

<b>SOLICITATION, OFFER AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>	1. SOLICITATION NO. W5J9LE-11-R-0092	2. TYPE OF SOLICITATION <input type="checkbox"/> SEALED BID (IFB) <input checked="" type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 06-Aug-2011	PAGE OF PAGES 1 OF 61
	<b>IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.</b>			

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO. O&M 10-0061
-----------------	-------------------------------------	-------------------------------

7. ISSUED BY AFGHANISTAN DISTRICT SOUTH (AES) US ARMY CORPS OF ENGINEERS APO AE 09355	CODE W5J9LE	8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE  <b>See Item 7</b>
TEL:	FAX:	TEL:
		FAX:

9. FOR INFORMATION CALL:	A. NAME JEFFEREY A BALL	B. TELEPHONE NO. <i>(Include area code)</i> <b>(NO COLLECT CALLS)</b>
--------------------------	----------------------------	---

**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)*:  
 Camp Shorabak Generator 6 Install and Generator 3 Repair

The Government intends to award one Firm Fixed Price contract. This procurement is for the design and installation of upgrades at the ANA Camp Shorabak power Plant in Lashkar Gah, Helmand Province, Afghanistan.

The magnitude of construction is between \$100,000.00 and \$250,000.00.

The point of contact for this solicitation is Jefferey Ball. All e-mails should be submitted to: jefferey.a.ball@usace.army.mil; with courtesycopies furnished to: tas.contracting@usace.army.mil

11. The Contractor shall begin performance within 10 calendar days and complete it within 90 calendar days after receiving  award,  notice to proceed. This performance period is  mandatory,  negotiable. (See 52.211-10 \_\_\_\_\_.)

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	12B. CALENDAR DAYS
--	--------------------

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and 1 copies to perform the work required are due at the place specified in Item 8 by 02:00 PM (hour) local time 21 Aug 2011 (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 120 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 commutates 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)*

30B. SIGNATURE

30C. DATE

TEL:

EMAIL:

31B. UNITED STATES OF AMERICA  
BY

31C. AWARD DATE

Section 00010 - Solicitation Contract Form

Table of Contents

<u>Section</u>	<u>Title</u>
00150	The Design-Build Process
00555	Design Concept
01010	Scope of Work
01015	Technical Requirements
01040	Security
01060	Special Clause
01060A	MOI Project Sign
01312	Quality Control System (QCS)
01321	Project Schedule
01335	Submittal Procedures for Design/Build Projects
01335A	Attachment AED
01335B	E-Submittal Format
01415	Metric Measurements
01451	Contractor Quality Control
01525	Safety & Occupational Health Requirements
01780	Closeout Procedures & Submittals
1781	Operation and Maintenance Data
Attachment 1	Power Plant As-Builts

PROPOSAL SCHEDULE

**SECTION 00010**

**PROPOSAL SCHEDULE**

The Contractor shall provide a price for all items. The Government will award in accordance with the Lowest Price Technically Acceptable (LPTA) process.

<u>No.</u>	<u>Description</u>	<u>Qty</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Total Amount</u>
<b>BASE PROPOSAL</b>					
<b>0001</b>	<b>Base Line Items</b>				
0001AA	Site Planning & Design Costs	1	LS	XXX	\$ _____
0001AB	Mobilization & Demobilization	1	LS	XXX	\$ _____
0001AC	Purchase & Delivery of Generator PG6 Exhaust System and Components	1	LS	XXX	\$ _____
0001AD	Purchase & Delivery of Generator PG 6 Double Filtration System	1	LS	XXX	\$ _____
0001AE	Purchase & Delivery of One-Year Supply of Filters for PG6	1	LS	XXX	\$ _____
0001AF	Purchase & Delivery of Day Tank for Generator PG6 and Plumbing	1	LS	XXX	\$ _____
0001AG	Reinforced Concrete Housekeeping Pads for PG6 & DT6	1	LS	XXX	\$ _____
0001AH	Purchase and Delivery of Wire, Cable and Misc. Equipment Required for PG6	1	LS	XXX	\$ _____
0001AJ	Installation and Commissioning of PG6	1	LS	XXX	\$ _____
0001AK	Purchase & Delivery of Generator PG3 Radiator System and Components	1	LS	XXX	\$ _____
0001AL	Purchase & Delivery of One-Year Supply of Filters for PG3	1	LS	XXX	\$ _____
0001AM	Installation and Commissioning of PG3 Radiator Upgrade	1	LS	XXX	\$ _____
0001AN	Security	1	LS	XXX	\$ _____
<b>0002</b>	<b>DBA Insurance</b>				

0002AA	DBA Insurance	1	LS	XXX	\$ _____
<p>The amount listed by the offeror on this CLIN is the estimated DBA insurance premium (estimated payroll of the offeror and its subcontractors, multiplied by the applicable rate(s)). The actual amount paid by the government under this CLIN will be based on the amount of the Rutherford invoice submitted by the offeror after contract award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by contract modification to reflect actual premium amounts paid.</p>					
<b>TOTAL PROPOSAL:</b>					\$ _____

**PROPOSAL SCHEDULE NOTES**

1. Offeror shall submit prices on all items. Scope of work on each items are described in Section 01010. The quantities shown in the bid schedule shall take precedence and be used for developing the proposal.
2. Only one contract for the entire schedule will be awarded under this solicitation. This project will be awarded as a lump sum contract. This Proposal Schedule is an accounting tool for allocating funds to applicable budget.
3. Costs associated with this project shall include design and construction costs, site development, and utility installation.
4. DESIGN COSTS DEFINITION: Design costs shall consist of design analysis, drawings, and specifications for all facilities.
5. PERIOD OF PERFORMANCE AND LIQUIDATED DAMAGES: See Section 00150 for performance schedule and liquidated damages. Period of performance is defined as the number of calendar days from receipt of notice to proceed. Liquidated damages are assessed at the stated rate per day for every day of delay past the period of performance until contract completion.
6. Abbreviations:  

LS = Lump Sum

**-END OF SECTION-**

0113 INSTRUCTIONS TO OFFERORS

**SECTION 00113**

**PROCEDURES FOR SUBMITTAL OF OFFERS  
AND  
PROPOSAL EVALUATION CRITERIA**

**1.0 GENERAL**

**1.1 BASIS AND INTENT**

The intent of this Request for Proposal (**Solicitation**) is to select one (1) Contractor for the design-build (DB) to upgrade the Afghan National Army (ANA), Camp Shorabak Power Plant.

**The basis of award is Lowest Price Technically Acceptable (LPTA).**

The Contracting Officer will award a fixed price contract to the successful Offeror whom the Source Selection Authority determines conforms to the **Solicitation** and is technically acceptable, is fair and reasonable, and offers the lowest price to the Government. The contract will NOT be awarded solely on the basis of lowest price.

**1.2 DEFINITIONS**

When the word ‘Offeror’ is encountered throughout Section 00113, it is intended to mean a company seeking to do business with the Government that submits a proposal in response to this solicitation.

A proposal is documentation prepared by the Offeror and submitted to the Government for evaluation purposes in response to this solicitation.

When the word ‘Government’ is encountered throughout this Section, it is intended to mean US Army Corps of Engineers Afghanistan District - South (AES).

**2.0 SUBMITTALS**

As this is a competitive negotiation acquisition, there is no public bid opening and no information given out as to the number of Offerors or the results of the competition until all awards are made.

**2.1 GENERAL SUBMISSION REQUIREMENTS**

Offerors submitting proposals for this project should limit submissions to data essential for evaluation of proposals so that a minimum of time and monies will have been expended in preparing information required herein. However, in order to be effectively and equitably evaluated, the proposals must include information sufficiently detailed to clearly describe the Offeror’s capabilities to successfully complete the project. Proposals should follow in the order of sequence set forth in the **Solicitation**. Information provided out of sequence may not be evaluated and may result in the Offeror’s disqualification from award. **Attached forms shall be used.** Offeror’s alternate forms are not acceptable. Requirements stated in this **Solicitation** are minimums.

**2.2 SUBMISSION ADDRESS**

Proposals for this solicitation will be accepted until the date and time indicated on Standard Form 1442. Offerors shall submit their proposals electronically, in PDF format, to the following email addresses:

[jefferey.a.ball@usace.army.mil](mailto:jefferey.a.ball@usace.army.mil) with a courtesy copy to [tas.contracting@usace.army.mil](mailto:tas.contracting@usace.army.mil).

All questions and inquiries shall be submitted by email to:

[jefferey.a.ball@usace.army.mil](mailto:jefferey.a.ball@usace.army.mil) with a courtesy copy to [tas.contracting@usace.army.mil](mailto:tas.contracting@usace.army.mil).

Electronic (as email) inquiries to this solicitation must be received by this office not later than Seven (7) calendar days prior to the due date of proposals. Questions received less than seven days prior to the due date of proposals will not be entertained.

**Faxed Proposals, Modifications Thereto, Or Cancellations Will Not Be Accepted.** However, offers may be withdrawn in writing by e-mail. Any written notice to withdraw an offer sent to this office must be received in the office designated for receipt of offers not later than the exact date and time set for receipt of proposals.

**Telephone Inquiries Will Not Be Accepted.** Oral explanations or instructions are not binding. Any information given to an Offeror which impacts the solicitation and/or offer will be given in the form of a written amendment to the solicitation.

### 2.3 SITE VISIT

There will be no site visit for this project.

### 3.0 PROPOSAL EVALUATION PROCESS

A Source Selection Evaluation Board (SSEB), comprised of representatives of the US Army Corps of Engineers (USACE), User/Customer, and other required personnel, will evaluate the proposals. Offerors are advised that the technical evaluation and rating of proposals will be conducted in strict confidence so that the Technical and Performance Capability parts of the proposals are reviewed and rated without knowledge of the price offered. The number and identities of the Offerors are not revealed to anyone who is not involved in the evaluation and award process or to other Offerors. Proposals will be evaluated based on the factors described herein, and the basis of award is Lowest Price Technically Acceptable (LPTA).

The evaluation process essentially consists of three (3) parts:

1. Proposal Compliance Review - Responsibility Determination
2. Technical and Performance Capability Evaluation
3. Price and Pro Forma Information Evaluation

#### 3.1 PROPOSAL COMPLIANCE REVIEW - RESPONSIBILITY DETERMINATION

This is an initial review to ensure that all required forms and certifications are complete and that both a technical and price proposal were received. **Incomplete Submissions Will Not Be Evaluated Further.**

#### 3.2 TECHNICAL & PERFORMANCE CAPABILITY EVALUATION

The SSEB will evaluate and rate those proposals passing the first review, above. Proposals will be evaluated against the **Solicitation** requirements. Factors will be rated either 'Acceptable' or 'Unacceptable'. If a proposal is determined an 'Unacceptable,' further evaluation by the SSEB is not warranted.

#### 3.3 PRICE & PRO FORMA INFORMATION EVALUATION

The SSEB can evaluate Price and Pro Forma Information independent of the Technical and Performance Capability evaluation. The SSEB will not have access to price information until completion of the Technical and Performance Capability evaluation.

#### **4.0 PROPOSAL SUBMISSION REQUIREMENTS & INSTRUCTIONS**

Offerors are required to submit a proposal made up of a Technical and Performance Capability proposal (Volume I) and a Price and Pro Forma Information proposal (Volume II). All proposal materials shall be submitted in Two (2) PDF Files ('Volume I' and 'Volume II') with a table of contents and continuous page numbering for each Volume. **The Proposal Shall Not Mix the Contents of Volume I and II; Each Volume Shall Be a Separate Electronic File.** The sections should parallel the submission requirements identified below. Failure to place the required submission information under the appropriate tab may result in a lower rating if the evaluators cannot readily find the appropriate information.

There is a limit of 50 pages total for the entire package using a minimum font size of 11 and a minimum margin size of 13 mm (1/2") on all sides. **Information Submitted Which Exceeds The Specified Limit Will Not Be Evaluated.** Page size to be based on A4 (210 mm x 300 mm) or 8-1/2" x 11" Letter Size, and must be readily formatted for printing on a standard printer. The **Project Schedule** size shall be based on a larger sheet (maximum size A3 (300 mm x 420 mm or 11" x 17")) and included in Volume I in the PDF package. **Format Restrictions Will Be Strictly Adhered To And Enforced.**

#### **5.0 PROPOSAL INFORMATION & RELATED EVALUATION FACTORS**

Proposals will be evaluated (in English) in accordance with the evaluation factors. Offerors are reminded to include their best technical and price terms in their initial offer and not to automatically assume that they will have an opportunity to participate in discussions or be asked to submit a revised offer. The Government may make award of a conforming proposal without discussions if deemed to be within the best interests of the Government.

Volume I - Technical and Performance Capability:

- Factor 1 Experience
- Factor 2 Personnel
- Factor 3 Past Performance

Volume II - Price and Pro Forma Information:

- Tab A Standard Form 1442; and Section 00600 – Representations and Certifications
- Tab B Section 00010, Proposal Bid Schedule

**Additional Information Provided Beyond The Required Documentation May Not Be Evaluated.**

#### **5.1 TECHNICAL & PERFORMANCE CAPABILITY**

##### **5.1.1 FACTOR 1 – EXPERIENCE**

###### **5.1.1.1 FACTOR 1 - SUBMISSION REQUIREMENTS**

The Government will evaluate the offeror's prior experience as either a prime contractor or sub-contractor. AT LEAST ONE (1) submission shall demonstrate experience as a prime contractor.

Each offeror shall complete a minimum of two (2), but no more than three (3), project 'Contractor Experience' form(s), attached at the end of this solicitation, (Appendix A, Form A1), for each project submitted. All blocks must be filled-in and all data must be accurate, current and complete. Submission requirements (in English) for experience are:

- a. If claiming Prime Contractor Experience, a Prime Contractor must have self-performed, on site at least 25% of the direct contract labor, exclusive of other general condition or field overhead personnel, material, equipment, design or subcontractors for projects submitted to demonstrate its experience.
- b. EACH project provided to demonstrate experience must have an awarded contract value of over \$75,000.00 (USD).
- c. AT LEAST ONE (1) of the projects used to demonstrate experience must have been constructed in Afghanistan.
- d. AT LEAST ONE (1) project used to demonstrate experience must have been completed within the last 5 years from the date of this solicitation.
- e. AT LEAST ONE (1) of the projects submitted must demonstrate experience with AT LEAST ONE (1) of the following construction facilities, features, or activities:
  - (i) Electrical Power Plants
  - (ii) Electrical Power Generating Systems
- f. Individual task order of a Multiple Award Task Order Contract (MATOC) may be submitted as a single project to demonstrate experience as defined in Section 5.1.1.1 – a thru e. Combining contract values of individual task orders of a MATOC is not allowed to meet criteria 5.1.1.1 – b above.

### **5.1.1.2 FACTOR 1 - EVALUATION CRITERIA**

#### **“Acceptable” Rating:**

The SSEB will evaluate experience submitted per Section 5.1.1.1. Offerors must meet all of the experience requirements identified in Section 5.1.1.1 to receive an ‘Acceptable’ rating.

#### **“Unacceptable” Rating**

Proposals that do not clearly meet the minimum acceptable requirements identified in Section 5.1.1.1 will receive an “Unacceptable” rating.

### **5.1.2 FACTOR 2 – PERSONNEL**

#### **5.1.2.1 FACTOR 2 - SUBMISSION REQUIREMENTS**

Provide resumes for EACH of the following key personnel (note, key personnel resumes shall not exceed two pages per key personnel):

- a. Overall Project Manager
- b. Construction Superintendent
- c. Quality Control Manager
- d. Senior Electrical Design Engineer

The Overall Project Manager, Construction Superintendent and Quality Control Manager shall have:

- Documentation identifying each person is a current full-time employee of the Prime Contractor or a letter of intent signifying their employment for this project
- Minimum of five (5) years of relevant experience in their assigned job position

The Senior Design Engineer shall have:

- Documentation identifying each person is a current full-time employee of either the Prime Contractor or sub-consultant or a letter of intent signifying their employment for this project.
- 4-year college graduate with an engineering degree [degree, year awarded, and specialization to be indicated on the ‘Personnel Resume/Experience’ form (Appendix A, Form A2)].
- Minimum of five (5) years of engineering experience [total number of years’ experience to be indicated on the ‘Personnel Resume/Experience’ form (Appendix A, Form A2)].

Resumes must include the information on ‘Personnel Resume/Experience’ form (Appendix A, Form A2). All information must be filled in and all data should be accurate, current, and complete.

**NOTE:** Identified personnel must be used on the project. Any substitution of identified persons will not be permitted without prior approval of the Contracting Officer. Identification of two individuals proposed for a single position will result in the evaluation of only the least qualified person. A single individual cannot be identified as ‘key personnel’ for more than one ‘key personnel’ position.

### 5.1.2.2 FACTOR 2 - EVALUATION CRITERIA

#### “Acceptable” Rating

The SSEB will evaluate the resumes of the key personnel for compliance with requirements per Section 4.1.2.1. Offerors must meet all of the key personnel requirements identified in Section 4.1.2.1 to receive an ‘Acceptable’ rating.

#### “Unacceptable” Rating

Proposals that fail to include substantial evidence that the offeror can provide key personnel with the qualifications and relevant experience as specified in Section 4.1.2.1 will be considered to NOT meet the minimum requirements of the SOLICITATION and will receive an ‘Unacceptable’ rating for this Factor.

### 5.1.3 FACTOR 3 - PAST PERFORMANCE

#### 5.1.3.1 FACTOR 3 - SUBMISSION REQUIREMENTS

A completed ‘Past Performance Questionnaire’ (Appendix A, Form A3) is required for AT LEAST ONE (1) of the ‘Project Experience’ forms submitted. **The ‘Past Performance Questionnaire’ must be submitted by the Point of Contact (POC) from the Point of Contact’s listed email address, and must not be included in the Offeror’s proposal package.** Since compliance by POCs is not ensured, the Offeror is encouraged to have more than one ‘Past Performance Questionnaire’ per project. All blocks must be filled in and all data must be accurate, current, and complete. Where multiple POCs are used for a single project, provide an additional “Reference Point of Contact (POC)” section for each additional reference and attach to the associated ‘Project Experience’ form.

Reference Points of Contact may include: The USACE COR for the Project, the Owner’s Representative, the Primary Facility User familiar with the project, or someone whom the Offeror was under the direction of. For projects where the Offeror was not Prime, the Prime Contractor who the Offeror worked under may be used as a POC. Additional references shall NOT be equipment and material suppliers and dealers

or sub-contractors or persons not associated with the project. Provided reference information must match project names, contract numbers, project locations, owner's name, points of contact (POC), telephone numbers, and email addresses.

The Offeror may provide in the package additional ratings, letters of recommendation, commendations, and awards on projects which demonstrate past construction performance. However, documents that can be verified (i.e. such as a performance review sent by a POC) will have greater weight in the evaluation process. Additional materials in the proposal are included in the total submittal page count.

### **5.1.3.2 FACTOR 3 - EVALUATION CRITERIA**

#### **“Acceptable” Rating**

To receive an “Acceptable” rating, the proposal must include and/or demonstrate, that based on the offeror's performance record, the Government has a reasonable expectation that the offeror will successfully perform the required effort, or the offeror's performance record is unknown (See note below.)

Note: In the case of an offeror without a record of relevant past performance or for whom information on past performance is not available or so sparse that no meaningful past performance rating can be reasonably assigned, the offeror may not be evaluated favorably or unfavorably on past performance (see FAR 15.305 (a)(2)(iv)). Therefore, the offeror shall be determined to have unknown past performance. In the context of acceptability/unacceptability, “unknown” shall be considered “acceptable.”

#### **“Unacceptable” Rating**

An “Unacceptable” rating will be given when, based on the offeror's performance record, the Government has no reasonable expectation that the offeror will be able to successfully perform the required effort.

The Government reserves the right to check any or all cited references to verify supplied information and to assess owner satisfaction.

## **5.2 PRICE & PRO FORMA INFORMATION**

### **5.2.1 TAB A, STANDARD FORM 1442**

#### **5.2.1.1 TAB A - SUBMISSION REQUIREMENTS**

The offeror shall submit Standard Form 1442. This form is included in Section 00010 of this solicitation. Submit a completed Section 00600 – Representations and Certifications

#### **5.2.1.2 TAB A - EVALUATION CRITERIA**

Standard form 1442 is to be completed and duly executed with an original signature by an official authorized to bind the company in accordance with FAR 4.102.

### **5.2.1.3 TAB B, SECTION 00010, PROPOSAL BID SCHEDULE**

### **5.2.1.4 TAB B - SUBMISSION REQUIREMENTS**

The Offeror shall complete and submit in its entirety Section 00010, Proposal Bid Schedule. This form is included in Section 00010 of this solicitation.

### **5.2.1.5 TAB B - EVALUATION CRITERIA**

The price (Proposal Bid Schedule) may be evaluated by the SSEB for reasonableness through the use of cost and or price analysis.

### **5.3 JOINT VENTURE (JV)**

If the Offeror is a Joint Venture (JV), include a copy of the JV Agreement. If a JV Agreement has not yet been finalized / approved, indicate its status. The JV Agreement will not count towards the 50-page limit.

**-END OF SECTION-**

**Section 00113A**

**U.S. ARMY CORPS OF ENGINEERS**

**APPENDIX A**

**Appendix A, Form A1, CONTRACTOR EXPERIENCE FORM**

Your firm's name

\_\_\_\_\_

Project name and project location (city, state, country)

\_\_\_\_\_

Project owner's name (government agency, commercial firm, or other organization)

\_\_\_\_\_

Project owner's complete address

\_\_\_\_\_

Your company's role (prime contractor, joint venture, subcontractor)

\_\_\_\_\_

Percentage of work your company performed: \_\_\_\_\_%

Contract number for this project:

\_\_\_\_\_

Contract value, at time of award

\$ \_\_\_\_\_

Final invoiced amount (or amount invoiced to date):

\$ \_\_\_\_\_

**Relevant dates**

Date of contract:

\_\_\_\_\_

Date work began:

\_\_\_\_\_

Completion date, initial:

\_\_\_\_\_

Completion date, actual:

\_\_\_\_\_

**Points of contact**

English-speaking technical point of contact for the project owner

Name and title

\_\_\_\_\_

Email address

\_\_\_\_\_

Phone number

\_\_\_\_\_

English-speaking technical point of contact for the project owner

Name and title

\_\_\_\_\_

Email address

\_\_\_\_\_

Phone number

\_\_\_\_\_

**Description of construction contract work**

- Describe detailed nature and scope of work.
- Detail how the project demonstrates experience requirements in Section 00113, Paragraph 4.1.1.1.
- Also include an explanation of any performance problems or other conflicts with the customer.  
(Offerors will be evaluated for the ability to provide timely, complete work; be certain to explain any differences between the initial and actual completion dates above.)
- Use continuation sheet for additional information, if necessary.

---

---

---

---

---

---

---

---

**Current status of the project (check one)**

- Work continuing, on schedule
- Work continuing, behind schedule
- Work completed, no further action pending
- Work completed, routine administrative action pending
- Work completed, claims negotiation pending/underway
- Work completed, litigation pending/underway
- Terminated for convenience
- Terminated for default
- Other (Explain, use additional sheets as necessary)

---

---

---

---

**Appendix A, Form A2. PERSONNEL RESUME / EXPERIENCE FORM**

NOTE

- Key personnel resumes shall not exceed two pages per key personnel
- Attach separate documentation of full time employment or letter of intent
- Attach separate documentation of college degree (photocopy, transcript, etc)

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Name of your firm: \_\_\_\_\_

Number of years with this firm \_\_\_\_\_

Number of years with other firms \_\_\_\_\_

Number of years in field of work \_\_\_\_\_

**Education**

Degree(s) \_\_\_\_\_

Year(s) awarded \_\_\_\_\_

Specialization: \_\_\_\_\_

Registration/Accreditation

YES No. \_\_\_\_\_ Country/State \_\_\_\_\_ Year \_\_\_\_\_

NO

Your assignment on this project \_\_\_\_\_

**Experience and qualifications relevant to this project**

*Include a POC with phone number for the two most recent projects described:*

**PROJECT #1**

Project name and location: \_\_\_\_\_

General scope of project: \_\_\_\_\_

Your role in the project and a description of the duties you performed: \_\_\_\_\_

POC for reference (name and phone number):

Name: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

PROJECT #2

Project name and location: \_\_\_\_\_

General scope of project: \_\_\_\_\_

\_\_\_\_\_

Your role in the project and a description of the duties you performed: \_\_\_\_\_

\_\_\_\_\_

POC for reference (name and phone number):

Name: \_\_\_\_\_

Telephone Number: \_\_\_\_\_

PROJECT #3

Project name and location: \_\_\_\_\_

General scope of project: \_\_\_\_\_

\_\_\_\_\_

Your role in the project and a description of the duties you performed: \_\_\_\_\_

\_\_\_\_\_

PROJECT #4

Project name and location: \_\_\_\_\_

General scope of project: \_\_\_\_\_

\_\_\_\_\_

Your role in the project and a description of the duties you performed: \_\_\_\_\_

\_\_\_\_\_

### Appendix A, Form A3, PAST PERFORMANCE QUESTIONNAIRE

- Part I of this form is to be completed by the Offeror
- Part II of this form is to be completed by a POC, Point of Contact (respondent)

***Notation to the Point of Contact:***

*Please provide your candid responses. The information that you provide will be used in the awarding of federal contracts. Therefore, it is important that your information be as factual, accurate and complete as possible to preclude the need for follow up by the evaluators. If you do not have knowledge of or experience with the company in question, please forward this questionnaire to the person who does.*

***Return Information***

*Please return this completed performance questionnaire prior to the solicitation due date via email to [jefferey.a.ball@usace.army.mil](mailto:jefferey.a.ball@usace.army.mil) with a courtesy copy to [tas.contracting@usace.army.mil](mailto:tas.contracting@usace.army.mil).*

**PART I (Part I is to be completed by the Offeror)**

<b>A. Contract Identification</b>
-----------------------------------

Contractor: \_\_\_\_\_

Company Name / Division: \_\_\_\_\_

Address: \_\_\_\_\_

Contract/Project Identification/Title: \_\_\_\_\_

Contract Number: \_\_\_\_\_

Contract Type: \_\_\_\_\_

Prime Contractor Name (if different from the contractor name cited above): \_\_\_\_\_

Contract Award Date: \_\_\_\_\_

Forecasted or Actual Contract Completion Date: \_\_\_\_\_

Nature of the Contractual Effort: \_\_\_\_\_

<b>B. Identification of Offeror's Representative</b>
--

Name: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

Telephone number: \_\_\_\_\_

Fax number: \_\_\_\_\_

Email address: \_\_\_\_\_

Address: \_\_\_\_\_

**PART II – Evaluation (Part II is to be completed by Point of Contact - Respondent)**

**A. Compliance of products, services, documents, and related deliverables to specification requirements and standards of good workmanship**

Select one:

- Exceeds contractual requirements (explanation must be provided in comments field below)
- Meets contractual requirements
- Failed to meet contractual requirements (explanation must be provided in comments field below)

Comments

---

---

---

---

**B. Effectiveness of project management (to include use and control of subcontractors)**

Select one:

- Exceptional (explanation must be provided in comments field below)
- Satisfactory
- Unsatisfactory (explanation must be provided in comments field below)

Comments

---

---

---

---

**C. Timeliness of performance for services and product deliverables**

Select one:

- Exceeds contractual requirements (explanation must be provided in comments field below)
- Meets contractual requirements

- Failed to meet contractual requirements (explanation must be provided in comments field below)

Comments

---

---

---

**D. Effectiveness in forecasting and controlling project cost**

Select one:

- Exceptional (explanation must be provided in comments field below)
- Satisfactory
- Unsatisfactory (explanation must be provided in comments field below)

Comments

---

---

---

**E. Commitment to customer satisfaction and businesslike concern for its customers' interests**

Select one:

- Exceptional (explanation must be provided in comments field below)
- Satisfactory
- Unsatisfactory (explanation must be provided in comments field below)

Comments

---

---

---

**F. Overall satisfaction**

Select one:

- Exceptional (explanation must be provided in comments field below)
- Satisfactory
- Unsatisfactory (explanation must be provided in comments field below)

Comments

---

---

---

---

**G. General comments; provide any other relevant performance information**

Comments

---

---

---

---

---

---

**H. Other information sources; please provide the following information**

Are you aware of other relevant past efforts by this company?

- Yes
- No

If yes, please provide the name and telephone number of appoint of contact.

Name \_\_\_\_\_

Telephone number \_\_\_\_\_

**I. Respondent identification – please provide the following information:**

Respondent's name: \_\_\_\_\_

Respondent's organization: \_\_\_\_\_

Respondent's title: \_\_\_\_\_

Telephone number: \_\_\_\_\_

Fax number: \_\_\_\_\_

Email: \_\_\_\_\_

Address: \_\_\_\_\_

---

## CLAUSES INCORPORATED BY FULL TEXT

## 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)—ALTERNATE I (OCT 1997)

(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, 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 revisions of proposals. (i) Offerors are responsible for submitting proposals, and any modifications, revisions, or withdrawals, 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 after conducting discussions with offerors whose proposals have been determined to be within the competitive range. 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. Therefore, the offeror's initial proposal should contain the offeror's best terms from a price and technical standpoint.

(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)

#### 52.236-27 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 not been scheduled

(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)

#### 52.252-1 SOLICITATION PROVISIONS INCORPORATED BY REFERENCE (FEB 1998)

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

<http://farsite.hill.af.mil/>

<http://acquisition.gov/comp/far/index.html>

(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 **Defense FAR supplement (48 CFR Chapter 2)** provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

#### DBA INSURANCE

**DEFENSE BASE ACT INSURANCE RATES – LIMITATION – FIXED-PRICE (APRIL 2011)**

(a) The U.S. Army Corps of Engineers (USACE) has entered into a contract with **CNA Insurance** to provide all Defense Base Act (DBA) insurance to USACE, C-3 and the 408<sup>th</sup> CSB contractors and subcontractors at a contracted fixed rate. The fixed rates for this insurance are as follows:

Service	\$3.50	per \$100 of employee remuneration
Construction	\$4.25	per \$100 of employee remuneration
Security	\$10.00	per \$100 of employee remuneration
Aviation	\$17.00	per \$100 of employee remuneration

(b) Bidders/Offerors should **compute the total compensation or total payroll**, (salary, plus overseas recruitment incentive and post differential, but *excludes* per diem, housing allowance, travel expenses, temporary quarters allowance, education allowance and other miscellaneous post allowances to include fee or profit) to be paid to employees who will be covered by DBA insurance. Compute the cost of DBA Insurance by utilizing the spaces provided below for the base period and whatever extension there may be thereafter, if applicable.

- (1) Compensation of Covered Employees: \_\_\_\_\_  
(Total Payroll Not Total Contract Value) Ex: If total Payroll is \$100,000.00
- (2) Applicable DBA Rate: \_\_\_\_\_  
(Use appropriate Rate) Ex: If a Service, the rate is \$3.50/\$100 or 3.5%
- (3) Total DBA Cost: \_\_\_\_\_  
(Amount of DBA Premium) Ex: \$100 K multiplied by 3% is \$3,000.00

(c) Bidders/Offerors shall include a statement as to whether or not local nationals or third country nationals will be employed on the resultant contract.

(d) CNA Insurance is utilizing Rutherford International as their managing Broker. The primary POC is the USACE DBA Program Administrator is Nikki Hougmany, (703) 813-6571 [usace@rutherford.com](mailto:usace@rutherford.com). The alternate POC is Sara Payne, Senior Vice President, (703) 813-6503 [sara.payne@rutherford.com](mailto:sara.payne@rutherford.com).

(e) Labor Category/Job Classification Definitions:

**SERVICE:** White-collar” workers providing IT, engineering/consulting services, and restaurant services. Security consultants are included in this category if they are only providing risk assessment services and no form of armed protection.

**CONSTRUCTION:** “Blue-collar” workers providing services such as carpentry, electrical, plumbing, mechanical, concrete/asphalt, de-mining, roofing, landscaping, janitorial, trash removal, Port-a-John/septic cleaning, pest exterminating, auto repair/dismantling, drivers/couriers, and heavy equipment operation and maintenance. Construction site supervisors/managers and life support service providers are included in this category as well as all Unskilled and Manual Labor Day Laborers. *\* Most work will fall into this category\**

**SECURITY:** Personal Security Detail (PSD) and Static or Convoy Guarding of property or personnel.

**AVIATION:** Pilot and Crew of any aircraft excluding ground personnel who provide maintenance or services and stay on the ground.

## Section 00600 - Representations &amp; Certifications

## CLAUSES INCORPORATED BY REFERENCE

52.225-25 Prohibition on Engaging in Sanctioned Activities Relating to SEP 2010  
Iran--Certification.

## CLAUSES INCORPORATED BY FULL TEXT

## 52.209-5 CERTIFICATION REGARDING RESPONSIBILITY MATTERS (APR 2010)

(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, violating Federal criminal tax laws, or receiving stolen property (if offeror checks "have", the offeror shall also see 52.209-7, if included in this solicitation); 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.; and

(D) Have [ballot], have not [ballot], within a three-year period preceding this offer, been notified of any delinquent Federal taxes in an amount that exceeds \$3,000 for which the liability remains unsatisfied.

(1) Federal taxes are considered delinquent if both of the following criteria apply:

(i) The tax liability is finally determined. The liability is finally determined if it has been assessed. A liability is not finally determined if there is a pending administrative or judicial challenge. In the case of a judicial challenge to the liability, the liability is not finally determined until all judicial appeal rights have been exhausted.

(ii) The taxpayer is delinquent in making payment. A taxpayer is delinquent if the taxpayer has failed to pay the tax liability when full payment was due and required. A taxpayer is not delinquent in cases where enforced collection action is precluded.

(2) Examples. (i) The taxpayer has received a statutory notice of deficiency, under I.R.C. Sec. 6212, which entitles the taxpayer to seek Tax Court review of a proposed tax deficiency. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek Tax Court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(ii) The IRS has filed a notice of Federal tax lien with respect to an assessed tax liability, and the taxpayer has been issued a notice under I.R.C. Sec. 6320 entitling the taxpayer to request a hearing with the IRS Office of Appeals contesting the lien filing, and to further appeal to the Tax Court if the IRS determines to sustain the lien filing. In the course of the hearing, the taxpayer is entitled to contest the underlying tax liability because the taxpayer has had no

prior opportunity to contest the liability. This is not a delinquent tax because it is not a final tax liability. Should the taxpayer seek tax court review, this will not be a final tax liability until the taxpayer has exercised all judicial appeal rights.

(iii) The taxpayer has entered into an installment agreement pursuant to I.R.C. Sec. 6159. The taxpayer is making timely payments and is in full compliance with the agreement terms. The taxpayer is not delinquent because the taxpayer is not currently required to make full payment.

(iv) The taxpayer has filed for bankruptcy protection. The taxpayer is not delinquent because enforced collection action is stayed under 11 U.S.C. 362 (the Bankruptcy Code).

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

(b) The Offeror 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)

#### 52.225-20 PROHIBITION ON CONDUCTING RESTRICTED BUSINESS OPERATIONS IN SUDAN-- CERTIFICATION (AUG 2009)

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

Business operations means engaging in commerce in any form, including by acquiring, developing, maintaining, owning, selling, possessing, leasing, or operating equipment, facilities, personnel, products, services, personal property, real property, or any other apparatus of business or commerce.

Marginalized populations of Sudan means--

(1) Adversely affected groups in regions authorized to receive assistance under section 8(c) of the Darfur Peace and Accountability Act (Pub. L. 109-344) (50 U.S.C. 1701 note); and

(2) Marginalized areas in Northern Sudan described in section 4(9) of such Act.

Restricted business operations means business operations in Sudan that include power production activities, mineral extraction activities, oil-related activities, or the production of military equipment, as those terms are defined in the Sudan Accountability and Divestment Act of 2007 (Pub. L. 110-174). Restricted business operations do not include business operations that the person (as that term is defined in Section 2 of the Sudan Accountability and Divestment Act of 2007) conducting the business can demonstrate--

(1) Are conducted under contract directly and exclusively with the regional government of southern Sudan;

(2) Are conducted pursuant to specific authorization from the Office of Foreign Assets Control in the Department of the Treasury, or are expressly exempted under Federal law from the requirement to be conducted under such authorization;

(3) Consist of providing goods or services to marginalized populations of Sudan;

(4) Consist of providing goods or services to an internationally recognized peacekeeping force or humanitarian organization;

(5) Consist of providing goods or services that are used only to promote health or education; or

(6) Have been voluntarily suspended.

(b) Certification. By submission of its offer, the offeror certifies that the offeror does not conduct any restricted business operations in Sudan.

(End of provision)

#### 252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (JAN 2009)

(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, 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 indebtedness 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 disclose 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)

252.225-7042 AUTHORIZATION TO PERFORM (APR 2003)

The offeror represents that it has been duly authorized to operate and to do business in the country or countries in which the contract is to be performed.

(End of provision)

## Section 00700 - Contract Clauses

## CLAUSES INCORPORATED BY REFERENCE

52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.204-10	Reporting Executive Compensation and First-Tier Subcontract Awards	JUL 2010
52.222-29	Notification Of Visa Denial	JUN 2003
52.222-50	Combating Trafficking in Persons	FEB 2009
52.223-3	Hazardous Material Identification And Material Safety Data	JAN 1997
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.228-3	Worker's Compensation Insurance (Defense Base Act)	APR 1984
52.232-5	Payments under Fixed-Price Construction Contracts	SEP 2002
52.232-27	Prompt Payment for Construction Contracts	OCT 2008
52.233-1	Disputes	JUL 2002
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.236-7	Permits and Responsibilities	NOV 1991
52.236-12	Cleaning Up	APR 1984
52.236-14	Availability and Use of Utility Services	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.243-5	Changes and Changed Conditions	APR 1984
52.244-6	Subcontracts for Commercial Items	DEC 2010
52.246-21	Warranty of Construction	MAR 1994
52.249-2 Alt I	Termination for Convenience of the Government (Fixed-Price) (May 2004) - Alternate I	SEP 1996
52.249-10	Default (Fixed-Price Construction)	APR 1984
52.253-1	Computer Generated Forms	JAN 1991
252.201-7000	Contracting Officer's Representative	DEC 1991
252.203-7000	Requirements Relating to Compensation of Former DoD Officials	JAN 2009
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	JAN 2009
252.204-7000	Disclosure Of Information	DEC 1991
252.209-7004	Subcontracting With Firms That Are Owned or Controlled By The Government of a Terrorist Country	DEC 2006
252.215-7000	Pricing Adjustments	DEC 1991
252.222-7002	Compliance With Local Labor Laws (Overseas)	JUN 1997
252.225-7005	Identification Of Expenditures In The United States	JUN 2005
252.225-7041	Correspondence in English	JUN 1997
252.225-7044 Alt I	Balance of Payments Program--Construction Material (OCT 2010) Alternate I	DEC 2010
252.229-7000	Invoices Exclusive of Taxes or Duties	JUN 1997
252.232-7008	Assignment of Claims (Overseas)	JUN 1997
252.232-7010	Levies on Contract Payments	DEC 2006
252.233-7001	Choice of Law (Overseas)	JUN 1997
252.236-7000	Modification Proposals-Price Breakdown	DEC 1991
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.247-7023 Alt III	Transportation of Supplies by Sea (May 2002) Alternate III	MAY 2002

## CLAUSES INCORPORATED BY FULL TEXT

## 52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (DEC 2010)

(a) Definition. Commercially available off-the-shelf (COTS) item, as used in this clause--

(1) Means any item of supply (including construction material) that is--

(i) A commercial item (as defined in paragraph (1) of the definition in FAR 2.101);

(ii) Sold in substantial quantities in the commercial marketplace; and

(iii) Offered to the Government, under a contract or subcontract at any tier, without modification, in the same form in which it is sold in the commercial marketplace; and

(2) Does not include bulk cargo, as defined in section 3 of the Shipping Act of 1984 (46 U.S.C. App. 1702), such as agricultural products and petroleum products.

(b) The Government suspends or debar Contractors to protect the Government's interests. Other than a subcontract for a commercially available off-the-shelf item, the Contractor shall not enter into any subcontract, in excess of \$30,000 with a Contractor that is debarred, suspended, or proposed for debarment by any executive agency unless there is a compelling reason to do so.

(c) The Contractor shall require each proposed subcontractor whose subcontract will exceed \$30,000, other than a subcontractor providing a commercially available off-the-shelf item, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principals, is or is not debarred, suspended, or proposed for debarment by the Federal Government.

(d) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party (other than a subcontractor providing a commercially available off-the-shelf item) that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the Excluded Parties List System). The notice must include the following:

(e) Subcontracts. Unless this is a contract for the acquisition of commercial items, the Contractor shall include the requirements of this clause, including this paragraph (e) (appropriately modified for the identification of the parties), in each subcontract that--

(1) Exceeds \$30,000 in value; and

(2) Is not a subcontract for commercially available off-the-shelf items.

(End of clause)

## 52.232-34 PAYMENT BY ELECTRONIC FUNDS TRANSFER—OTHER THAN CENTRAL CONTRACTOR REGISTRATION (MAY 1999)

(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 payment due dates until such time as the Government makes payment by EFT (but see paragraph (d) of this clause).

(b) Mandatory submission of Contractor's EFT information. (1) The Contractor is required to provide the Government with the information required to make payment by EFT (see paragraph (j) of this clause). The Contractor shall provide this information directly to the office designated in this contract to receive that information **no later than 15 days prior to submission of the first request for payment**. If not otherwise specified in this contract, the payment office is the designated office for receipt of the Contractor's EFT information. If more than one designated office is named for the contract, the Contractor shall provide a separate notice to each office. In the event that the EFT information changes, the Contractor shall be responsible for providing the updated information to the designated office(s).

(2) If the Contractor provides EFT information applicable to multiple contracts, the Contractor shall specifically state the applicability of this EFT information in terms acceptable to the designated office. However, EFT information supplied to a designated office shall be applicable only to contracts that identify that designated office as the office to receive EFT information for that contract.

(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. (1) The Government is not required to make any payment under this contract until after receipt, by the designated office, of the correct EFT payment information from the Contractor. Until receipt of the correct EFT information, 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.

(2) If the EFT information changes after submission of correct EFT information, the Government shall begin using the changed EFT information no later than 30 days after its receipt by the designated office to the extent payment is made by EFT. However, the Contractor may request that no further payments be made until the updated EFT information is implemented by the payment office. If such suspension would result in a late payment under the prompt payment terms of this contract, the Contractor's request for suspension shall extend the due date for payment by the number of days of the suspension.

(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) 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 provide the EFT information required by paragraph (j) of this clause to the designated office, and shall be paid by EFT in accordance with the terms of this clause. 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 provided 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 in the contract.

(j) EFT information. The Contractor shall provide the following information to the designated office. The Contractor may supply this data for this or multiple contracts (see paragraph (b) of this clause). The Contractor shall designate a single financial agent per contract capable of receiving and processing the EFT information using the EFT methods described in paragraph (c) of this clause.

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

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

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

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

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

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

(7) If applicable, the Contractor 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 Contractor's financial agent is not directly on-line to the Fedwire Transfer System; and, therefore, not the receiver of the wire transfer payment.

(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 not the result of site investigations by the US Government. The contractor cannot rely upon indications of physical conditions on the drawings and in the specifications. Any comments are of a general nature and not site specific. Contractors must rely upon their own assessment of site conditions.

(b) Weather conditions are potentially difficult. Afghanistan is situated in the interior of Asia, lying on the Iranian Plateau. It is a country land-locked on all sides and surrounded by the rough and rugged Hindu Kush Mountains. Afghanistan has the typical arid to semi-arid climate of the Russian Steppes. Weather in Afghanistan is characterized by dry hot cloudless summers and severe winters. The areas lying in the northeastern part of the mountains experience sub-arctic conditions having dry, cold winters.

