SOLICITATION, OFFER, AND AWARD (Construction, Alteration, or Repair)	1. SOLICITATION NO. W5J9LE-12-R-0036	2. TYPE OF SOLICITATION [ ] SEALED BID (IFB) [X] NEGOTIATED (RFP)	3. DATE ISSUED 24-May-2012	PAGE OF PAGES 1 OF 104

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

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

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

9. FOR INFORMATION CALL:	A. NAME	B. TELEPHONE NO. (Include area code) (NO COLLECT CALLS)
	MARK T JONES	

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):*

Project: Kajaki Irrigation Tunnel Works Helmand Province, Afghanistan
The Government intends to award one Firm Fixed Price Contract. The magnitude of construction for this project is between $25,000,000 and $100,000,000.

Please see clause 52.236-27 Alt I for information on the site visit. Nader Noori Project Manager is the POC for the site visit only.

The Government currently has funding available for Price Proposal Schedules A, B, and C. (Scheduled D is currently Subject to Availability of Funds (SAF)). The Government cannot guarantee that if the price proposed for the four individual schedules are higher that the ceiling amount that additional funding can be obtain. The Government therefore reserves the right not to award any one of the 4 SCHEDULES if the price the contractor proposes for the base items for a particular schedule is higher than the ceiling price listed above.

Point of Contact for all contractual actions is Nicholas Emanuel Nicholas.P.Emanuel@usace.army.mil. US Phone: 540-667-6581.

11. The Contractor shall begin performance within 730 calendar days and complete it within 10 calendar days after receiving [ ] award, [X] notice to proceed. This performance period is [X] mandatory, [ ] negotiable. *(See* 52.211-10 *.)*

12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? *(If "YES," indicate within how many calendar days after award in Item 12B.)* [X] YES [ ] NO	12B. CALENDAR DAYS 15

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 04:00 PM *(hour)* local time 07 Jul 2012 *(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 [X] 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 consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*		31A. NAME OF CONTRACTING OFFICER *(Type or print)* TEL: EMAIL:
30B. SIGNATURE	30C. DATE	31B. UNITED STATES OF AMERICA BY
		31C. AWARD DATE

Section 00010 - Solicitation Contract Form

BONDING INSTRUCTIONS

Bid Bonds are required for this project. Bonds shall be submitted via hard copy only and received no later than 7 July 2012 at 4:00 P.M. but may be received earlier as a separate package from the proposal. All Bonds shall be received by Nicholas Emanuel. Bonds may be sent by mail or hand carried to:

Nicholas Emanuel
USACE-AES
APO-AE 09355

Please see clause 52.228-1

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APPENDIX A	Photos and Drawings
APPENDIX B	List of Applicable Design Guide and Codes
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APPENDIX D	Government Design Reviews

PROPOSAL SCHEDULE

PRICE PROPOSAL SCHEDULE

ITEM	DESCRIPTION	QTY	UNIT	Unit Price	AMOUNT
	SCHEDULE A				
0001	**INTAKE STRUCTURE**				
0001AA	Mobilization/Demobilization	1	LS	XXX	$_____
0001AB	Security	1	LS	XXX	$_____
0001AC	Design Intake Structure Modifications	1	LS	XXX	$_____
0001AD	Build Intake Structure Modifications	1	LS	XXX	$_____
0001AE	Diesel Generator for Intake Structure	1	LS	XXX	$_____
0001AF	DBA INSURANCE	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0001AG	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS	1	LS	XXX	$_____ Not to Exceed
	(see schedule note 5 for additional information)				
	TOTAL BASE BID ITEMS (INTAKE STRUCTURE)(CLIN 0001)				$_____
	OPTIONAL ITEMS FOR INTAKE STRUCTURE				
0002	**INSPECTION OF TRASH RACKS AND GUIDES**				
0002AA	Inspection of Trash Rack and Guides	1	LS	XXX	$_____

0002AB	DBA for SUBCLIN 0002AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0003	**REPLACE TRASH RACKS**				
0003AA	Replace Trash Racks	1	LS	XXX	$_____
0003AB	DBA for SUBCLIN 0003AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0004	**REPAIR TRASH RACK GUIDES**				
0004AA	Repair trash rack guides	1	LS	XXX	$_____
0004AB	DBA for SUBCLIN 0004AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
	TOTAL OPTIONAL BID ITEMS (INTAKE STRUCTURE)(CLIN 0002-0004)				$_____
	SCHEDULE A TOTAL (INTAKE STRUCTURE) (CLINS 0001-0004)				$_____

ITEM	DESCRIPTION	QTY	UNIT	Unit Price	AMOUNT
	SCHEDULE B				
0005	**TUNNEL WORKS**				
0005AA	Mobilization/Demobilization	1	LS	XXX	$_____
0005AB	Security	1	LS	XXX	$_____
0005AC	Valve Design	1	LS	XXX	$_____
0005AD	Conduit, Chamber and Apron - Evaluate and Report	1	LS	XXX	$_____
0005AF	Overhead Service Crane and Hoist – Evaluate and Report	1	LS	XXX	$_____
0005AG	Local Water Supply – Evaluate and Report	1	LS	XXX	$_____
0005AH	Valve Construction	1	LS	XXX	$_____
0005AJ	Replace Valve House hydro-electric Generating Unit	1	LS	XXX	$_____
0005AK	DBA INSURANCE	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0005AL	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS	1	LS	XXX	$_____ Not to Exceed
	(see schedule note 5 for additional information)				
	TOTAL BASE BID ITEMS (TUNNEL WORKS) (CLIN 0005)				$_____
	OPTIONAL ITEMS FOR TUNNEL WORKS				
0006	UNLINED TUNNEL				

0006AA	Unlined Tunnel – Evaluate and Report	1	LS	XXX	$_____
0006AB	DBA for SUBCLIN 0006AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0007	**REPAIR CONDUIT**				
0007AA	Repair Conduit	1	LS	XXX	$_____
0007AB	DBA for SUBCLIN 0007AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0008	**REPAIR CHAMBER**				
0008AA	Repair chamber (Estimated)	3	EA	$_____	$_____
0008AB	DBA for SUBCLIN 0008AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0009	**REPAIR APRON**				
0009AA	Repair apron	1	LS	XXX	$_____
0009AB	DBA for SUBCLIN 0009AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0010	**REPAIR OH SERVICE CRANE**				
0010AA	Repair OH Service Crane	1	LS	XXX	$_____
0010AB	DBA for SUBCLIN 0010AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					

0011	**PROVIDE AND INSTALL DIESEL GENERATOR AT POWER HOUSE**				
0011AA	Provide and Install Diesel Generator at Power House	1	LS	XXX	$_____
0011AB	DBA for SUBCLIN 0011AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0012	**MODIFY LOCAL WATER SUPPLY CONNECTION**				
0012AA	Modify Local Water Supply Connection	1	LS	XXX	$_____
0012AB	DBA for SUBCLIN 0012AA	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
	TOTAL OPTIONAL BID ITEMS (TUNNEL WORKS)				$_____
	SCHEDULE B TOTAL (TUNNEL WORKS (CLINS 0006-0012)				$_____

ITEM	DESCRIPTION	QTY	UNIT	Unit Price	AMOUNT
	SCHEDULE C				
0013	**DAM SAFETY INSTRUMENTATION**				
0013AA	Mobilization/Demobilization	1	LS	XXX	$_____
0013AB	Security	1	LS	XXX	$_____
0013AC	Design and Install Dam Safety Instrumentation	1	LS	XXX	$_____
0013AD	DBA INSURANCE	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0013AE	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS	1	LS	XXX	$_____ Not to Exceed
	(see schedule note 5 for additional information)				
	SCHEDULE C TOTAL (INTAKE STRUCTURE) (CLIN 00013)				$_____

