITY CONSTRUCTION POLICY FOR SCIFs

3.1 Construction Policy for SCI Facilities

Physical security criteria are governed by whether the SCIF is located in the US or not, according to the following conditions: closed storage, open storage, continuous operations, secure working areas.

3.1.1 Closed Storage

3.1.1.1 Inside U.S:

a. The SCIF must meet the specifications in Chapter 4 Permanent Dry Wall Construction).

b. The SCIF must be alarmed in accordance with Annex B to this manual.

c. SCI must be stored in GSA approved security containers.

d. There must be a response force capable of responding to an alarm within 15 minutes after annunciation and a reserve response force available to assist the responding force.

e. The CSA may require any SCIF perimeter walls accessible from exterior building ground level to meet the equivalent protection afforded by Chapter 4 (Expanded Metal) construction requirement.

3.1.1.2 Outside U.S.:

a. The SCIF must meet the construction specifications for SCIFs as set forth in Chapter 4 (Steel Plate or Expanded Metal). SCIFs within US Government controlled compounds[1], or equivalent, having armed immediate response forces may use specifications indicated in Chapter 4 (Permanent Dry Wall Construction) with prior approval of the CSA.

b. The SCIF must be alarmed in accordance with Annex B.

c. All SCI controlled material will be stored in GSA-approved containers having a rating for both forced

[1] A controlled building or compound is one to which access is restricted and unescorted entry is limited to authorized personnel.

and surreptitious entry equal to or exceeding that afforded by Class 5 containers.

d. There must be a response force capable of responding to an alarm within 10 minutes and a reserve response force available to assist the responding force.

3.1.2 Open Storage

3.1.2.1 INSIDE US: When open storage is justified and approved by the CSA. The SCIF must:

a. be alarmed in accordance with Annex B;

b. have a response force capable of responding to an alarm within 5 minutes and a reserve response force available to assist the response force; and

c. meet one of the following:

1. SCIFs within a controlled US government compound or equivalent may use specifications indicated in Chapter 4 (Permanent Dry Wall Construction): or

2. SCIFs within a controlled building with continuous personnel access control may use specifications indicated in Chapter 4 (Permanent Dry Wall Construction). The CSA may require any SCIF perimeter walls accessible from exterior building ground level to meet the equivalent protection afforded by Chapter 4 (Expanded Metal) construction requirements; or

3. SCIFs, which are not located in a controlled building or compound, may use specifications indicated in Chapter 4 (expanded Metal) or (Vault) constructions requirements.

3.1.2.2 OUTSIDE US: Open storage of SCI material will be avoided. When open storage is justified as mission essential, vault construction is preferred. The SCIF must:

a. be alarmed in accordance with Annex B;

b. have a response force capable of responding to an alarm within 5 minutes and a reserve response force available to assist the responding force.

c. have an adequate, tested plan to protect, evacuate, or destroy the material in the event of emergency or natural disaster; and

d. meet one of the following:

1. The construction specification for vaults set forth in Chapter 4 (Vaults); or

2. With the approval of the CSA, SCIFs located on a controlled US government compound, or equivalent, having immediate response forces may use expanded metal, steel plate, or GSA approved modular vaults in lieu of vault construction.

3.1.3 Continuous Operation

3.1.3.1 INSIDE THE US:

a. The SCIF must meet the construction specifications as identified in Chapter 4 (Permanent Dry Wall Construction). An alert system and duress alarm may be required by the CSA, based on operational and threat conditions.

b. Provisions should be made for storage of SCI in GSA approved containers. If the configuration of the material precludes this, there must be an adequate, tested plan to protect, evacuate, or destroy the material in the event of emergency, civil unrest or natural disaster.

c. There must be a response force capable of responding to an alarm within 5 minutes and a reserve response force available to assist the responding force.

3.1.3.2 OUTSIDE THE US:

a. The SCIF must meet the construction specifications for SCIFs as set forth in Chapter 4 (Expanded Metal). An alert system and duress alarm may be required by the CSA, based on operational and threat conditions. (b) The capability must exist for storage of all SCI in GSA-approved security containers, or the SCIF must have an adequate, tested plan to protect, evacuate, or destroy the material in the event of emergency or natural disaster.

b. SCIFs located within US Government controlled compounds, or equivalent, having immediate response

forces, may use the secure area construction specifications as listed in Chapter 4 (Permanent Dry Wall Construction) with prior approval of the CSA

c. There must be a response force capable of responding to an alarm within 5 minutes, and a reserve response force available to assist the responding force.

3.1.4 Secure Working Areas are accredited facilities used for handling, discussing, and/or processing SCI, but where SCI will not be stored.

3.1.4.1 INSIDE THE U.S.:

a. The Secure Working Area SCIF must meet the specifications set forth in Chapter 4 (Permanent Dry Wall Construction).

b. The Secure Working Area SCIF must be alarmed with a balanced magnetic switch on all perimeter entrance doors.

c. No storage of SCI material is authorized.

d. There must be a response force capable of responding to an alarm within 15 minutes after annunciation, and a reserve response force available to assist the responding force.

3.1.4.2 OUTSIDE THE U.S.:

a. The Secure Working Area SCIF must meet the construction specifications indicated in Chapter 4 (Permanent Dry Wall Construction).

b. The Secure Working Area SCIF must be equipped with an approved alarm system as set forth in Annex B.

c. No storage of SCI material is authorized.

d. There must be a response force capable of responding to an alarm within 10 minutes, and a reserve response force available to assist the responding force.

3.2 Temporary Secure Working Area (TSWA)

3.2.1 A Temporary Secure Working area is defined as a temporarily accredited facility that is used no more than 40 hours monthly for the handling, discussion, and/or processing

of SCI, but where SCI should not be stored. with sufficient justification, the CSA may approve longer periods of usage and storage of SCI for no longer than 6 months.

3.2.2 During the entire period the TSWA is in use, the entrance will be controlled and access limited to persons having clearance for which the area has been approved. Approval for using such areas must be obtained from the CSA setting forth room number(s), building, location, purpose, and specific security measures employed during usage as well as during other periods. TSWAs should be covered by an alarm system. These areas should not be used for periods exceeding an average total of 40 hours per month. No special construction is required other than to meet sound attenuation requirements as set forth in Annex E, when applicable. If such a facility must also be used for the discussion of SCI, a Technical Surveillance Countermeasures (TSCM) evaluation may be required at the discretion of the CSA, as conditions warrant.

3.2.3 When not in use at the SCI level, the TSWA will be:

a. Secured with a keylock or a combination lock approved by the CSA.

b. Access will be limited to personnel possessing a US Secret clearance.

3.2.4 If such a facility is not alarmed or properly protected during periods of non-use, a TSCM inspection may be conducted prior to use for discussion at the SCI level.

3.3 Requirements Common To All SCIFs; Within The US and Overseas

3.3.1 CONSTRUCTION: The SCIF perimeter walls, floors and ceiling, will be permanently constructed and attached to each other. All construction must be done in such a manner as to provide visual evidence of unauthorized penetration.

3.3.2 SOUND ATTENUATION: The SCIF perimeter walls, doors, windows, floors and ceiling, including all openings, shall provide sufficient sound attenuation to preclude inadvertent disclosure of conversation. The requirements for sound attenuation are contained within Annex E.

3.3.3 ENTRANCE, EXIT, AND ACCESS DOORS:

3.3.3.1 Primary entrance doors to SCIFs shall be limited to one. If circumstances require more than one entrance door, this must be approved by the CSA. In some circumstances, an emergency exit door may be required.

In cases where local fire regulations are more stringent, they will be complied with. All perimeter SCIF doors must be closed when not in use, with the exception of emergency circumstances. If a door must be left open for any length of time due to an emergency or other reasons, then it must be controlled in order to prevent unauthorized removal of SCI.

3.3.3.2 All SCIF perimeter doors must be plumbed in their frames and the frame firmly affixed to the surrounding wall. Doorframes must be of sufficient strength to preclude distortion that could cause improper alignment of door alarm sensors, improper door closure or degradation of audio security.

3.3.3.3 All SCIF primary entrance doors must be equipped with an automatic door closer, a GSA-approved combination lock and an access control device with the following requirements:[2]

a. If doors are equipped with hinge pins located on the exterior side of the door where it opens into an uncontrolled area outside the SCIF, the hinges will be treated to prevent removal of the door (e.g., welded, set screws, etc.)

b. If a SCIF entrance door is not used as an access control door and stands open in an uncontrolled area, the combination lock will be protected against unauthorized access/tampering.

3.3.3.4 Control doors: The use of a vault door for controlling daytime access to a facility is not authorized. Such use will eventually weaken the locking mechanism, cause malfunctioning of the emergency escape device, and constitute a security and safety hazard. To preclude this, a second door will be installed and equipped with an automatic door closer and an access control device. (It is preferable that the access door be installed external to the vault door.)

3.3.3.5 SCIF emergency exit doors shall be constructed of material equivalent in strength and density to the main entrance door. The door will be secured with deadlocking panic hardware on the inside and have no exterior hardware. SCIF perimeter emergency exit doors should be equipped with a local enunciator in order to

[2] This requirement does not apply to the GSA approved Class 5, 6 and 8 vault doors.

alert people working in the area that someone exited the facility due to some type of emergency condition.

3.3.3.6 Door Construction Types: Selections of entrance and emergency exit doors shall be consistent with SCIF perimeter wall construction. Specifications of doors, combination locks, access control devices and other related hardware may be obtained from the CSA. Some acceptable types of doors are:

a. Solid wood core door, minimum of 1¾ inches thick.

b. Sixteen gauge metal cladding over wood or composition materials, a minimum of 1¾ inches thick. The metal cladding shall be continuous and cover the entire front and back surface of the door.

c. Metal fire or acoustical protection doors, a minimum of 1¾ inches thick. A foreign manufactured equivalent may be used if approved by the CSA.

d. A joined metal rolling door, minimum of 22 gauge, used as a loading dock or garage structure must be approved on a case-by-case basis.

3.3.4 PHYSICAL PROTECTION OF VENTS, DUCTS, AND PIPES:

3.3.4.1 All vents, ducts, and similar openings in excess of 96 square inches that enter or pass through a SCIF must be protected with either bars, or grills, or commercial metal duct sound baffles that meet appropriate sound attenuation class as specified in Annex E. Within the United States, bars or grills are not required if an IDS is used. If one dimension of the duct measures less than six inches, or duct is less than 96 square inches, bars are not required; however, all ducts must be treated to provide sufficient sound attenuation. If bars are used, they must be ½ inch diameter steel welded vertically and horizontally six (6) inches on center; if grills are used, they must be of 9-gauge expanded steel; if commercial sound baffles are used, the baffles or wave forms must be metal permanently installed and no farther apart than six (6) inches in one dimension. A deviation of l/2 inch in vertical and/or horizontal spacing is permissible.

3.3.4.2 Based on the TEMPEST accreditation, it may be required that all vents, ducts, and pipes must have a non-conductive section (a piece of dissimilar material e.g., canvas, rubber) which is unable to carry electric current, installed at the interior perimeter of the SCIF.

3.3.4.3 An access port to allow visual inspection of the protection in the vent or duct should be installed inside the secure perimeter of the SCIF. If the inspection port must be installed outside the perimeter of the SCIF, it must be locked.

3.3.5 WINDOWS:

3.3.5.1 All windows that might reasonably afford visual surveillance of personnel, documents, materials, or activities within the facility, shall be made opaque or equipped with blinds, drapes or other coverings to preclude such visual surveillance.

3.3.5.2 Windows at ground level[3] will be constructed from or covered with materials that will provide protection from forced entry. The protection provided to the windows need be no stronger than the strength of the contiguous walls. SCIFs located within fenced and guarded government compounds or equivalent may eliminate this requirement if the windows are made inoperable by either permanently sealing them or equipping them on the inside with a locking mechanism.

3.3.5.3 All perimeter windows at ground level shall be covered by an IDS.

4. CONSTRUCTION SPECIFICATIONS

4.1 Vault Construction Criteria

4.1.1 Reinforced Concrete Construction: Walls, floor, and ceiling will be a minimum thickness of eight inches of reinforced concrete. The concrete mixture will have a comprehensive strength rating of at least 2,500 psi. Reinforcing will be accomplished with steel reinforcing rods, a minimum of 5/8 inches in diameter, positioned centralized in the concrete pour and spaced horizontally and vertically six inches on center; rods will be tied or welded at the intersections. The reinforcing is to be anchored into the ceiling and floor to a minimum depth of one-half the thickness of the adjoining member.

[3] This should be interpreted to mean any windows that are less than 18 feet above the ground measured from the bottom of the window, or are easily accessible by means of objects directly beneath the windows, (e.g., electrical transformer, air conditioning units, vegetation or landscaping which can easily be climbed, etc.).

4.1.2 GSA-approved modular vaults meeting Federal Specification FF-V-2737, may be used in lieu of a 4.1.1 above.

4.1.3 Steel-lined Construction: Where unique structural circumstances do not permit construction of a concrete vault, construction will be of steel alloy-type of ¼ inch thickness, having characteristics of high yield and tensile strength. The metal plates are to be continuously welded to load-bearing steel members of a thickness equal to that of the plates. If the load-bearing steel members are being placed in a continuous floor and ceiling of reinforced concrete, they must be firmly affixed to a depth of one-half the thickness of the floor and ceiling.

If the floor and/or ceiling construction is less than six inches of reinforced concrete, a steel liner is to be constructed the same as the walls to form the floor and ceiling of the vault. Seams where the steel plates meet horizontally and vertically are to be continuously welded together.

4.1.4 All vaults shall be equipped with a GSA-approved Class 5 or Class 8 vault door. Within the US, a Class 6 vault door is acceptable. Normally within the United States a vault will have only one door that serves as both entrance and exit from the SCIF in order to reduce costs.

4.2 SCIF Criteria For Permanent Dry Wall Construction

Walls, floor and ceiling will be permanently constructed and attached to each other. To provide visual evidence of attempted entry, all construction, to include above the false ceiling and below a raised floor, must be done in such a manner as to provide visual evidence of unauthorized Penetration.

4.3 SCIF Construction Criteria For Steel Plate

Walls, ceiling and floors are to be reinforced on the inside with steel plate not less than 1/8" thick. The plates at all vertical joints are to be affixed to vertical steel members of a thickness not less than that of the plates. The vertical plates will be spot welded to the vertical members by applying a one-inch long weld every 12 inches; meeting of the plates in the horizontal plane will be continuously welded. Floor and ceiling reinforcements must be securely affixed to the walls with steel angles welded or bolted in place.

4.4 SCIF Construction Criteria For Expanded Metal

Walls are to be reinforced, slab-to-slab, with 9-gauge expanded metal. The expanded metal will be spot welded every 6 inches to vertical and horizontal metal supports of 16-gauge or greater thickness that has been solidly and permanently attached to the true floor and true ceiling.

4.5 General

The use of materials having thickness or diameters larger than those specified above is permissible. The terms "anchored to and/or embedded into the floor and ceiling" may apply to the affixing of supporting members and reinforcing to true slab or the most solid surfaces; however, sub-floors and false ceiling are not to be used for this purpose.

5. GLOSSARY

Access Control System: A system to identify and/or admit personnel with properly authorized access to a SCIF using physical, electronic, and/or human controls.

Accreditation: The formal approval of a specific place, referred to as a Sensitive Compartmented Information Facility (SCIF), that meets prescribed physical, technical, and personnel security standards.

Acoustic Security: Those security measures designed and used to deny aural access to classified information.

Astragal Strip: A narrow strip of material applied over the gap between a pair of doors for protection from unauthorized entry and sound attenuation.

Authorized Personnel: A person who is fully cleared and indoctrinated for SCI, has a valid need to know, and has been granted access to the SCIF.

Balanced Magnetic Switch (BMS): A type of IDS sensor which may be installed on any rigid, operable opening (i.e., doors, windows) through which access may be gained to the SCIF.

Break-Wire Detector: An IDS sensor used with screens and grids, open wiring, and grooved stripping in various arrays and configurations necessary to detect surreptitious and forcible penetrations of movable openings, floors, walls, ceilings, and skylights. An alarm is activated when the wire is broken.

Closed Storage: The storage of SCI material in properly secured GSA approved security containers within an accredited SCIF.

Computerized Telephone System (CTS): Also referred to as a hybrid key system, business communication system, or office communications system.

Cognizant Security Authority (CSA): The single principal designated by a SOIC (see definition of SOIC) to serve as the responsible official for all aspects of security program management with respect to the protection of intelligence sources and methods, under SOIC responsibility.

Continuous Operation: This condition exists when a SCIF is staffed 24 hours every day.

Controlled Area/Compound: Any area to which entry is subject to restrictions or control for security reasons.

Controlled Building: A building to which entry is subject to restrictions or control for security reasons.

Co-Utilization: Two or more organizations sharing the same SCIF

Dead Bolt: A lock bolt with no spring action. Activated by a key or turn knob and cannot be moved by end pressure.

Deadlocking Panic Hardware: A panic hardware with a deadlocking latch that has a device when in the closed position resists the latch from being retracted.

Decibel (db): A unit of sound measurement.

Document: Any recorded information regardless of its physical form or characteristics, including, without limitation, written or printed matter, data processing cards and tapes, maps, charts, paintings, drawings, photos, engravings, sketches, working notes and papers, reproductions of such things by any means or process, and sound, voice, magnetic or electronic recordings in any form.

Dual Technology: PIR, microwave or ultrasonic IDS sensors that combine the features of more than one volumetric technology.

Expanded Steel: Also called EXPANDED METAL MESH. A lace work patterned material produced from sheet steel by making regular uniform cuts and then pulling it apart with uniform pressure.

Guard: A properly trained and equipped individual whose duties include the protection of a SCIF. Guards whose duties require

direct access to a SCIF, or patrol within a SCIF, must meet the clearance criteria in Director of Central Intelligence Directive 6/4. CSA will determine if indoctrination is required.

Intelligence Community (and agencies within the Community): Refers to the United States Government agencies and organizations identified in section 3.4(f) (1 through 7) of Executive Order 12333.

Intrusion Detection System: A security alarm system to detect unauthorized entry.

Isolator: A device or an assembly of devices that isolates or disconnects a telephone or Computerized Telephone System (CTS) from all wires which exit the SCIF and which as been accepted as effective for security purposes by the Telephone Security Group (TSG approved).

Key Service Unit (KSU): An electromechanical switching device which controls routing and operation of an analog telephone system.

Line Supervision:

Class I: Class I line security is achieved through the use of DES or an algorithm based on the cipher feedback or cipher block chaining mode of encryption. Certification by NIST or another independent testing laboratory is required.

Class II: Class II line supervision refers to systems in which the transmission is based on pseudo random generated or digital encoding using an interrogation and response scheme throughout the entire communication, or UL Class AA line supervision. The signal shall not repeat itself within a minimum six-month period. Class II security shall be impervious to compromise using resistance, voltage, current, or signal substitution techniques.

Motion Detection Sensor: An alarm sensor that detects movement.

Non-Conductive Section: Material (i.e., canvas, rubber, etc.) which is installed in ducts, vents, or pipes, and is unable to carry audio or RF emanations.

Non-Discussion Area: A clearly defined area within a SCIF where classified discussions are not authorized due to inadequate sound attenuation.

Open Storage: The storage of SCI material within a SCIF in any configuration other than within GSA approved security containers.

Response Force: Personnel (not including those on fixed security posts) appropriately equipped and trained, whose duties include initial or follow up response to situations that threaten the security of the SCIF. This includes local law enforcement support or other external forces as noted in agreements.

Secure Working Area: An accredited SCIF used for handling, discussing and/or processing of SCI, but where SCI will not be stored.

Senior Official of the Intelligence Community (SOIC): The head of an agency, of fine, bureau, or intelligence element identified in section 3.4(f) (1 through 6) of Executive Order 12333.

Sensitive Compartmented Information (SCI): SCI is classified information concerning or derived from intelligence sources, methods or analytical processes, which is required to be handled exclusively within formal control systems established by the Director of Central Intelligence.

Sensitive Compartmented Information Facility (SCIF): An accredited area, room, group of rooms, building, or installation where SCI may be stored, used, discussed and/or electronically processed.

Sound Group: Voice transmission attenuation groups established to satisfy acoustical requirements. Ratings measured in sound transmission class may be found in the Architectural Graphic Standards.

Sound Transmission Class (STC): The rating used in architectural considerations of sound transmission loss such as those involving walls, ceilings, and/or floors.

Special Access Program (SAP): Any approved program which imposes need-to-know or access controls beyond those normally required for access to CONFIDENTIAL, SECRET, or TOP SECRET information.

Surreptitious Entry: Unauthorized entry in a manner which leaves no readily discernible evidence.

Tactical SCIF: An accredited area used for actual or simulated war operations for a specified period of time.

Technical Surveillance Countermeasures (TSCM) Surveys and Evaluations: A physical, electronic, and visual examination to

detect technical surveillance devices, technical security hazards, and attempts at clandestine penetration.

Type Accepted Telephone: Any telephone whose design and construction conforms with the design standards for Telephone Security Group approved telephone sets. (TSG Standard #3, #4, or #5).

Vault: A room(s) used for the storing, handling, discussing, and/or processing of SCI and constructed to afford maximum protection against unauthorized entry.

Waiver: An exemption from a specific requirement of this document.

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ANNEX A - SCIF Accreditation Checklist

(Effective 27 May 1994)

FIXED FACILITY CHECKLIST

DATE _____

Table of Contents

Section A--General Information
Section B--Peripheral Security
Section C--SCIF Security
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Section E--Intrusion Detection Systems
Section F--Telephone System
Section G--Acoustical Protection
Section H--Administrative Security
Attachments

[ ] PRECONSTRUCTION [ ] NEW [ ] MODIFIED FACILITY

Section A -- General Information

1. SCIF Data: Organization/Company Name: _____
   SCIF Identification Number (if applicable): _____
   Organization subordinate to (If applicable): _____
   Contract Number & Expiration Date: _____
   CSA: _____
   Project Headquarter Security Office (if applicable): _____
2. SCIF Location: _____
   Street Address: _____
   _____
   Bldg Name/#: _____ Floor: _____
   Room(s) No: _____
   City: _____ State/Country: _____
   ZIP Code: _____

3. Responsible Security Personnel:

Primary: _____ Alternate: _____
Commercial Telephone: _____
DSN Telephone: _____
Secure Telephone: Type: _____
Home Telephone: _____
Fax No: (specify both classified and unclassified)
Classified: _____ Unclassified: _____
Other: _____

4. Accreditation Data:

Category of SCI Requested: _____
Indicate the storage required:
_____ Open Storage _____ Closed Storage ____ Continuous Operation
_____ Secure Working Area _____ Temporary Secure Working Area
Existing Accreditation Information (If applicable):
(1) Category of SCI: _____
(2) Accreditation granted by: _____
on _____
Last TEMPEST Accreditation (if applicable): Accreditation granted by: _____ on _____
If Automated Information Systems (AISs) are used, has an accreditation been granted? _____ YES _____ NO
Accreditation granted by: _____ on _____
SAP co-located within SCIF? _____ YES _____ NO
(If Yes, Classification: _____, and provide copy of Co-utilization Agreement for SAP operation in SCIF.)
Duty Hours: _____ hours to hours, _____ days per week.
Total square feet SCIF occupies: _____

5. Construction/modification: Is construction or modification complete?
_____ YES _____ NO _____ N/A (If NO, expected date of completion)
_____

6. Inspections:

TSCM Service completed by _____ on _____ (Attach copy of report)
Were deficiencies corrected? _____ YES _____ NO _____ N/A
(If NO, explain:) _____
Last Physical Security Inspection by_____ on _____(Attach copy of report)
Were deficiencies corrected? _____ YES _____ NO _____ N/A
(If NO ,explain:) _____
Last Security Assistance visit by_____ on _____

7. REMARKS: _____

Section B -- Peripheral Security

8. Describe building exterior security:

   Fence: _____
   Fence Alarm: _____
   Fence lighting: _____
   Television (CCTV): _____
   Guards: _____
   Other: _____

9. Building:

   Construction type: _____
   Describe Access Controls: _____
   (1) Continuous: _____ YES _____ NO
   (2) If NO, during what hours? _____

10. Remarks: _____
    _____
    _____

Section C -- SCIF Security

11. How is access to the SCIF controlled?

    By Guard Force: ____ YES ____ NO Security Clearance Level: _____
    By Assigned Personnel: _____ YES _____ NO
    By Access Control Device: _____ YES _____ NO
    If yes, Manufacturer _____ Model No _____

12. Does the SCIF have windows? _____ YES _____ NO
    How are they acoustically protected (If applicable) _____
    _____
    How are they secured against opening? _____
    _____
    How are they protected against visual surveillance? (If applicable) _____
    _____

13. Do ventilation ducts penetrate the SCIF perimeter?_____ YES _____ NO
    Number and size (Indicate on floor plan): _____
    _____
    If over 96 square inches, type of protection used:
    IDS: _____ YES _____ NO (Describe in Section E)
    Bars/Grills Metal Baffles: _____ YES _____ NO
    _____OTHER - Explain: _____
    Metal Duct Sound Baffles: Are ducts equipped with:
    Metal Baffles: _____ YES _____ NO
    Noise Generator: _____ YES _____ NO
    Non-Conductive Joints: _____ YES _____ NO
    Inspection Ports: _____ YES _____ NO
    If YES, are they within the SCIF?_____ YES ____ NO
    If they are located outside of the SCIF, how are they secured?
    _____
    If TEMPEST accreditation authority requires; are pipes, conduits, etc., penetrating the SCIF equipped with non-conductive unions at the point they breach the SCIF perimeter? _____ YES _____ NO
    Are they provided acoustical protection? (if applicable) ____ YES _____ NO

14. Construction:
    Perimeter walls:

    Material & Thickness: _____
    Do the walls extend from the true floor to the true ceiling?
    _____ YES _____ NO
    True ceiling (material and thickness): _____
    False ceiling? _____ YES _____ NO If yes:
    Type of ceiling material:
    Distance between false and true ceiling:
    True floor (material and thickness): _____
    False Floor? _____ YES _____ NO If yes:
    Distance between false and true floor:_____

15. Remarks: _____
    _____
    _____

Section D -- Doors

16. Describe SCIF Primary Entrance Door (Indicate on floor plan): _____
_____
_____
Is an automatic door closer installed? _____ YES _____ NO
If NO, explain: _____

17. Describe number and type of doors used for SCIF emergency exits and other perimeter doors (Indicate on floor plan): _____
_____
Is an automatic door closer installed? _____ YES _____ NO
If NO, explain: _____
_____

18. Describe how the door hinges exterior to the SCIF are secured against removal (if in an uncontrolled area):_____
_____
_____

19. Locking devices:
Perimeter SCIF Entrance Door:

List manufacturer, model number and Group rating: _____
_____
Does entrance door stand open into an uncontrolled area?
_____ YES _____ NO If YES, describe tamper protection: _____
_____
Emergency Exits and Other Perimeter Doors:
Describe (locks, metal strip/bar, deadbolts, panic hardware): _____
_____
_____
Where are the door lock combinations filed? _____
_____

20. Remarks: _____
_____
_____

Section E -- Intrusion Detection Systems

Give manufacturer and model numbers in response to following questions:

21. Method of Interior Motion Detection Protection:

    Accessible Perimeter? _____
    Storage Areas? _____
    Motion Detection Sensors (Indicate on floor Plan): _____
    Tamper protection: _____ YES _____ NO
    Other (e.g. CCTV, etc.): _____

22. Door and Window Protection (Indicate on floor plan):

    Balanced Magnetic Switch (BMS) on door?: _____
    Tamper protection: _____ YES _____ NO
    If SCIF has ground floor windows, how are they protected? _____
    Other (e.g. CCTV, etc..) _____

23. Method of ventilation and duet work protection: _____
    _____

24. Space above false ceiling (only outside the United States, if required):

    Motion Detection Sensors: _____
    Tamper protection: _____ YES _____ NO
    Other (e.g. CCTV): _____

25. Space below false floor only outside the United States, if required):

    Motion Detection Sensors: _____
    Tamper protection: _____ YES _____ NO
    Other (e.g. CCTV): _____

26. IDS transmission line security protection:

    Electronic line supervision (Manufacture and Model): _____
    _____
    If electronic line supervision. class of service: _____ I _____ II
    Other: _____

27. Is emergency power available for the IDS? _____ YES _____ NO
    TYPE: _____ Battery _____ Emergency Generator _____ Other

28. Where is the IDS control unit for the SCIF located (Indicated on floor plan)?
    _____

29. Where is the IDS Alarm enunciator panel located (Indicate on floor plan, Address)?
    _____
    _____
    _____

30. IDS Response Personnel: Describe: _____
_____
_____
Response Force Security Cleared: _____ YES _____ NO
Level: _____
Emergency Procedures documented? _____ YES _____ NO
Reserve Force available? _____ YES _____ NO
Response time required for alarm condition: _____ minutes.
Are response procedures tested and records maintained?
_____ YES _____ NO
If no, explain: _____

31. Is the IDS tested and records maintained? _____ YES _____ NO
If no, explain: _____

32. Remarks: _____
_____
_____

Section F -- Telephone System

33. Method of on-hook security provided:

TSG-2 Computerized Telephone System (CTS)? _____ YES _____ NO
Manufacturer/Model: _____
Location of the CTS: _____
Do the CTS installers and programmer have security clearances? _____
If yes, at what access level (minimum established by CSA): _____
_____
If no, are escorts provided? _____
_____
Is the CTS installed as per TSG-2 Configuration Requirements? ___YES___NO
If no, provide make and model number of telephone equipment, explain your configuration, and attach a line drawing? _____
Is access to the facility housing the switch controlled? ___YES___NO
Are all lines between the SCIF and the switch in controlled spaces?
____YES____ NO
Does the CTS use remote maintenance and diagnostic procedures or other remote access features? ____YES____ NO
If yes, explain those procedures:_____
_____
TSG-6 approved telephones?
Manufacturer/Model: _____
TSG number: _____
Ringer Protection (if required): _____
TSG-6 approved disconnect devices?
Manufacturer/Model: _____
TSG number: _____

34. Methods of off-hook security provided:

Is there a hold or mute feature? ____ YES____ NO
If yes, which feature_____, and is it provided by the: _____ CTS?
or _____ Telephone?
If no, are approved push-to-operated handsets provided?
____YES ____ NO
Describe: _____

35. Automatic telephone call answering:

Is there an automatic call answering service for the telephones in the SCIF?
____YES____NO
If yes, provide make and model number of the equipment, explain the configuration, and provide a line drawing. _____

Section G -- Acoustical Protection

40. Do all areas of the SCIF meet acoustical requirements? ____ YES ____ NO
    If no, describe additional measures taken to provide minimum acoustical protection e.g. door, windows, etc)
    _____

41. Is the SCIF equipped with a public address, emergency/fire announcement or music system? _____ YES _____ NO
    If yes, describe and explain how protected? _____
    _____

42. If any intercommunication system that is not part of the telephone system is used, describe and explain how protected: _____
    _____

43. Remarks: _____
    _____
    _____

Section H -- Administrative Security

45. Destruction Methods:

    Describe method used for destruction of classified/sensitive material:
    Manufacturer: _____ Model: _____
    Manufacturer: _____ Model: _____
    Describe location of destruction site(s) in relation to the secure facility:
    _____
    Have provisions been made for the emergency destruction of classified/ sensitive program material? (If required):____ YES____ NO
    If YES, has the emergency destruction equipment and plan been coordinated with the CSA? ____ YES____ NO

46. If reproduction of classified/sensitive material takes place outside the SCIF, describe equipment and security procedures used to reproduce documents: _____
    _____

47. Remarks: _____
    _____
    _____

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ANNEX B - Intrusion Detection Systems (IDS)[4]

(Effective 18 November 2002)

This annex sets forth the requirements and establishes the Standard for Intrusion Detection Systems (IDS) and associated operations for Government and Government-Sponsored Sensitive Compartmented Information Facilities (SCIFs). Compliance with these requirements is mandatory for all SCIFs established after the effective date of this annex.

1.0 IDS Overview

The IDS shall detect attempted or actual unauthorized human entry into a SCIF. The IDS complements other physical security measures. The IDS shall consist of three distinct components: Intrusion Detection Equipment (IDE), Security and Response-Force Personnel, and Security Operation Procedures. IDS operations shall comprise four phases as described below:

1.1 Detection Phase. The detection phase begins when a sensor reacts to the stimuli for which the sensor was designed to detect.