The Afghanistan weather is marked by great variance in temperatures from region to region. It is accompanied by huge differences in day and night temperatures and summer and winter temperatures. The drought-ridden regions of the southwestern plateau experience daytime temperatures of 35 degree Celsius. Jalalabad is among the hottest places in the country recording the maximum temperature of 49 degree Celsius in the month of July. January temperatures fall to -15°C or below in regions situated at high altitudes in the mountains.

There is a rise in the mean precipitation as one goes from the western side to the eastern side of the mountains, the average being 400mm in the southeastern monsoon areas. Mostly, the precipitation takes place from December to April. Highlands experience snowfall during December-March and the lowlands experience intermittent rainfall from December to May.

Kabul Weather: Kabul is situated at a height of 5900 feet above sea level. Kabul weather is characterized by summer temperatures varying from 16° C at sunrise to 38° C at noon. The average temperature in January is 0°C. Kabul has recorded the lowest temperature of -31 °C. Summers are accompanied with bright sunshine. The average rainfall varies from 25 cm to 30cm. Mostly the precipitation occurs in the form of snow in the winter and spring seasons. The snow stays for three months in Kabul forcing the people to stay indoors and sleep nearer to the kitchen stoves.

Bagram Weather, Kandahar Weather, Herat Weather: At Kandahar, during summer the days are scorching hot and the nights are of no relief either. On the other hand Kabul is at least blessed with cool nights in summer. Herat experiences temperate summer temperatures with violent winds blowing from the northwest during May-September. The winters in Herat are not so severe with snow melting as it falls.

(c) Transportation facilities are limited and austere. Contractors must make their own determination of their transportation requirements. The US Government makes no guarantees regarding the availability of transportation facilities, which includes normal ground and air transportation.

(End of clause)

#### 52.236-13 ACCIDENT PREVENTION (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.

(End of clause)

#### 52.243-4 CHANGES (JUN 2007)

- (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 property or services; 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)

#### 52.252-2 CLAUSES INCORPORATED BY REFERENCE (FEB 1998)

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

<http://farsite.hill.af.mil/>

<http://acquisition.gov/comp/far/index.html>

(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 **Defense FAR supplement (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)

**252.225-7995 CONTRACTOR PERSONNEL PERFORMING IN THE UNITED STATES CENTRAL COMMAND AREA OF RESPONSIBILITY (DEVIATION 2011-O0004) (APR 2011)**

(a) Definition. As used in this clause—

“Chief of mission” means the principal officer in charge of a diplomatic mission of the United States or of a United States office abroad which is designated by the Secretary of State as diplomatic in nature, including any individual assigned under section 502(c) of the Foreign Service Act of 1980(Public Law 96-465) to be temporarily in charge of such a mission or office.

(b) General. (1) This clause applies when contractor personnel are required to perform in the United States Central Command (USCENTCOM) Area of Responsibility (AOR) and are not covered by the clause at DFARS 252.225-7040, Contractor Personnel Authorized to Accompany U.S. Armed Forces Deployed Outside the United States.

(2) Contract performance may require work in dangerous or austere conditions. Except as otherwise provided in the contract, the Contractor accepts the risks associated with required contract performance in such operations.

(3) Contractor personnel are civilians.

(i) Except as provided in paragraph (b)(3)(ii) of this clause, and in accordance with paragraph (i)(3) of this clause, contractor personnel are only authorized to use deadly force in self defense.

(ii) Contractor personnel performing security functions are also authorized to use deadly force when use of such force reasonably appears necessary to execute their security mission to protect assets/persons, consistent with the terms and conditions contained in the contract or with their job description and terms of employment.

(4) Service performed by contractor personnel subject to this clause is not active duty or service under 38 U.S.C. 106.

(c) Support. Unless specified elsewhere in the contract, the Contractor is responsible for all logistical and security support required for contractor personnel engaged in this contract.

(d) Compliance with laws and regulations. The Contractor shall comply with, and shall ensure that its personnel in the USCENTCOM AOR are familiar with and comply with, all applicable—

(1) United States, host country, and third country national laws;

(2) Treaties and international agreements;

(3) United States regulations, directives, instructions, policies, and procedures; and

(4) Force protection, security, health, or safety orders, directives, and instructions issued by the USCENTCOM Commander; however, only the Contracting Officer is authorized to modify the terms and conditions of the contract.

(e) Preliminary personnel requirements.

(1) Specific requirements for paragraphs (e)(2)(i) through (e)(2)(vi) of this clause will be set forth in the statement of work or elsewhere in the contract.

(2) Before contractor personnel depart from the United States or a third country, and before contractor personnel residing in the host country begin contract performance in the USCENTCOM AOR, the Contractor shall ensure the following:

- (i) All required security and background checks are complete and acceptable.
- (ii) All personnel are medically and physically fit and have received all required vaccinations.
- (iii) All personnel have all necessary passports, visas, entry permits, and other documents required for contractor personnel to enter and exit the foreign country, including those required for in-transit countries.
- (iv) All personnel have received theater clearance, if required by the Combatant Commander.
- (v) All personnel have received personal security training. The training must, at a minimum—
  - (A) Cover safety and security issues facing employees overseas;
  - (B) Identify safety and security contingency planning activities; And
  - (C) Identify ways to utilize safety and security personnel and other resources appropriately.
- (vi) All personnel who are U.S. citizens are registered with the U.S. Embassy or Consulate with jurisdiction over the area of operations on-line at <http://www.travel.state.gov>.
- (3) The Contractor shall notify all personnel who are not a local national or ordinarily resident in the host country that—
  - (i) Such employees, and dependents residing with such employees, who engage in conduct outside the United States that would constitute an offense punishable by imprisonment for more than one year if the conduct had been engaged in within the special maritime and territorial jurisdiction of the United States, may potentially be subject to the criminal jurisdiction of the United States (see the Military Extraterritorial Jurisdiction Act of 2000 (18 U.S.C. 3261 et seq.);
  - (ii) Pursuant to the War Crimes Act, 18 U.S.C. 2441, Federal criminal jurisdiction also extends to conduct that is determined to constitute a violation of the law of war when committed by a civilian national of the United States;
  - (iii) Other laws may provide for prosecution of U.S. nationals who commit offenses on the premises of United States diplomatic, consular, military, or other Government missions outside the United States (18U.S.C. 7(9)).
- (f) Processing and departure points. The Contractor shall require its personnel who are arriving from outside the area of performance to perform in the USCENTCOM AOR to—
  - (1) Process through the departure center designated in the contract or complete another process as directed by the Contracting Officer;
  - (2) Use a specific point of departure and transportation mode as directed by the Contracting Officer; and
  - (3) Process through a reception center as designated by the Contracting Officer upon arrival at the place of performance.
- (g) Registration of Contractor personnel and private security contractor equipment.
  - (1) The Contractor is required to register in the automated webbased Synchronized Predeployment and Operational Tracker (SPOT) following the procedures in paragraph (g)(4) of this clause.
  - (2) Prior to deployment of contractor employees, or, if already in the USCENTCOM AOR, upon becoming an employee under this contract, the Contractor shall enter into SPOT, and maintain current data, including actual arrival date and departure date, for all contractor personnel, including U.S. citizens, U.S. legal aliens, third-country

nationals, and local national contractor personnel, who are performing this contract in the USCENTCOM AOR as follows:

- (i) In all circumstances, this includes any personnel performing private security functions.
- (ii) For personnel other than those performing private security functions, this requirement excludes anyone—
  - (A) Hired under contracts valued less than \$100,000;
  - (B) Who will be performing in the CENTCOM AOR less than 30 continuous days; or
  - (C) Who, while afloat, are tracked by the Diary Message Reporting System
- (3) Weapons, armored vehicles, helicopters, and other military vehicles used by personnel performing private security functions under this contract must be entered into SPOT, and the currency of such information must be maintained.
- (4) Follow these steps to register in and use SPOT:
  - (i) SPOT registration requires one of the following login methods:
    - (A) A Common Access Card or a SPOT-approved digital certificate; or
    - (B) A Government-sponsored SPOT user ID and password or an Army Knowledge Online (AKO) account
  - (ii) To register in SPOT:
    - (A) Contractor company administrators should register for a SPOT account at <https://spot.altess.army.mil>; and
    - (B) The customer support team must validate user need. This process may take two business days. Company supervisors will be contacted to validate Contractor company administrator account requests and determine the appropriate level of user access.
  - (iii) Upon approval, all users will access SPOT at <https://spot.altess.army.mil>.
  - (iv) Refer SPOT application assistance questions to the Customer Support Team at 717-458-0747 or [SPOT.helpdesk@us.army.mil](mailto:SPOT.helpdesk@us.army.mil). Refer to the SPOT Enterprise Suite Resource Center at <http://www.resource.spot-es.net/> for additional training resources and documentation regarding registration for and use of SPOT.
- (5) The Contractor shall submit aggregate contractor personnel counts at a minimum quarterly or as directed by the Contracting Officer by category (i.e. U.S. third country national or local national) of those contractor personnel who are on contracts valued greater than \$100,000, but performing less than 30 days in the AOR (e.g. day laborers).
- (6) The Contractor shall ensure that all contractor personnel in the database have a current DD Form 93, Record of Emergency Data Card, on file with both the Contractor and the designated Government official. The Contracting Officer will inform the Contractor of the Government official designated to receive the data card.
- (h) Contractor personnel. The Contracting Officer may direct the Contractor, at its own expense, to remove and replace any contractor personnel who fail to comply with or violate applicable requirements of this contract. Such action may be taken at the Government's discretion without prejudice to its rights under any other provision of this contract, including termination for default or cause.
- (i) Weapons.

(1) If the Contracting Officer, subject to the approval of the USCENTCOM Commander, authorizes the carrying of weapons—

(i) The Contracting Officer may authorize an approved Contractor to issue Contractor-owned weapons and ammunition to specified employees; or

(ii) The **(N/A - USACE DOES NOT ISSUE WEAPONS TO CONTRACTORS)** may issue Government-furnished weapons and ammunition to the Contractor for issuance to specified contractor employees.

(2) The Contractor shall provide to the Contracting Officer a specific list of personnel for whom authorization to carry a weapon is requested.

(3) The Contractor shall ensure that its personnel who are authorized to carry weapons—

(i) Are adequately trained to carry and use them—

(A) Safely;

(B) With full understanding of, and adherence to, the rules of the use of force issued by the USCENTCOM Commander; and

(C) In compliance with applicable Department of Defense and agency policies, agreements, rules, regulations, and other applicable law;

(ii) Are not barred from possession of a firearm by 18 U.S.C. 922; and

(iii) Adhere to all guidance and orders issued by the USCENTCOM Commander regarding possession, use, safety, and accountability of weapons and ammunition.

(4) Upon revocation by the Contracting Officer of the Contractor's authorization to possess weapons, the Contractor shall ensure that all Government-furnished weapons and unexpended ammunition are returned as directed by the Contracting Officer.

(5) Whether or not weapons are Government-furnished, all liability for the use of any weapon by contractor personnel rests solely with the Contractor and the Contractor employee using such weapon.

(j) Vehicle or equipment licenses. Contractor personnel shall possess the required licenses to operate all vehicles or equipment necessary to perform the contract in the area of performance.

(k) Military clothing and protective equipment.

(1) Contractor personnel are prohibited from wearing military clothing unless specifically authorized by the USCENTCOM Commander. If authorized to wear military clothing, contractor personnel must wear distinctive patches, arm bands, nametags, or headgear, in order to be distinguishable from military personnel, consistent with force protection measures.

(2) Contractor personnel may wear specific items required for safety and security, such as ballistic, nuclear, biological, or chemical protective equipment.

(l) Evacuation. (1) If the Chief of Mission or USCENTCOM Commander orders a mandatory evacuation of some or all personnel, the Government will provide to United States and designated third country national contractor personnel the level of assistance provided to private United States citizens.

(2) In the event of a non-mandatory evacuation order, the Contractor shall maintain personnel on location

sufficient to meet contractual obligations unless instructed to evacuate by the Contracting Officer.

(m) Notification and return of personal effects. (1) The Contractor shall be responsible for notification of the contractor personnel designated next of kin, and notification as soon as possible to the U.S. Consul responsible for the area in which the event occurred, if the individual—

(i) Dies;

(ii) Requires evacuation due to an injury; or

(iii) Is isolated, missing, detained, captured, or abducted.

(2) The Contractor shall also be responsible for the return of all personal effects of deceased or missing contractor personnel, if appropriate, to next of kin.

(n) Mortuary affairs. Mortuary affairs for contractor personnel who die in the area of performance will be handled in accordance with DoD Directive 1300.22, Mortuary Affairs Policy.

(o) Changes. In addition to the changes otherwise authorized by the Changes clause of this contract, the Contracting Officer may, at any time, by written order identified as a change order, make changes in place of performance or Government-furnished facilities, equipment, material, services, or site. Any change order issued in accordance with this paragraph shall be subject to the provisions of the Changes clause of this contract.

(p) Subcontracts. The Contractor shall incorporate the substance of this clause, including this paragraph (p), in all subcontracts that require subcontractor personnel to perform in the USCENTCOM AOR.

(End of clause)

252.225-7997 ADDITIONAL REQUIREMENTS AND RESPONSIBILITIES RELATING TO ALLEGED CRIMES BY OR AGAINST CONTRACTOR PERSONNEL IN IRAQ AND AFGHANISTAN (DEVIATION 2010-O0014)(AUGUST 2010)

(a) The Contractor shall report to the appropriate investigative authorities, identified in paragraph (c) below, any alleged offenses under—

(1) The Uniform Code of Military Justice (chapter 47 of title 10, United States code) (applicable to contractors serving with or accompanying an armed force in the field during a declared war or a contingency operation); or

(2) The Military Extraterritorial Jurisdiction Act (chapter 212 of title 18, United States Code).

(b) The Contractor shall provide to all contractor personnel who will perform work on a contract in Iraq or Afghanistan, before beginning such work, information on the following:

(1) How and where to report an alleged crime described in paragraph (a) of this clause.

(2) Where to seek victim and witness protection and assistance available to contractor personnel in connection with an alleged offense described in paragraph (a) of this clause.

(c) The appropriate investigative authorities to which suspected crimes shall be reported include the following officials--

- (i) US Army Criminal Investigative Division at <http://www.cid.army.mil/reportacrime.html>;
- (ii) Air Force Office of Special Investigations at <http://www.osi.andrews.af.mil/library/factsheets/factsheet.asp?id=14522>;
- (iii) Navy Criminal Investigative Service at <http://www.ncis.navy.mil/Pages/publicdefault.aspx>;  
or
- (iv) To the command of any supported military element or the command of any base.
- (d) Personnel seeking whistleblower protection from reprisals for reporting criminal acts shall seek guidance through the DoD Inspector General hotline at (800) 424-9098 or [www.dodig.mil/HOTLINE/index.html](http://www.dodig.mil/HOTLINE/index.html). Personnel seeking other forms of victim or witness protections should contact the nearest military law enforcement office.
- (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:

<u>Section</u>	<u>Title</u>
00150	The Design-Build Process

00555	Design Concept
01010	Scope of Work
01015	Technical Requirements
01040	Security
01060	Special Clause
01060A	MOI Project Sign
01312	Quality Control System (QCS)
01321	Project Schedule
01335	Submittal Procedures for Design/Build Projects
01335A	Attachment AED
01335B	E-Submittal Format
01415	Metric Measurements
01451	Contractor Quality Control
01525	Safety & Occupational Health Requirements
01780	Closeout Procedures & Submittals
1781	Operation and Maintenance Data
Attachment 1	Power Plant As-Builts

(End of clause)

**252.246-7004 SAFETY OF FACILITIES, INFRASTRUCTURE, AND EQUIPMENT FOR MILITARY OPERATIONS (OCT 2010)**

(a) Definition. Discipline Working Group, as used in this clause, means representatives from the DoD Components, as defined in MIL-STD-3007F, who are responsible for the unification and maintenance of the Unified Facilities Criteria (UFC) documents for a particular discipline area.

(b) The Contractor shall ensure, consistent with the requirements of the applicable inspection clause in this contract, that the facilities, infrastructure, and equipment acquired, constructed, installed, repaired, maintained, or operated under this contract comply with Unified Facilities Criteria (UFC) 1-200-01 for--

(1) Fire protection;

(2) Structural integrity;

(3) Electrical systems;

(4) Plumbing;

(5) Water treatment;

(6) Waste disposal; and

(7) Telecommunications networks.

(c) The Contractor may apply a standard equivalent to or more stringent than UFC 1-200-01 upon a written determination of the acceptability of the standard by the Contracting Officer with the concurrence of the relevant Discipline Working Group.

(End of clause)

## Section 00800 - Special Contract Requirements

## CLAUSES INCORPORATED BY REFERENCE

52.211-13	Time Extensions	SEP 2000
52.236-5	Material and Workmanship	APR 1984
52.242-14	Suspension of Work	APR 1984
52.246-12	Inspection of Construction	AUG 1996

## CLAUSES INCORPORATED BY FULL TEXT

## 52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within **10** 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 **90** calendar days. The time stated for completion shall include final cleanup of the premises.

(End of clause)

## 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 **\$1,101.00** 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)

## 252.236-7004 PAYMENT FOR MOBILIZATION AND DEMOBILIZATION (DEC 1991)

(a) The Government will pay all costs for the mobilization and demobilization of all of the Contractor's plant and equipment at the contract lump sum price for this item.

(1) **60** percent of the lump sum price upon completion of the contractor's mobilization at the work site.

(2) The remaining **40** percent upon completion of demobilization.

(b) The Contracting Officer may require the Contractor to furnish cost data to justify this portion of the bid if the Contracting Officer believes that the percentages in paragraphs (a) (1) and (2) of this clause do not bear a reasonable relation to the cost of the work in this contract.

(1) Failure to justify such price to the satisfaction of the Contracting Officer will result in payment, as determined by

the Contracting Officer, of --

- (i) Actual mobilization costs at completion of mobilization;
- (ii) Actual demobilization costs at completion of demobilization; and
- (iii) The remainder of this item in the final payment under this contract.

(2) The Contracting Officer's determination of the actual costs in paragraph (b)(1) of this clause is not subject to appeal.

C3 CLAUSES SECTION 00800

**C3 CLAUSE 952.222-0001 PROHIBITION AGAINST HUMAN TRAFFICKING, INHUMANE LIVING CONDITIONS, AND WITHHOLDING OF EMPLOYEE PASSPORTS (JUL 2010)**

(a) All contractors (“contractors” refers to both prime contractors and all subcontractors at all tiers) are reminded of the prohibition contained in Title 18, United States Code, Section 1592, against knowingly destroying, concealing, removing, confiscating, or possessing any actual or purported passport or other immigration document, or any other actual or purported government identification document, of another person, to prevent or restrict or to attempt to prevent or restrict, without lawful authority, the person’s liberty to move or travel, in order to maintain the labor or services of that person.

(b) Contractors are also required to comply with the following provisions:

(1) Contractors shall only hold employee passports and other identification documents discussed above for the shortest period of time reasonable for administrative processing purposes.

(2) Contractors shall provide all employees with a signed copy of their employment contract, in English as well as the employee’s native language that defines the terms of their employment/compensation.

(3) Contractors shall not utilize unlicensed recruiting firms, or firms that charge illegal recruiting fees.

(4) Contractors shall be required to provide adequate living conditions (sanitation, health, safety, living space) for their employees. Fifty square feet is the minimum acceptable square footage of personal living space per employee. Upon contractor’s written request, contracting officers may grant a waiver in writing in cases where the existing square footage is within 20% of the minimum, and the overall conditions are determined by the contracting officer to be acceptable. A copy of the waiver approval shall be maintained at the respective life support area.

(5) Contractors shall incorporate checks of life support areas to ensure compliance with the requirements of this Trafficking in Persons Prohibition into their Quality Control program, which will be reviewed within the Government’s Quality Assurance process.

(6) Contractors shall comply with International and Host Nation laws regarding transit/exit/entry procedures, and the requirements for visas and work permits.

(c) Contractors have an affirmative duty to advise the Contracting Officer if they learn of their employees violating the human trafficking and inhumane living conditions provisions contained herein. Contractors are advised that contracting officers and/or their representatives will conduct random checks to ensure contractors and subcontractors at all tiers are adhering to the law on human trafficking, humane living conditions and withholding of passports.

(d) The contractor agrees to incorporate the substance of this clause, including this paragraph, in all subcontracts under his contract.

**C<sub>3</sub> CLAUSE 952.223-0001 REPORTING KIDNAPPINGS, SERIOUS INJURIES AND DEATHS  
(JUL 2010)**

Contractors shall notify the Contracting Officer, as soon as practicable, whenever employee kidnappings, serious injuries or deaths occur.

Report the following information:

Contract Number  
Contract Description & Location  
Company Name

Reporting party:

Name  
Phone number  
e-mail address

Victim:

Name  
Gender (Male/Female)  
Age  
Nationality  
Country of permanent residence

Incident:

Description  
Location  
Date and time

Other Pertinent Information

**C<sub>3</sub> CLAUSE 952.225-0003 FITNESS FOR DUTY AND MEDICAL/DENTAL CARE LIMITATIONS  
(NOV 2010)**

(a) The contractor shall perform the requirements of this contract notwithstanding the fitness for duty of deployed employees, the provisions for care offered under this section, and redeployment of individuals determined to be unfit. Contractor personnel who deploy for multiple tours, for more than 12 months total must be re-evaluated for fitness to deploy. An examination will remain valid for 15 months from the date of the physical. The contractor bears the responsibility for ensuring all employees are aware of the conditions and medical treatment available at the performance location. The contractor shall include this information and requirement in all subcontracts with performance in the theater of operations

(b) The contractor shall not deploy an individual with any of the following conditions unless approved by the appropriate CENTCOM Service Component (ie. ARCENT, AFCENT, etc.) Surgeon: Conditions which prevent the wear of personal protective equipment, including protective mask, ballistic helmet, body armor, and chemical/biological protective garments; conditions which prohibit required theater immunizations or medications; conditions or current medical treatment or medications that contraindicate or preclude the use of chemical and biological protective's and antidotes; diabetes mellitus, Type I or II, on pharmacological therapy; symptomatic coronary artery disease, or with myocardial infarction within one year prior to deployment, or within six months of coronary artery bypass graft, coronary artery angioplasty, or stenting; morbid obesity (BMI  $\geq$  40); dysrhythmias or arrhythmias, either symptomatic or requiring medical or electrophysiological control; uncontrolled hypertension, current heart failure, or automatic implantable defibrillator; therapeutic anticoagulation; malignancy, newly diagnosed or under current treatment, or recently diagnosed/treated and requiring frequent subspecialist surveillance, examination, and/or laboratory testing; dental or oral conditions requiring or likely to require urgent dental care

within six months' time, active orthodontic care, conditions requiring prosthodontic care, conditions with immediate restorative dentistry needs, conditions with a current requirement for oral-maxillofacial surgery; new onset (< 1 year) seizure disorder, or seizure within one year prior to deployment; history of heat stroke; Meniere's Disease or other vertiginous/motion sickness disorder, unless well controlled on medications available in theater; recurrent syncope, ataxias, new diagnosis (< 1year) of mood disorder, thought disorder, anxiety, somatoform, or dissociative disorder, or personality disorder with mood or thought manifestations; unrepaired hernia; tracheostomy or aphonia; renalithiasis, current; active tuberculosis; pregnancy; unclosed surgical defect, such as external fixeter placement; requirement for medical devices using AC power; HIV antibody positivity; psychotic and bipolar disorders. (Reference: Mod 10 to USCENTCOM Individual Protection and Individual/Unit Deployment Policy, Tab A: Amplification of the Minimal Standards of Fitness for Deployment to the CENTCOM AOR).

(c) In accordance with military directives (DoDI 3020.41, DoDI 6000.11, CFC FRAGO 09-1038, DoD PGI 225.74), resuscitative care, stabilization, hospitalization at Level III (emergency) military treatment facilities and assistance with patient movement in emergencies where loss of life, limb or eyesight could occur will be provided. Hospitalization will be limited to emergency stabilization and short-term medical treatment with an emphasis on return to duty or placement in the patient movement system.

(d) Routine and primary medical care is not authorized. Pharmaceutical services are not authorized for routine or known, routine prescription drug needs of the individual. Routine dental care, examinations and cleanings are not authorized.

(e) Notwithstanding any other provision of the contract, the contractor shall be liable for any and all medically-related services or transportation rendered. To view reimbursement rates that will be charged for services at all DoD deployed medical facilities please go to the following website: <http://comptroller.defense.gov/rates/fy2011.html> (change fiscal year as applicable).

### **C3 CLAUSE 952.225-0004 COMPLIANCE WITH LAWS AND REGULATIONS (JUL 2010)**

(a) The Contractor shall comply with, and shall ensure that its employees and its subcontractors and their employees, at all tiers, are aware of and obey all U.S. and Host Nation laws, Federal or DoD regulations, and Central Command orders and directives applicable to personnel in Iraq and Afghanistan, including but not limited to USCENTCOM, Multi-National Force and Multi-National Corps operations and fragmentary orders, instructions, policies and directives.

(b) Contractor employees shall particularly note all laws, regulations, policies, and orders restricting authority to carry firearms, rules for the use of force, and prohibiting sexual or aggravated assault. Contractor employees are subject to General Orders Number 1, as modified from time to time, including without limitation, their prohibition on privately owned firearms, alcohol, drugs, war souvenirs, pornography and photographing detainees, human casualties or military security measures.

(c) Contractor employees may be ordered removed from secure military installations or the theater of operations by order of the senior military commander of the battle space for acts that disrupt good order and discipline or violate applicable laws, regulations, orders, instructions, policies, or directives. Contractors shall immediately comply with any such order to remove its contractor employee.

(d) Contractor employees performing in the USCENTCOM Area of Responsibility (AOR) may be subject to the jurisdiction of overlapping criminal codes, including, but not limited to, the Military Extraterritorial Jurisdiction Act (18 U.S.C. Sec. 3261, et al) (MEJA), the Uniform Code of Military Justice (10 U.S.C. Sec. 801, et al)(UCMJ), and the laws of the Host Nation. Non-US citizens may also be subject to the laws of their home country while performing in the USCENTCOM AOR. Contractor employee status in these overlapping criminal jurisdictions may be modified from time to time by the United States, the Host Nation, or by applicable status of forces agreements.

(e) Under MEJA, a person who engages in felony misconduct outside the United States while employed by or accompanying the Armed Forces is subject to arrest, removal and prosecution in United States federal courts. Under the UCMJ, a person serving with or accompanying the Armed Forces in the field during a declared war or

contingency operation may be disciplined for a criminal offense, including by referral of charges to a General Court Martial. Contractor employees may be ordered into confinement or placed under conditions that restrict movement within the AOR or administratively attached to a military command pending resolution of a criminal investigation.

(f) Contractors shall immediately notify military law enforcement and the Contracting Officer if they suspect an employee has committed an offense. Contractors shall take any and all reasonable and necessary measures to secure the presence of an employee suspected of a serious felony offense. Contractors shall not knowingly facilitate the departure of an employee suspected of a serious felony offense or violating the Rules for the Use of Force to depart Iraq or Afghanistan without approval from the senior U.S. commander in the country.

**C<sub>3</sub> CLAUSE 952.225-0005 MONTHLY CONTRACTOR CENSUS REPORTING (JUL 2010)**

Contractor shall provide monthly employee census information to the Contracting Officer, by province, for this contract. Information shall be submitted either electronically or by hard-copy. Information shall be current as of the 25<sup>th</sup> day of each month and received by the Contracting Officer no later than the first day of the following month. The following information shall be provided for each province in which work was performed:

- (1) The total number (prime and subcontractors at all tiers) employees.
- (2) The total number (prime and subcontractors at all tiers) of U.S. citizens.
- (3) The total number (prime and subcontractors at all tiers) of local nationals (LN).
- (4) The total number (prime and subcontractors at all tiers) of third-country nationals (TCN).
- (5) Name of province in which the work was performed.
- (6) The names of all company employees who enter and update employee data in the Synchronized Pre-deployment & Operational Tracker (SPOT) IAW DFARS

**C<sub>3</sub> CLAUSE 952.225-0009 - MEDICAL SCREENING AND VACCINATION REQUIREMENTS FOR THIRD COUNTRY NATIONALS OR LOCALLY HIRED EMPLOYEES OPERATING IN THE CENTCOM AREA OF RESPONSIBILITY (AOR) (NOV 2010)**

(a) Contractors, and subcontractors at any tier shall ensure and provide satisfactory evidence that all locally hired employees, including Local National (LN), Third Country National (TCN), and U.S. employees, working on bases have been screened for and do not currently have active tuberculosis (TB).

(1) Contractors may initially utilize a testing method of either a chest x-ray or TB skin test (TST), depending on the originating country a contracted employee.

(i) Chest x-rays (CXR's), symptom survey, and Body Mass Index (BMI) shall be taken, and TSTs administered within 12 months prior to the start of deployment/employment. Contractors are required to bring in a physical copy of the pre-employment CXR film as it is the only way to verify interval changes should an active case of TB occur.

(A) Third Country Nationals (TCNs) and Local Nationals (LNs) cannot be screened with the TST. They need the pre-employment screening with a quality CXR, Body Mass Index (BMI) and symptom survey

(B) Small-Risk Nationals (SRNs), those with less than 25 TB cases per 100,000 persons annually (mostly expats from Europe and US), can be screened via the TST.

(ii) Annual re-screening for TCNs, and LNs will be performed with a CXR conducted by the Contractors medical provider or local economy provider, who will look for interval changes from prior CXR's and review any changes in the symptom survey.

(iii) SRN's do not require annual TB re-screening. However, for a TB contact investigation, a TST or Interferon Gamma Release Assay (IGRA) is required.

(iv) For a contact investigation, all personnel with a positive TST or IGRA will be evaluated for potential active TB with a symptom screen, exposure history, BMI, and CXR. All cases of suspected or confirmed active TB must be reported to the theater Preventive Medicine (PM) physician and/or TB Consultant as soon as possible. TB reporting is required within 24 hours to the PM POC. Contact tracing, and medical coding have specific requirements. All Small-Risk National (SRN) contract personnel are required to be MEDEVAC'd out of theater, at the contractor's expense, for treatment of active TB, after consultation with the Theater PM or TB Consultant at the USF-I Surgeon's office. For SRN personnel, the contractor is responsible for management and compliance with all prescribed public health actions.

(v) Screening may be performed either by a licensed medical provider from the local economy or by the contractors' licensed medical staffs. Contractors shall maintain medical screening documentation and make it available to the Contracting Officer upon request.

(2) TB screening and documentation is a requirement prior to receiving badges to work in the Iraq Joint Operations Area. A copy of the TB screening documentation shall be provided to the responsible Base Operations Center (BOC) prior to issuance of base access badges.

(b) Contractor employees, including subcontractors at any tier, who work in positions where they are working in food service, water and ice production facilities, shall have current Typhoid and Hepatitis "A" (full series) immunizations in accordance with the Centers for Disease Control and Prevention guidelines (e.g. typhoid vaccination booster is required every 2 years), in addition to the required TB tests. The contractor medical provider must complete a pre-placement examination to include a stool sample test for ova and parasites, and annual medical screening form or equivalent for food service, ice and water production workers.

(c) Proof of individual employee vaccinations shall be provided to the Contracting Officer and COR showing that their employees and their subcontractor employees at any tier have received the above vaccinations. The contractor shall maintain their employees' vaccination records for examination by the Contracting Officer. The contractor shall ensure that their subcontractors at any tier maintain their respective employees' vaccination records for examination by the Contracting Officer.

(d) The contractor is responsible for management and compliance with all prescribed public health actions regarding TB in the contracted personnel. The contractor also bears the responsibility of ensuring that adequate health management for TB (screening / diagnosis / treatment / isolation) is available at the contractor's chosen health care provider for their contracted and subcontracted personnel.

NOTE: Contractors are reminded of the requirement to comply with their contract and all regulatory guidance (DoD Instructions/Regulations, Federal Acquisition Regulation/Defense Federal Acquisition Regulation Supplement, and FRAGO's) as applicable regarding Medical Screening and Vaccination Requirements.

### **C3 CLAUSE 952.225-0011 GOVERNMENT FURNISHED CONTRACTOR SUPPORT (JUL 2010)**

The following is a summary of the type of support the Government will provide the contractor, on an "as-available" basis. In the event of any discrepancy between this summary and the description of services in the Statement of Work, this clause will take precedence.

U.S. Citizens Accompanying the Force

<input type="checkbox"/> APO/FPO/MPO/Postal Services	<input type="checkbox"/> DFACs	<input type="checkbox"/> Mil Issue Equip
<input type="checkbox"/> Authorized Weapon	<input type="checkbox"/> Excess Baggage	<input type="checkbox"/> MILAIR
<input type="checkbox"/> Billeting	<input type="checkbox"/> Fuel Authorized	<input type="checkbox"/> MWR
<input type="checkbox"/> CAAF	<input type="checkbox"/> Govt Furnished Meals	<input checked="" type="checkbox"/> Resuscitative Care
<input checked="" type="checkbox"/> Controlled Access (CAC)/ID Card	<input type="checkbox"/> Military Banking	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commissary	<input type="checkbox"/> Military Clothing	<input type="checkbox"/> All
<input type="checkbox"/> Dependents Authorized	<input type="checkbox"/> Military Exchange	<input type="checkbox"/> None

Third-Country National (TCN) Employees

<input type="checkbox"/> APO/FPO/MPO/Postal Services	<input type="checkbox"/> DFACs	<input type="checkbox"/> Mil Issue Equip
<input type="checkbox"/> Authorized Weapon	<input type="checkbox"/> Excess Baggage	<input type="checkbox"/> MILAIR
<input type="checkbox"/> Billeting	<input type="checkbox"/> Fuel Authorized	<input type="checkbox"/> MWR
<input type="checkbox"/> CAAF	<input type="checkbox"/> Govt Furnished Meals	<input checked="" type="checkbox"/> Resuscitative Care
<input checked="" type="checkbox"/> Controlled Access (CAC)/ID Card	<input type="checkbox"/> Military Banking	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commissary	<input type="checkbox"/> Military Clothing	<input type="checkbox"/> All
<input type="checkbox"/> Dependents Authorized	<input type="checkbox"/> Military Exchange	<input type="checkbox"/> None

Local National (LN) Employees

<input type="checkbox"/> APO/FPO/MPO/Postal Services	<input type="checkbox"/> DFACs	<input type="checkbox"/> Mil Issue Equip
<input type="checkbox"/> Authorized Weapon	<input type="checkbox"/> Excess Baggage	<input type="checkbox"/> MILAIR
<input type="checkbox"/> Billeting	<input type="checkbox"/> Fuel Authorized	<input type="checkbox"/> MWR
<input type="checkbox"/> CAAF	<input type="checkbox"/> Govt Furnished Meals	<input checked="" type="checkbox"/> Resuscitative Care
<input checked="" type="checkbox"/> Controlled Access (CAC)/ID Card	<input type="checkbox"/> Military Banking	<input type="checkbox"/> Transportation
<input type="checkbox"/> Commissary	<input type="checkbox"/> Military Clothing	<input type="checkbox"/> All
<input type="checkbox"/> Dependents Authorized	<input type="checkbox"/> Military Exchange	<input type="checkbox"/> None

**C<sub>3</sub> CLAUSE 952.225-0013 CONTRACTOR HEALTH AND SAFETY (NOV 2010)**

(a) Contractors shall comply with all National Electrical Code (NEC 2008), Specifications as outlined, and MIL Standards and Regulations. All infrastructure to include, but not limited to, living quarters, showers, and restrooms shall be installed and maintained in compliance with these standards and must be properly supported and staffed to ensure perpetual Code compliance, prevent hazards and to quickly correct any hazards to maximize safety of those who use or work at the infrastructure (NEC Table 352.20). Specifically, the use of magnetic ballasts in lighting for new construction or replacement of existing magnetic ballasts during refurbishment, alterations or upgrades with new magnetic ballasts is prohibited. The government has the authority to enter and inspect contractor employee living quarters at any time to ensure the prime contractor is complying with safety compliance standards outlined in the 2008 National Electric Code (NEC).

(b) The contractor shall correct all deficiencies within a reasonable amount of time of contractor becoming aware of the deficiency either by notice from the government or a third party, or discovery by the contractor. Further guidance on mandatory compliance with NFPA 70: NEC 2008 can be found on the following link <http://www.nfpa.org>.

**C<sub>3</sub> CLAUSE 952.225-0016 CONTRACTOR DEMOBILIZATION (JUN 2011)**

(a) Full demobilization of contractors and subcontractor(s) in the Afghanistan Combined Joint Operations Area (CJOA) is critical to Responsible Drawdown. The prime contractor is required to submit a demobilization plan to the Contracting Officer a minimum of 120 days prior to the end of the contract performance period or when

requested by the Contracting Officer. The demobilization plan shall address, as a minimum, the following procedures detailed below. The procedures outline specific guidance to ensure a timely and responsible exit from theater. Prime contractors are responsible and accountable to ensure their subcontractor(s) at all tiers comply with responsible and timely exit from theater immediately following contract performance completion or termination.

(1) Exit from Afghanistan: The prime contractor shall follow the exit guidance issued by the United States (U.S.) Embassy Baghdad and shall ensure subcontractor(s) at all tiers also follow the exit procedures. The prime contractor is responsible to remain cognizant of Afghan laws regarding exit from Afghanistan. Currently, all foreigners traveling out of Iraqi airports via commercial air transportation must have exit visas. Department of Defense, U.S. Forces-Iraq, Letters of Authorization (LOAs), and/or Embassy Badges are no longer the accepted means of exiting Iraq. All U.S. citizens and foreign national contractors must obtain an Iraqi exit sticker before departing the country. The exit sticker may be obtained from selected police stations or Ministry of Interior (MOI) offices. It is the prime contractor's responsibility to ensure that the most recent exit procedures are followed and to ensure that subcontractor(s) at all tiers are in compliance with exit procedures. Assistance for this procedure may be obtained by e-mailing [baghdadregmgt@state.gov](mailto:baghdadregmgt@state.gov) or phone 240-553-0581, ext 2782 or ext 2092.

(2) Letter of Authorization (LOA): The prime contractor is responsible for demobilizing its workforce, including subcontractor employees at all tiers, and all contractor owned and subcontractor owned equipment out of theater as part of the prime contractor's exit strategy. This exit strategy must include reasonable timeframes starting with the end of the contract performance period and not exceeding 30 days. The Contracting Officer has the authority to extend selected LOAs up to, but not exceeding 30 calendar days after the contract completion date to allow the prime contractor to complete demobilization of its workforce and contractor owned equipment, as well as subcontractor(s) workforce and owned equipment, out of the Afghanistan CJOA. The prime contractor shall notify the Contracting Officer a minimum of 30 days prior to the end of the contract period to request up to a 30-day extension of selected LOAs beyond the contract completion date to complete demobilization. The request shall include at a minimum:

- (i) the name of each individual requiring a new LOA;
- (ii) the number of days for the LOA (no more than 30 calendar days); and
- (iii) justification for the request (e.g., what function the individual(s) will be performing during the demobilization period).

The Contracting Officer may request additional information for an LOA extension. Any LOA extension granted beyond the contract completion date shall not exceed 30 days and the contractor is not entitled to additional compensation for this period. If approved by the contracting officer, this is a no cost extension of an employee's LOA due to demobilization and in no way is an extension of the contract performance period.

(3) Badging: The prime contractor is responsible to ensure all employee badges, including subcontractor employees at all tiers, are returned to the local Access Control Badging Office for de-activation and destruction. The prime contractor shall submit a Badge Termination Report to ensure each record is flagged and the badge is revoked. If a prime and/or subcontractor employee's badge is not returned, the prime contractor shall submit a Lost, Stolen or Unrecovered Badge Report to the appropriate Access Control Badging Office. Contractor employees in possession of a Common Access Card (CAC) shall be responsible for turning in the CAC upon re-deployment through a CONUS Replacement Center in the U.S. Failure to return employee badges in a timely manner may result in delay of final payment.

(4) Contractor Controlled Facility Space: If the prime contractor has entered into a Memorandum of Understanding with the Installation Mayor or Garrison for site space, buildings, facilities, and/or Containerized Housing Units (CHU) to house prime and/or subcontractor employees (at all tiers), the prime contractor is responsible to notify the Installation Mayor or Garrison Commander of intent to vacate at least 90 calendar days prior to the end of the contract performance period. All United States Government (USG) provided property in the prime contractor's possession must be returned to the USG in satisfactory condition. The prime contractor is responsible and liable for any and all damages to USG property caused by prime and/or subcontractor employees, and shall be further liable for all cleanup, clearing, and/or environmental remediation expenses incurred by the USG in returning prime contractor and/or subcontractor facilities including surrounding site to a satisfactory condition,

including expenses incurred in physically moving property, trash, and refuse from such premises, removing/remediating hazardous wastes on the premises, and repairing structures, buildings, and facilities used by the prime contractor and/or subcontractor. The prime contractor shall provide notification to the Installation Mayor or Garrison Commander to perform an inspection of all facilities as soon as practicable, but no more than 30 days, after the end of the contract period. If damages are discovered, the prime contractor shall make the necessary repairs. The prime contractor shall notify the Installation Mayor or Garrison Commander for re-inspection of the facilities upon completion of the repairs. If the Installation Mayor or Garrison Commander inspects the property, site space, buildings, facilities, and/or CHUs and finds they have not been properly cleaned, cleared, and/or environmentally remediated, or if the prime contractor fails to repair any damages within 30 calendar days after the end of the contract performance period, the final contract payment shall be reduced by the amount of the specified damages/repairs or the expenses incurred by the USG to properly clean, clear, and/or environmentally remediate the premises.

(5) Government Furnished Equipment/Materials: The prime contractor is responsible to return all USG furnished equipment, as defined in Federal Acquisition Regulation (FAR) Part 45, clauses 52.245-1, if included in the contract. Prime contractors who are not in compliance with the FAR, Defense Federal Acquisition Regulation Supplement, Department of Defense Directives and Instructions, United States Forces-Afghanistan (USFOR-A) FRAGOs, policies, or procedures will be responsible and liable for damages to the government property. The prime contractor may apply for a "relief of responsibility" from the Contracting Officer anytime during the contract performance period. A joint inventory shall be conducted of the equipment by the prime contractor, USG representative, and the Contracting Officer or their representative, within 10 calendar days after the end of the contract performance period. The prime contractor shall report lost, damaged or destroyed property immediately to the Contracting Officer, but no later than the joint inventory at the end of the contract period. If the prime contractor fails to report lost, damaged or destroyed equipment or materials during the contract performance period, the prime contractor shall be responsible for the replacement and/or repair of the equipment or materials. The replaced equipment shall be new, of the same quality, and shall perform at the same functional level as the missing piece of equipment. If the prime contractor fails to repair and/or replace damaged or missing equipment, the final payment shall be reduced by the appropriate amount of the specified damages or cost to replace missing equipment with new.

(6) Synchronized Predeployment Operational Tracker (SPOT): The prime contractor is responsible to close out the deployment of personnel, including subcontractor employees at all tiers, at the end of the contract completion period and to release the personnel from the prime contractor's company in the SPOT database. The release of employee information must be accomplished no more than 30 calendar days after the end of the contract completion date.

(7) Accountability of Prime and Subcontractor Personnel: Whether specifically written into the contract or not, it is the expectation of the USG that for any persons brought into the Afghanistan CJOA for the sole purposes of performing work on USG contracts, contract employers will return employees to their point of origin/home country once the contract is completed or their employment is terminated for any reason. If the prime contractor fails to re-deploy an employee, or subcontractor employee at any tier, the USG shall notify the applicable U.S. Embassy to take appropriate action. Failure by the prime contractor to re-deploy its personnel, including subcontractor personnel at any tier, at the end of the contract completion date, could result in the contractor being placed on the Excluded Parties List System (EPLS) and not be allowed to propose on future U.S. contracts anywhere in the world.