ITEM	DESCRIPTION	QTY	UNIT	Unit Price	AMOUNT
	SCHEDULE D				
0014	**SPILLWAY INVESTIGATION**				
0014AA	Mobilization/Demobilization	1	LS	XXX	$_____
0014AB	Security	1	LS	XXX	$_____
0014AC	Subsurface Investigation and Report	1	LS	XXX	$_____
0014AD	DBA INSURANCE	1	LS	XXX	$_____
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 Rutherfoord invoice submitted by the offeror after task order award. In the event of recalculation of the premium by CNA based on actual payroll amounts, the Contracting Officer will adjust this CLIN by task order modification to reflect actual premium amounts paid.					
0014AF	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS	1	LS	XXX	$_____ Not to Exceed
	(see schedule note 5 for additional information)				
	SCHEDULE D TOTAL (SPILLWAY INVESTIGATION) (CLIN 00014)				$_____

SCHEDULE A (INTAKE STRUCTURE)	$_____
SCHEDULE B (TUNNEL WORKS)	$_____
SCHEDULE C (DAM SAFETY INSTRUMENTATION)	$_____
SCHEDULE D (SPILLWAY INVESTIGATION)	$_____
TOTAL (SCHEDULE A + B + C + D)	**$**_____

PROPOSAL SCHEDULE NOTES

1. Offeror shall submit prices on all items.

2. Only one contract will be awarded under this solicitation.

3. EVALUATION OF OPTIONS: The award will be made to the lowest, responsive and responsible bidder. For pricing purposes the Government will evaluate both the Base Proposals and Option Proposals. The Government is not obligated to exercise the options.
4. EXERCISE OF OPTIONAL BID ITEMS: Optional items may be exercised by the Government no later than 150 days from Notice to Proceed. If any of the options are exercised, the Period of Performance will not be extended.

5. Notwithstanding the Task order Clause entitled "Payments Under Fixed-Price Construction Task orders," the Contractor shall not be reimbursed an amount which exceeds the dollar amount set forth in the **bid items titled "**REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS."

6. Abbreviations:

   EA = Each
   LS = Lump Sum

7. **Funds are not presently available for Schedule D (Spillway Investigations) for this acquisition. No contract award will be made for Schedule D until appropriated funds are made available**

CEILING AMOUNT FOR THE FOUR SCHEDULES

There are four (4) price proposal schedules for this solicitation. The ceiling amounts for each schedule are:

SCHEDULE A (INTAKE STRUCTURE)	$ **4,358,695.52**
SCHEDULE B (TUNNEL WORKS)	$ **21,387,520.00**
SCHEDULE C (DAM SAFETY INSTRUMENTATION)	$ **872,872.00**
SCHEDULE D (SPILLWAY INVESTIGATION)	$ **858,280.00**

The Government currently has funding available as listed above for Schedules A, B, and C. (Scheduled D is currently Subject to Availability of Funds (SAF)). The Government cannot guarantee that if the price proposed for the four individual schedules are higher that the ceiling amount that additional funding can be obtain. The Government therefore reserves the right not to award any one of the 4 SCHEDULES if the price the contractor proposes for the base items for a particular schedule is higher than the ceiling price listed above.

-END OF SECTION-

SECTION 00113
SECTION III: BASIC PROPOSAL SUBMISSION REQUIREMENTS

The intent of the Kajaki Irrigation Tunnel Works (RFP) is to award a design/ build contract for hydraulic structures comprising of reinforced concrete construction, intake structures with closure gates and cranes, emergency closure valves , energy dissipating jet valves, geotechnical investigation of dam foundations and dam safety monitoring instrumentation.

The basis of award is Full & Open, Lowest Price Technically Acceptable (LPTA). This award will be made on the basis of the lowest evaluated price of proposals meeting the technical acceptability standards for non-cost factors. The Contracting Officer will award a firm fixed price contract to the responsible offeror that the SSA determines conforms to the solicitation requirements.

Electronic (softcopy) proposals (submitted as attachments to emails) shall be submitted to the following email address: Nicholas.P.Emanuel@usace.army.mil and tas.contracting@usace.army.mil

Hand-carried or mailed offers will not be accepted.

All offers must be received by the closing date and time identified in Block #13 of the SF1442 (unless amended) to be considered for award.

BIDDER INQUIRES/QUESTIONS

All questions and inquiries shall be submitted by email to:

Nicholas.P.Emanuel@usace.army.mil with a courtesy copy to 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 letter or 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 instruction 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.

1. The Government will not make assumptions concerning an Offeror's intent, capabilities, or experiences. Clear identification of proposal details shall be the Offeror's sole responsibility. The Government may reject incomplete proposals after initial evaluation without further

consideration. Therefore, all proposals must meet the following basic requirements at the time of submission:

a. The Proposal must be typed, submitted in English, and easy to read.

b. The Proposal must be organized, concise, and submitted in the volumes and order indicated below. Volumes shall be clearly identified and tabbed. Each evaluation factor and subfactor shall be described in a separate tabbed section.

c. Proposals must be sent in two (2) separate volumes. Each volume shall be contained within a separate binder. Each volume shall be identified by the solicitation number, volume number, and name, address, and telephone number of the prime Offeror on the cover. Each volume shall contain a Table of Contents and include at the bottom left side of each page the volume and page number.

d. Offerors shall verify that the information for all forms submitted are current, correct and complete, including names of the points of contact, email address, fax number, and telephone number.

e. Proposal Schedule, Volume I, *Technical Proposal*, shall be completed in full and shall consist of Factor 1, *Experience, Factor 2, Personnel* and Factor 3, *Past Performance*.

f. Proposal Schedule, Volume II, *Price Proposal*, shall be completed in full.

g. Offerors shall submit a signed Offer Standard Form 1442 in Volume II for this solicitation, including verification of receipt of all amendments.

h. Offerors will be discouraged from submitting elaborate corporate marketing information, formatting, and special reproduction techniques.

i. If additional information is provided by offerors, it shall be with regard to the solicitation requirements only.

j. Failing to submit attachments may result in rejection of an offer without further evaluation. Therefore, Offerors are urged to follow instructions and contact the Contracting Officer via email with questions regarding the instructions.

k. Contractors should not submit conditional proposals or proposals that contain reservations. Offerors should instead direct all questions and/or concerns to the Contracting Officer, in writing. Questions and/or comments received by the Contract Specialist later than five (5) calendar days prior to the proposal due date shall not be entertained.

l. Proposal Expenses and Pre-Contract Costs: The solicitation does not commit the Government to pay any costs incurred in the preparation and submission of a proposal or

for any other costs incurred by any firm submitting a proposal in response to these solicitations.

m. Volume I shall be limited to no more than **sixty (60) pages** in length. Each page of Volume I shall be numbered sequentially. Use only 8 ½ by 11 inch paper or A4 paper submissions, unless another paper size is specifically authorized elsewhere in this section for a particular submission. Do not use fold-outs (e.g., 11” x 14” or 11” x 17” sheets) unless specifically authorized in this section for a particular submission. A standard, 11-point minimum font size applies. Arial or Times New Roman fonts are required. Tables and illustrations may use a reduced font size of not less than 8-point and may be landscape-oriented. The use of hyperlinks to electronic materials in the proposal is prohibited.