1.2 Reporting Phase. The Premise Control Unit (PCU) receives signals from all associated sensors in the SCIF's alarmed zone and establishes the alarm status. The alarm status is immediately transmitted to the Monitoring Station. Within the Monitoring Station, a dedicated Alarm-Monitoring panel (or central processor) monitors incoming PCU signals. On receiving an alarm signal, a Monitoring Station's enunciator generates an audible and visible alarm for the monitoring personnel.

1.3 Assessment Phase. The assessment phase is the initial phase requiring human interaction. On receiving an audible or visible alarm, monitoring personnel immediately assess the situation and determine the appropriate response.

1.4 Response Phase. The response phase begins immediately after the operator has assessed the alarm condition. All alarms shall be immediately investigated. During the response phase, the precise nature of the alarm shall be determined and appropriate measures taken to safeguard the SCIF.

[4] Supersedes Annex B dated 27 May 1994.

2.0 Definitions

2.1 Alarm. An alarm is a visual and audible indication that a sensor has detected the entry or attempted entry of an unauthorized person into a SCIF. Alarms also signify the malfunction of a sensor that normally causes such an alarm.

2.2 Alarm Zone. An alarm zone is a segregated or specified area under the control of a single Premise Control Unit (PCU).

2.3 Intrusion Detection Equipment (IDE). IDE is all the equipment, associated software/firmware, and communication lines included within the IDS.

2.4 Monitoring Station. The monitoring station is the central point for collecting alarm status from the PCUs handling the alarm zones under control of an IDS.

2.5 Premise Control Unit (PCU). A PCU is a device that receives changes of alarm status from IDS sensors, and transmits an alarm condition to the monitoring station.

2.6 Security in-depth. A determination by the Cognizant Security Authority (CSA) that a facility's security programs consist of layered and complementary controls sufficient to deter and detect unauthorized entry and movement within the areas adjacent to the SCIF.

2.7 Sensor. Sensors are devices that respond to a physical stimulus (as heat, light, sound, pressure, magnetism, or a particular motion) and transmit a resulting impulse.

2.8 United States. As used herein, the United States includes the 48 contiguous states, Alaska, Hawaii, as well as, protectorates, territories, and possessions under control of the United States (for example, Puerto Rico, Guam, Wake, Midway, American Samoa, US Virgin Islands, others). This definition does not include US-controlled installations (for example, military bases, embassies, leased space) located in foreign countries.

3.0 IDS Requirements

This section specifies the requirements for Intrusion Detection Systems (IDS) and associated operations for government and government-sponsored SCIFs and other associated areas.

3.1 General IDS Requirements. The following general requirements apply to all SCIFs and shall be met as a

prerequisite for using a SCIF for government-classified operations.

3.1.1 SCIF Protection. All areas of a SCIF that reasonably afford access to the SCIF, or where SCI is stored, shall be protected by an IDS, unless continuously occupied. If the occupants of a continuously occupied SCIF cannot observe all potential entrances to the SCIF, the SCIF shall be equipped with a system to alert occupants of intrusions into the SCIF. This alerting system shall consist of Balance Magnetic Switches (BMS) (see paragraph 3.2.1.4) or other appropriate sensors. IDE and cabling associated with the alerting system shall not extend beyond the perimeter of the SCIF. Emergency exit doors shall be monitored 24 hours a day to provide quick identification and response to the appropriate door when there is an alarm indication (see paragraph 6.1.3).

3.1.2 Independent IDE and IDS. SCIFs shall be provided with IDE and alarm zones that are independent from systems safeguarding other protected sites. If a single monitoring station supervises several alarm zones, then the audible and visible annunciation for each such zone shall be distinguishable from other zones. The IDS's PCU, associated sensors, and cabling protecting the SCIF, shall be separate from and independent of fire, smoke, radon, water, and other such systems. (Note: If an access control system is integrated into an IDS, reports from the access control system shall be subordinate in priority to reports from intrusion alarms.)

3.1.3 Security During Catastrophic Failure of IDS. If any of the components of an IDS encounters a catastrophic failure to the extent that the IDS can no longer provide essential security services, then SCIF indoctrinated personnel shall provide security by physically occupying the SCIF until the IDS returns to normal operation. As an alternative, the outside SCIF perimeter shall be continuously protected by the response force or a guard force until the IDS returns to normal operation. If neither of these alternatives is possible, a catastrophic failure plan shall be submitted in writing to the CSA for review and approval prior to implementation. (See paragraph 6.1.2.) Examples of catastrophic failure are: loss of line security/communication, loss of alarm services, inoperability of IDS, loss of both primary and emergency power, or other such failure.

3.1.4 Safeguarding IDE, IDS Plans, Key Variable(s), and Passwords. System administration key variables and operational passwords shall be protected and shall be

restricted to SCI-indoctrinated personnel. In areas outside of the United States, procured IDE shall remain solely under US control, or as otherwise authorized by the CSA in writing. Details of the IDS installation plans shall be controlled and restricted on a need-to-know basis.

3.1.5 IDE Acceptability. All IDE must comply with UL-2050 or equivalent as approved by the CSA in writing. Prior acceptance by the CSA does not constitute approval for use within another SCIF. Contractors shall comply with UL 2050 by maintaining an active UL certificate of installation and service. With sufficient justification, the CSA may issue written waivers to UL 2050. Any IDE that could allow unintentional audio or other intelligence-bearing signals in any form to pass beyond the confines of the SCIF is unacceptable and prohibited for IDS installation. IDE shall not include audio or video monitoring without appropriate countermeasures and CSA approval. IDS comprised of IDE with auto-reset features shall have the auto-reset capability disabled as required in paragraph 3.2.7.

3.1.6 IDS Approval. The CSA shall approve IDS proposals and plans prior to installation within a SCIF as part of the initial SCIF construction approval process. Final IDS acceptance tests as described herein and as prescribed in applicable manufacturer’s literature shall be included as part of the SCIF accreditation package. Accreditation files for the SCIF shall be maintained as described in paragraph 6.3. The CSA shall approve the IDS prior to use for government or government-sponsored SCIFs.

3.2 Detailed IDS Requirements. The following detailed requirements apply to all SCIF IDSs.

3.2.1 Sensors. All sensors protecting a SCIF shall be located within that SCIF. Any failed IDE sensor shall cause an immediate and continuous alarm condition until the failure is corrected or compensated.

3.2.1.1 Motion Detection Sensors. All areas of a SCIF that reasonably afford access to the SCIF, or where SCI is stored, and that are not accredited for continuous operation shall be protected with UL-listed, equivalent or CSA approved motion detectors (see paragraph 3.1.1). Sufficient detectors shall be installed to assure meeting the requirements of paragraph 4.2.1. Within the US motion detection sensors are normally not required above false ceilings or below false floors; however, these detectors may be required by the CSA for such areas outside of the US.

3.2.1.2 Entrance Door Delay. Entrance door sensors may have an initial time delay built into the IDS to allow for change in alarm status, but shall not exceed 30 seconds.

3.2.1.3 SCIF Perimeter Sensors. With CSA approval, sensors supporting the external SCIF perimeter and perimeter equipment (if used) may be connected to the SCIF IDS provided the lines are installed on a separate zone and routed within grounded conduit.

3.2.1.4 Perimeter Door Sensor. Each SCIF perimeter door shall be protected by a Balanced Magnetic Switch (BMS) installed in accordance with section 4.1.2.

3.2.1.5 Emergency Exit-Door Detectors. The BMS installed on emergency exit doors shall be monitored 24 hours a day.

3.2.1.6 Dual-Technology Sensors. The use of dual-technology sensors is authorized when each technology transmits alarm conditions independent from the other technology.

3.2.2 Premise Control Units and Access Control Switches. PCUs shall be located within the SCIF to assure that only SCIF personnel can initiate a change between *access* and *secure* mode. The means of changing between access and secure modes shall be located within the SCIF. Operation of the access/secure switch shall be restricted by using a device or procedure that verifies authorized PCU use. Any polling from the monitoring station to the PCU shall not exceed six minutes regardless of access state.

3.2.3 Communications between Sensors and the PCU. Cabling between the sensors and the PCUs shall be dedicated to the IDE and contained within the SCIF. Alternately, if the wiring cannot be contained within the SCIF, such cabling shall meet the transmission requirements of paragraph 3.2.8. All IDE cabling internal to the SCIF shall comply with national and local code standards. If applicable, the cabling shall be installed in accordance with TEMPEST and COMSEC requirements. Outside of the United States, if determined by the CSA, wiring will be protected within a closed conveyance. The use of wireless communications between sensors and PCU is normally prohibited. However, under exceptional circumstances, when such cabling is not possible or feasible, the wireless communications maintain continuous connection and are impervious to jamming,

manipulation, and spoofing and meets other security requirements of this annex, the CSA may authorize in writing the use of wireless communications between sensors and the PCU. Co-utilizing agencies shall be notified of any such exception.

3.2.4 Monitor Station and Panel. Alarm status shall be provided at the monitoring station. The alarm-monitoring panel shall be designed and installed in a location that prevents observation by unauthorized persons. If an Access Control System (ACS) is integrated with an IDS, reports from the ACS shall be subordinate in priority to reports from intrusion alarms (see paragraph 3.1.2).

3.2.5 Alarms. Alarm annunciations shall exist for the below listed alarm conditions. A false/nuisance alarm is any alarm signal transmitted in the absence of a detected intrusion such as alarms caused by changes in the environment, equipment malfunction, operator failure, animals, electrical disturbances, or other such causes. False/nuisance alarms shall not exceed one alarm per 30-day period per zone (see paragraph 5.3.3).

3.2.5.1. Intrusion Alarm. An intrusion or attempted intrusion shall cause an immediate and continuous alarm condition.

3.2.5.2 Failed-Sensor Alarm. A failed IDE sensor shall cause an immediate and continuous alarm condition.

3.2.5.3 Maintenance Alarm. The IDS, when in the maintenance mode, shall cause an immediate and continuous alarm (or maintenance message) throughout the period the IDS is in the maintenance mode. Zones that are shunted or masked shall also cause such an alarm. (See paragraph 3.2.10.3 for additional requirements.)

3.2.5.4 Tamper Alarm. The IDS, when sustaining tampering, shall cause an immediate and continuous alarm. (See paragraph 3.2.12 for additional requirements.)

3.2.5.5 Failed/Changed Electrical Power Alarm. Equipment at the monitoring station shall visibly and audibly indicate a failure in a power source, a change in power source, and the location of the failure or change. (See paragraph 3.2.11.2 for additional requirements.)

3.2.6 IDS Event (Alarm) Log. The IDS shall incorporate within the SCIF and at the monitoring station, a means for providing a historical record (items specified in paragraph

6.2.2) of all events through an automatic logging system. If the IDS has no provision of automatic entry into archive, as an alternative, a manual logging system shall be maintained in accordance with paragraph 6.2.2.

3.2.7 Alarm Reset. All alarm activations shall be reset by SCI-indoctrinated personnel. An IDS with an auto-reset feature shall have the auto-reset feature disabled.

3.2.8 External Transmission Line Security. When any IDS transmission line leaves a SCIF, line security shall be employed. The UL 2050 certificate shall state that line security has been employed. The following types of line security are acceptable:

3.2.8.1 Encrypted Lines. Encrypted-line security is achieved by using an approved 128-bit (or greater) encryption algorithm. The algorithm shall be certified by NIST or another independent testing laboratory.

3.2.8.2 Alternative Lines. If the communication technology described in 3.2.8.1 is not available, the SCIF owner and the CSA shall coordinate an optional supervised communication scheme. The communication scheme shall be adequately supervised to protect against modification and substitution of the transmitted signal.

3.2.9. Networked IDSs. In those cases in which an IDS has been integrated into a LAN or WAN, the following requirements shall be met. (See paragraphs 5.3.5 and 5.5.3.)

3.2.9.1 Dedicated IDS (Host) Computer. The IDS application software shall be installed and run on a host computer dedicated to security systems. The host computer shall be located in an alarmed area controlled at the SECRET or higher level.

3.2.9.2 IDS Host Computer Communications. All host computer communications to the LAN/WAN shall be protected though firewalls, or similar enhancements, that are configured to only allow data transfers between IDS components.

3.2.9.3 User IDs and Passwords. A unique user ID and password is required for each individual granted access to the IDS host computer. Passwords shall be a minimum of eight characters; consist of alpha, numeric, and special characters; and shall be changed a minimum of every six months.

3.2.9.4 Computer Auditing and Network Intrusion Detection. Computer auditing and network intrusion detection software (NIDS) shall monitor and log access attempts and all changes to IDS applications. Additionally, NIDS and IDS administrators shall be immediately notified of unauthorized modifications. The NIDS administrator shall possess a minimum of a TOP SECRET clearance and IDS system administrator shall be SCI-indoctrinated.

3.2.9.5 LAN/WAN Transmissions. All transmissions of IDS information over the LAN/WAN shall be encrypted using a NIST-approved algorithm with a minimum of 128-bit encryption.

3.2.9.6 Remote Terminals. Remote networked IDS terminals shall meet the following requirements: (a) Remote terminals shall be protected within a SCIF. (b) SCI-indoctrinated personnel shall ensure that personnel with access to the remote terminal are not able to modify Intrusion Detection System/Access Control System (IDS/ACS) information for areas for which they do not have access. (c) Each remote terminal shall require an independent user ID and password in addition to the host login requirements. (d) Network intrusion detection and auditing software shall log and monitor failed logins and IDS/ACS application program modifications.

3.2.10 IDS Modes of Operation. The IDS shall have three modes of operation: access mode, secure mode, and maintenance mode as described below. A fourth mode “Remote Service Mode” shall not exist unless the requirements of 3.2.10.4 are met. There shall be no capability for changing the mode of operation or access status of the IDS from a location outside the SCIF unless SCIF personnel conduct a daily audit of all openings and closings. Changing Access/Secure status of a SCIF shall be limited to SCI indoctrinated personnel. IDS modes shall meet the following requirements.

3.2.10.1 Access Mode. During access mode, normal authorized entry into the facility in accordance with prescribed security procedures shall not cause an alarm. Tamper and emergency exit door circuits shall remain in the secure mode of operation.

3.2.10.2 Secure Mode. In the secure mode, any unauthorized entry into the SCIF shall cause an alarm to be immediately transmitted to the monitoring station.

3.2.10.3 Maintenance Mode and Zone Shunting/Masking. When an alarm zone is placed in the maintenance mode, a signal for this condition shall be automatically sent to the monitoring station. This signal shall appear as an alarm (or maintenance message) at the monitoring station and shall continue to be displayed visibly at the monitoring station throughout the period of maintenance. The IDS shall not be securable while in the maintenance mode. All maintenance periods shall be archived in the system. The CSA may require that a maintenance Personal Identification Number (PIN) be established and controlled by SCI personnel. Additionally, a shunted or masked zone or sensor shall be displayed as such at the monitoring station throughout the period the condition exists. (See paragraph 6.2.3 for logging requirements.)

3.2.10.4 Remote Service Mode. After the initial installation, the capability for remote diagnostics, maintenance, or programming of IDE shall not exist unless accomplished only by appropriately SCI-indoctrinated personnel and shall be appropriately logged or recorded in the Remote Service Mode Archive. A self-test feature shall be limited to one second per occurrence. (See paragraph 5.5.4.)

3.2.11 Electrical Power. Primary electrical power for all IDE shall be commercially supplied in alternating current (AC) or direct current (DC) form. In the event such commercial power fails, the IDE shall automatically transfer to an emergency electrical power source without causing an alarm indication.

3.2.11.1 Emergency Backup Electrical Power. Emergency backup electrical power for the SCIF and monitoring station shall be provided by battery, generator, or both. If batteries are provided for emergency backup power, they shall provide a minimum of 24 hours (UL 1076) of backup power and they shall be maintained at full charge by automatic charging circuits. (See paragraph 5.3.4.)

3.2.11.2 Electrical Power Source and Failure Indication. An audible or visual indicator at the PCU shall provide an indication of the electrical power source in use (AC or DC). Equipment at the monitoring station shall visibly and audibly indicate a failure in a power source, a change in power source, and the location of the failure or change.

3.2.12 Tamper Protection. All IDE within the SCIF with removable covers shall be equipped with tamper detection

devices. The tamper detection shall be monitored continuously whether the IDS is in the access or secure mode of operation.

4.0 Installation and Acceptance Testing Requirements

This section specifies the requirements for IDS installation and testing. Additionally, IDE installation and testing shall meet the following requirements.

4.1 Installation Requirements. The IDE shall be installed in a manner that assures conformance with all requirements of sections 3.1 and 3.2 of this standard and the following specific requirements. US citizens shall accomplish all IDE installation. Non-US citizens shall not provide these services without prior written approval by the CSA.

4.1.1 Motion Detector Installation. Motion detection equipment shall be installed in accordance with manufacturer specifications, UL, or equivalent standards.

4.1.2 Perimeter Door-Open Sensor Installation. SCIF perimeter door-open BMSs shall be installed so that an alarm signal initiates before the non-hinged side of the door opens beyond the thickness of the door from the seated position. That is, the sensor initiates after the door opens 1¾ inch for a 1¾-inch door.

4.2 Acceptance Testing. The IDE shall be tested to provide assurances that it meets all requirements of sections 3.1 and 3.2 of this standard and those detailed tests specified below. All SCIF IDS sensors shall be tested and found to meet the requirements herein prior to SCIF accreditation. Records of testing and test performance shall be maintained in accordance with paragraph 6.2.1. US citizens shall accomplish all IDE testing. Non-US citizens shall not provide testing services without prior written approval by the CSA.

4.2.1 Motion Detection Sensor Testing. Test all motion detection sensors to ensure that the sensitivity is adjusted to detect an intruder who walking toward/across the sensor at a minimum of four consecutive steps at a rate of one step per second. That is, 30 inches ± 3 inches or 760 mm ± 80 mm per second. The four-step movement shall constitute a “trial.” An alarm shall be initiated in at least three out of every four such consecutive “trials” made moving progressively through the SCIF. The test is to be conducted by taking a four-step trial, stopping for three to five seconds, taking a four-step trial, stopping for three to five seconds, repeating the process throughout the SCIF. Whenever

possible, the direction of the next trial is to be in a different direction.

4.2.2 BMS Testing. All BMSs shall be tested to ensure that an alarm signal initiates before the non-hinged side of the door opens beyond the thickness of the door from the seated position.
That is, the sensor initiates after the door opens 1¾ inch for a 1¾ inch door.

4.2.3 Tamper Testing. Remove each IDE cover individually and ensure that there is an alarm indication on the monitoring panel in both the secure and access modes. Tamper detection devices need only be tested upon installation with the exception of the tamper detection on the PCU that is activated when it is opened. The CSA may require more frequent testing of tamper circuits. (See paragraph 5.4 for tamper testing of PCU.)

4.2.4 Manufacturer's Prescribed Testing. All tests prescribed in manufacture's literature shall be conducted to assure that the IDE operates in accordance with manufacture's specifications and applicable requirements specified herein.

5.0 Operation, Maintenance, and Semi-Annual Testing Requirements

The IDS shall be operated and maintained to assure that the requirements of sections 3.1 and 3.2 of this standard are met. Additionally, IDE operation and maintenance shall meet the following requirements.

5.1 Monitoring.

5.1.1 Monitoring Station Staffing. The monitoring station shall be continuously supervised and operated by US citizens who have been subjected to a trust-worthiness determination (favorable NAC with no clearance required). Non-US citizens shall not provide these services without prior written approval by the CSA.

5.1.2 Monitoring Station Operator Training. Monitoring station operators shall be trained in IDE theory and operation to the extent required to effectively interpret incidents generated by the IDE and to take proper action when an alarm activates.

5.2 Response.

5.2.1 Alarm-Condition Response. All alarms shall be investigated and the results documented. Every alarm condition shall be considered a detected intrusion until resolved. The response force shall take appropriate steps to safeguard the SCIF as permitted by a written support agreement (see paragraph 6.1.3), local law enforcement, and circumstances surrounding the event until properly relieved (see paragraph 5.5.6). An SCI-indoctrinated individual must arrive as soon as possible, but not to exceed 60 minutes, to conduct an internal inspection of the SCIF, attempt to determine the probable cause of the alarm activation and reset the IDS prior to the departure of the response force. For SCIFs located within the US, the response force shall arrive at the SCIF within:

a. Open Storage-five minutes without security in-depth

b. Open Storage–15 minutes with security in-depth; and

c. Closed Storage-15 minutes (up to 30 minutes with security in-depth and CSA approval)

For SCIFs located outside of the United States, security in-depth must be used and cleared or US Government personnel shall arrive at the SCIF within:

a. Open Storage-five minutes; and

b. Closed Storage-10 minutes.

5.2.2 Response-Force Personnel Training and Testing. Response Force Personnel shall be appropriately trained and equipped according to SOPs to accomplish initial or follow-up response to situations that may threaten the SCIF's security. Such personnel may include local law enforcement support or other external forces as stated in formal agreements. Coordinated response force testing shall be conducted semi-annually. False alarm activations may be used in lieu of a response-force test provided the proper response times were met. A record of response-force personnel testing shall be maintained for a minimum of two years.

5.3 Maintenance.

5.3.1 Maintenance Staffing. The IDE shall be maintained by US citizens who have been subjected to a trustworthiness determination (favorable NAC with no clearance required).

Non-US citizens shall not provide these services without prior written approval by the CSA.

5.3.2 Sensor Adjustment or Replacement. Sensors that do not meet prescribed requirements shall be adjusted or replaced as needed to assure that the requirements of sections 3 and 4 of this standard are continually met.

5.3.3 False Alarm Prevention. The maintenance program for the IDS shall ensure that false-alarm incidents do not exceed one in a period of 30 days per alarm zone.

5.3.4 Emergency-Power Battery Maintenance. The battery manufacturer's periodic maintenance schedule shall be followed and the results documented.

5.3.5 Network Maintenance. If the IDS is connected to a network, the IDS and NIDS system administrator shall maintain configuration control, ensure the latest operating system security patches have been applied, and shall configure the operating system to provide a high level of security. (See paragraph 3.2.9.)

5.4 Semiannual IDE Testing. The IDE shall be tested semiannually (every six months) to provide assurances that the IDS is in conformance with the requirements of paragraphs 4.2.1 through 4.2.4. Records of semiannual testing and test performance shall be maintained in accordance with paragraph 6.2.1. US citizens shall accomplish all IDE testing. Non-US citizens shall not provide such testing services without prior written approval by the CSA.

5.5 Operational Requirements Limited to SCI Indoctrinated Personnel.

5.5.1 Changing Access/Secure Status. Changing Access/Secure status of the SCIF shall be limited to SCI-indoctrinated personnel.

5.5.2 Resetting Alarm Activations. All alarm activations shall be reset by SCI-indoctrinated personnel.

5.5.3 IDS Administrator. If the IDS is connected to a network, the IDS system administrator shall maintain configuration control, ensure the latest operating system security patches have been applied, and shall configure the operating system to provide a high level of security.

5.5.4 Remote Operations. After initial installation, remote diagnostics, maintenance, or programming of the IDE shall not

exist unless accomplished by SCI-indoctrinated personnel only and shall be appropriately recorded.

5.5.5 Auditing External Changes of Access Status. If access status is changed externally, a daily audit of all openings and closings of the SCIF shall be accomplished by SCIF personnel. (See paragraph 3.2.10.)

5.5.6 Alarm-Response Internal Investigation. An SCI-indoctrinated individual shall arrive within 60 minutes to conduct an internal inspection of the SCIF, attempt to determine the probable cause of the alarm activation, and reset the IDS prior to the departure of the response force.

5.5.7 IDS Catastrophic Failure Coverage. In the case of IDS failure, SCIF indoctrinated personnel shall provide security by physically occupying the SCIF until the IDS returns to normal operation. As an alternative, the outside SCIF perimeter shall be continuously protected by the response force or a guard force until the IDS returns to normal operation. If neither of these alternatives is possible, a catastrophic failure plan shall be submitted in writing to the CSA for review and approval prior to implementation. (See paragraph 6.1.2.)

6.0 Documentation Requirements

The following documentation shall be developed for the IDS. This documentation shall be made available to the CSA on request and shall be available within the SCIF.

6.1 Plans, Agreements, and Standard Operating Procedures (SOP).

6.1.1 IDS Plans. The IDS design and installation documentation shall be provided to the government sponsoring activity and maintained in the SCIF as specified in paragraph 3.1.4.

6.1.2 Catastrophic Failure Plan. If an alternative catastrophic failure plan is contemplated (see paragraph 3.1.3), the plan shall be submitted in writing to the CSA for review and approval prior to implementation.

6.1.3 Support Agreement. A written support agreement shall be established for external monitoring, response, or both. The agreement shall include the response time for both response force and SCIF personnel, responsibilities of the response force upon arrival, maintenance of SCIF points of contact, and length of time response personnel are required to remain on-site.

6.1.4 Monitoring Operator SOP. The duties of the monitor operator shall be documented in a SOP. The SOP shall include procedures for observing monitor panel(s) for reports of alarms, changes in IDE status, assessing these reports, and in the event of an intrusion alarm, dispatching the response force or notifying the proper authority to do so and notifying the appropriate authority of the event. [Note: These procedures shall state that the operator will not have any additional duties that may interfere with monitoring alarms, making assessments, and dispatching the response force.]

6.1.5 Maintenance Access SOP. A written SOP shall be established to address the appropriate actions to be taken when maintenance access is indicated at the monitor-station panel. The SOP shall require that all maintenance periods shall be archived in the system.

6.2 Records, Logs, and Archives.

6.2.1 Test Records. A record of IDE testing shall be maintained within the SCIF. This record shall include: testing dates, names of individuals performing the test, specific equipment tested, malfunctions detected, and corrective actions taken. Records of the response-force personnel testing shall also be retained. All records of testing shall be maintained for a minimum of two years. (See paragraph 5.2.2.)

6.2.2 IDS Event (Alarm) Log. If the IDS has no provision for automatic entry into archive (see paragraph 3.2.6), the operator shall record the time, source, type of alarm, and action taken. The responsible security officer shall routinely review the historical record. Results of investigations and observations by the response force shall also be maintained at the monitoring station. The SCIF responsible security officer shall routinely review the historical record. Records of alarm annunciations shall be retained for a minimum of two years and longer if needed until investigations of system violations and incidents have been successfully resolved and recorded.

6.2.3 Annunciation of Shunting or Masking Condition Log. Shunting or masking of any zone or sensor shall be appropriately logged or recorded in an archive. (See paragraph 3.2.10.3.)

6.2.4 Maintenance Period Archives. All maintenance periods shall be archived into the system. (See paragraph 3.2.10.3.)

6.2.5 Remote Service Mode Archive. An archive shall be maintained for all remote service mode activities. (See paragraph 3.2.10.4.)

6.3 SCIF Accreditation File. IDS accreditation documentation shall be maintained on-site in the SCIF accreditation file. The following documents shall be included in the SCIF accreditation file along with other SCIF accreditation documentation: Final acceptance tests of original installation and any modifications; catastrophic failure plan (see paragraph 6.1.2); monitoring operator SOP (see paragraph 6.1.5); maintenance mode and remote service mode archives (see paragraphs 6.2.3 through 6.2.5); and, historical record of IDS logging (see paragraph 6.2.2). Final acceptance tests and the catastrophic failure plan shall be maintained in both the SCIF accreditation file and at the CSA location.

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ANNEX C - Tactical Operations/Field Training

(Effective 27 May 1994)

This annex pertains to specialized Sensitive Compartmented Information Facilities (SCIFs) deployed in a tactical operations or field training environment. It is divided into three parts to reflect the accepted modes of tactical operation:

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ANNEX C

Part I - Ground Operation

1.0 PURPOSE:

This Annex prescribes the procedures for the physical security requirements for the operation of a Sensitive Compartmented Information Facility (SCIF) while in a field or tactical configuration, including training exercises. It also addresses the standards for truck mounted or towed trailer style shelters designed for use in a tactical environment but used in a garrison environment known as a Semi-permanent SCIF (SPSCIF).

2.0 APPLICABILITY AND SCOPE:

Recognizing that field/tactical operations, as opposed to operations within a fixed military installation, are of the type considered least secure, the following minimum physical security requirements will be met and maintained. Situation and time permitting, these standards will be improved upon using the security considerations and requirements for permanent secure facilities as an ultimate goal. If available, permanent-type facilities will be used. Under field or combat conditions, a continuous 24-hour operation is mandatory. Every effort must be made to obtain the necessary support from the host command (e.g., security containers, vehicles, generators, fencing, guards, weapons, etc.).

2.1 The Tactical SCIF (T-SCIF) shall be located within the supported headquarters defensive perimeter and preferably, also within the Tactical Operations Center (TOC) perimeter.

2.2 The T-SCIF shall be established and clearly marked using a physical barrier. Where practical, the physical barrier should be triple-strand concertina or General Purpose Barbed Tape Obstacle (GPBTO). The Tactical SCIF approval authority shall determine whether proposed security measures provide adequate protection based on local threat conditions.

2.3 The perimeter shall be guarded by walking or fixed guards to provide observation of the entire controlled area. Guards shall be armed with weapons and ammunition. The types of weapons will be prescribed by the supported commander. Exceptions to this

requirement during peace may only be granted by the T-SCIF approval authority based on local threat conditions.

2.4 Access to the controlled area shall be restricted to a single gate/entrance, which will be guarded on a continuous basis.

2.5 An access list shall be maintained, and access restricted to those people whose names appear on the list.

2.6 The Tactical SCIF shall be staffed with sufficient personnel as determined by the on-site security authority based on the local threat conditions.

2.7 Emergency destruction and evacuation plans shall be kept current.

2.8 SCI material shall be stored in lockable containers when not in use.

2.9 Communications shall be established and maintained with backup response forces, if possible.

2.10 The SSO, or designee, shall conduct an inspection of the vacated Tactical SCIF area to ensure SCI materials are not inadvertently left behind when the T-SCIF moves.

2.11 Reconciliation of T-SCIF activation and operational data shall be made not more than 30 days after SCIF activation. Interim reporting of SCIF activities may be made to the CSA.

3.0 RESPONSIBILITIES:

The Cognizant Security Authority (CSA) is responsible for ensuring compliance with these standards and providing requisite SCI accreditation.. The CSA may further delegate T-SCIF accreditation authority one command level lower. The Senior Intelligence Officer (SIO) is responsible when a temporary field or Tactical SCIF is used in support of field training exercises. During a period of declared hostilities or general war, a T-SCIF may be established at any level of accreditation upon the verbal order of a General or Flag Officer Commander.

4.0 ACCREDITATION OF TACTICAL SCIFs:

4.1 An Accreditation Checklist shall not be required for establishment of a T-SCIF. Approval authorities may require use of a local tactical deployment checklist.

4.2 The element requesting establishment of a T-SCIF shall notify the CSA, or designee, prior to commencement of SCIF operations. The message shall provide the following information:

4.2.1 ID number of parent SCIF.

4.2.2 Name of the Tactical SCIF.

4.2.3 Deployed from (location).

4.2.4 Deployed to (location).

4.2.5 SCI level of operations.

4.2.6 Operational period.

4.2.7 Name of exercise or operation.

4.2.8 Identification of facility used for T-SCIF operations (e.g., vans, buildings, tents).

4.2.9 Points of contact (responsible officers).

4.2.10 Description of security measures for entire operational period of SCIF.

4.2.11 Comments.

5.0 PHYSICAL CONFIGURATION:

A T-SCIF may be configured using vehicles, trailers, shelters, bunkers, tents, or available structures to suit the mission. Selection of a T-SCIF site should first consider effective and secure mission accomplishment.

6.0 TACTICAL SCIF OPERATIONS USING VANS, SHELTERS, AND VEHICLES:

6.1 When a rigid side shelter or portable van is used for SCI operations, it shall be equipped with either a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA-approved lock. The combination to the lock or keys shall be controlled by the SSO at the security level for which the T-SCIF is accredited. The shelter or van shall be secured at all times when not activated as a SCIF.

6.2 The SCIF entrance of a radio frequency shielded enclosure designed for tactical operations may be secured with the

manufacturer supplied locking device or any combination of the locking devices mentioned above.

7.0 TACTICAL SCIF OPERATIONS WITHIN EXISTING PERMANENT STRUCTURES:

7.1 A T-SCIF may be operated within an existing structure when:

7.1.1 Location is selected on a random basis.

7.1.2 The location is not reused within a 36 month period. If reused within 36 months for SCI discussion, a TSCM evaluation is recommended.