(b) CENTCOM - Joint Theater Support Contracting Command (C-JTSCC) and external agencies will utilize all available contracting remedies to guarantee compliance with demobilization requirements. Such actions include, but are not limited to withholding payment, issuing a cure notice, issuing a negative Contractor Performance Assessment Reporting System (CPARS) evaluation, reduction of award fee, debarment, reimbursement of U.S. Government expenses, and/or any other legal remedy available to a contracting officer. The USG reserves the right to **withhold payment** from the prime contractor not in compliance with the above procedures included herein. Additionally, the Contracting Officer shall document all unresolved contractor compliance issues in CPARS, which shall have an adverse past performance affect on future contracts with the USG, anywhere in the world.

**C3 CLAUSE 952.236-0001 ELECTRICAL AND STRUCTURAL BUILDING STANDARDS FOR CONSTRUCTION PROJECTS (JUL 2010)**

(a) The standards set forth herein are the minimum requirements for the contract. These standards must be followed unless a more stringent standard is specifically included. In such case the most stringent standard shall be required for contract acceptance.

(b) The contractor, in coordination with the Contracting Officer, Base Camp Mayor, Base/Unit Engineers, and requiring activity shall evaluate, upgrade, build, and/or refurbish buildings to a safe and livable condition. This work may include refurbishment, construction, alterations, and upgrades. All work shall be in accordance with accepted standards of quality.

(c) As dictated by the Unified Facilities Criteria (UFC) the contract shall meet:

- (1) "the minimum requirements of United States' National Fire Protection Association (NFPA) 70,
- (2) 2008 National Electrical Code (NEC),
- (3) American National Standards Institute (ANSI) C2, and
- (4) United States' National Electrical Safety Code (NESC).

(d) These standards must be met when it is reasonable to do so with available materials. When conditions dictate deviation, then provisions within the International Electrical Code (IEC) or British Standard (BS 7671) shall be followed. Any deviations from the above necessary to reflect market conditions, shall receive prior written approval from a qualified engineer and the Contracting Officer.

(e) The following internet links provide access to some of these standards:

UFC: [http://65.204.17.188/report/doc\\_ufc.html](http://65.204.17.188/report/doc_ufc.html)

NFPA 70: <http://www.nfpa.org>

NESC: <http://www.standards.ieee.org/nesc>

**TRAVEL WARNINGS**

The contractor shall provide all personnel working under this contract, and shall require subcontractors to provide their personnel, with a written notification advising such personnel to be aware of US State Department Travel Warnings with respect to Afghanistan, available at <http://travel.state.gov>, in the event they wish to consider bringing their dependants into Afghanistan. A copy of the notice *shall be furnished to the contracting officer upon award of the contract*, along with a certification by an authorized company representative attesting to the provision of the notification to contractor personnel. At no time, subject to the written approval of the contracting officer, may the contractor allow such dependants, or any other unauthorized individuals, to be present on the project site grounds, whether in transit or otherwise.

(End of clause)

**APPLICATION OF US CRIMINAL JURISDICTION**

Reference DODI 5525.11. The contractor is directed to provide all of its personnel working under this contract, and to require all of its subcontractors to provide their personnel, with written notification that - with the exception of nationals of Afghanistan and those ordinarily resident in Afghanistan - contractor and subcontractor personnel, and the dependents of contractor and subcontractor personnel who are residing with such personnel, may be subject to

US criminal jurisdiction as provided for in the Military Extraterritorial Jurisdiction Act, 18 USC 3261-3267; see Section 3267(1)(A)(iii)(I) and (2)(A)(iii). A copy of the notice *shall be furnished to the contracting officer upon award of the contract*, along with a certification by an authorized company representative attesting to the provision of the notification to contractor personnel.

(End of clause)

DBA INSURANCE SECTION 00800

**WORKERS COMPENSATION INSURANCE (DEFENSE BASE ACT) (APRIL 2011)**

(a) This Special Contract Requirement supplements FAR Clause 52.228-3 Workers' Compensation Insurance (Defense Base Act).

(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 **CNA Insurance** unless the contractor has a DBA self-insurance program approved by the Department of Labor. Proof of this self-insurance shall be provided to the Contracting Officer. The contractor shall submit proof of a valid DBA Insurance policy with CNA Insurance for the Prime and their Subcontractor's at every tier prior to performance of the contract. The current rates under the USACE, C3 and 408<sup>th</sup> CSB contract are as follows:

Service	\$3.50	per \$100 of employee remuneration
Construction	\$4.25	per \$100 of employee remuneration
Security	\$10.00	per \$100 of employee remuneration
Aviation	\$17.00	per \$100 of employee remuneration

(c) **Labor Category/Job Classification Definitions:**

**SERVICE:** White-collar" workers providing IT, engineering/consulting services, and restaurant services. Security consultants are included in this category if they are only providing risk assessment services and no form of armed protection.

**CONSTRUCTION:** "Blue-collar" workers providing services such as carpentry, electrical, plumbing, mechanical, concrete/asphalt, de-mining, roofing, landscaping, janitorial, trash removal, Port-a-John/septic cleaning, pest exterminating, auto repair/dismantling, drivers/couriers, and heavy equipment operation and maintenance. Construction site supervisors/managers and life support service providers are included in this category as well as all Unskilled and Manual Labor Day Laborers.

**SECURITY:** Personal Security Detail (PSD) and Static or Convoy Guarding of property or personnel.

**AVIATION:** Pilot and Crew of any aircraft excluding ground personnel who provide maintenance or services and stay on the ground.

NOTE: More than one rate may be applicable as more than one type of labor may be applicable for a particular contract.

(d) The contractor agrees to insert a Special Contract Requirement substantially the same as this one in all subcontracts (at every tier) to which DBA is applicable. Every subcontractor shall procure its own DBA Insurance coverage directly from CNA Insurance Co.

(e) Should the rates for DBA insurance coverage increase or decrease during the performance of this contract, USACE shall modify the contract accordingly. However, the revised rates will not be applicable until the Contractor's or Subcontractor's DBA Insurance policy is due to be renewed.

(f) CNA's Broker (Rutherford International) shall provide proof of confirmation of coverage within 3 working days of receipt of a complete insurance application. This confirmation should be used by the Contracting Officer to issue notice to proceed with performance.

(g) Premiums will be reimbursed only if coverage is purchased through the USACE mandatory requirements DBA contract administered by CNA Insurance and their Managing Broker, Rutherford International.

(h) Claims Reporting - The Contractor shall make timely Defense Base Act insurance claims on behalf of each employee who is injured or killed in the course of their employment under this contract, and shall ensure that similar language is in each Subcontractor's contract. The Contractor's Safety Officer shall, in addition to any other duties required to be performed under the contract, perform the following:

(i) Make timely Defense Base Act insurance claims on behalf of each employee who is injured or killed in the course of their employment under this contract; and

(ii) Make monthly written reports to the Contracting Officer, Administrative Contracting Officer, and the District/Center Safety and Occupational Health Manager, providing the names of each such injured or deceased employee, the circumstances surrounding each injury or death, the dates of each injury or death, the date the insurance claim was made on behalf of each employee, and the current status of each claim.

The District/Center Safety and Occupational Health Manager POC is:

***Susan R. Fox, Email: [Susan.R.Fox@usace.army.mil](mailto:Susan.R.Fox@usace.army.mil)***

(i) The Insurance carrier/Broker will conduct periodic audits of actual contractor payroll amounts. When a return is due for over-payment of premium on a specific audit, such returned premium shall be returned to the U.S. Department of Treasury.

(j) Failure to comply and purchase Defense Base Act (DBA) Insurance in accordance with FAR Clauses 52.228-3 Workers' Compensation Insurance (Defense Base Act), from the U.S. Army Corps of Engineers mandatory Insurance Carrier/Broker (CNA Insurance/Rutherford International) for the Prime and all of the Subcontractors at every tier, shall be considered a material breach and could cause your contract to be terminated for default/cause.

(End of clause)

## SECTION 00150

### THE DESIGN-BUILD PROCESS

#### 1.0 DESIGN-BUILD (DB) PROCESS

The facility shall be designed and built by a single DB Contractor. The DB Contractor may be a single firm or a team of firms that includes registered Architects and Engineers either employed by or subcontracted to the DB Contractor. Licensing jurisdiction of Architects and Engineers of record shall be verifiable. The DB Contractor shall be the Architect/Engineer-of-Record, whether the DB Contractor utilizes services of licensed architects and engineers employed by its firm or subcontracts with independent architectural and/or engineering firm(s). The DB Contractor shall be solely liable for design errors and/or omissions and should be insured as the A-E firm against design errors and omissions. For this specification, the term "Government" is defined as the Contracting Officer for the US Army Corps of Engineers, Afghanistan Engineer District-South (AED-S).

Section 00555, Design Concept Documents, identifies project documents furnished herein to be used as the basis for the project design and construction documents. The successful Offeror shall be required to complete the design and construction documentation, and construct the project in compliance with these completed requirements.

No work can begin on any phase of the process until an authorization Clearance For Construction (CFC) for that phase is issued.

#### 1.1 PROPOSAL PHASE

The Proposal Phase includes the period from the time from the issuance of the Request for Proposals (RFP) through the selection process and the final award of the DB contract.

The proposals to be submitted include a Technical and Performance Capability Proposal and Price Proposal. The contents and organization of the proposal is described in Section 00113. The Government will evaluate and award the DB contract to a single Offeror based upon the criteria which are outlined in Section 00113.

#### 1.2 DESIGN PHASE

The successful DB Contractor shall develop and submit for formal review Design Phase Submittals as indicated below and in the project schedule. The DB Contractor is encouraged to develop and submit multiple cost saving proposals for innovative design alternatives.

##### 1.2.1 THE DESIGN PHASE SUBMITTALS

**65% Design Submittal** shall include 65% complete drawings and specifications for site preparation work and utility construction.

##### 1.2.2 DESIGN CONSTRUCTION PHASE SUBMITTALS

**Design Construction Submittal** shall include, as required, complete design analysis (DA), drawings and specifications for site preparation work and utility construction. After Government acceptance of the Design Construction Submittal, the Government may issue a Clearance for Construction (CFC) letter to commence with the Build Phase.

#### 2.0 BUILD PHASE

The Build Phase shall be initiated by a Clearance For Construction (CFC) letter issued by the Contracting Officer.

A CFC will be provided separately by the Contracting Officer for each phase of the work. The Government may give the DB Contractor authorization for the Build Phase for portions of the work following review and approval of the particular Design Construction Submittal.

Weekly coordination meetings will be held at which, as a minimum, the DB Contractor’s Project Manager, a representative of the Designer, the site Superintendent, and the Contractor’s Quality Control (CQC) Manager shall be present.

**3.0 PROJECT SCHEDULE:**

The following is an internal design schedule and is subject to modification by the Offeror to suit their particular method of operation. Overall time constraints are required and cannot be changed except by contract modification. Prospective Offerors shall be required to submit a complete schedule for design and construction that meets or exceeds the overall time goals of the Government for this project.

<b>MILESTONE</b>  <i><u>All days are in calendar days.</u></i>	Written Notice to Proceed (NTP) following Contract Award (Day 0)
<b>DESIGN PHASE</b>	
Pre-design Meeting	Within Seven (7) days from NTP.
65% Design Submittal Due	Within 21 days following NTP.
Submittal Review Conference	Within Seven (7) days following Submittal Review.
Incorporate Changes to Submittal and Re-Submit for Review & Approval	Within Seven (7) days following Submittal Review Conference.
Design Package Submittal Due	Within 40 days following NTP.
Design Package Submittal Review Conference	Within Seven (7) days following Design Package Submittal Review.
Incorporate Changes to CD Submittal and Re-Submit for Review & Approval	Within 10 days following Review Conference.
<b>BUILD PHASE</b>	
Clearance For Construction (CFC)	See paragraph, Design Construction Phase Submittals.

Total Design and Construction Period For the Scope defined by the Construction Documents Package	90 Days -Performance Period Includes Design and Construction Phases.
--	--

**4.0 LIQUIDATED DAMAGES:**

Liquidated damages in the amount of **\$1,101.00** every calendar day of delay shall be assessed and charged to the Contractor.

**-END OF SECTION-**

## **SECTION 00555**

### **DESIGN CONCEPT DOCUMENTS**

#### **1. GENERAL**

This section identifies documents issued with this RFP which establish the concept or basis for the project construction 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 construction design, construction documentation, and construction of the facility in conformance with applicable criteria and codes.

#### **1.1 ENGINEERING AND DESIGN CRITERIA**

General design requirements are set forth in Section 01010.

#### **1.2 APPENDIX DOCUMENTS**

See Appendices for further technical requirements, criteria, and parameters that are a part of this contract.

#### **1.3 SPECIFICATIONS**

General specification requirements are set forth in Section 01010.

#### **1.4 ORDER OF PRECEDENCE**

In case of conflict, duplication, or overlap of design criteria specified in the documents referenced in this section, the following order of precedence shall be followed:

1. Minimum requirements of the RFP.
2. Written requirements supersede drawings.
3. All other conflicts, duplications, or overlaps shall be referred to the Contracting Officer Representative for resolution.

#### **1.5 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 (including the <http://www.wbdg.org/> website), shall be provided by the US Army Corps of Engineers.

#### **The Following Will Not Be Furnished To The Contractor.**

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.

**-- END OF SECTION --**

## **SECTION 01010 SCOPE OF WORK & TECHNICAL REQUIREMENTS**

### **1.0 GENERAL**

#### **1.1 SCOPE OF WORK**

This project upgrades the ANA Camp Shorabak Power Plant located in the city of Lashkar Gah, in the Helmand province of Afghanistan. The power plant currently has five 1100kW generators. There is an ongoing separate project that installs two additional power generators PG7 and PG8. This project installs an eight generator, PG6, and completes the ultimate configuration of the power plant.

There are two phases to this project – the first phase installs PG6, transformer TG6, day tank DT6, and associated switchgear and controls. The second phase upgrades the radiator of the existing generator PG3, from 40°C ambient to 50°C.

The generator and transformer are supplied by the Government. The switchgear, circuit breaker, and controls for PG6 are already installed and need to be wired. A new pad shall be constructed for PG6. Vibration isolation dampeners must be installed with the generators to reduce vibration. There are existing pads for TG6 and DT6 outside of the power plant building. The Contractor shall provide all ancillary equipment, as described herein, to allow for a fully functional power plant compatible with all the existing equipment and systems. The Contractor is required to develop a short-circuit current and relay coordination study of the expanded facility.

#### **1.2 DESIGN CONDITIONS**

The generator system shall withstand minus ~~21~~ to 50°C at 391 m above sea level without mechanical or electrical damage or degradation. All electrical equipment, including wires and conductors shall be sized based on a 50°C ambient temperature.

#### **1.3 ENGLISH LANGUAGE REQUIREMENTS**

All information shall be presented in English. The Contractor shall have a minimum of one (1) English-speaking representative to communicate with the COR at all times when work is in progress.

#### **1.4 SYSTEM DESIGN AND CONSTRUCTION**

The Contractor shall be responsible for all design and installation as required. For standardization and commonality of equipment, all major equipment items shall be the same model and manufacturer as those already furnished and installed. All design and construction shall meet the requirements and shall comply with the codes and standards referenced herein.

#### **1.5 ENVIRONMENTAL PROTECTION**

##### **1.5.1 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. The Contractor shall review host nation and U.S. Government environmental regulations with the Contracting Officer prior to design and discharge of any liquid wastes into natural streams or manmade channels.

**1.5.2 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.

**1.5.3 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.

**1.5.4 Disposal**

The Contractor is responsible for properly disposing all waste material resulting from this project. Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be subject to the approval of the Contracting Officer. Burning at the project site for the disposal of waste and debris will not be permitted.

**1.6 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.

**1.7 MOBILIZATION AND DEMOBILIZATION**

See Section 01060 – Special Clause, Paragraph 1.3.

**1.8 DRAWINGS AND BILL OF MATERIALS**

The design and selection of materials and equipment shall be submitted to the Contracting Officer for approval.

**1.8.1 As-Built Drawings**

The Contractor shall provide revised as-built drawings for any work performed under this modification. The as-built plans shall be submitted for approval to the Contracting Officer

**1.8.2 Operating Instructions**

The Contractor shall provide revised operating instructions based on the addition of the one generator set and related equipment. The Contractor shall submit these revised instructions to the Contracting Officer for approval.

**1.9 SECURITY**

Security is critical to construction in Afghanistan, especially on roads and remote areas away from Coalition Force bases. The Risk/Threat Level for the area surrounding this project site is **High Risk** associated with the security environment in which this work is to be performed and is relative to the chance of attack, improvised explosive devices (IEDs), kidnapping, theft, and vandalism. The Contractor must have an appropriate amount of security/protection to match the threat in the project area and along the supply routes. A detailed security plan in accordance with Section 01040 shall be approved by the Government before construction Notice to Proceed (NTP).

#### **1.10 LIMITATIONS OF WORKING SPACE**

The Contractor shall, except where required for service connections or other special reason(s), confine his operations strictly within the boundaries of the site. Workers 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 workers from entering adjoining property and in the event of trespass occurring the Contractor will be held entirely responsible. Areas located immediately outside the construction area are known to contain mines and unexploded ordnance (UXO). Contractors assume all risks when venturing in or out of the designated work areas.

#### **1.11 UNEXPLODED ORDANCE (UXO) – MINE REMOVAL AND CLEARANCE**

This project is located at the ANA Camp Shorabak located in the city of Lashkar-Gah in the Helmand Province of Afghanistan. The worked required is inside the power plant and within close proximity. UXO-mine removal and clearance is not required.

The Contractor **IS NOT** responsible for the clearance or removal of mines and unexploded ordnance (UXO) from the site prior to the commencement of construction. The site has been cleared to a minimum depth of 1.0 m (40") and the certificate of clearance is available for review. No construction activities are to be conducted without review of the written clearance certification for the site. If sub-surface construction activities will be performed on this site the clearance certification must state that the clearance depth was conducted to a minimum 1.0 m (40") in depth.

**NOTE 1:** For previous UXO/mine information, and a copy of the clearance certification the following points of contact from the UN Mine Action Center of Afghanistan are provided:

Mohammad Sediq, Chief of Operations,  
Email: [sediq@unmaca.org](mailto:sediq@unmaca.org)  
Cell: +93 070 295207

Hansie Heymans, Chief Information Officer,  
Email: [hansie@unmaca.org](mailto:hansie@unmaca.org)  
Cell: +93 070 294286

UXO Safety/ Mine Clearance COR, USACE, AED-South  
Ronald.H.Cates@usace.army.mil  
Comm: 540-667-6359

**NOTE 2:** For construction in excess of 1.0 m (40") in depth on areas previously cleared. If the contract parameters for sub-surface construction exceed the minimum 1.0 m (40") clearance depth the Contractor **WILL** be responsible for clearance to these depths.

The Contractor may only provide clearance/removal services via UN Mine Action Center for Afghanistan (UNMACA) accredited entities and Clearance/removal may only be undertaken in accordance with International Mine Action Standards (IMAS), Afghanistan Mine Action Standards (AMAS), and applicable U.S. Army Corps of Engineer (USACE) Ordnance & Explosives (OE) safety standards.

The Contractor will provide a standard UXO/Demining safety work plan to the US Army Corps of Engineers UXO / Demining COR for review prior to commencement of all UXO clearance/demining activities on the project sites. Once the UXO/ Demining clearance has concluded, the Contractor shall provide the US Army Corps of Engineers UXO / Demining COR a clearance certificate for review and approval before any construction activities are to commence.

**NOTE 3:** The Contractor should be aware that many areas demined by NGOs and other groups may have only been cleared to a depth of 130 mm (5") for humanitarian purposes. If construction will take place, a minimum of 1.0 m (40") in depth is mandatory.

It is the responsibility of the Contractor to be aware of the risk of encountering UXO/mines 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 or resulting from any Contractor action taken hereunder. The Contractor and its subcontractors may not handle, work with, move, transport, render safe, or disarm any UXO/mine, unless they have appropriate accreditations from the MAC.

If a UXO/mine is encountered during project construction, the Contractor shall immediately stop work in the affected area, mark the area of the UXO/Mine and immediately notify the Contracting Officer, COR or the Government Construction Representative. UXO/Mine disposal will not be the responsibility of the Contractor unless the area exceeds the 1.0 m (40") clearance depth of the original clearance certificate.

## **1.12 PORTABLE SANITARY FACILITIES**

Contractor shall furnish and install portable latrine units with hand-sanitizer dispenser at site location(s). Portable latrines shall be mix of western and eastern style units. Mix shall be determined by Contracting Officer.

Contractor shall furnish and install adequate hand-wash units at site location(s). Each wash unit shall consist of a basin, foot controlled wash water dispenser, hand soap dispenser, and towel dispenser.

## **1.13 EQUIPMENT REQUIREMENTS**

Unless noted otherwise, all material and equipment 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, CE, CSA, GS, DIN listed material (or equivalent), but the contractor must prove equivalence and must provide the government with a full copy of the relevant specification(s)/standard(s). Material and equipment installed under this contract shall be for the appropriate application and installed in accordance

with manufacturers recommendations. Items or equipment from local suppliers or manufacturers not meeting these requirements must be approved by the Contracting Officer.

Major components of equipment shall have the manufacturer's name, address, type or style, voltage and current rating, and catalog number on a non-corrosive and non-heat sensitive plate, securely attached to the equipment. All equipment delivered and placed in storage, prior to installation, shall be protected from the weather, humidity and temperature variation, dirt and dust, and any other contaminants. All equipment supplied by the Contractor shall be in new condition, undamaged and unused.

#### **1.13.1 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.

#### **1.13.2 Delivery, Storage, and Handling**

Deliver equipment and material required for this project to their final locations in protective wrappings, containers, and other protection that will exclude dirt and moisture and prevent damage from construction operations. Remove protection only after equipment is safe from such hazards.

#### **1.13.3 Restrictions**

Aluminum conductors shall not be specified or used except as bare steel reinforced (ACSR) overhead conductors in an aerial primary distribution system. Aluminum windings shall not be used in transformers.

### **1.14 SUBMITTALS**

#### **1.14.1 Product Data**

For each component include data on features, components, ratings, and performance. Include dimensioned outline plan and elevation drawings of engine generator set and other system components specified.

#### **1.14.2 Shop Drawings**

Indicate fabrication details, dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.

#### **1.14.3 Design Calculations**

Signed and sealed by a qualified Professional engineer. Calculate requirements for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.

**1.14.4 Vibration Isolation Base Details**

Signed and sealed by a qualified professional engineer. Detail fabrication, including anchorages and attachments to structure and to supported equipment. Include base weights.

**1.14.5 Wiring Diagrams**

Detail wiring for power and control connections and differentiate between factory-installed and field-installed wiring.

**1.14.6 Field Test and Observation Reports**

Indicate and interpret test results for compliance with performance requirements.

**1.14.7 Certified Summary of Performance Tests**

Demonstrate compliance with specified requirement to meet critical performance criteria.

**1.14.8 Factory Test Reports**

For units to be shipped for this Project show evidence of compliance with specified requirements.

**2.0 CODES AND TECHNICAL CRITERIA**

The Contractor must comply with all the technical requirements referenced herein. If there are conflicts between codes, technical references, and this Technical Specification, the Contractor shall notify the Contracting Officer for clarification. Any assumptions made by the Contractor that are not specified herein shall be brought up to the attention of the Contracting Officer. Compliance with the codes and technical criteria referenced herein by subcontractors will be the responsibility of the Contractor

**2.1 APPLICABLE STANDARDS**

The latest edition of the following codes and technical criteria and those referenced herein shall be required for this project. References within each reference below shall be required and adhered to. This list is not exhaustive and is not necessarily complete.

- ASME - American Society for Mechanical Engineering
- ASTM - American Society for Testing and Materials
- AWS - American Welding Society
- IEEE C2, National Electrical Safety Code (NESC)
- IFGC – International Fuel Gas Code
- Codes and Standards of the National Fire Protection Association (NFPA)
- National Electrical Safety Code (NESC)
- Institute of Electrical and Electronic Engineers (IEEE C2)
- NFPA 70, National Electrical Code
- NFPA 110, Standard for Emergency and Standby Power Systems
- NFPA 30, Flammable and Combustible Liquids Code
- NFPA 90A, Air Conditioning and Ventilating Systems,
- NFPA 37
- IFGC – International Fuel Gas Code
- IMC – International Mechanical Code
- IPC – International Plumbing Code

- IEEE C2, National Electrical Safety Code (NESC)
- TM 5-805-4 Noise and Vibration
- TM 5-811-1 Electrical Power Supply and Distribution
- UFC 3-540-04N Design: Diesel Electric Generating Plants
- UFC 3-550-03FA Design: Electrical Power Supply and Distribution System
- ACI 301M Specifications for Structural Concrete (latest edition), American Concrete Institute
- ACI 318 Building Code Requirements for Structural Concrete (latest edition), American Concrete Institute
- American Institute of Steel Construction (AISC), Specifications for Structural Steel Buildings
- ARI - Air Conditioning and Refrigeration Institute
- ASCE 7, Minimum Design Loads for Buildings and Other Structures
- ASHRAE - American Society of Heating, Refrigeration and Air-Conditioning
- ASHRAE Standard 62.1-latest edition, Ventilation for Acceptable Indoor Air Quality
- ASME - American Society for Mechanical Engineering
- ASTM - American Society for Testing and Materials
- AWS D1.1, Structural Welding Code – Steel (latest edition), American Welding Society
- NFPA 1, General Fire Protection
- TM 5-811-1 Electrical Power Supply and Distribution
- UFC 1-200-01, Design: General Building Requirements
- UFC 1-300-07A Design Build Technical Requirements
- UFC 1-300-09N, Design Procedures
- UFC 3-310-01, Structural Load Data
- UFC 3-410-01FA Heating, Ventilating and Air Conditioning
- UFC 3-410-02A, HVAC Control Systems,
- UFC 3-410-04N, Industrial Ventilation
- UFC 3-430-01FA, Heating and Cooling Distribution Systems
- UFC 3-460-01, Petroleum Fuel Facilities,
- UFC 3-501-03N, Electrical Engineering Preliminary Considerations
- UFC 3-520-01, Interior Electrical Systems
- UFC 3-540-04N Design: Diesel Electric Generating Plants
- UFC 3-550-03FA Design: Electrical Power Supply and Distribution Systems
- UFC 4-020-03, Security Engineering: Fences, Gates, and Guard Facilities
- Applicable UL Standards

Unified Facility Criteria (UFC) is available online at:  
[http://www.wbdg.org/ccb/browse\\_cat.php?o=29&c=4](http://www.wbdg.org/ccb/browse_cat.php?o=29&c=4)

Standards other than those mentioned above may be accepted if the standards chosen are internationally recognized and meet the minimum requirements of the specified standards. The Contractor shall be prepared to submit proof of this if requested by the Contracting Officer.

### **3.0 MECHANICAL AND PLUMBING**

The Contractor shall provide, install, commission, and place in operation all mechanical and plumbing systems required to support installation of generator PG6. All equipment and material shall be

supplied and installed to provide complete and fully operational systems. The diesel-engine sets, controls, protection, fuel systems, fuel monitoring systems, exhaust systems, cooling systems, ancillary equipment etc., shall be identical to those for the existing diesel engine-generator sets. Additional bulk fuel storage is not required for this project. The Contractor is required to install a new day tank DT6 for PG6 and connect it to the existing bulk fuel storage system. The new DT6 shall be of the same type and size as the existing day tanks. See Attachments A, G, and H for pictures of the existing day tanks. The scope of work shall include new reinforced concrete housekeeping pad for PG6 and any addition or expansion of the building components and systems as required for operation and interface to the new diesel engine-generator.

### **3.1 RADIATOR SYSTEM FOR GENERATOR PG6**

Manufacture new shroud to go between louvers and radiator for rated 50-deg C operation. Fit shroud to air louvers and radiator. Connect radiator to the fan shroud to dissipate the hot air to the outside. Mirror existing designs in existing power plant. All required material and appurtenances will be furnished and installed as part of Division 23 work.

### **3.2 ENGINE EXHAUST SYSTEM GENERATOR PG6**

The Contractor shall supply, fabricate, and install a properly sized exhaust system for generator PG6. The exhaust system will connect to the outside through vertical stacks and then go horizontal. It will be the same design as the existing power plant exhaust system. All equipment needed for the generator exhaust system shall be supplied by the Contractor.

The Contractor shall supply a new double filtration unit for installation to the government supplied generator. A one-year supply of air filters as suggested by the manufacturer shall also be supplied by the Contractor. See Attachment J for an example of the exhaust system on one of the existing generators.

#### **3.2.1 Muffler**

The muffler shall be sized per the recommendations of the engine manufacturer. Measured sound level at a distance of 3 m from the exhaust discharge, is 90 dBA or less. Muffler shall be sized so that engine will be capable of delivering its rated output with a friction head back pressure of up to 20mm of mercury in the exhaust pipe extension from the output side of the muffler (i.e., excluding the drop in the (muffler). See Attachment A for an example of the muffler system.

#### **3.2.2 Connections from Engine to Exhaust System**

Flexible sections of corrugated stainless-steel pipe. Installation shall be done as part of Division 23 work.

#### **3.2.3 Support of Muffler and Exhaust Piping**

Spring hangers and all-thread rods as specified in Division 23 Section "Vibration Control"; attached to building structure. Furnished and installed as part of Division 23 work.

#### **3.2.4 Exhaust Piping External to Engine**

Welded joints and fittings furnished and installed as part of Division 23 work.

### **3.3 RADIATOR UPGRADE GENERATOR PG3**

Upon completion and commissioning of generator PG6, the Contractor shall upgrade the existing 40°C radiator of generator PG3 to 50°C. The Contractor shall supply all material and labor to remove the existing radiator and install the new radiator compatible to the existing generator. A suggested bill of material for the 50°C upgrade is included in Attachment O. The parts list is not inclusive and it is the responsibility of the Contractor to verify and confirm all the required equipment and parts are included in the list.

Modify and install the existing shroud between louvers and the new radiator. Connect radiator to fan shroud to dissipate hot air to the outside. Mirror existing designs on generator PG3 prior to removal. Refill radiator with proper antifreeze as recommended by the manufacturer. Check the system for leaks and proper operation.

The Contractor shall also supply and install a new double filtration unit for generator PG3. A suggested bill of material for the filtration is included in Attachment P. The parts list is not inclusive and it is the responsibility of the Contractor to verify and confirm all the required equipment and parts are included in the list. The Contractor shall also supply a one-year supply of filters as suggested by the manufacturer.

Once the overhaul of generator PG3 radiator and exhaust system is complete, the Contractor shall test the generator and all the systems associated with it for proper operation.

### **3.4 FUEL STORAGE AND SUPPLY DESIGN**

The Contractor shall design and install the additional day tank and associated piping and controls for the additional generator transfer fuel from bulk storage tanks. The fuel system shall comply with NFPA 30, NFPA 37 and DIN Standards.

Fuel shall be transferred from the bulk storage tanks by duplex transfer pumps into individual day tanks. Fuel piping shall be fiberglass for underground and steel for piping located above grade. Metal fuel tank saddles should not be placed directly on fuel containment area slabs. They should be elevated on piers to avoid moisture corrosion.

#### **3.4.1 Day Tank**

Factory-fabricated and installed assembly of a listed fuel tank with integral, float-controlled transfer pump and features as listed below. Include piping solenoid valves and other appurtenances between day tank and engine.

##### **3.4.1.1 Containment**

The day tank shall have an integral rupture basin with a capacity of 200 percent of nominal capacity of day tank.

##### **3.4.1.2 Leak Detector**

Locate in rupture basin and connect to provide audible and visual alarm in the event of a day-tank leak.

##### **3.4.1.3 Tank Capacity**

The day tank capacity shall be 2,200 liters minimum.

##### **3.4.1.4 Pump Capacity**

The pump capacity shall exceed the maximum flow of fuel drawn by engine-mounted fuel supply pump at 100 percent of rated capacity, including fuel returned from engine.

#### **3.4.1.5 Unit and Alarm Contacts**

The unit and alarm contacts shall comply with UL 142.

#### **3.4.1.6 High and Low Level Alarm Sensors**

A low level alarm sensor shall be provided to operate alarm contacts at 75 percent of normal fuel level. A high level alarm sensor shall be provided to operate alarm and redundant fuel shutoff contacts at 106 percent of normal fuel level.

#### **3.4.1.7 Redundant High-Level Fuel Shutoff**

Actuated by high-level alarm sensor in day tank. It operates a separate motor disconnect device that disconnects day-tank pump motor. It also closes a solenoid valve in fuel suction line from fuel storage tank to day tank. Both items remain in shutoff state until manually reset. Shutoff action initiates an alarm signal to control panel, but does not shut down engine generator set.

#### **3.4.1.8 Fuel Oil Piping and Remote Fuel Oil Storage Tank**

Provided as part of Division 23 work, complete with main fuel transfer pump, piping from storage tank to day tank, and all required valves and appurtenances.

#### **3.4.1.9 Interior Fuel Oil Piping**

Include required field installed piping between the day tank and the engine. Refer to Division 23 specifications for materials and installation.

## **4.0 ELECTRICAL**

### **4.1 GENERATOR POWER SYSTEM**

The Shorabak Power Plant currently has five 1100kW power generators, PG1 through PG5. There is a separate project that installs two additional generators, PG7 and PG8. This project installs PG6 and upgrades the radiator of PG3 from 40°C to 50°C.

The government-supplied generator is on-site and shall be relocated and installed on the existing pad inside the power plant. It is an 1100kW C1675 D51 Cummings generator rated at 380V, 3-phase, 4-wire, 50Hz. The existing layout of the generators (PG1-PG2, PG4-PG5) shall be used as guides to the installation. The installation shall be similar in nature and completely functional when completed and tested by certified technicians.

All necessary equipment and material shall be supplied and installed to provide a complete operational system. The day tank, filtration units, radiators, mufflers, batteries, charger, grounding, wiring, fuel systems, fuel monitoring systems, exhaust systems, cooling systems, and other ancillary equipment shall be provided by the Contractor. The equipment provided shall be identical to those of the existing generator sets. It is the responsibility of the Contractor to supply all equipment not listed herein, to allow for a fully functional power plant compatible with all the existing equipment and systems.

## **4.2 GENERATOR PARALLELING**

Each generator shall be equipped with synchronizing/paralleling equipment to allow the generators to share the load of the site. The new generators shall be incorporated into the existing system which operates as follows:

When generator power is required at least one (1) generator shall be online at all times. When the site's load reaches 90% of the online generator's capacity, the standby generator(s) shall start. The generator that synchronizes first shall come online and share the load equally. When the site's load drops below 80% of the online generators' combined capacity, the generator(s) shall drop off line, one at a time, keeping a minimum of one generator operating online.

Whenever a generator starts, it shall go through a cool down cycle prior to shutdown. All relaying shall be automatically reset for automatic restart and stopping of generators as the load increases or decreases. Load sharing by the standby generator(s) shall be adjustable between 50% and 95% of the load on the online generator(s). Sequence of operation shall be PLC controlled.

The generator frequency shall conform to performance class G+ of ISO8528. Synchronization and Paralleling with the existing power plant generator sets may require a Program Logic control (PLC) unit to be installed.

## **4.3 TRANSFORMER**

The government-supplied transformer is 15/0.4 kV, 1932 kVA designed for outdoor operation. It shall be mounted on the existing transformer pad outside the power plant. See Attachment C for the nameplate data of the transformer.

## **4.4 SWITCHGEAR**

The switchgear at the power plant is manufactured by G.E. It has a dedicated circuit position and a G.E. vacuum circuit breaker for generator PG6. Generator potential transformers and associated relays and controls are pre-wired and existing. See Attachment D for the layout of the switchgear. See attachment F for the nameplate data of the circuit breaker.

## **4.5 GENERATOR CONTROL SWITCHBOARD**

The generator control switchboard consists of five cubicles. There is a dedicated cubicle that contains controls for generators PG5 and PG6. The alarm panel, relays, meters, controls, and controls necessary for the operation of generator PG6 are pre-wired. The Contractor shall wire the generator control wires to the generator control switchboard. See Attachment C for configuration of the control panels.

The existing generator switchgear and associated controls shall be modified as necessary to accommodate the addition of the new generator.

## **4.6 STARTING SYSTEM**

The generator starting system is 24 volts and consists of four 6-volt batteries. The batteries are supplied by the Government. The Contractor shall test the batteries and verify it is in good operating condition prior to installation. The battery system is negatively grounded. All components shall be sized based on the environmental conditions specified in Paragraph 1.2 of this document.

**4.6.1 Battery Cables**

Battery cables shall be sized as recommended by the generator manufacturer for cable length indicated. Include required interconnecting conductor and connection accessories.

**4.6.2 Battery Charging Alternator**

The alternator is factory mounted on engine with solid-state voltage-regulation and 35A minimum continuous current rating.

**4.6.3 Battery Charger**

The battery charger shall be current-limiting, automatic-equalizing and float charging type. The unit complies with the following features:

**4.6.3.1 Operation**

Equalizing-charging rate of 10 A is initiated automatically after battery has lost charge until an adjustable equalizing voltage is achieved at battery terminals. Unit then automatically switches to a lower float-charging mode and continues operating in that mode until battery is discharged again.

**4.6.3.2 Automatic voltage Regulation**

Maintains output voltage constant regardless of input voltage variations up to plus or minus 10 percent.

**4.6.3.3 Ammeter and Voltmeter**

The voltmeter and ammeter are mounted flush with the door.

**4.6.3.4 Safety Functions**

Include sensing of abnormally low battery voltage arranged to close contacts providing low battery voltage indication on control and monitoring panel. Also include sensing of high battery voltage and loss of ac input or dc output of battery charger. Either of these conditions closes contacts that provide a battery charger malfunction indication at system control and monitoring panel.

**4.6.3.5 Enclosure and Mounting**

The battery charger is to be wall-mounted in a NEMA 250, Type 1 enclosure.

**4.7 CONDUCTORS**

All cable and wire conductors shall be copper. Conductor jacket or insulation shall be color coded to satisfy NEC requirements. The use of 75 or 90 degree C (minimum) terminals and insulated conductors is required. Use of higher degree C rated conductors on circuits with protective device terminals rated at a lower degree C is allowed but must be derated to the rating of the device terminals. An ambient temperature of 50°C shall be used for sizing the conductors for this project.

**4.8 GROUNDING AND BONDING**

Grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be exothermally 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, unless the local authority requires

a different color-coded conductor. Ground rods shall be 20 millimeters (0.75 inches) in diameter and 3 meters (~10 feet) long made of copper-clad steel. Additional grounding shall be provided as needed for equipment and protective devices as necessary.

#### **4.9 ENCLOSURES**

Enclosures for exterior and interior applications shall be NEMA Type 3S (IEC Classification IP54) and NEMA Type 1 (IEC Classification IP10) respectively.

#### **4.10 CONDUIT AND RACEWAY SYSTEM**

There is existing underground conduit system connecting the generator, switchgear, control switchboard, and the outdoor transformer.

If used, 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 pull wire or cord or rope (depending on the size of conduit and length of run). System design and installation shall be per NFPA 70 requirements.

#### **4.11 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 ratings. Single line diagrams for each system, installed in a clear plastic frame, shall be provided. The single line diagram for the existing system shall be updated to show the new generator, switchgear and step up transformer.

#### **4.12 OUTAGES**

The Contractor shall take all steps necessary to minimize electrical outages while performing work under this modification. The Contracting Officer shall be notified in writing forty-eight (48) hours in advance of all scheduled electrical outages. Refer to Section 01060, Special Clauses, Paragraph 1.7, for additional information on outages.

#### **4.13 SHORT CIRCUIT CURRENT AND COORDINATION STUDY**

The Contractor shall perform a short-circuit current and relay coordination study for the complete expanded generation system. Based on the results of this study the Contractor 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.

#### **4.14 OPERATIONS AND MAINTENANCE (O&M) FOR ELECTRICAL**

Contractor is required to provide a 12 month supply of parts for operation and maintenance of equipment according to the manufacturer's recommendations. In addition to this, the contractors shall provide an inventory of all items, location/address stored and secured, and commissioning plans.

The O&M manuals must be provided prior to any training activities. Manuals shall be "tri-lingual" in Dari, Pashto and English.

### **5.0 STRUCTURAL & CIVIL**

This project consists of erecting a pad for the generator and verifying the integrity of the existing pads for the transformer and the day tank. The Contractor shall design the generator pad per the requirements referenced herein.

## 5.1 DESIGN

Design shall be performed and design documents signed by a registered professional architect and/or engineer. Calculations shall be in SI (metric) units of measurements. All components of the structures shall be designed and constructed to support safely all loads without exceeding the allowable stress for the materials of construction in the structural members and connections.

## 5.2 STANDARDS

The Contractor should use the following American standards to provide sound structural design if local standards are not available, relevant, or applicable. The Contractor shall follow American Concrete Institute Standards (ACI) for design and installation of all concrete structures. All codes are latest edition.

- |                          |   |
|--------------------------|---|
| • Concrete               | ACI 318 and ASTM C 39                             |
| • Steel Reinforcement    | ASTM A 615; 420 MPa (Fy                           |
| • Welded Wire Fabric     | ASTM A 185.= 60ksi) yield strength.               |
| • Anchor Bolts           | ASTM F 1554; Grade 36 steel.                      |
| • Bolts and Studs        | ASTM A 307.                                       |
| • Concrete Masonry Units | ASTM C 90; Type I                                 |
| • Mortar ASTM C 270;     | Type S (ultimate compressive strength of 13 MPa). |
| • Structural Steel       | ASTM A 36; 250 MPa (Fy =36,000psi)                |
| • Welding                | AWS D1.1 (American Welding Society).              |

## 5.3 DEAD AND LIVE LOADS

Dead loads consist of the weight of all materials of construction incorporated in the buildings. Live loads used for design shall be in accordance with the Structural Load Data, UFC-3-310-01, and edition as referenced herein.

## 5.4 WIND LOADS

Wind loads shall be calculated using a "3-second gust" wind speed of 135 km/hr.

## 5.5 SEISMIC

The building and all parts thereof shall be designed for the seismic requirements as defined by the International Building Code referenced herein.

Spectral ordinates shall be  $S_s = 1.28g$  and  $S_1 = 0.51g$ .

## 5.6 STRUCTURAL CONCRETE

Concrete structural elements shall be designed and constructed in accordance with the provisions of the American Concrete Institute, Building Code Requirements for Structural Concrete, ACI 318, latest edition. A minimum cylinder 28 day compressive strength of 28 MPa (4,000 psi) shall be used for design and construction of all concrete, except that 24 MPa (3,500 psi) shall be used for Shotcrete applications. Reinforcing steel shall be deformed bars conforming to American Society for Testing and Materials publication ASTM A 615, Deformed and Plain Billet-Steel Bars for Concrete Reinforcement. Concrete shall have maximum water-cement ratio of 0.45. No concrete shall be placed when the ambient air temperature exceeds 32 degrees C (90

degrees F) unless an appropriate chemical retardant is used. In all cases when concrete is placed at 32 degrees C (90 degrees F) or hotter it shall be covered and kept continuously wet for a minimum of 48 hours. Concrete members at or below grade shall have a minimum concrete cover over reinforcement of 75 mm (3 inches).

## 5.7 STRUCTURAL STEEL

Structural steel shall be designed and constructed in accordance with the provisions of American Institute of Steel Construction (AISC), Specifications for Structural Steel Buildings (latest edition). Design of coldformed steel structural members shall be in accordance with the provisions of American Iron and Steel Institute (AISI), Specifications for Design of Cold-Formed Steel Structural Members.