n. Necessary charts and graphics may be larger than 8.5" x 11", but no larger than 11" x 17", and will count as one page. Charts and graphics should only contain the minimal text required to interpret the graphic (such as a concise caption or a map legend). Inclusion of excessive text on a graphic in an attempt to circumvent the page limitation will cause the graphic to be counted as more than one page.

o. All page margins must be at least 1-inch wide, but may include headers and footers. All pages shall be numbered and correlate to proposal index. For submissions with page limitations, the pages will be counted as follows: One side of the paper is one page; information on both the back and front of one sheet of paper will be counted as two pages. Where authorized, fold-out pages (11" x 14" or 11" x 17") will count as one page. Pages furnished for organizational purposes only, such as a “Table of Contents” or divider tabs, are not included in the page limitation.

p. The submission shall be clearly indexed and logically assembled. Each volume shall be clearly identified and shall begin at the top of a page. All pages of each volume shall be appropriately numbered and identified by the complete company name, date, and solicitation number in the header and/or footer. A Table of Contents should be created.

q. All information shall be confined to the appropriate file. Offerors shall confine submissions to essential matters, sufficient to define the proposal, and provide adequate basis for evaluation in accordance with the terms and conditions of the RFP. Offerors are responsible for including sufficient details, in a concise manner, to permit a complete and accurate evaluation of each proposal in accordance with the terms and conditions of the RFP. Proprietary information shall be clearly marked as such.

2. Joint Ventures

a. When an Offeror is submitting a proposal as a joint venture, all members of the joint venture must sign the SF 1442 and any financial surety instrument that is required, unless a written agreement by all members of the joint venture is furnished with the proposal designating one firm with the legal authority to bind the other member(s) of the joint venture. Signatures on the written agreement designating one member of the joint venture as having legal authority to bind all other members of the joint venture must be executed by the duly authorized representatives of the respective joint venture members. All joint venture members will remain jointly and severally liable for all actions, representations, and other activities by the joint venture and by other joint venture members in connection with this solicitation and subsequent contract. A copy of the joint venture agreement and agreement providing evidence of the authority to legally bind all other members of the joint venture must be submitted with an Offeror’s proposal. Failure

to comply with the foregoing requirements may eliminate the proposal from further consideration.

b. If submitting a proposal as a joint venture, the experience, past performance, management plan, and other information about each of the joint venture partners can be submitted for the joint venture. The experience of each joint venture partner will be considered the experience of the joint venture entity. Joint ventures also must submit the following additional documentation:

1) A copy of the joint venture agreement in English.

2) A detailed statement outlining the following in terms of percentages, where appropriate:

i. The relationship of the joint venture parties in terms of business ownership, capital contribution, and profit distribution or loss sharing.

ii. The management approach of the joint venture in terms of who will conduct, direct, supervise, and control the joint venture, and have custody and control of the assets of the joint venture in performance of the duties necessary to complete the work that is required to be performed under the contract.

iii. The structure of the joint venture and decision-ranking responsibilities of the joint venture parties in terms of who will control the manner and method of performance of the work under the contract.

iv. The bonding responsibilities of the joint venture parties

v. Identification of the key personnel having authority to legally bind the joint venture to any and all agreements, including any subcontracts, executed by the joint venture and state who will provide or contract for the labor and materials for the joint venture.

vi. Identification of party or parties maintaining the joint venture bank accounts for the payment of all expenses and the deposit of all receipts, keeping the books and records of the joint venture, and paying applicable taxes for the joint venture.

vii. Identification of party or parties furnishing the joint venture operating facilities, such as office supplies and telephone service.

viii. Identification of party having overall control of the joint venture and documentation that member of the joint venture will remain jointly and severally liable for all aspects of the contract, including, but not limited to performance of the work and payment of the sub contractors.

c. Other sections of the proposal shall identify, where appropriate, whether key personnel are employees of the individual joint venture entities and identify the entity, or whether they are hired directly as employees of the joint venture.

d. The Government reserves the right to review the actual joint venture agreement and any other agreements executed by the joint venture, which are relevant to the Offeror's proposal and/or the solicitation, award, and performance of the contract.

e. If one of the joint venture parties possesses relevant experience and/or past performance, the experience and/or past performance of that firm will be considered as the experience and/or past performance of the joint venture

f. If the joint venture is not organized according to U.S., the Government reserves the right to review the actual joint venture agreement to determine its basis.

g. A complete and legally binding document with all information required under this section titled "Joint Ventures" shall be included in Proposal Schedule Volume I, Technical Proposal.

h. The SSEB will evaluate and rate the proposals according to the evaluation factors and requirements contained in the solicitation. Factors will be rated either "Acceptable" or "Unacceptable."

JV Agreements shall clearly indicate the percentages of the JV participants, in particular the percent of the controlling party, a clear delineation of responsibilities and authorities between the JV parties, and provide that each party is jointly and severally liable for the performance of all contract requirements.

3. Certifications and Representations: Each offeror shall complete (including signatures) the solicitation sections indicated below using the file (without modification to the file) provided with the solicitation. An authorized official of the firm shall sign the SF 1442 and all certifications requiring original signature.

- Standard Form 1442 (SF 1442), Solicitation, Offer and Award
- Contract Administration Data
- Representations, Certifications and Other Statements of Offerors

4. Price Evaluation

The SSEB will evaluate Volume II, Price Proposal, independent of the Technical Proposal. The SSEB will not have access to price information until completion of the technical evaluation.

5. Discussions. Although discussions are **not** anticipated**,** in accordance with FAR 15.306(d), discussions with each offeror may be held. After completion of discussions with each offeror in a competitive range, and in accordance with FAR 15.307(b), all offerors in that range will be allowed a minimum of three calendar days in which to submit final proposal revisions.

6. Site visit

There will be a formal site visit for this project. Please see FAR Clause 52.236-27 Alternate I for specific information on how to sign up for the site visit.

7. SUBCONTRACTORS: In regard to Experience, if an Offeror submits projects demonstrating experience in one of the factors, and that project was completed by a subcontractor, a subsidiary, or a supplier, as opposed to the prime or one of the joint venture partners, the Offeror MUST submit a signed letter of commitment from the contractor who performed and completed the work. **If a letter of commitment is not submitted, the experience will not be considered.**

SECTION IV: EVALUATION FACTORS FOR AWARD

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

Volume I - Technical:

Factor 1 Experience;
Factor 2 Personnel; and
Factor 3 Past Performance

This Volume shall also include the Joint Venture Agreement (if applicable). The JV agreement will not count against total page limit.

Volume II - Price:

Tab A Standard Form 1442;
Tab B Section 00010, Proposal Bid Schedule, and
Tab C Representations and Certifications (Section 00600).

1. **Volume I – Technica**l

a. Factor 1 Experience: Submission Requirements

Each Offeror shall complete a minimum of three (3), but no more than Seven (7), project 'Contractor Experience' form(s), attached at the end of this section. All blocks must be filled-in and all data must be accurate, current, and complete. Offerors who fail to submit a minimum of three (3) experience projects that comply with the submission requirements below will not be further evaluated by the Government. All information must be submitted in English.

In order to receive an "ACCEPTABLE" rating for this evaluation factor, the projects submitted must satisfy ALL of the following requirements:

The Offeror must have been the Prime or Sub-Contractor on the project described in #3 of this section as well as the items specifically marked in section #6 (items a, b, c, d) below. The offeror may use subcontractor experience on all others items not specifically listed above. If subcontractor experience is submitted the attached form sub-contractor experience should be utilized and a letter of commitment must be submitted along with the experience. The Prime Contractor is the contractor identified in Block 14 of the Standard Form 1442. If more than one contractor identified in Block 14, then a signed joint venture must be submitted with the Offeror's proposal. To meet Contractor Experience, a 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.