7.2 There is no restriction over SCI discussion within a T-SCIF during war.

8.0 MOBILE SIGINT SCIFs:

8.1 A continuous 24-hour operation is mandatory.

8.2 The T-SCIF shall be staffed with sufficient personnel as determined by the on-site security authority based on the local threat conditions.

8.3 External physical security measures shall be incorporated into the perimeter defense plans for the immediate area in which the T-SCIF is located.

8.3.1 A physical barrier is not required as a prerequisite to establish a mobile SIGINT T-SCIF.

8.3.2 External physical security controls will normally be a function of the people controlling the day-to-day operations of the T-SCIF.

8.4 Communications shall be established and maintained with backup guard forces, if possible.

8.5 Emergency destruction plans shall incorporate incendiary methods to ensure total destruction of SCI material in emergency situations.

8.6 A rigid side shelter or a portable van are two possible configurations that may be used.

8.6.1 When a rigid side shelter or portable van is used, it is subject to the following additional restrictions:

8.6.1.1 If it is a shelter, it shall be mounted to a vehicle in such a way as to provide the shelter with the capability of moving on short notice.

8.6.1.2 A GSA-approved security container shall be permanently affixed within the shelter. The combination to the lock will be protected to the level of security of the material stored therein.

8.6.1.3 Entrance to the T-SCIF shall be controlled by SCI-indoctrinated people on duty within the shelter. When situations occur where there are no SCI-indoctrinated people within the shelter, i.e., during redeployment, classified material shall be stored within the locked GSA container and the exterior entrance to the shelter will be secured.

8.6.1.4 Entrance to the T-SCIF shall be limited to SCI-indoctrinated people with an established need-to-know whenever SCI material is used within the shelter.

8.6.2 When a rigid side shelter or portable van is not available and a facility is required for SCI operations, such as in the case of a soft side vehicle or man-portable system, it is subject to the following additional restrictions:

8.6.2.1 Protection will consist of an opaque container, i.e., leather pouch, metal storage box, or other suitable container that prevents unauthorized viewing of the material.

8.6.2.2 This container shall be kept in the physical possession of an SCI-indoctrinated person.

8.7 The quantity of SCI material permitted within the T-SCIF will be limited to that which is absolutely essential to sustain the mission. Stringent security arrangements shall be employed to ensure that the quantity of SCI material is not allowed to accumulate more than is absolutely necessary.

8.7.1 All working papers generated within the T-SCIF shall be destroyed at the earliest possible time after they have served their mission purpose to preclude accumulation of unnecessary classified material.

8.7.2 If AIS equipment is used to store or process SCI data, a rapid and certain means of destruction shall be available to AIS operators to ensure the total destruction of classified material under emergency or combat conditions.

8.8 Upon cessation of hostilities, all classified material shall be returned to the parent element of the SCIF for reconciliation of records and destruction of obsolete material.

9.0 SEMI-PERMANENT SCIFs:

9.1 Vehicles with mounted shelters or towed trailer type shelters, designed for field or tactical use, that are employed as tactical SCIFs when deployed may also be used as a SCIF in non-tactical situations if the SIO determines there is a need for more SCIF area and time and/or funds are not available to construct or enlarge a permanent SCIF. These types of SCIFs are SEMI-PERMANENT SCIFs (SPSCIFs).

9.2 The SPSCIF shall be accredited and operated in the same manner as a permanent SCIF. Requirements for TEMPEST and AIS accreditation apply as well.

9.3 The SPSCIF must be of rigid construction similar to a van, trailer, or transportable shelter. The construction material must be of such composition to show visible evidence of forced entry. Vents and air ducts must be constructed to prevent surreptitious entry. The doors must be solid construction and plumbed so the door forms a good acoustical seal. If installed, emergency exits and escape hatches must be constructed so they can only be opened from the interior of the SPSCIF.

9.4 The SPSCIF must be placed within a fenced compound on a military installation or equivalent, as determined by the CSA. The fence must be at least ten (10) feet from the SPSCIF and related building and equipment. The distance from the fence to the SPSCIF may have to be greater to provide acoustical security or to meet COMSEC or TEMPEST requirements. Access control to the fenced compound must be continuous.

9.5 All SPSCIFs must have a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA approved lock. (NOTE: Just as with combinations, keys require protection equivalent to the information which they protect.)

9.6 SPSCIFs do not need any additional security measures if one of the following exists:

> **9.6.1** Continuous operations. Continuous operations exist when the SPSCIF is occupied by one or more SCI-indoctrinated persons 24 hours a day. When there are multiple vehicles/shelters within a fenced compound, only those occupied by one or more SCI-indoctrinated people qualify as continuous operations facilities.

9.6.2 Dedicated guard force who have been subjected to a trustworthiness determination (e.g., NAC with no clearance to be issued). The dedicated guard force must be present whenever the SPSCIF is not occupied and must have continuous surveillance of the SPSCIF entrances. The guard force must check the perimeter of the SPSCIF at least twice an hour at random intervals. Guard response time will be five minutes or less.

9.7 SPSCIFs not storing classified material and not meeting one of the requirements in the above paragraphs may be required to have an Intrusion Detection System (IDS) as prescribed in ANNEX B as required by the CSA.

9.8 Requirements for storage when unoccupied:

9.8.1 SCI material will not be stored in a SPSCIF except when removal is not feasible, i.e., computer hard disk.

9.8.2 Storage in the United States and Outside the United States. If the SPSCIF does not have continuous operations or a dedicated guard force, a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA approved lock and an IDS for the SPSCIF interior is required. The interior SPSCIF IDS must be as prescribed in ANNEX B. The CSA may require exterior compound IDS.

10.0 ELECTRICAL POWER:

Electrical power supplied to T-SCIFs may be furnished by commercial or locally generated systems, as follows:

10.1 Tactical generator with access controls, including guards or surveillance of the generating equipment.

10.1.1 The generating equipment shall be located within the protected perimeter of the organization supporting the T-SCIF. The generator shall not require location within the SCIF compound perimeter.

10.1.2 Generator operator and maintenance people shall be US citizens.

10.2 In general, RF filters or isolators are not required for TEMPEST protection of commercial AC (alternating current) power lines used for SCI processing equipment in a T-SCIF.

10.3 Filtering and isolation generators (an electrical motor coupled to a generator by non-conductive means) may be used to

provide isolated electrical power to the SCIF. The motor generator location shall be within the SCIF compound perimeter.

11.0 TEMPEST REQUIREMENTS:

Authority for TEMPEST accreditation of all compartments of SCI processed in a Tactical SCIF is delegated to the CSA based on review by the Certified TEMPEST Technical Authority (CTTA).

12.0 TELEPHONE EQUIPMENT:

Telephone instruments used within a T-SCIF shall meet requirements outlined in the Telephone Security ANNEX. Restrictions contained within the Telephone Security ANNEX pertaining to SCIF telephone services do not apply to T-SCIF operations during war.

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ANNEX C

Part II - Aircraft/Airborne Operation

1.0 PURPOSE:

This annex prescribes the physical security procedures for the operation of a Sensitive Compartmented Information Facility (SCIF) for aircraft, including airborne missions.

2.0 APPLICABILITY:

This annex is applicable to all aircraft to be utilized as a SCIF. Existing or previously accredited facilities do not require modification to conform with these standards.

3.0 RESPONSIBILITIES:

The CSA is responsible for ensuring compliance with these standards and providing SCI accreditation. The CSA may delegate aircraft/airborne SCIF accreditation authority to the major command level.

The major command/organization Senior Intelligence Officer (SIO) is responsible when an aircraft is used as a temporary SCIF in support of field training exercises. During a period of declared hostilities or general war, an aircraft/airborne SCIF may be established at any level of accreditation upon the verbal order of a General or Flag Officer Commander. The major command/organization is responsible for ensuring compliance with this annex.

4.0 ACCREDITATION OF AIRCRAFT/AIRBORNE FACILITIES:

4.1 An accreditation checklist will not be required for the establishment of an aircraft/ airborne SCIF. Approval authorities may require use of a local deployment checklist, if necessary.

4.2 The element requesting establishment of an aircraft/airborne SCIF will notify the CSA prior to commencement of SCIF operations. The letter or message will indicate the following information:

4.2.1 Name of aircraft/airborne SCIF

4.2.2 Major command/organization

4.2.3 ID number of parent SCIF, if applicable

4.2.4 Deployed from (location) and dates

4.2.5 Deployed to (location) and dates

4.2.6 SCI level of operations

4.2.7 Name of exercise or operation

4.2.8 Points of Contact

4.2.9 Type of Aircraft and area to be accredited as a SCIF

4.2.10 Description of security measures for entire operational period of SCIF (SOP)

4.2.11 Comments

4.3 The SCIF will be staffed with sufficient personnel as determined by the on-site security authority based on the local threat environment.

4.4 SCI material will be removed from the aircraft on mission completion or at any landings, if feasible. When removal is not possible, or when suitable storage space/ locations are not available, two armed (with ammunition) SCI-indoctrinated personnel must remain with the aircraft to control entry to the SCIF. Waivers to the requirement for weapons and ammunition may be approved on a case-by-case basis by the Commander.

4.5 The SSO or senior SCI-cleared person will conduct an inspection of the vacated SCIF to ensure SCI materials are not left behind.

4.6 Aircraft that transport SCI material incidental to travel between airfields do not require accreditation. However, compliance with directives pertaining to security of SCI material and communications is mandatory.

5.0 POST AND PATROL REQUIREMENTS:

Accredited aircraft require perimeter access controls, a guard force, and a reserve security team.

5.1 Unless protected by an approved IDS, hourly inspections will be made of all hatches and seals (including seal numbers).

5.2 A guard force and response team must be provided, capable of responding within five minutes if open storage is authorized. or 15 minutes for closed storage.

5.3 When aircraft are parked outside an established controlled area, a temporary controlled area must be established.

6.0 ENTRY HATCHES:

6.1 The aircraft commander or crew members will provide guard force personnel who have been subjected to a trustworthiness determination (e.g., NAC with no clearance to he issued) prior to departing from the immediate area of the aircraft.

6.2 All hatches will be locked to prevent unauthorized access. Hatches that cannot be secured from the outside will be sealed using serially numbered seals.

7.0 TEMPEST REQUIREMENTS:

Authority for TEMPEST accreditation of all compartments of SCI processed in an aircraft/airborne SCIF is delegated to the CSA, based on review by the Cognizant Certified TEMPEST Technical Authority (CTTA).

8.0 UNSCHEDULED AIRCRAFT LANDINGS:

8.1 US Military Bases: The local SSO or base security officer will be notified of the estimated arrival time and security protection required.

8.2 Other Airfields:

8.2.1 Within the United States, the local Federal Aviation Administration (FAA) Security Officer will be notified of the estimated arrival time and security protection required.

8.2.2 On arrival, the senior SCI-indoctrinated person is responsible for controlling entry and maintaining surveillance over the aircraft until all SCI material is secured in an accredited SCIF or the aircraft departs.

8.2.3 Any properly accredited US Government SCIF may be used for temporary storage of materials from the aircraft. If the facility is not accredited for the level of information to be

stored, the material must be double wrapped with initialed seals and stored in a GSA-approved security container.

8.3 Unfriendly Territory:

If an aircraft landing in unfriendly territory is anticipated, all SCI material will be immediately destroyed, with the destruction process preferably taking place prior to landing.

8.3.1 When flights are planned over unfriendly territory, SCI to be carried on board will be selected by the intelligence mission personnel and consist of the absolute minimum required for mission accomplishment.

8.3.2 All personnel will rehearse emergency destruction before each mission. Such emergency preparation rehearsals will be made a matter of record.

9.0 VOICE TRANSMISSIONS:

SCI discussions will only be conducted via appropriately encrypted aircraft radio.

10.0 DESTRUCTION REQUIREMENTS:

10.1 An Emergency Action Plan (EAP) will be written that provides for the evacuation and/or destruction of classified material. Evacuation plans and destruction equipment must be approved by the CSA and tested by mission personnel 10.2 Emergency destruction and evacuation plans will be kept current.

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ANNEX C

Part III - Shipboard Operation

1.0 PURPOSE:

This annex specifies the requirements for construction and security protection of SCIFs located on ships. The SCI accreditation checklist for ships may be obtained from the Director, Office of Naval Intelligence, 4301 Suitland Road, Washington, D.C. 20395.

2.0 APPLICABILITY AND SCOPE:

2.1 This annex is applicable to all new construction surface combatant ships. The application of this annex to surface non-combatants or sub-surface vessels will be referred to the CSA.

2.2 There may be instances in which circumstances constitute a threat of such proportion that they can only be offset by stringent security arrangements over and above those prescribed in this annex. Conversely, there may be instances in which time, location, mission, and/or condition of use of materials would make full compliance with these standards unreasonable or impossible. Such situations will be referred to the CSA for resolution on a case-by-case basis.

2.3 Existing or previously approved facilities do not require modification to conform with these standards

3.0 TYPES OF SHIPBOARD SCIFs (S/SCIFs):

3.1 Permanent S/SCIFs: An area aboard ship where SCI operations, processing, discussion, storage, or destruction takes place. The area will have a clearly defined physical perimeter barrier and continuous physical security safeguards. The area may contain one or more contiguous spaces requiring SCIF accreditation. This type S/ SCIF is routinely used during deployment and import operations.

3.2 Temporary S/SCIFs: An area aboard ship where temporary SCI operations, processing, discussion, storage, or discussion takes place. The area will have a clearly defined physical perimeter barrier and continuous physical security safeguards. The area

may contain one or more contiguous spaces requiring SCIF accreditation. It will be continuously manned with sufficient SCI-cleared and -indoctrinated personnel, as determined by the on-site security authority based on the local threat environment, when SCI is present within the area. Temporary shipboard SCI operations will he limited to:

3.2.1 A single deployment that will not exceed 12 months.

3.2.2 A single mission requiring SCI operations that cannot be defined in length of operational time.

3.2.3 During the period immediately preceding relocation of the ship to a refitting facility where the Temporary S/SCIF is scheduled for renovation and compliance with this annex. There will be a schedule established for renovation of the S/SCIF with confirmatory reporting of such to the CSA.

3.2.4 Temporary Platforms: A mobile or portable SCIF may be temporarily placed aboard a ship. Such platforms will be accredited on a temporary basis for a single deployment mission. The platform will be manned 24 hours a day by sufficient SCI-cleared and -indoctrinated personnel as determined by the on-site security authority. At the completion of the mission, the accreditation period will end and the CSA notified that the platform is certified clear and free of all SCI materials.

4.0 PERMANENT ACCREDITATION:

Ships requesting permanent accreditation status will provide to the CSA a complete inspection report and the Shipboard Inspection Checklist, certifying compliance with this Annex.

5.0 STANDARDS:

The physical security criteria for permanent S/SCIFs is as follows:

5.1 Physical Perimeter: The physical perimeter of an SCI space will be fabricated of structural bulkheads (aluminum or steel) with a thickness not less than 0.125 inch. Elements of the physical perimeter will be fully braced and welded in place.

5.2 Continuous SCI Spaces: Where several SCI spaces are contiguous to each other in any or all dimensions, the entire complex may be enclosed by a single physical perimeter barrier conforming to this annex.

5.2.1 Access to the SCI complex will be controlled by a single access door conforming to this annex. Each compartment within the complex may have a separate access door from within the common physical perimeter barrier. Such interior access control doors do not need to conform with this annex.

5.2.2 Access procedures will be established to ensure against cross-traffic of personnel not holding appropriate SCI access.

5.3 Normal Access Door: The normal access door will be a shipboard metal joiner door with honeycomb-core and fitted as specified below:

5.3.1 Where the normal access door is in a bulkhead that is part of an airtight perimeter, the airtight integrity may be maintained by collocating the airtight door with the metal joiner door, or by adding a vestibule.

5.3.2 The metal joiner door will be equipped with a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA approved lock.

5.3.3 In addition to the lock, the door will be equipped with an access control device

5.3.4 The door will be constructed in a manner that will preclude unauthorized removal of hinge pins and anchor bolts, as well as to obstruct access to lock-in bolts between door and frame.

5.4 Emergency Exit: The emergency exit will be fabricated of aluminum plate or steel in accordance with this annex. The exit will be mounted in a frame braced and welded in place in a manner commensurate with the structural characteristics of the bulkhead, deck, or overhead in which it is situated.

5.5 Restriction on Damage Control Fittings and Cables: Because of the security restrictions imposed in gaining access to these spaces, no essential damage control fittings or cables will be located within or pass through an SCI space. This requirement is not applicable to damage control fittings, such as smoke dampers, that may be operated by personnel within the space during normal manning.

5.6 Removable Hatches and Deck Plates: Hatches and deck plates less than 10 square feet that are secured by exposed nuts and bolts (external to the SCI space) will be secured with externally

attached, high security padlocks (unless their weight makes removal unreasonable). The padlock keys will be stored in a security container located within a space under appropriate security control.

5.7 Vent and Duct Barriers: Vents, ducts, or other physical perimeter barrier openings with a cross-sectional dimension greater than 96 square inches will be protected at the perimeter with a fixed barrier or security grill.

5.7.1 The grill will be fabricated of steel or aluminum grating or bars with a thickness equal to the thickness of the physical perimeter barrier. If a grating is used, bridge center-to-center measurements will not exceed 1.5 inches by 4 inches. Bars will be mounted on 6-inch centers. The grating or bars will be welded into place.

5.7.2 This requirement is not applicable to through ducts that have no opening into the space.

5.8 Acoustical Isolation: The physical perimeter barrier of all SCI spaces will be sealed or insulated with non-hardening caulking material to prevent inadvertent disclosure of SCI discussions or briefings from within the space, taking into account the normal ambient noise level, to persons located in adjacent passageways and/or compartments.

5.8.1 In cases where the perimeter material installation does not sufficiently attenuate voices or sounds of activities originating SCI information, the ambient noise level will be raised by the use of sound countermeasure devices, controlled sound generating source. or additional perimeter material installation.

5.8.2 Air handling units and ducts will be equipped with silencers or sound countermeasure devices unless continuous duty blowers provide a practical, effective level of masking (blower noise) in each air path. The effective level of security may be determined by stationing personnel in adjacent spaces or passageways to determine if SCI can be overheard outside the space.

5.9 Visual Isolation: Door or other openings in the physical perimeter barrier through which the interior may be viewed will be screened or curtained.

6.0 INTRUSION DETECTION SYSTEM (IDS):

The S/SCIF access door and emergency exit will be protected by a visual and audible alarm system. The installation will consist of sensors connected at each door and alerting indicators located at the facility supervisor's position. The normal access door alarm may have a disconnect feature.

6.1 Emergency exits will be connected to the alarm system at all times and will not have a disconnect feature installed.

6.2 The IDS will be connected to a remote alarm monitor station, which may be co-located with other IDS, and located within a space which is continuously manned by personnel capable of responding to or directing a response to an alarm violation at the protected space when it is unmanned.

6.3 Primary power for the IDS will be connected to an emergency lighting panel within the space. SCI spaces that are under continuous manning will be staffed with sufficient personnel, as determined by the on-site security authority based on the local threat environment, who have the continuous capability of detecting forced or surreptitious entry without the aide of an IDS.

7.0 PASSING SCUTTLES AND WINDOWS;

Passing scuttles and windows will not be installed between SCI spaces and any other space on the ship.

8.0 LOCATION OF CRYPTOGRAPHIC EQUIPMENT:

On-line and off-line cryptographic equipment and terminal equipment processing SCI will be located only within the S/SCIF.

9.0 SECURE STORAGE CONTAINERS:

SCI material will be stored only in GSA approved Class 5, 6, or 7 security containers. Containers will be welded in place, or otherwise secured to a foundation for safety.

10.0 TELEPHONES:

Telephone instruments used within a S/SCIF will meet the Telephone Security Annex standards.

11.0 SECURE TELEPHONE UNIT-III (STU-III):

The STU-III Type I terminals may be installed within a S/SCIF.

12.0 SOUND POWERED TELEPHONES:

Where possible, sound powered telephones will be eliminated from S/SCIFs. Sound powered telephones located within the S/SCIF connecting to locations outside the S/SCIF will comply with the following

12.1 The telephone cable will not break out to jackboxes, switchboards, or telephone sets other than at the designated stations. The telephone cable will not be shared with any circuit other than call or signal systems associated with the S/SCIF circuit.

12.2 The telephone cable will be equipped with a selector switch, located at the controlling station, which is capable of:

12.2.1 Disconnecting all stations;

12.2.2 Selecting any one station and disconnecting the remaining stations; and

12.2.3 Parallel connection to all stations.

12.3 Other S/SCIFs located aboard the same ship, which have sound powered telephones not equipped with the required selector switch, will have a positive disconnect device attached to the telephone circuit.

12.4 Sound powered telephones within a S/SCIF that are not used for passing SCI information will have a sign prominently affixed to them indicating that they are not to be used for passing SCI.

12.5 A call or signal system will be provided. Call signal station, type ID/D, when used for circuit EM will be modified to provide a disconnect in the line to prevent a loudspeaker from functioning as a microphone.

13.0 SCI INTERCOM ANNOUNCING SYSTEM:

An intercommunication type announcing system processing SI that connects to or passes through areas outside the S/SCIF must be approved by the CSA.

14.0 SUPPORTING INTERCOMMUNICATION ANNOUNCING SYSTEMS:

Intercommunication-type announcing systems installed within an S/SCIF that do not process SCI information will be designated or modified to provide the following physical or electrical security safeguards:

14.1 Operational mode of the unit installed within the S/SCIF will limit operation to push-to-talk mode only.

14.2 Receive elements will be equipped with a local amplifier as a buffer to prevent loud-speakers or earphones from functioning as microphones.

14.3 Except as specified, radio transmission capability for plain radio telephone (excluding secure voice) will not be connected. Cable conductors assigned to the transmission of plain language radio telephones will be connected to ground at each end of the cable.

14.4 Equipment modified will have an appropriate field change label affixed to the unit that indicates the restriction. Additionally, the front panel will have a sign warning the user that the system is not passing classified information.

15.0 COMMERCIAL INTERCOMMUNICATION EQUIPMENT:

Commercial intercommunication equipment will not be installed within a S/SCIF without prior CSA approval.

16.0 GENERAL ANNOUNCING SYSTEMS:

General announcing system loudspeakers will have an audio amplifier, and the output signal lines will be installed within the S/SCIF.

17.0 PNEUMATIC TUBE SYSTEMS:

Pneumatic tube systems will not be installed. Existing systems will be equipped with the following security features:

17.1 Locked cover at both ends.

17.2 Capability to maintain the pressure or vacuum and capability to lock in the secure position at the initiating end.

17.3 Direct voice communications link between both ends to confirm the transportation and receipt of passing cartridges.

17.4 Special, distinctive color for SCI material passing cartridges.

17.5 Pneumatic tubes will run through passageways and will be capable of being visually inspected along their entire length.

18.0 DESTRUCTION EQUIPMENT:

A CSA-approved means of destruction of SCI material will be provided for each S/SCIF. Non-combatant surface ships that transit hostile waters without combatant escort will have appropriate Anti-compromise Emergency Destruction (ACED) equipment on board and such equipment will be prepared for use. The ACED will be dedicated to SCI destruction. SCI material will not be destroyed by jettisoning overboard under any circumstances.

19.0 EMERGENCY POWER:

A S/SCIF will have emergency power available that will operate destruction equipment, alarm systems, access control devices, and emergency lighting equipment for a minimum of six hours.

20.0 SCI PROCESSING SYSTEMS:

A S/SCIF that processes SCI electronically or electrically should be provided a TEMPEST evaluation prior to activation. All computer and network systems that process SCI must be accredited or certified for operation by the cognizant SCI AIS Accreditation Authority.

21.0 TEMPORARY ACCREDITATION:

Ships requiring temporary accreditation status will be processed for accreditation upon completion of a physical security inspection and certification of compliance with the following security requirements:

21.1 If the space is used to electrically process SCI information, the CSA will make a TEMPEST evaluation based on threat.

21.2 The physical perimeter barrier will consist of standard structural, nonsupport, or metal joiner bulkheads welded or riveted into place and meet the acoustical isolation requirements of a S/SCIF.

21.3 Doors will be at least metal joiner doors equipped with door closures and capable of being secured from the inside. Dutch doors are not acceptable. If cryptographic equipment is installed or stored within the space and the space will be temporarily unmanned while cryptographic key material and/or SCI material are stored else-where, the door will be equipped with a tamper-proof hasp and combination pad-lock.

21.4 Doors and other openings in the perimeter that permit aural or visual penetration of the internal space will be screened, curtained, or blocked.

21.5 An effective, approved secure means of destruction of SCI material will be readily available in the space or nearby in general service spaces.

21.6 Cryptographic equipment used to process SCI information will be located in the SCI space or, if located in a secure processing center other than that accredited for SCI, will be electrically configured so as not to be compatible with the secure processing system of that secure processor.

21.7 All telephones (to include STU-III instruments and sound powered telephones) will be as specified for S/SCIFs.

21.8 Processing of SCI via AIS will be as specified for S/SCIFs.

22.0 TEMPORARY SECURE WORKING AREAS (TSWAs):

Ships requiring TSWA accreditation for "contingency" or "part-time" usage will be processed for accreditation upon completion of a physical security inspection and certification of compliance with the following security requirements:

22.1 The physical perimeter barrier requires no special construction, provided it can prevent visual and aural access during all periods of SCI operation.

22.2 Doors will be capable of being secured from the inside.

22.3 Provisions will be made for posting a temporary sign that reads "RESTRICTED AREA - KEEP OUT - AUTHORIZED PERSONNEL ONLY".

22.4 When SCI material is to be stored in the space, a secure storage container will be provided. Security storage containers will be welded in place, or otherwise secured to the foundation for safety and to prevent rapid removal.

22.5 The electrical security requirements for a shipboard TSWA will be specified by the CSA.

23.0 EMBARKED PORTABLE SHIPBOARD COLLECTION VANS (PSCVs):

PSCVs are vans that are temporarily placed aboard ship and not part of the permanent structure of the ship. Ships requiring accreditation of embarked PSCVs must be annually accredited by

the CSA and may be activated upon certification to the CSA of compliance with the following security requirements:

23.1 The exterior surface of the van will be solid construction and capable of showing evidence of physical penetration (except for intended passages for antenna cables, power lines, etc.)

23.2 The access door will fit securely and be equipped with a substantial locking device to secure the door from the inside in order to prevent forcible entry without tools.

23.3 Adequate security measures will be established to preclude viewing of classified material by uncleared personnel.

23.4 Adequate provisions will be established to control the approach of uncleared personnel within the vicinity of the van. These measures will consist of instructions promulgated by the station (ashore and afloat) in which the van is embarked, prohibiting loitering in the immediate vicinity of the van, and will include periodic visual security cheeks by appropriately SCI-indoctrinated personnel.

23.5 Adequate destruction equipment will be available and effective procedures established to ensure rapid and complete destruction of classified material in emergency situations.

23.6 All SCI material will be stored within the van and continuously manned by sufficient SCI-indoctrinated personnel as determined by the on-site security authority based on the local threat environment, when activated for SCI support. If SCI material is to be stored outside the van, the space must be accredited by the CSA and be in compliance with the above S/SCIF criteria.

23.7 The electrical security requirements for a PSCV will be as specified by the CSA.

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ANNEX D

Part I - Electronic Equipment in Sensitive Compartmented Facilities (SCIFs)

(Effective 30 January 1994)

1.0 INTRODUCTION

It is the policy of the Director of Central Intelligence and the Senior Officials of the Intelligence Community (SOICs) that personally owned electronic equipment that has been approved for introduction into a SCIF should not be routinely carried into or out of the SCIF due to the possibility of technical compromise. It is also their policy that electronic equipment that is introduced into a SCIF is subject to technical and/or physical inspection at any time.

2.0 GUIDANCE

The following guidance is provided concerning the control of electronic equipment. SOICs retain the authority to apply more stringent requirements as deemed appropriate.

2.1 DOMESTIC UNITED STATES
The following personally owned electronic equipment may be introduced into a SCIF:

2.1.1 Electronic calculators, electronic spell-checkers, wrist watches, and data diaries. NOTE: If equipped with data-ports, SOICs will ensure that procedures are established to prevent unauthorized connector to automated information systems that are processing classified information.

2.1.2 Receive only pagers and beepers.

2.1.3 Audio and video equipment with only a "playback" feature (no recording capability), or with the "record" feature disabled/removed.

2.1.4 Radios

2.1.5 PROHIBITED EXCEPT FOR OFFICIAL DUTY
The following items are prohibited unless approved by the SOIC for conduct of official duties:

2.1.5.1 Two-way transmitting equipment.

2.1.5.2 Recording equipment (audio, video, optical). Associated media will he controlled.

2.1.5.3 Test, measurement, and diagnostic equipment.

2.1.6 PROHIBITED IN SCIFs
The following items are prohibited in SCIFs:

2.1.6.1 Personally owned photographic, video, and audio recording equipment.

2.1.6.2 Personally owned computers and associated media.

2.2 OVERSEAS

The provisions in paragraphs 2.1.5 and 2.1.6 above apply in the overseas environment with the exception that all personally owned electronic equipment may be introduced in the SCIF ONLY with the prior approval of the SOIC and on-site security representative, based on local threat conditions.

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ANNEX D

Part II - Disposal of Laser Toner Cartridges

(Effective 05 June 1998)

1.0 INTRODUCTION

The Director of Central Intelligence and the Senior Officials of the Intelligence Community (SOICs) hereby establish the policy and procedures for the disposal of used laser toner cartridge drums (cartridges). The policy established herein is based on technical research that has confirmed that the laser printer toner cartridges, removed from properly functioning printers, do not retain any residual static charge that could be associated with previously printed information. Thus, countermeasures to "declassify" a cartridge before releasing it, such as printing multiple pages of unclassified information or physically destroying the cartridge drum, are unnecessary and the expense of destroying toner cartridges is not deemed to be justified. SOICs are responsible for implementation of this policy within their respective department/agency. When deemed necessary and appropriate, SOICs may establish additional security measures.

2.0 POLICY

This policy applies to all equipment that uses similar technology (a laser printer with removable toner cartridge) as part of its production process (i.e. Laser Faxes, Printers, Copiers, etc.).

2.1 Used toner cartridges may be treated, handled, stored and disposed of as UNCLASSIFIED, when removed from equipment that has successfully completed its last print cycle. However, should a print cycle not be completed, there is the potential that residual toner may be left on the drum that could cause an information compromise. The following procedures should be followed for those situations where the print cycle was not successfully completed.

2.1.1 When a laser printer has not completed the printing cycle (e.g., a paper jam or power failure occurs), completing a subsequent print cycle before removal of cartridge is sufficient to wipe residual toner from the cartridge drum.

2.1.2 When the print cycle is interrupted by a jam or other action, and the toner cartridge is removed from service at

the same time, the toner cartridge drum will be inspected for residual toner by lifting the protective flap and viewing the exposed portion of the drum. If residual toner is present, manually rotating the drum is sufficient to wipe off residual toner material present.

2.2 After completing 2.1.1 or 2.1.2, the used toner cartridge may be treated, handled, stored and disposed of as UNCLASSIFIED and be returned for recycling or other agency approved method of disposal. In keeping with Environmental Protection Agency policy, agencies/departments are encouraged to establish procedures for recycling properly sanitized toner cartridges.

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ANNEX E - Acoustical Control and Sound Masking Techniques

(Effective 30 January 1994)

1.0 Basic Design:

Acoustical protection measures and sound masking systems are designed to protect SCI against being inadvertently overheard by the casual passerby, not to protect against deliberate interception of audio. The ability of a SCIF structure to retain sound within the perimeter is rated using a descriptive value, the Sound Transmission Class (STC).

1.1 The STC Rating: STC is a single number rating used to determine the sound barrier performance of walls, ceilings, floors, windows, and doors.

1.2 Use of Sound Groups: The current edition of Architectural Graphics Standards (AGS) describes various types of sound control, isolation requirements and office planning. The AGS established Sound Groups I through 4, of which Groups 3 and 4 are considered adequate for specific acoustical security requirements for SCIF construction.

1.2.1 Sound Group I - STC of 30 or better. Loud speech can be understood fairly well. Normal speech cannot be easily understood.

1.2.2 Sound Group 2 - STC of 40 or better. Loud speech can be heard, but is hardly intelligible. Normal speech can be heard only faintly if at all.