## 6.0 INSTALLATION

The generator and other components shall be installed as indicated, in accordance with equipment manufacturers written instructions, and with recognized industry practices, to ensure proper performance in accordance with the specifications.

The engine-generator sets including radiators, shall be provided with a structural steel base. The base shall have sufficient rigidity for spring type isolators in quantities as required between enclosure floor and generator. Mounting shall incorporate a leveling device, vertical stops, and three layers of neoprene acoustical pad, with each layer separated by a steel plate. The mountings shall be installed directly under the structural steel base and shall be positioned to accept the weight and weight distribution for uniform mounting deflection. Spring isolators provide a minimum static deflection of 50mm and be similar to Mason Industries, Inc., Type SLR, or as approved. Neoprene pads shall be similar to Mason Industries, Inc., Type W, or as approved.

Coordinate with the work of other trades including fuel tanks, pumps, piping, ductwork and accessories as necessary to provide a complete operational system.

Include the installation of generator control switchgear, local generator circuit breakers, control and monitoring and panels, battery chargers, remote annunciator panels day tanks, batteries and racks and other appurtenances to the extent that such appurtenances are not factory installed and wired. Piping between engine and day tank shall comply with Division 23 Section "Fuel Oil Piping."

Include panel and control wiring between generators, control switchgear and generator output circuit breakers.

Include field inter-wiring and power supply and control connections for load bank, batteries, battery chargers, pumps, heaters, float switches, solenoid valves, damper operators and other miscellaneous items as required in accordance with manufacturers wiring diagrams. Such wiring shall include (but not be limited to):

- Wiring between battery and engine control panels and battery chargers and power supplies thereto.
- Power supply wiring and control wiring for engine jacket water heaters.
- Power supply wiring and control wiring for fuel pumps, fuel tanks, float switches, valves and other fuel supply system components.
- Power supply an control wiring for automatic louver damper operators.

- Emergency stop switch and control wiring run to generator control switchgear.
- "Manual start" switch located in Electric Switchgear Room and control wiring to generator control switchgear.

## **7.0 TESTING AND COMMISSIONING**

The Contractor shall test and commission all equipment and systems that are added or expanded as part of this expansion. Prior to testing the Contractor shall submit a detailed testing plan to the Contracting Officer for approval. The testing shall demonstrate that the power plant generation and all expanded mechanical and plumbing systems operate as a complete integrated system.

### **7.1 BATTERY TEST**

Measure charging voltage and voltages between available battery terminals for full-charging and float-charging conditions. Check electrolyte level and specific gravity under both conditions. Test for contact integrity of all connectors. Perform an integrity load test and a capacity load test for the battery. Verify acceptance of charge for each element of battery after discharge. Verify measurements are within manufacturer's specifications.

### **7.2 SYSTEM INTEGRITY TEST**

Methodically verify proper installation, connection, and integrity of each element of engine generator system before and during system operation. Check for air, exhaust, and fluid leaks.

### **7.3 EXHAUST SYSTEM BACK-PRESSURE TEST**

Use a manometer with a scale exceeding 120 kPa. Connect to exhaust line close to engine exhaust manifold. Verify that back pressure at full-rated load is within manufacturer's written allowable limits for the engine.

### **7.4 VOLTAGE AND FREQUENCY TRANSIENT STABILITY TESTS**

Use recording oscilloscope or equivalent to measure voltage and frequency transients for 50 and 100 percent step-load increases and decreases and verify that performance is as specified.

### **7.5 TOTAL SYSTEM TEST**

Perform the following tests

1. Startup in response to initiation of signals from switchgear or ATS as applicable.
2. Automatic synchronizing and paralleling.
3. Load acceptance time from cold start: 10 seconds.
4. Load sharing between generators. Demonstrate shutdown and restart of units in response to variations in load.
5. Coordinate tests for transfer switches and run them concurrently.
6. Correct deficiencies identified by tests and observations and retest until specified requirements are met.

### **7.6 TEST REPORTS**

Indicate and interpret test results for compliance with performance requirements. Demonstrate compliance with specified requirement to meet critical performance criteria. For units to be shipped for this Project show evidence of compliance with specified requirements.

**ATTACHMENT A**  
Power Plant Louvers & Day Tank



**ATTACHMENT B**

Space for Generator PG6 Pad



**ATTACHMENT C**  
Generator Controls Switchboard



**ATTACHMENT D**  
Power Plant Switchgear

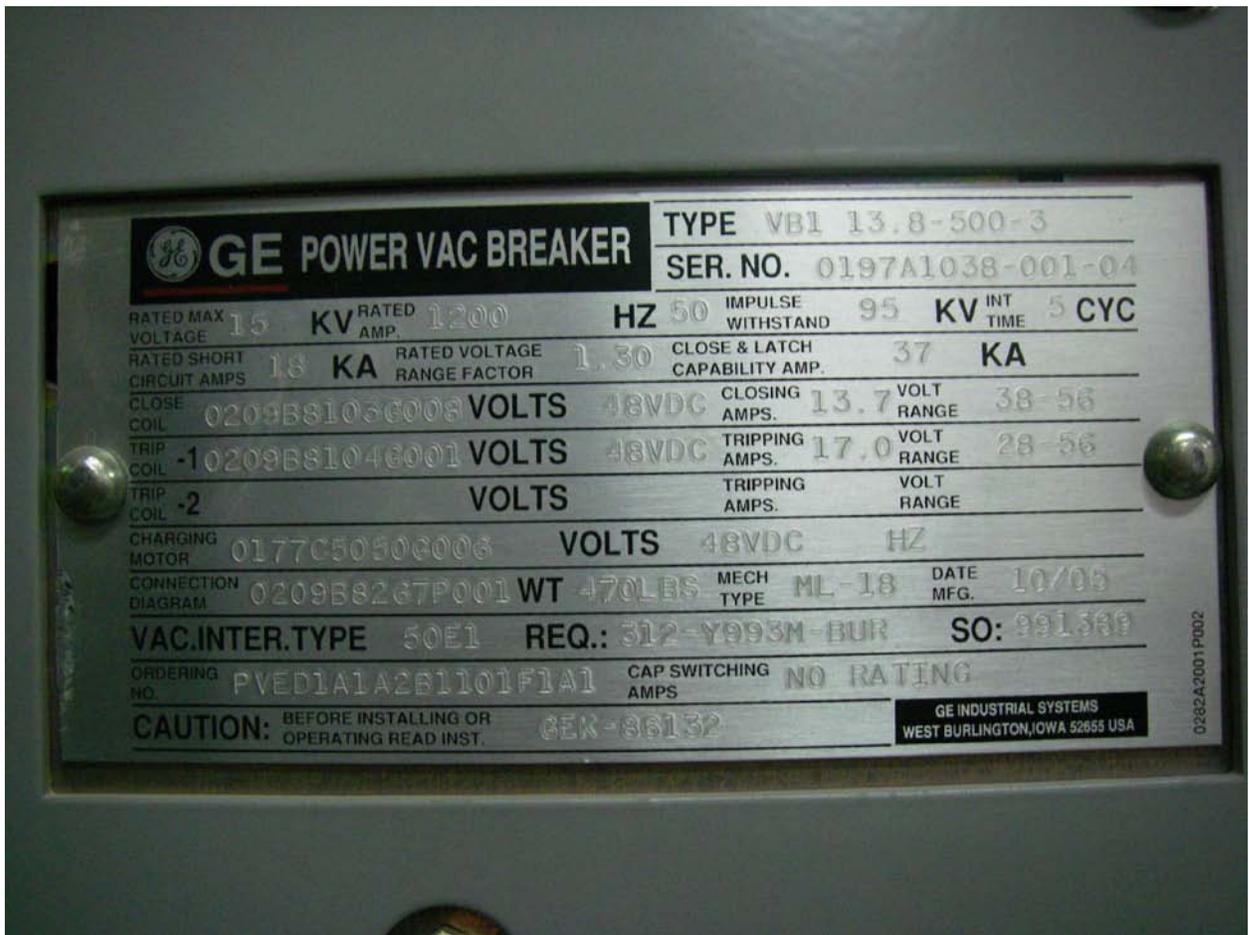


**ATTACHMENT E**  
Generator PG6 Main Circuit Breaker Cabinet



**ATTACHMENT F**

Circuit Breaker PG6 Nameplate



**ATTACHMENT G**  
Side View of Day Tank



**ATTACHMENT H**  
Side View of Day Tank



**ATTACHMENT I**

Example of Shroud to Outside and Radiator



**ATTACHMENT J**  
Exhaust System Example



**ATTACHMENT K**

Single Filtration System (shown) of PG3 to Be Replaced with Double Filtration System



**ATTACHMENT L**  
Government Supplied Generator PG6



**ATTACHMENT M**  
Government Supplied Transformer



Existing Installed Transformers



**ATTACHMENT N**  
Transformer Nameplate

STANDARD IEC 60076	MANF. YEAR 201	ORDER NO	STOCK CONT. NO		
RAT. POWER 1932 kVA	VOLT. CATEG 17,5 kV	VECTOR GROUP YNyn0	SERIAL NO. 22222		
Rated Power 1680 kVA at 65°C		Rated Power 1932 kVA at 55°C			
POSITION	HV	LV	TYPE OUTDOOR		
1	14250 V	V	SERVICE CONTINUOUSLY		
2	14625 V	V	COOLING ONAN		
3	15000 V	400/√3 V	TEMP. RISE 45/50 °C		
4	15375 V	V	ISOLATION A		
5	15750 V	V	PHASE 3		
RATED CURRENT	74,3627 A	2788,602 A	FREQUENCY 50 Hz.		
IMPEDANCE (Uk)%	OFF LOAD V.R. 37,5	Pcu 7000 W.	Pfe 2000 W.		
ISOLATION RESISTANCE (Mohm)					
PLACE MEASURED	0 sec.	15 sec.	30 sec.	45 sec.	60 sec.
LV.T			0000		00400
HV.T			0000		00000
LV.HV.			0000		00000
OIL NYNAS	OIL WT. 1,505 t.	ACT. PART. WT. 2,470 t.	TOTAL WT. 6,285 t.		
<b>HERMETICALLY SEALED TRANSFORMER</b>			MADE IN TURKIYE		
THIS TRANSFORMER HAD BEEN CLOSED HERMETICALLY AT .....° C AND COMPLETELY FILLED WITH OIL. IF THERE IS OIL LEAKAGE ANYWHERE ON THE TRANSFORMER, TRANSFORMER MUST BE CLOSED TO THE ATMOSPHERE AGAIN, ACCORDING TO OPERATION MANUEL.					

**ATTACHMENT O**  
Radiator Parts List

<b>RADIATOR INSTALLATION</b>		
<b>PART NUMBER</b>	<b>DESCRIPTION</b>	<b>QTY</b>
0098-7895	LABEL - WARNING	9
0098-8094	LABEL - WARNING (PRESS LIQUID)	2
0098-8095	LABEL - WARNING (HOT SURFACE)	2
0098-8130	LABEL - CAUTION (ROTATING PARTS)	4
0130-6586	RADIATOR KTA50GS8 50HZ 50DEG	1
0130-7626-02	PLATE - SUPPORT	2
0130-7627-02	PLATE - SUPPORT	2
0130-7628-02	BRACKET - HOSE	2
0403-6702--02	SKID ASSY	1
050113	T PIECE, EQUAL FEMALE	1
0502-1484	ADAPTER - HOSE	2
0503-2950	HOSE - RADIATOR 1 UNIT = 2 METERS	1
0503-2951	CLAMP - HOSE	3
0505-2130	ADAPTER - PIPE (1/4" BSP HSE CONN)	2
0505-2130	ADAPTER - PIPE (1/4" NPTX1/4" BSP)	2
0526-0399-64	WASHER	24
0526-0399-70	WASHER	12
0526-2185	WASHER - FLAT	24
0800-3017-55	SCREW	12
0800-3017-73	SCREW	12
0800-3017-76	SCREW - HEX HEAD CAP	12
0800-3017-90	SCREW - HHC (M20X2.5_X_55.700292)	6
0850-0114-58	WASHER LOCK	6
0862-0026-59	NUT - HEX	6
0870-2248-07	M12 LOCK NUT	12
0870-2248-08	NUT - LOCK	12

**ATTACHMENT P**

## Air Cleaner Induction Parts List

HEAVY DUTY AIR CLEANER INDUCTION		
PART NUMBER	DESCRIPTION	QTY
009525	SUPPORT PLATE	1
009526	BRACKET - AIR CLEANER MOUNTING	1
009527	ANGLE - AIR CLEANER MTG	2
009528	TUBE ASSEMBLY - AIR INLET	2
0140-4076-02	BRACKET - AIR CLEANER	1
0140-4077-02	BRACKET - AIR CLEANER	1
0155-4506	INSULATION - EXT KTA38	2
0526-0399-63	WASHER	24
0526-0399-64	WASHER	2
0526-0399-70	WAHSER	4
394164200		2
0800-0071	SCREW - HHC (7/16 - 14 X 1.00)	2
0800-0153	SCREW - HHC (7/16 - 14 X 1.00)	4
0800-3017-37	SCREW - HHC	16
0850-0114-55	WASHER - LOCK	16
0850-0114-56	WASHER - LOCK	2
0850-0114-58	WASHER - SPRING LOCK	4
0862-0026-56	NUT - HEX	16

**-END OF SECTION-**

**SECTION 01015****TECHNICAL REQUIREMENTS****1.0 GENERAL****1.1 COMPLIANCE**

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.

**1.2 MINIMUM & ALTERNATE REQUIREMENTS**

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 safety, 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 of approved designs must be approved by the Contracting Officer.

**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 Unexploded Ordnance (UXO)****1.4.1.1 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 during construction, the contractor becomes aware of or encounters UXO or potential UXO, the contractor shall immediately stop work at the site of encounter, move to a safe location, notify the COR, and mitigate any delays to scheduled or unscheduled contract work. Once the contractor has informed the COR, the contractor will await further direction. The Contractor assumes the risk of any and all personal injury, property damage or other liability arising out of or resulting from any Contractor action taken hereunder.

NOTE: For previous UXO/mine information, the following points of contact from the UN Mine Action Center of Afghanistan are provided:

Mohammad Sediq, Chief of Operations,  
Officer,  
Email: [sediq@unmaca.org](mailto:sediq@unmaca.org)  
Cell: +93 070 295207

Hansie Heymans, Chief Information  
Officer,  
Email: [hansie@unmaca.org](mailto:hansie@unmaca.org)  
Cell: +93 070 294286

## **1.5 LIMITATION OF WORKING SPACE**

The Contractor shall, except where required for service connections or other special reason(s), 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.

Areas located immediately outside of construction area are known to contain mines and unexploded ordnance (UXO) Contractors assume all risks when venturing in or out of the designated work area.

## **1.6 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.

## **1.7 SUBCONTRACTORS**

Compliance with the provisions of this section by subcontractors will be the responsibility of the contractor.

## **1.8 LIST OF CODES AND TECHNICAL CRITERIA:**

The following codes and technical criteria and those referenced therein shall be required for this project. References within each reference below shall be required and adhered to. This list is not exhaustive and is not necessarily complete.

ACI 301M Specifications for Structural Concrete

ACI 318 Building Code Requirements for Structural Concrete (latest edition), American Concrete Institute

ACI 530/ASCE 5/TMS 402, Building Code Requirements for Masonry Structures, latest edition.

IBC - International Building Codes, 2006 or latest edition (and its referenced codes)

including those inset below)

IEEE C2, National Electrical Safety Code (NESC), 2007 edition

IMC – International Mechanical Code

IPC – International Plumbing Code

Lighting Handbook, IESNA, latest edition

NFPA 10, Portable Fire Extinguishers, latest edition

NFPA 30, Flammable and Combustible Liquids Code, latest edition

NFPA 30A, Code for Motor Fuel Dispensing Facilities and Repair Garages, latest edition

NFPA 70, National Electrical Code, latest edition

NFPA 72, National Fire Alarm Code, latest edition

NFPA 101, Life Safety Code latest edition

UFC 3-460-01, Petroleum Fuel Facilities

UFC 3-230-17FA, Drainage in Areas Other than Airfields, 16 Jan 2004

UFC 3-501-01, Electrical Engineering UFC 3-520-01, Interior Electrical Systems, latest edition

UFC 3-530-01AN, Design: Interior and Exterior Lighting and Controls, latest edition

UFC 3-550-03fa, Electrical Power Supply and Distribution

UFC 3-550-03N, Design: Power Distribution System

The publications to be taken into consideration shall be those of the most recent editions.

Unified Facility Criteria (UFC) is available online at

[http://www.wbdg.org/ccb/browse\\_cat.php?o=29&c=4](http://www.wbdg.org/ccb/browse_cat.php?o=29&c=4)

Standards other than those mentioned above may be accepted if the standards chosen are internationally recognized and meet the minimum requirements of the specified standards. The Contractor shall be prepared to submit proof of this if requested by the Contracting Officer.

## **2.0 SITE DEVELOPMENT**

### **2.1 General**

The contractor shall design and install the underground feeder line for Generator #6 from the point shown on Appendix 1 to connect to transformer and control/synchronization box.

### **2.2 Excavation and Compaction of Fill**

Excavate to contours, elevation, and dimensions indicated. Reuse excavated materials that meet the specified requirements for the material type required at the intended location. Keep excavations free from water. Excavate soil disturbed or weakened by Contractor's operations, soils softened or made unsuitable for subsequent construction due to exposure to weather. Excavations below indicated depths will not be permitted except to remove unsatisfactory material. Unsatisfactory material encountered below the grades shown shall be removed as directed. Refill with satisfactory material and compact to at least 95 percent of the maximum dry density, as determined by the Modified Proctor

laboratory procedure. ASTM D 1557 shall be used for producing the Modified Proctor moisture-density curve, unless the soil to be compacted includes more than 30% retained on the 19 mm (3/4") sieve. In this case, the Contractor must replace the ASTM D 1557 laboratory compaction procedure with AASHTO T 180, Method D, corrected with AASHTO T 224.

During compaction, the moisture content of the soil shall be within 1.5 percent of the optimum moisture content, as determined by the Modified Proctor laboratory procedure. The thickness of compacted lifts shall not exceed 15 cm and the dry density of each compacted lift shall be tested by either sand cone (ASTM D 1556) or nuclear gage (ASTM D 2292). Density tests shall be performed at a frequency of not less than one test for each 200 square meters and not less than two tests per compacted lift.

Excavations in all roadways shall be repaired. Suitable fill material shall be replaced in the excavated trench and compacted to specifications. The roadway asphalt and or concrete will be replaced with a like material and of identical thickness.

Existing geotechnical information is not available at the project site. Any site-specific geotechnical data required to develop foundations, materials, earthwork, and other geotechnical related design and construction activities for this project shall be the Contractor's responsibility. The Contractor shall develop all pertinent geotechnical design and construction parameters by appropriate field and laboratory investigations and analyses. The Contractor shall produce a detailed geotechnical report containing field exploration and testing results, laboratory testing results (particle sizes and distribution, liquid and plastic limit test, and moisture and density test) and any other tests as needed to properly conduct necessary calculations to determine the engineering properties of the soil). Information in the report shall include, but not limited to: existing geotechnical (e.g. surface and subsurface) conditions, location of subsurface exploration logs on site plan, exploration point, allowable soil bearing capacity and foundations recommendations, ground-water levels, and construction materials (e.g. concrete cement, asphalt, and aggregates). For standard penetration test (SPT), the Contractor shall use ASTM D1586. All geotechnical laboratory and field work shall be based on standards set forth in the ASTM. Contractor shall not use any DIN standards for penetration tests in lieu of ASTM D 1586. Soil investigations shall conform with AED Design Requirements: Geotechnical Investigations for USACE Projects, latest version, or most recent version. For foundation design, allowable soil bearing pressures, shall be determined by calculations made based on the physical and mechanical properties obtained from laboratory testing. The soil bearing pressures calculated shall be compared with the International Building Code (IBC) 2006 Table 1804.2. The lowest of the two bearing pressures, calculated or Table 1804.2, shall be chosen for the allowable soil bearing pressure.

California Bearing Ration (CBR) tests shall be conducted on the existing soils throughout the proposed road alignment. Results from the tests shall be used to calculate the pavement structure using the minimum pavement structure as dictated in Section 1.11.6.8 as a reference. In the event that the calculations based on the CBR tests reveal that the

pavement structure dictated in Section 1.11.6.8 is insufficient to carry the design load, the Contractor shall design and construct a subbase layer for the pavement structure. The contractor shall conduct soils classification per ASTM D 2487-06. The contractor shall submit a geotechnical investigation plan prior to commencing any field investigation to the USACE-AED Engineering Branch through the COR for review and approval. Once the plan is reviewed and approved, the Contractor can start the field investigation. The Geotechnical report shall be submitted with all the design review submittals as specified in the 01335. No design review submittal shall be considered complete without an approved geotechnical report. Geotechnical investigation plans and report of investigations shall be submitted promptly in accordance with Section 01335.

### **2.2.1 Geotechnical Qualifications**

A geotechnical engineer that is a member of a geotechnical firm responsible to the Contractor shall oversee all geotechnical engineering design parameters. The geotechnical engineer shall be qualified by: education in geotechnical engineering; professional registration; and a minimum of ten (10) years of experience in geotechnical engineering design. The geotechnical firm conducting the field investigation and laboratory work shall be certified by the Chief, Quality Assurance Branch USACE-AED. Certification document shall be submitted as part of the Geotechnical Report.

## **3.0 ELECTRICAL**

### **3.1 GENERAL**

The contractor shall provide the equipment outlined below.

### **3.2 MATERIAL**

#### **3.2.1 General**

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, CE, CSA, GS, DIN listed material (or equivalent), but the contractor must prove equivalence and must provide the government with a full copy of the relevant specification(s)/standard(s). Material and equipment installed under this contract shall be for the appropriate application and installed in accordance with manufacturers recommendations.

Equipment enclosure types shall be in compliance with the National Electrical Manufacturer's Association (NEMA) or the International Electro-Technical Committee (IEC) standards.

Major components of equipment shall have the manufacturer's name, address, type or style, voltage and current rating, and catalog number on a non-corrosive and non-heat sensitive plate, securely attached to the equipment. All equipment delivered and placed

in storage, prior to installation, shall be protected from the weather, humidity and temperature variation, dirt and dust, and any other contaminants. All equipment shall be in new condition, undamaged and unused.

### **3.2.2 Structural Concrete**

Concrete structural elements shall be designed and constructed in accordance with the provisions of the American Concrete Institute, Building Code Requirements for Structural Concrete, ACI 318, latest edition. A minimum cylinder 28 day compressive strength of 28 MPa (4,000 psi) shall be used for design and construction of all concrete, except that 24 MPa (3,500 psi) shall be used for Shotcrete applications. Reinforcing steel shall be deformed bars conforming to American Society for Testing and Materials publication ASTM A 615, Deformed and Plain Billet-Steel Bars for Concrete Reinforcement. Concrete shall have maximum water-cement ratio of 0.45. No concrete shall be placed when the ambient air temperature exceeds 32 degrees C (90 degrees F) unless an appropriate chemical retardant is used. In all cases when concrete is placed at 32 degrees C (90 degrees F) or hotter it shall be covered and kept continuously wet for a minimum of 48 hours. Concrete members at or below grade shall have a minimum concrete cover over reinforcement of 75 mm (3 inches).

The transformers shall be bolted to the concrete pads after installation. The concrete pads shall be designed larger enough to fully support, contain, and mount the transformer.

### **3.2.3 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.

### **3.2.4 Design Conditions**

All equipment shall be rated and designed for the maximum ambient temperature and altitude of the construction site. Equipment that is altitude and temperature sensitive, such as generators, shall be derated according to the manufacturer's recommendations. Generic derating criteria for altitude and for ambient temperature may be used to approximate the required size of such equipment during the design phase, but a stipulation shall be placed on the construction plans to adjust the size according to the derating criteria specific to the manufacturer's equipment chosen before the equipment is ordered.

### **3.2.5 Bollards**

Protection pipe bollards shall be placed at all four corners of the concrete pad of the transformers for protection from vehicles. Four, three inch or four inch diameter pipe shall be placed in concrete, placed a minimum of 18 inches into the ground, and the hollow pipe filled with concrete. A bollard shall be placed at each corner of the

transformers. The finished bollards shall be painted yellow to match the existing bollards on base. Appendix 4 has example.

### **3.2.6 Restrictions**

Aluminum conductors shall not be specified or used except as bare steel reinforced (ACSR) overhead conductors in an aerial primary distribution system. Aluminum windings shall not be used in transformers.

## **3.4 DESIGN REQUIREMENTS**

### **3.4.1 Electrical System**

#### **3.4.1.1 Transformers**

Government Furnished.

#### **3.4.1.2 Conductors**

All cable and wire conductors shall be copper. Conductor jacket or insulation shall be 15kV MV.- The use of 75 or 90 degree C (minimum) terminals and insulated conductors is required. Use of higher degree C rated conductors on circuits with protective device terminals rated at a lower degree C is allowed but must be derated to the rating of the device terminals.

#### **3.4.1.3 Grounding and Bonding**

Grounding and bonding shall comply with the requirements of NFPA 70. Underground connections shall be UL listed or exothermally welded. All exposed non-current carrying metallic parts of electrical equipment in the electrical system shall be grounded. Ground rods shall be 20 millimeters (0.75 inches) in diameter and 3 meters (~10 feet) long made of copper-clad steel.

#### **3.4.1.4 Enclosures**

Enclosures for exterior and interior applications shall be NEMA Type 3S (IEC Classification IP54) and NEMA Type 1 (IEC Classification IP10) respectively.

#### **3.4.1.5 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 ratings. Single line diagrams for each system, installed in a clear plastic frame, shall be provided. The single line diagram for the existing system shall be updated to show the new generators, switchgear and step up transformers.

### **3.5 OPERATIONS AND MAINTENANCE (O&M) FOR ELECTRICAL**

- (a) Contractor is required to provide a 12 month supply of parts for operation and maintenance of equipment according to the manufacturer's recommendations. In addition to this, the contractors shall provide an inventory of all items, location/address stored and secured, and commissioning plans.
- (b) The O&M manuals must be provided prior to any training activities. Manuals shall be "tri-lingual" in Dari, Pashto and English.
- (c) All control panels shall have tri-lingual name plates in Dari, Pashto and English.

**-END OF SECTION-**

- g. Contractor accidental or negligent discharge of a weapon.

## **SECTION 01040 SECURITY**

### **1.0 SPECIFIC CONTRACT SECURITY ASSESSMENT**

The Contractor will construct the Project in an active war zone where International Security Assistance Forces (ISAF) may conduct offensive and defensive operations against a variety of hostile forces, to include members of the Taliban. The Contractor understands that it may not receive any support whatsoever in securing the Project site and in securing the transportation of materials to the Project site. Neither U.S. Government nor other ISAF forces are available to provide exclusive security for the Project. The Contractor is responsible for securing the Project site and in securing the transportation of materials to the Project site. The Contracting Officer possesses no ability to control the operations of either ISAF or hostile forces. The Government, acting in its sovereign capacity in its prosecution of its operations, may take actions which directly or indirectly affect the Contractor. These kinds of acts are general in application, not specifically directed at the Contractor. The Contractor recognizes that such actions may be taken, and that they will not entitle the Contractor to make claims for excusable or compensable delays. The Contractor possesses sufficient information about the specific security situation at the site to enable it to formulate an appropriate security plan. The Contractor understands that the security situation at the Project is subject to significant transformation in a short time span based on the changing operational picture in the region. The Contractor's security plan will take this factor into account.

### **2.0 GOVERNMENT PREREQUISITES TO CONTRACTOR DEPLOYMENT OF SITE SECURITY PERSONNEL**

The following regulations and policies apply to Contractor-Provided Site Security Personnel:

- a. DODI 3020.41; **Contractor Personnel Authorized to Accompany the U.S. Armed Forces**; 3 OCT 2005 (available at [www.dtic.mil/whs/directives/corres/pdf/302041p.pdf](http://www.dtic.mil/whs/directives/corres/pdf/302041p.pdf)).
- b. DODI 3020.50; **Private Security Contractors (PSCs) Operating in Contingency Operations**; 22 JUL 2009 (available at [www.dtic.mil/whs/directives/corres/pdf/302050p.pdf](http://www.dtic.mil/whs/directives/corres/pdf/302050p.pdf)).
- c. USCENTCOM Contracting Command, **Acquisition Instruction**; 5 NOV 2010 (available at <http://c3-training.net/policy.html>).
- d. DFARS Subpart 225.74, Defense Contractors Outside the United States.

The Contractor understands its responsibilities under these regulations, policies, and standard contract clauses, as well as its responsibilities under Afghan law, with regard to its contracts for and employment of security personnel. The Contractor is not authorized to deploy any site security personnel until it complies with all prerequisites identified in these references. The Contractor acknowledges that its repeated failure to comply with these regulations, policies, and standard contract clauses constitute grounds for the Government to terminate the Contractor for default.

### **3.0 GOVERNMENT REPRESENTATIVES**

During the Project, USACE may disseminate essential security information to the Contractor and will attempt to assist with any Contractor's questions and concerns. The USACE Area Office OIC/NCOIC will serve as the Area Office Security Officer and the Resident Office OIC/NCOIC will serve as the Resident Office Security Officer (collectively "the Security Officers").

### **4.0 SECURITY COORDINATION**

Contractor will be required to coordinate construction site security with any Afghan or Coalition Forces and Local Governments that are available, if any, to assist the Contractor on a case-by-case basis. Coordination does **not** include nor imply making any unauthorized or illegal payments to the local ANA/ANP or Local/Provincial Government Officials for permission or protection to construct the project. The Contractor will immediately inform

the Government if asked to make any such payments, and the Government will provide further direction to the Contractor. Corruption will not be tolerated at any level, under any circumstances. Conducting business in this manner will be grounds for termination of the contract.

## **5.0 SECURITY PLAN**

The Security Officers will review and approve all current and future Contractor security plans prior to submittal approval by the authorized representative of the Contracting Officer. The Security Officers shall ensure that all Contractor security plans are in accordance with the Contract requirements. The security plans shall address movement of Contractor labor, material, and equipment. The Security Officers will lead the quality assurance program to ensure Contractors are executing their approved security plans. The Government will not allow the Contractor to start work on the Project site without an approved security plan.

## **5.1 SECURITY RATING**

Each contract or task order will be assigned a rating by the Area Office Security Officer. This rating will determine the level of approval for the security plan. Assistance from the District's J2/J3 may be required to assess the rating. Ratings and approval levels are below:

- a. Extremely High Risk: District Commander
- b. High Risk: Deputy CDR, Chief of E&C, Area OIC, J2 OIC, or J3 OIC
- c. Moderate Risk: Chief of Construction, Area OIC/NCOIC, or Area Engineer
- d. Low Risk: Resident OIC/NCOIC, Resident Engineer

The rating assigned is in no way an indication that the security situation at the site will remain at a constant level throughout the Project.

## **5.2 SITE SECURITY FOR PROJECTS OUTSIDE OF ACTIVE COALITION FORCE BASES**

The Contractor shall develop a site security plan and program to provide 24 hr/7 days a week security for the Project throughout its performance. The security plan must consider all construction-related sites; batch plants, material sources, stockpiles, worker camps and any other location where there is a major construction effort. The plan must also address security as it relates to the transportation of materials, equipment, personnel, and other items and individuals to the site. The Contractor is expected to perform all required actions to protect the construction site compound from theft and vandalism and personnel from physical harm. These measures are strictly for the protection and defense of the on-site people and property; Contractors are not authorized to conduct any type of offensive operations. For security of road construction, transportation of supplies, and equipment convoys, see the appropriate section below.

## **5.3 ESTIMATED THREAT ASSESSMENT**

The Contractor is expected to develop a site security plan to cover a range of security operations from low to high threat. Included in this security plan will be the capability for a surge of manpower and equipment required during high threat conditions. The Contractor is expected to notify all on-site personnel of increased threats and protective action to take.

## **5.4 ADDITIONAL CIVILIAN ARMING REQUIREMENTS**

The Contractor must include in its security plan, and must continue to maintain throughout the Project, current information on the following items for all its armed civilian personnel: MOI license number, AISA license, armed Contractor & subcontractor company names, contract number/title, contracting agency (USACE-AES), type of work, number/type of weapons authorized, POC for company with contact details, Government Contracting Officer and COR with contact details, number of security personnel by type (U.S., Afghan, Other), company's country of registration/origin, names, photos, and tazkira numbers of security personnel as well as those personnel with access to weapons/ammo and those persons who will be handling or transporting explosives. In addition the Contractor will immediately update any change to the coordinates of the Contractor's base camps, quarries, and current work locations. The Contractor shall submit, prior to the commencement of construction, a plan for security protection,

with a list of the chain of command. Perimeter security shall prevent unauthorized site access and provide safety protection to the Contractor workforce and government personnel for the duration of the project.

## **6.0 SECURITY PLAN SUBMITTAL REQUIREMENTS**

Contractors will submit all security plans in accordance with contract Section 01335 – Submittal Procedures for Projects.

## **7.0 COMMUNICATION**

The Contractor will operate a 24/7 security operations center with communication capability to each guard on duty and the ability to notify all on-site personnel of increased threats and protective actions to take. The operations center will also have 24/7 communication with the local Coalition, ANA, or ANP security forces. The Contractor shall have communication with the Resident Office Security Officer at all times for rapid emergency response; the Resident Office Security Officer will give the Contractor the District J2/J3 contact information. Communication can be via cell phone, email, satellite phones, VHF, HF, CODAN, text, or other communication technologies compatible with the Government's capabilities. The Contractor will provide the Government with their contact information (names, numbers, frequencies, email addresses, transponder IDs, etc.) for the site encompassing all available communication means.

## **8.0 CONTRACTOR PROVIDED EQUIPMENT**

The Contractor will provide the operational security equipment including but not limited to weapons, radios, uniforms, vehicles, vehicle fuel, phones, and other equipment as proposed by the Contractor to provide complete site security.

## **9.0 KEY CONTROL**

The Contractor shall establish and implement methods in writing to ensure that all keys issued by the Contractor are not lost or misplaced and are not used by unauthorized persons. The Contractor shall develop procedures covering key control that will be included in their quality control system (See Section 01451). The project managers will keep a master log of all keys and provide a copy to the contracting officer's representative (COR) for verification. If a key is lost or stolen, the Contractor shall pay to have all impacted locks changed/rekeyed immediately.

## **10.0 CRITICAL INFORMATION TO REPORT**

The Government is responsible for the management and oversight of DOD Contracted AC/PSCs delivering services throughout Afghanistan. Given the impact of either Contractor misbehavior or catastrophic attacks against Contractors, it is critical that information regarding AC/PSC incidents is communicated quickly and accurately to the Government for purposes of management, fact-finding, and mitigation where necessary. The Government must receive the information addressed below. The Contractor will report any of these information requirements immediately to the Resident Office Security Officer:

- a. AC/PSC Escalation of Force to include the use of weapons resulting in the death or injury of an Afghan citizen, coalition, or U.S. service member, other government official, or Contractor
- b. AC/PSC accidents, traffic, or otherwise, resulting in the death or injury of an Afghan citizen, coalition, or U.S. service member, governmental official, or Contractor.
- c. Attacks against AC/PSC activities by Anti-Afghan Forces resulting in the death or injury of an Afghan citizen, coalition or US service member, governmental official, or Contractor.
- d. Reports of "lost convoys." These are AC/PSC escort or independent activities which have lost contact with their companies.
- e. AC/PSC Escalation of Force, accidents, or other activities that result in significant damage to Afghan or USG vehicles, materials or facilities.
- f. Anti-Afghan Force actions including small arms fires (SAF), RPG fire, indirect fire (IDF), improvised explosive devices (IEDs), and/or complex attacks against AC/PSC activities.
- g. Contractor accidental or negligent discharge of a weapon.

## SECTION 01060

### SPECIAL CLAUSES

#### 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 10 calendar days after award of this contract, 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:

1. Proposed location and dimensions of any area to be fenced and used by the Contractor.
2. Avenues of ingress and egress to the fenced areas and details of the fence installation.
3. Proposed location, dimensions, and number of any trailers and facilities to be used.
4. Proposed location and dimensions of any construction plants.
5. Drawings showing temporary electrical, water, and sewage disposal installations.
6. Drawings showing temporary material storage and hazardous storage areas.
7. Drawings showing any areas that may require to be graveled.

The Area Use 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. Utilities will be provided for the Contractor as described below. 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 at completion of the work.

### **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. Local nationals will not be granted any privileges under this contract. Government provided services are for American and Foreign national Contractors only.

#### **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 m (6') high chain link fence around trailers and materials. The fence shall include plastic strip inserts, colored green or brown, so that visibility through the fence is obstructed. 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. If radio communication is approved by Contracting Officer / installation security office, frequency selection shall be approved by Contracting Officer to prevent interference with installation operations. Such devices shall be provided by the Contractor and made available for use by Government personnel as requested.

#### **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 in accordance with Contract Section 01040.

### **1.3.1.8 SANITATION**

- a. Sanitary Facilities: 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 taxiways or runways. 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 & MAINTENANCE OF TRAFFIC PATTERNS**

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic patterns. 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 USE OF EXISTING ROADS AS HAUL ROUTES**

The Contractor shall be responsible for coordinating with the base authorities for use of any existing roads as haul routes. Construction, and routing of new haul roads, and/or upgrading of existing roads to carry anticipated construction traffic shall be coordinated with the Base authorities and is the sole responsibility of the Contractor.

### **1.3.2.2 EMPLOYEE PARKING**

The Contractor's employees may be allowed parking on the military installation. The government reserves the right to terminate any and all Contractor parking at any time. The Contractor is responsible

for transporting workers (local nationals) from off post to the worksite, coordinating security identification screening, and cooperating in gate searches with the Base authorities.

### **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 area 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.

### **1.4 RESPONSIBILITY FOR PHYSICAL SECURITY**

Prior to mobilization, the Contractor shall submit his proposed means of providing project security to meet the requirements of Contract Section 01040 and 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**

Prior to the start of any work activity that requires excavation within the current base, the Contractor shall obtain a digging permit.

#### **1.6.2 REQUESTS FOR DIGGING PERMITS**

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, 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 OUTAGES & CONNECTIONS TO EXISTING UTILITIES**

To minimize temporary outage impacts to the mission of the installation, all outages shall be scheduled as directed by Contracting Officer Representative (COR). The period proposed for performance of the outage shall include sufficient contingencies to preclude impact to the peak working hours 0530 – 1800 hours during the workweek.

#### **1.7.1 GENERAL**

Any outage involving disruption of electrical service beyond the work area shall be requested in writing at least 48 hours in advance of the date requested for the commencement of the outage. The Contractor shall provide a request, detailing the type of outage needed (i.e. 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 Contractor's 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.

#### **1.7.2 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.

#### **1.7.3 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 500 mm (20") on each side of the location.

#### **1.7.4 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.

#### **1.7.5 REPAIR OF DAMAGED TO EXISTING SERVICES**

The Contractor shall be responsible to repair any items damaged. 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 ELECTRICITY (GOVERNMENT PROVIDED)**

Electrical service is to be provided by the Government within this contract since electrical power connection shall be to existing nearby Government owned electrical power system. However, the Contractor may be required to provide temporary construction power until permanent power system is connected. 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.

### **1.9 WORK OUTSIDE REGULAR HOURS**

If the Contractor desires to carry on work outside regular base duty hours, or on holidays, including the following U.S. holidays: New Year's Day, Martin Luther King Jr Birthday, President's Day, Memorial Day, Independence Day, Labor Day, Columbus Day, Veteran's Day, Thanksgiving and Christmas. the Contractor shall submit an application to the Contracting Officer. Due to reliance upon local national laborers and time off due to local observances, there may be disruptions. Potentials dates are the following local observances: National Islamic Holiday of Ashura, Ramadan (actual date varies – check with local authorities). 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".

### **1.10 SCHEDULING OF WORK IN EXISTING FACILITIES**

As soon as practicable, but in any event not later than 30 calendar days after award of this contract, 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.

### **1.11 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, furnishings, materials, and equipment furnished and/or installed by the Contractor under this clause shall remain the property of the Contractor at the completion of the contract. Facility structures shall be modular or containerized, suitable for easy movement at a later date.

### **1.12 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.

### **1.13 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 (Nov 1991)-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-South (AED-S), Afghanistan.

#### **1.13.1 ACCIDENT PREVENTION PROGRAM**

Within 15 days after award of this contract, and at least 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.

#### **1.13.2 GROUND FAULT CIRCUIT INTERRUPTER (GFCI) REQUIREMENT – OVERSEAS CONSTRUCTION**

The Corps of Engineers Health and Safety Manual, EM 385-1-1, section 11.D.05.b. 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.

#### **1.13.3 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.

## **1.14 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.

## **1.15 SPARE PARTS**

### **1.15.1 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 the 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.

### **1.15.2 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 the 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.

Per Section 01010 of the RFP, the Contractor shall supply a one-year supply of double air filters for power generators PG3 and PG6. Air filters are included as separate line items in the Proposal Schedule, Section 00010 of the RFP. The air filters shall not be included in the "spare parts", but it shall meet all of the "spare parts" requirements referenced herein.

### **1.15.3 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, 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.

#### **1.15.3.1 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 30 calendar days notice of arrival at the site of the first shipment.

### **1.15.3.2 TURNOVER OF SPARE PARTS**

The Contractor shall notify the Contracting Officer 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.

### **1.15.3.3 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.

### **1.15.3.4 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 22.7 kg (50 lbs), or larger than 0.03 CM (1.0 cu.ft) 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.

### **1.15.4 WARRANTY**

All spare parts provided by the Contractor under this clause are subject to the general warranty clauses of this contract.

### **1.15.5 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.

## **1.16 OPERATION AND MAINTENANCE (O&M) DATA**

### **1.16.1 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.

### **1.16.2 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.

### **1.16.3 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, mosque, 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.

### **1.16.4 RECOMMENDED 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.

### **1.16.5 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 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.

### **1.16.6 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.

### **1.16.7 ADDITIONAL SUBMITTALS/RE-SUBMITTALS**

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 re-submittals supplementing incorrect or incomplete data shall be made within 30 calendar days after receiving notice by the Contracting Officer. All costs arising from these resubmissions shall be borne by the Contractor.

## **1.17 INSTRUCTIONS AND TRAINING FOR OPERATION & MAINTENANCE**

### **1.17.1 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	0.5 Day(s)
Electrical Systems	0.5 Day(s)

### **1.17.2 OPERATION & 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 on-the-equipment training for the period specified, which shall be completed prior to acceptance of a system or equipment, as applicable. The operating and maintenance manual data, as specified to be furnished in these Special Clauses, shall be

used as the base material for training.

The instructor(s) shall have no other duties during the period of training. Emphasis will be given to both electrical and mechanical features, in accordance with approved training plans.

### **1.17.3 ARRANGEMENTS**

The training shall be for not less than the periods of time specified and approval by the Contracting Officer.

Each individual training session shall be presented one time only, shall be video recorded 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 video recordings shall become the property of the Government. Recordings obtained will be used in future training by the Government.

The Government reserves the right to copy, in any manner, the subject training material, or training sessions given by the Contractor, without additional cost to the Government.

### **1.17.4 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 30 calendar days after receipt of notification of award of contract; and shall include all significant times in scheduling and completing training in the 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.

### **1.17.5 PRELIMINARY PLAN**

The Contractor shall submit two (2) 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 contract. The plan will be reviewed and coordinated with the content of the O&M manuals.

### **1.17.6 PLAN**

The Contractor shall submit two (2) copies of his proposed training plan to the Contracting Officer for approval not later than 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 number of 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 20-days of notice from the Contracting Officer.