1) At least one (1) project provided to demonstrate experience must have had an awarded contract value (at time of award, including options) of over $10,000,000.00 (USD), and must have been design/build of hydraulic structures repairs and construction, including hydraulic mechanical and electrical components such as intake structures, valves, dam safety instrumentation and reinforced concrete features of work.

2) All other projects provided shall demonstrate experience awarded at a minimum of $100,000.00.

3) Each project used to demonstrate experience must be at least 75% complete or have been completed within the last 10 years from the date of this solicitation.

4) Each experience project submitted must provide detailed project descriptions to demonstrate experience with at least one of the following construction facilities, features or activities:

a. Design and construction of bridge cranes or hoists of similar size, scope and complexity as required for this project **(Offeror may only use their experience as a prime or as a subcontractor to demonstrate this experience);**

b. Design and construction of large diameter heavy valves with standard hydraulic power units and standard electronic controls **(Offeror may only use their experience as a prime or as a subcontractor to demonstrate this experience)**

c. Dam operations including dewatering of tunnels, placement of bulkheads and cofferdams **(Offeror may only use their experience as a prime or as a subcontractor to demonstrate this experience);**

d. **D**esign and construction of micro-hydroelectric systems and/or back up power; generating systems. **(Offeror may only use their experience as a prime or as a subcontractor to demonstrate this experience)**

e. Geotechnical investigation of dam foundations **(Offeror may use their experience as a prime or as a subcontractor or the experience of a subcontractor to demonstrate this experience)**

f. Dam safety monitoring instrumentation Design/build projects with hydraulic structures. **(Offeror may use their experience as a prime or as a subcontractor or the experience of a subcontractor to demonstrate this experience)**

One project can be used to satisfy multiple construction facilities, features or activities, but each Contractor Experience submitted MUST have at least one of the construction facilities, features or activities above included in the experience. As stated above, each offeror is required to submit at least three (3), but not more than seven (7), "Prime Contractor Experience" forms. Regardless of the number of forms submitted, the offeror must demonstrate all of the above features/activities.

NOTE: The Prime Contractor is the contractor identified in Block 14 of the Standard Form 1442. If more than one contractor identified in Block 14, then a signed joint venture must be submitted with the Offeror's proposal.

Factor 1 – Experience: Evaluation Criteria

"ACCEPTABLE" Rating:

The SSEB will evaluate experience submitted per Section 1 (Factor 1 – Experience: Submission Requirements). The proposal must clearly meet all of the minimum experience requirements identified in Section 1.a (Factor 1 – Experience: Submission Requirements) to receive an 'Acceptable' rating.

"UNACCEPTABLE" Rating:
Proposals that do not include substantial evidence that the offeror has experience to successfully construct the proposed project will be considered to not meet the minimum requirements of the solicitation and will be rated an 'Unacceptable'. Substantial evidence is defined as written documentation demonstrating the experience required in Section 1 (Factor 1 – Experience: Submission Requirements).

All blocks of the 'Prime Contractor Experience' forms (attached at the end of this section) that are submitted must be completed, and all data must be accurate, current, and verifiable. Failure to provide a current and accurate point of contact on the 'Prime Contractor Experience' form may render the form and the Offeror's proposal as unacceptable.

The Government reserves the right to contact the references listed on the submitted forms to verify the information submitted.

Factor 2 – Personnel: Submission Requirements

Provide resumes for the following key personnel:

Overall Project Manager;

Construction Superintendent;

Quality Control System (CQC) Manager;

Further, provide resumes for the CQC Specialists (also specified in Section 01 45 00 CONTRACTOR QUALITY CONTROL) including;

Senior Mechanical Engineer;

Senior Electrical Engineer;

Senior Civil or Structural Engineer;

Senior Geotechnical Engineer or Geologist

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

a. A minimum of ten (10) years of relevant experience in their assigned job position on this project as it relates to Design/Build and/or construction of hydraulic structures
b. D ocumentation identifying each person as a current full-time employee of the Prime Contractor and sub-contractor or a letter of intent signifying their employment for this project; and
c. FOR THE OVERALL PROJECT MANAGER ONLY, documentation by transcript or otherwise of a four-year college degree from a university.

The resumes for Senior Electrical, Senior Mechanical and Senior Civil Engineer must:

a. Demonstrate emonstrate that the above engineers have 10 years of relevant experience in their assigned job positions on this project as it relates to the specific items in this RFP, each engineer must be a professional engineer with an active professional registration in their home of record (HOR). Provide documentation in the form of a

certificate or otherwise evidencing a professional license number or registration. If the engineer's HOR does not have a professional registration program, that engineer must have a minimum of 12 years of relevant experience in their assigned job position on this project as it relates to the specific items in the RFP.

b. Provide documentation identifying each person as a current full-time employee of either the Prime Contractor or subcontractor, or a letter of intent signifying their employment for this project; and

c. Provide documentation by transcript or otherwise of a four-year college Bachelor of Science or Engineering degree from an accredited university in the respective field of study and assigned job positions.

Resumes must include the information on 'Personnel Resume/Experience' form attached at the end of this section. 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.

Factor 2 – Personnel: Evaluation criteria

"ACCEPTABLE" Rating
The SSEB will evaluate the resumes of the key personnel for compliance with requirements of Section 1 (Factor 2 – Personnel: Submission Requirements). Offerors must meet all of the key personnel requirements identified in Section 1 (Factor 2 – Personnel: Submission Requirements) to receive an 'ACCEPTABLE' rating.

"UNACCEPTABLE" Rating
Proposals that fail to provide evidence that the Offeror can provide key personnel with the qualifications and relevant experience as specified in Section 1.b (Factor 2 – Personnel: Submission Requirements) will receive an 'UNACCEPTABLE' rating for this factor.

c. Factor 3 – Past Performance: Submission Requirements

The offeror shall provide past performance information in one of two formats for each project provided under Factor 1 - Experience.

(1) Copies of Contractor Performance Assessment Reports (CPARs – also commonly referred to as CCASS reports) for projects performed for the U.S. Government. If the project provided has a CPAR, it must be used by the offeror to demonstrate past performance. If CPAR submission is used to validate past performance, it will be the most recent evaluation in the system (i.e. for projects submitted as completed, the final 100% completed CPAR will be provided). If the offeror submits a CPAR, they are not required to submit a separate Past Performance Questionnaire for the specific project.

(2) If CPAR information is not available for a project provided for experience, a completed Past Performance Questionnaire (PPQ), attached at the end of this section **(Form PPQ-0)** must be provided per the following guidance:

a. The Past Performance Questionnaire included in the solicitation is provided for the offeror to submit to the client for each project the offeror includes in its proposal for Factor 1 (Experience). Ensure correct phone numbers and email addresses are provided for the client point of contact.

b. Completed Past Performance Questionnaires should be submitted **with your proposal**. If the offeror is unable to obtain a completed PPQ from a client for a project(s) before proposal closing date, the offeror should still submit Form PPQ-0 with their proposal, only with blocks 1-6 filled out, which will provide contract and client information for the respective project(s).

c. Offerors should follow-up with clients/references to ensure timely submittal of questionnaires. If the client requests, questionnaires may be submitted directly to the Government's point of contact, **Nicholas Emanuel, via email at Nicholas.P.Emanuel@usace.army.mil** prior to the proposal closing date. **Offerors shall not incorporate by reference into their proposal PPQs previously submitted for other RFPs.** However, this does not preclude the Government from utilizing previously submitted PPQ information in the past performance evaluation.