1.2.3 Sound Group 3 - STC of 45 or better. Loud speech can be faintly heard but not understood. Normal speech is unintelligible.

1.2.4 Sound Group 4 - STC of 50 or better. Very loud sounds, such as loud singing, brass musical instruments or a radio at full volume, can be heard only faintly or not at all.

2.0 Sound Reduction for SCIFs:

The amount of sound energy reduction may vary according to individual facility requirements. However, Sound Group ratings

shall be used to describe the effectiveness of SCIF acoustical security measures afforded by various wall materials and other building components.

2.1 All SCIF perimeter walls shall meet Sound Group 3, unless additional protection is required for amplified sound.

2.2 If compartmentation is required within the SCIF, the dividing office walls must meet Sound Group 3.

3.0 Sound Masking and Stand-Off Distance:

3.1 When normal construction and baffling measures have been determined to be inadequate for meeting Sound Group 3 or 4, as appropriate, sound masking shall be employed. Protection against interception of SCI discussions may include use of sound masking devices, structural enhancements, or SCIF perimeter placement.

3.1.1 Sound masking devices may include vibration and noise generating systems located on the perimeter of the SCIF.

3.1.2 Structural enhancements may include the use of high density building materials (i.e. sound deadening materials) to increase the resistance of the perimeter to vibration at audio frequencies.

3.1.3 SCIF perimeter placement may include construction design of a stand-off distance between the closest point a non-SCI indoctrinated person could be positioned and the point when SCI discussions become available for interception. Use of a perimeter fence or protective zone between the SCIF perimeter walls and the closest "listening place" is permitted as an alternative to other sound protection measures.

3.2 Masking of sound which emanates from an SCI discussion area is commonly done by a sound masking system. A sound masking system may utilize a noise generator, tape, disc or record player as a noise source and an amplifier and speakers or transducers for distribution.

4.0 Placement of Speakers and Transducers:

To be effective, the masking device must produce sound at a higher volume on the exterior of the SCIF than the voice conversations within the SCIF. Speakers/transducers should be placed close to or mounted on any paths that would allow audio to leave the area. These paths may include doors, windows, common

perimeter walls, vents/ducts, and any other means by which voice can leave the area.

4.1 For common walls, the speakers/transducers should be placed so the sound optimizes acoustical protection.

4.2 For doors and windows, the speakers/transducers should be close to the aperture of the window or door and the sound projected in a direction facing away from conversations.

4.3 Once the speakers or transducers are optimally placed, the system volume must be set and fixed. The level for each speaker should be determined by listening to conversations occurring within the SCIF and the masking sound and adjusting the level until conversations are unintelligible from outside the SCIF.

5.0 Installation of Equipment:

5.1 The sound masking system and all wires and transducers shall be located within the perimeter of the SCIF.

5.2 The sound masking system shall be subject to review during TSCM evaluations to ensure that the system does not create a technical security hazard.

6.0 Sound Sources:

The sound source must be obtained from a player unit located within the SCIF. Any device equipped with a capability to record ambient sound within the SCIF must have that capability disabled. Acceptable methods include:

6.1 Audio amplifier with a record turntable.

6.2 Audio amplifier with a cassette, reel-to-reel, Compact Disc (CD), or Digital Audio Tape (DAT) playback unit.

6.3 Integrated amplifier and playback unit incorporating any of the above music sources.

7.0 Emergency Notification Systems:

The introduction of electronic systems that have components outside the SCIF should be avoided. Speakers or other transducers, which are part of a system that is not wholly contained in the SCIF, are sometimes required to be in the SCIF by safety or fire regulations. In such instances, the system can be introduced if protected as follows:

7.1 All incoming wiring shall breach the SCIF perimeter at one point. TEMPEST or TSCM concerns may require electronic isolation.

7.2 In systems that require notification only, the system shall have a high gain buffer amplifier. In systems that require two-way communication, the system shall have electronic isolation. SCIF occupants should be alerted when the system is activated. All electronic isolation components shall be installed within the SCIF as near to the point of SCIF egress as possible.

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ANNEX F - Personnel Access Controls

(Effective 18 November 2002)

1.0 General Requirements

All SCIFs shall have personnel access control systems to control access at all perimeter entrances. Placards, signs, notices, and similar items are not acceptable as personnel access control systems. Unless otherwise stated herein, SCIF entrances shall be under visual control to deny unauthorized access unless the SCIF is unoccupied and secured. Such visual control may be accomplished by employees, guards using closed circuit television (CCTV), or other similar approved methods. If CCTV is used for providing visual control, the CCTV equipment shall be continuously monitored by appropriately SCI-indoctrinated personnel. Personnel access control systems as specified herein do not replace or modify any requirement to properly secure SCIF doors as specified in DCID 6/9.

2.0 Automated Access Control Systems

Automated personnel access control systems meeting the following criteria may be used to control admittance to SCIFs during working hours in lieu of visual control.

2.1 Identification Requirement. The automated personnel access control system shall verify the identity of an individual by one of the following methods.

2.1.1 Identification (ID) Badges or Cards. The ID badge or card must identify to the access control system the individual to whom the card is issued. A personal identification number (PIN) is required. The PIN must be separately entered into the system by each individual using a keypad device and shall consist of four or more digits, randomly selected, with no known or logical association with the individual.

2.1.2 Personal Identity Verification. Personal identity verification (biometrics device) identifies the individual requesting access by some unique personal characteristic.

[5] Superseded Annex F dated 5 June 1998.

2.2 Authentication Requirement. The automated personnel access control system shall authenticate an individual's authorization to enter the SCIF by matching the applicable information specified in the previous paragraph with personnel data contained in an automated database to authenticate the individual's authorization prior to giving the individual access to the SCIF.

2.3 Accept/Reject Threshold Criteria. Automated personnel access control equipment or devices shall meet the following criteria during normal equipment operation: The probability of an unauthorized individual gaining access is no more than one in ten thousand while the probability of an authorized individual being rejected access is no more than one in one thousand. Prior to using such equipment, manufacturers must certify in writing that their equipment conforms to this criterion.

2.4 System Protection. Physical security protection must be established and continuously maintained for all devices/equipment that comprise the personnel access control system. The level of protection may vary depending upon the type of devices/equipment being protected. Existing security controls within the facility shall be used to the extent practical in meeting this requirement.

2.5 Transmission Line Protection. System data that is carried on transmission lines (e.g., access authorizations, personal identification, or verification data) to and from devices/equipment located outside the SCIF shall be encrypted with an approved 128 bit, or greater, encryption algorithm. The algorithm must be certified by NIST or another US government authorized independent testing laboratory. If the communication technology described above is not feasible, the transmission line will be installed within a protective covering to preclude surreptitious manipulation, or be adequately supervised to protect against modification and/or substitution of the transmitted signal.

2.6 Door Strikes. Electric door strikes installed for use in personnel access control systems shall be heavy-duty industrial grade.

2.7 Personnel and System Data Protection. Locations where authorization data, card encoded data, and personal identification or verification data is input, stored, or recorded must be protected within a SCIF or an alarmed area controlled at the SECRET level. Records and information concerning encoded ID data, PINs, authentication data, operating system software, or any identifying data associated with the personnel access control system shall be kept secured when unattended. Access to the data shall be restricted. (See paragraph 4.3.)

2.8 External Devices. Card readers, keypads, communication, or interface devices located outside the entrance to a SCIF, shall have tamper resistant enclosures and be securely fastened to a wall or other structure.

2.9 Electrical components, associated wiring, or mechanical links (cables, rods, and so on) should be accessible only from inside the SCIF, or if they transverse an uncontrolled area they shall be secured within a protective covering to preclude surreptitious manipulation of components.

2.10 Records shall be maintained to reflect the current active assignment of ID badge/card, PIN, level of access, entries, and similar system-related elements. Records concerning personnel removed from the system shall be retained for a minimum of two years. Records of entries to SCIFs shall be retained for a minimum of two years or until investigations of system violations and incidents have been successfully resolved and recorded.

3.0 Non-Automated Access Control

Non-automated access control (electric, mechanical, or electromechanical) that meet the criteria stated below may be used to control admittance to SCIF areas during working hours if the entrance is under visual control (see paragraph 1.0). These systems are also acceptable to control access to compartmented areas within the SCIF. Non-automated access system devices must be installed in the following manner:

3.1 Control Panel Location and Shielding. The control panel in which the combination and all associated cabling and wiring is set shall be located inside the SCIF and will require minimal physical security designed to deny unauthorized access to its mechanism. The control panel shall be installed, or have a shielding device mounted, such that an unauthorized person in the immediate vicinity cannot observe the setting or changing of the combination. (See paragraph 4.4.)

3.2 Access Code Protection. Keypad devices shall be designed or installed in such a manner that unauthorized individuals in the immediate vicinity cannot observe the entry of the access code.

4.0 Personnel Requirements and Restrictions

Operating personnel access control systems in accordance with this annex requires that the below personnel requirements and restrictions be followed:

4.1 Entering and Leaving a SCIF. Personnel entering or leaving an area are required to ensure the entrance or exit point is properly closed. Authorized personnel who permit another individual to enter the area are responsible for confirming the individual's access and need-to-know.

4.2 Escorting. An SCI-indoctrinated person who is knowledgeable of the security procedures of the SCIF shall continuously escort persons within the SCIF who are not SCI-indoctrinated.

4.3 Access to Personnel and System Data. Access to records and information concerning encoded ID data and PINs shall be restricted to SCI-indoctrinated personnel. Access to identification or authentication data, operating system software, or any identifying data associated with the personnel access control system shall be limited to the least number of personnel possible.

4.4 Setting Combinations (*applies to non-automated access control only*). The selection and setting of the combination shall be accomplished by SCI-indoctrinated individuals. The combination shall be changed when compromised or an individual knowledgeable of the combination no longer requires access.

4.5 System Records Maintenance. A procedure shall be established for removing an individual's authorization to enter an area when the individual is transferred, terminated, or the individual's access is suspended, revoked, or downgraded to a level below that required for entry. Compromised access cards and/or PINs will be immediately reported and removed from the system.

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ANNEX G - Telecommunications Systems and Equipment

(Effective 18 November 2002)

This annex establishes a baseline requirement for the protection of sensitive information within Sensitive Compartmented Information Facilities (SCIFs) from intrusion and exploitation via unclassified telecommunications systems, devices, equipment, software, and features. Compliance with these standards is mandatory for all SCIFs and/or systems established after the effective date of this annex.

1.0 Applicability and Scope

The telecommunications security measures of this Annex apply to the planning, installation, maintenance, and management of telecommunication systems and equipment within SCIFs, in both foreign and domestic locations. The security measures of this Annex apply to any telecommunication system that provides service to a SCIF. The requirements contained in this annex are designed to prevent inadvertent disclosure or loss of sensitive, intelligence bearing information through telecommunication systems and to protect against the clandestine exploitation and/or disruption of SCIF operations through these systems. This Annex is compatible with but may not satisfy requirements of other security disciplines such as COMSEC, OPSEC, or TEMPEST.

2.0 Requirements

At a minimum, the following requirements must be met to ensure proper safeguards for the protection of information: configuration of telecommunications systems, devices, features, and software; access control; and control of the cable infrastructure. The audio protection requirements of this Annex do not apply if the SCIF is declared a "No Classified Discussion Area" and warning notices are posted prominently within the SCIF.

2.1 Baseline Configuration.

2.1.1 A baseline configuration of all telecommunications systems, devices, features, and software must be established, documented, and included in the Fixed Facility Checklist (DCID 6/9 Annex A) or as an attachment.

[6] Superseded Annex G dated 29 July 1994.

2.1.2 The Cognizant Security Authority (CSA) will review the telecommunications system baseline configuration and supporting/supplementing information to determine if the risk of information loss or exploitation has been suitably mitigated. When the following requirements are unachievable, the associated telecommunications equipment must be installed and maintained in non-discussion areas or a written waiver must be issued by the CSA.

2.2 Unclassified Telecommunications Systems. Unclassified telecommunications systems in SCIFs shall not pass/transmit sensitive audio discussions when they are idle and not in use. Additionally, these telecommunications systems shall be configured to prevent external control or activation. The concepts of "on-hook" and "off-hook" audio protection[7] outlined in telephone security group (TSG) standards 2 and 6 must be incorporated into SCIF telecommunications systems.

2.2.1 Unclassified telephone systems and services shall be configured to prevent technical exploitation or penetration. In addition, these systems shall incorporate physical and software access controls to prevent disclosure or manipulation of system programming and stored data.

The CSA must ensure that the following specific requirements are applied to unclassified telecommunications systems:

2.2.1.1 Provide on-hook audio protection by the use of TSG 6 instrument(s), TSG 6 approved disconnect devices, or equivalent TSG 2 system configuration.

2.2.1.2 Provide off-hook audio protection by use of a hold feature, modified handset (push-to-talk), or equivalent.

2.2.1.3 Provide isolation by use of a computerized telephone system (CTS) with software and hardware configuration control and control of audit reports (such as station message detail reporting, call detail reporting, etc.). System programming will not include the ability to place, or keep, a handset off-hook. Configuration of the system must ensure that all on-hook and off-hook vulnerabilities are identified and mitigated.

[7] On-hook audio protection is the assurance that a telephonic device does not pick-up and process audio when the phone is hung-up and considered to be idle. Off-hook audio protection is the assurance that when the phone is in use, but temporarily unattended, that near-by audio is not picked up and processed through the use of a “hold feature” or a push-to-talk handset.

2.2.1.4 Ensure that equipment used for administration of telephone systems is installed inside an area where access is limited to authorized personnel. When local or remote administration terminals (for a CTS) are not or cannot be contained within the controlled area, and safeguarded against unauthorized manipulation, then the use of TSG 6 approved telephone instruments shall be required, regardless of the CTS configuration.

2.2.1.5 Ensure that remote maintenance, if used, is protected against manipulation/activation by means of a dial-back modem, network boundary security device (firewall), or other appropriate device.

2.2.1.6 Ensure that speakerphones and audio conferencing systems are not used on unclassified telecommunications systems in SCIFs. Exceptions to this requirement may be approved by the CSA, when these systems have sufficient audio isolation from other classified discussion areas in the SCIF, and procedures are established to prevent inadvertent transmission of classified information.

2.2.1.7 Ensure that features used for voice mail or unified messaging services, are configured to prevent unauthorized access to remote diagnostic ports or internal dial tone.

2.2.1.8 Ensure that telephone answering devices (TAD) and facsimile machines do not contain features that introduce security vulnerabilities, e.g., remote room monitoring, remote programming, or other similar features that may permit off-premise access to room audio. Prior CSA approval is required before installation or use.

2.2.2 All unclassified telecommunications systems and associated infrastructure must be electrically and physically isolated from any classified information/telecommunications systems in accordance with National Security Telecommunications and Information Systems Security Committee requirements or any other separation standards applied to the classified information system on site.

2.3 Unclassified Information Systems. Unclassified information systems must be safeguarded to prevent manipulation of features and software that could result in the loss/compromise of sensitive audio information or protected data.

2.3.1 Ensure that all computer/telecommunications equipment with telephonic or audio features are protected against remote activation and/or exfiltration of audio information

over any connections (i.e., disconnecting the microphone, inserting a blank plug in the microphone jack, etc.).

2.3.2 Ensure that all video cameras used for unclassified video teleconferencing and/or video recording equipment are deactivated and disconnected when not in use. In addition, video devices used in SCIFs must feature a clearly visible indicator to alert SCIF personnel when recording or transmitting.

2.4 Environmental Infrastructure Systems. Environmental infrastructure systems are the basic human comfort, security, and life safety systems that support SCIF operations. Advancements in technology have created conditions whereby many of these amenities are computer-automated with public switched telephone network or other connections for remote monitoring, access, and external control/manipulation of features and services. Fixed facility checklists (FFC) will identify any such connection to environmental systems within SCIFs, and document measures taken to provide protection against malicious activity, intrusion, and exploitation. Protection mechanisms and current configurations for infrastructure systems, such as premise management systems, environmental control systems, lighting and power control units, uninterrupted power sources, and such, which provide services to the SCIF, shall be included in the SCIF baseline evaluation (whether or not they reside in the SCIF).

2.5 Wireless Technology. The use of any device, or system utilizing wireless technology must be approved by the CSA prior to purchase and introduction into the SCIF. All TEMPEST/Technical Security concerns shall be weighed against the facilities overall security posture (i.e., facility location, threat, as well as any compensatory countermeasures that create a “security in-depth” concept) when evaluating these wireless systems. All separation and isolation standards provided in NSTISSC standards are applicable to unclassified wireless systems installed or used in SCIFs.

2.6 Access Control. Installation and maintenance of unclassified telecommunications systems and devices supporting SCIF operations may require physical and/or electronic access. Remote maintenance may be performed as described in paragraph 2.6.2. Under other circumstances, physical access may be required to perform computer-based diagnostics to make necessary repairs. Therefore, the following paragraphs identify the minimum requirements for providing access to unclassified telecommunications systems and devices supporting SCIF operations. These requirements are applicable regardless of whether or not the telecommunications device resides within the SCIF or is contained in a protected area outside the SCIF, so

long as it is deemed as a critical infrastructure item by the CSA.

2.6.1 Physical Access Control. Installation and maintenance personnel will possess an appropriate clearance and access or will be escorted and monitored by technically knowledgeable cleared personnel at all times within the SCIF. Furthermore, physical access to telecommunications equipment shall be limited to prevent unauthorized modifications or reconfiguration.

2.6.2 Remote Maintenance and Diagnostic Access. All capabilities for remote maintenance and diagnostic services must be clearly specified in the FFC. The FFC will include all procedures and countermeasures preventing unauthorized system access, unauthorized system modification, or introduction of unauthorized software as specified in TSG 2 paragraph 4d.

2.6.2.1 Remote maintenance and diagnosis may be performed from a secure facility over a protected link (i.e., dial-back or DES modem).

2.6.2.2 Failing the steps outlined in paragraph 2.6.2.1, remote maintenance and diagnosis may be performed over an unclassified telephone line as specified in TSG 2 paragraph 4c.

2.7 Memory and Storage Media. Any telecommunication system, component and/or like devices with memory or digital storage capabilities, to include multi-function devices, (i.e., facsimile, printers, copiers, scanners, etc.) will be sanitized of any sensitive information before being repaired or released to uncleared personnel.

2.7.1 The baseline configuration document, FFC, will identify all memory and data storage systems of all unclassified telecommunications systems that contain sensitive data or information that is of concern for operational security purposes. This storage media will be sanitized before it is removed from the facility for any purpose, including maintenance or disposal. Similarly, this storage media will not be made available to uncleared technicians or maintenance personnel.

2.7.2 Storage media that cannot be effectively sanitized will be removed from the telecommunications system prior to repair or disposal, and be destroyed by approved methods.

2.8 SCIF Cable Control.

2.8.1 All unclassified telecommunications cabling[8] should enter the SCIF through a common opening. The cables should be installed in a professional manner, such that they can be visually inspected without difficulty.

2.8.2 Each conductor (fiber or metallic) should be accurately accounted for from the point of entry. The accountability should identify the precise use of every conductor through labeling, log, or journal entries. Spare conductors will be identified and appropriately grounded.

2.8.3 Unused conductors will be removed. If removal is not feasible, the CSA may require the metallic conductors be stripped, bound together, and grounded at the point of ingress/egress. Unused fiber conductors will be uncoupled from the interface within the SCIF, capped, and labeled as unused.

3.0 Responsibilities

3.1 NTSWG. The National Telecommunications Security Working Group (NTSWG) is responsible for developing security countermeasure solutions for unclassified telecommunications systems and devices.

3.2 CSA. The CSA is responsible for selecting, implementing, and verifying security measures to balance the vulnerabilities of the telecommunications system(s) against technical threats of its environment. This requires the CSA to:

3.2.1 Know this Annex and be able to assist site security personnel with implementation.

3.2.2 Review the fixed facility checklist and certify that all the requirements of this Annex have been met. When the requirements of this Annex cannot be met, the CSA must mitigate the risk through the application of countermeasures or waive the requirement.

3.2.3 Assist site security personnel in selecting telecommunications equipment and/or recommending appropriate countermeasures.

3.2.4 Maintain a current set of the reference documents. See references, section 4.0 below.

[8] Telecommunications cabling includes all cables used to support SCIF operations, to include wiring for fire annunciation and evacuation systems which may only run throughout the building, but may not connect to the PSTN.

3.2.5 Responsible for ensuring that a full risk assessment is performed prior to issuance of a waiver or exception to the provisions of this document, and for ensuring that any waiver or exception is periodically reviewed. Any such waivers or exceptions must be documented.

3.2.6 Request technical surveillance countermeasures (TSCM) inspections as conditions warrant, to prevent the loss or compromise of protected information through the intrusion and exploitation of a telecommunications system IAW DCID 6/2.

3.3 Site Security Personnel. The site security personnel are responsible for implementing the requirements of this Annex and requesting CSA approval for new telecommunications systems, devices, features and hardware, and major modifications to existing systems by:

3.3.1 Submitting necessary documentation on new systems and/or modified systems and recommending security countermeasures and options to the CSA, as appropriate.

3.3.2 Maintaining a record set of documentation on site.

3.3.3 Adhering to the guidance set forth by the CSA.

3.3.4 Notifying the CSA of any suspected or actual attempts to intrude or exploit a telecommunications or infrastructure system supporting SCIF operations. When warranted, site security personnel will assist the CSA with investigating and resolving the incident, and applying additional countermeasures as required.

3.3.5 Determining that telecommunications systems and devices are properly sanitized or cleared prior to any maintenance procedures, and that all networked interconnections are removed (isolated) during maintenance routines.

3.3.6 Authorizing diagnostics connections (either remote or on-site) for the purpose of performing maintenance on telecommunications systems and devices, and conducting reviews of on-site test data prior to releasing it from the protected area.

4.0 References

4.1 NTSWG (*formerly known as the TSG*). Standards and information series refer to the published guidance provided by the NTSWG for the protection of sensitive information and unclassified telecommunications information processing systems and equipment. The following documents are intended for use by all personnel concerned with telecommunications security.

4.1.1 TSG Standard 1, (*Introduction to Telephone Security).* Provides telephone security background and TSG-approved options for telephone installations in US Government sensitive discussion areas.

4.1.2 TSG Standard 2 (*TSG Guidelines for Computerized Telephone Systems*) and its Annexes. Establishes requirements for planning, installing, maintaining, and managing a CTS, and provides guidance for personnel involved in writing contract, inspecting, and system administration of a CTS.

4.1.3 TSG Standard 6, (*TSG-Approved Equipment)*. Lists TSG-approved equipment which inherently provides protection against the accidental collection and conduction of information from within sensitive discussion areas.

4.1.4 TSG Standards 3,4,5,7, and 8. Contains design specifications for telecommunication manufacturers, and are not necessarily applicable to facility security personnel.

4.1.5 Information Series (*Computerized Telephone Systems (CTSs) A Review of Deficiencies, Threats, and Risks*, dated: December 1994). Describes deficiencies, threats, and risks associated with computerized telephone systems which impact the loss of “on-hook” audio, as well as the protection of unclassified information stored/contained within the CTS and its telephone devices.

4.1.6 Information Series (*Executive Overview,* dated: October 1996). Provides the salient points of the TSG standards and presents them in a non-technical format.

4.1.7 Information Series (*Central Office (CO) Interfaces,* dated: November 1997). Provides an understanding of the types of services delivered by the local central office and describes how they are connected to administrative telecommunications systems and devices.

4.1.8 Information Series (*Everything You Always Wanted to Know about Telephone Security…but were afraid to ask,* second edition, dated: December 1998). Distills the essence of the

TSG standards (which contain sound telecommunications practices) and presents them in a readable, non-technical manner.

4.1.9 Information Series (*Infrastructure Surety Program…securing the last mile*, dated: April 1999). Provides a basic understanding of how to protect office automation and infrastructure systems that contribute to successful mission accomplishment.

4.1.10 Information Series (*Computerized Telephone Systems Security Plan Manual*, dated: May 1999). Assists in implementing and maintaining the "secure" operation of CTSs when used to support SCIF operations. The term "secure" relates to the safe and risk-free operation, not the use of encryption or a transmission security device.

4.2 Director of Central Intelligence Directive (DCID 6/2). Technical Surveillance Countermeasures, (TSCM).

4.3 Director of Central Intelligence Directive (DCID 6/3). Protecting Sensitive Compartmented Information, (SCI) within Information Systems.

4.4 SPB Issuance 00-2 (18 January 2000). Infrastructure Surety Program (ISP) and the Management Assessment Tool (MAT).

5.0 Definitions

5.1 Critical Infrastructure Item. Any component or group of components that provides essential functions or support to the SCIF operation, or that is relied upon as an isolation component/device to assure that SCIF-based telecommunications cannot be electronically accessed to exploit information. Examples include: uninterrupted power sources (UPS); computerized telephone system (CTS); and/or energy management systems (EMS); which provide power, telephone, lighting, and HVAC for the SCIF (which often reside outside the SCIF perimeter).

5.2 Environmental Infrastructure Systems. Those systems and devices providing critical support to the SCIF in which sensitive information processing takes place. The denial or degradation of environmental/ infrastructure systems will have a cascading effect on the denial or degradation of information processing and information availability. Therefore, this annex will address the minimum protection necessary to ensure a continuity of service to thwart the effects of denial of service attacks or external manipulation of environmental/infrastructure systems.

5.3 Sensitive Information. Information requiring safeguards per US Government directives for information such as: classified national security information (CNSI), sensitive compartmented information (SCI), restricted data (RD), sensitive but unclassified (SBU) information, and For Official Use Only (FOUO).

5.4 Site Security Personnel. Individual(s) responsible for SCIF security, including physical and technical security, and information protection. This term is synonymous with the Special Security Officer (SSO), Special Security Representative (SSR), Contractor Special Security Officers (CSSOs), Facility Security Officer (FSO), Facility Security Manager (FSM), and others; which may be agency specific terms.

5.5 Wireless. Any communications path or method that does not rely totally on a copper wire or fiber for its transmission medium, i.e., infrared (IR), radio frequency (RF), etc.

5.6 Computerized Telephone System (CTS). A generic term used to describe any telephone systems that use centralized stored program computer technology to provide switched telephone networking features and services. CTSs are referred to commercially by such terms as computerized private branch exchange (CPBX), private branch exchange (PBX), private automatic branch exchange (PABX), electronic private automatic branch exchange (EPABX), computerized branch exchange (CBX), computerized key telephone system (CKTS), hybrid key systems, business communications systems, and office communications systems.

(DCID 6/9)-- MANUAL

Physical Security Standards for Sensitive Compartmented Information Facilities

(Effective 18 November 2002)
(Administrative Corrections 23 December 2002)

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PREFACE

DCID 6/9, Physical Security Standards for Sensitive Compartmented Information Facilities (SCIFs), was approved by the Director of Central Intelligence (DCI) on 30 January 1994.

A complete copy of DCID 6/9 consists of the basic DCID, and this Manual and its annexes A through G. The annexes are as follows:

Annex A - SCIF Checklist (effective 27 May 1994)

Annex B - Intrusion Detection Systems (effective 18 November 2002)

Annex C - Tactical Operations/Field Training (effective 27 May 1994)

Part I - Ground Operation
Part II- Aircraft/Airborne Operation
Part III - Shipborne Operation

Annex D - Part I - Electronic Equipment in SCIFs (effective 30 January 1994)

Part II - Handling and Disposal of Laser Toner Cartridges (effective 5 June 1998)

Annex E - Acoustical control and Sound Masking Techniques (effective 30 January 1994)

Annex F - Personnel Access Controls (effective 18 November 2002)

Annex G - Telephone Security (effective 18 November 2002)

1. POLICY AND CONCEPT

1.1 Policy Statement

1.1.1 Physical security standards are hereby established governing the construction and protection of facilities for storing, processing, and discussing Sensitive Compartmented Information (SCI) that requires extraordinary security safeguards. Compliance with this DCID 6/9 Implementing Manual (hereafter referred to as the "Manual") is mandatory for all Sensitive Compartmented Information Facilities (SCIFs) established after the effective date of this manual, including those that make substantial renovations to existing SCIFs. Those SCIFs approved prior to the effective date of this Manual will not require modification to meet these standards.

1.1.2 The physical security safeguards set forth in this Manual are the standards for the protection of SCI. Senior Officials of the Intelligence Community (SOICs), with DCI concurrence, may impose more stringent standards if they believe extraordinary conditions and circumstances warrant. SOICs may not delegate this authority. Additional cost resulting from more stringent standards should be borne by the requiring Agency, Department, or relevant contract.

1.1.3 In situations where conditions or unforeseen factors render full compliance to these standards unreasonable, the SOIC or designee may waive specific requirements in accordance with this Manual. However, this waiver must be in writing and specifically state what has been waived. The Cognizant Security Authority (CSA) must notify all co-utilizing agencies of any waivers it grants.

1.1.4 All SCIFs must be accredited by the SOIC or designee prior to conducting any SCI activities.

1.1.5 One person is now authorized to staff a SCIF, which eliminates the two-person rule (the staffing of a SCIF with two or more persons in such proximity to each other to deter unauthorized copying or removal of SCI).

1.2 Concept

1.2.1 SCIF design must balance threats and vulnerabilities against appropriate security measures in order to reach an acceptable level of risk. Each security concept or plan must be submitted to the CSA for approval. Protection against surreptitious entry, regardless of SCIF location, is always required. Security measures must be taken to deter technical surveillance of activities taking place within the SCIF.

TEMPEST security measures must be considered if electronic processing of SCI is involved.

1.2.2 On military and civilian compounds, there may exist security controls such as identification checks, perimeter fences, police patrols, and other security measures. When considered together with the SCIF location and internal security systems, those controls may be sufficient to be used in lieu of certain physical security or construction requirements contained in this Manual.

1.2.3 Proper security planning for a SCIF is intended to deny foreign intelligence services and other unauthorized personnel the opportunity for undetected entry into those facilities and exploitation of sensitive activities. Faulty security planning and equipment installation not only jeopardizes security but wastes money. Adding redundant security features causes extra expense, which could be used on other needed features. When security features are neglected during initial construction, retrofitting of existing facilities to comply with security requirements is necessary.

1.3 American Disabilities Act (ADA) Review

1.3.1 Nothing in this manual shall be construed to contradict or inhibit compliance with the law or building codes. CSAs shall work to meet appropriate security needs according to the intent of this Manual at acceptable cost.

2. GENERAL ADMINISTRATIVE

2.1 SCI Facilities (SCIFs)

A SCIF is an accredited area, room, group of rooms or buildings, or installation where SCI may be stored, used, discussed, and/or electronically processed. SCIFs will be afforded personnel access control to preclude entry by unauthorized personnel. Non-SCI indoctrinated personnel entering a SCIF must be continuously escorted by an indoctrinated employee who is familiar with the security procedures of that SCIF. The physical security protection for a SCIF is intended to prevent as well as detect visual, acoustical, technical, and physical access by unauthorized persons. Physical security criteria are governed by whether the SCIF is in the United States or not, according to the following conditions: closed storage, open storage, continuous operations, secure working area.

2.2 Physical Security Preconstruction Review and Approval

CSAs shall review physical security preconstruction plans for SCIF construction, expansion or modification. All documentation pertaining to SCIF construction will be appropriately controlled and restricted on a need-to-know basis. The approval or disapproval of a physical security preconstruction plan shall be made a matter of record.

2.2.1 The requester shall submit a Fixed Facility Checklist (FFC, Annex A) to the respective CSA for review and approval.

2.2.2 The Checklist submission shall include floor plans, diagrams of electrical communications, heating, ventilation, air conditioning (HVAC) connections, security equipment layout (to include the location of intrusion detection equipment), etc. All diagrams or drawings must be submitted on legible and reproducible media.

2.2.3 The CSA shall be responsible for providing construction advice and assistance and pre-approving SCIF construction or modification.

2.3 Accreditation

The CSA will ensure SCIFs comply with DCID 6/9. The CSA is authorized to inspect any SCIF, direct action to correct any deficient situation, and withdraw SCIF accreditation. The procedures for establishment and accreditation of SCIFs are prescribed below:

2.3.1 The procedures for establishment and accreditation of SCIFs from conception through construction must be coordinated and approved by the SOIC or CSA.

2.3.2 SCI shall never be handled, processed, discussed, or stored in any facility other than a properly accredited SCIF unless written authorization is granted by the CSA.