## 1.18 TIME EXTENSIONS

### 1.18.1 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 contract 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.

Helmand Province – Lashkar Gah

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
14	7	4	6	1	0	1	1	0	1	6	12 53

---

### 1.18.2 WEATHER DELAYS

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 50 percent 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.

### 1.18.3 OTHER DELAYS

Construction delays due to full or partial base closures due to incidents such as demonstrations, civil unrest and outright attacks will be examined on an individual basis for consideration of time extensions.

## 1.19 STANDARDIZATION

Where two (2) 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.

## 1.20 COMPLIANCE WITH HOST COUNTRY RULES & 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.

## **1.20.1 HOST NATION AUTHORIZATIONS, PERMITS & 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 paragraph, Compliance With Host Country Rules And Customs).

## **1.20.2 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.

## **1.21 EMPLOYEE ACCESS TO PROJECT SITE**

### **1.21.1 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.

### **1.21.1.1 PREPARATION OF IDENTIFICATION BADGES**

The Contractor shall be required to prepare a written application inclusive color photographs and provide all materials and labor necessary to prepare an identification badge, laminated in plastic, containing the employee's name, badge number, color photo, height and weight, the name of the Contractor's organization and for requiring each employee engaged on the work to display this identification as directed by the Contracting Officer. The Contractor shall submit each application and draft badge through the Contracting Officer to the Base Security Office. A minimum of thirty-five workdays shall be allowed for Government review and certification of badges. The Base Security Office will certify each draft badge by signature, stamp, seal or any combination thereof. Upon certification by the Base Security Office, the badges will be returned to the Contractor for final preparation, lamination, and issuance. Badges shall not be taken out of country during periods of travel or absence. During such periods, the Contractor may be permitted to issue temporary identification badges.

### **1.21.1.2 EMPLOYEE BACKGROUND & HISTORICAL INFORMATION**

The Contractor shall be required to prepare and maintain personal background and historical information forms on each employee. These forms may be reviewed by the Base Security Office. The required information shall include but not necessarily be limited to the following:

- a. Full name.
- b. Place and date of birth.
- c. Three (3) current color photographs.
- d. Copy of Citizenship/Nationality identification.
- e. Copy of Passport.
- f. Copy of drivers license.
- g. Police Background Check.
- h. Work History.
- i. Personal background information.
- j. Copy of Work Permit and/or Visa.
- k. Permanent home of record and in-country address.
- l. Other information mandated by local law, the Base Security Regulations or that may be required to coordinate and process the necessary documentation with the government offices responsible for the approval.
- m. Registration, insurance company, policy number and expiration date for each vehicle.

### **1.21.2 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. If acceptable to the Base Security Office and approved by the Contracting Officer, the Contractor may institute a system of non-permanent temporary identification for one-time delivery and transit vehicles. Each Contractor vehicle, machine, piece of equipment, or towed trailers, shall show the Contractor's name such that it is clearly

visible on both front doors of the vehicle and both sides of a towed trailer. 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.

### **1.21.3 SECURITY PLAN**

The Contractor shall submit to the Contracting Officer a security plan as required in Contract Section 01040.

### **1.22 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.

### **1.23 PUBLIC RELEASE OF INFORMATION**

#### **1.23.1 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 therefrom without the prior written approval of the Contracting Officer.

#### **1.23.2 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.

### **1.24 ATTACHMENTS**

TAC FORM 61 - Accident Prevention Program Hazard Analysis

TAC FORM 356 - Operation and Maintenance Training Validation Certificate

## **2. LOCAL CLAUSES**

### **2.1 APPLICATION OF US CRIMINAL JURISDICTION**

Reference DODI 5525.11. The Contractor is directed to provide all of its personnel working under this contract, and to require all of its subcontractors to provide their personnel, with written notification that - with the exception of nationals of Afghanistan and those ordinarily resident in Afghanistan - Contractor and subcontractor personnel, and the dependents of Contractor and subcontractor personnel who are residing with such personnel, may be subject to US criminal jurisdiction as provided for in the Military Extraterritorial Jurisdiction Act, 18 USC 3261-3267; see Section 3267(1)(A)(iii)(I) and (2)(A)(iii). A copy of the notice ***shall be furnished to the contracting officer upon award of the contract***, along with a certification by an authorized company representative attesting to the provision of the notification to contractor personnel.

### **2.2 ATTACKS FROM HOSTILE ENTITIES**

This contract is firm fixed-price. Costs incurred in the performance of project execution that arise from the attacks of hostile entities, such as costs arising from damage to or destruction of Contractor equipment and facilities, and damage to or destruction of the project prior to Government acceptance, are the sole responsibility of the Contractor. The Government makes no guarantee to provide the Contractor with security, and bears no obligation to reimburse the Contractor for costs arising from the attacks of hostile

entities. When appropriate, the Contracting Officer may provide the Contractor with an equitable adjustment with respect to time – but not cost – in accordance with clause 52.249-10; see 52.249-10(b)(1)(i) and (2).

### **2.3 INSTALLATION ACCESS AND BADGING**

This contract is firm fixed-price. It is the responsibility of the Contractor to be knowledgeable of and to abide by any and all applicable installation access procedures and requirements, to include any and all badging procedures and requirements, that may be necessary for Contractor access to the project site. Such procedures and requirements may change over the course of contract performance; it is the responsibility of the Contractor to plan accordingly in order to meet its existing obligations under this contract. The US Army Corps of Engineers, Afghanistan Engineer District-South (AES), neither controls nor is responsible for any such installation access procedures, requirements or changes thereto.

### **2.4 CUSTOMS CLEARANCE**

Reference clauses 52.229-6 and 52.225-13. This contract is firm fixed-price. It is the responsibility of the Contractor to be knowledgeable of and to abide by any and all applicable customs clearance procedures and requirements that may be necessary for the transportation of supplies and equipment into Afghanistan. Such procedures and requirements may change over the course of contract performance; it is the responsibility of the Contractor to plan accordingly in order to meet its existing obligations under this contract. The US Army Corps of Engineers, Afghanistan Engineer District-South (AES), neither controls nor is responsible for any such customs clearance procedures, requirements or changes thereto.

### **2.5 TRAVEL WARNINGS**

The Contractor shall provide all personnel working under this contract, and shall require subcontractors to provide their personnel, with a written notification advising such personnel to be aware of US State Department Travel Warnings with respect to Afghanistan, available at <http://travel.state.gov>, in the event they wish to consider bringing their dependants into Afghanistan. A copy of the notice **shall be furnished to the Contracting Officer upon award of the contract**, along with a certification by an authorized company representative attesting to the provision of the notification to Contractor personnel. At no time, subject to the written approval of the contracting officer, may the Contractor allow such dependants, or any other unauthorized individuals, to be present on the project site grounds, whether in transit or otherwise.

### **2.6 DRUG-FREE WORKFORCE**

Documentation of the Contractor's drug-free workforce program as required by clause 252.223-7004(b) ***shall be furnished to the contracting officer upon award of the contract.***

### **2.7 COMBATING TRAFFICKING IN PERSONS, COMMERCIAL SEX ACTS, FORCED LABOR**

A copy of the employee notification statement as required by clause 252.222-7006(d) **shall be furnished to the Contracting Officer upon award of the contract**, along with a certification by an authorized company representative attesting to the provision of the notification to Contractor personnel.

**-END OF SECTION-**

## SECTION 01312

### QUALITY CONTROL SYSTEM (QCS)

#### 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	Submittal Monitoring
Finances	Scheduling
Quality Control	Import/Export of Data

#### 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.

#### 1.2 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.

#### 1.3 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.

#### 1.4 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.

## **1.5 RELATED INFORMATION**

### **1.5.1 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.

### **1.5.2 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.

## **1.6 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.

## **1.7 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:

## **1.7.1 ADMINISTRATION**

### **1.7.1.1 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.

### **1.7.1.2 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.

### **1.7.1.3 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".

### **1.7.1.4 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.

### **1.7.1.5 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.

## **1.7.2 FINANCES**

### **1.7.2.1 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.

### **1.7.2.2 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.

### **1.7.3 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.

#### **1.7.3.1 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".

#### **1.7.3.2 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.

#### **1.7.3.3 THREE-PHASE CONTROL MEETINGS**

The Contractor shall maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

#### **1.7.3.4 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.

#### **1.7.3.5 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.

#### **1.7.3.6 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.

### **1.7.4 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.

### **1.7.5 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.

### **1.7.6 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.

### **1.7.7 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.

## **1.8 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.

### **1.9 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.

### **1.10 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.

### **1.11 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

#### 1. GENERAL

##### 1.1 REFERENCES

The publications listed below form a part of the specification to the extent referenced. The publications are referenced in the text by basic designation only.

U.S. Army Corps Of Engineers (USACE) ER 1-1-11 (1995) Progress, Schedules, and Network Analysis Systems

##### 1.2 QUALIFICATIONS

The Contractor shall designate an authorized representative who shall be responsible for the preparation of all required project schedule reports.

#### 2. EXECUTION

##### 2.1 GENERAL REQUIREMENTS

Pursuant to the Contract Clause, Schedule For Construction Contracts, a Project Schedule as described below shall be prepared. The scheduling of Construction design and construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Designers, Subcontractors and suppliers working on the project shall 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.

##### 2.2 BASIS FOR PAYMENT

**The schedule shall be a factor for measuring Contractor progress. Lack of an approved schedule or scheduling personnel will result in an inability of the Contracting Officer to evaluate Contractor's 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, the Contracting Officer may hold, retain up to the maximum allowed by contract, each payment period, until revisions to the Project Schedule have been made.

##### 2.3 PROJECT SCHEDULE

The computer software system utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule. Manual methods used to produce any required information shall require approval by the Contracting Officer.

### **2.3.1 USE OF THE CRITICAL PATH METHOD**

The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The Contractor shall provide the Project Schedule in the Precedence Diagram Method (PDM).

### **2.3.2 LEVEL OF DETAIL REQUIRED**

The Project Schedule shall include an appropriate level of detail. Failure to develop or update the Project Schedule or provide data to the Contracting Officer at the appropriate level of detail, as specified by the Contracting Officer, shall result in the disapproval of the schedule. The Contracting Officer will use, but is not limited to, the following conditions to determine the appropriate level of detail to be used in the Project Schedule:

#### **2.3.2.1 ACTIVITY DURATIONS**

Contractor submissions shall follow the direction of the Contracting Officer regarding reasonable activity durations. Reasonable durations are those that allow the progress of activities to be accurately determined between payment periods (usually less than two (2) percent of all non-procurement activities' Original Durations are greater than 20 days).

#### **2.3.2.2 DESIGN AND PERMIT ACTIVITIES**

Design and permitting activities, including necessary conferences and follow up actions and design package submission dates, shall be integrated into the schedule.

#### **2.3.2.3 PROCUREMENT ACTIVITIES**

Tasks related to the procurement of long lead materials or equipment shall be included as separate activities in the project schedule. Long lead materials and equipment are those materials that have a procurement cycle of over 90 days. Examples of procurement process activities include, but are not limited to: submittals, approvals, procurement, fabrication, and delivery.

#### **2.3.2.4 CRITICAL ACTIVITIES**

The following activities, as applicable, shall be listed as separate line activities on the Contractor's project schedule:

- a. Submission & Approval of Mechanical/Electrical Layout Drawings
- b. Submission & Approval of O & M Manuals
- c. Submission & Approval of As-Built Drawings
- d. Submission & Approval of 1354 Data & Installed Equipment Lists
- e. Submission & Approval of Testing & Air Balance (TAB)
- f. Submission of TAB Specialist Design Review Report
- g. Submission & Approval of Fire Protection Specialist
- h. Commissioning Plans & Data
- i. Controls Testing Plan
- j. Controls Testing
- k. Performance Verification Testing
- l. Other Systems Testing, If Required

- m. Pre-Final Inspection.
- n. Correction of Punch List From Pre-Final Inspection
- o. Final Inspection.

### **2.3.2.5 GOVERNMENT ACTIVITIES**

Government and other agency activities that could impact progress shall be shown. These activities include, but are not limited to: design reviews, environmental permit approvals by State regulators, inspections, utility tie in, and Government Furnished Equipment (GFE).

### **2.3.2.6 RESPONSIBILITY**

All activities shall be identified in the project schedule by the party responsible to perform the work. Responsibility includes, but is not limited to, the subcontracting firm, Contractor work force, or government agency performing a given task. Activities shall not belong to more than one (1) responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

### **2.3.2.7 WORK AREAS**

All activities shall be identified in the project schedule by the work area in which the activity occurs. Activities shall not be allowed to cover more than one (1) work area. The work area of each activity shall be identified by the Work Area Code.

### **2.3.2.8 MODIFICATION OR CLAIM NUMBER**

Any activity that is added or changed by contract modification or used to justify claimed time shall be identified by a mod or claim code that changed the activity. Activities shall not belong to more than one (1) modification or claim item. The modification or claim number of each activity shall be identified by the Mod or Claim Number. Whenever possible, changes shall be added to the schedule by adding new activities. Existing activities shall not normally be changed to reflect modifications.

### **2.3.2.9 WORK ITEM**

All activities shall be identified in the project schedule by the Work Item to which the activity belongs. An activity shall not contain work in more than one (1) work item. The work item for each appropriate activity shall be identified by the Work Item Code.

### **2.3.2.10 PHASE OF WORK**

All activities shall be identified in the project schedule by the phases of work in which the activity occurs. Activities shall not contain work in more than one (1) phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

### **2.3.2.11 CATEGORY OF WORK**

All Activities shall be identified in the project schedule according to the category of work which best describes the activity. Category of work refers, but is not limited, to the procurement chain of activities including such items as designs, design package submissions design reviews, review conferences, permits, submittals, approvals, procurement, fabrication, delivery, installation, start-up, and testing. The category of work for each activity shall be identified by the Category of Work Code.

### **2.3.2.12 FEATURE OF WORK**

All activities shall be identified in the project schedule according to the feature of work to which the activity belongs. Feature of work refers, but is not limited to, a work breakdown structure for the project. The feature of work for each activity shall be identified by the Feature of Work Code.

### **2.3.3 SCHEDULED PROJECT COMPLETION**

The schedule interval shall extend from award of contract to the contract completion date.

#### **2.3.3.1 PROJECT START DATE**

The schedule shall start no earlier than the date on which award of contract was acknowledged. The Contractor shall include as the first activity in the project schedule an activity called "Start Project". The "Start Project" activity shall have an "ES" constraint date equal to the date that the award of task order was acknowledged, and a zero (0) day duration.

#### **2.3.3.2 CONSTRAINT OF LAST ACTIVITY**

Completion of the last activity in the schedule shall be constrained by the contract completion date. Calculation on project updates shall be such that if the early finish of the last activity falls after the contract completion date, then the float calculation shall reflect a negative float on the critical path. The Contractor shall include as the last activity in the project schedule an activity called "End Project". The "End Project" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero (0) day duration.

#### **2.3.3.3 EARLY PROJECT COMPLETION**

In the event the project schedule shows completion of the project prior to the contract completion date, the Contractor shall identify those activities that have been accelerated and/or those activities that are scheduled in parallel to support the Contractor's "early" completion. Contractor shall specifically address each of the activities noted in the narrative report at every project schedule update period to assist the Contracting Officer in evaluating the Contractor's ability to actually complete prior to the contract period.

### **2.3.4 INTERIM COMPLETION DATES**

Contractually specified interim completion dates shall also be constrained to show negative float if the early finish date of the last activity in that phase falls after the interim completion date.

#### **2.3.4.1 START PHASE**

The Contractor shall include as the first activity for a project phase an activity called "Start Phase X" where "X" refers to the phase of work. The "Start Phase X" activity shall have an "ES" constraint date equal to the date on which the award of task order was acknowledged, and a zero (0) day duration.

#### **2.3.4.2 END PHASE**

The Contractor shall include as the last activity in a project phase an activity called "End Phase X" where "X" refers to the phase of work. The "End Phase X" activity shall have an "LF" constraint date equal to the completion date for the project, and a zero (0) day duration.

### **2.3.4.3 PHASE X**

The Contractor shall include a hammock type activity for each project phase called "Phase X" where "X" refers to the phase of work. The "Phase X" activity shall be logically tied to the earliest and latest activities in the phase.

### **2.3.5 DEFAULT PROGRESS DATA DISALLOWED**

Actual Start and Finish dates shall not be automatically updated by default mechanisms that may be included in CPM scheduling software systems. Actual Start and Finish dates on the CPM schedule shall match those dates provided from Contractor Quality Control Reports. Failure of the Contractor to document the Actual Start and Finish dates on the Daily Quality Control report for every in-progress or completed activity, and failure to ensure that the data contained on the Daily Quality Control reports is the sole basis for schedule updating shall result in the disapproval of the Contractor's schedule and the inability of the Contracting Officer to evaluate Contractor progress for payment purposes. Updating of the percent complete and the remaining duration of any activity shall be independent functions. Program features which calculate one (1) of these parameters from the other shall be disabled.

### **2.3.6 OUT-OF-SEQUENCE PROGRESS**

Activities that have posted progress without all preceding logic being satisfied (Out-of-Sequence Progress) will be allowed only on a case-by-case approval of the Contracting Officer. The Contractor shall propose logic corrections to eliminate all out of sequence progress or justify not changing the sequencing for approval prior to submitting an updated project schedule.

### **2.3.7 NEGATIVE LAGS**

Lag durations contained in the project schedule shall not have a negative value.

## **2.4 PROJECT SCHEDULE SUBMISSIONS**

The Contractor shall provide the submissions as described below. The data disk, reports, and network diagrams required for each submission are contained in paragraph Submission Requirements.

### **2.4.1 INITIAL PROJECT SCHEDULE SUBMISSION**

The Initial Project Schedule shall be submitted for approval within 30 calendar days after award of contract. The schedule shall provide a reasonable sequence of activities which represent work through the entire project and shall be at a reasonable level of detail. The baseline schedule shall be reviewed and deemed acceptable prior to the Contractor entering (manually or electronically via SDEF file) in QCS.

### **2.4.2 PERIODIC SCHEDULE UPDATES**

Based on the result of progress meetings, specified in "Periodic Progress Meetings," the Contractor shall submit periodic schedule updates. These submissions shall enable the Contracting Officer to assess Contractor's progress. If the Contractor fails or refuses to furnish the information and project schedule data, which in the judgment of the Contracting Officer or authorized representative is necessary for verifying the Contractor's progress, the Contractor shall be deemed not to have provided an estimate upon which progress payment may be made.

### **2.4.3 STANDARD ACTIVITY CODING DICTIONARY**

The Contractor shall use the activity coding structure defined in the Standard Data Exchange Format (SDEF) in ER 1-1-11, Appendix A. This exact structure is mandatory, even if some fields are not used.

## **2.5 SUBMISSION REQUIREMENTS**

The following items shall be submitted by the Contractor for the preliminary submission, initial submission, and every periodic project schedule update throughout the life of the project:

### **2.5.1 DATA DISKS**

Two (2) Data Compact Disks containing the project schedule shall be provided. Data on the disks shall adhere to the SDEF format specified in ER 1-1-11, Appendix A.

#### **2.5.1.1 FILE MEDIUM**

Required data shall be submitted on Compact Disk, formatted to hold 700 MB of data, under the MS-DOS Version 5. or 6.x, unless otherwise approved by the Contracting Officer.

#### **2.5.1.2 DISK LABEL**

A permanent exterior label shall be affixed to each disk submitted. The label shall indicate the type of schedule (Preliminary, Initial, Update, or Change), full contract number, project name, project location, data date, name and telephone number of person responsible for the schedule, and the MSDOS version used to format the disk.

#### **2.5.1.3 FILE NAME**

Each file submitted shall have a name related to either the schedule data date, project name, or contract number. The Contractor shall develop a naming convention that will ensure that the names of the files submitted are unique. The Contractor shall submit the file naming convention to the Contracting Officer for approval.

### **2.5.2 NARRATIVE REPORT**

A Narrative Report shall be provided with the preliminary, initial, and each update of the project schedule. This report shall be provided as the basis of the Contractor's progress payment request. The Narrative Report shall include: a description of activities along the two (2) most critical paths, a description of current and anticipated problem areas or delaying factors and their impact, and an explanation of corrective actions taken or required to be taken. The narrative report is expected to relay to the Government, the Contractor's thorough analysis of the schedule output and its plans to compensate for any problems, either current or potential, which are revealed through that analysis.

### **2.5.3 APPROVED CHANGES VERIFICATION**

Only project schedule changes that have been previously approved by the Contracting Officer shall be included in the schedule submission. The Narrative Report shall specifically reference, on an activity by activity basis, all changes made since the previous period and relate each change to documented, approved schedule changes.

### **2.5.4 SCHEDULE REPORTS**

The format for each activity for the schedule reports listed below shall contain: Activity Numbers, Activity Description, Original Duration, Remaining Duration, Early Start Date, Early Finish Date, Late Start Date,

Late Finish Date, Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.

#### **2.5.4.1 ACTIVITY REPORT**

A list of all activities sorted according to activity number.

#### **2.5.4.2 LOGIC REPORT**

A list of Preceding and Succeeding activities for every activity in ascending order by activity number. Preceding and succeeding activities shall include all information listed above in paragraph Schedule Reports. A blank line shall be left between each activity grouping.

#### **2.5.4.3 TOTAL FLOAT REPORT**

A list of all incomplete activities sorted in ascending order of total float. Activities which have the same amount of total float shall be listed in ascending order of Early Start Dates. Completed activities shall not be shown on this report.

#### **2.5.4.4 EARNINGS REPORT**

A compilation of the Contractor's Total Earnings on the project from award of contract 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 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. Activities shall be grouped by work item and sorted by activity numbers. This report shall: sum all activities in a work item and provide a work item percent; and complete and sum all work items to

provide a total project percent complete. The printed report shall contain, for each activity: the Activity Number, Activity Description, Original Budgeted Amount, Total Quantity, Quantity to Date, Percent Complete (based on cost), and Earnings to Date.

#### **2.5.5 NETWORK DIAGRAM**

The network diagram shall be required on the initial schedule submission and on monthly schedule update submissions. The network diagram shall depict and display the order and interdependence of activities and the sequence in which the work is to be accomplished. The Contracting Officer will use, but is not limited to, the following conditions to review compliance with this paragraph:

##### **2.5.5.1 CONTINUOUS FLOW**

Diagrams shall show a continuous flow from left to right with no arrows from right to left. The activity number, description, duration, and estimated earned value shall be shown on the diagram.

##### **2.5.5.2 PROJECT MILESTONE DATES**

Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

##### **2.5.5.3 CRITICAL PATH**

The critical path shall be clearly shown.

#### **2.5.5.4 BANDING**

Activities shall be grouped to assist in the understanding of the activity sequence. Typically, this flow will group activities by category of work, work area and/or responsibility.

#### **2.5.5.5 S-CURVES**

Earnings curves showing projected early and late earnings and earnings to date.

### **2.6 PERIODIC PROGRESS MEETINGS**

Progress meetings to discuss payment shall include a monthly onsite meeting or 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.

#### **2.6.1 MEETING ATTENDANCE**

The Contractor's Project Manager and Scheduler shall attend the regular progress meeting.

#### **2.6.2 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.

#### **2.6.3 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. As a minimum, the Contractor shall address the following items on an activity by activity basis during each progress meeting.

##### **2.6.3.1 START AND FINISH DATES**

The Actual Start and Actual Finish dates for each activity currently in progress or completed.

##### **2.6.3.2 TIME COMPLETION**

The estimated Remaining Duration for each activity in-progress. Time-based progress calculations shall be based on Remaining Duration for each activity.

##### **2.6.3.3 COST COMPLETION**

The earnings for each activity started. Payment will be based on earnings for each in-progress or completed activity. Payment for individual activities will not be made for work that contains quality defects. A portion of the overall project amount may be retained based on delays of activities.

##### **2.6.3.4 LOGIC CHANGES**

All logic changes pertaining to change orders, change orders to be incorporated into the schedule, Contractor proposed changes in work sequence, corrections to schedule logic for out-of-sequence

progress, lag durations, and other changes that have been made pursuant to contract provisions shall be specifically identified and discussed.

### **2.6.3.5 OTHER CHANGES**

Other changes required due to delays in completion of any activity or group of activities include: 1) delays beyond the Contractor's control, such as strikes and unusual weather. 2) delays encountered due to submittals, Government Activities, deliveries or work stoppages which make re-planning the work necessary. 3) Changes required to correct a schedule which does not represent the actual or planned prosecution and progress of the work.

## **2.7 REQUESTS FOR TIME EXTENSIONS**

In the event the Contractor requests an extension of the contract completion date, or any interim milestone date, the Contractor shall furnish the following for a determination as to whether or not the Contractor is entitled to an extension of time under the provisions of the contract: justification, project schedule data, and supporting evidence as the Contracting Officer may deem necessary. Submission of proof of delay, based on revised activity logic, duration, and costs (updated to the specific date that the delay occurred) is obligatory to any approvals.

### **2.7.1 JUSTIFICATION OF DELAY**

The project schedule shall clearly display that the Contractor has used, in full, all the float time available for the work involved with this request. The Contracting Officer's determination as to the number of allowable days of contract extension shall be based upon the project schedule updates in effect for the time period in question, and other factual information. Actual delays that are found to be caused by the Contractor's own actions, which result in the extension of the schedule, will not be a cause for a time extension to the contract completion date.

### **2.7.2 SUBMISSION REQUIREMENTS**

The Contractor shall submit a justification for each request for a change in the contract completion date of under two (2) weeks based upon the most recent schedule update at the time of the constructive direction issued for the change. Such a request shall be in accordance with the requirements of other appropriate Contract Clauses and shall include, as a minimum:

- a. A list of affected activities, with their associated project schedule activity number.
- b. A brief explanation of the causes of the change.
- c. An analysis of the overall impact of the changes proposed.
- d. A sub-network of the affected area.

Activities impacted in each justification for change shall be identified by a unique activity code contained in the required data file.

### **2.7.3 ADDITIONAL SUBMISSION REQUIREMENTS**

For any requested time extension of over two (2) weeks, the Contracting Officer may request an interim update with revised activities for a specific change request. The Contractor shall provide this disk within four (4) days of the Contracting Officer's request.

## **2.8 DIRECTED CHANGES**

If changes are issued prior to settlement of price and/or time, the Contractor shall submit proposed schedule revisions to the Contracting Officer within two (2) weeks of this task order being issued. The

proposed revisions to the schedule will be approved by the Contracting Officer prior to inclusion of those changes within the project schedule. If the Contractor fails to submit the proposed revisions, the Contracting Officer may furnish the Contractor with suggested revisions to the project schedule. The Contractor shall include these revisions in the project schedule until revisions are submitted, and final changes and impacts have been negotiated. If the Contractor has any objections to the revisions furnished by the Contracting Officer, the Contractor shall advise the Contracting Officer within two (2) weeks of receipt of the revisions. Regardless of the objections, the Contractor shall continue to update the schedule with the Contracting Officer's revisions until a mutual agreement in the revisions is reached. If the Contractor fails to submit alternative revisions within two (2) weeks of receipt of the Contracting Officer's proposed revisions, the Contractor will be deemed to have concurred with the Contracting Officer's proposed revisions. The proposed revisions will then be the basis for an equitable adjustment for performance of the work.

## **2.9 OWNERSHIP OF FLOAT**

Float available in the schedule, at any time, shall not be considered for the exclusive use of either the Government or the Contractor.

**-END OF SECTION-**

**SECTION 01335**  
**SUBMITTAL PROCEDURES**  
**FOR**  
**DESIGN-BUILD (DB) PROJECTS**

**1. REFERENCE**

The publication listed below forms a part of this specification to the extent referenced. The publication is referenced to in the text by basic designation only.

National Institute Of Building Sciences (NIBS)

Unified Master Reference List (UMRL)

National Institute of Building Sciences  
1090 Vermont Avenue, NW, Suite 700  
Washington, DC 20005-4905  
Email: nibs@nibs.org  
FAX: (202) 289-1092  
Tele: (202) 289-7800

**2. SUBMITTAL CLASSIFICATION**

Submittals are classified as follows.

**2.1 DESIGN CONSTRUCTION SUBMITTALS**

Contractor furnished design construction submittals include the various design documents, as applicable, which primarily consist of field investigations, calculations, design analysis (DA), drawings, and specifications.

The Contractor shall clearly label and date all Design Construction Submittals and clearly indicate on the ENG Form 4025 what is being submitted for review to avoid confusion between current and previous submittals. The Design-Build Contractor shall not begin construction work until the Government has reviewed the Design-Build Contractor's Existing Conditions Site Plan 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.

As a minimum, design construction submittals shall be submitted as follows:

General design - 65%

Design Construction Review

Final Design Construction Re-Submittal

**2.1.1 GENERAL DESIGN REVIEW (65%):**

The review of this submittal is primarily to insure that the contract documents and design analysis are proceeding in a timely manner and that the Contract requirements and design criteria are being correctly understood and adhered to. The submittal shall consist of the following:

- a. Complete design analysis, plans and specifications for any contract feature(s) that the Contractor would like Partial Clearance for Construction on once the 65% Design Submittal has been

approved, including list of those Construction Submittal items requiring Government Approval (GA).

- b. Marked up specifications shall be provided as part of the 65% design submittal. Specifications shall comply with UFGS 2004 format.
- c. For all other work, provide a Draft Construction Specifications complete - all anticipated sections, edited to include only applicable requirements.
- d. Construction Drawings complete for all work to be completed until the Design Construction Review Submittal is provided, with all past Design Review comments incorporated. The Contractor is expected to have completed all of his coordination checks and have the drawings in a design complete condition. The drawings shall contain all the details necessary to assure a clear understanding of the work throughout construction.

For work shown but incomplete and still under design, the Contractor should clearly indicate on the ENG Form 4025 what is being submitted for review and approval.

## **2.1.2 DESIGN CONSTRUCTION REVIEWS**

The review of this construction submittal shall primarily ensure that the Contractor has, as a minimum, followed ALL the requirements of the contract including the paragraphs in Section 01010 and ensure that the Contractor has correctly understood and adhered to the contract. In addition, the review of this submittal is to ensure that the Contractor has provided the technical solution as 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. As a minimum, the following documents shall be submitted:

- a. Site Electrical Distribution and Power Generation Design: Site electrical distribution and power generation designs shall be based on the above referenced Sections and be complete with, if required, design analysis (DA), plans, and specifications
- b. Facility-Specific Designs: Facility-specific designs shall be based on the above referenced Sections and be complete with, if required, design analysis (DA), plans, and specifications.
- c. Technical Requirements: Technical requirements for specific items, appendages, and equipment shall be based on the above referenced Sections and be complete with, if required, design analysis (DA), plans, and specifications.

## **2.2 USE OF DRCHECKS<sub>SM</sub> FOR DESIGN SUBMITTAL COMMENT AND RESPONSE**

### **2.2.1 DRCHECKS<sub>SM</sub> WEB LINK**

All AED Design Submittal review comments will be documented using the standard design review tool for the U.S. Army Corps of Engineers, a web-based application called "DrChecks<sub>SM</sub>". The web link to DrChecks<sub>SM</sub> is:

<https://www.projnet.org/projnet/binKornHome/index.cfm>

### **2.2.2 DRCHECKS<sub>SM</sub> VENDOR IDENTIFICATION AND TUTORIAL**

Upon notification of award, the Contractor shall immediately coordinate with the Chief, Engineering Branch, AED to acquire a vendor identification. Firms with multiple locations need to coordinate with AED the location where Dr. Checks will be used and verify after setup that the access has in fact been

provided. The Contractor is responsible for providing their own DrChecks<sub>SM</sub> Administrator within their own design staff personnel to access and accomplish actions within DrChecks<sub>SM</sub>

### **2.2.3 NOTIFICATION OF DRCHECKS<sub>SM</sub> FILE ACCESS**

The Afghanistan Engineer District will complete a review at every Design Submittal stage for conformance with the technical requirements of the Contract and document all comments in DrChecks<sub>SM</sub>. At completion of the review, a notification will be issued to the Contractor by the Contracting Officer's representative that the particular DrChecks<sub>SM</sub> file will be opened to the Contractor. Until this time, the Contractor is not able to view any AED comments for that particular Design Submittal.

### **2.2.4 FURTHER CONTRACTOR INFORMATION AFTER DRCHECKS<sub>SM</sub> REVIEWS**

See Paragraph, Government Review, for further procedures and requirements associated with Design Submittal reviews.

## **2.3 CONSTRUCTION SUBMITTALS**

### **2.3.1 CONTRACTOR FURNISHED GOVERNMENT APPROVED (GA) CONSTRUCTION SUBMITTALS**

Government approved construction submittals are primarily related to plans (Security, Contractor Quality Control, Accident Prevention, Resident Management System, Area Use, etc.), schedules (Project Schedule/Network Analysis), and certificates of compliance, reports and records/statements. They may also include proposed variations to approved design documents in accordance with the paragraph, Variations.

In addition, GA construction submittals are required for the following:

#### **a. MECHANICAL FEATURES**

**EQUIPMENT SUBMITTALS:** Manufacturer's standard catalog data showing dimensions, performance data, electrical requirements, drawings indicating location and installation of equipment and materials, Operation and Maintenance (O&M) manuals, and compliance with standards as stated in Section 01010.

#### **b. ELECTRICAL FEATURES**

**PRODUCT DATA and SHOP DRAWINGS:** generators (and its auxiliaries), load bank, transformers, substations, panels/switchboards/motor control centers, lightning protection, receptacles, circuit breakers.

**DESIGN DATA:** Lightning Protection and Grounding.

**TEST DATA:** Lightning Protection and Grounding.

### **2.3.2 FOR INFORMATION ONLY (FIO) CONSTRUCTION SUBMITTALS**

All submittals not requiring Designer of Record or Government approval will be for information only. These construction submittals shall be checked, stamped, signed and dated by the 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 FIO submittals. These submittals will be used for information purposes. The Government reserves the right to require the Contractor to resubmit any item found not to comply with the contract. This does not relieve the Contractor from the obligation to

furnish material conforming to the plans and specifications and will not prevent the Contracting Officer from requiring removal and replacement if nonconforming material is incorporated in the work.

### **2.3.3 VARIATIONS AFTER CONSTRUCTION REVIEW**

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 paragraph, Variations.

### **2.3.4 ADDITIONAL SHOP DRAWINGS AND SUBMITTALS**

In accordance with the paragraph, 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.

### **2.3.5 INCOMPLETE DESIGN**

The Design-Build Contractor shall not use construction submittals as a means to supplant and/or supplement an incomplete design effort.

## **2.4 SUBMITTAL CERTIFICATION**

The Contractor Quality Control (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.

### **2.4.1 EFFECTIVE QUALITY CONTROL (CQC) SYSTEM**

The 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 SECTION 01451 CONTRACTOR QUALITY CONTROL.

### **2.4.2 ORGANIZATIONAL RESPONSIBILITY**

The quality control system shall cover all design, construction, sub-contractor, manufacturer, vendor, and supplier operations at any tier, both onsite and offsite.

### **2.4.3 CQC SYSTEM MANAGER REVIEW AND APPROVAL**

Prior to submittal, all items shall be checked and approved by the 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.

### **2.4.4 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.

#### **2.4.5 RESPONSIBILITY FOR ERRORS OR OMISSIONS**

It is the sole responsibility of the 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 Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract.

#### **2.4.6 GOVERNMENT REVIEW**

Government review, clearance for construction, or approval of 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. Approval will not relieve the Contractor of the responsibility for any error which may exist, as it is the sole responsibility of the 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.

#### **2.4.7 SUBSTITUTIONS**

After 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 herein.

#### **2.4.8 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.

#### **2.4.9 UNTIMELY AND UNACCEPTABLE SUBMITTALS**

If the 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 Contractor.

#### **2.4.10 STAMPS**

Stamps shall be used by the Contractor on all design and post design construction submittals to certify that the submittal meets contract requirements and shall be similar to the following:

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: \_\_\_\_\_

## **2.5 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. However, the local language of host country shall be added to project As-Built drawings.

## **2.6 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.

## **2.7 DRAWINGS**

### **2.7.1 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.

### **2.7.2 SPECIFICATIONS**

All equipment and products shall be specified according to U.S. standards and described by appropriate units as required herein.

## **2.8 WITHHOLDING OF PAYMENT FOR SUBMITTALS**

### **2.8.1 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.

### **2.8.2 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 Contractor is allowed partial or total invoice payment for materials shipped from the Continental United States (CONUS), and/or stored at the site, the 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.

## **3. CONTRACT DELIVERABLES**

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 sub-contractors, Vendors, Suppliers, etc.

### **3.1 PROJECT NARRATIVE**

The Project Narrative shall be a bound set and shall contain the contract Request For Proposal (RFP) Section 01010 (and any additional RFP sections that are appropriate). The RFP Section 01010 shall be

the latest version. Any subsequent changes to the RFP shall be clearly marked and highlighted with explanation for the changes. The Project Narrative shall also contain the general description of the project and a discussion of the design approach and design features for the project.

## **3.2 DESIGN ANALYSIS (DA)**

### **3.2.1 SUBMITTAL**

A design analysis (DA), 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. 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 items, shall be submitted.

### **3.2.2 FORMAT**

Format of design analysis shall closely match the standard format referenced within the RFP.

## **3.3 DESIGN CALCULATIONS**

All design calculations shall be presented such that they are easily understood, correlated with RFP requirements (Section 1010 criteria, codes, and all other applicable or pertinent criteria) and all final conclusions clearly documented and summarized. The Design Submittal must include complete information (Soil Report, percolation test results, concrete design strengths, steel material properties, electrical loads, heat gain/loss assumptions, etc.) necessary to support all design calculations in order to easily and efficiently verify the accuracy of this information and the resulting project components shown in plans and specifications.

### **3.3.1 SUBMITTAL**

When design calculations are voluminous, they shall be bound separately from the narrative part of the design analysis. Design calculations will include a title page, table of contents, and be indexed (tabbed) to separate distinct parts of the various analysis and design actions being accomplished to support plan drawings submitted. They shall be presented in a clear, consistent and legible format in order to quickly understand the analysis and design accomplished. Presentation shall be such that a person unfamiliar with the project features and associated analysis and design can quickly understand the overall design process and procedures, review the information in conjunction with the given set of plans and specifications, and verify the suitability of all information submitted.

All design calculations shall explain the source of loading conditions with assumptions and conclusions explained. The analysis and design methods shall also be explained, including assumptions, theories and formulae. Include applicable diagrams that are clearly explained and correlated with related computations, whether computer or hand generated. The design calculations shall include a complete and comprehensive list of the criteria (and date or version of the criteria) that the design/analysis will be compared to (codes, Corps of Engineers Engineering Regulations, Engineering Manuals, AED Design Requirements Documents, etc.). Within the separable elements of design calculations, the engineer shall cite the specific code or reference paragraph or section as appropriate to indicate conformance to requirements.

At the beginning of each project component design section, present a summary of all load conditions and combinations required per applicable code or Corps of Engineers manual or regulation. Then clearly identify the particular load case governing the design and clearly show how the particular analysis, construction materials to be used, and the specific design meet the governing load combination.

Calculation sheets shall carry the names or initials of the engineer and the checker and the dates of calculations and checking. No portion of the calculations shall be computed and checked by the same person.

### **3.3.2 COMPUTER ANALYSIS**

Provide a clear summary of all computer outputs and highlight in the outputs information used in the analysis and design accomplished elsewhere in the calculations.

If a computerized analysis or design program is used (either commercial software packages or unique, designer-written computer analysis/design tools), the computations shall provide clear reference to the software program and version being used and an explanation of the validity of the particular program to the given application (where has the program been used before, what input and output does the program provide, is the program a recognized Corps of Engineers or industry standard). If the program is proprietary to the Contractor (not recognized by the Corps of Engineers or industry), the Contractor shall provide a sample hand calculation to verify the results of one set of data generated by the computer program.

State exactly the computation performed by the computer. Include applicable diagrams, adequately identified. Provide all necessary explanations of the computer printout format, symbols, and abbreviations. Use adequate and consistent notation. Provide sufficient information to permit manual checks of the results.

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.

When the computer output is large, it shall be divided into volumes at logical division points. All final computer results used in design shall be separated from the total pages of computer output that might be included in the design calculations for ease of review.

## **3.4 SPECIFICATIONS**

Specifications shall be prepared in accordance with the UFGS (Uniform Facilities Guide Specifications) format. The Contractor-prepared specifications shall include as a minimum, all applicable specification sections referenced by the UFGS. Where the 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 in the UFGS format.

### **3.4.1 USE OF UNIFIED FACILITIES GUIDE SPECIFICATIONS (UFGS)**

UFGS (Unified Facilities Guide Specifications) are required for this project. Current UFGS information may be obtained at the following location: <http://www.wbdg.org/>.

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>.

### **3.4.2 QUALITY CONTROL AND TESTING**

Specifications shall include required quality control and further indicate all testing to be conducted by the Contractor, its sub-contractors, vendors and/or suppliers.

### **3.4.3 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.

## **3.5 INDUSTRY STANDARDS**

### **3.5.1 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 Contractor shall be by specific issue; the revision letter, date or other specific identification shall be included.

### **3.5.2 AED DESIGN REQUIREMENTS DOCUMENTS**

AED Design Requirements (latest version) documents listed in Section 01010, shall be adhered to in this contract. These documents are available from the COR. These documents shall be used as the basis for design and construction, and for selecting options within the Unified Facilities Guide Specifications (UFGS). It is the Contractor's option to use specifications contained in the AED Design Requirements Documents, when provided, or to adapt the UFGS specifications to match the requirements provided in the AED Design Documents and specifications. Site or project specific data and requirements in the AED Design Requirements documents shall supersede UFGS language where there are perceived conflicts.

## **3.6 DRAWINGS**

### **3.6.1 COMPUTER ASSISTED DESIGN AND DRAFTING (CADD)**

Computer Assisted Design and Drafting (CADD) is required for all work related to this contract. Only personnel proficient in the preparation of CADD drawings shall be employed to modify the contract drawings or prepare new drawings. The CADD deliverables shall meet the requirements of the A/E/C CADD Standard (Release 3.0). Emphasis is on drawings meeting sheet layout standards, level/layer naming standards and sheet naming conventions. The CADD standards may be downloaded at the CAD/BIM Technology Center at the following link: <https://cadbim.usace.army.mil/default.aspx?p=s&t=13&i=4>.

The Contractor shall furnish all softcopy design submittals (and As-Builts) using software applications in either .dwg (AutoCAD, AutoDesk release 2005 or later) or in .dgn (MicroStation, Bentley Systems version 8.0 or later) format. In addition, the Contractor is required to submit the softcopy design submittals in .pdf

(Adobe Acrobat) format. Drawings prepared in any convention other than CADD, must have the written approval of the Contracting Officer.

### **3.6.2 PLANS**

Plans shall be prepared in the English language with metric (SI) units of measure. All the drawings and details of the working drawings shall be adequately labeled and cross-referenced. Complete, thoroughly checked, and coordination with other engineering disciplines design drawings shall be submitted. At the final design construction submittal, the Contractor shall have incorporated all design review comments generated by previous design review(s), have completed all of the constructability and coordination comments, 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.

### **3.6.3 DRAWING BORDER SHEETS**

All drawings shall be prepared in size "A1" border sheets (594 mm by 841 mm). Hardcopy design submissions may be printed on half size drawing sheets ("A3", 279 mm by 420 mm) for purposes of saving paper and for ease of review. If drawings are not readable in the half size reduction, the Contractor shall submit all drawings in A1 border sheets. All final contract drawing sets (As-Builts) shall be submitted on A1 border sheets. Drawing sheets shall be trimmed to specified size if necessary.