It is the offeror's responsibility to ensure the Government will be able to contact the POCs using the contact information provided. Offerors are encouraged to send their request to the POC as soon as possible once a project is identified for experience under Factor 1.

The offeror may also include performance recognition documents received within the last 3 years such as awards, award fee determinations, customer letters of commendation, and any other forms of performance recognition.

In addition to the above, the Government may review any other sources of information for evaluating past performance. Other sources may include, but are not limited to, past performance information retrieved through the Past Performance Information Retrieval System (PPIRS), including Contractor Performance Assessment Reporting System (CPARS), using all CAGE/DUNS numbers of team members (partnership, joint venture, teaming arrangement, or parent company/subsidiary/affiliate) identified in the offeror's proposal, inquiries of owner representative(s), Federal Awardee Performance and Integrity Information System (FAPIIS), and any other known sources not provided by the offeror.

While the Government may elect to consider data from other sources, the burden of providing detailed, current, accurate and complete past performance information rests with the Offeror.

Factor 3 Past Performance: Evaluation Criteria

The Source Selection Evaluation Board (SSEB) will evaluate past performance information received as follows:

"ACCEPTABLE" Rating
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.

"UNACCEPTABLE" Rating
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.

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" or a "ACCEPTABLE".

OVERALL TECHNICAL ACCEPTABILITY

If a proposal is found to be technically unacceptable in any one of the three evaluated areas (experience, key personnel or past performance), this will render the proposal as technically unacceptable overall, and the offer will be removed from further consideration for award.

Volume II, Price Proposal

Tab A, Standard Form 1442

Submission Requirements

An original Standard Form (SF) 1442 must be submitted in a separate electronic file as part of Volume II.

Evaluation Criteria

Standard form 1442 is to be completed, to include Block #19 Acknowledgement of Amendments (if applicable), and duly executed with an original signature by an official authorized to bind the company in accordance with FAR4.102

Tab B, Section 00010, Proposal Bid Schedule

Submission Requirements

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

Evaluation Criteria

The total price (Proposal Bid Schedule) will be evaluated for reasonableness, completeness and unbalanced pricing through the use of cost and or price analysis.

Tab C, Representations and Certifications,

Submission Requirements

Each offeror shall complete all representations and certifications in Section 00600.

Responsibility Determination

Prior to actual award, the Government will conduct an independent responsibility review of the apparent successful Offeror in accordance with the provision of FAR Subpart 9.1.

APPENDIX A: Contractor Experience Form

FORM A-1

PRIME CONTRACTOR EXPERIENCE

<table>
<tr><td colspan="3">1. Project name and location (City, State, Country)</td></tr>
<tr><td colspan="3">2. Project owners name (Government Agency, commercial firm or other organization)</td></tr>
<tr><td colspan="3">3. Project owners complete address</td></tr>
<tr><td colspan="3">4. Were you the Prime Contractor? YES NO

4a. Were you the Subcontractor? Yes NO

Percentage of work that was self-performed? _____%</td></tr>
<tr><td colspan="2">5. Contract number of project</td><td>6. Date of contract</td></tr>
<tr><td>7. Date work began</td><td>8. Completion Dates:
Initial: _____
Actual: _____</td><td>9. Project Completion Percentage (%)</td></tr>
<tr><td colspan="2">8. Total Contract Value at Time of Award (if you were the Prime Contactor)</td><td rowspan="2">9. Final invoiced amount (or amount invoiced to date)</td></tr>
<tr><td colspan="2">8a. Total value of worked performed as subcontractor (For work performed as a subcontractor which was identified in 4a.)</td></tr>
</table>

10a. English speaking Technical point of contact for the Project Owner (name, title, e-mail address, phone number)	10b. English speaking Contracting point of contact of the Project Owner (name, title, e-mail, phone number)
11. Description of Construction contract work -describe DETAILED nature and scope of work. Detail how project demonstrates experience requirements in Section 00113. Also include 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 in block 8.) Use continuation sheet for additional information, if necessary.	

12. 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)

SUB-CONTRACTOR EXPERIENCE WITH ATTACHED COMMITMENT LETTER

<table>
<tr><td colspan="3">1. Name of Sub-Contractor and Address (City, State, Country)</td></tr>
<tr><td colspan="3">2. Project name and location (City, State, Country)</td></tr>
<tr><td colspan="3">3. Project owners name (Government Agency, commercial firm or other organization)</td></tr>
<tr><td colspan="3">4. Project owners complete address</td></tr>
<tr><td colspan="3">Did this Sub-contractor perform as a prime or subcontractor on this project?

Percentage of work that was self-performed? _____%</td></tr>
<tr><td colspan="2">5. Contract number of project</td><td>6. Date of contract</td></tr>
<tr><td>7. Date work began</td><td>8. Completion Dates:
Initial: _____
Actual: _____</td><td>9. Project Completion Percentage (%)</td></tr>
<tr><td colspan="2">8. Contract Value at Time of Award</td><td>9. Final invoiced amount (or amount invoiced to date)</td></tr>
<tr><td colspan="2">10a. English speaking Technical point of contact for the Project Owner (name, title, e-mail address, phone number)</td><td>10b. English speaking Contracting point of contact of the Project Owner (name, title, e-mail, phone number)</td></tr>
</table>

11. Description of Construction contract work -describe DETAILED nature and scope of work. Detail how project demonstrates experience requirements in Section 00113. Also include 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 in block 8.) Use continuation sheet for additional information, if necessary. Please state which area of experience this project is addressing for factor 1 #4 d, e, f.
12. 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)

FORM A-2

PERSONNEL RESUME/EXPERIENCE

Name and Title _____

Name of your firm
_____

No. of years: Presently with this firm _____ With other firms _____

Education (Degree(s)/Year/Specialization):
_____
_

Registration/Accreditation: No. _____ Country/State _____ Year _____

Your Assignment on this project
_____
_

Your specific experience and qualifications relevant to this project. Include a POC with phone number for the two most recent projects described:

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):
_____
_
_____
_
_____
_

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): _____

NAVFAC/USACE PAST PERFORMANCE QUESTIONNAIRE (Form PPQ-0)

CONTRACT INFORMATION (Contractor to complete Blocks 1-4)

1. Contractor Information

Firm Name: CAGE Code:
Address: DUNs Number:
Phone Number:
Email Address:
Point of Contact: Contact Phone Number:

2. Work Performed as: ☐ Prime Contractor ☐ Sub Contractor ☐ Joint Venture ☐ Other (Explain)
Percent of project work performed:
If subcontractor, who was the prime (Name/Phone #):

3. Contract Information

Contract Number:
Delivery/Task Order Number (if applicable):
Contract Type: ☐ Firm Fixed Price ☐ Cost Reimbursement ☐ Other (Please specify):
Contract Title:
Contract Location:

Award Date (mm/dd/yy):
Contract Completion Date (mm/dd/yy):
Actual Completion Date (mm/dd/yy):
Explain Differences:

Original Contract Price (Award Amount):
Final Contract Price (*to include all modifications, if applicable*):
Explain Differences:

4. Project Description:

Complexity of Work ☐ High ☐ Med ☐ Routine
How is this project relevant to project of submission? (*Please provide details such as similar equipment, requirements, conditions, etc.*)