2.3.3 An inspection of the SCIF shall be performed by the CSA or appointed representative prior to accreditation. Periodic reinspections shall be based on threat, physical modifications, sensitivity of programs, and past security performance. Inspections may occur at any time, announced or unannounced. The completed fixed facility checklist will be reviewed during the inspection to ensure continued compliance. TSCM evaluations may be required at the discretion of the CSA, as conditions warrant. Inspection reports shall be retained within the SCIF and by the CSA.

All SCIFs shall maintain on site, current copies of the following documents:

a. DCID 6/9 Fixed Facility Checklist

b. Accreditation authorization documents (e.g., physical, TEMPEST, and AIS).

c. Inspection reports, including TSCM reports, for the entire period of SCIF accreditation

d. Operating procedures, Special Security Officer Contractor Special Security Officer (SSO/CSSO) appointment letters, Memoranda *of* Agreement (MOAs), Emergency Action Plans, etc.

e. Copies of any waivers granted by the CSA.

2.3.4 Inspection: Authorized inspectors shall be admitted to a SCIF without delay or hindrance when inspection personnel are properly certified to have the appropriate level of security clearance and SCI indoctrination for the security level of the SCIF. Short notice or emergency conditions may warrant entry without regard to the normal SCIF duty hours. Government owned equipment, needed to conduct SCIF inspections, will be admitted into SCIF without delay.

2.3.5 Facilities, which are presently accredited, under construction or in the approval process at the date of implementation of this Manual, shall not require modification to conform to these standards.

2.3.5.1 Facilities undergoing major modification may be required to comply entirely with the provisions of this Manual. Approval for such modifications shall be requested through the CSA and received prior to any modifications taking place within the SCIF.

2.3.5.2 In the event a need arises to reopen a SCIF after the accreditation has been terminated, the CSA may approve the use of a previously accredited SCIF based upon a review of an updated facility accreditation package.

2.3.6 Withdrawal of Accreditation:

2.3.6.1 Termination of Accreditation: When it has been determined that a SCIF is no longer required, withdrawal of accreditation action will be initiated by the SSO/CSSO. Upon notification, the CSA will issue appropriate SCI withdrawal correspondence. The CSA or

appointed representative will conduct a close out inspection of the facility to ensure that all SCI material has been removed.

2.3.6.2 Suspension or Revocation of Accreditation: When the CSA determines that there is a danger of classified information being compromised or that security conditions in a SCIF are unsatisfactory, SCI accreditation will be suspended or revoked. All appropriate authorities must be notified of such action immediately.

2.4 Co-Utilization

2.4.1 Agencies desiring to co-utilize a SCIF should accept the current accreditation and any waivers. Any security enhancements required by an agency or department requesting co-utilization should be funded by that organization, and must be approved by the SOIC with DCI concurrence prior to implementation. A co-utilization agreement must be established prior to occupancy.

2.4.2 Special Access Programs (SAP) co-located within a SCIF will meet the physical security requirements of this Manual and DCI Special Access Programs (SAP) Policy, January 4, 1989.

2.5 Personnel Controls

2.5.1 Access rosters listing all persons authorized access to the facility shall be maintained at the SCIF point of entry. Electronic systems, including coded security identification cards or badges may be used in lieu of security access rosters.

2.5.2 Visitor identification and control: Each SCIF shall have procedures for identification and control of visitors seeking access to the SCIF.

2.6 Control of Combinations

2.6.1 Combinations to locks installed on security containers/safes, perimeter doors, windows and any other openings should be changed whenever:

a. A combination lock is first installed or used;

b. A combination has been subjected, or believed to have been subjected to compromise; and

c. At other times when considered necessary by the CSA.

2.6.2 All combinations to SCIF entrance doors should be stored in another SCIF of equal or higher accreditation level. When this is not feasible, alternate arrangements will be made in coordination with the CSA.

2.7 Entry/Exit Inspections

The CSA shall prescribe procedures for inspecting persons, their property, and vehicles at the entry or exit points of SCIFs, or at other designated points of entry to the building, facility, or compound. The purpose of the inspection is to deter the unauthorized removal of classified material, and deter the introduction of prohibited items or contraband. This shall include determination of whether inspections are randomly conducted or mandatory for all, and whether they apply for visitors only or for the entire staff assigned. All personnel inspection procedures should be reviewed by the facility's legal counsel prior to promulgation.

2.8 Control of Electronic Devices and Other Items

2.8.1 The CSA shall ensure that procedures are instituted for control of electronic devices and other items introduced into or removed from the SCIF. See Annex D for guidance.

2.8.2 The prohibition against electronic equipment in SCIFs does not apply to those needed by the disabled or for medical or health reasons (e.g., motorized wheelchairs, hearing aids, heart pacemakers, amplified telephone headsets, teletypewriters for the hearing impaired). However, the SSO or CSSO shall establish procedures for notification that such equipment is being entered in to the SCIF.

2.8.3 Emergency and police personnel and their equipment, including devices carried by emergency medical personnel responding to a medical crisis within a SCIF, shall be admitted to the SCIF without regard to their security clearance status. Emergency personnel will be escorted to the degree practical. However, debriefing of emergency personnel will be accomplished as soon as possible, if appropriate.

2.8.4 Equipment for TEMPEST or Technical Surveillance Countermeasures (TSCM) testing shall be admitted to a SCIF as long as the personnel operating the equipment are certified to have the appropriate level of security clearance and SCI indoctrination.

3. PHYSICAL SECURITY CONSTRUCTION POLICY FOR SCIFs

3.1 Construction Policy for SCI Facilities

Physical security criteria are governed by whether the SCIF is located in the US or not, according to the following conditions: closed storage, open storage, continuous operations, secure working areas.

3.1.1 Closed Storage

3.1.1.1 Inside U.S:

a. The SCIF must meet the specifications in Chapter 4 Permanent Dry Wall Construction).

b. The SCIF must be alarmed in accordance with Annex B to this manual.

c. SCI must be stored in GSA approved security containers.

d. There must be a response force capable of responding to an alarm within 15 minutes after annunciation and a reserve response force available to assist the responding force.

e. The CSA may require any SCIF perimeter walls accessible from exterior building ground level to meet the equivalent protection afforded by Chapter 4 (Expanded Metal) construction requirement.

3.1.1.2 Outside U.S.:

a. The SCIF must meet the construction specifications for SCIFs as set forth in Chapter 4 (Steel Plate or Expanded Metal). SCIFs within US Government controlled compounds[1], or equivalent, having armed immediate response forces may use specifications indicated in Chapter 4 (Permanent Dry Wall Construction) with prior approval of the CSA.

b. The SCIF must be alarmed in accordance with Annex B.

c. All SCI controlled material will be stored in GSA-approved containers having a rating for both forced

[1] A controlled building or compound is one to which access is restricted and unescorted entry is limited to authorized personnel.

and surreptitious entry equal to or exceeding that afforded by Class 5 containers.

d. There must be a response force capable of responding to an alarm within 10 minutes and a reserve response force available to assist the responding force.

3.1.2 Open Storage

3.1.2.1 INSIDE US: When open storage is justified and approved by the CSA. The SCIF must:

a. be alarmed in accordance with Annex B;

b. have a response force capable of responding to an alarm within 5 minutes and a reserve response force available to assist the response force; and

c. meet one of the following:

1. SCIFs within a controlled US government compound or equivalent may use specifications indicated in Chapter 4 (Permanent Dry Wall Construction): or

2. SCIFs within a controlled building with continuous personnel access control may use specifications indicated in Chapter 4 (Permanent Dry Wall Construction). The CSA may require any SCIF perimeter walls accessible from exterior building ground level to meet the equivalent protection afforded by Chapter 4 (Expanded Metal) construction requirements; or

3. SCIFs, which are not located in a controlled building or compound, may use specifications indicated in Chapter 4 (expanded Metal) or (Vault) constructions requirements.

3.1.2.2 OUTSIDE US: Open storage of SCI material will be avoided. When open storage is justified as mission essential, vault construction is preferred. The SCIF must:

a. be alarmed in accordance with Annex B;

b. have a response force capable of responding to an alarm within 5 minutes and a reserve response force available to assist the responding force.

c. have an adequate, tested plan to protect, evacuate, or destroy the material in the event of emergency or natural disaster; and

d. meet one of the following:

1. The construction specification for vaults set forth in Chapter 4 (Vaults); or

2. With the approval of the CSA, SCIFs located on a controlled US government compound, or equivalent, having immediate response forces may use expanded metal, steel plate, or GSA approved modular vaults in lieu of vault construction.

3.1.3 Continuous Operation

3.1.3.1 INSIDE THE US:

a. The SCIF must meet the construction specifications as identified in Chapter 4 (Permanent Dry Wall Construction). An alert system and duress alarm may be required by the CSA, based on operational and threat conditions.

b. Provisions should be made for storage of SCI in GSA approved containers. If the configuration of the material precludes this, there must be an adequate, tested plan to protect, evacuate, or destroy the material in the event of emergency, civil unrest or natural disaster.

c. There must be a response force capable of responding to an alarm within 5 minutes and a reserve response force available to assist the responding force.

3.1.3.2 OUTSIDE THE US:

a. The SCIF must meet the construction specifications for SCIFs as set forth in Chapter 4 (Expanded Metal). An alert system and duress alarm may be required by the CSA, based on operational and threat conditions. (b) The capability must exist for storage of all SCI in GSA-approved security containers, or the SCIF must have an adequate, tested plan to protect, evacuate, or destroy the material in the event of emergency or natural disaster.

b. SCIFs located within US Government controlled compounds, or equivalent, having immediate response

forces, may use the secure area construction specifications as listed in Chapter 4 (Permanent Dry Wall Construction) with prior approval of the CSA

c. There must be a response force capable of responding to an alarm within 5 minutes, and a reserve response force available to assist the responding force.

3.1.4 Secure Working Areas are accredited facilities used for handling, discussing, and/or processing SCI, but where SCI will not be stored.

3.1.4.1 INSIDE THE U.S.:

a. The Secure Working Area SCIF must meet the specifications set forth in Chapter 4 (Permanent Dry Wall Construction).

b. The Secure Working Area SCIF must be alarmed with a balanced magnetic switch on all perimeter entrance doors.

c. No storage of SCI material is authorized.

d. There must be a response force capable of responding to an alarm within 15 minutes after annunciation, and a reserve response force available to assist the responding force.

3.1.4.2 OUTSIDE THE U.S.:

a. The Secure Working Area SCIF must meet the construction specifications indicated in Chapter 4 (Permanent Dry Wall Construction).

b. The Secure Working Area SCIF must be equipped with an approved alarm system as set forth in Annex B.

c. No storage of SCI material is authorized.

d. There must be a response force capable of responding to an alarm within 10 minutes, and a reserve response force available to assist the responding force.

3.2 Temporary Secure Working Area (TSWA)

3.2.1 A Temporary Secure Working area is defined as a temporarily accredited facility that is used no more than 40 hours monthly for the handling, discussion, and/or processing

of SCI, but where SCI should not be stored. with sufficient justification, the CSA may approve longer periods of usage and storage of SCI for no longer than 6 months.

3.2.2 During the entire period the TSWA is in use, the entrance will be controlled and access limited to persons having clearance for which the area has been approved. Approval for using such areas must be obtained from the CSA setting forth room number(s), building, location, purpose, and specific security measures employed during usage as well as during other periods. TSWAs should be covered by an alarm system. These areas should not be used for periods exceeding an average total of 40 hours per month. No special construction is required other than to meet sound attenuation requirements as set forth in Annex E, when applicable. If such a facility must also be used for the discussion of SCI, a Technical Surveillance Countermeasures (TSCM) evaluation may be required at the discretion of the CSA, as conditions warrant.

3.2.3 When not in use at the SCI level, the TSWA will be:

a. Secured with a keylock or a combination lock approved by the CSA.

b. Access will be limited to personnel possessing a US Secret clearance.

3.2.4 If such a facility is not alarmed or properly protected during periods of non-use, a TSCM inspection may be conducted prior to use for discussion at the SCI level.

3.3 Requirements Common To All SCIFs; Within The US and Overseas

3.3.1 CONSTRUCTION: The SCIF perimeter walls, floors and ceiling, will be permanently constructed and attached to each other. All construction must be done in such a manner as to provide visual evidence of unauthorized penetration.

3.3.2 SOUND ATTENUATION: The SCIF perimeter walls, doors, windows, floors and ceiling, including all openings, shall provide sufficient sound attenuation to preclude inadvertent disclosure of conversation. The requirements for sound attenuation are contained within Annex E.

3.3.3 ENTRANCE, EXIT, AND ACCESS DOORS:

3.3.3.1 Primary entrance doors to SCIFs shall be limited to one. If circumstances require more than one entrance door, this must be approved by the CSA. In some circumstances, an emergency exit door may be required.

In cases where local fire regulations are more stringent, they will be complied with. All perimeter SCIF doors must be closed when not in use, with the exception of emergency circumstances. If a door must be left open for any length of time due to an emergency or other reasons, then it must be controlled in order to prevent unauthorized removal of SCI.

3.3.3.2 All SCIF perimeter doors must be plumbed in their frames and the frame firmly affixed to the surrounding wall. Doorframes must be of sufficient strength to preclude distortion that could cause improper alignment of door alarm sensors, improper door closure or degradation of audio security.

3.3.3.3 All SCIF primary entrance doors must be equipped with an automatic door closer, a GSA-approved combination lock and an access control device with the following requirements:[2]

a. If doors are equipped with hinge pins located on the exterior side of the door where it opens into an uncontrolled area outside the SCIF, the hinges will be treated to prevent removal of the door (e.g., welded, set screws, etc.)

b. If a SCIF entrance door is not used as an access control door and stands open in an uncontrolled area, the combination lock will be protected against unauthorized access/tampering.

3.3.3.4 Control doors: The use of a vault door for controlling daytime access to a facility is not authorized. Such use will eventually weaken the locking mechanism, cause malfunctioning of the emergency escape device, and constitute a security and safety hazard. To preclude this, a second door will be installed and equipped with an automatic door closer and an access control device. (It is preferable that the access door be installed external to the vault door.)

3.3.3.5 SCIF emergency exit doors shall be constructed of material equivalent in strength and density to the main entrance door. The door will be secured with deadlocking panic hardware on the inside and have no exterior hardware. SCIF perimeter emergency exit doors should be equipped with a local enunciator in order to

[2] This requirement does not apply to the GSA approved Class 5, 6 and 8 vault doors.

alert people working in the area that someone exited the facility due to some type of emergency condition.

3.3.3.6 Door Construction Types: Selections of entrance and emergency exit doors shall be consistent with SCIF perimeter wall construction. Specifications of doors, combination locks, access control devices and other related hardware may be obtained from the CSA. Some acceptable types of doors are:

a. Solid wood core door, minimum of 1¾ inches thick.

b. Sixteen gauge metal cladding over wood or composition materials, a minimum of 1¾ inches thick. The metal cladding shall be continuous and cover the entire front and back surface of the door.

c. Metal fire or acoustical protection doors, a minimum of 1¾ inches thick. A foreign manufactured equivalent may be used if approved by the CSA.

d. A joined metal rolling door, minimum of 22 gauge, used as a loading dock or garage structure must be approved on a case-by-case basis.

3.3.4 PHYSICAL PROTECTION OF VENTS, DUCTS, AND PIPES:

3.3.4.1 All vents, ducts, and similar openings in excess of 96 square inches that enter or pass through a SCIF must be protected with either bars, or grills, or commercial metal duct sound baffles that meet appropriate sound attenuation class as specified in Annex E. Within the United States, bars or grills are not required if an IDS is used. If one dimension of the duct measures less than six inches, or duct is less than 96 square inches, bars are not required; however, all ducts must be treated to provide sufficient sound attenuation. If bars are used, they must be ½ inch diameter steel welded vertically and horizontally six (6) inches on center; if grills are used, they must be of 9-gauge expanded steel; if commercial sound baffles are used, the baffles or wave forms must be metal permanently installed and no farther apart than six (6) inches in one dimension. A deviation of l/2 inch in vertical and/or horizontal spacing is permissible.

3.3.4.2 Based on the TEMPEST accreditation, it may be required that all vents, ducts, and pipes must have a non-conductive section (a piece of dissimilar material e.g., canvas, rubber) which is unable to carry electric current, installed at the interior perimeter of the SCIF.

3.3.4.3 An access port to allow visual inspection of the protection in the vent or duct should be installed inside the secure perimeter of the SCIF. If the inspection port must be installed outside the perimeter of the SCIF, it must be locked.

3.3.5 WINDOWS:

3.3.5.1 All windows that might reasonably afford visual surveillance of personnel, documents, materials, or activities within the facility, shall be made opaque or equipped with blinds, drapes or other coverings to preclude such visual surveillance.

3.3.5.2 Windows at ground level[3] will be constructed from or covered with materials that will provide protection from forced entry. The protection provided to the windows need be no stronger than the strength of the contiguous walls. SCIFs located within fenced and guarded government compounds or equivalent may eliminate this requirement if the windows are made inoperable by either permanently sealing them or equipping them on the inside with a locking mechanism.

3.3.5.3 All perimeter windows at ground level shall be covered by an IDS.

4. CONSTRUCTION SPECIFICATIONS

4.1 Vault Construction Criteria

4.1.1 Reinforced Concrete Construction: Walls, floor, and ceiling will be a minimum thickness of eight inches of reinforced concrete. The concrete mixture will have a comprehensive strength rating of at least 2,500 psi. Reinforcing will be accomplished with steel reinforcing rods, a minimum of 5/8 inches in diameter, positioned centralized in the concrete pour and spaced horizontally and vertically six inches on center; rods will be tied or welded at the intersections. The reinforcing is to be anchored into the ceiling and floor to a minimum depth of one-half the thickness of the adjoining member.

[3] This should be interpreted to mean any windows that are less than 18 feet above the ground measured from the bottom of the window, or are easily accessible by means of objects directly beneath the windows, (e.g., electrical transformer, air conditioning units, vegetation or landscaping which can easily be climbed, etc.).

4.1.2 GSA-approved modular vaults meeting Federal Specification FF-V-2737, may be used in lieu of a 4.1.1 above.

4.1.3 Steel-lined Construction: Where unique structural circumstances do not permit construction of a concrete vault, construction will be of steel alloy-type of ¼ inch thickness, having characteristics of high yield and tensile strength. The metal plates are to be continuously welded to load-bearing steel members of a thickness equal to that of the plates. If the load-bearing steel members are being placed in a continuous floor and ceiling of reinforced concrete, they must be firmly affixed to a depth of one-half the thickness of the floor and ceiling.

If the floor and/or ceiling construction is less than six inches of reinforced concrete, a steel liner is to be constructed the same as the walls to form the floor and ceiling of the vault. Seams where the steel plates meet horizontally and vertically are to be continuously welded together.

4.1.4 All vaults shall be equipped with a GSA-approved Class 5 or Class 8 vault door. Within the US, a Class 6 vault door is acceptable. Normally within the United States a vault will have only one door that serves as both entrance and exit from the SCIF in order to reduce costs.

4.2 SCIF Criteria For Permanent Dry Wall Construction

Walls, floor and ceiling will be permanently constructed and attached to each other. To provide visual evidence of attempted entry, all construction, to include above the false ceiling and below a raised floor, must be done in such a manner as to provide visual evidence of unauthorized Penetration.

4.3 SCIF Construction Criteria For Steel Plate

Walls, ceiling and floors are to be reinforced on the inside with steel plate not less than 1/8" thick. The plates at all vertical joints are to be affixed to vertical steel members of a thickness not less than that of the plates. The vertical plates will be spot welded to the vertical members by applying a one-inch long weld every 12 inches; meeting of the plates in the horizontal plane will be continuously welded. Floor and ceiling reinforcements must be securely affixed to the walls with steel angles welded or bolted in place.

4.4 SCIF Construction Criteria For Expanded Metal

Walls are to be reinforced, slab-to-slab, with 9-gauge expanded metal. The expanded metal will be spot welded every 6 inches to vertical and horizontal metal supports of 16-gauge or greater thickness that has been solidly and permanently attached to the true floor and true ceiling.

4.5 General

The use of materials having thickness or diameters larger than those specified above is permissible. The terms "anchored to and/or embedded into the floor and ceiling" may apply to the affixing of supporting members and reinforcing to true slab or the most solid surfaces; however, sub-floors and false ceiling are not to be used for this purpose.

5. GLOSSARY

Access Control System: A system to identify and/or admit personnel with properly authorized access to a SCIF using physical, electronic, and/or human controls.

Accreditation: The formal approval of a specific place, referred to as a Sensitive Compartmented Information Facility (SCIF), that meets prescribed physical, technical, and personnel security standards.

Acoustic Security: Those security measures designed and used to deny aural access to classified information.

Astragal Strip: A narrow strip of material applied over the gap between a pair of doors for protection from unauthorized entry and sound attenuation.

Authorized Personnel: A person who is fully cleared and indoctrinated for SCI, has a valid need to know, and has been granted access to the SCIF.

Balanced Magnetic Switch (BMS): A type of IDS sensor which may be installed on any rigid, operable opening (i.e., doors, windows) through which access may be gained to the SCIF.

Break-Wire Detector: An IDS sensor used with screens and grids, open wiring, and grooved stripping in various arrays and configurations necessary to detect surreptitious and forcible penetrations of movable openings, floors, walls, ceilings, and skylights. An alarm is activated when the wire is broken.

Closed Storage: The storage of SCI material in properly secured GSA approved security containers within an accredited SCIF.

Computerized Telephone System (CTS): Also referred to as a hybrid key system, business communication system, or office communications system.

Cognizant Security Authority (CSA): The single principal designated by a SOIC (see definition of SOIC) to serve as the responsible official for all aspects of security program management with respect to the protection of intelligence sources and methods, under SOIC responsibility.

Continuous Operation: This condition exists when a SCIF is staffed 24 hours every day.

Controlled Area/Compound: Any area to which entry is subject to restrictions or control for security reasons.

Controlled Building: A building to which entry is subject to restrictions or control for security reasons.

Co-Utilization: Two or more organizations sharing the same SCIF

Dead Bolt: A lock bolt with no spring action. Activated by a key or turn knob and cannot be moved by end pressure.

Deadlocking Panic Hardware: A panic hardware with a deadlocking latch that has a device when in the closed position resists the latch from being retracted.

Decibel (db): A unit of sound measurement.

Document: Any recorded information regardless of its physical form or characteristics, including, without limitation, written or printed matter, data processing cards and tapes, maps, charts, paintings, drawings, photos, engravings, sketches, working notes and papers, reproductions of such things by any means or process, and sound, voice, magnetic or electronic recordings in any form.

Dual Technology: PIR, microwave or ultrasonic IDS sensors that combine the features of more than one volumetric technology.

Expanded Steel: Also called EXPANDED METAL MESH. A lace work patterned material produced from sheet steel by making regular uniform cuts and then pulling it apart with uniform pressure.

Guard: A properly trained and equipped individual whose duties include the protection of a SCIF. Guards whose duties require

direct access to a SCIF, or patrol within a SCIF, must meet the clearance criteria in Director of Central Intelligence Directive 6/4. CSA will determine if indoctrination is required.

Intelligence Community (and agencies within the Community): Refers to the United States Government agencies and organizations identified in section 3.4(f) (1 through 7) of Executive Order 12333.

Intrusion Detection System: A security alarm system to detect unauthorized entry.

Isolator: A device or an assembly of devices that isolates or disconnects a telephone or Computerized Telephone System (CTS) from all wires which exit the SCIF and which as been accepted as effective for security purposes by the Telephone Security Group (TSG approved).

Key Service Unit (KSU): An electromechanical switching device which controls routing and operation of an analog telephone system.

Line Supervision:

Class I: Class I line security is achieved through the use of DES or an algorithm based on the cipher feedback or cipher block chaining mode of encryption. Certification by NIST or another independent testing laboratory is required.

Class II: Class II line supervision refers to systems in which the transmission is based on pseudo random generated or digital encoding using an interrogation and response scheme throughout the entire communication, or UL Class AA line supervision. The signal shall not repeat itself within a minimum six-month period. Class II security shall be impervious to compromise using resistance, voltage, current, or signal substitution techniques.

Motion Detection Sensor: An alarm sensor that detects movement.

Non-Conductive Section: Material (i.e., canvas, rubber, etc.) which is installed in ducts, vents, or pipes, and is unable to carry audio or RF emanations.

Non-Discussion Area: A clearly defined area within a SCIF where classified discussions are not authorized due to inadequate sound attenuation.

Open Storage: The storage of SCI material within a SCIF in any configuration other than within GSA approved security containers.

Response Force: Personnel (not including those on fixed security posts) appropriately equipped and trained, whose duties include initial or follow up response to situations that threaten the security of the SCIF. This includes local law enforcement support or other external forces as noted in agreements.

Secure Working Area: An accredited SCIF used for handling, discussing and/or processing of SCI, but where SCI will not be stored.

Senior Official of the Intelligence Community (SOIC): The head of an agency, of fine, bureau, or intelligence element identified in section 3.4(f) (1 through 6) of Executive Order 12333.

Sensitive Compartmented Information (SCI): SCI is classified information concerning or derived from intelligence sources, methods or analytical processes, which is required to be handled exclusively within formal control systems established by the Director of Central Intelligence.

Sensitive Compartmented Information Facility (SCIF): An accredited area, room, group of rooms, building, or installation where SCI may be stored, used, discussed and/or electronically processed.

Sound Group: Voice transmission attenuation groups established to satisfy acoustical requirements. Ratings measured in sound transmission class may be found in the Architectural Graphic Standards.

Sound Transmission Class (STC): The rating used in architectural considerations of sound transmission loss such as those involving walls, ceilings, and/or floors.

Special Access Program (SAP): Any approved program which imposes need-to-know or access controls beyond those normally required for access to CONFIDENTIAL, SECRET, or TOP SECRET information.

Surreptitious Entry: Unauthorized entry in a manner which leaves no readily discernible evidence.

Tactical SCIF: An accredited area used for actual or simulated war operations for a specified period of time.

Technical Surveillance Countermeasures (TSCM) Surveys and Evaluations: A physical, electronic, and visual examination to

detect technical surveillance devices, technical security hazards, and attempts at clandestine penetration.

Type Accepted Telephone: Any telephone whose design and construction conforms with the design standards for Telephone Security Group approved telephone sets. (TSG Standard #3, #4, or #5).

Vault: A room(s) used for the storing, handling, discussing, and/or processing of SCI and constructed to afford maximum protection against unauthorized entry.

Waiver: An exemption from a specific requirement of this document.

DCID 6/9 -- Manual

ANNEX A - SCIF Accreditation Checklist

(Effective 27 May 1994)

FIXED FACILITY CHECKLIST

DATE _____

Table of Contents

Section A--General Information
Section B--Peripheral Security
Section C--SCIF Security
Section D--Doors
Section E--Intrusion Detection Systems
Section F--Telephone System
Section G--Acoustical Protection
Section H--Administrative Security
Attachments

[ ] PRECONSTRUCTION [ ] NEW [ ] MODIFIED FACILITY

Section A -- General Information

1. SCIF Data: Organization/Company Name: _____
   SCIF Identification Number (if applicable): _____
   Organization subordinate to (If applicable): _____
   Contract Number & Expiration Date: _____
   CSA: _____
   Project Headquarter Security Office (if applicable): _____
2. SCIF Location: _____
   Street Address: _____
   _____
   Bldg Name/#: _____ Floor: _____
   Room(s) No: _____
   City: _____ State/Country: _____
   ZIP Code: _____

3. Responsible Security Personnel:

Primary: _____ Alternate: _____
Commercial Telephone: _____
DSN Telephone: _____
Secure Telephone: Type: _____
Home Telephone: _____
Fax No: (specify both classified and unclassified)
Classified: _____ Unclassified: _____
Other: _____

4. Accreditation Data:

Category of SCI Requested: _____
Indicate the storage required:
_____ Open Storage _____ Closed Storage ____ Continuous Operation
_____ Secure Working Area _____ Temporary Secure Working Area
Existing Accreditation Information (If applicable):
(1) Category of SCI: _____
(2) Accreditation granted by: _____
on _____
Last TEMPEST Accreditation (if applicable): Accreditation granted by: _____ on _____
If Automated Information Systems (AISs) are used, has an accreditation been granted? _____ YES _____ NO
Accreditation granted by: _____ on _____
SAP co-located within SCIF? _____ YES _____ NO
(If Yes, Classification: _____, and provide copy of Co-utilization Agreement for SAP operation in SCIF.)
Duty Hours: _____ hours to hours, _____ days per week.
Total square feet SCIF occupies: _____

5. Construction/modification: Is construction or modification complete?
_____ YES _____ NO _____ N/A (If NO, expected date of completion)
_____

6. Inspections:

TSCM Service completed by _____ on _____ (Attach copy of report)
Were deficiencies corrected? _____ YES _____ NO _____ N/A
(If NO, explain:) _____
Last Physical Security Inspection by_____ on _____(Attach copy of report)
Were deficiencies corrected? _____ YES _____ NO _____ N/A
(If NO ,explain:) _____
Last Security Assistance visit by_____ on _____

7. REMARKS: _____

Section B -- Peripheral Security

8. Describe building exterior security:

   Fence: _____
   Fence Alarm: _____
   Fence lighting: _____
   Television (CCTV): _____
   Guards: _____
   Other: _____

9. Building:

   Construction type: _____
   Describe Access Controls: _____
   (1) Continuous: _____ YES _____ NO
   (2) If NO, during what hours? _____

10. Remarks: _____
    _____
    _____

Section C -- SCIF Security

11. How is access to the SCIF controlled?

    By Guard Force: ____ YES ____ NO Security Clearance Level: _____
    By Assigned Personnel: _____ YES _____ NO
    By Access Control Device: _____ YES _____ NO
    If yes, Manufacturer _____ Model No _____

12. Does the SCIF have windows? _____ YES _____ NO
    How are they acoustically protected (If applicable) _____
    _____
    How are they secured against opening? _____
    _____
    How are they protected against visual surveillance? (If applicable) _____
    _____

13. Do ventilation ducts penetrate the SCIF perimeter?_____ YES _____ NO
    Number and size (Indicate on floor plan): _____
    _____
    If over 96 square inches, type of protection used:
    IDS: _____ YES _____ NO (Describe in Section E)
    Bars/Grills Metal Baffles: _____ YES _____ NO
    _____OTHER - Explain: _____
    Metal Duct Sound Baffles: Are ducts equipped with:
    Metal Baffles: _____ YES _____ NO
    Noise Generator: _____ YES _____ NO
    Non-Conductive Joints: _____ YES _____ NO
    Inspection Ports: _____ YES _____ NO
    If YES, are they within the SCIF?_____ YES ____ NO
    If they are located outside of the SCIF, how are they secured?
    _____
    If TEMPEST accreditation authority requires; are pipes, conduits, etc., penetrating the SCIF equipped with non-conductive unions at the point they breach the SCIF perimeter? _____ YES _____ NO
    Are they provided acoustical protection? (if applicable) ____ YES _____ NO

14. Construction:
    Perimeter walls:

    Material & Thickness: _____
    Do the walls extend from the true floor to the true ceiling?
    _____ YES _____ NO
    True ceiling (material and thickness): _____
    False ceiling? _____ YES _____ NO If yes:
    Type of ceiling material:
    Distance between false and true ceiling:
    True floor (material and thickness): _____
    False Floor? _____ YES _____ NO If yes:
    Distance between false and true floor:_____

15. Remarks: _____
    _____
    _____

Section D -- Doors

16. Describe SCIF Primary Entrance Door (Indicate on floor plan): _____
_____
_____
Is an automatic door closer installed? _____ YES _____ NO
If NO, explain: _____

17. Describe number and type of doors used for SCIF emergency exits and other perimeter doors (Indicate on floor plan): _____
_____
Is an automatic door closer installed? _____ YES _____ NO
If NO, explain: _____
_____

18. Describe how the door hinges exterior to the SCIF are secured against removal (if in an uncontrolled area):_____
_____
_____

19. Locking devices:
Perimeter SCIF Entrance Door:

List manufacturer, model number and Group rating: _____
_____
Does entrance door stand open into an uncontrolled area?
_____ YES _____ NO If YES, describe tamper protection: _____
_____
Emergency Exits and Other Perimeter Doors:
Describe (locks, metal strip/bar, deadbolts, panic hardware): _____
_____
_____
Where are the door lock combinations filed? _____
_____

20. Remarks: _____
_____
_____

Section E -- Intrusion Detection Systems

Give manufacturer and model numbers in response to following questions:

21. Method of Interior Motion Detection Protection:

    Accessible Perimeter? _____
    Storage Areas? _____
    Motion Detection Sensors (Indicate on floor Plan): _____
    Tamper protection: _____ YES _____ NO
    Other (e.g. CCTV, etc.): _____

22. Door and Window Protection (Indicate on floor plan):

    Balanced Magnetic Switch (BMS) on door?: _____
    Tamper protection: _____ YES _____ NO
    If SCIF has ground floor windows, how are they protected? _____
    Other (e.g. CCTV, etc..) _____

23. Method of ventilation and duet work protection: _____
    _____

24. Space above false ceiling (only outside the United States, if required):

    Motion Detection Sensors: _____
    Tamper protection: _____ YES _____ NO
    Other (e.g. CCTV): _____

25. Space below false floor only outside the United States, if required):

    Motion Detection Sensors: _____
    Tamper protection: _____ YES _____ NO
    Other (e.g. CCTV): _____

26. IDS transmission line security protection:

    Electronic line supervision (Manufacture and Model): _____
    _____
    If electronic line supervision. class of service: _____ I _____ II
    Other: _____

27. Is emergency power available for the IDS? _____ YES _____ NO
    TYPE: _____ Battery _____ Emergency Generator _____ Other

28. Where is the IDS control unit for the SCIF located (Indicated on floor plan)?
    _____

29. Where is the IDS Alarm enunciator panel located (Indicate on floor plan, Address)?
    _____
    _____
    _____

30. IDS Response Personnel: Describe: _____
_____
_____
Response Force Security Cleared: _____ YES _____ NO
Level: _____
Emergency Procedures documented? _____ YES _____ NO
Reserve Force available? _____ YES _____ NO
Response time required for alarm condition: _____ minutes.
Are response procedures tested and records maintained?
_____ YES _____ NO
If no, explain: _____

31. Is the IDS tested and records maintained? _____ YES _____ NO
If no, explain: _____

32. Remarks: _____
_____
_____

Section F -- Telephone System

33. Method of on-hook security provided:

TSG-2 Computerized Telephone System (CTS)? _____ YES _____ NO
Manufacturer/Model: _____
Location of the CTS: _____
Do the CTS installers and programmer have security clearances? _____
If yes, at what access level (minimum established by CSA): _____
_____
If no, are escorts provided? _____
_____
Is the CTS installed as per TSG-2 Configuration Requirements? ___YES___NO
If no, provide make and model number of telephone equipment, explain your configuration, and attach a line drawing? _____
Is access to the facility housing the switch controlled? ___YES___NO
Are all lines between the SCIF and the switch in controlled spaces?
____YES____ NO
Does the CTS use remote maintenance and diagnostic procedures or other remote access features? ____YES____ NO
If yes, explain those procedures:_____
_____
TSG-6 approved telephones?
Manufacturer/Model: _____
TSG number: _____
Ringer Protection (if required): _____
TSG-6 approved disconnect devices?
Manufacturer/Model: _____
TSG number: _____

34. Methods of off-hook security provided:

Is there a hold or mute feature? ____ YES____ NO
If yes, which feature_____, and is it provided by the: _____ CTS?
or _____ Telephone?
If no, are approved push-to-operated handsets provided?
____YES ____ NO
Describe: _____

35. Automatic telephone call answering:

Is there an automatic call answering service for the telephones in the SCIF?
____YES____NO
If yes, provide make and model number of the equipment, explain the configuration, and provide a line drawing. _____

Section G -- Acoustical Protection

40. Do all areas of the SCIF meet acoustical requirements? ____ YES ____ NO
    If no, describe additional measures taken to provide minimum acoustical protection e.g. door, windows, etc)
    _____

41. Is the SCIF equipped with a public address, emergency/fire announcement or music system? _____ YES _____ NO
    If yes, describe and explain how protected? _____
    _____

42. If any intercommunication system that is not part of the telephone system is used, describe and explain how protected: _____
    _____

43. Remarks: _____
    _____
    _____

Section H -- Administrative Security

45. Destruction Methods:

    Describe method used for destruction of classified/sensitive material:
    Manufacturer: _____ Model: _____
    Manufacturer: _____ Model: _____
    Describe location of destruction site(s) in relation to the secure facility:
    _____
    Have provisions been made for the emergency destruction of classified/ sensitive program material? (If required):____ YES____ NO
    If YES, has the emergency destruction equipment and plan been coordinated with the CSA? ____ YES____ NO

46. If reproduction of classified/sensitive material takes place outside the SCIF, describe equipment and security procedures used to reproduce documents: _____
    _____

47. Remarks: _____
    _____
    _____

DCID 6/9 -- Manual

ANNEX B - Intrusion Detection Systems (IDS)[4]

(Effective 18 November 2002)

This annex sets forth the requirements and establishes the Standard for Intrusion Detection Systems (IDS) and associated operations for Government and Government-Sponsored Sensitive Compartmented Information Facilities (SCIFs). Compliance with these requirements is mandatory for all SCIFs established after the effective date of this annex.