### **3.6.4 SEQUENCE OF DESIGN DRAWINGS**

Referencing the A/E/C CADD Standard (pg. 13, Table 2-1 of the A/E/C CADD standards) the sequence of drawings shall follow the sequence as shown below:

Discipline

1. General
2. Hazardous Materials
3. Survey/Mapping
4. Geotechnical
5. Civil
6. Landscape
7. Structural
8. Architectural
9. Interiors
10. Equipment
11. Fire Protection
12. Plumbing
13. Process
14. Mechanical
15. Electrical
16. Telecommunications
17. Resource
18. Other Disciplines

19. Sub-Contractor/Shop Drawings

20. Operations

### **3.6.5 DRAWING FOLDER STRUCTURE**

CADD files shall be organized in a folder structure to what is described herein. For multi-building projects a folder of each building type shall be created and the applicable folders shown in each building type folder.

### **3.6.6 DRAWING SHEET ASSEMBLY**

CADD files shall be organized to what is described in "Option 2 – Use of Design Model Only" (page 10, Figure 2-3 of the A/E/C CADD Standard). This method will utilize one view and the use of "paper space" is not used. The border sheet shall be X-REF into each model file and scaled up to the applicable scale.

### **3.6.7 MODEL FILES**

Model files represent the building's physical layout and components such as floor plans and elevations. Model files shall be drawn to full size (1:1) in the default view. Floor Plan Model files represent one floor. Model files shall have coordinates (x,y,z) of 0,0,0 in paper space on layout. The exception for model files with coordinates 0,0,0 shall be the civil site plan (see paragraph, Geo-Reference).

### **3.6.8 BORDER SHEET FILES**

Border sheet files are used to assemble model files for plotting and viewing purposes. Every border sheet file has a drawing area, title block, border and represents one plotted drawing.

### **3.6.9 LAYER/LEVEL NAMES**

Layer or level files names shall follow the guidelines of appendix A and B of the A/E/C CADD standards. For AutoCAD, .dwt (drawing template files) shall be used to import the proper layers that will be inclusive of the correct line type, color, and line thickness of the respective layer.

### **3.6.10 DRAWING FILE NAMING CONVENTION**

CADD files shall follow the naming convention as described in the A/E/C CADD Standards. For model files reference pg 12 - 16, figure 2-4, tables 2-1 and 2-2. for sheet files reference pg 18 – 22, figure 2-5, table 2-3.

### **3.6.11 SHEET IDENTIFICATION BLOCK**

The sheet identifier will follow the name of the border sheet file. This will consist of the discipline designator, the sheet type designator and the sheet sequence number as referenced in pg 23, figure 2-6 of the A/E/C CADD Standards.

### **3.6.12 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.

<b>TYPICAL DRAWING SCALES</b>	
<b>DRAWING TYPE</b>	<b>METRIC</b>
SITE PLAN	1:200
	1:400
	1:500
	1:600
	1:700
	1:1000
	1:2000
	1:5000
	1:6000
	1:10000
	1:20000
FLOOR PLAN	1:50
	1:100
	1:200
ROOF PLAN	1:200
EXTERIOR ELEVATIONS	1:100
	1:200
INTERIOR ELEVATIONS	1:50
	1:100
CROSS SECTIONS	1:50
	1:100
	1:200
WALL SECTIONS	1:20
STAIR DETAILS	1:10
DETAILS	1:5

### 3.6.13 SYMBOLS, LINE STYLES, & PATTERNS

Approved symbols, line styles, and patterns shall be in accordance with AEC CAD Standard Release 3.0 or current version (see Appendix D of the A/E/C CADD Standards). The approved symbols, line styles, and patterns associated with AutoCAD software maybe downloaded in the following link:

<https://tsc.wes.army.mil/products/standards/aec/aecstdsym.asp>

### **3.6.14 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 tone plots are only acceptable where the half-tone color setting of RGB (red, green blue) settings equal a value of 153 (see pg. 27, Table 3-4 of the A/E/C CADD Standards). Drawings plotted in color is not acceptable. Manual changes to plotted originals are not acceptable.

### **3.6.15 TITLE AND REVISION BLOCK**

Title and revision block shall match examples shown in 1335a-Attachments-AED.pdf, Figures 1 through 4, furnished as an attachment to this RFP.

### **3.6.16 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 first drawing.

### **3.6.17 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.

### **3.6.18 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.

### **3.6.19 SPECIFICATIONS PLACED ON THE DRAWINGS**

Details of standard products or items which are adequately covered by specifications shall not be included on the drawings.

### **3.6.20 REVISIONS**

Drawing revisions shall be prepared only on the original CADD files. A revision area is required on all sheets.

### **3.6.21 BINDING**

All volumes of drawing prints shall be firmly bound and shall have covers of heavier bond than the drawing sheets. If posts are used to fasten sheets together, the drilled holes on the bond edges of the sheets shall be on 8-1/2-inch centers.

### **3.6.22 GOVERNMENT PROVIDED FILES**

At the Preconstruction meeting, the Contractor shall be provided a CD that shall contain the AED border sheet, the latest version of the AED Design Requirements documents, the A/E/C CADD standards, and various other files related to the compliancy of CADD files to the A/E/C CADD standards.

## **4. GENERAL STARTUP**

### **4.1 DESIGN COORDINATION MEETING**

Shortly after Notice To Proceed (NTP), the Government or Contractor may suggest meeting(s) to review the Design Submittal process or discuss various aspects of the contract to enable prompt and efficient initiation of contract actions. Meeting(s) will be held to assure attention is focused on key project requirements (necessary Contractor design and Government review that is required to provide Construction Clearance), to discuss features and items of work that need to be submitted early due to long lead time items, or discuss other concepts/ideas that will help accelerate the contract work. Other Design Coordination meetings may be requested throughout the contract period if Government review of various Contractor Design Submittals indicate poor design and plan or specification quality in order to clearly explain the changes and improvements required of the Contractor, assure understanding of Government comments, code references and required investigations and calculations, to move forward with acceptable design and satisfactory plans and specifications.

#### **4.1.1 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, Submittal Procedure. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

### **4.2 SUBMITTAL REGISTER**

#### **4.2.1 DESIGN SUBMITTALS**

The Contractor shall submit, as part of this Project Schedule, Design Submittal milestone dates. The Contractor shall post all actual dates of submittal actions (including clearance for construction) as they occur.

#### **4.2.2 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 Design and construction submittals shall be shown on this register. The submittal register shall be the controlling document and will be used to control all 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.

### **4.3 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.

### **4.4 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 submit as required 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.

### **4.5 SCHEDULING**

#### **4.5.1 DESIGN SUBMITTALS**

Adequate time (a minimum of 14 full calendar days exclusive of mailing time) shall be allowed for Government review and comment in DrChecks<sub>SM</sub>. 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.

#### **4.5.2 CONSTRUCTION SUBMITTALS**

Contractor furnished Government Approved Construction Submittals (GA) for items noted in this Section, or others as required by the COR, shall be submitted to the Area or Resident Office, per directions given at the Pre-Construction meeting. Adequate time (a minimum of 14 full calendar days exclusive of mailing time) shall be allowed for AED review and comment.

#### **4.5.3 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 14 full 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.

## **4.6 SUBMITTAL PROCEDURE**

### **4.6.1 AFGHANISTAN ENGINEER DISTRICT – SOUTH (AES)**

#### **DESIGN SUBMITTAL PROCEDURE**

For all submittals the following must be included in the submittal package to be considered acceptable. Submittal package will include one (1) half-size hard copy and two (2) soft copies on CD-ROM (electronic version), ENG Form 4025, submittal cover sheet, ALL design drawings, ALL specifications, design analysis, site analysis, geotechnical report, and water quality report. All hard copies and soft copies should be arranged in identical format (See Section 1335 of contract and attachments). If Submittal is deemed unacceptable at pick up, submittal will be pushed back and a new arrangement for drop off will be coordinated at a future time and date.

#### **POINT OF CONTACT**

Arrangement for meeting and drop off must be coordinated 24-hrs prior to drop off. The preferred meeting time is during off peak hours between 11:00 am and 2:00 pm. Individual participating in submittal drop off must speak English or a translator must be present during transaction.

#### **Area and Project Engineer (AE/PE) Contacts:**

Jeffery Johnson, Helmand Area Engineer, Cell: 070-394-1670

Earl Wagner, Helmand Area Project Engineer, Cell: 070-707-6237

Note: Please state your name, company, contract title, and contract number that shall be discussed and received by USACE-AES personnel.

The Contractor shall scan the soft copy (electronic version) of each Design Submittal using most up-to-date version of recognized Industry-standard anti-virus software (Symantec, Norton, etc.) to insure that no viruses are contained in it prior to acceptance by AES. The label shall indicate it has been scanned for viruses and the anti-virus software and version clearly indicated.

### **4.6.2 RESIDENT/AREA ENGINEER OFFICE**

Complete construction submittals shall be provided to the Area and/or Resident Engineer (AE/RE) Office. At the Pre-Construction meeting, the Contractor will be furnished the Area and/or Resident Office addresses to which these submittals shall be provided and the specific number of hard copies (full and half sizes) and soft copies (CD-ROM) required by the Area and/or Resident Office as stated herein. Soft copies are to be properly labeled and checked for viruses by the Contractor prior to delivery.

### **4.6.3 USE OF THE DESIGN**

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. See Section 01780A for all requirements associated with submission of editable CADD format As-Builts required as part of this contract.

### **4.6.4 POST DESIGN CONSTRUCTION SUBMITTALS**

One (1) copy of all post design construction submittals shall be transmitted to:

Jeffery Johnson, Area Engineer  
U.S. Army Corps of Engineers  
Helmand Area Office, Afghanistan

## 4.7 SUBMITTAL NUMBERING SYSTEM

Instructions on the numbering system to be used for construction submittals follows.

### 4.7.1 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:
 

Section 01010	"SOW & Technical Requirements"
Section 01335	"Submittal Procedures For Design-Build Projects"
Section 02831	"Chain-Link Fence"
Section 02710	"Subdrainage System"
Section 03300	"Concrete For Building Construction"
Section 04200	"Masonry"

### 4.7.2 NUMBERING PROCEDURES FOR TRANSMITTAL ON ENG FORM 4025

Each specification section will have various requirements for submittals (design information, product data, test reports, procedures, etc.) to the Government for Approval (GA) or For Information Only (FIO). Items from different Sections cannot be submitted on the same ENG Form 4025. When furnishing one or more items from the same Section at a given time, a single ENG Form 4025 can be used to identify and submit these items. Block 'b' of the 4025 should provide an accurate and unique description of each item being proposed by the Contractor. Item numbers (block 'a' of the 4025 entitled "ITEM NO.") will be automatically generated in QCS for each ENG Form 4025. QCS will track and automatically generate the "ITEM NO." for all following ENG Form 4025s for the same Section number. To illustrate, a transmittal for Preliminary Project Site Surveys and Reports, required by Section 01335, might have the following Items:

- Item No. 1 Topographic Information
- Item No. 2 Geotechnical Report
- Item No. 3 Foundation Design
- Item No. 4 Plans
- Item No. 5 Outline of Construction Specifications to be used (i.e. Specification list with Section number and title only)

If this was the first submittal furnished by the Contractor for Section 01335, then a Transmittal Number of 01335-1 would be generated using QCS. As new transmittals are generated in QCS, the last digit of the transmittal is increased incrementally, as follows:

Transmittal No. 01335-2

Transmittal No. 01335-3

Transmittal No. 01335-4

and so forth. The first transmittal submitted from each Specification Section will be "-1", in other words, there will never be a "Transmittal No. 01335-0".

The above illustration is true for all other Sections included in the Request for Proposal or in the Construction Specifications compiled by the Contractor in the prosecution of work under the RFP.

### 4.7.3 RESUBMITTALS

Should the Contractor be required to resubmit any transmittal due to one or more items on that transmittal being Coded "C" (Cleared for Construction, except as noted in attached comments, Resubmission Required) or "E" (NOT Cleared for Construction, see attached comments, Resubmission Required) by the Government, QCS will be used to generate the same transmittal number followed by the number "-1" for the first resubmittal, "-2" for the second resubmittal, "-3" for the third resubmittal, etc.

As an example, assume the Design Construction Review Submittal is provided to the Government as Transmittal 01335-9. Due to omissions or errors in that Submittal which result in a Code "E" being given, then the subsequent Design Construction Review Resubmittal #1 would be "Transmittal 01335-9.1". Should a resubmittal again be necessary, it would be Design Resubmittal #2 and would be submitted as "Transmittal 01335-9.2".

The purpose of this system is to avoid deviations from the Submittal Register and to track submittals in both RMS and DrChecks<sub>SM</sub>. It should be noted that a new transmittal number following the above system CANNOT be generated in QCS unless the prior transmittal has been given a Code If the Contractor is having difficulty generating the correct transmittal number, contact the COR to resolve the matter.

The Contractor use the above nomenclature and date of submission to the Government for Plan Cover Sheets; title blocks for all drawings; all Specification Cover Sheets; all specification pages; all Design Analysis Cover Sheets and associated pages; and similar labeling for all other documents included in the submittal.

See the attachment titled "1335a-Attachments-AED.pdf" (Figures 1-4) for required Title Block Required Annotations drawing guidance.

### 4.7.4 VARIATION SUBMITTALS

If Design 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.

#### **4.7.5 NON-COMPLIANCE NOTICE**

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.

### **4.8 REVIEW OF CONTRACTOR PREPARED DESIGN CONSTRUCTION DOCUMENTS**

#### **4.8.1 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 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 Contractor or may be directed by the Contracting Officer as necessary to progress the work. The Contractor shall prepare minutes of all conferences and shall furnish two copies to the Contracting Officer within seven (7) days after the conference.

#### **4.8.2 INDEPENDENT DESIGN REVIEW**

The Contractor shall have someone other than the Designer or Design Team perform an Independent Technical Review (ITR) of all specifications, drawings, design analysis, calculations, and other required data prior to submission to the Government. This review shall insure the professional quality, technical accuracy, and the coordination of all design analysis, drawings and specifications, and other services furnished under this contract have been accomplished. 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 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. Upon completion of this review, the 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.

#### **4.8.3 CONTRACTOR'S QUALITY CONTROL (CQC) ORGANIZATION REVIEW**

The Contractor shall thoroughly review each submittal prior to submission to the Contracting Officer to assure it is complete, correct and unified. 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. The Contractor will give evidence of such review of all items in each submittal ENG Form 4025, by annotating Column "g" (titled "For Contractor Use Code") of this Form with the letter "A," meaning the Contractor has reviewed it and is indicating it is "Approved as Submitted". Design submittals submitted to the Contracting Officer without evidence of the above requirements or 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.

#### 4.8.4 GOVERNMENT REVIEW

- a. 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 monthly. After receipt, the Government will be allowed 14 full days to review and comment on all Design Submittals, except as noted below. This time period starts on the next full day after delivery of the Design Submittal to the Government.
- b. If a design submittal is deficient (errors on ENG Form 4025, incorrect drawing title block information, missing or incomplete features required in the Submittal, etc.), it will be returned immediately without further review for correction and resubmission. The review time will begin when the corrected submittal is received. The Contractor may be liable for liquidated damages owed to the Government for returned design submittals due to deficiencies.
- c. The Contractor shall not begin construction work until the Government has reviewed the Contractor's Design Submittal and 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.
- d. Upon completion of the review the Contractor will be notified by the Contracting Officer Representative that the DrChecks<sub>SM</sub> file is open for viewing and response to AED comments. The Contracting Officer will indicate whether the Design Submittal, or portions thereof, 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, Re-submission required
  - E – NOT Cleared for Construction, see attached comments, Re-submission required
  - FX – Receipt acknowledged, does not comply as noted with contract requirements.These codes shall **NOT** be used by the Contractor.

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.

#### 4.8.5 INCORPORATION OF GOVERNMENT REVIEW COMMENTS

- a. The Contractor shall review each comment, furnish a complete response in DrChecks<sub>SM</sub> as to how the comment will be addressed in the Design Analysis, Plans and Specifications, or other Design Submittal stipulations required in this Contract. The Contractor will then incorporate each comment into the design submittal along with other work required at the next Design Submittal stage. The Contractor shall furnish disposition of all comments in DrChecks<sub>SM</sub>, 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. 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 contract administration process.

- b. 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.
- c. The Contractor is cautioned that if he believes the action required by any comment exceeds the requirements of this contract, he should flag the comment in DrChecks<sub>SM</sub> as a scope change, and notify the COR in writing immediately.
- d. If a design submittal is over one (1) day late in accordance with the latest design schedule, the Government review period may be extended seven (7) days. Submittal date revisions must be made in writing at least five (5) days prior to the submittal.

#### **4.8.6 CONFERENCES**

As necessary, conferences will be conducted between the Contractor and the Government to resolve review comments.

A review conference may be held at the completion of AED review and subsequent Contractor response for each design submittal. The review conference will be held at the Corps Area/Resident Engineer (AE/RE) Office. The Contractor shall bring the personnel that developed the design construction submittal to the review conference.

#### **4.9 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.

##### **4.9.1 DESIGN DISCREPANCIES**

The Contractor shall be responsible for the correction of incomplete design data, omissions, and design discrepancies which become apparent during construction. The 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 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 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. 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.

#### **4.10 PHASED OR "FAST-TRACK" DESIGN**

##### **4.10.1 GENERAL PROCEDURES**

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.

#### **4.10.2 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.

#### **4.10.3 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.

#### **4.10.4 NOTICE-TO-PROCEED (NTP) FOR LIMITED CONSTRUCTION**

If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed design construction submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted, and satisfactory to the Government.

#### **4.10.5 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.

#### **4.10.6 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.

### **4.11 CONDUCTION OF WORK**

#### **4.11.1 PERFORMANCE**

Perform the work diligently and aggressively, and promptly advise the Contracting Officer of all significant developments.

#### **4.11.2 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.

#### **4.11.3 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.

#### **4.11.4 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 Contractor shall obtain copies of all publications applicable to this contract. Availability of publications (where to purchase) is contained in Section 01420. 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 Contractor will be required to conform his design to the same at his own time and expense.

#### **4.11.5 CONFLICTS**

Any conflicts, ambiguities, questions or problems encountered by the Contractor in following the criteria shall be immediately submitted in writing to the Contracting Officer with the Contractor's recommendations. Prior to submission to the Government the 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.

#### **4.11.6 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.

##### **4.11.6.1 CONSTRUCTION LIFE SPAN LEVELS**

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.

##### **4.11.6.2 OPERABILITY**

Systems including but not necessarily limited to mechanical, electrical, communications, etc., must be simple to operate and easy to maintain.

##### **4.11.6.3 STANDARDIZATION**

Use of standardized materials, products, equipment, and systems is necessary to minimize the requirements for replacement parts, storage facilities, and service requirements.

##### **4.11.6.4 TOPOGRAPHIC SURVEYS, EASEMENTS, & UTILITIES**

Unless otherwise stated in the contract, the Contractor will be responsible for detailed topographic mapping, available easements, and utility information for the project.

##### **4.11.6.5 HORIZONTAL & 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.

#### **4.11.6.6 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.

#### **4.11.6.7 CATHODIC PROTECTION & EARTH RESISTANCE**

Unless otherwise stated in the contract, the 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.

#### **4.11.6.8 WATER SUPPLY & QUALITY DATA**

Unless otherwise stated in the contract, the 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.

#### **4.11.6.9 OCCUPATIONAL SAFETY & 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.

#### **4.11.6.10 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 AED.

#### **4.11.6.11 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.

#### **4.11.6.12 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.

#### **4.12 VALUE METHODOLOGY/VALUE ENGINEERING**

The 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.

##### **4.12.1 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 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 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.

##### **4.12.2 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 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.

#### **4.13 ATTACHMENTS**

The following attachments form an integral part of this specification:

ENG FORM 4025R, Mar 95 - Transmittal of Shop Drawings, Equipment Data, Material Samples, or Manufacturer's Certificate of Compliance (2 pages).

ENG FORM 4288-R. Mar 95 - Submittal Register.

Figure 1 – AED Title Block.

Figure 2 - AED Management Block.

Figure 3 - AED Issue Block & Required Notations.

Figure 4 - Border Sheet Size.

**-END OF SECTION-**

**SECTION 01335A**  
**PROJECT SUBMITTAL FORMS**



## INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required numbers of copies.
2. Each transmittal shall be numbered consecutively in the space provided for "Transmittal No.". This number in addition to the contract number, will form a serial number for identifying each submittal. For new submittals or resubmittals mark the appropriate box; on resubmittals, insert transmittal number of last submission as well as the new submittal number.
3. The "Item No." will be the same "Item No." as indicated on ENG FORM 4288 for each entry on this form.
4. Submittals requiring expeditious handling will be submitted under a separate form.
5. Separate transmittal form will be used for submittals under separate sections of the specifications.
6. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications -- also a written statement to that effect shall be included in the space provided for "Remarks".
7. Form is self transmitting, letter of transmittal is not required.
8. When a sample of a material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certificate" in column c, Section I
9. U.S. Army Corps of Engineers approving authority will assign action codes as indicated below in space provided in Section I, column I to each item submitted. In addition they will ensure enclosures are indicated and attached to the form prior to return to the contractor. The Contractor will assign action codes as indicated in Section I, Column g, to each item submitted.

### THE FOLLOWING ACTION CODES ARE GIVEN TO ITEMS SUBMITTED

- |  |  |
|--|--|
| A -- Approved as submitted   | E -- Disapproved (See Attached)  |
| B -- Approved, except as noted on drawings.  | F -- Receipt acknowledged  |
| C -- Approved except as noted on drawings.<br>Refer to attached sheet resubmission required. | FX -- Receipt acknowledged, does not comply<br>as noted with contract requirements |
| D -- Will be returned by separate correspondence.  | G -- Other ( <i>Specify</i> )  |
10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.



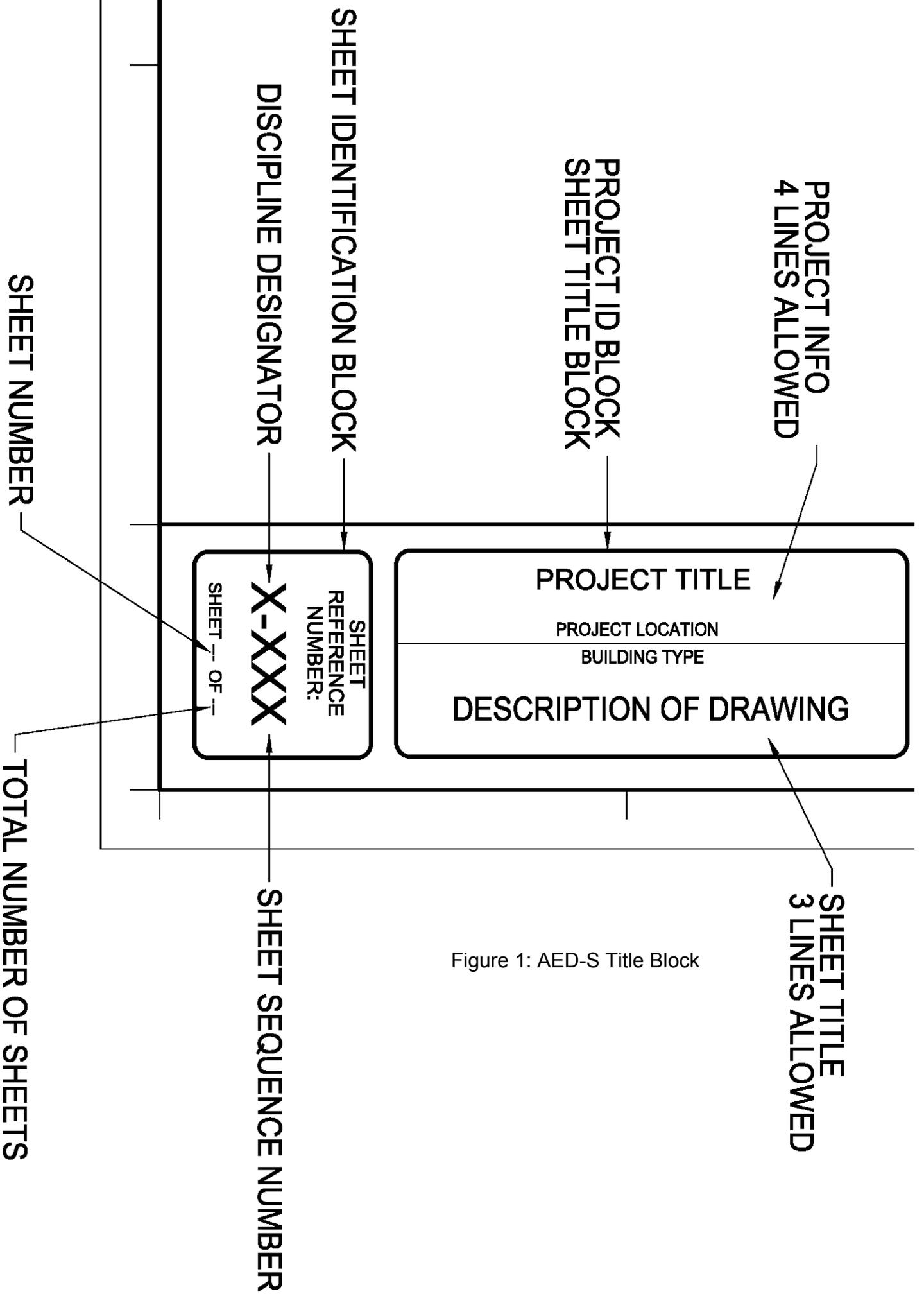


Figure 1: AED-S Title Block

**MANAGEMENT BLOCK**

<b>U.S. ARMY CORPS OF ENGINEERS AFGHANISTAN ENGINEER DISTRICT - SOUTH APO AE 09355 KANDAHAR, AFGHANISTAN</b>	<b>DESIGNED BY:</b> _____		<b>DATE:</b> xx-xx-xx	<b>REV.</b> __
	<b>DWN BY:</b> _____	<b>CKD BY:</b> _____	<b>DESIGN FILE NO.</b> _____	
<b>ENGINEERING AND CONSTRUCTION DIVISION</b>	<b>REVIEWED BY:</b> _____		<b>DRAWING CODE:</b> _____	
	<b>SUBMITTED BY:</b> _____		<b>FILE NAME:</b> _____	
			<b>PLOT SCALE:</b> _____	
				<b>PLOT DATE:</b> xx-xx-xx

**AE DESIGN FIRM  
COMPANY LOGO  
COMPANY INFORMATION**

Figure 2: AED-S Management Block

G

H

DESIGNER IDENTIFICATION  
BLOCK (DO NOT ALTER)



ISSUE BLOCK

	AS-BUILT SUBMITTAL	15 DEC 10		▲	REVISED AS-BUILT	28 DEC 10	
	100% DESIGN SUBMITTAL	15 APR 10					
	99% DESIGN RESUBMITTAL NO. 1	1 APR 10					
	99% DESIGN SUBMITTAL	15 MAR 10					
	65% DESIGN RESUBMITTAL NO. 1	1 MAR 10		▲	MOD P0003	8 MAR 10	
	65% DESIGN SUBMITTAL	1 FEB 10		▲	MOD P0002	27 FEB 10	
	35% DESIGN SUBMITTAL	1 JAN 10		▲	AMMENDMENT P0001	13 JAN 10	
SYMBOL	DESCRIPTION	DATE	APPR.	SYMBOL	DESCRIPTION	DATE	APPR.

Figure 3: AED-S Issue Block

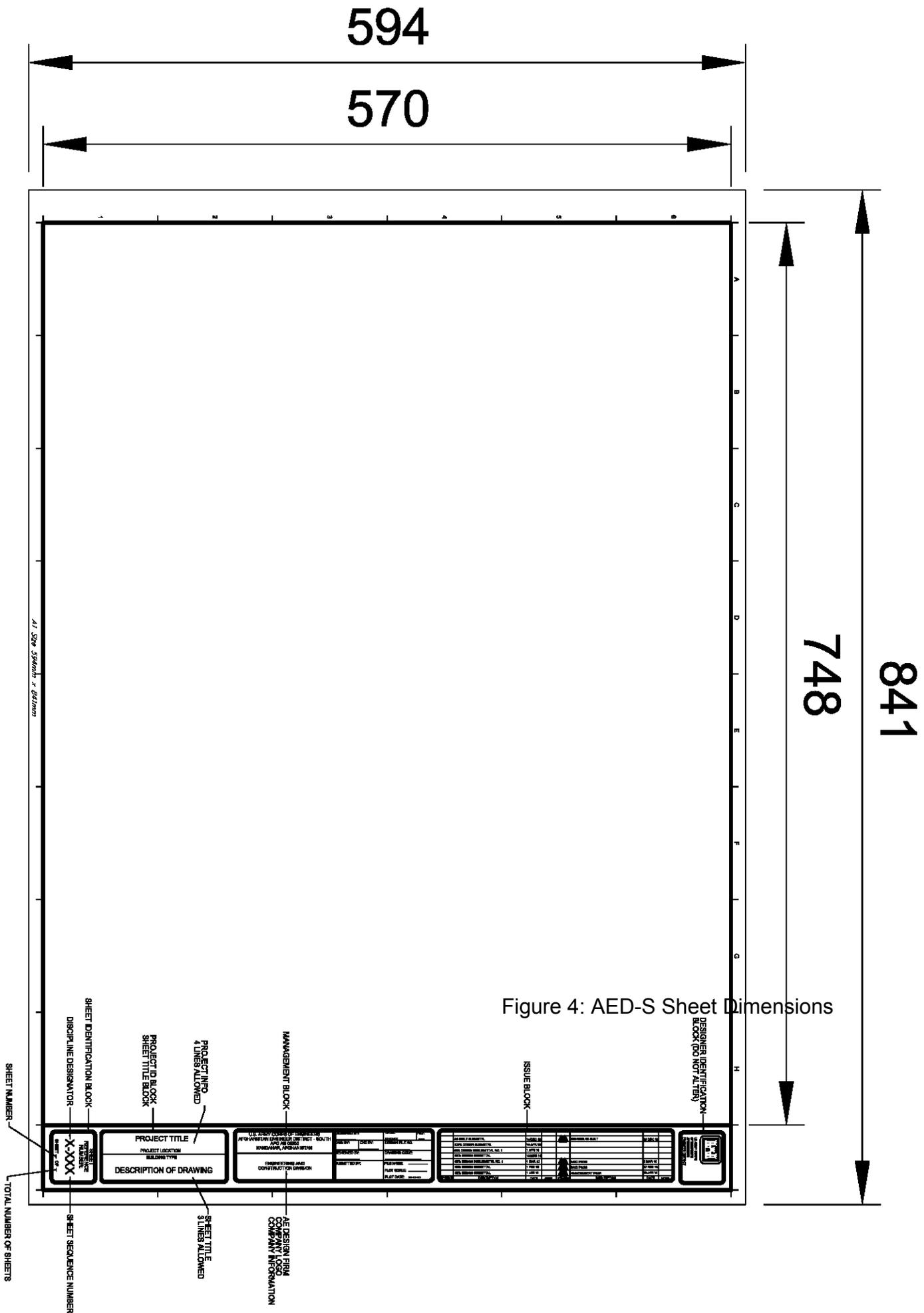


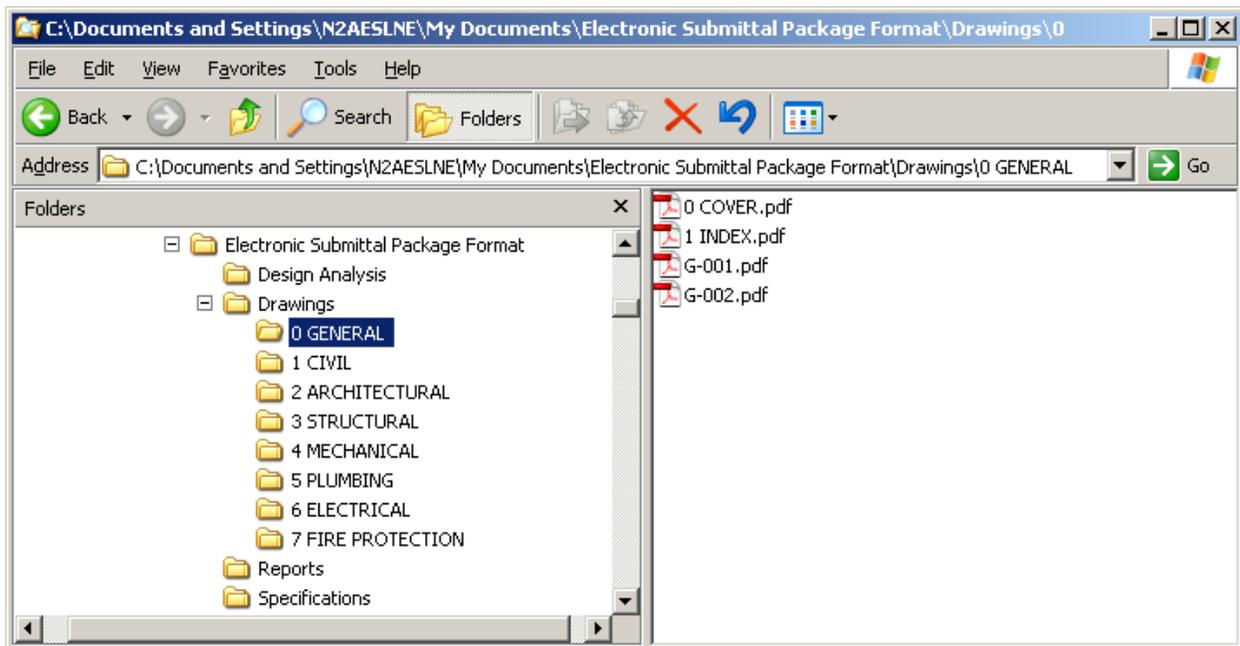
Figure 4: AED-S Sheet Dimensions

Labels for the diagram include: 594, 570, 748, 841, 1, 2, 3, 4, 5, 6, A, B, C, D, E, F, G, H, SHEET IDENTIFICATION BLOCK, PROJECT ID BLOCK, SHEET TITLE BLOCK, PROJECTING, PROJECTING ALLOWED, PROJECT TITLE, PROJECT LOCATION, DESCRIPTION OF DRAWING, MANAGEMENT BLOCK, LEAD ENGINEER, PROJECTOR, CHECKER, DESIGNER, PLANNING, PLANNING, ISSUE BLOCK, DESIGNER IDENTIFICATION BLOCK (DO NOT ALTER), SHEET NUMBER, TOTAL NUMBER OF SHEETS, SHEET SEQUENCE NUMBER, and SHEET IDENTIFICATION DISCIPLINE DESIGNATOR.

**SECTION 01335B****ELECTRONIC SUBMITTAL DOCUMENT FORMAT**

**PART 1 - GENERAL:** Throughout the design process, the DB Contractor shall submit electronic packages for review at each Design Phase identified in the Request for Proposals. To facilitate reviews, submittal packages shall conform to the following file structure and format.

**1.1. File Structure:** Submittal packages that can be contained on a single disc shall use the file structure shown in Figure 1.



**Figure 1:** Submittal package file structure

**1.2. Design Analysis:** The design analysis directory shall contain all design analysis and calculation documents necessary for the current design stage. All design analysis and calculations shall be compiled into a single document containing a table of contents and page numbers. As additional analysis and calculation documents are created in progressive design phases, insert these documents into their appropriate section of the Design Analysis. Avoid lengthy appendices except in the case where numerical output sheets from analysis software are included. All documentation shall be organized by discipline: Civil, Architectural, Structural, Mechanical and Electrical.

**1.2.A.** Some projects requiring complex plumbing, communications and fire protection systems may require additional sections covering these specific

systems. Note that water supply and sanitary sewer systems beyond 1.5 m (5') of the building envelope are Civil systems, not Plumbing systems.

**1.2.B.** If the project involves a compound comprised of several structures, clearly identify which building is being analyzed. In these cases, the major divisions of the Design Analysis shall be by discipline with subdivisions by building such that all calculations for a particular discipline will be found in one (1) section of the document. For example, a compound containing three (3) separate buildings would have three (3) separate seismic loading analysis calculations in the structural section.

**1.3. Drawings:** Drawings shall be arranged by discipline. Subdirectories shall be made corresponding to discipline only. Folders labeled for specific disciplines as shown in Figure 1 shall contain all drawings in the project applicable to that discipline. Note that these discipline specific folders are to contain only drawings and no other type of document. Drawings must be submitted in pdf form at a minimum. Files shall be named by reference number (i.e. C-101). If multiple file types for submittal drawings are provided, place all file types for each discipline in the same folder; do not subdivide the discipline specific folders for separate file types. Also, include a single pdf file containing all drawings in the project in this folder. The sheets in this file should follow the order indicated in the index sheet. This file should be named to indicate the contract number and submittal stage.

**1.3.A. GENERAL:** A folder labeled "0 GENERAL" shall contain the cover sheet, index sheet, list of legends and abbreviations sheet, project location and vicinity sheet, and site survey sheets.

**1.3.B. CIVIL:** A folder labeled "1 CIVIL" shall contain all site survey drawings and all civil drawings for the project. Note that the pipe networks for water supply systems, sanitary sewer systems and storm drainage systems are civil drawings, not plumbing drawings. Also note that gates, fences and small site structures are typically part of the civil discipline.

**1.3.C. ARCHITECTURAL:** A folder labeled "2 ARCHITECTURAL" shall contain all architectural drawings for the project. Note that life safety drawings denote architectural features and belong in this folder.

**1.3.D. STRUCTURAL:** A folder labeled "3 STRUCTURAL" shall contain all structural drawings for the project.

**1.3.E. MECHANICAL:** A folder labeled "4 MECHANICAL" shall contain all HVAC drawings for the project.

**1.3.F. PLUMBING:** A folder labeled "5 PLUMBING" shall contain all indoor plumbing systems (i.e. domestic water, waste & vent, LPG or propane, compressed air, diesel or fuel oil, etc.) for the project. Note that water supply and sanitary sewer systems beyond 1.5 m (5') of the building envelope are Civil systems, not Plumbing systems.

**1.3.G. ELECTRICAL:** A folder labeled "6 ELECTRICAL" shall contain all electrical drawings for the project. Note that communication and fire alarm systems are electrical systems and belong in this folder for most projects.

**1.3.H. FIRE PROTECTION:** A folder labeled “7 FIRE PROTECTION” shall contain all indoor fire protection systems (i.e. sprinklers, fire pumps, etc.) for the project.

**1.4. Reports:** The reports folder shall contain all certified reports required in the contract, including the Geotechnical Report, Water Quality Report and any other reports specifically called for in the contract. No subdirectories shall be created in this folder.

**1.5. Specifications:** All project specifications shall be contained in this folder. Include the project table of contents and name it so that it is easily identifiable (naming it “00000 Project Table of Contents” should ensure that it is at the top of the list). Specification sections should be named by number only so that they sort in ascending order as indicated on the project table of contents, or all project specifications shall be collated into a single file indexed at each section. No subdirectories shall be created in this folder.

**PART 2 - PRODUCTS:** (NOT APPLICABLE)

**PART 3 - EXECUTION:** (NOT APPLICABLE)

**-END SECTION-**

## SECTION 01415

### METRIC MEASUREMENTS 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. 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 the 11th 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.

## 2. 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 (1) system of units for another and for the final assembly and performance of the specified work and/or products.

### 2.1 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 (1) 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.

### 2.2 SOFT METRIC

- a. 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.

- b. 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)).

## **2.3 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).

## **2.4 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.

## **2.5 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****CONTRACTOR QUALITY CONTROL  
(CQC)****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.

**2. EXECUTION****2.1 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.

**2.2 CONSTRUCTION QUALITY MANAGEMENT (CQM) TRAINING  
REQUIREMENT**

Before project design and construction begin, the Contractor's Quality Control Manager is required to have completed the U.S. Army Corps of Engineers (USACE) Construction Quality Management (CQM) course, or equivalent. The CQM course will be offered periodically by the Afghanistan Engineer District-South (AED-S), USACE. Additional approved CQM courses include those offered by the Commercial Technical Training Center (in Jalalabad) and the Champion Technical Training Center (in Kabul). The Quality Assurance Branch (QAB) of the AED-S can provide information related to AED-S offerings of the

CQM course, as well as contact information for training centers. Alternative CQM courses, other than those mentioned above, must be approved by QAB.

The contractor's quality control plan, as defined in USACE Guide Specification 01451 (or 01 45 04.00 10), entitled "Contractor Quality Control," must include "The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function." For the QC Manager, qualifications must include a certificate demonstrating completion of an approved CQM course.

## **2.3 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.

### **2.3.1 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 3-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 (1) definable features under a particular section. This list will be agreed upon during the coordination meeting.

### **2.3.2 ADDITIONAL REQUIREMENTS FOR DESIGN QUALITY CONTROL (DQC) PLAN**

The following additional requirements apply to the Design Quality Control (DQC) plan:

- a. 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 construction 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.
- b. 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. Example checklists can be found in ER 1110-1-12.
- c. 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.

### **2.3.3 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.

### **2.3.4 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 (7) calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

## **2.4 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.

## **2.5 QUALITY CONTROL ORGANIZATION**

### **2.5.1 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.

### **2.5.2 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.

### **2.5.3 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.

### **2.5.4 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.

### **2.6 SUBMITTALS & 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.

### **2.7 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 (3) phases of control shall be conducted by the CQC System Manager for each definable feature of the construction work as follows:

#### **2.7.1 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.

### **2.7.2 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.

### **2.7.3 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.

## **2.7.4 ADDITIONAL PREPARATORY & 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.

## **2.8 TESTS**

### **2.8.1 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.

## **2.9 COMPLETION INSPECTION**

### **2.9.1 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.

### 3.9.2 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.

## 2.9.2 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. 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 (1) copy of these records in report form shall be furnished to the Government daily within 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 (1) report shall be prepared and submitted for every seven (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.

### **3.1 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.

### **3.2 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

### SAFETY & OCCUPATIONAL HEALTH REQUIREMENTS

#### 1. GENERAL

For Contractor safety on projects associated with this program, compliance with EM 385-1-1 (latest edition) 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 (2) parts:

1. Sections 1.1 through 2.10.1, which are the standard safety specifications for work in Afghanistan District and the references listed below:
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 SOCIETY OF SAFETY ENGINEERS (ASSE)

##### AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI/ASSE A10.32	Personal Fall Protection - Safety Requirements for Construction and Demolition Operations
ANSI/ASSE Z359.1 (2007)	Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components

##### ASME INTERNATIONAL (ASME)

ASME B30.3 (2009)	Construction Tower Cranes
ASME B30.22 (2005)	Articulating Boom Cranes
ASME B30.5	Mobile and Locomotive Cranes

##### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10 (2010)	Portable Fire Extinguishers
NFPA 241 (2010)	Safeguarding Construction, Alteration, and Demolition Operations
NFPA 51B (2009)	Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70(2008)	National Electrical Code
NFPA 70E (2009)	Electrical Safety in the Workplace

##### U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 (2008)	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 FR 1919	Gear Certification
20 FR 1926	Safety and Health Regulations for Construction
29 FR 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 the Section, Submittal Procedures:

### SD-01 Preconstruction Submittals

Accident Prevention Plan (APP); G, ACC

Activity Hazard Analysis (AHA); G, ACC

### SD-06 Test Reports

Reports: Submit reports as their incidence occurs, in accordance with the requirements of the paragraph titled, "Reports."

Accident Reports

Monthly Exposure Reports

Regulatory Citations and Violations

### SD-07 Certificates

Confined Space Entry Permit

Contractor Safety Self-Evaluation Checklist; G, ACC

Submit one (1) 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. (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 sub-contractor, 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.