CLIENT INFORMATION (Client to complete Blocks 5-8)

5. Client Information

Name:
Title:
Phone Number:
Email Address:

6. Describe the client's role in the project:

7. Date Questionnaire was completed (mm/dd/yy)**:**

8. Client's Signature:

NOTE: NAVFAC/USACE REQUESTS THAT THE CLIENT COMPLETES THIS QUESTIONNAIRE AND SUBMITS DIRECTLY BACK TO THE OFFEROR. THE OFFEROR WILL SUBMIT THE COMPLETED QUESTIONNAIRE TO USACE WITH THEIR PROPOSAL, AND MAY DUPLICATE THIS QUESTIONNAIRE FOR FUTURE SUBMISSION ON USACE SOLICITATIONS. CLIENTS ARE HIGHLY ENCOURAGED TO SUBMIT QUESTIONNAIRES DIRECTLY TO THE OFFEROR. HOWEVER, QUESTIONNAIRES MAY BE SUBMITTED DIRECTLY TO USACE. PLEASE CONTACT THE OFFEROR FOR USACE POC INFORMATION. THE GOVERNMENT RESERVES THE RIGHT TO VERIFY ANY AND

ALL INFORMATION ON THIS FORM.

ADJECTIVE RATINGS AND DEFINITIONS TO BE USED TO BEST REFLECT YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE

RATING	DEFINITION	NOTE
(E) Exceptional	Performance meets contractual requirements and exceeds many to the Government/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with few minor problems for which corrective actions taken by the contractor was highly effective.	An Exceptional rating is appropriate when the Contractor successfully performed multiple significant events that were of benefit to the Government/Owner. A singular benefit, however, could be of such magnitude that it alone constitutes an Exceptional rating. Also, there should have been NO significant weaknesses identified.
(VG) Very Good	Performance meets contractual requirements and exceeds some to the Government's/Owner's benefit. The contractual performance of the element or sub-element being assessed was accomplished with some minor problems for which corrective actions taken by the contractor were effective.	A Very Good rating is appropriate when the Contractor successfully performed a significant event that was a benefit to the Government/Owner. There should have been no significant weaknesses identified.
(S) Satisfactory	Performance meets minimum contractual requirements. The contractual performance of the element or sub-element contains some minor problems for which corrective actions taken by the contractor appear or were satisfactory.	A Satisfactory rating is appropriate when there were only minor problems, or major problems that the contractor recovered from without impact to the contract. There should have been NO significant weaknesses identified. Per DOD policy, a fundamental principle of assigning ratings is that contractors will not be assessed a rating lower than Satisfactory solely for not performing beyond the requirements of the contract.
(M) Marginal	Performance does not meet some contractual requirements. The contractual performance of the element or sub-element being assessed reflects a serious problem for which the contractor has not yet identified corrective actions. The contractor's proposed actions appear only marginally effective or were not fully implemented.	A Marginal is appropriate when a significant event occurred that the contractor had trouble overcoming which impacted the Government/Owner.
(U) Unsatisfactory	Performance does not meet most contractual requirements and recovery is not likely in a timely manner. The contractual performance of the element or sub-element contains serious problem(s) for which the contractor's corrective actions appear or were ineffective.	An Unsatisfactory rating is appropriate when multiple significant events occurred that the contractor had trouble overcoming and which impacted the Government/Owner. A singular problem, however, could be of such serious magnitude that it alone constitutes an unsatisfactory rating.
(N) Not Applicable	No information or did not apply to your contract	Rating will be neither positive nor negative.

TO BE COMPLETED BY CLIENT

PLEASE CIRCLE THE ADJECTIVE RATING WHICH BEST REFLECTS YOUR EVALUATION OF THE CONTRACTOR'S PERFORMANCE.						
1. QUALITY:						
a) Quality of technical data/report preparation efforts	E	VG	S	M	U	N
b) Ability to meet quality standards specified for technical performance	E	VG	S	M	U	N
c) Timeliness/effectiveness of contract problem resolution without extensive customer guidance	E	VG	S	M	U	N
d) Adequacy/effectiveness of quality control program and adherence to contract quality assurance requirements (without adverse effect on performance)	E	VG	S	M	U	N
2. SCHEDULE/TIMELINESS OF PERFORMANCE:						
a) Compliance with contract delivery/completion schedules including any significant intermediate milestones. *(If liquidated damages were assessed or the schedule was not met, please address below)*	E	VG	S	M	U	N
b) Rate the contractor's use of available resources to accomplish tasks identified in the contract	E	VG	S	M	U	N
3. CUSTOMER SATISFACTION:						
a) To what extent were the end users satisfied with the project?	E	VG	S	M	U	N
b) Contractor was reasonable and cooperative in dealing with your staff (including the ability to successfully resolve disagreements/disputes; responsiveness to administrative reports, businesslike and communication)	E	VG	S	M	U	N
c) To what extent was the contractor cooperative, businesslike, and concerned with the interests of the customer?	E	VG	S	M	U	N
d) Overall customer satisfaction	E	VG	S	M	U	N
4. MANAGEMENT/ PERSONNEL/LABOR						
a) Effectiveness of on-site management, including management of subcontractors, suppliers, materials, and/or labor force?	E	VG	S	M	U	N
b) Ability to hire, apply, and retain a qualified workforce to this effort	E	VG	S	M	U	N
c) Government Property Control	E	VG	S	M	U	N
d) Knowledge/expertise demonstrated by contractor personnel	E	VG	S	M	U	N
e) Utilization of Small Business concerns	E	VG	S	M	U	N
f) Ability to simultaneously manage multiple projects with multiple disciplines	E	VG	S	M	U	N

g) Ability to assimilate and incorporate changes in requirements and/or priority, including planning, execution and response to Government changes	E	VG	S	M	U	N
h) Effectiveness of overall management (including ability to effectively lead, manage and control the program)	E	VG	S	M	U	N
5. COST/FINANCIAL MANAGEMENT						
a) Ability to meet the terms and conditions within the contractually agreed price(s)?	E	VG	S	M	U	N
b) Contractor proposed innovative alternative methods/processes that reduced cost, improved maintainability or other factors that benefited the client	E	VG	S	M	U	N
c) If this is/was a Government cost type contract, please rate the Contractor's timeliness and accuracy in submitting monthly invoices with appropriate back-up documentation, monthly status reports/budget variance reports, compliance with established budgets and avoidance of significant and/or unexplained variances (under runs or overruns)	E	VG	S	M	U	N
d) Is the Contractor's accounting system adequate for management and tracking of costs? *If no, please explain in Remarks section.*		Yes			No	
e) If this is/was a Government contract, has/was this contract been partially or completely terminated for default or convenience or are there any pending terminations? *Indicate if show cause or cure notices were issued, or any default action in comment section below.*		Yes			No	
f) Have there been any indications that the contractor has had any financial problems? *If yes, please explain below.*		Yes			No	
6. SAFETY/SECURITY						
a) To what extent was the contractor able to maintain an environment of safety, adhere to its approved safety plan, and respond to safety issues? (Includes: following the users rules, regulations, and requirements regarding housekeeping, safety, correction of noted deficiencies, etc.)	E	VG	S	M	U	N
b) Contractor complied with all security requirements for the project and personnel security requirements.	E	VG	S	M	U	N
7. GENERAL						
a) Ability to successfully respond to emergency and/or surge situations (including notifying COR, PM or Contracting Officer in a timely manner regarding urgent contractual issues).	E	VG	S	M	U	N
b) Compliance with contractual terms/provisions *(explain if specific issues)*	E	VG	S	M	U	N
c) Would you hire or work with this firm again? *(If no, please explain below)*		Yes			No	
d) In summary, provide an overall rating for the work performed by this contractor.	E	VG	S	M	U	N