1.0 IDS Overview

The IDS shall detect attempted or actual unauthorized human entry into a SCIF. The IDS complements other physical security measures. The IDS shall consist of three distinct components: Intrusion Detection Equipment (IDE), Security and Response-Force Personnel, and Security Operation Procedures. IDS operations shall comprise four phases as described below:

1.1 Detection Phase. The detection phase begins when a sensor reacts to the stimuli for which the sensor was designed to detect.

1.2 Reporting Phase. The Premise Control Unit (PCU) receives signals from all associated sensors in the SCIF's alarmed zone and establishes the alarm status. The alarm status is immediately transmitted to the Monitoring Station. Within the Monitoring Station, a dedicated Alarm-Monitoring panel (or central processor) monitors incoming PCU signals. On receiving an alarm signal, a Monitoring Station's enunciator generates an audible and visible alarm for the monitoring personnel.

1.3 Assessment Phase. The assessment phase is the initial phase requiring human interaction. On receiving an audible or visible alarm, monitoring personnel immediately assess the situation and determine the appropriate response.

1.4 Response Phase. The response phase begins immediately after the operator has assessed the alarm condition. All alarms shall be immediately investigated. During the response phase, the precise nature of the alarm shall be determined and appropriate measures taken to safeguard the SCIF.

[4] Supersedes Annex B dated 27 May 1994.

2.0 Definitions

2.1 Alarm. An alarm is a visual and audible indication that a sensor has detected the entry or attempted entry of an unauthorized person into a SCIF. Alarms also signify the malfunction of a sensor that normally causes such an alarm.

2.2 Alarm Zone. An alarm zone is a segregated or specified area under the control of a single Premise Control Unit (PCU).

2.3 Intrusion Detection Equipment (IDE). IDE is all the equipment, associated software/firmware, and communication lines included within the IDS.

2.4 Monitoring Station. The monitoring station is the central point for collecting alarm status from the PCUs handling the alarm zones under control of an IDS.

2.5 Premise Control Unit (PCU). A PCU is a device that receives changes of alarm status from IDS sensors, and transmits an alarm condition to the monitoring station.

2.6 Security in-depth. A determination by the Cognizant Security Authority (CSA) that a facility's security programs consist of layered and complementary controls sufficient to deter and detect unauthorized entry and movement within the areas adjacent to the SCIF.

2.7 Sensor. Sensors are devices that respond to a physical stimulus (as heat, light, sound, pressure, magnetism, or a particular motion) and transmit a resulting impulse.

2.8 United States. As used herein, the United States includes the 48 contiguous states, Alaska, Hawaii, as well as, protectorates, territories, and possessions under control of the United States (for example, Puerto Rico, Guam, Wake, Midway, American Samoa, US Virgin Islands, others). This definition does not include US-controlled installations (for example, military bases, embassies, leased space) located in foreign countries.

3.0 IDS Requirements

This section specifies the requirements for Intrusion Detection Systems (IDS) and associated operations for government and government-sponsored SCIFs and other associated areas.

3.1 General IDS Requirements. The following general requirements apply to all SCIFs and shall be met as a

prerequisite for using a SCIF for government-classified operations.

3.1.1 SCIF Protection. All areas of a SCIF that reasonably afford access to the SCIF, or where SCI is stored, shall be protected by an IDS, unless continuously occupied. If the occupants of a continuously occupied SCIF cannot observe all potential entrances to the SCIF, the SCIF shall be equipped with a system to alert occupants of intrusions into the SCIF. This alerting system shall consist of Balance Magnetic Switches (BMS) (see paragraph 3.2.1.4) or other appropriate sensors. IDE and cabling associated with the alerting system shall not extend beyond the perimeter of the SCIF. Emergency exit doors shall be monitored 24 hours a day to provide quick identification and response to the appropriate door when there is an alarm indication (see paragraph 6.1.3).

3.1.2 Independent IDE and IDS. SCIFs shall be provided with IDE and alarm zones that are independent from systems safeguarding other protected sites. If a single monitoring station supervises several alarm zones, then the audible and visible annunciation for each such zone shall be distinguishable from other zones. The IDS's PCU, associated sensors, and cabling protecting the SCIF, shall be separate from and independent of fire, smoke, radon, water, and other such systems. (Note: If an access control system is integrated into an IDS, reports from the access control system shall be subordinate in priority to reports from intrusion alarms.)

3.1.3 Security During Catastrophic Failure of IDS. If any of the components of an IDS encounters a catastrophic failure to the extent that the IDS can no longer provide essential security services, then SCIF indoctrinated personnel shall provide security by physically occupying the SCIF until the IDS returns to normal operation. As an alternative, the outside SCIF perimeter shall be continuously protected by the response force or a guard force until the IDS returns to normal operation. If neither of these alternatives is possible, a catastrophic failure plan shall be submitted in writing to the CSA for review and approval prior to implementation. (See paragraph 6.1.2.) Examples of catastrophic failure are: loss of line security/communication, loss of alarm services, inoperability of IDS, loss of both primary and emergency power, or other such failure.

3.1.4 Safeguarding IDE, IDS Plans, Key Variable(s), and Passwords. System administration key variables and operational passwords shall be protected and shall be

restricted to SCI-indoctrinated personnel. In areas outside of the United States, procured IDE shall remain solely under US control, or as otherwise authorized by the CSA in writing. Details of the IDS installation plans shall be controlled and restricted on a need-to-know basis.

3.1.5 IDE Acceptability. All IDE must comply with UL-2050 or equivalent as approved by the CSA in writing. Prior acceptance by the CSA does not constitute approval for use within another SCIF. Contractors shall comply with UL 2050 by maintaining an active UL certificate of installation and service. With sufficient justification, the CSA may issue written waivers to UL 2050. Any IDE that could allow unintentional audio or other intelligence-bearing signals in any form to pass beyond the confines of the SCIF is unacceptable and prohibited for IDS installation. IDE shall not include audio or video monitoring without appropriate countermeasures and CSA approval. IDS comprised of IDE with auto-reset features shall have the auto-reset capability disabled as required in paragraph 3.2.7.

3.1.6 IDS Approval. The CSA shall approve IDS proposals and plans prior to installation within a SCIF as part of the initial SCIF construction approval process. Final IDS acceptance tests as described herein and as prescribed in applicable manufacturer’s literature shall be included as part of the SCIF accreditation package. Accreditation files for the SCIF shall be maintained as described in paragraph 6.3. The CSA shall approve the IDS prior to use for government or government-sponsored SCIFs.

3.2 Detailed IDS Requirements. The following detailed requirements apply to all SCIF IDSs.

3.2.1 Sensors. All sensors protecting a SCIF shall be located within that SCIF. Any failed IDE sensor shall cause an immediate and continuous alarm condition until the failure is corrected or compensated.

3.2.1.1 Motion Detection Sensors. All areas of a SCIF that reasonably afford access to the SCIF, or where SCI is stored, and that are not accredited for continuous operation shall be protected with UL-listed, equivalent or CSA approved motion detectors (see paragraph 3.1.1). Sufficient detectors shall be installed to assure meeting the requirements of paragraph 4.2.1. Within the US motion detection sensors are normally not required above false ceilings or below false floors; however, these detectors may be required by the CSA for such areas outside of the US.

3.2.1.2 Entrance Door Delay. Entrance door sensors may have an initial time delay built into the IDS to allow for change in alarm status, but shall not exceed 30 seconds.

3.2.1.3 SCIF Perimeter Sensors. With CSA approval, sensors supporting the external SCIF perimeter and perimeter equipment (if used) may be connected to the SCIF IDS provided the lines are installed on a separate zone and routed within grounded conduit.

3.2.1.4 Perimeter Door Sensor. Each SCIF perimeter door shall be protected by a Balanced Magnetic Switch (BMS) installed in accordance with section 4.1.2.

3.2.1.5 Emergency Exit-Door Detectors. The BMS installed on emergency exit doors shall be monitored 24 hours a day.

3.2.1.6 Dual-Technology Sensors. The use of dual-technology sensors is authorized when each technology transmits alarm conditions independent from the other technology.

3.2.2 Premise Control Units and Access Control Switches. PCUs shall be located within the SCIF to assure that only SCIF personnel can initiate a change between *access* and *secure* mode. The means of changing between access and secure modes shall be located within the SCIF. Operation of the access/secure switch shall be restricted by using a device or procedure that verifies authorized PCU use. Any polling from the monitoring station to the PCU shall not exceed six minutes regardless of access state.

3.2.3 Communications between Sensors and the PCU. Cabling between the sensors and the PCUs shall be dedicated to the IDE and contained within the SCIF. Alternately, if the wiring cannot be contained within the SCIF, such cabling shall meet the transmission requirements of paragraph 3.2.8. All IDE cabling internal to the SCIF shall comply with national and local code standards. If applicable, the cabling shall be installed in accordance with TEMPEST and COMSEC requirements. Outside of the United States, if determined by the CSA, wiring will be protected within a closed conveyance. The use of wireless communications between sensors and PCU is normally prohibited. However, under exceptional circumstances, when such cabling is not possible or feasible, the wireless communications maintain continuous connection and are impervious to jamming,

manipulation, and spoofing and meets other security requirements of this annex, the CSA may authorize in writing the use of wireless communications between sensors and the PCU. Co-utilizing agencies shall be notified of any such exception.

3.2.4 Monitor Station and Panel. Alarm status shall be provided at the monitoring station. The alarm-monitoring panel shall be designed and installed in a location that prevents observation by unauthorized persons. If an Access Control System (ACS) is integrated with an IDS, reports from the ACS shall be subordinate in priority to reports from intrusion alarms (see paragraph 3.1.2).

3.2.5 Alarms. Alarm annunciations shall exist for the below listed alarm conditions. A false/nuisance alarm is any alarm signal transmitted in the absence of a detected intrusion such as alarms caused by changes in the environment, equipment malfunction, operator failure, animals, electrical disturbances, or other such causes. False/nuisance alarms shall not exceed one alarm per 30-day period per zone (see paragraph 5.3.3).

3.2.5.1. Intrusion Alarm. An intrusion or attempted intrusion shall cause an immediate and continuous alarm condition.

3.2.5.2 Failed-Sensor Alarm. A failed IDE sensor shall cause an immediate and continuous alarm condition.

3.2.5.3 Maintenance Alarm. The IDS, when in the maintenance mode, shall cause an immediate and continuous alarm (or maintenance message) throughout the period the IDS is in the maintenance mode. Zones that are shunted or masked shall also cause such an alarm. (See paragraph 3.2.10.3 for additional requirements.)

3.2.5.4 Tamper Alarm. The IDS, when sustaining tampering, shall cause an immediate and continuous alarm. (See paragraph 3.2.12 for additional requirements.)

3.2.5.5 Failed/Changed Electrical Power Alarm. Equipment at the monitoring station shall visibly and audibly indicate a failure in a power source, a change in power source, and the location of the failure or change. (See paragraph 3.2.11.2 for additional requirements.)

3.2.6 IDS Event (Alarm) Log. The IDS shall incorporate within the SCIF and at the monitoring station, a means for providing a historical record (items specified in paragraph

6.2.2) of all events through an automatic logging system. If the IDS has no provision of automatic entry into archive, as an alternative, a manual logging system shall be maintained in accordance with paragraph 6.2.2.

3.2.7 Alarm Reset. All alarm activations shall be reset by SCI-indoctrinated personnel. An IDS with an auto-reset feature shall have the auto-reset feature disabled.

3.2.8 External Transmission Line Security. When any IDS transmission line leaves a SCIF, line security shall be employed. The UL 2050 certificate shall state that line security has been employed. The following types of line security are acceptable:

3.2.8.1 Encrypted Lines. Encrypted-line security is achieved by using an approved 128-bit (or greater) encryption algorithm. The algorithm shall be certified by NIST or another independent testing laboratory.

3.2.8.2 Alternative Lines. If the communication technology described in 3.2.8.1 is not available, the SCIF owner and the CSA shall coordinate an optional supervised communication scheme. The communication scheme shall be adequately supervised to protect against modification and substitution of the transmitted signal.

3.2.9. Networked IDSs. In those cases in which an IDS has been integrated into a LAN or WAN, the following requirements shall be met. (See paragraphs 5.3.5 and 5.5.3.)

3.2.9.1 Dedicated IDS (Host) Computer. The IDS application software shall be installed and run on a host computer dedicated to security systems. The host computer shall be located in an alarmed area controlled at the SECRET or higher level.

3.2.9.2 IDS Host Computer Communications. All host computer communications to the LAN/WAN shall be protected though firewalls, or similar enhancements, that are configured to only allow data transfers between IDS components.

3.2.9.3 User IDs and Passwords. A unique user ID and password is required for each individual granted access to the IDS host computer. Passwords shall be a minimum of eight characters; consist of alpha, numeric, and special characters; and shall be changed a minimum of every six months.

3.2.9.4 Computer Auditing and Network Intrusion Detection. Computer auditing and network intrusion detection software (NIDS) shall monitor and log access attempts and all changes to IDS applications. Additionally, NIDS and IDS administrators shall be immediately notified of unauthorized modifications. The NIDS administrator shall possess a minimum of a TOP SECRET clearance and IDS system administrator shall be SCI-indoctrinated.

3.2.9.5 LAN/WAN Transmissions. All transmissions of IDS information over the LAN/WAN shall be encrypted using a NIST-approved algorithm with a minimum of 128-bit encryption.

3.2.9.6 Remote Terminals. Remote networked IDS terminals shall meet the following requirements: (a) Remote terminals shall be protected within a SCIF. (b) SCI-indoctrinated personnel shall ensure that personnel with access to the remote terminal are not able to modify Intrusion Detection System/Access Control System (IDS/ACS) information for areas for which they do not have access. (c) Each remote terminal shall require an independent user ID and password in addition to the host login requirements. (d) Network intrusion detection and auditing software shall log and monitor failed logins and IDS/ACS application program modifications.

3.2.10 IDS Modes of Operation. The IDS shall have three modes of operation: access mode, secure mode, and maintenance mode as described below. A fourth mode “Remote Service Mode” shall not exist unless the requirements of 3.2.10.4 are met. There shall be no capability for changing the mode of operation or access status of the IDS from a location outside the SCIF unless SCIF personnel conduct a daily audit of all openings and closings. Changing Access/Secure status of a SCIF shall be limited to SCI indoctrinated personnel. IDS modes shall meet the following requirements.

3.2.10.1 Access Mode. During access mode, normal authorized entry into the facility in accordance with prescribed security procedures shall not cause an alarm. Tamper and emergency exit door circuits shall remain in the secure mode of operation.

3.2.10.2 Secure Mode. In the secure mode, any unauthorized entry into the SCIF shall cause an alarm to be immediately transmitted to the monitoring station.

3.2.10.3 Maintenance Mode and Zone Shunting/Masking. When an alarm zone is placed in the maintenance mode, a signal for this condition shall be automatically sent to the monitoring station. This signal shall appear as an alarm (or maintenance message) at the monitoring station and shall continue to be displayed visibly at the monitoring station throughout the period of maintenance. The IDS shall not be securable while in the maintenance mode. All maintenance periods shall be archived in the system. The CSA may require that a maintenance Personal Identification Number (PIN) be established and controlled by SCI personnel. Additionally, a shunted or masked zone or sensor shall be displayed as such at the monitoring station throughout the period the condition exists. (See paragraph 6.2.3 for logging requirements.)

3.2.10.4 Remote Service Mode. After the initial installation, the capability for remote diagnostics, maintenance, or programming of IDE shall not exist unless accomplished only by appropriately SCI-indoctrinated personnel and shall be appropriately logged or recorded in the Remote Service Mode Archive. A self-test feature shall be limited to one second per occurrence. (See paragraph 5.5.4.)

3.2.11 Electrical Power. Primary electrical power for all IDE shall be commercially supplied in alternating current (AC) or direct current (DC) form. In the event such commercial power fails, the IDE shall automatically transfer to an emergency electrical power source without causing an alarm indication.

3.2.11.1 Emergency Backup Electrical Power. Emergency backup electrical power for the SCIF and monitoring station shall be provided by battery, generator, or both. If batteries are provided for emergency backup power, they shall provide a minimum of 24 hours (UL 1076) of backup power and they shall be maintained at full charge by automatic charging circuits. (See paragraph 5.3.4.)

3.2.11.2 Electrical Power Source and Failure Indication. An audible or visual indicator at the PCU shall provide an indication of the electrical power source in use (AC or DC). Equipment at the monitoring station shall visibly and audibly indicate a failure in a power source, a change in power source, and the location of the failure or change.

3.2.12 Tamper Protection. All IDE within the SCIF with removable covers shall be equipped with tamper detection

devices. The tamper detection shall be monitored continuously whether the IDS is in the access or secure mode of operation.

4.0 Installation and Acceptance Testing Requirements

This section specifies the requirements for IDS installation and testing. Additionally, IDE installation and testing shall meet the following requirements.

4.1 Installation Requirements. The IDE shall be installed in a manner that assures conformance with all requirements of sections 3.1 and 3.2 of this standard and the following specific requirements. US citizens shall accomplish all IDE installation. Non-US citizens shall not provide these services without prior written approval by the CSA.

4.1.1 Motion Detector Installation. Motion detection equipment shall be installed in accordance with manufacturer specifications, UL, or equivalent standards.

4.1.2 Perimeter Door-Open Sensor Installation. SCIF perimeter door-open BMSs shall be installed so that an alarm signal initiates before the non-hinged side of the door opens beyond the thickness of the door from the seated position. That is, the sensor initiates after the door opens 1¾ inch for a 1¾-inch door.

4.2 Acceptance Testing. The IDE shall be tested to provide assurances that it meets all requirements of sections 3.1 and 3.2 of this standard and those detailed tests specified below. All SCIF IDS sensors shall be tested and found to meet the requirements herein prior to SCIF accreditation. Records of testing and test performance shall be maintained in accordance with paragraph 6.2.1. US citizens shall accomplish all IDE testing. Non-US citizens shall not provide testing services without prior written approval by the CSA.

4.2.1 Motion Detection Sensor Testing. Test all motion detection sensors to ensure that the sensitivity is adjusted to detect an intruder who walking toward/across the sensor at a minimum of four consecutive steps at a rate of one step per second. That is, 30 inches ± 3 inches or 760 mm ± 80 mm per second. The four-step movement shall constitute a “trial.” An alarm shall be initiated in at least three out of every four such consecutive “trials” made moving progressively through the SCIF. The test is to be conducted by taking a four-step trial, stopping for three to five seconds, taking a four-step trial, stopping for three to five seconds, repeating the process throughout the SCIF. Whenever

possible, the direction of the next trial is to be in a different direction.

4.2.2 BMS Testing. All BMSs shall be tested to ensure that an alarm signal initiates before the non-hinged side of the door opens beyond the thickness of the door from the seated position.
That is, the sensor initiates after the door opens 1¾ inch for a 1¾ inch door.

4.2.3 Tamper Testing. Remove each IDE cover individually and ensure that there is an alarm indication on the monitoring panel in both the secure and access modes. Tamper detection devices need only be tested upon installation with the exception of the tamper detection on the PCU that is activated when it is opened. The CSA may require more frequent testing of tamper circuits. (See paragraph 5.4 for tamper testing of PCU.)

4.2.4 Manufacturer's Prescribed Testing. All tests prescribed in manufacture's literature shall be conducted to assure that the IDE operates in accordance with manufacture's specifications and applicable requirements specified herein.

5.0 Operation, Maintenance, and Semi-Annual Testing Requirements

The IDS shall be operated and maintained to assure that the requirements of sections 3.1 and 3.2 of this standard are met. Additionally, IDE operation and maintenance shall meet the following requirements.

5.1 Monitoring.

5.1.1 Monitoring Station Staffing. The monitoring station shall be continuously supervised and operated by US citizens who have been subjected to a trust-worthiness determination (favorable NAC with no clearance required). Non-US citizens shall not provide these services without prior written approval by the CSA.

5.1.2 Monitoring Station Operator Training. Monitoring station operators shall be trained in IDE theory and operation to the extent required to effectively interpret incidents generated by the IDE and to take proper action when an alarm activates.

5.2 Response.

5.2.1 Alarm-Condition Response. All alarms shall be investigated and the results documented. Every alarm condition shall be considered a detected intrusion until resolved. The response force shall take appropriate steps to safeguard the SCIF as permitted by a written support agreement (see paragraph 6.1.3), local law enforcement, and circumstances surrounding the event until properly relieved (see paragraph 5.5.6). An SCI-indoctrinated individual must arrive as soon as possible, but not to exceed 60 minutes, to conduct an internal inspection of the SCIF, attempt to determine the probable cause of the alarm activation and reset the IDS prior to the departure of the response force. For SCIFs located within the US, the response force shall arrive at the SCIF within:

a. Open Storage-five minutes without security in-depth

b. Open Storage–15 minutes with security in-depth; and

c. Closed Storage-15 minutes (up to 30 minutes with security in-depth and CSA approval)

For SCIFs located outside of the United States, security in-depth must be used and cleared or US Government personnel shall arrive at the SCIF within:

a. Open Storage-five minutes; and

b. Closed Storage-10 minutes.

5.2.2 Response-Force Personnel Training and Testing. Response Force Personnel shall be appropriately trained and equipped according to SOPs to accomplish initial or follow-up response to situations that may threaten the SCIF's security. Such personnel may include local law enforcement support or other external forces as stated in formal agreements. Coordinated response force testing shall be conducted semi-annually. False alarm activations may be used in lieu of a response-force test provided the proper response times were met. A record of response-force personnel testing shall be maintained for a minimum of two years.

5.3 Maintenance.

5.3.1 Maintenance Staffing. The IDE shall be maintained by US citizens who have been subjected to a trustworthiness determination (favorable NAC with no clearance required).

Non-US citizens shall not provide these services without prior written approval by the CSA.

5.3.2 Sensor Adjustment or Replacement. Sensors that do not meet prescribed requirements shall be adjusted or replaced as needed to assure that the requirements of sections 3 and 4 of this standard are continually met.

5.3.3 False Alarm Prevention. The maintenance program for the IDS shall ensure that false-alarm incidents do not exceed one in a period of 30 days per alarm zone.

5.3.4 Emergency-Power Battery Maintenance. The battery manufacturer's periodic maintenance schedule shall be followed and the results documented.

5.3.5 Network Maintenance. If the IDS is connected to a network, the IDS and NIDS system administrator shall maintain configuration control, ensure the latest operating system security patches have been applied, and shall configure the operating system to provide a high level of security. (See paragraph 3.2.9.)

5.4 Semiannual IDE Testing. The IDE shall be tested semiannually (every six months) to provide assurances that the IDS is in conformance with the requirements of paragraphs 4.2.1 through 4.2.4. Records of semiannual testing and test performance shall be maintained in accordance with paragraph 6.2.1. US citizens shall accomplish all IDE testing. Non-US citizens shall not provide such testing services without prior written approval by the CSA.

5.5 Operational Requirements Limited to SCI Indoctrinated Personnel.

5.5.1 Changing Access/Secure Status. Changing Access/Secure status of the SCIF shall be limited to SCI-indoctrinated personnel.

5.5.2 Resetting Alarm Activations. All alarm activations shall be reset by SCI-indoctrinated personnel.

5.5.3 IDS Administrator. If the IDS is connected to a network, the IDS system administrator shall maintain configuration control, ensure the latest operating system security patches have been applied, and shall configure the operating system to provide a high level of security.

5.5.4 Remote Operations. After initial installation, remote diagnostics, maintenance, or programming of the IDE shall not

exist unless accomplished by SCI-indoctrinated personnel only and shall be appropriately recorded.

5.5.5 Auditing External Changes of Access Status. If access status is changed externally, a daily audit of all openings and closings of the SCIF shall be accomplished by SCIF personnel. (See paragraph 3.2.10.)

5.5.6 Alarm-Response Internal Investigation. An SCI-indoctrinated individual shall arrive within 60 minutes to conduct an internal inspection of the SCIF, attempt to determine the probable cause of the alarm activation, and reset the IDS prior to the departure of the response force.

5.5.7 IDS Catastrophic Failure Coverage. In the case of IDS failure, SCIF indoctrinated personnel shall provide security by physically occupying the SCIF until the IDS returns to normal operation. As an alternative, the outside SCIF perimeter shall be continuously protected by the response force or a guard force until the IDS returns to normal operation. If neither of these alternatives is possible, a catastrophic failure plan shall be submitted in writing to the CSA for review and approval prior to implementation. (See paragraph 6.1.2.)

6.0 Documentation Requirements

The following documentation shall be developed for the IDS. This documentation shall be made available to the CSA on request and shall be available within the SCIF.

6.1 Plans, Agreements, and Standard Operating Procedures (SOP).

6.1.1 IDS Plans. The IDS design and installation documentation shall be provided to the government sponsoring activity and maintained in the SCIF as specified in paragraph 3.1.4.

6.1.2 Catastrophic Failure Plan. If an alternative catastrophic failure plan is contemplated (see paragraph 3.1.3), the plan shall be submitted in writing to the CSA for review and approval prior to implementation.

6.1.3 Support Agreement. A written support agreement shall be established for external monitoring, response, or both. The agreement shall include the response time for both response force and SCIF personnel, responsibilities of the response force upon arrival, maintenance of SCIF points of contact, and length of time response personnel are required to remain on-site.

6.1.4 Monitoring Operator SOP. The duties of the monitor operator shall be documented in a SOP. The SOP shall include procedures for observing monitor panel(s) for reports of alarms, changes in IDE status, assessing these reports, and in the event of an intrusion alarm, dispatching the response force or notifying the proper authority to do so and notifying the appropriate authority of the event. [Note: These procedures shall state that the operator will not have any additional duties that may interfere with monitoring alarms, making assessments, and dispatching the response force.]

6.1.5 Maintenance Access SOP. A written SOP shall be established to address the appropriate actions to be taken when maintenance access is indicated at the monitor-station panel. The SOP shall require that all maintenance periods shall be archived in the system.

6.2 Records, Logs, and Archives.

6.2.1 Test Records. A record of IDE testing shall be maintained within the SCIF. This record shall include: testing dates, names of individuals performing the test, specific equipment tested, malfunctions detected, and corrective actions taken. Records of the response-force personnel testing shall also be retained. All records of testing shall be maintained for a minimum of two years. (See paragraph 5.2.2.)

6.2.2 IDS Event (Alarm) Log. If the IDS has no provision for automatic entry into archive (see paragraph 3.2.6), the operator shall record the time, source, type of alarm, and action taken. The responsible security officer shall routinely review the historical record. Results of investigations and observations by the response force shall also be maintained at the monitoring station. The SCIF responsible security officer shall routinely review the historical record. Records of alarm annunciations shall be retained for a minimum of two years and longer if needed until investigations of system violations and incidents have been successfully resolved and recorded.

6.2.3 Annunciation of Shunting or Masking Condition Log. Shunting or masking of any zone or sensor shall be appropriately logged or recorded in an archive. (See paragraph 3.2.10.3.)

6.2.4 Maintenance Period Archives. All maintenance periods shall be archived into the system. (See paragraph 3.2.10.3.)

6.2.5 Remote Service Mode Archive. An archive shall be maintained for all remote service mode activities. (See paragraph 3.2.10.4.)

6.3 SCIF Accreditation File. IDS accreditation documentation shall be maintained on-site in the SCIF accreditation file. The following documents shall be included in the SCIF accreditation file along with other SCIF accreditation documentation: Final acceptance tests of original installation and any modifications; catastrophic failure plan (see paragraph 6.1.2); monitoring operator SOP (see paragraph 6.1.5); maintenance mode and remote service mode archives (see paragraphs 6.2.3 through 6.2.5); and, historical record of IDS logging (see paragraph 6.2.2). Final acceptance tests and the catastrophic failure plan shall be maintained in both the SCIF accreditation file and at the CSA location.