## **1.6 SITE QUALIFICATIONS, DUTIES & MEETINGS**

### **1.6.1 PERSONNEL QUALIFICATIONS**

#### **1.6.1.1 SITE SAFETY & 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 one (1) Million US dollars in value shall have a full time SSHO. The SSHO shall meet the following requirements:

1. A minimum of one (1) year safety work on similar projects.
2. 30-hour OSHA construction safety class or equivalent within the last three (3) years.
3. 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.
- g. Maintain records required.

### **1.6.1.3 CRANE OPERATORS**

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16, Appendix I.

## **1.6.2 PERSONNEL DUTIES**

### **1.6.2.1 SITE SAFETY & HEALTH OFFICER (SSHO)**

- 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.

### **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 sub-paragraph 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 sub-contractors. Contractors are responsible for informing their sub-contractors of the safety US Army Corps of Engineers Compound provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one (1) craft from interfering with or creating hazardous working conditions for other crafts, and inspecting sub-contractor 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 (as defined by ASSE/ANSI-34), 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 34, 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 (1) 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.H, and the following:
  1. For lifts of personnel, the plan shall demonstrate compliance with the requirements of 29CFR 1926.550(g).
  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'). 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 (6) 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. The Contractor shall 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 sub-contractor and provided to the prime Contractor for submittal to the Contracting Officer.

## **1.10 DISPLAY OF SAFETY INFORMATION**

Within one (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 five (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 (4) 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 sub-contractor. 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) 6.0 kg (13 lb) 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.**

## 2. EXECUTION

### 2.1 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 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 sub-contractor is to perform the work, activity hazard analysis (AHA) shall be prepared by the Contractor performing the work activity. See paragraph 01.A.13 of EM 385-1-1.

The Contractor shall require sub-contractors 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.

### **2.1.1 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.

### **2.1.2 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.

### **2.1.3 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-isocyanates, 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.

## **2.1.4 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."

## **2.2 FALL HAZARD PROTECTION & 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, 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.

### **2.2.1 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.

### **2.2.2 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 21.N through 21.N.04. 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.

#### **2.2.2.1 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. 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 carabineers 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'). 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.

### **2.2.3 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') 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') 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.

### **2.2.4 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/ANSI Z359.1 or European Union equivalent. Existing horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

### **2.2.5 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.

### **2.2.6 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.

### **2.2.7 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).

## **2.3 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 (20') 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 (20') 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 (4) 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 are prohibited. The first tie-in shall be at the height equal to four (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 1.8 m (6'). Delineate fall protection requirements when working above 1.8 m (6') or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

## **2.4 EQUIPMENT**

### **2.4.1 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.

### **2.4.2 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 24-hours 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 percent 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 (2) 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.

## **2.5 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.

### **2.5.1 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 0.5 m (20") 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.

### **2.5.2 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 1.0 m (40") of the underground system. Digging within 0.6 m (24") 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 m (100') if parallel within 1.5 m (5') of the excavation.

### **2.5.3 SHORING SYSTEMS**

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacturer 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.

### **2.5.4 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.

## **2.6 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.

## **2.7 ELECTRICAL**

### **2.7.1 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.

### **2.7.2 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.

## **2.8 WORK IN CONFINED SPACES**

The Contractor shall comply with the requirements in Section 34 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. 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') in depth. Conform to 29 CFR 1910-14.
- d. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.
- e. Daily Entry Permit. Post the permit in a conspicuous place close to the confined space entrance.

## **2.9 CRYSTALLINE SILICA**

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with USACE EM 385-1-1, Section 06.M. Work Place Evaluation consistent with EM 385-1-1 Section 06.M.02 must be completed and documented in the AHA for the job/task producing airborne crystalline silica. 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.

## **2.10 DEMOLITION**

### **2.10.1 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 one (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.

### **2.10.2 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.

### **2.10.3 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

## **2.11 HOUSEKEEPING**

### **2.11.1 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.

**---END OF SECTION---**

**SECTION 01780**  
**CLOSEOUT PROCEDURES**  
**&**  
**SUBMITTALS**

## **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:

#### D-02 Shop Drawings

##### Drawings G

Drawings showing final as-built conditions of the project. The local language of Afghanistan, Pashto or Dari shall be added to project As-Built drawings. The final CADD as-built drawings shall consist of three (3) sets of electronic CADD drawing files in the specified format, and one (1) set of full size and one (1) set of half size paper copies of the approved as-built drawings. One electronic copy of the As-Built drawings and the paper copies of the As-Built drawings shall be delivered to the O&M Regional Site manager at the Resident Office or Area Office responsible for contract administration. Two electronic copies of the As-Built drawings shall be mailed or delivered to the KAF O&M Branch.

Drawings shall provide adequate detail to demonstrate compliance with contract requirements, as specified.

The final CADD and paper Shop Drawings shall be turned over to the Government as follows:

- a. Approved electronic CADD drawing file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF and two (2) sets for the O&M Regional Site manager office shall be delivered.
- b. Approved half-size paper drawing sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) half-size sets for the O&M Regional Site manager office shall be delivered.

#### SD-03 Product Data

##### Record of Equipment and Materials G

Two (2) copies of the record listing the as-built materials and equipment incorporated into the construction of the project.

Record of Equipment and Materials submissions shall be turned over to the Government as follows:

- a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e.

CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.

- b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

#### Warranty Management Plan G

One (1) 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 Management Plan submission shall be turned over to the Government as follows:

- a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e. CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.
- b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

#### Warranty Tags G

Two (2) record copies of the Warranty Tags showing the layout and design.

Warranty Tag submission shall be turned over to the Government as follows:

- a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF and one (1) set for the O&M Regional Site manager office shall be delivered.
- b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

#### Final Cleaning

Two (2) copies of the listing of completed Final Clean-up items.

Final Cleaning submission shall be turned over to the Government as follows:

- a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Office responsible for contract administration and one (1) set for the O&M Regional Site manager office shall be delivered.
- b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Office responsible for contract administration and one (1) set for the O&M Regional Site manager office shall be delivered.

**SD-10 Operation and Maintenance Data**

Operation and Maintenance Manuals; G

Submit Data Package in accordance with Section 01781.

Operation and Maintenance Manual submissions shall be turned over to the Government as follows:

- a. Approved electronic file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. One (1) set for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e. CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.
- b. Approved binder sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets to the O&M Regional Site manager office shall be delivered.

**SD-11 Closeout Submittals**

As-Built Drawings; G

Drawings showing final as-built conditions of the project. The local language of Afghanistan, Pashto or Dari shall be added to project As-Built drawings. The final CADD as-built drawings shall consist of three (3) sets of electronic CADD drawing files in the specified format, and one (1) set of full size and one (1) set of half size paper copies of the approved as-built drawings. One electronic copy of the As-Built drawings and the paper copies of the As-Built drawings shall be delivered to the O&M Regional Site manager at the Resident Office or Area Office responsible for contract administration. Two (2) electronic copies of the As-Built drawings shall be mailed or delivered to the KAF O&M Branch.

Drawings showing final as-built conditions of the project. The final CADD and paper As-Built Drawings shall be turned over to the Government as follows:

- a. Approved electronic CADD drawing file sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) sets for the Operations and Maintenance (O&M) Branch at KAF, one (1) set for the Customer (i.e. CSTC-A, etc.), and one (1) set for the O&M Regional Site manager office shall be delivered.
- b. Approved full-size and half-size paper drawing sets, in both English-language and the local language (of either Afghanistan, Pashto, or Dari), shall be delivered to the O&M Regional Site Manager at the Resident Office or Area Office responsible for contract administration. Two (2) full-size sets and two (2) half-size sets for the O&M Regional Site manager office shall be delivered.

Record of Equipment and Materials; G

Warranty Management Plan; G

Product Warranty Tags; G

**1.2 AS-BUILT DRAWING RECORDS**

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 GOVERNMENT FURNISHED MATERIALS

One (1) 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.

### 1.2.2 WORKING AS-BUILT & FINAL AS-BUILT DRAWINGS

- a. The Contractor shall revise two (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 (1) 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:
  - b. 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 (2) 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.
  - c. The location and dimensions of any changes within the building structure.
  - d. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.
  - e. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.
  - f. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.
  - g. Changes or modifications which result from the final inspection.
  - h. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.
  - i. 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.
  - j. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

- k. 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 13 mm (1/2") diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

### **1.2.3 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.

### **1.2.4 COMPUTER AIDED DESIGN & DRAFTING (CADD) DRAWINGS**

- a. 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 2007 or Microstation VM format compatible with a Windows XP operating system. 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.
- b. Prior to submittal of the first design submittal involving CADD drawings, the Contractor shall prepare one (1) typical CADD drawing for the project and furnish, via ENG Form 4025, the electronic CADD drawing file for review and approval by the Contracting Officer. All Government comments involving changes to this single drawing shall be accomplished and resubmittal(s) made until the Government is satisfied that all CADD Standards are being followed and all subsequent drawings will also be in compliance with these Standards.
- 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") 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. 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 (2) sets of full-size paper copy prints of these drawings for Government review, comparison with approved red-line marked up drawings, and approval. The Government will promptly return one (1) set of prints annotated with any necessary corrections to the CADD file(s) if corrections are required prior to approval. Within 20 days 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 (1) set of electronic files on compact disc, read-only memory (CD-ROM), one (1) set of full-size paper prints and one (1) 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 CADD system. Upon approval by the Government of the final as-built drawing package for the entire project, the Contractor shall provide the number of as-built copies noted in paragraph, Submittals, of this Section.
- e. 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.

**1.2.5 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.

**1.2.6 FINAL AS-BUILT DRAWINGS**

The Contractor shall furnish final approved as-built drawings 30 days after transfer of the completed facility.

**1.3 AS-BUILT RECORD OF EQUIPMENT & MATERIALS**

The Contractor shall furnish one (1) copy of preliminary As-Built Record Of Equipment And Materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned two (2) days after final inspection with Government comments. Two (2) sets of final As-Built Record Of Equipment And Materials shall be submitted 10 days after final inspection.

**1.3.1 AS-BUILT RECORD OF EQUIPMENT & MATERIALS PLAN**

Contractor shall furnish a Record of Equipment and Materials when several manufacturers' brands, types, or classes of the item listed have been used in the project, designate specific areas where each item was used. Approved information shall be assembled in an electronic file and in a binder form. Designations shall be keyed to the areas and spaces depicted on the contract as-built drawings. Record of Equipment and Materials shall list the following data:

Equipment or Materials Designation	Specification	Manufacturer	Equipment or Materials Used (Manufacturer's	Where Used
------------------------------------	---------------	--------------	---	------------

			Designation)	

**1.3.2**

**1.3.3 FINAL APPROVED SHOP DRAWINGS**

The Contractor shall furnish final approved project shop drawings 30 days after transfer of the completed facility.

**1.3.4 CONSTRUCTION CONTRACT SPECIFICATIONS**

The Contractor shall furnish final as-built construction contract specifications, including modifications thereto, 30 days after transfer of the completed facility.

**1.3.5 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.

**1.4 WARRANTY MANAGEMENT RECORDS**

**1.4.1 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 an electronic file and in a binder form. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint fourth (4th) month and ninth (9th) 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. Names, email addresses, and phone numbers of manufacturers or suppliers.
  - 5. Names, email addresses, and addresses and telephone numbers of sources of spare parts.
  - 6. Warranties and terms of warranty. This shall include 1-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 fourth (4th) and ninth (9th) 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.

#### **1.4.2 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.

#### **1.4.3 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 (3) 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 backcharge the construction warranty payment item established.

- a. First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within four (4) hours, initiate work within six (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 eight (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 three (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

1. 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

1. Leaky faucets.

Code 3-Interior

1. Floors damaged.
2. Paint chipping or peeling.
3. Casework.

Code 1-Roof Leaks

- 1. Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks

- 1. 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)

- 1. No water to facility.

Code 2-Water (Hot)

- 1. No hot water in portion of building listed.

Code 3-All other work not listed above.

**1.4.4 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.

**1.4.5 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 \_\_\_\_\_  
 Email Address \_\_\_\_\_
- h. Warranty Contact \_\_\_\_\_  
 Address \_\_\_\_\_

Telephone Number \_\_\_\_\_

Email Address \_\_\_\_\_

i. Warranty Response Time Priority Code \_\_\_\_\_

j. WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

### **1.5 OPERATION & MAINTENANCE MANUALS**

Operation and Maintenance (O&M) Manuals shall be submitted in accordance with Section 01781 and in binders showing operation manuals and maintenance manuals in a common volume that is complete, clearly differentiated, and separately indexed.

### **1.6 MECHANICAL TESTING & 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.

### **1.7 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.

**-- END OF SECTION --**

## **SECTION 01781**

### **OPERATION & MAINTENANCE DATA**

#### **1. GENERAL**

##### **1.1 SUBMISSION OF OPERATION & 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":

- a. A table showing recommended lubricants for specific temperature ranges and applications.
- b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.
- c. A Lubrication Schedule showing service interval frequency.

### **1.2.2.2 PREVENTIVE MAINTENANCE PLAN & 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 & 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 & 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 & 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 & 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 (1) 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 & 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, email, 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, email, and telephone number of the manufacturer's representative and service organization most convenient to the project site. Provide the name, address, email, and telephone number of the product, equipment, and system manufacturers. The list shall show the following information:

- a. Type Of Product/Material \_\_\_\_\_
- b. Manufacturer \_\_\_\_\_
- c. Model Number \_\_\_\_\_
- d. Serial Number \_\_\_\_\_
- e. Warranty Period \_\_\_\_\_ From \_\_\_\_\_ To \_\_\_\_\_
- f. Contractor \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone Number \_\_\_\_\_  
 Email Address \_\_\_\_\_
- g. Subcontractor \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone Number \_\_\_\_\_  
 Email Address \_\_\_\_\_
- h. Manufacturer's Representative \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone Number \_\_\_\_\_  
 Email Address \_\_\_\_\_
- i. Service Organization \_\_\_\_\_  
 Address \_\_\_\_\_  
 Telephone Number \_\_\_\_\_  
 Email Address \_\_\_\_\_

**2. EXECUTION**

**2.1 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 (2) 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 (2) 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.

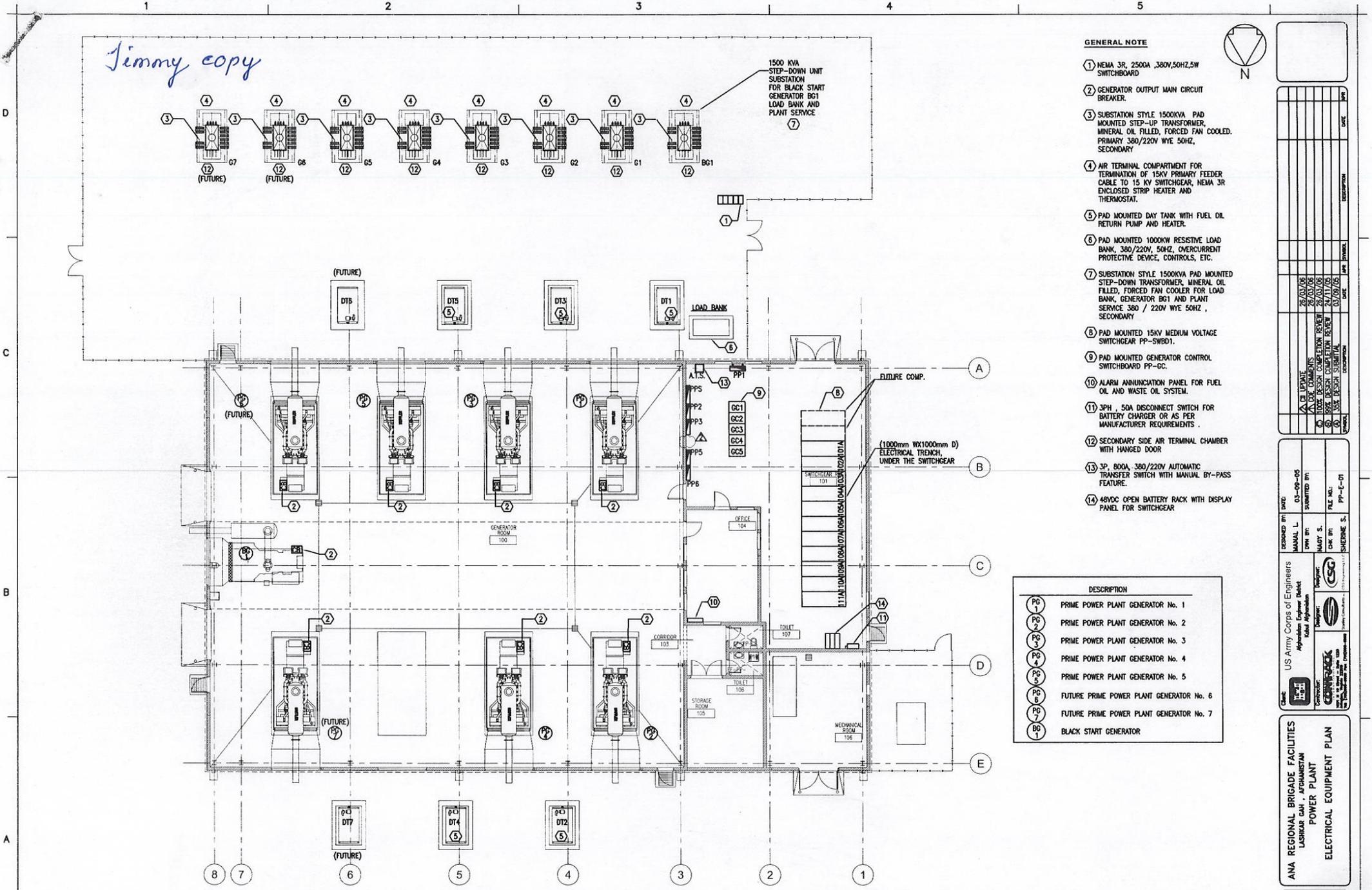
The Contractor shall videotape the training session on CDs and provide the CDs to the Government.

**-END OF SECTION-**

**ATTACHMENT 1**

**EXISTING POWER PLANT AS-BUILT DRAWINGS**

Jimmy copy



**GENERAL NOTE**

- ① NEMA 3R, 2500A, 380V, 50HZ, 5W SWITCHBOARD
- ② GENERATOR OUTPUT MAIN CIRCUIT BREAKER.
- ③ SUBSTATION STYLE 1500KVA PAD MOUNTED STEP-UP TRANSFORMER, MINERAL OIL FILLED, FORCED FAN COOLED, PRIMARY 380/220V WYE 50HZ, SECONDARY
- ④ AIR TERMINAL COMPARTMENT FOR TERMINATION OF 15KV PRIMARY FEEDER CABLE TO 15 KV SWITCHGEAR, NEMA 3R ENCLOSED STRIP HEATER AND THERMOSTAT.
- ⑤ PAD MOUNTED DAY TANK WITH FUEL OIL RETURN PUMP AND HEATER.
- ⑥ PAD MOUNTED 1000KW RESISTIVE LOAD BANK, 380/220V, 50HZ, OVERCURRENT PROTECTIVE DEVICE, CONTROLS, ETC.
- ⑦ SUBSTATION STYLE 1500KVA PAD MOUNTED STEP-DOWN TRANSFORMER, MINERAL OIL FILLED, FORCED FAN COOLER FOR LOAD BANK, GENERATOR B01 AND PLANT SERVICE 380 / 220V WYE 50HZ, SECONDARY
- ⑧ PAD MOUNTED 15KV MEDIUM VOLTAGE SWITCHGEAR PP-SWB01.
- ⑨ PAD MOUNTED GENERATOR CONTROL SWITCHBOARD PP-GC.
- ⑩ ALARM ANNUNCIATION PANEL FOR FUEL OIL AND WASTE OIL SYSTEM.
- ⑪ 3PH, 50A DISCONNECT SWITCH FOR BATTERY CHARGER OR AS PER MANUFACTURER REQUIREMENTS.
- ⑫ SECONDARY SIDE AIR TERMINAL CHAMBER WITH HANGED DOOR
- ⑬ 3P, 800A, 380/220V AUTOMATIC TRANSFER SWITCH WITH MANUAL BY-PASS FEATURE.
- ⑭ 48VDC OPEN BATTERY RACK WITH DISPLAY PANEL FOR SWITCHGEAR

DESCRIPTION	
PG 1	PRIME POWER PLANT GENERATOR No. 1
PG 2	PRIME POWER PLANT GENERATOR No. 2
PG 3	PRIME POWER PLANT GENERATOR No. 3
PG 4	PRIME POWER PLANT GENERATOR No. 4
PG 5	PRIME POWER PLANT GENERATOR No. 5
PG 6	FUTURE PRIME POWER PLANT GENERATOR No. 6
PG 7	FUTURE PRIME POWER PLANT GENERATOR No. 7
BG 1	BLACK START GENERATOR

NO.	DATE	DESCRIPTION
1	26/01/05	ISSUE FOR CONSTRUCTION
2	26/01/05	ISSUE FOR CONSTRUCTION
3	26/01/05	ISSUE FOR CONSTRUCTION
4	26/01/05	ISSUE FOR CONSTRUCTION
5	26/01/05	ISSUE FOR CONSTRUCTION
6	26/01/05	ISSUE FOR CONSTRUCTION
7	26/01/05	ISSUE FOR CONSTRUCTION
8	26/01/05	ISSUE FOR CONSTRUCTION
9	26/01/05	ISSUE FOR CONSTRUCTION
10	26/01/05	ISSUE FOR CONSTRUCTION
11	26/01/05	ISSUE FOR CONSTRUCTION
12	26/01/05	ISSUE FOR CONSTRUCTION
13	26/01/05	ISSUE FOR CONSTRUCTION
14	26/01/05	ISSUE FOR CONSTRUCTION

DESIGNED BY:	DATE:	PP-E-01
DRAWN BY:	DATE:	
CHECKED BY:	DATE:	
APPROVED BY:	DATE:	

ANA REGIONAL BRIGADE FACILITIES  
LASHKAR GAH - AFGHANISTAN  
POWER PLANT  
ELECTRICAL EQUIPMENT PLAN

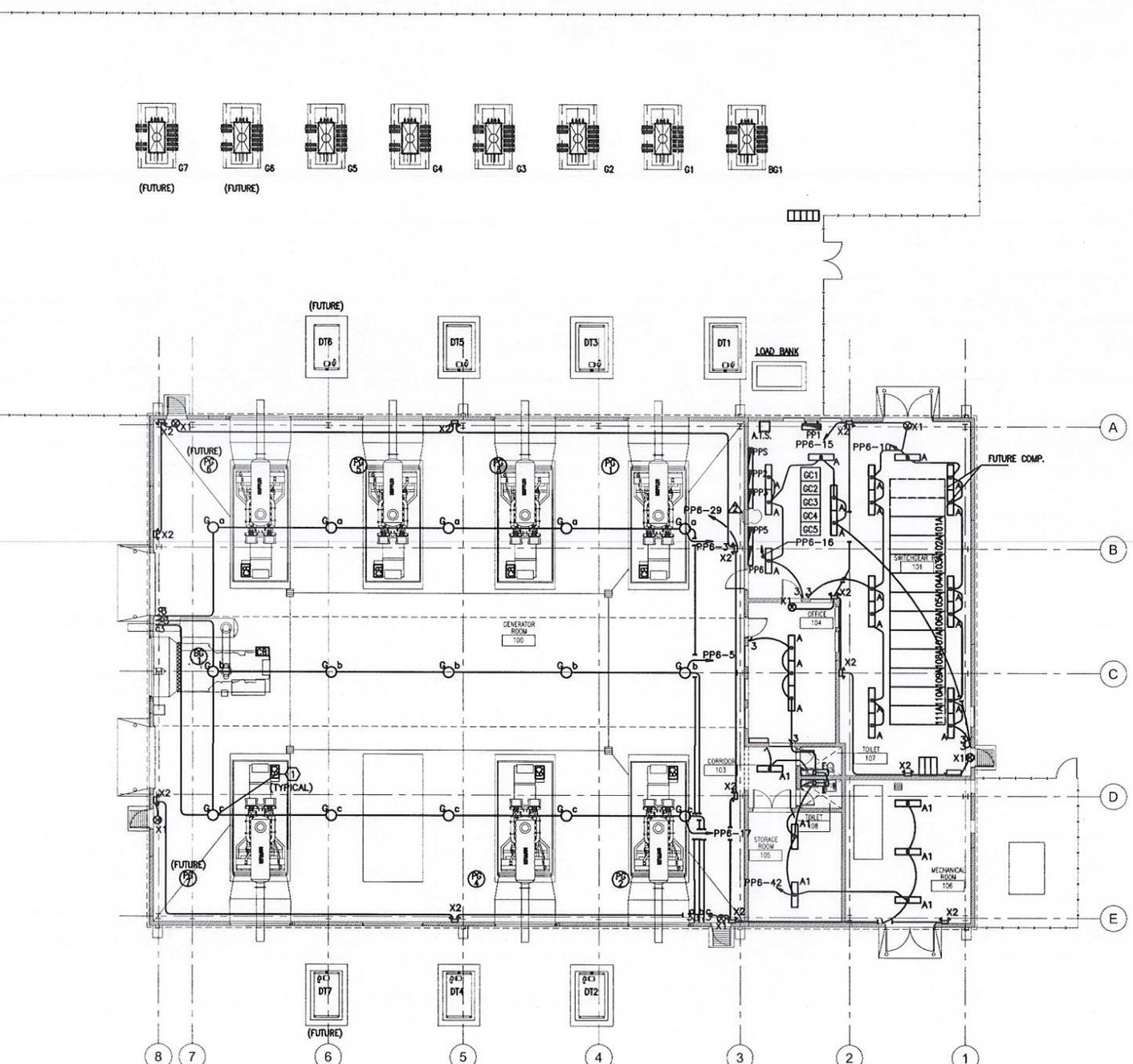
Sheet reference number:  
PP-E-01  
Sheet 1 of 1

1 ELECTRICAL EQUIPMENT PLAN  
PP-E-01 SCALE: 1:100



C:\Documents and Settings\Administrator\Desktop\New Folder\PP-E-01.dwg Jul 30, 2009 - 4:08pm

C:\Documents and Settings\abarna\Desktop\New Folder\PP-E-02.dwg Jul 30, 2009 - 4:08pm



**1 ELECTRICAL LIGHTING PLAN**  
PP-E-02 SCALE: 1:100

- NOTES:**
1. SEE SHEET CO-E-01 FOR SYMBOLS, ABBREVIATIONS AND GENERAL NOTES.
  2. SEE DWG PP-E-01 FOR EQUIPMENT NOTES.
  3. SEE DRAWING CO-E-02 FOR LIGHTING FIXTURE SCHEDULE.
  4. ALL INSTALLATIONS SHALL BE CONSTRUCTED FOR SEISMIC ZONE. (UBC 2003)
- KEYED NOTE:**
- ① MOUNTING ELEVATION FOR THE BOTTOM OF LIGHTING FIXTURE SHALL BE APPROX. 5000mm ABOVE FINISHED FLOOR.



NO.	DATE	DESCRIPTION
1	26/03/06	ISSUE FOR PERMIT
2	26/03/06	ISSUE FOR COMMENTS
3	26/03/06	ISSUE FOR COMPETITION REVIEW
4	26/03/06	ISSUE FOR DESIGN COMPETITION REVIEW
5	26/03/06	ISSUE FOR DESIGN SUBMITTAL
6	03/02/05	ISSUE FOR COMPETITION

US Army Corps of Engineers  
Application Engineer District  
Local Afghanistan

DESIGNED BY: MAMAL L.  
DRAWN BY: NADY S.  
CHECKED BY: SHERINE S.  
DATE: 05-09-05  
SUBMITTED BY: PP-E-02

CONTRACTOR: **CONTRACTOR**  
DESIGNER: **CSG**

**ANA REGIONAL BRIGADE FACILITIES  
LASHKAR GAI, AFGHANISTAN  
POWER PLANT  
ELECTRICAL LIGHTING PLAN**

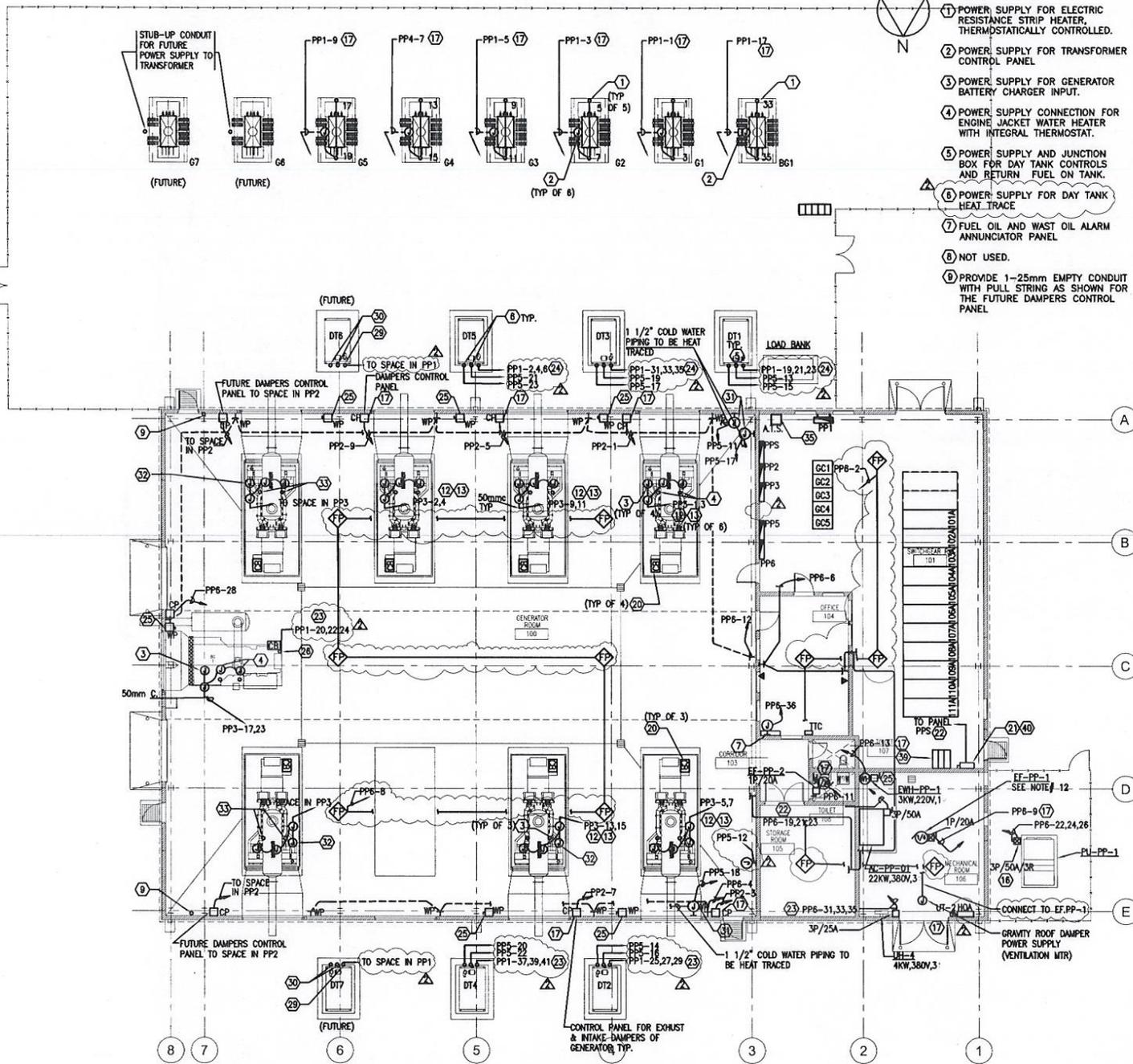
Sheet reference number:  
**PP-E-02**  
Sheet 1 of 1

**GENERAL NOTES**

- ① POWER SUPPLY FOR ELECTRIC RESISTANCE STRIP HEATER, THERMOSTATICALLY CONTROLLED.
- ② POWER SUPPLY FOR TRANSFORMER CONTROL PANEL
- ③ POWER SUPPLY FOR GENERATOR BATTERY CHARGER INPUT.
- ④ POWER SUPPLY CONNECTION FOR ENGINE JACKET WATER HEATER WITH INTEGRAL THERMOSTAT.
- ⑤ POWER SUPPLY AND JUNCTION BOX FOR DAY TANK CONTROLS AND RETURN FUEL ON TANK.
- ⑥ POWER SUPPLY FOR DAY TANK HEAT TRACE
- ⑦ FUEL OIL AND WAST OIL ALARM ANNUNCIATOR PANEL
- ⑧ NOT USED.
- ⑨ PROVIDE 1-25mm EMPTY CONDUIT WITH PULL STRING AS SHOWN FOR THE FUTURE DAMPERS CONTROL PANEL
- ⑩ NOT USED
- ⑪ NOT USED
- ⑫ (2-1/Cx35mm<sup>2</sup> Cu)
- ⑬ (2-1/Cx6mm<sup>2</sup> Cu)
- ⑭ NOT USED
- ⑮ NOT USED
- ⑯ PROVIDE 3P, 50A, N.F.D.S. IN A NEMA 3R ENCLOSURE.
- ⑰ (2-1/Cx4mm<sup>2</sup> Cu+4mm<sup>2</sup> Cu GND) INSIDE 25mm C
- ⑱ (2-1/Cx6mm<sup>2</sup> Cu+6mm<sup>2</sup> Cu GND) INSIDE 25mm C
- ⑲ NOT USED.
- ⑳ UNIT MOUNTED 3P, 2500A, 600V, ENCLOSED CIRCUIT BREAKER WITH GROUND FAULT SHUNT TRIP AUXILIARY CONTACTS, NEUTRAL AND GROUND BUSES.
- ㉑ PROVIDE 3P, 80A, 600V F.D.S. FOR D.C. SYSTEM (OPEN BATTERY RACK) OUTPUT.
- ㉒ (4-1/C - 16mm<sup>2</sup> + 16mm<sup>2</sup> GRD) IN 32mm C.
- ㉓ (4-1/Cx6mm<sup>2</sup> Cu + 4mm<sup>2</sup> Cu GND) INSIDE 25mm C
- ㉔ (4-1/Cx4mm<sup>2</sup> Cu + 4mm<sup>2</sup> Cu GND) INSIDE 25mm C
- ㉕ PROVIDE 1P, 30A, 220V N.F.D.S. IN A NEMA 1 ENCLOSURE.
- ㉖ UNIT MOUNTED 3P, 800A, 600V ENCLOSED CIRCUIT BREAKER WITH GROUND FAULT SHUNT TRIP AUXILIARY CONTACTS, NEUTRAL AND GROUND BUSES.
- ㉗ NOT USED.
- ㉘ NOT USED.
- ㉙ 1.5m FROM BLDG WALL, STUB UP AND CAP AT BOTH ENDS 1-25mm EMPTY CONDUITS EACH WITH PULL STRING, FOR FUTURE POWER SUPPLY TO DAY TANK HEATER AND CONTROL FED FROM PANEL PP1
- ㉚ 1.5m FROM BLDG WALL, STUB UP AND CAP AT BOTH ENDS 1-25mm EMPTY CONDUITS EACH WITH PULL STRING, FOR FUTURE POWER SUPPLY TO DAY TANK HEATER AND CONTROL FED FROM PANEL PPS
- ㉛ J.B. FOR PIPING HEAT TRACE POWER SUPPLY CONNECTION 220V, 1P.
- ㉜ PROVIDE AND STUB UP AND CAP AT BOTH ENDS 25mm EMPTY CONDUIT TO SWITCHGEAR RM FOR FUTURE POWER SUPPLY TO BATTERY CHARGER.
- ㉝ PROVIDE AND STUB UP 25mm EMPTY CONDUIT FOR FUTURE POWER SUPPLY TO ENGINE JACKET WATER HEATER.
- ㉞ NOT USED
- ㉟ 3P, 800A, 380/220V AUTOMATIC TRANSFER SWITCH WITH MANUAL BY-PASS FEATURE.
- ㊱ NOT USED.
- ㊲ NOT USED.
- ㊳ NOT USED.
- ㊴ 48 VDC OPEN BATTERY RACK AND BATTERY SIZED AND PROVIDED BY SWITCHGEAR MANUFACTURER.
- ㊵ BATTERY CHARGER PROVIDED AND SIZED BY SWITCHGEAR MANUFACTURER.
- ㊶ NOT USED
- ㊷ (3-1/C-10mm<sup>2</sup>+10mm<sup>2</sup>CU-GRD) INSIDE 40mm C

**NOTES:**

- 1. SEE DWG CO-E-01 FOR SYMBOLS AND ABBREVIATIONS.
- 2. SEE DWG PP-E-01 FOR EQUIPMENT NOTES.
- 3. MINIMUM UNDERGROUND CONDUIT SIZE SHALL BE 25mm, UNLESS OTHERWISE SPECIFIED.
- 4. UNLESS OTHERWISE SPECIFIED, CONDUCTORS SHALL BE 4mm Cu WITH 4mm CU GND INSIDE 25mm C.
- 5. UNDERGROUND BANKS SHALL BE INSTALLED AT 450mm MINIMUM BELOW GRADE. MEDIUM VOLTAGE (15KV) BANKS SHALL BE AT LOWER DEPTH AS REQUIRED TO AVOID 600V CONDUITS INTERFERENCE.
- 6. CONTRACTOR SHALL FURNISH & INSTALL SPACERS FOR CONDUITS SEPARATION & TO KEEP BANKS ALIGNED DURING EARTH COVER PLACEMENT.
- 7. FOR MOTORIZED DAMPER/LOUVER SEQUENCE OF OPERATION SEE DWG PP-11-04
- 8. FOR DAMPER LOCATIONS SEE MECHANICAL LAYOUT DRAWINGS. ALL INSTALLATIONS SHALL BE
- 9. CONSTRUCTED FOR SEISMIC ZONE 4 (UBC, 2003).
- 10. EVERY CIRCUIT SHALL HAVE A DEDICATED NEUTRAL & COMMON GROUND IN CONDUIT.
- 11. PROVIDE FIRE ALARM PULL BOXES, FOR FUTURE SELF SMOKE DETECTOR CONDUITS AND WIRING FOR FUTURE INSTALLATION OF SMOKE ALARMS
- 12. SEE DETAIL#1 IN DWG# PP-E-16



**1 ELECTRICAL POWER PLAN**

PP-E-03 SCALE: 1:100

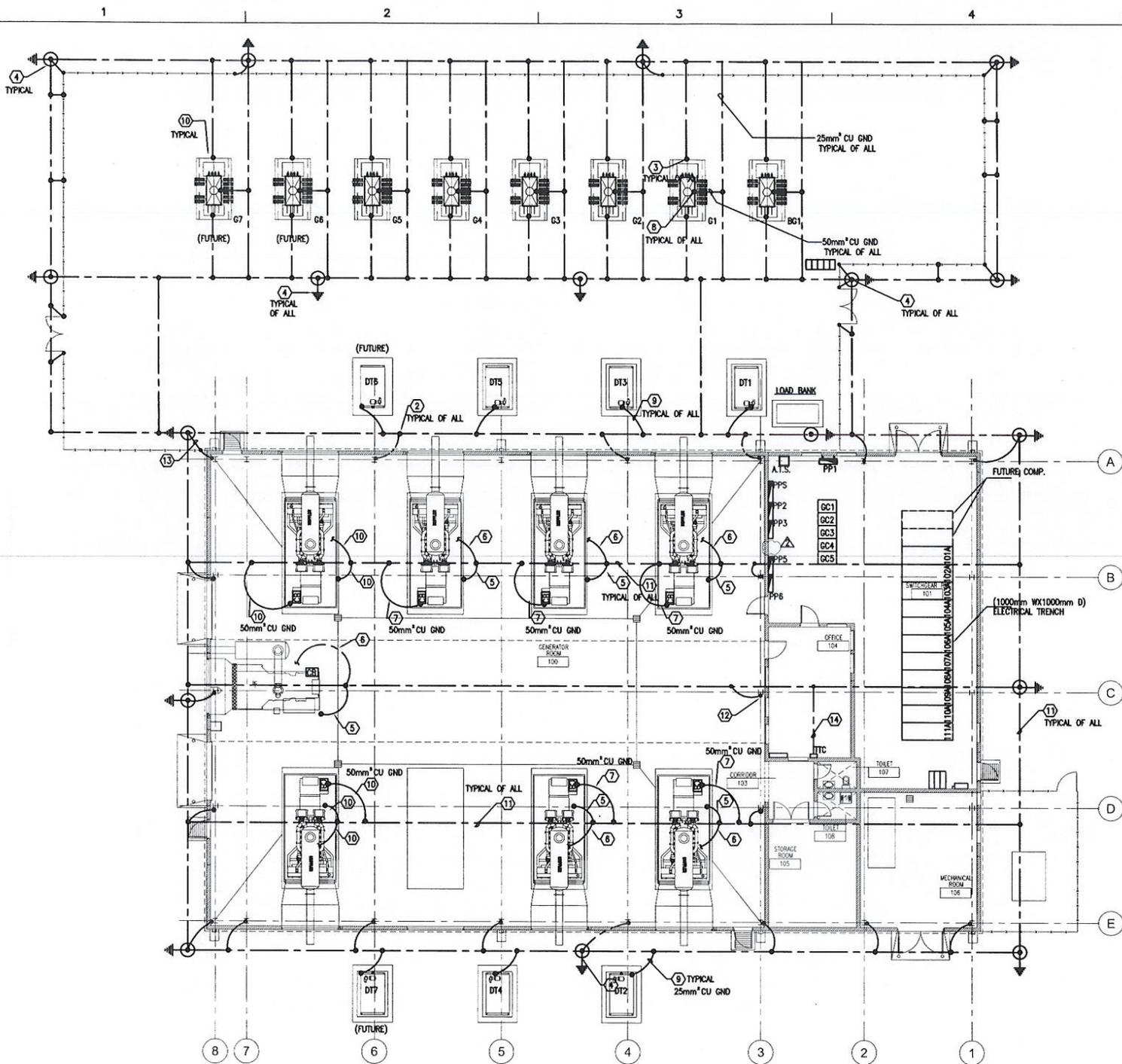
DATE	DESCRIPTION
28/03/06	REVISED
29/03/06	REVISED
05/09/06	REVISED

REVISION BY:	DATE
MANUAL L	05-09-06
DESIGNED BY:	DATE
MARK S.	28/03/06
CHECKED BY:	DATE
MARK S.	28/03/06
FILE NO.:	PP-E-03
PROJECT:	SHERINE S.

US Army Corps of Engineers  
 Afghanistan Engineer District  
 Kabul Afghanistan  
**ANNA REGIONAL BRIGADE FACILITIES**  
 LASHKAR GAN, AFGHANISTAN  
**POWER PLANT**  
**ELECTRICAL POWER PLAN**  
 AND TELEPHONE PLAN

Sheet reference number:  
**PP-E-03**  
 Sheet 1 of 1





**GENERAL NOTES**

- ① NOT USED.
- ② EXOTHERMIC WELD.
- ③ BONDING CONDUCTOR TO EQUIPMENT GROUND BUS.
- ④ GRID GROUND ROD, 19mmx3m GALV STEEL.
- ⑤ GROUNDING ELECTRODE TO ENGINE GENERATOR BODY.
- ⑥ GROUNDING ELECTRODE TO ENGINE GENERATOR WYE.
- ⑦ BONDING CONDUCTOR TO GENERATOR BREAKER EQUIPMENT GROUND BUS.
- ⑧ GROUNDING CONDUCTOR TO SUBSTATION TRANSFORMER TANK.
- ⑨ BONDING CONDUCTOR TO DAY TANK.
- ⑩ PROVIDE GROUNDING CONDUCTOR COILED INSIDE PULL BOX FLUSH WITH FINISHED GRADE FOR FUTURE EQUIPMENT.
- ⑪ 95mm<sup>2</sup> BARE COPPER GND CONDUCTOR MINIMUM DEPTH 762mm BELOW FINISH GRADE.
- ⑫ PROVIDE GROUND CONNECTION TO THE NEAREST STRUCTURAL STEEL OR GROUND GRID AS REQUIRED.
- ⑬ GROUND EVERY STRUCTURAL STEEL AS SHOWN AND AS REQUIRED.
- ⑭ 16mm<sup>2</sup> INSULATED BARE COPPER GROUND CONDUCTOR

**NOTES:**

1. SEE SHEETS CO-E-01 AND CO-E-02 FOR SYMBOLS, ABBREVIATIONS, GENERAL NOTES
2. SEE SHEET PP-E-01 FOR EQUIPMENT NOTES.
3. ALL INSTALLATIONS SHALL BE CONSTRUCTED FOR SEISMIC ZONE (UBC, 2003).