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)

Section 00100 - Bidding Schedule/Instructions to Bidders

CLAUSES INCORPORATED BY REFERENCE

52.215-1	Instructions to Offerors--Competitive Acquisition	JAN 2004
52.236-28	Preparation of Proposals--Construction	OCT 1997

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)

52.216-1 TYPE OF CONTRACT (APR 1984)

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

(End of provision)

52.233-2 SERVICE OF PROTEST (SEP 2006)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the Government Accountability Office (GAO), shall be served on the Contracting Officer **US Army Corps of Engineers, Kandahar, Afghanistan, APO, AE 09355**

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

(End of provision)

52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995) – ALTERNATE I (FEB 1995)

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

Site visit:

1. Due to the complex nature of the project bidders are strongly encouraged to participate in the site visit. All offerors who want to attend the site visit must contact Nader Noori by email at Nader.Noori@usace.army.mil by close of business 6 June 2012. The information provided in the email must include.
    a. Full name with last 4 digits of S.S # and blood type. If you do not have a S.S# please provide your passport or tazkara number.
    b. Complete personal contact information (cell #, email).
    c. Complete address, phone number and email of you organization.
    d. Two emergency contacts (emails and phone numbers).
    e. Company Name

Mr. Noori will coordinate the site visit information upon reciept of the email.
(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.

The use in this solicitation of any **Defense FAR supplement (48 CFR Chapter 2)**
(b) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

DBA

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 408th 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 Rutherfoord International as their managing Broker. The primary POC is the USACE DBA Program Administrator is Nikki Houngmany, (703) 813-6571 usace@rutherfoord.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.

CLAUSES INCORPORATED BY FULL TEXT

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

(a) The offeror certifies that --

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

(i) Those prices,

(ii) The intention to submit an offer, or

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

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

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

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

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

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

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

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

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

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (SEP 2007)

(a) Definitions. As used in this provision--``Lobbying contact'' has the meaning provided at 2 U.S.C. 1602(8). The terms ``agency,'' ``influencing or attempting to influence,'' ``officer or employee of an agency,'' ``person,'' ``reasonable compensation,'' and ``regularly employed'' are defined in the FAR clause of this solicitation entitled ``Limitation on Payments to Influence Certain Federal Transactions'' (52.203-12).

(b) Prohibition. The prohibition and exceptions contained in the FAR clause of this solicitation entitled ``Limitation on Payments to Influence Certain Federal Transactions'' (52.203-12) are hereby incorporated by reference in this provision.

(c) Certification. The offeror, by signing its offer, hereby certifies to the best of its knowledge and belief that no Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on its behalf in connection with the awarding of this contract.

(d) Disclosure. If any registrants under the Lobbying Disclosure Act of 1995 have made a lobbying contact on behalf of the offeror with respect to this contract, the offeror shall complete and submit, with its offer, OMB Standard Form LLL, Disclosure of Lobbying Activities, to provide the name of the registrants. The offeror need not report regularly employed officers or employees of the offeror to whom payments of reasonable compensation were made.

(e) Penalty. Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by 31 U.S.C. 1352. Any person who makes an expenditure prohibited under this provision or who fails to file or amend the disclosure required to be filed or amended by this provision, shall be subject to a civil penalty of not less than $10,000, and not more than $100,000, for each such failure.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.204-8 ANNUAL REPRESENTATIONS AND CERTIFICATIONS (MAR 2012)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990

(2) The small business size standard is 35M

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

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

(2) If the clause at 52.204-7 is not included in this solicitation, and the offeror is currently registered in CCR, and has completed the ORCA electronically, the offeror may choose to use paragraph (d) of this provision instead of completing the corresponding individual representations and certifications in the solicitation. The offeror shall indicate which option applies by checking one of the following boxes:

( ) Paragraph (d) applies.

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

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

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

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

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

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

(ii) 52.203-11, Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions. This provision applies to solicitations expected to exceed $150,000.

(iii) 52.204-3, Taxpayer Identification. This provision applies to solicitations that do not include the clause at 52.204-7, Central Contractor Registration.

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

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

(B) Exceed the simplified acquisition threshold; and

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

(v) 52.209-2, Prohibition on Contracting with Inverted Domestic Corporations--Representation. This provision applies to solicitations using funds appropriated in fiscal years 2008, 2009, or 2010.

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

(vii) 52.223-5, Pollution Prevention and Right-to-Know Information (May 2011) (E.O. 13423) (Applies to services performed on Federal facilities).

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

(ix) 52.219-1, Small Business Program Representations (Basic & Alternate I). This provision applies to solicitations when the contract will be performed in the United States or its outlying areas.

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

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

(x) 52.219-2, Equal Low Bids. This provision applies to solicitations when contracting by sealed bidding and the contract will be performed in the United States or its outlying areas.

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

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

(xiii) 52.222-38, Compliance with Veterans' Employment Reporting Requirements. This provision applies to solicitations when it is anticipated the contract award will exceed the simplified acquisition threshold and the contract is not for acquisition of commercial items.

(xiv) 52.223-1, Biobased Product Certification. This provision applies to solicitations that require the delivery or specify the use of USDA-designated items; or include the clause at 52.223-2, Affirmative Procurement of Biobased Products Under Service and Construction Contracts.

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

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

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

(A) If the acquisition value is less than $25,000, the basic provision applies.

(B) If the acquisition value is $25,000 or more but is less than $50,000, the provision with its Alternate I applies.

(C) If the acquisition value is $50,000 or more but is less than $77,494, the provision with its Alternate II applies.

(D) If the acquisition value is $77,494 or more but is less than $100,000, the provision with its Alternate III applies.

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

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

(xx) 52.225-25, Prohibition on Contracting with Entities Engaging in Sanctioned Activities Relating to Iran--Representation and Certification. This provision applies to all solicitations.

(xxi) 52.226-2, Historically Black College or University and Minority Institution Representation. This provision applies to--

(A) Solicitations for research, studies, supplies, or services of the type normally acquired from higher educational institutions; and

(B) For DoD, NASA, and Coast Guard acquisitions, solicitations that contain the clause at 52.219-23, Notice of Price Evaluation Adjustment for Small Disadvantaged Business Concerns.

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

(Contracting Officer check as appropriate.)

(i) 52.219-22, Small Disadvantaged Business Status.

(A) Basic.

(B) Alternate I.

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

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

(iv) 52.222-52, Exemption from Application of the Service Contract Act to Contracts for Certain Services–Certification.

(v) 52.223-9, with its Alternate I, Estimate of Percentage of Recovered Material Content for EPA–Designated Products (Alternate I only).

(vi) 52.227-6, Royalty Information.

(A) Basic.

(B) Alternate I.

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

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

FAR Clause	Title	Date	Change

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

(End of provision)

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)

CLAUSES INCORPORATED BY FULL TEXT

52.209-7 INFORMATION REGARDING RESPONSIBILITY MATTERS (FEB 2012)

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

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

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

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

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

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

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

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

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

(i) In a criminal proceeding, a conviction.

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

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

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

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

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

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

(d) The offeror shall post the information in paragraphs (c)(1)(i) through (c)(1)(iv) of this provision in FAPIIS as required through maintaining an active registration in the Central Contractor Registration database via https://www.acquisition.gov (see 52.204-7).