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ANNEX C - Tactical Operations/Field Training

(Effective 27 May 1994)

This annex pertains to specialized Sensitive Compartmented Information Facilities (SCIFs) deployed in a tactical operations or field training environment. It is divided into three parts to reflect the accepted modes of tactical operation:

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ANNEX C

Part I - Ground Operation

1.0 PURPOSE:

This Annex prescribes the procedures for the physical security requirements for the operation of a Sensitive Compartmented Information Facility (SCIF) while in a field or tactical configuration, including training exercises. It also addresses the standards for truck mounted or towed trailer style shelters designed for use in a tactical environment but used in a garrison environment known as a Semi-permanent SCIF (SPSCIF).

2.0 APPLICABILITY AND SCOPE:

Recognizing that field/tactical operations, as opposed to operations within a fixed military installation, are of the type considered least secure, the following minimum physical security requirements will be met and maintained. Situation and time permitting, these standards will be improved upon using the security considerations and requirements for permanent secure facilities as an ultimate goal. If available, permanent-type facilities will be used. Under field or combat conditions, a continuous 24-hour operation is mandatory. Every effort must be made to obtain the necessary support from the host command (e.g., security containers, vehicles, generators, fencing, guards, weapons, etc.).

2.1 The Tactical SCIF (T-SCIF) shall be located within the supported headquarters defensive perimeter and preferably, also within the Tactical Operations Center (TOC) perimeter.

2.2 The T-SCIF shall be established and clearly marked using a physical barrier. Where practical, the physical barrier should be triple-strand concertina or General Purpose Barbed Tape Obstacle (GPBTO). The Tactical SCIF approval authority shall determine whether proposed security measures provide adequate protection based on local threat conditions.

2.3 The perimeter shall be guarded by walking or fixed guards to provide observation of the entire controlled area. Guards shall be armed with weapons and ammunition. The types of weapons will be prescribed by the supported commander. Exceptions to this

requirement during peace may only be granted by the T-SCIF approval authority based on local threat conditions.

2.4 Access to the controlled area shall be restricted to a single gate/entrance, which will be guarded on a continuous basis.

2.5 An access list shall be maintained, and access restricted to those people whose names appear on the list.

2.6 The Tactical SCIF shall be staffed with sufficient personnel as determined by the on-site security authority based on the local threat conditions.

2.7 Emergency destruction and evacuation plans shall be kept current.

2.8 SCI material shall be stored in lockable containers when not in use.

2.9 Communications shall be established and maintained with backup response forces, if possible.

2.10 The SSO, or designee, shall conduct an inspection of the vacated Tactical SCIF area to ensure SCI materials are not inadvertently left behind when the T-SCIF moves.

2.11 Reconciliation of T-SCIF activation and operational data shall be made not more than 30 days after SCIF activation. Interim reporting of SCIF activities may be made to the CSA.

3.0 RESPONSIBILITIES:

The Cognizant Security Authority (CSA) is responsible for ensuring compliance with these standards and providing requisite SCI accreditation.. The CSA may further delegate T-SCIF accreditation authority one command level lower. The Senior Intelligence Officer (SIO) is responsible when a temporary field or Tactical SCIF is used in support of field training exercises. During a period of declared hostilities or general war, a T-SCIF may be established at any level of accreditation upon the verbal order of a General or Flag Officer Commander.

4.0 ACCREDITATION OF TACTICAL SCIFs:

4.1 An Accreditation Checklist shall not be required for establishment of a T-SCIF. Approval authorities may require use of a local tactical deployment checklist.

4.2 The element requesting establishment of a T-SCIF shall notify the CSA, or designee, prior to commencement of SCIF operations. The message shall provide the following information:

4.2.1 ID number of parent SCIF.

4.2.2 Name of the Tactical SCIF.

4.2.3 Deployed from (location).

4.2.4 Deployed to (location).

4.2.5 SCI level of operations.

4.2.6 Operational period.

4.2.7 Name of exercise or operation.

4.2.8 Identification of facility used for T-SCIF operations (e.g., vans, buildings, tents).

4.2.9 Points of contact (responsible officers).

4.2.10 Description of security measures for entire operational period of SCIF.

4.2.11 Comments.

5.0 PHYSICAL CONFIGURATION:

A T-SCIF may be configured using vehicles, trailers, shelters, bunkers, tents, or available structures to suit the mission. Selection of a T-SCIF site should first consider effective and secure mission accomplishment.

6.0 TACTICAL SCIF OPERATIONS USING VANS, SHELTERS, AND VEHICLES:

6.1 When a rigid side shelter or portable van is used for SCI operations, it shall be equipped with either a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA-approved lock. The combination to the lock or keys shall be controlled by the SSO at the security level for which the T-SCIF is accredited. The shelter or van shall be secured at all times when not activated as a SCIF.

6.2 The SCIF entrance of a radio frequency shielded enclosure designed for tactical operations may be secured with the

manufacturer supplied locking device or any combination of the locking devices mentioned above.

7.0 TACTICAL SCIF OPERATIONS WITHIN EXISTING PERMANENT STRUCTURES:

7.1 A T-SCIF may be operated within an existing structure when:

7.1.1 Location is selected on a random basis.

7.1.2 The location is not reused within a 36 month period. If reused within 36 months for SCI discussion, a TSCM evaluation is recommended.

7.2 There is no restriction over SCI discussion within a T-SCIF during war.

8.0 MOBILE SIGINT SCIFs:

8.1 A continuous 24-hour operation is mandatory.

8.2 The T-SCIF shall be staffed with sufficient personnel as determined by the on-site security authority based on the local threat conditions.

8.3 External physical security measures shall be incorporated into the perimeter defense plans for the immediate area in which the T-SCIF is located.

8.3.1 A physical barrier is not required as a prerequisite to establish a mobile SIGINT T-SCIF.

8.3.2 External physical security controls will normally be a function of the people controlling the day-to-day operations of the T-SCIF.

8.4 Communications shall be established and maintained with backup guard forces, if possible.

8.5 Emergency destruction plans shall incorporate incendiary methods to ensure total destruction of SCI material in emergency situations.

8.6 A rigid side shelter or a portable van are two possible configurations that may be used.

8.6.1 When a rigid side shelter or portable van is used, it is subject to the following additional restrictions:

8.6.1.1 If it is a shelter, it shall be mounted to a vehicle in such a way as to provide the shelter with the capability of moving on short notice.

8.6.1.2 A GSA-approved security container shall be permanently affixed within the shelter. The combination to the lock will be protected to the level of security of the material stored therein.

8.6.1.3 Entrance to the T-SCIF shall be controlled by SCI-indoctrinated people on duty within the shelter. When situations occur where there are no SCI-indoctrinated people within the shelter, i.e., during redeployment, classified material shall be stored within the locked GSA container and the exterior entrance to the shelter will be secured.

8.6.1.4 Entrance to the T-SCIF shall be limited to SCI-indoctrinated people with an established need-to-know whenever SCI material is used within the shelter.

8.6.2 When a rigid side shelter or portable van is not available and a facility is required for SCI operations, such as in the case of a soft side vehicle or man-portable system, it is subject to the following additional restrictions:

8.6.2.1 Protection will consist of an opaque container, i.e., leather pouch, metal storage box, or other suitable container that prevents unauthorized viewing of the material.

8.6.2.2 This container shall be kept in the physical possession of an SCI-indoctrinated person.

8.7 The quantity of SCI material permitted within the T-SCIF will be limited to that which is absolutely essential to sustain the mission. Stringent security arrangements shall be employed to ensure that the quantity of SCI material is not allowed to accumulate more than is absolutely necessary.

8.7.1 All working papers generated within the T-SCIF shall be destroyed at the earliest possible time after they have served their mission purpose to preclude accumulation of unnecessary classified material.

8.7.2 If AIS equipment is used to store or process SCI data, a rapid and certain means of destruction shall be available to AIS operators to ensure the total destruction of classified material under emergency or combat conditions.

8.8 Upon cessation of hostilities, all classified material shall be returned to the parent element of the SCIF for reconciliation of records and destruction of obsolete material.

9.0 SEMI-PERMANENT SCIFs:

9.1 Vehicles with mounted shelters or towed trailer type shelters, designed for field or tactical use, that are employed as tactical SCIFs when deployed may also be used as a SCIF in non-tactical situations if the SIO determines there is a need for more SCIF area and time and/or funds are not available to construct or enlarge a permanent SCIF. These types of SCIFs are SEMI-PERMANENT SCIFs (SPSCIFs).

9.2 The SPSCIF shall be accredited and operated in the same manner as a permanent SCIF. Requirements for TEMPEST and AIS accreditation apply as well.

9.3 The SPSCIF must be of rigid construction similar to a van, trailer, or transportable shelter. The construction material must be of such composition to show visible evidence of forced entry. Vents and air ducts must be constructed to prevent surreptitious entry. The doors must be solid construction and plumbed so the door forms a good acoustical seal. If installed, emergency exits and escape hatches must be constructed so they can only be opened from the interior of the SPSCIF.

9.4 The SPSCIF must be placed within a fenced compound on a military installation or equivalent, as determined by the CSA. The fence must be at least ten (10) feet from the SPSCIF and related building and equipment. The distance from the fence to the SPSCIF may have to be greater to provide acoustical security or to meet COMSEC or TEMPEST requirements. Access control to the fenced compound must be continuous.

9.5 All SPSCIFs must have a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA approved lock. (NOTE: Just as with combinations, keys require protection equivalent to the information which they protect.)

9.6 SPSCIFs do not need any additional security measures if one of the following exists:

> **9.6.1** Continuous operations. Continuous operations exist when the SPSCIF is occupied by one or more SCI-indoctrinated persons 24 hours a day. When there are multiple vehicles/shelters within a fenced compound, only those occupied by one or more SCI-indoctrinated people qualify as continuous operations facilities.

9.6.2 Dedicated guard force who have been subjected to a trustworthiness determination (e.g., NAC with no clearance to be issued). The dedicated guard force must be present whenever the SPSCIF is not occupied and must have continuous surveillance of the SPSCIF entrances. The guard force must check the perimeter of the SPSCIF at least twice an hour at random intervals. Guard response time will be five minutes or less.

9.7 SPSCIFs not storing classified material and not meeting one of the requirements in the above paragraphs may be required to have an Intrusion Detection System (IDS) as prescribed in ANNEX B as required by the CSA.

9.8 Requirements for storage when unoccupied:

9.8.1 SCI material will not be stored in a SPSCIF except when removal is not feasible, i.e., computer hard disk.

9.8.2 Storage in the United States and Outside the United States. If the SPSCIF does not have continuous operations or a dedicated guard force, a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA approved lock and an IDS for the SPSCIF interior is required. The interior SPSCIF IDS must be as prescribed in ANNEX B. The CSA may require exterior compound IDS.

10.0 ELECTRICAL POWER:

Electrical power supplied to T-SCIFs may be furnished by commercial or locally generated systems, as follows:

10.1 Tactical generator with access controls, including guards or surveillance of the generating equipment.

10.1.1 The generating equipment shall be located within the protected perimeter of the organization supporting the T-SCIF. The generator shall not require location within the SCIF compound perimeter.

10.1.2 Generator operator and maintenance people shall be US citizens.

10.2 In general, RF filters or isolators are not required for TEMPEST protection of commercial AC (alternating current) power lines used for SCI processing equipment in a T-SCIF.

10.3 Filtering and isolation generators (an electrical motor coupled to a generator by non-conductive means) may be used to

provide isolated electrical power to the SCIF. The motor generator location shall be within the SCIF compound perimeter.

11.0 TEMPEST REQUIREMENTS:

Authority for TEMPEST accreditation of all compartments of SCI processed in a Tactical SCIF is delegated to the CSA based on review by the Certified TEMPEST Technical Authority (CTTA).

12.0 TELEPHONE EQUIPMENT:

Telephone instruments used within a T-SCIF shall meet requirements outlined in the Telephone Security ANNEX. Restrictions contained within the Telephone Security ANNEX pertaining to SCIF telephone services do not apply to T-SCIF operations during war.

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ANNEX C

Part II - Aircraft/Airborne Operation

1.0 PURPOSE:

This annex prescribes the physical security procedures for the operation of a Sensitive Compartmented Information Facility (SCIF) for aircraft, including airborne missions.

2.0 APPLICABILITY:

This annex is applicable to all aircraft to be utilized as a SCIF. Existing or previously accredited facilities do not require modification to conform with these standards.

3.0 RESPONSIBILITIES:

The CSA is responsible for ensuring compliance with these standards and providing SCI accreditation. The CSA may delegate aircraft/airborne SCIF accreditation authority to the major command level.

The major command/organization Senior Intelligence Officer (SIO) is responsible when an aircraft is used as a temporary SCIF in support of field training exercises. During a period of declared hostilities or general war, an aircraft/airborne SCIF may be established at any level of accreditation upon the verbal order of a General or Flag Officer Commander. The major command/organization is responsible for ensuring compliance with this annex.

4.0 ACCREDITATION OF AIRCRAFT/AIRBORNE FACILITIES:

4.1 An accreditation checklist will not be required for the establishment of an aircraft/ airborne SCIF. Approval authorities may require use of a local deployment checklist, if necessary.

4.2 The element requesting establishment of an aircraft/airborne SCIF will notify the CSA prior to commencement of SCIF operations. The letter or message will indicate the following information:

4.2.1 Name of aircraft/airborne SCIF

4.2.2 Major command/organization

4.2.3 ID number of parent SCIF, if applicable

4.2.4 Deployed from (location) and dates

4.2.5 Deployed to (location) and dates

4.2.6 SCI level of operations

4.2.7 Name of exercise or operation

4.2.8 Points of Contact

4.2.9 Type of Aircraft and area to be accredited as a SCIF

4.2.10 Description of security measures for entire operational period of SCIF (SOP)

4.2.11 Comments

4.3 The SCIF will be staffed with sufficient personnel as determined by the on-site security authority based on the local threat environment.

4.4 SCI material will be removed from the aircraft on mission completion or at any landings, if feasible. When removal is not possible, or when suitable storage space/ locations are not available, two armed (with ammunition) SCI-indoctrinated personnel must remain with the aircraft to control entry to the SCIF. Waivers to the requirement for weapons and ammunition may be approved on a case-by-case basis by the Commander.

4.5 The SSO or senior SCI-cleared person will conduct an inspection of the vacated SCIF to ensure SCI materials are not left behind.

4.6 Aircraft that transport SCI material incidental to travel between airfields do not require accreditation. However, compliance with directives pertaining to security of SCI material and communications is mandatory.

5.0 POST AND PATROL REQUIREMENTS:

Accredited aircraft require perimeter access controls, a guard force, and a reserve security team.

5.1 Unless protected by an approved IDS, hourly inspections will be made of all hatches and seals (including seal numbers).

5.2 A guard force and response team must be provided, capable of responding within five minutes if open storage is authorized. or 15 minutes for closed storage.

5.3 When aircraft are parked outside an established controlled area, a temporary controlled area must be established.

6.0 ENTRY HATCHES:

6.1 The aircraft commander or crew members will provide guard force personnel who have been subjected to a trustworthiness determination (e.g., NAC with no clearance to he issued) prior to departing from the immediate area of the aircraft.

6.2 All hatches will be locked to prevent unauthorized access. Hatches that cannot be secured from the outside will be sealed using serially numbered seals.

7.0 TEMPEST REQUIREMENTS:

Authority for TEMPEST accreditation of all compartments of SCI processed in an aircraft/airborne SCIF is delegated to the CSA, based on review by the Cognizant Certified TEMPEST Technical Authority (CTTA).

8.0 UNSCHEDULED AIRCRAFT LANDINGS:

8.1 US Military Bases: The local SSO or base security officer will be notified of the estimated arrival time and security protection required.

8.2 Other Airfields:

8.2.1 Within the United States, the local Federal Aviation Administration (FAA) Security Officer will be notified of the estimated arrival time and security protection required.

8.2.2 On arrival, the senior SCI-indoctrinated person is responsible for controlling entry and maintaining surveillance over the aircraft until all SCI material is secured in an accredited SCIF or the aircraft departs.

8.2.3 Any properly accredited US Government SCIF may be used for temporary storage of materials from the aircraft. If the facility is not accredited for the level of information to be

stored, the material must be double wrapped with initialed seals and stored in a GSA-approved security container.

8.3 Unfriendly Territory:

If an aircraft landing in unfriendly territory is anticipated, all SCI material will be immediately destroyed, with the destruction process preferably taking place prior to landing.

8.3.1 When flights are planned over unfriendly territory, SCI to be carried on board will be selected by the intelligence mission personnel and consist of the absolute minimum required for mission accomplishment.

8.3.2 All personnel will rehearse emergency destruction before each mission. Such emergency preparation rehearsals will be made a matter of record.

9.0 VOICE TRANSMISSIONS:

SCI discussions will only be conducted via appropriately encrypted aircraft radio.

10.0 DESTRUCTION REQUIREMENTS:

10.1 An Emergency Action Plan (EAP) will be written that provides for the evacuation and/or destruction of classified material. Evacuation plans and destruction equipment must be approved by the CSA and tested by mission personnel 10.2 Emergency destruction and evacuation plans will be kept current.

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ANNEX C

Part III - Shipboard Operation

1.0 PURPOSE:

This annex specifies the requirements for construction and security protection of SCIFs located on ships. The SCI accreditation checklist for ships may be obtained from the Director, Office of Naval Intelligence, 4301 Suitland Road, Washington, D.C. 20395.

2.0 APPLICABILITY AND SCOPE:

2.1 This annex is applicable to all new construction surface combatant ships. The application of this annex to surface non-combatants or sub-surface vessels will be referred to the CSA.

2.2 There may be instances in which circumstances constitute a threat of such proportion that they can only be offset by stringent security arrangements over and above those prescribed in this annex. Conversely, there may be instances in which time, location, mission, and/or condition of use of materials would make full compliance with these standards unreasonable or impossible. Such situations will be referred to the CSA for resolution on a case-by-case basis.

2.3 Existing or previously approved facilities do not require modification to conform with these standards

3.0 TYPES OF SHIPBOARD SCIFs (S/SCIFs):

3.1 Permanent S/SCIFs: An area aboard ship where SCI operations, processing, discussion, storage, or destruction takes place. The area will have a clearly defined physical perimeter barrier and continuous physical security safeguards. The area may contain one or more contiguous spaces requiring SCIF accreditation. This type S/ SCIF is routinely used during deployment and import operations.

3.2 Temporary S/SCIFs: An area aboard ship where temporary SCI operations, processing, discussion, storage, or discussion takes place. The area will have a clearly defined physical perimeter barrier and continuous physical security safeguards. The area

may contain one or more contiguous spaces requiring SCIF accreditation. It will be continuously manned with sufficient SCI-cleared and -indoctrinated personnel, as determined by the on-site security authority based on the local threat environment, when SCI is present within the area. Temporary shipboard SCI operations will he limited to:

3.2.1 A single deployment that will not exceed 12 months.

3.2.2 A single mission requiring SCI operations that cannot be defined in length of operational time.

3.2.3 During the period immediately preceding relocation of the ship to a refitting facility where the Temporary S/SCIF is scheduled for renovation and compliance with this annex. There will be a schedule established for renovation of the S/SCIF with confirmatory reporting of such to the CSA.

3.2.4 Temporary Platforms: A mobile or portable SCIF may be temporarily placed aboard a ship. Such platforms will be accredited on a temporary basis for a single deployment mission. The platform will be manned 24 hours a day by sufficient SCI-cleared and -indoctrinated personnel as determined by the on-site security authority. At the completion of the mission, the accreditation period will end and the CSA notified that the platform is certified clear and free of all SCI materials.

4.0 PERMANENT ACCREDITATION:

Ships requesting permanent accreditation status will provide to the CSA a complete inspection report and the Shipboard Inspection Checklist, certifying compliance with this Annex.

5.0 STANDARDS:

The physical security criteria for permanent S/SCIFs is as follows:

5.1 Physical Perimeter: The physical perimeter of an SCI space will be fabricated of structural bulkheads (aluminum or steel) with a thickness not less than 0.125 inch. Elements of the physical perimeter will be fully braced and welded in place.

5.2 Continuous SCI Spaces: Where several SCI spaces are contiguous to each other in any or all dimensions, the entire complex may be enclosed by a single physical perimeter barrier conforming to this annex.

5.2.1 Access to the SCI complex will be controlled by a single access door conforming to this annex. Each compartment within the complex may have a separate access door from within the common physical perimeter barrier. Such interior access control doors do not need to conform with this annex.

5.2.2 Access procedures will be established to ensure against cross-traffic of personnel not holding appropriate SCI access.

5.3 Normal Access Door: The normal access door will be a shipboard metal joiner door with honeycomb-core and fitted as specified below:

5.3.1 Where the normal access door is in a bulkhead that is part of an airtight perimeter, the airtight integrity may be maintained by collocating the airtight door with the metal joiner door, or by adding a vestibule.

5.3.2 The metal joiner door will be equipped with a combination lock that meets all requirements of Federal Specification FF-L-2740 or other CSA approved lock.

5.3.3 In addition to the lock, the door will be equipped with an access control device

5.3.4 The door will be constructed in a manner that will preclude unauthorized removal of hinge pins and anchor bolts, as well as to obstruct access to lock-in bolts between door and frame.

5.4 Emergency Exit: The emergency exit will be fabricated of aluminum plate or steel in accordance with this annex. The exit will be mounted in a frame braced and welded in place in a manner commensurate with the structural characteristics of the bulkhead, deck, or overhead in which it is situated.

5.5 Restriction on Damage Control Fittings and Cables: Because of the security restrictions imposed in gaining access to these spaces, no essential damage control fittings or cables will be located within or pass through an SCI space. This requirement is not applicable to damage control fittings, such as smoke dampers, that may be operated by personnel within the space during normal manning.

5.6 Removable Hatches and Deck Plates: Hatches and deck plates less than 10 square feet that are secured by exposed nuts and bolts (external to the SCI space) will be secured with externally

attached, high security padlocks (unless their weight makes removal unreasonable). The padlock keys will be stored in a security container located within a space under appropriate security control.

5.7 Vent and Duct Barriers: Vents, ducts, or other physical perimeter barrier openings with a cross-sectional dimension greater than 96 square inches will be protected at the perimeter with a fixed barrier or security grill.

5.7.1 The grill will be fabricated of steel or aluminum grating or bars with a thickness equal to the thickness of the physical perimeter barrier. If a grating is used, bridge center-to-center measurements will not exceed 1.5 inches by 4 inches. Bars will be mounted on 6-inch centers. The grating or bars will be welded into place.

5.7.2 This requirement is not applicable to through ducts that have no opening into the space.

5.8 Acoustical Isolation: The physical perimeter barrier of all SCI spaces will be sealed or insulated with non-hardening caulking material to prevent inadvertent disclosure of SCI discussions or briefings from within the space, taking into account the normal ambient noise level, to persons located in adjacent passageways and/or compartments.

5.8.1 In cases where the perimeter material installation does not sufficiently attenuate voices or sounds of activities originating SCI information, the ambient noise level will be raised by the use of sound countermeasure devices, controlled sound generating source. or additional perimeter material installation.

5.8.2 Air handling units and ducts will be equipped with silencers or sound countermeasure devices unless continuous duty blowers provide a practical, effective level of masking (blower noise) in each air path. The effective level of security may be determined by stationing personnel in adjacent spaces or passageways to determine if SCI can be overheard outside the space.

5.9 Visual Isolation: Door or other openings in the physical perimeter barrier through which the interior may be viewed will be screened or curtained.

6.0 INTRUSION DETECTION SYSTEM (IDS):

The S/SCIF access door and emergency exit will be protected by a visual and audible alarm system. The installation will consist of sensors connected at each door and alerting indicators located at the facility supervisor's position. The normal access door alarm may have a disconnect feature.

6.1 Emergency exits will be connected to the alarm system at all times and will not have a disconnect feature installed.

6.2 The IDS will be connected to a remote alarm monitor station, which may be co-located with other IDS, and located within a space which is continuously manned by personnel capable of responding to or directing a response to an alarm violation at the protected space when it is unmanned.

6.3 Primary power for the IDS will be connected to an emergency lighting panel within the space. SCI spaces that are under continuous manning will be staffed with sufficient personnel, as determined by the on-site security authority based on the local threat environment, who have the continuous capability of detecting forced or surreptitious entry without the aide of an IDS.

7.0 PASSING SCUTTLES AND WINDOWS;

Passing scuttles and windows will not be installed between SCI spaces and any other space on the ship.

8.0 LOCATION OF CRYPTOGRAPHIC EQUIPMENT:

On-line and off-line cryptographic equipment and terminal equipment processing SCI will be located only within the S/SCIF.

9.0 SECURE STORAGE CONTAINERS:

SCI material will be stored only in GSA approved Class 5, 6, or 7 security containers. Containers will be welded in place, or otherwise secured to a foundation for safety.

10.0 TELEPHONES:

Telephone instruments used within a S/SCIF will meet the Telephone Security Annex standards.

11.0 SECURE TELEPHONE UNIT-III (STU-III):

The STU-III Type I terminals may be installed within a S/SCIF.

12.0 SOUND POWERED TELEPHONES:

Where possible, sound powered telephones will be eliminated from S/SCIFs. Sound powered telephones located within the S/SCIF connecting to locations outside the S/SCIF will comply with the following

12.1 The telephone cable will not break out to jackboxes, switchboards, or telephone sets other than at the designated stations. The telephone cable will not be shared with any circuit other than call or signal systems associated with the S/SCIF circuit.

12.2 The telephone cable will be equipped with a selector switch, located at the controlling station, which is capable of:

12.2.1 Disconnecting all stations;

12.2.2 Selecting any one station and disconnecting the remaining stations; and

12.2.3 Parallel connection to all stations.

12.3 Other S/SCIFs located aboard the same ship, which have sound powered telephones not equipped with the required selector switch, will have a positive disconnect device attached to the telephone circuit.

12.4 Sound powered telephones within a S/SCIF that are not used for passing SCI information will have a sign prominently affixed to them indicating that they are not to be used for passing SCI.

12.5 A call or signal system will be provided. Call signal station, type ID/D, when used for circuit EM will be modified to provide a disconnect in the line to prevent a loudspeaker from functioning as a microphone.

13.0 SCI INTERCOM ANNOUNCING SYSTEM:

An intercommunication type announcing system processing SI that connects to or passes through areas outside the S/SCIF must be approved by the CSA.

14.0 SUPPORTING INTERCOMMUNICATION ANNOUNCING SYSTEMS:

Intercommunication-type announcing systems installed within an S/SCIF that do not process SCI information will be designated or modified to provide the following physical or electrical security safeguards:

14.1 Operational mode of the unit installed within the S/SCIF will limit operation to push-to-talk mode only.

14.2 Receive elements will be equipped with a local amplifier as a buffer to prevent loud-speakers or earphones from functioning as microphones.

14.3 Except as specified, radio transmission capability for plain radio telephone (excluding secure voice) will not be connected. Cable conductors assigned to the transmission of plain language radio telephones will be connected to ground at each end of the cable.

14.4 Equipment modified will have an appropriate field change label affixed to the unit that indicates the restriction. Additionally, the front panel will have a sign warning the user that the system is not passing classified information.

15.0 COMMERCIAL INTERCOMMUNICATION EQUIPMENT:

Commercial intercommunication equipment will not be installed within a S/SCIF without prior CSA approval.

16.0 GENERAL ANNOUNCING SYSTEMS:

General announcing system loudspeakers will have an audio amplifier, and the output signal lines will be installed within the S/SCIF.

17.0 PNEUMATIC TUBE SYSTEMS:

Pneumatic tube systems will not be installed. Existing systems will be equipped with the following security features:

17.1 Locked cover at both ends.

17.2 Capability to maintain the pressure or vacuum and capability to lock in the secure position at the initiating end.

17.3 Direct voice communications link between both ends to confirm the transportation and receipt of passing cartridges.

17.4 Special, distinctive color for SCI material passing cartridges.

17.5 Pneumatic tubes will run through passageways and will be capable of being visually inspected along their entire length.

18.0 DESTRUCTION EQUIPMENT:

A CSA-approved means of destruction of SCI material will be provided for each S/SCIF. Non-combatant surface ships that transit hostile waters without combatant escort will have appropriate Anti-compromise Emergency Destruction (ACED) equipment on board and such equipment will be prepared for use. The ACED will be dedicated to SCI destruction. SCI material will not be destroyed by jettisoning overboard under any circumstances.

19.0 EMERGENCY POWER:

A S/SCIF will have emergency power available that will operate destruction equipment, alarm systems, access control devices, and emergency lighting equipment for a minimum of six hours.

20.0 SCI PROCESSING SYSTEMS:

A S/SCIF that processes SCI electronically or electrically should be provided a TEMPEST evaluation prior to activation. All computer and network systems that process SCI must be accredited or certified for operation by the cognizant SCI AIS Accreditation Authority.

21.0 TEMPORARY ACCREDITATION:

Ships requiring temporary accreditation status will be processed for accreditation upon completion of a physical security inspection and certification of compliance with the following security requirements:

21.1 If the space is used to electrically process SCI information, the CSA will make a TEMPEST evaluation based on threat.

21.2 The physical perimeter barrier will consist of standard structural, nonsupport, or metal joiner bulkheads welded or riveted into place and meet the acoustical isolation requirements of a S/SCIF.

21.3 Doors will be at least metal joiner doors equipped with door closures and capable of being secured from the inside. Dutch doors are not acceptable. If cryptographic equipment is installed or stored within the space and the space will be temporarily unmanned while cryptographic key material and/or SCI material are stored else-where, the door will be equipped with a tamper-proof hasp and combination pad-lock.

21.4 Doors and other openings in the perimeter that permit aural or visual penetration of the internal space will be screened, curtained, or blocked.

21.5 An effective, approved secure means of destruction of SCI material will be readily available in the space or nearby in general service spaces.

21.6 Cryptographic equipment used to process SCI information will be located in the SCI space or, if located in a secure processing center other than that accredited for SCI, will be electrically configured so as not to be compatible with the secure processing system of that secure processor.

21.7 All telephones (to include STU-III instruments and sound powered telephones) will be as specified for S/SCIFs.

21.8 Processing of SCI via AIS will be as specified for S/SCIFs.

22.0 TEMPORARY SECURE WORKING AREAS (TSWAs):

Ships requiring TSWA accreditation for "contingency" or "part-time" usage will be processed for accreditation upon completion of a physical security inspection and certification of compliance with the following security requirements:

22.1 The physical perimeter barrier requires no special construction, provided it can prevent visual and aural access during all periods of SCI operation.

22.2 Doors will be capable of being secured from the inside.

22.3 Provisions will be made for posting a temporary sign that reads "RESTRICTED AREA - KEEP OUT - AUTHORIZED PERSONNEL ONLY".

22.4 When SCI material is to be stored in the space, a secure storage container will be provided. Security storage containers will be welded in place, or otherwise secured to the foundation for safety and to prevent rapid removal.

22.5 The electrical security requirements for a shipboard TSWA will be specified by the CSA.

23.0 EMBARKED PORTABLE SHIPBOARD COLLECTION VANS (PSCVs):

PSCVs are vans that are temporarily placed aboard ship and not part of the permanent structure of the ship. Ships requiring accreditation of embarked PSCVs must be annually accredited by

the CSA and may be activated upon certification to the CSA of compliance with the following security requirements:

23.1 The exterior surface of the van will be solid construction and capable of showing evidence of physical penetration (except for intended passages for antenna cables, power lines, etc.)

23.2 The access door will fit securely and be equipped with a substantial locking device to secure the door from the inside in order to prevent forcible entry without tools.

23.3 Adequate security measures will be established to preclude viewing of classified material by uncleared personnel.

23.4 Adequate provisions will be established to control the approach of uncleared personnel within the vicinity of the van. These measures will consist of instructions promulgated by the station (ashore and afloat) in which the van is embarked, prohibiting loitering in the immediate vicinity of the van, and will include periodic visual security cheeks by appropriately SCI-indoctrinated personnel.

23.5 Adequate destruction equipment will be available and effective procedures established to ensure rapid and complete destruction of classified material in emergency situations.

23.6 All SCI material will be stored within the van and continuously manned by sufficient SCI-indoctrinated personnel as determined by the on-site security authority based on the local threat environment, when activated for SCI support. If SCI material is to be stored outside the van, the space must be accredited by the CSA and be in compliance with the above S/SCIF criteria.