NO.	REVISION	DATE	DESCRIPTION
1	AS SHOWN	26/03/06	ISSUE FOR CONSTRUCTION
2	FOR COMMENTS	26/03/06	
3	FOR DESIGN REVIEW	26/03/06	
4	FOR DESIGN REVIEW	26/03/06	
5	FOR DESIGN REVIEW	26/03/06	
6	FOR DESIGN REVIEW	26/03/06	
7	FOR DESIGN REVIEW	26/03/06	
8	FOR DESIGN REVIEW	26/03/06	
9	FOR DESIGN REVIEW	26/03/06	
10	FOR DESIGN REVIEW	26/03/06	

US Army Corps of Engineers  
 Application Engineer District  
 Local Approval

DESIGNED BY: DATE: 03-09-05  
 DRAWN BY: MAMAL L  
 CHECKED BY: MAY 5  
 OK BY: SHERRIE S  
 FILE NO.: PP-E-05

SGS  
 SHERRIE S  
 SHERRIE S

**ANA REGIONAL BRIGADE FACILITIES  
 LASHKAR GANJ, AFGHANISTAN  
 POWER PLANT  
 ELECTRICAL GROUNDING PLAN**

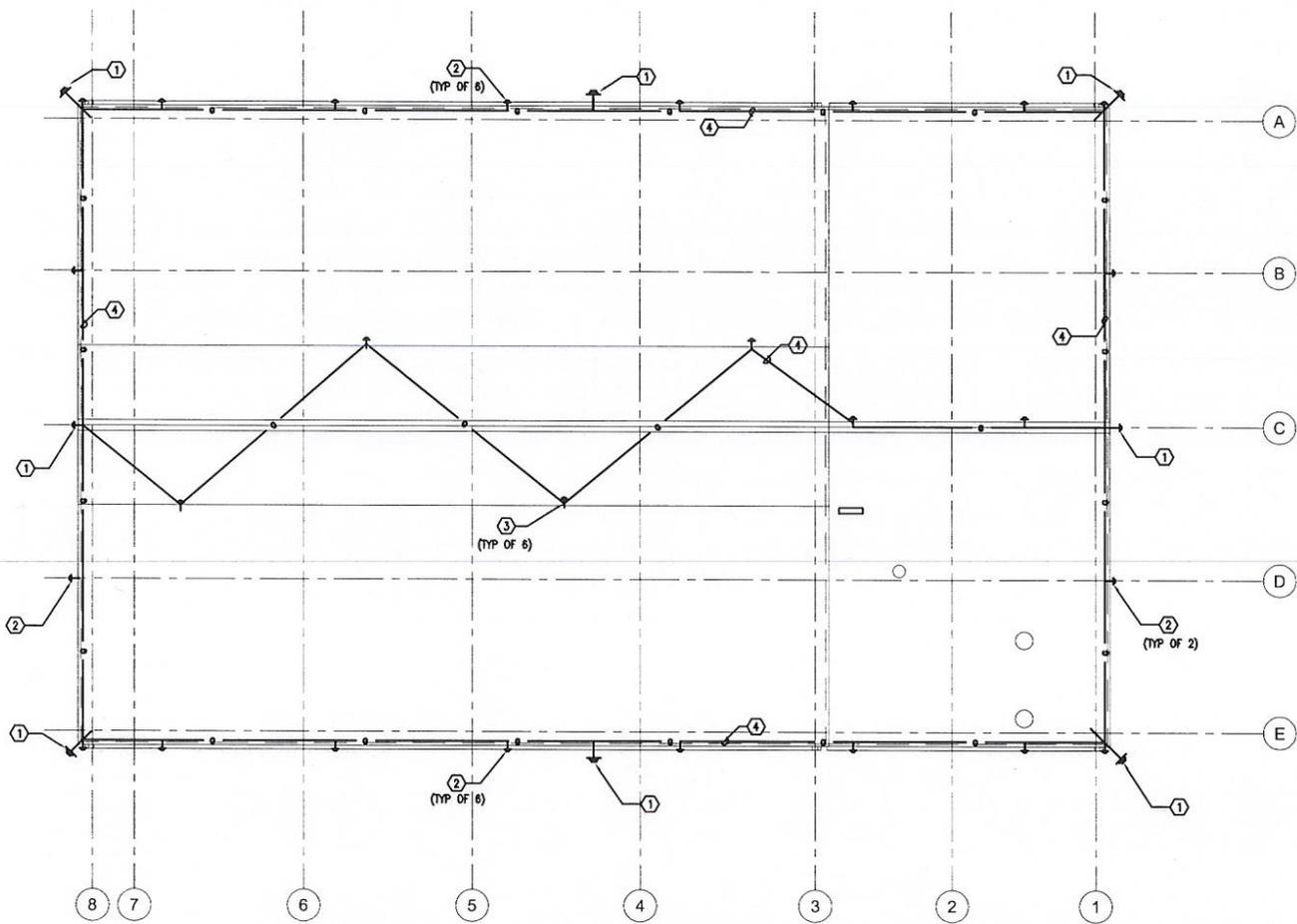
Sheet reference number:  
**PP-E-05**  
 Sheet 1 of 1

**1 ELECTRICAL GROUNDING PLAN**

PP-E-05 SCALE: 1:100



C:\Documents and Settings\alsham\Desktop\New Folder\PP-E-05.dwg Jul 30, 2009 - 4:10pm



**1 LIGHTNING PROTECTION ROOF PLAN**

PP-E-06 SCALE: 1:100

**NOTES:**

1. SEE SHEET CO-E-01 FOR SYMBOLS AND ABBREVIATIONS.
2. SEE SHEET PP-E-05 FOR GROUNDING PLAN.
3. ALL LIGHTNING PROTECTION SYSTEM COMPONENTS SHALL BE OF COPPER TINNED COATED CLASS II MATERIAL.
4. INSTALLATION SHALL BE PERFORMED FOLLOWING LIGHTNING PROTECTION INSTITUTE STANDARDS OR EQUIVALENT EUROPEAN STANDARD, NFPA780 RECOMMENDATIONS.
5. SUPPORT LIGHTNING PROTECTION CONDITIONS EVERY 914mm MAXIMUM.
6. MOUNT PERIMETER AIR TERMINALS WITHIN 600mm OF ROOF EDGE.
7. ANY GROUNDED METALLIC BODY WITHIN THE DISTANCE SPECIFIED BY NFPA 780 SHALL BE BONDED TO THE LIGHTNING PROTECTION SYSTEM.
8. ALL CONDUCTORS SHALL BE SIZED PER NFPA 780 CLASS I.

**GENERAL NOTES**

- ① DOWN LEAD CONDUCTOR #120mm<sup>2</sup> BARE COPPER. RUN CONCEALED DOWN TO GROUND LOOP. SEE SHEET PP-E-05.
- ② PARAPET MOUNTED AIR TERMINALS 610mm x 16mm.
- ③ SLOPING ROOF AIR TERMINALS FIXED ABOVE HIGHEST POINT OF THE HOOD BY 600mm.
- ④ 1/2 x 120mm<sup>2</sup> BARE COPPER CONDUCTOR.



NO.	DATE	DESCRIPTION	BY	CHECKED
1	26/03/06	ISSUE FOR PERMITS	MAJAL L.	
2	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	
3	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	
4	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	
5	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	
6	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	
7	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	
8	29/03/06	ISSUE FOR CONSTRUCTION	MAJAL L.	

DESIGNED BY: MAJAL L.  
 DRAWN BY: MAJAL L.  
 CHECKED BY: MAJAL L.  
 FILE NO.: PP-E-06

US Army Corps of Engineers  
 Afghanistan Engineer Detachment  
 Kabul Afghanistan  
 Engineer: MAJAL L.  
 Designer: MAJAL L.  
 Checker: MAJAL L.

CSCEC  
 CONSULTING ENGINEERS  
 11/11/05  
 11/11/05

**ANA REGIONAL BRIGADE FACILITIES**  
**LASHKAR GAN, AFGHANISTAN**  
**POWER PLANT**  
**LIGHTNING PROTECTION**  
**ROOF PLAN**

Sheet reference number:  
**PP-E-06**  
 Sheet 1 of 1



**NOTES:**

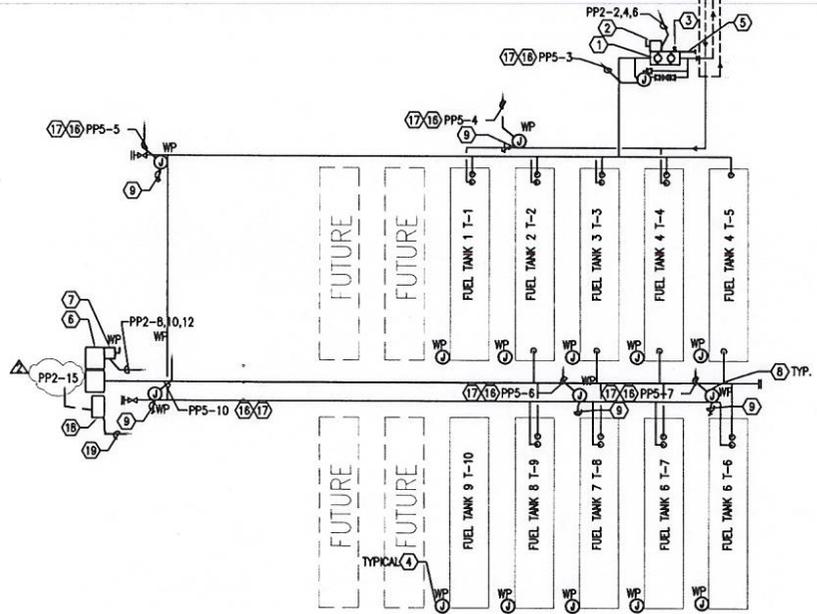
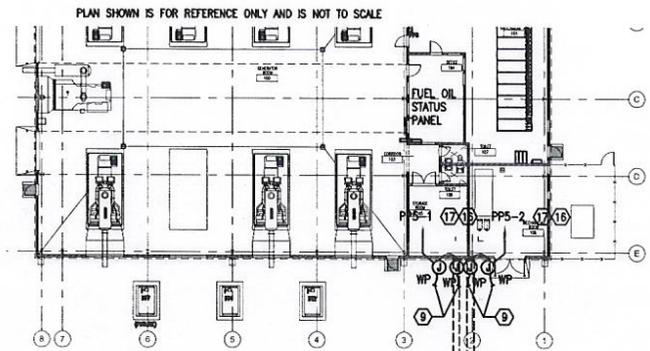
- ① FUEL OIL TRANSFER AUTOMATIC PUMP PACKAGED UNIT WITH DUPLEX PUMPS P-1 & P-2, 380V, 3φ
- ② PROVIDE 3P, 30A, N.F.D.S FUSED AT 20A IN NEMA 3R ENCLOSURE OR INSIDE THE PUMP CONTROLLER
- ③ LOCAL PUMP OFF - AUTO CONTROL SWITCH AND PILOT LIGHT.
- ④ SIGNAL/STATUS/CONTROL WIRING FROM TANK LEVEL PROBE TO DIGITAL CONTROLLER
- ⑤ PROVIDE CONDUIT AND WIRING TO REMOTE FUEL OIL (STATUS ALARM ANNUNCIATION PANEL LOCATED IN OFFICE 104 OF THE POWER PLANT BLDG.) AND TO DAY TANKS CONTROLLER AS PER MANUFACTURER REQUIREMENTS.
- ⑥ FUEL OIL OFF LOADING PUMP PACKAGED UNIT WITH DUPLEX PUMPS P-3 & P-4, 380V, 3φ,
- ⑦ PROVIDE 3P, 40A, N.F.D.S FUSED AT 40A IN NEMA 3R ENCLOSURE OR INSIDE THE PUMP CONTROLLER
- ⑧ PROVIDE WEATHER PROOF JUNCTION BOX FOR PIPING HEAT TRACING CONNECTIONS.
- ⑨ TO HEAT TRACE CONNECTION.
- ⑩ GRID GROUND ROD, 19mm x 3m GALVANIZED STEEL.
- ⑪ 95mm<sup>2</sup> BARE COPPER GROUND CONDUCTOR. MINIMUM DEPTH SHALL BE 762mm BELOW FINISHED GRADE.
- ⑫ EXOTHERMIC WELD.
- ⑬ 95mm<sup>2</sup> BONDING CONDUCTOR. EXOTHERMICALLY WELDED ON THE FUEL TANK GROUNDING LOOP AND TERMINATED ON THE TANK SADDLE SUPPORT VIA COMPRESSION FITTINGS WITH COPPER HARDWARE.
- ⑭ NOT USED.
- ⑮ BONDING CONDUCTOR TO GRID GROUND ROD. 50mm<sup>2</sup> COPPER GROUND.
- ⑯ (2-1/4x4mm<sup>2</sup> Cu+4mm<sup>2</sup> Cu GND) INSIDE 25mm C
- ⑰ POWER CONDUIT SHALL RUN 36" BELOW FINISHED GRADE TO PANEL BOARD INDICATED.
- ⑱ PROVIDE DIGITAL CONTROLLER AND MONITORING DEVICE FOR THE BULK TANKS IN ENEMA 3R ENCLOSURE
- ⑳ PROVIDE WIRING TO REMOTE MONITORING PANEL IN OFFICE 104 AS PER MANUFACTURE RECOMMENDATION

NO.	DESCRIPTION	DATE	BY	CHK	APP
1	DESIGN	26/03/06			
2	REVISE	26/03/06			
3	REVISE	26/03/06			
4	REVISE	26/03/06			
5	REVISE	26/03/06			
6	REVISE	26/03/06			
7	REVISE	26/03/06			
8	REVISE	26/03/06			
9	REVISE	26/03/06			
10	REVISE	26/03/06			
11	REVISE	26/03/06			
12	REVISE	26/03/06			
13	REVISE	26/03/06			
14	REVISE	26/03/06			
15	REVISE	26/03/06			
16	REVISE	26/03/06			
17	REVISE	26/03/06			
18	REVISE	26/03/06			
19	REVISE	26/03/06			
20	REVISE	26/03/06			

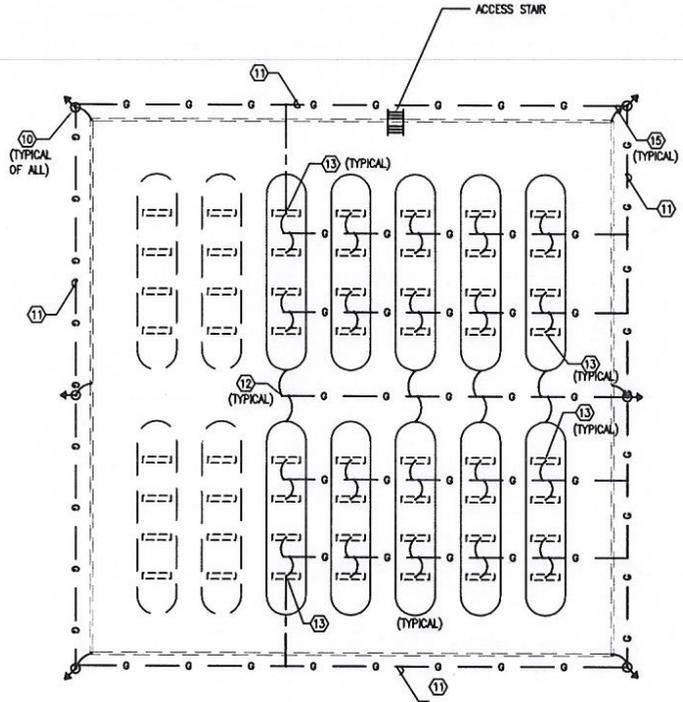
DESIGNED BY: MAHMOUD L.	DATE: 03-09-06
DRAWN BY: MAHMOUD L.	SUBMITTED BY: MAHMOUD L.
CHECKED BY: MAHMOUD L.	FILE NO.: PP-E-07
APPROVED BY: MAHMOUD L.	SCALE: AS SHOWN

US Army Corps of Engineers  
 Afghanistan Engineer Detachment  
 Kabul Afghanistan  
**CGI**  
 Contractor: CGI  
 Project: ANA REGIONAL BRIGADE FACILITIES  
 LASHKAR GAN, AFGHANISTAN  
**POWER PLANT  
 FUEL TANKS PLAN**

Sheet reference number:  
**PP-E-07**  
 Sheet 1 of 1



**1 FUEL TANKS PLAN**  
 PP-E-07 SCALE: 1:200

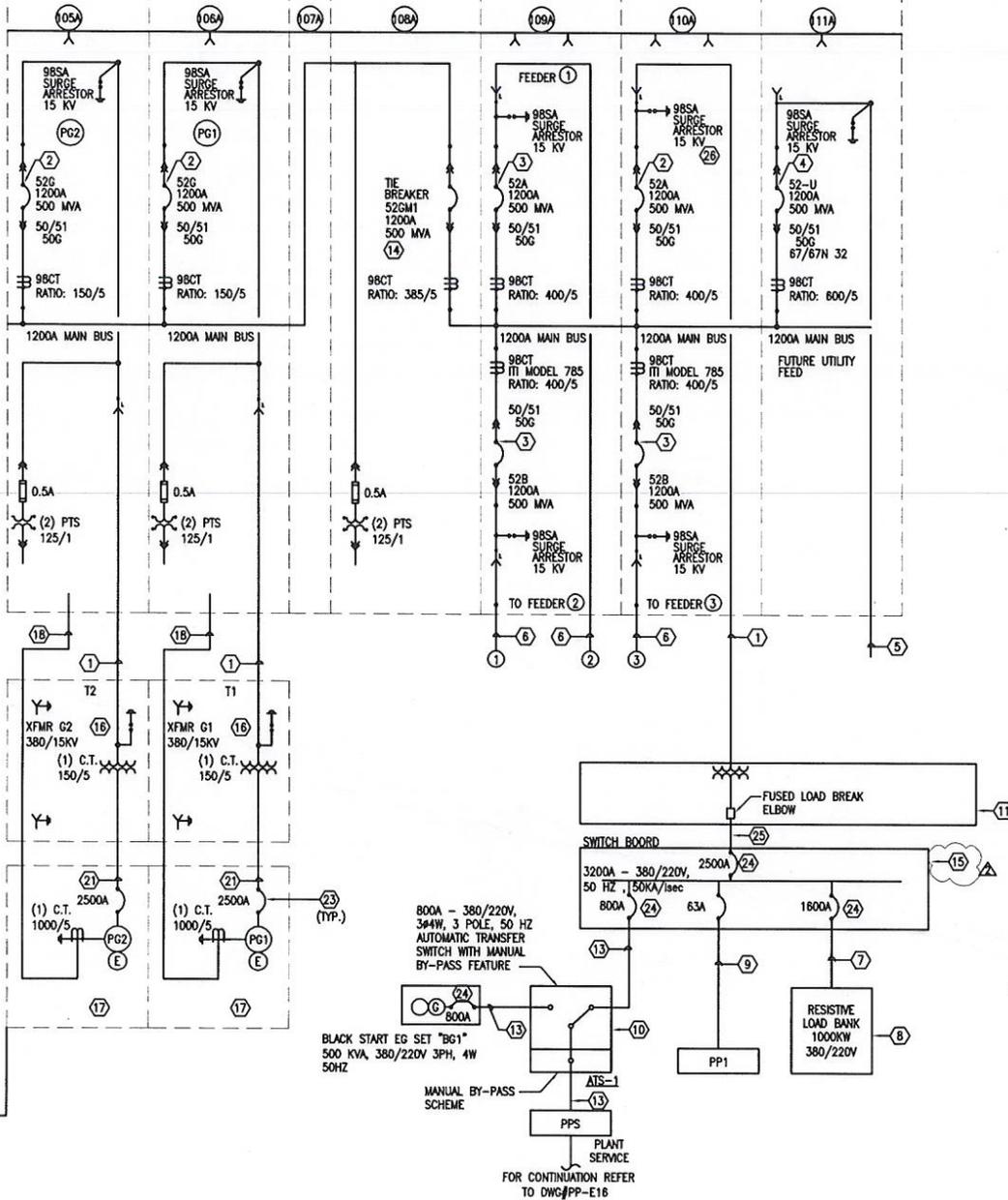


**2 FUEL OIL TANK - GROUNDING PLAN**  
 PP-E-07 SCALE: 1:200



FOR CONTINUATION SEE DRAWING PP-E-09

TRANSITION SECTION

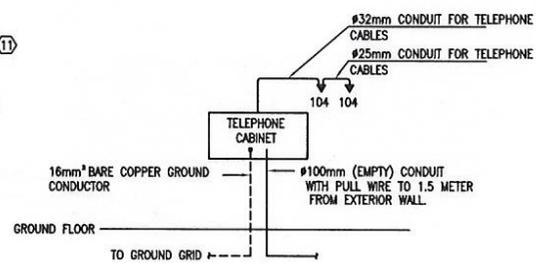


FOR CONTINUATION SEE DRAWING PP-E-09

FOR CONTINUATION REFER TO DWG/PP-E16

- 16 SUBSTATION UNIT STEP-UP TRANSFORMER, 1500KVA, 380/220, 3PH, 4W WYE PRIMARY, 15KV WYE, 3PH, 3W, 50 HZ, SECONDARY.
- 17 CUMMINS 50HZ-1290DFLE STANDBY AND 1100 KW PRIME RATED .8PF 380V
- 18 CONTROL WIRING AS REQUIRED BY EQUIPMENT SUPPLIER.
- 19 53mm CONDUIT ROUGH-IN FOR FUTURE CONTROL WIRING.
- 20 103mm CONDUIT ROUGH-IN FOR FUTURE FEEDERS.
- 21 NINE 103mm CONDUIT EACH WITH 3x300 AND 1X50mm<sup>2</sup> GROUND. CU-PVC/PVC OR (TEN 103 CONDUIT EACH WITH 3x240 AND 1X50mm<sup>2</sup> GND CU - PVC/PVC)
- 22 NOT USED
- 23 2500A, THREE POLE ENGINE MOUNTED BREAKER WITH GROUND FAULT SHUNT TRIP AND AUXILIARY CONTACT
- 24 THIS BREAKER SHALL BE POWER BREAKER 100% RATED.
- 25 EIGHT 103mm CONDUIT EACH WITH 3x300 AND 1X50mm GROUND. CU-PVC/PVC
- 26 MOV TYPE, DUTY CYCLE RATING. 8.4KV, 10COV, SHALL COMPLY WITH LATEST REVISION OF ANSI C82.11. INCLUDES ANSI C37.42 TYPE A. BRACKET, INSULATING TOP CAP, BOTTOM ISOLATOR AND APPROVED GROUND LEAD. TOP CAP, BOTTOM ISOLATOR AND APPROVED GROUND LEAD

- NOTES:**
- 1 (3/C - 35mm<sup>2</sup>+1/C - 35mm<sup>2</sup> GROUND.) MEDIUM VOLTAGE CABLE
  - 2 BREAKER SETTING PER NEC TO PROTECT TRANSFORMER FEEDER. MANUFACTURER TO PROVIDE PROTECTIVE DEVICE COORDINATION STUDY/CURVES, RELAY SETTINGS, ETC. AS PART OF START-UP PACKAGE.
  - 3 BREAKER SETTING PER NEC TO PROTECT DISTRIBUTION FEEDER. MANUFACTURER TO PROVIDE PROTECTIVE DEVICE COORDINATION STUDY/CURVES, RELAY SETTINGS, ETC. AS PART OF START-UP PACKAGE.
  - 4 SPECIFIC SETTINGS NOT IDENTIFIED AT THIS TIME SINCE FEEDERS ARE FUTURE.
  - 5 TWO SPARE 103mm CONDUITS WITH PULL-WIRE.
  - 6 TWO 103mm CONDUITS ONE SPARE WITH PULL-WIRE, ONE WITH PRIMARY FEEDER. (3X95mm<sup>2</sup> CU/XLPE) M.V. CABLE
  - 7 SIXTH 103mm CONDUITS EACH WITH 4x300 AND 1X50mm<sup>2</sup> GND CU-PVC/PVC OR (SEVEN 103 CONDUITS EACH WITH 4x240 AND 1X50mm<sup>2</sup> GND - PVC/PVC)
  - 8 1000KW RESISTIVE OUTDOOR WEATHER PROOF LOAD BANK. 380/220V, 50HZ, 50 KW STEPS. OVER CURRENT PROTECTIVE DEVICE, CONTROL, ETC.
  - 9 ONE 50mm CONDUITS WITH 4(1X35mm<sup>2</sup>) AND 1X16mm<sup>2</sup> GND CU-PVC/PVC
  - 10 800AMP, 380/220V, 50 HZ, 3-POLE AUTOMATIC TRANSFER SWITCH. AUXILIARIES PER SPECIFICATIONS.
  - 11 1500 KVA SUBSTATION UNIT. 15KV PRIMARY, 380/220V WYE SECONDARY. RADIAL FEED
  - 12 TWO 103mm CONDUITS EACH WITH 4x150 AND 1X35mm<sup>2</sup> GND CU-PVC/PVC
  - 13 THREE 103mm CONDUITS EACH WITH 4x300 AND 1X50mm<sup>2</sup> GND CU-PVC/PVC OR (FOUR 103 CONDUITS EACH WITH 4x240 AND 1X50mm<sup>2</sup> GND - PVC/PVC)
  - 14 INTERLOCKS TO BE COORDINATED WITH ENGINE GENERATOR CONTROLS SUPPLIER.
  - 15 NEMA 3R 2500A,380V,50HZ,5W SWITCH BOARD



1 TELEPHONE RISER DIAGRAM

PP-E-08 SCALE: N.T.S.

DATE	24-11-08
ISSUED BY	MANUAL L.
DESIGNED BY	MANO S.
CHECKED BY	SHERINE S.
PROJECT NO.	PP-E-08

US Army Corps of Engineers  
 Afghanistan Engineer District  
 Kabul Afghanistan  
 Engineer  
 SHERINE S.

ANA REGIONAL BRIGADE FACILITIES  
 LASHKAR GAN, AFGHANISTAN  
 POWER PLANT  
 ONE-LINE DIAGRAM  
 AND TELEPHONE RISER DIAGRAM

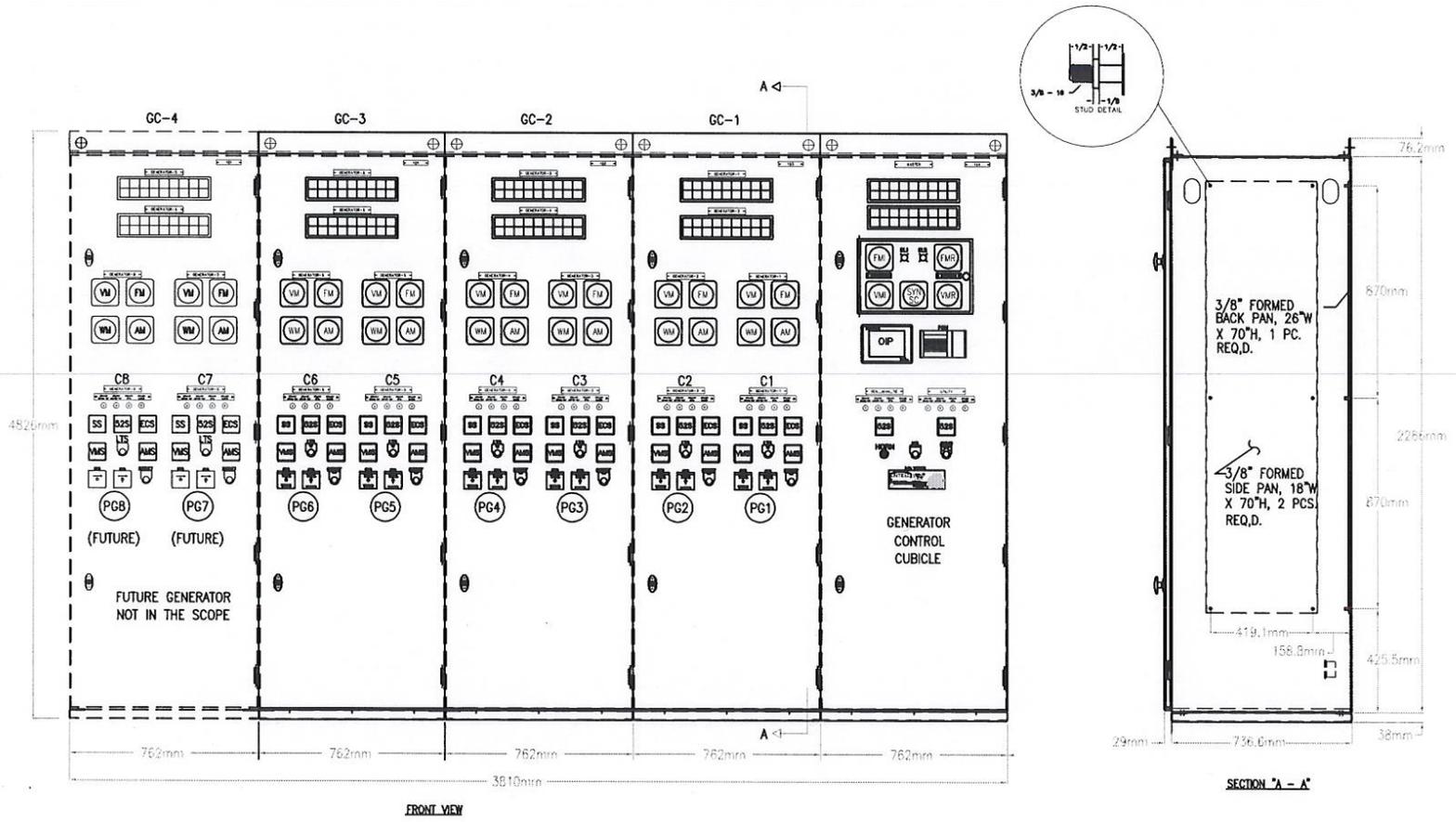
Sheet reference number:  
 PP-E-08  
 Sheet 1 of 1





**NOTES:**

1. SEE DWG CO-E-01 FOR SYMBOLS AND ABBREVIATIONS.
2. SEE DWG PP-E-01 FOR EQUIPMENT NOTES.



NO.	DATE	DESCRIPTION
1	26/01/06	ISSUE FOR CONSTRUCTION
2	26/01/06	ISSUE FOR CONSTRUCTION
3	26/01/06	ISSUE FOR CONSTRUCTION
4	26/01/06	ISSUE FOR CONSTRUCTION
5	26/01/06	ISSUE FOR CONSTRUCTION
6	26/01/06	ISSUE FOR CONSTRUCTION
7	26/01/06	ISSUE FOR CONSTRUCTION
8	26/01/06	ISSUE FOR CONSTRUCTION
9	26/01/06	ISSUE FOR CONSTRUCTION
10	26/01/06	ISSUE FOR CONSTRUCTION

DESIGNED BY:	DATE:	24-11-06
DRAWN BY:	SUBMITTED BY:	
CHECKED BY:	FILE NO.:	PP-E-11
DATE:	PROJECT:	

US Army Corps of Engineers  
Application Engineer District  
Local Afghanistan

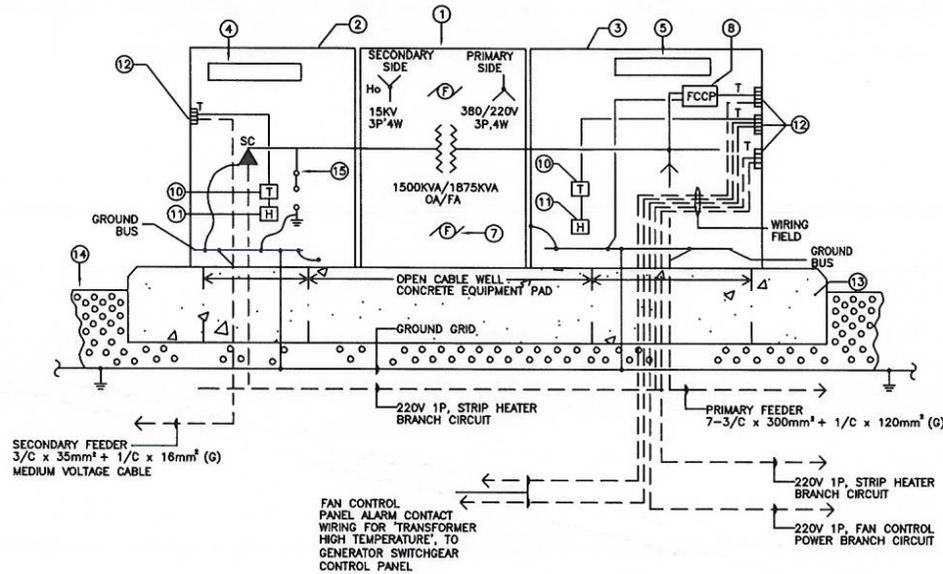
Contractor: **COMBATCON**

Designer: **CSG**

**ANA REGIONAL BRIGADE FACILITIES**  
LASHKAR GAH, AFGHANISTAN  
POWER PLANT  
GENERATOR  
CONTROL SWITCHBOARD

Sheet reference number:  
**PP-E-11**  
Sheet 1 of 1

**1** GENERATOR CONTROL SWITCHBOARD  
PP-E-11 SCALE: N.T.S.



LEGEND OF EQUIPMENT	
ITEM-○	DESCRIPTION
1	OIL FILLED TRANSFORMER TANK WITH PRIMARY AND SECONDARY TANK THROATS.
2	SECONDARY SIDE AIR TERMINAL CHAMBER WITH HINGED DOOR WITH PADLOCK PROVISIONS.
3	PRIMARY SIDE AIR TERMINAL CHAMBER WITH HINGED DOOR.
4	PHEOLIC NAMEPLATE WITH 3" HIGH LETTERING (FRONT AND REAR): DANGER - KEEP OUT HIGH VOLTAGE 15,000 VOLTS  DANGER - TRANSFORMER SECONDARY SIDE
5	PHEOLIC NAMEPLATE WITH 3" HIGH LETTERING (FRONT AND REAR): DANGER - KEEP OUT 380 VOLTS  DANGER - TRANSFORMER PRIMARY SIDE
6	NOT USED
7	TRANSFORMER COOLING FAN
8	FAN COOLING CONTROL UNIT
9	NOT USED
10	STRIP HEATER THERMOSTAT
11	STRIP HEATER/FUSE
12	MANUFACTURER'S TERMINAL BLOCKS FOR TERMINATION OF FIELD WIRING
13	REINFORCED CONCRETE FOUNDATION - MINIMUM 12" THICK W/ CHAMFERED EDGES. REFER TO CIVIL DWG. FOR DETAILS.
14	CRUSHED STONE BED FOR OIL CONTAINMENT. REFER TO CIVIL DWGS. FOR DETAILS.
15	SURGE ARRESTOR

TRANSFORMER PG 1 PG 2 PG 3 PG 4 PG 5 PG 6  
 DETAIL - SUBSTATION STYLE OIL FILLED STEP-UP TRANSFORMER  
 1500/1875KVA-OA/FA  
 50HZ 1500 METERS ABOVE SEA LEVEL 40°C. -5.75% IMPEDANCE

NO.	DATE	DESCRIPTION
1	26/03/06	ISSUE FOR CONSTRUCTION
2	26/03/06	ISSUE FOR CONSTRUCTION
3	26/03/06	ISSUE FOR CONSTRUCTION
4	26/03/06	ISSUE FOR CONSTRUCTION
5	26/03/06	ISSUE FOR CONSTRUCTION
6	26/03/06	ISSUE FOR CONSTRUCTION
7	26/03/06	ISSUE FOR CONSTRUCTION
8	26/03/06	ISSUE FOR CONSTRUCTION
9	26/03/06	ISSUE FOR CONSTRUCTION
10	26/03/06	ISSUE FOR CONSTRUCTION
11	26/03/06	ISSUE FOR CONSTRUCTION
12	26/03/06	ISSUE FOR CONSTRUCTION
13	26/03/06	ISSUE FOR CONSTRUCTION
14	26/03/06	ISSUE FOR CONSTRUCTION
15	26/03/06	ISSUE FOR CONSTRUCTION

DESIGNED BY: DATE: 03-09-06  
 DRAWN BY: SUBMITTED BY:  
 CHECKED BY: FILE NO.:  
 APPROVED BY: SHEET NO.: 01-P-01

US Army Corps of Engineers  
 Afghanistan Engineer District  
 Kabul Afghanistan  
 Designer: CSG  
 Contractor: CONSTRUCTION

ANA REGIONAL BRIGADE FACILITIES  
 LASHKAR GAH, AFGHANISTAN  
 POWER PLANT  
 ELECTRICAL TRANSFORMER  
 DETAILS PP-SWB01 ELEVATIONS

Sheet reference number:  
 PP-E-12  
 Sheet 1 of 1



AIC: 25KA ISC/0.5SEC										PANEL-PP2			FEED			TOP			
VOLTAGE 380/220V, 3PH, 5W, 50HZ										100A MLO			MOUNTING LOCATION			SURFACE PP SWITCHGEAR RM. FED FROM PNL-PPS			
LOAD (VA)										LOAD (VA)			LOAD (VA)			LOAD (VA)			
DESCRIPTION	A	B	C	AMP	POLE	CKT	ABC	CKT	POLE	AMP	A	B	C	DESCRIPTION	A	B	C	DESCRIPTION	
CONTROL PANEL FOR EXHAUST& INTAKE DAMPERS OF PG1	1000			20	1	1		2			3333								
CONTROL PANEL FOR EXHAUST& INTAKE DAMPERS OF PG2		1000		20	1	3		4	3	30		3333		FUEL OIL TRANSFER PUMP PACKAGE P-1,P-2					
CONTROL PANEL FOR EXHAUST& INTAKE DAMPERS OF PG3			1000	20	1	5		6					3333						
CONTROL PANEL FOR EXHAUST& INTAKE DAMPERS OF PG4	1000			20	1	7		8			6666								
CONTROL PANEL FOR EXHAUST& INTAKE DAMPERS OF PG5		1000		20	1	9		10	3	40		6666		FUEL OIL OF LOADING PUMP PACKAGE P-3,P-4					
SPACE FOR CONTROL PANEL FOR EXHAUST&INTAKE DAMPERS OF PG6			1000	20	1	11		12					6666						
SPACE FOR CONTROL PANEL FOR EXHAUST&INTAKE DAMPERS OF PG7	1000			20	1	13		14											
DIGITAL CONTROLLER FOR THE BULK TANKS (TMS 3000)		1000		20	1	15		16	3	40				SPARE					
SPARE				20	1	17		18											
SPARE				20	1	19		20	1	20				SPARE					
SPARE				20	1	21		22	1	20				SPARE					
SPARE				20	1	23		24	1	20				SPARE					
SUB-TOTALS=	3000	3000	2000										10000	10000	10000	= SUB-TOTALS			

	V A	AMPS
TOTAL PHASE A=	13000	59.09
TOTAL PHASE B=	13000	59.05
TOTAL PHASE C=	12000	54.54
TOTAL CONNECTED LOAD	38	KVA
DEMAND FACTOR	0.90	
DEMAND LOAD	34.2	KVA
20% FUTURE LOAD	6.84	KVA
TOTAL LOAD	41.04	KVA
TOTAL AMPERE	62.35	AMP

AIC: 25KA ISC/0.5SEC										PANEL PP3			FEED			TOP			
VOLTAGE 380/220V, 3PH, 5W, 50HZ										250A MLO			MOUNTING LOCATION			SURFACE PP SWITCHGEAR RM. FED FROM PPL-PPS			
LOAD (VA)										LOAD (VA)			LOAD (VA)			LOAD (VA)			
DESCRIPTION	A	B	C	AMP	POLE	CKT	ABC	CKT	POLE	AMP	A	B	C	DESCRIPTION	A	B	C	DESCRIPTION	
GEN. BATTERY CHARGER PG-1	1600			20	1	1		2	1	20	1600			GEN. BATTERY CHARGER PG-5					
JACKET WTR. HTR. PG-1		13000		80	1	3		4	1	80		13000		JACKET WTR. HTR. PG-5					
GEN. BATTERY CHARGER PG-2			1600	20	1	5		6	1	20				SPARE					
JACKET WTR. HTR. PG-2	13000			80	1	7		8	1	80				SPARE					
GEN. BATTERY CHARGER PG-3		1600		20	1	9		10	1			1600		SPACE FOR FUTURE GEN. BATTERY CHARGER PG-6					
JACKET WTR. HTR. PG-3			13000	80	1	11		12	1				13000	SPACE FOR FUTURE JACKET WTR. HTR. PG-6					
GEN. BATTERY CHARGER PG-4	1600			20	1	13		14	1	20				SPARE					
JACKET WTR. HTR. PG-4		13000		80	1	15		16	1	20				SPARE					
JACKET WTR. HTR. BG-1			13000	80	1	17		18	1	20				SPARE					
SPARE				20	1	19		20	1		13000			SPACE FOR FUTURE JACKET WTR. HTR. PG-7					
SPARE				80	1	21		22	1			1600		SPACE FOR FUTURE GEN. BATTERY CHARGER PG-7					
GEN. BATTERY CHARGER BG-1			1600	20	1	23		24	1	80				SPARE					
SPARE				20	1	25		26	1	20				SPARE					
SPACE						27		28						SPACE					
SPACE						29		30						SPACE					
SUB-TOTALS=	16200	27800	29200										14800	16200	13000	= SUB-TOTALS			

	V A	AMPS
TOTAL PHASE A=	30800	140
TOTAL PHASE B=	43800	199.09
TOTAL PHASE C=	42200	191.81
TOTAL CONNECTED LOAD	118.8	KVA
DEMAND FACTOR	0.9	
DEMAND LOAD	105.12	KVA
20% FUTURE LOAD	21.02	KVA
TOTAL LOAD	126.144	KVA
TOTAL AMPERE	191.65	AMP

DESIGNED BY: MAMAL L.	DATE: 24-11-05
DRAWN BY: SHAMIR S.	SUBMITTED BY: MARY S.
CHECKED BY: SHAMIR S.	FILE NO.: PP-E-14

REVISION	DATE	DESCRIPTION
1	24/11/05	ISSUE FOR CONSTRUCTION
2	24/11/05	ISSUE FOR CONSTRUCTION
3	24/11/05	ISSUE FOR CONSTRUCTION
4	24/11/05	ISSUE FOR CONSTRUCTION
5	24/11/05	ISSUE FOR CONSTRUCTION

US Army Corps of Engineers  
 Afghanistan Engineer District  
 Kabul Afghanistan

DESIGNED BY: MAMAL L.  
 DRAWN BY: SHAMIR S.  
 CHECKED BY: SHAMIR S.

PROJECT: ANA REGIONAL BRIGADE FACILITIES  
 LASHKAR GAN, AFGHANISTAN  
 POWER PLANT  
 ELECTRICAL PANEL SCHEDULES

Sheet reference number:  
 PP-E-14  
 Sheet 1 of 1