23.7 The electrical security requirements for a PSCV will be as specified by the CSA.

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ANNEX D

Part I - Electronic Equipment in Sensitive Compartmented Facilities (SCIFs)

(Effective 30 January 1994)

1.0 INTRODUCTION

It is the policy of the Director of Central Intelligence and the Senior Officials of the Intelligence Community (SOICs) that personally owned electronic equipment that has been approved for introduction into a SCIF should not be routinely carried into or out of the SCIF due to the possibility of technical compromise. It is also their policy that electronic equipment that is introduced into a SCIF is subject to technical and/or physical inspection at any time.

2.0 GUIDANCE

The following guidance is provided concerning the control of electronic equipment. SOICs retain the authority to apply more stringent requirements as deemed appropriate.

2.1 DOMESTIC UNITED STATES
The following personally owned electronic equipment may be introduced into a SCIF:

2.1.1 Electronic calculators, electronic spell-checkers, wrist watches, and data diaries. NOTE: If equipped with data-ports, SOICs will ensure that procedures are established to prevent unauthorized connector to automated information systems that are processing classified information.

2.1.2 Receive only pagers and beepers.

2.1.3 Audio and video equipment with only a "playback" feature (no recording capability), or with the "record" feature disabled/removed.

2.1.4 Radios

2.1.5 PROHIBITED EXCEPT FOR OFFICIAL DUTY
The following items are prohibited unless approved by the SOIC for conduct of official duties:

2.1.5.1 Two-way transmitting equipment.

2.1.5.2 Recording equipment (audio, video, optical). Associated media will he controlled.

2.1.5.3 Test, measurement, and diagnostic equipment.

2.1.6 PROHIBITED IN SCIFs
The following items are prohibited in SCIFs:

2.1.6.1 Personally owned photographic, video, and audio recording equipment.

2.1.6.2 Personally owned computers and associated media.

2.2 OVERSEAS

The provisions in paragraphs 2.1.5 and 2.1.6 above apply in the overseas environment with the exception that all personally owned electronic equipment may be introduced in the SCIF ONLY with the prior approval of the SOIC and on-site security representative, based on local threat conditions.

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ANNEX D

Part II - Disposal of Laser Toner Cartridges

(Effective 05 June 1998)

1.0 INTRODUCTION

The Director of Central Intelligence and the Senior Officials of the Intelligence Community (SOICs) hereby establish the policy and procedures for the disposal of used laser toner cartridge drums (cartridges). The policy established herein is based on technical research that has confirmed that the laser printer toner cartridges, removed from properly functioning printers, do not retain any residual static charge that could be associated with previously printed information. Thus, countermeasures to "declassify" a cartridge before releasing it, such as printing multiple pages of unclassified information or physically destroying the cartridge drum, are unnecessary and the expense of destroying toner cartridges is not deemed to be justified. SOICs are responsible for implementation of this policy within their respective department/agency. When deemed necessary and appropriate, SOICs may establish additional security measures.

2.0 POLICY

This policy applies to all equipment that uses similar technology (a laser printer with removable toner cartridge) as part of its production process (i.e. Laser Faxes, Printers, Copiers, etc.).

2.1 Used toner cartridges may be treated, handled, stored and disposed of as UNCLASSIFIED, when removed from equipment that has successfully completed its last print cycle. However, should a print cycle not be completed, there is the potential that residual toner may be left on the drum that could cause an information compromise. The following procedures should be followed for those situations where the print cycle was not successfully completed.

2.1.1 When a laser printer has not completed the printing cycle (e.g., a paper jam or power failure occurs), completing a subsequent print cycle before removal of cartridge is sufficient to wipe residual toner from the cartridge drum.

2.1.2 When the print cycle is interrupted by a jam or other action, and the toner cartridge is removed from service at

the same time, the toner cartridge drum will be inspected for residual toner by lifting the protective flap and viewing the exposed portion of the drum. If residual toner is present, manually rotating the drum is sufficient to wipe off residual toner material present.

2.2 After completing 2.1.1 or 2.1.2, the used toner cartridge may be treated, handled, stored and disposed of as UNCLASSIFIED and be returned for recycling or other agency approved method of disposal. In keeping with Environmental Protection Agency policy, agencies/departments are encouraged to establish procedures for recycling properly sanitized toner cartridges.

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ANNEX E - Acoustical Control and Sound Masking Techniques

(Effective 30 January 1994)

1.0 Basic Design:

Acoustical protection measures and sound masking systems are designed to protect SCI against being inadvertently overheard by the casual passerby, not to protect against deliberate interception of audio. The ability of a SCIF structure to retain sound within the perimeter is rated using a descriptive value, the Sound Transmission Class (STC).

1.1 The STC Rating: STC is a single number rating used to determine the sound barrier performance of walls, ceilings, floors, windows, and doors.

1.2 Use of Sound Groups: The current edition of Architectural Graphics Standards (AGS) describes various types of sound control, isolation requirements and office planning. The AGS established Sound Groups I through 4, of which Groups 3 and 4 are considered adequate for specific acoustical security requirements for SCIF construction.

1.2.1 Sound Group I - STC of 30 or better. Loud speech can be understood fairly well. Normal speech cannot be easily understood.

1.2.2 Sound Group 2 - STC of 40 or better. Loud speech can be heard, but is hardly intelligible. Normal speech can be heard only faintly if at all.

1.2.3 Sound Group 3 - STC of 45 or better. Loud speech can be faintly heard but not understood. Normal speech is unintelligible.

1.2.4 Sound Group 4 - STC of 50 or better. Very loud sounds, such as loud singing, brass musical instruments or a radio at full volume, can be heard only faintly or not at all.

2.0 Sound Reduction for SCIFs:

The amount of sound energy reduction may vary according to individual facility requirements. However, Sound Group ratings

shall be used to describe the effectiveness of SCIF acoustical security measures afforded by various wall materials and other building components.

2.1 All SCIF perimeter walls shall meet Sound Group 3, unless additional protection is required for amplified sound.

2.2 If compartmentation is required within the SCIF, the dividing office walls must meet Sound Group 3.

3.0 Sound Masking and Stand-Off Distance:

3.1 When normal construction and baffling measures have been determined to be inadequate for meeting Sound Group 3 or 4, as appropriate, sound masking shall be employed. Protection against interception of SCI discussions may include use of sound masking devices, structural enhancements, or SCIF perimeter placement.

3.1.1 Sound masking devices may include vibration and noise generating systems located on the perimeter of the SCIF.

3.1.2 Structural enhancements may include the use of high density building materials (i.e. sound deadening materials) to increase the resistance of the perimeter to vibration at audio frequencies.

3.1.3 SCIF perimeter placement may include construction design of a stand-off distance between the closest point a non-SCI indoctrinated person could be positioned and the point when SCI discussions become available for interception. Use of a perimeter fence or protective zone between the SCIF perimeter walls and the closest "listening place" is permitted as an alternative to other sound protection measures.

3.2 Masking of sound which emanates from an SCI discussion area is commonly done by a sound masking system. A sound masking system may utilize a noise generator, tape, disc or record player as a noise source and an amplifier and speakers or transducers for distribution.

4.0 Placement of Speakers and Transducers:

To be effective, the masking device must produce sound at a higher volume on the exterior of the SCIF than the voice conversations within the SCIF. Speakers/transducers should be placed close to or mounted on any paths that would allow audio to leave the area. These paths may include doors, windows, common

perimeter walls, vents/ducts, and any other means by which voice can leave the area.

4.1 For common walls, the speakers/transducers should be placed so the sound optimizes acoustical protection.

4.2 For doors and windows, the speakers/transducers should be close to the aperture of the window or door and the sound projected in a direction facing away from conversations.

4.3 Once the speakers or transducers are optimally placed, the system volume must be set and fixed. The level for each speaker should be determined by listening to conversations occurring within the SCIF and the masking sound and adjusting the level until conversations are unintelligible from outside the SCIF.

5.0 Installation of Equipment:

5.1 The sound masking system and all wires and transducers shall be located within the perimeter of the SCIF.

5.2 The sound masking system shall be subject to review during TSCM evaluations to ensure that the system does not create a technical security hazard.

6.0 Sound Sources:

The sound source must be obtained from a player unit located within the SCIF. Any device equipped with a capability to record ambient sound within the SCIF must have that capability disabled. Acceptable methods include:

6.1 Audio amplifier with a record turntable.

6.2 Audio amplifier with a cassette, reel-to-reel, Compact Disc (CD), or Digital Audio Tape (DAT) playback unit.

6.3 Integrated amplifier and playback unit incorporating any of the above music sources.

7.0 Emergency Notification Systems:

The introduction of electronic systems that have components outside the SCIF should be avoided. Speakers or other transducers, which are part of a system that is not wholly contained in the SCIF, are sometimes required to be in the SCIF by safety or fire regulations. In such instances, the system can be introduced if protected as follows:

7.1 All incoming wiring shall breach the SCIF perimeter at one point. TEMPEST or TSCM concerns may require electronic isolation.

7.2 In systems that require notification only, the system shall have a high gain buffer amplifier. In systems that require two-way communication, the system shall have electronic isolation. SCIF occupants should be alerted when the system is activated. All electronic isolation components shall be installed within the SCIF as near to the point of SCIF egress as possible.

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ANNEX F - Personnel Access Controls

(Effective 18 November 2002)

1.0 General Requirements

All SCIFs shall have personnel access control systems to control access at all perimeter entrances. Placards, signs, notices, and similar items are not acceptable as personnel access control systems. Unless otherwise stated herein, SCIF entrances shall be under visual control to deny unauthorized access unless the SCIF is unoccupied and secured. Such visual control may be accomplished by employees, guards using closed circuit television (CCTV), or other similar approved methods. If CCTV is used for providing visual control, the CCTV equipment shall be continuously monitored by appropriately SCI-indoctrinated personnel. Personnel access control systems as specified herein do not replace or modify any requirement to properly secure SCIF doors as specified in DCID 6/9.

2.0 Automated Access Control Systems

Automated personnel access control systems meeting the following criteria may be used to control admittance to SCIFs during working hours in lieu of visual control.

2.1 Identification Requirement. The automated personnel access control system shall verify the identity of an individual by one of the following methods.

2.1.1 Identification (ID) Badges or Cards. The ID badge or card must identify to the access control system the individual to whom the card is issued. A personal identification number (PIN) is required. The PIN must be separately entered into the system by each individual using a keypad device and shall consist of four or more digits, randomly selected, with no known or logical association with the individual.

2.1.2 Personal Identity Verification. Personal identity verification (biometrics device) identifies the individual requesting access by some unique personal characteristic.

[5] Superseded Annex F dated 5 June 1998.

2.2 Authentication Requirement. The automated personnel access control system shall authenticate an individual's authorization to enter the SCIF by matching the applicable information specified in the previous paragraph with personnel data contained in an automated database to authenticate the individual's authorization prior to giving the individual access to the SCIF.

2.3 Accept/Reject Threshold Criteria. Automated personnel access control equipment or devices shall meet the following criteria during normal equipment operation: The probability of an unauthorized individual gaining access is no more than one in ten thousand while the probability of an authorized individual being rejected access is no more than one in one thousand. Prior to using such equipment, manufacturers must certify in writing that their equipment conforms to this criterion.

2.4 System Protection. Physical security protection must be established and continuously maintained for all devices/equipment that comprise the personnel access control system. The level of protection may vary depending upon the type of devices/equipment being protected. Existing security controls within the facility shall be used to the extent practical in meeting this requirement.

2.5 Transmission Line Protection. System data that is carried on transmission lines (e.g., access authorizations, personal identification, or verification data) to and from devices/equipment located outside the SCIF shall be encrypted with an approved 128 bit, or greater, encryption algorithm. The algorithm must be certified by NIST or another US government authorized independent testing laboratory. If the communication technology described above is not feasible, the transmission line will be installed within a protective covering to preclude surreptitious manipulation, or be adequately supervised to protect against modification and/or substitution of the transmitted signal.

2.6 Door Strikes. Electric door strikes installed for use in personnel access control systems shall be heavy-duty industrial grade.

2.7 Personnel and System Data Protection. Locations where authorization data, card encoded data, and personal identification or verification data is input, stored, or recorded must be protected within a SCIF or an alarmed area controlled at the SECRET level. Records and information concerning encoded ID data, PINs, authentication data, operating system software, or any identifying data associated with the personnel access control system shall be kept secured when unattended. Access to the data shall be restricted. (See paragraph 4.3.)

2.8 External Devices. Card readers, keypads, communication, or interface devices located outside the entrance to a SCIF, shall have tamper resistant enclosures and be securely fastened to a wall or other structure.

2.9 Electrical components, associated wiring, or mechanical links (cables, rods, and so on) should be accessible only from inside the SCIF, or if they transverse an uncontrolled area they shall be secured within a protective covering to preclude surreptitious manipulation of components.

2.10 Records shall be maintained to reflect the current active assignment of ID badge/card, PIN, level of access, entries, and similar system-related elements. Records concerning personnel removed from the system shall be retained for a minimum of two years. Records of entries to SCIFs shall be retained for a minimum of two years or until investigations of system violations and incidents have been successfully resolved and recorded.

3.0 Non-Automated Access Control

Non-automated access control (electric, mechanical, or electromechanical) that meet the criteria stated below may be used to control admittance to SCIF areas during working hours if the entrance is under visual control (see paragraph 1.0). These systems are also acceptable to control access to compartmented areas within the SCIF. Non-automated access system devices must be installed in the following manner:

3.1 Control Panel Location and Shielding. The control panel in which the combination and all associated cabling and wiring is set shall be located inside the SCIF and will require minimal physical security designed to deny unauthorized access to its mechanism. The control panel shall be installed, or have a shielding device mounted, such that an unauthorized person in the immediate vicinity cannot observe the setting or changing of the combination. (See paragraph 4.4.)

3.2 Access Code Protection. Keypad devices shall be designed or installed in such a manner that unauthorized individuals in the immediate vicinity cannot observe the entry of the access code.

4.0 Personnel Requirements and Restrictions

Operating personnel access control systems in accordance with this annex requires that the below personnel requirements and restrictions be followed:

4.1 Entering and Leaving a SCIF. Personnel entering or leaving an area are required to ensure the entrance or exit point is properly closed. Authorized personnel who permit another individual to enter the area are responsible for confirming the individual's access and need-to-know.

4.2 Escorting. An SCI-indoctrinated person who is knowledgeable of the security procedures of the SCIF shall continuously escort persons within the SCIF who are not SCI-indoctrinated.

4.3 Access to Personnel and System Data. Access to records and information concerning encoded ID data and PINs shall be restricted to SCI-indoctrinated personnel. Access to identification or authentication data, operating system software, or any identifying data associated with the personnel access control system shall be limited to the least number of personnel possible.

4.4 Setting Combinations (*applies to non-automated access control only*). The selection and setting of the combination shall be accomplished by SCI-indoctrinated individuals. The combination shall be changed when compromised or an individual knowledgeable of the combination no longer requires access.

4.5 System Records Maintenance. A procedure shall be established for removing an individual's authorization to enter an area when the individual is transferred, terminated, or the individual's access is suspended, revoked, or downgraded to a level below that required for entry. Compromised access cards and/or PINs will be immediately reported and removed from the system.

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ANNEX G - Telecommunications Systems and Equipment

(Effective 18 November 2002)

This annex establishes a baseline requirement for the protection of sensitive information within Sensitive Compartmented Information Facilities (SCIFs) from intrusion and exploitation via unclassified telecommunications systems, devices, equipment, software, and features. Compliance with these standards is mandatory for all SCIFs and/or systems established after the effective date of this annex.

1.0 Applicability and Scope

The telecommunications security measures of this Annex apply to the planning, installation, maintenance, and management of telecommunication systems and equipment within SCIFs, in both foreign and domestic locations. The security measures of this Annex apply to any telecommunication system that provides service to a SCIF. The requirements contained in this annex are designed to prevent inadvertent disclosure or loss of sensitive, intelligence bearing information through telecommunication systems and to protect against the clandestine exploitation and/or disruption of SCIF operations through these systems. This Annex is compatible with but may not satisfy requirements of other security disciplines such as COMSEC, OPSEC, or TEMPEST.

2.0 Requirements

At a minimum, the following requirements must be met to ensure proper safeguards for the protection of information: configuration of telecommunications systems, devices, features, and software; access control; and control of the cable infrastructure. The audio protection requirements of this Annex do not apply if the SCIF is declared a "No Classified Discussion Area" and warning notices are posted prominently within the SCIF.

2.1 Baseline Configuration.

2.1.1 A baseline configuration of all telecommunications systems, devices, features, and software must be established, documented, and included in the Fixed Facility Checklist (DCID 6/9 Annex A) or as an attachment.

[6] Superseded Annex G dated 29 July 1994.

2.1.2 The Cognizant Security Authority (CSA) will review the telecommunications system baseline configuration and supporting/supplementing information to determine if the risk of information loss or exploitation has been suitably mitigated. When the following requirements are unachievable, the associated telecommunications equipment must be installed and maintained in non-discussion areas or a written waiver must be issued by the CSA.

2.2 Unclassified Telecommunications Systems. Unclassified telecommunications systems in SCIFs shall not pass/transmit sensitive audio discussions when they are idle and not in use. Additionally, these telecommunications systems shall be configured to prevent external control or activation. The concepts of "on-hook" and "off-hook" audio protection[7] outlined in telephone security group (TSG) standards 2 and 6 must be incorporated into SCIF telecommunications systems.

2.2.1 Unclassified telephone systems and services shall be configured to prevent technical exploitation or penetration. In addition, these systems shall incorporate physical and software access controls to prevent disclosure or manipulation of system programming and stored data.

The CSA must ensure that the following specific requirements are applied to unclassified telecommunications systems:

2.2.1.1 Provide on-hook audio protection by the use of TSG 6 instrument(s), TSG 6 approved disconnect devices, or equivalent TSG 2 system configuration.

2.2.1.2 Provide off-hook audio protection by use of a hold feature, modified handset (push-to-talk), or equivalent.

2.2.1.3 Provide isolation by use of a computerized telephone system (CTS) with software and hardware configuration control and control of audit reports (such as station message detail reporting, call detail reporting, etc.). System programming will not include the ability to place, or keep, a handset off-hook. Configuration of the system must ensure that all on-hook and off-hook vulnerabilities are identified and mitigated.

[7] On-hook audio protection is the assurance that a telephonic device does not pick-up and process audio when the phone is hung-up and considered to be idle. Off-hook audio protection is the assurance that when the phone is in use, but temporarily unattended, that near-by audio is not picked up and processed through the use of a “hold feature” or a push-to-talk handset.

2.2.1.4 Ensure that equipment used for administration of telephone systems is installed inside an area where access is limited to authorized personnel. When local or remote administration terminals (for a CTS) are not or cannot be contained within the controlled area, and safeguarded against unauthorized manipulation, then the use of TSG 6 approved telephone instruments shall be required, regardless of the CTS configuration.

2.2.1.5 Ensure that remote maintenance, if used, is protected against manipulation/activation by means of a dial-back modem, network boundary security device (firewall), or other appropriate device.

2.2.1.6 Ensure that speakerphones and audio conferencing systems are not used on unclassified telecommunications systems in SCIFs. Exceptions to this requirement may be approved by the CSA, when these systems have sufficient audio isolation from other classified discussion areas in the SCIF, and procedures are established to prevent inadvertent transmission of classified information.

2.2.1.7 Ensure that features used for voice mail or unified messaging services, are configured to prevent unauthorized access to remote diagnostic ports or internal dial tone.

2.2.1.8 Ensure that telephone answering devices (TAD) and facsimile machines do not contain features that introduce security vulnerabilities, e.g., remote room monitoring, remote programming, or other similar features that may permit off-premise access to room audio. Prior CSA approval is required before installation or use.

2.2.2 All unclassified telecommunications systems and associated infrastructure must be electrically and physically isolated from any classified information/telecommunications systems in accordance with National Security Telecommunications and Information Systems Security Committee requirements or any other separation standards applied to the classified information system on site.

2.3 Unclassified Information Systems. Unclassified information systems must be safeguarded to prevent manipulation of features and software that could result in the loss/compromise of sensitive audio information or protected data.

2.3.1 Ensure that all computer/telecommunications equipment with telephonic or audio features are protected against remote activation and/or exfiltration of audio information

over any connections (i.e., disconnecting the microphone, inserting a blank plug in the microphone jack, etc.).

2.3.2 Ensure that all video cameras used for unclassified video teleconferencing and/or video recording equipment are deactivated and disconnected when not in use. In addition, video devices used in SCIFs must feature a clearly visible indicator to alert SCIF personnel when recording or transmitting.

2.4 Environmental Infrastructure Systems. Environmental infrastructure systems are the basic human comfort, security, and life safety systems that support SCIF operations. Advancements in technology have created conditions whereby many of these amenities are computer-automated with public switched telephone network or other connections for remote monitoring, access, and external control/manipulation of features and services. Fixed facility checklists (FFC) will identify any such connection to environmental systems within SCIFs, and document measures taken to provide protection against malicious activity, intrusion, and exploitation. Protection mechanisms and current configurations for infrastructure systems, such as premise management systems, environmental control systems, lighting and power control units, uninterrupted power sources, and such, which provide services to the SCIF, shall be included in the SCIF baseline evaluation (whether or not they reside in the SCIF).

2.5 Wireless Technology. The use of any device, or system utilizing wireless technology must be approved by the CSA prior to purchase and introduction into the SCIF. All TEMPEST/Technical Security concerns shall be weighed against the facilities overall security posture (i.e., facility location, threat, as well as any compensatory countermeasures that create a “security in-depth” concept) when evaluating these wireless systems. All separation and isolation standards provided in NSTISSC standards are applicable to unclassified wireless systems installed or used in SCIFs.

2.6 Access Control. Installation and maintenance of unclassified telecommunications systems and devices supporting SCIF operations may require physical and/or electronic access. Remote maintenance may be performed as described in paragraph 2.6.2. Under other circumstances, physical access may be required to perform computer-based diagnostics to make necessary repairs. Therefore, the following paragraphs identify the minimum requirements for providing access to unclassified telecommunications systems and devices supporting SCIF operations. These requirements are applicable regardless of whether or not the telecommunications device resides within the SCIF or is contained in a protected area outside the SCIF, so

long as it is deemed as a critical infrastructure item by the CSA.

2.6.1 Physical Access Control. Installation and maintenance personnel will possess an appropriate clearance and access or will be escorted and monitored by technically knowledgeable cleared personnel at all times within the SCIF. Furthermore, physical access to telecommunications equipment shall be limited to prevent unauthorized modifications or reconfiguration.

2.6.2 Remote Maintenance and Diagnostic Access. All capabilities for remote maintenance and diagnostic services must be clearly specified in the FFC. The FFC will include all procedures and countermeasures preventing unauthorized system access, unauthorized system modification, or introduction of unauthorized software as specified in TSG 2 paragraph 4d.

2.6.2.1 Remote maintenance and diagnosis may be performed from a secure facility over a protected link (i.e., dial-back or DES modem).

2.6.2.2 Failing the steps outlined in paragraph 2.6.2.1, remote maintenance and diagnosis may be performed over an unclassified telephone line as specified in TSG 2 paragraph 4c.

2.7 Memory and Storage Media. Any telecommunication system, component and/or like devices with memory or digital storage capabilities, to include multi-function devices, (i.e., facsimile, printers, copiers, scanners, etc.) will be sanitized of any sensitive information before being repaired or released to uncleared personnel.

2.7.1 The baseline configuration document, FFC, will identify all memory and data storage systems of all unclassified telecommunications systems that contain sensitive data or information that is of concern for operational security purposes. This storage media will be sanitized before it is removed from the facility for any purpose, including maintenance or disposal. Similarly, this storage media will not be made available to uncleared technicians or maintenance personnel.

2.7.2 Storage media that cannot be effectively sanitized will be removed from the telecommunications system prior to repair or disposal, and be destroyed by approved methods.

2.8 SCIF Cable Control.

2.8.1 All unclassified telecommunications cabling[8] should enter the SCIF through a common opening. The cables should be installed in a professional manner, such that they can be visually inspected without difficulty.

2.8.2 Each conductor (fiber or metallic) should be accurately accounted for from the point of entry. The accountability should identify the precise use of every conductor through labeling, log, or journal entries. Spare conductors will be identified and appropriately grounded.

2.8.3 Unused conductors will be removed. If removal is not feasible, the CSA may require the metallic conductors be stripped, bound together, and grounded at the point of ingress/egress. Unused fiber conductors will be uncoupled from the interface within the SCIF, capped, and labeled as unused.

3.0 Responsibilities

3.1 NTSWG. The National Telecommunications Security Working Group (NTSWG) is responsible for developing security countermeasure solutions for unclassified telecommunications systems and devices.

3.2 CSA. The CSA is responsible for selecting, implementing, and verifying security measures to balance the vulnerabilities of the telecommunications system(s) against technical threats of its environment. This requires the CSA to:

3.2.1 Know this Annex and be able to assist site security personnel with implementation.

3.2.2 Review the fixed facility checklist and certify that all the requirements of this Annex have been met. When the requirements of this Annex cannot be met, the CSA must mitigate the risk through the application of countermeasures or waive the requirement.

3.2.3 Assist site security personnel in selecting telecommunications equipment and/or recommending appropriate countermeasures.

3.2.4 Maintain a current set of the reference documents. See references, section 4.0 below.

[8] Telecommunications cabling includes all cables used to support SCIF operations, to include wiring for fire annunciation and evacuation systems which may only run throughout the building, but may not connect to the PSTN.

3.2.5 Responsible for ensuring that a full risk assessment is performed prior to issuance of a waiver or exception to the provisions of this document, and for ensuring that any waiver or exception is periodically reviewed. Any such waivers or exceptions must be documented.

3.2.6 Request technical surveillance countermeasures (TSCM) inspections as conditions warrant, to prevent the loss or compromise of protected information through the intrusion and exploitation of a telecommunications system IAW DCID 6/2.

3.3 Site Security Personnel. The site security personnel are responsible for implementing the requirements of this Annex and requesting CSA approval for new telecommunications systems, devices, features and hardware, and major modifications to existing systems by:

3.3.1 Submitting necessary documentation on new systems and/or modified systems and recommending security countermeasures and options to the CSA, as appropriate.

3.3.2 Maintaining a record set of documentation on site.

3.3.3 Adhering to the guidance set forth by the CSA.

3.3.4 Notifying the CSA of any suspected or actual attempts to intrude or exploit a telecommunications or infrastructure system supporting SCIF operations. When warranted, site security personnel will assist the CSA with investigating and resolving the incident, and applying additional countermeasures as required.

3.3.5 Determining that telecommunications systems and devices are properly sanitized or cleared prior to any maintenance procedures, and that all networked interconnections are removed (isolated) during maintenance routines.

3.3.6 Authorizing diagnostics connections (either remote or on-site) for the purpose of performing maintenance on telecommunications systems and devices, and conducting reviews of on-site test data prior to releasing it from the protected area.

4.0 References

4.1 NTSWG (*formerly known as the TSG*). Standards and information series refer to the published guidance provided by the NTSWG for the protection of sensitive information and unclassified telecommunications information processing systems and equipment. The following documents are intended for use by all personnel concerned with telecommunications security.

4.1.1 TSG Standard 1, (*Introduction to Telephone Security).* Provides telephone security background and TSG-approved options for telephone installations in US Government sensitive discussion areas.

4.1.2 TSG Standard 2 (*TSG Guidelines for Computerized Telephone Systems*) and its Annexes. Establishes requirements for planning, installing, maintaining, and managing a CTS, and provides guidance for personnel involved in writing contract, inspecting, and system administration of a CTS.

4.1.3 TSG Standard 6, (*TSG-Approved Equipment)*. Lists TSG-approved equipment which inherently provides protection against the accidental collection and conduction of information from within sensitive discussion areas.

4.1.4 TSG Standards 3,4,5,7, and 8. Contains design specifications for telecommunication manufacturers, and are not necessarily applicable to facility security personnel.

4.1.5 Information Series (*Computerized Telephone Systems (CTSs) A Review of Deficiencies, Threats, and Risks*, dated: December 1994). Describes deficiencies, threats, and risks associated with computerized telephone systems which impact the loss of “on-hook” audio, as well as the protection of unclassified information stored/contained within the CTS and its telephone devices.

4.1.6 Information Series (*Executive Overview,* dated: October 1996). Provides the salient points of the TSG standards and presents them in a non-technical format.

4.1.7 Information Series (*Central Office (CO) Interfaces,* dated: November 1997). Provides an understanding of the types of services delivered by the local central office and describes how they are connected to administrative telecommunications systems and devices.

4.1.8 Information Series (*Everything You Always Wanted to Know about Telephone Security…but were afraid to ask,* second edition, dated: December 1998). Distills the essence of the

TSG standards (which contain sound telecommunications practices) and presents them in a readable, non-technical manner.

4.1.9 Information Series (*Infrastructure Surety Program…securing the last mile*, dated: April 1999). Provides a basic understanding of how to protect office automation and infrastructure systems that contribute to successful mission accomplishment.

4.1.10 Information Series (*Computerized Telephone Systems Security Plan Manual*, dated: May 1999). Assists in implementing and maintaining the "secure" operation of CTSs when used to support SCIF operations. The term "secure" relates to the safe and risk-free operation, not the use of encryption or a transmission security device.

4.2 Director of Central Intelligence Directive (DCID 6/2). Technical Surveillance Countermeasures, (TSCM).

4.3 Director of Central Intelligence Directive (DCID 6/3). Protecting Sensitive Compartmented Information, (SCI) within Information Systems.

4.4 SPB Issuance 00-2 (18 January 2000). Infrastructure Surety Program (ISP) and the Management Assessment Tool (MAT).

5.0 Definitions

5.1 Critical Infrastructure Item. Any component or group of components that provides essential functions or support to the SCIF operation, or that is relied upon as an isolation component/device to assure that SCIF-based telecommunications cannot be electronically accessed to exploit information. Examples include: uninterrupted power sources (UPS); computerized telephone system (CTS); and/or energy management systems (EMS); which provide power, telephone, lighting, and HVAC for the SCIF (which often reside outside the SCIF perimeter).

5.2 Environmental Infrastructure Systems. Those systems and devices providing critical support to the SCIF in which sensitive information processing takes place. The denial or degradation of environmental/ infrastructure systems will have a cascading effect on the denial or degradation of information processing and information availability. Therefore, this annex will address the minimum protection necessary to ensure a continuity of service to thwart the effects of denial of service attacks or external manipulation of environmental/infrastructure systems.

5.3 Sensitive Information. Information requiring safeguards per US Government directives for information such as: classified national security information (CNSI), sensitive compartmented information (SCI), restricted data (RD), sensitive but unclassified (SBU) information, and For Official Use Only (FOUO).

5.4 Site Security Personnel. Individual(s) responsible for SCIF security, including physical and technical security, and information protection. This term is synonymous with the Special Security Officer (SSO), Special Security Representative (SSR), Contractor Special Security Officers (CSSOs), Facility Security Officer (FSO), Facility Security Manager (FSM), and others; which may be agency specific terms.

5.5 Wireless. Any communications path or method that does not rely totally on a copper wire or fiber for its transmission medium, i.e., infrared (IR), radio frequency (RF), etc.

5.6 Computerized Telephone System (CTS). A generic term used to describe any telephone systems that use centralized stored program computer technology to provide switched telephone networking features and services. CTSs are referred to commercially by such terms as computerized private branch exchange (CPBX), private branch exchange (PBX), private automatic branch exchange (PABX), electronic private automatic branch exchange (EPABX), computerized branch exchange (CBX), computerized key telephone system (CKTS), hybrid key systems, business communications systems, and office communications systems.

Appendix C

Personnel Breakdown

Summary Sheet

Construction Precedence	1			2		3			4			5			
	Internal Staff			Base OPS		TFP			PRD			DRD			TOTAL
Admin Office Space (60%):	44,150			6,240		8,450			9,760			36,550			105,150
General Admin Space (40%)	17,660			2,496		3,380			3,904			14,620			42,060
Billeting Space:	29,680			7,120		6,320			4,720			25,040			72,880
Space Tiers	80SF	160SF	240SF	80SF	160SF	80SF	160SF	240SF	80SF	160SF	240SF	80SF	160SF	240SF	
Number of Rooms Each Tier:	210	76	3	79	5	41	19	0	29	15	0	150	80	1	