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

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)

CLAUSES INCORPORATED BY FULL TEXT

52.225-25 Prohibition on Contracting with Entities Engaging in Sanctioned Activities Relating to Iran--Representation and Certification. (NOV 2011)

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

Person--

(1) Means--

(i) A natural person;

(ii) A corporation, business association, partnership, society, trust, financial institution, insurer, underwriter, guarantor, and any other business organization, any other nongovernmental entity, organization, or group, and any governmental entity operating as a business enterprise; and

(iii) Any successor to any entity described in paragraph (1)(ii) of this definition; and

(2) Does not include a government or governmental entity that is not operating as a business enterprise.

Sensitive technology--

(1) Means hardware, software, telecommunications equipment, or any other technology that is to be used specifically--

(i) To restrict the free flow of unbiased information in Iran; or

(ii) To disrupt, monitor, or otherwise restrict speech of the people of Iran; and

(2) Does not include information or informational materials the export of which the President does not have the authority to regulate or prohibit pursuant to section 203(b)(3) of the International Emergency Economic Powers Act (50 U.S.C. 1702(b)(3)).

(b) The offeror shall email questions concerning sensitive technology to the Department of State at CISADA106@state.gov.

(c) Except as provided in paragraph (d) of this provision or if a waiver has been granted in accordance with 25.703-4, by submission of its offer, the offeror--

(1) Represents, to the best of its knowledge and belief, that the offeror does not export any sensitive technology to the government of Iran or any entities or individuals owned or controlled by, or acting on behalf or at the direction of, the government of Iran; and

(2) Certifies that the offeror, or any person owned or controlled by the offeror, does not engage in any activities for which sanctions may be imposed under section 5 of the Iran Sanctions Act. These sanctioned activities are in the areas of development of the petroleum resources of Iran, production of refined petroleum products in Iran, sale and provision of refined petroleum products to Iran, and contributing to Iran's ability to acquire or develop certain weapons or technologies.

(d) Exception for trade agreements. The representation requirement of paragraph (c)(1) and the certification requirement of paragraph (c)(2) of this provision do not apply if--

(1) This solicitation includes a trade agreements notice or certification (e.g., 52.225-4, 52.225-6, 52.225-12, 52.225-24, or comparable agency provision); and

(2) The offeror has certified that all the offered products to be supplied are designated country end products or designated country construction material.

(End of provision)

252.203-7005 REPRESENTATION RELATING TO COMPENSATION OF FORMER DOD OFFICIALS (NOV 2011)

(a) Definition. Covered DoD official is defined in the clause at 252.203-7000, Requirements Relating to Compensation of Former DoD Officials.

(b) By submission of this offer, the offeror represents, to the best of its knowledge and belief, that all covered DoD officials employed by or otherwise receiving compensation from the offeror, and who are expected to undertake activities on behalf of the offeror for any resulting contract, are presently in compliance with all post-employment restrictions covered by 18 U.S.C. 207, 41 U.S.C. 2101-2107, and 5 CFR parts 2637 and 2641, including Federal Acquisition Regulation 3.104-2.

(End of provision)

252.204-7007 ALTERNATE A, ANNUAL REPRESENTATIONS AND CERTIFICATIONS (NOV 2011)

Substitute the following paragraphs (d) and (e) for paragraph (d) of the provision at FAR 52.204-8:

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

(i) 252.209-7001, Disclosure of Ownership or Control by the Government of a Terrorist Country. Applies to all solicitations expected to result in contracts of $150,000 or more.

(ii) 252.209-7005, Reserve Officer Training Corps and Military Recruiting on Campus. Applies to all solicitations and contracts with institutions of higher education.

(iii) 252.216-7003, Economic Price Adjustment-Wage Rates or Material Prices Controlled by a Foreign Government. Applies to fixed-price supply and service contracts when the contract is to be performed wholly or in part in a foreign country, and a foreign government controls wage rates or material prices and may during contract performance impose a mandatory change in wages or prices of materials.

(iv) 252.225-7042, Authorization to Perform. Applies to all solicitations when performance will be wholly or in part in a foreign country.

(v) 252.229-7003, Tax Exemptions (Italy). Applies to solicitations and contracts when contract performance will be in Italy.

(vi) 252.229-7005, Tax Exemptions (Spain). Applies to solicitations and contracts when contract performance will be in Spain.

(vii) 252.247-7022, Representation of Extent of Transportation by Sea. Applies to all solicitations except those for direct purchase of ocean transportation services or those with an anticipated value at or below the simplified acquisition threshold.

(2) The following representations or certifications in ORCA are applicable to this solicitation as indicated by the Contracting Officer: [Contracting Officer check as appropriate.]

____ (i) 252.209-7002, Disclosure of Ownership or Control by a Foreign Government.

____ (ii) 252.225-7000, Buy American Act--Balance of Payments Program Certificate.

____ (iii) 252.225-7020, Trade Agreements Certificate.

____Use with Alternate I.

____ (iv) 252.225-7022, Trade Agreements Certificate--Inclusion of Iraqi End Products.

____ (v) 252.225-7031, Secondary Arab Boycott of Israel.

____ (vi) 252.225-7035, Buy American Act--Free Trade Agreements--Balance of Payments Program Certificate.

____ Use with Alternate I.

____ Use with Alternate II.

____ Use with Alternate III.

(e) The offeror has completed the annual representations and certifications electronically via the Online representations and Certifications Application (ORCA) Web site at https://www.acquisition.gov/. After reviewing the ORCA database information, the offeror verifies by submission of the offer that the representations and certifications currently posted electronically that apply to this solicitation as indicated in FAR 52.204-8(c) and paragraph (d) of this provision have been entered or updated within the last 12 months, are current, accurate, complete, and applicable to this solicitation (including the business size standard applicable to theNAICS code referenced for this solicitation), as of the date of this offer, and are incorporated in this offer by reference (see FAR 4.1201); except for the changes identified below [offeror to insert changes, identifying change by provision number, title, date]. These amended representation(s) and/or certification(s) are also incorporated in this offer and are current, accurate, and complete
as of the date of this offer.

FAR/DFARS Clause #	Title	Date	Change

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

(End of provision)

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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 indebtness of a firm.

(b) "Prohibition on award."

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

(c) "Disclosure."

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

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

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

(End of provision)

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

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

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

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

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

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

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

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

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

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

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

(End of provision)

252.225-7042 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)

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

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

(b) Representation. The Offeror represents that it:

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

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

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

(End of provision)

CLAUSES INCORPORATED BY REFERENCE

52.202-1	Definitions	JAN 2012
52.203-3	Gratuities	APR 1984
52.203-5	Covenant Against Contingent Fees	APR 1984
52.203-7	Anti-Kickback Procedures	OCT 2010
52.203-8	Cancellation, Rescission, and Recovery of Funds for Illegal or Improper Activity	JAN 1997
52.203-10	Price Or Fee Adjustment For Illegal Or Improper Activity	JAN 1997
52.203-12	Limitation On Payments To Influence Certain Federal Transactions	OCT 2010
52.203-13	Contractor Code of Business Ethics and Conduct	APR 2010
52.204-7	Central Contractor Registration	FEB 2012
52.204-9	Personal Identity Verification of Contractor Personnel	JAN 2011
52.215-11	Price Reduction for Defective Certified Cost or Pricing Data--Modifications	AUG 2011
52.215-13	Subcontractor Certified Cost or Pricing Data--Modifications	OCT 2010
52.222-29	Notification Of Visa Denial	JUN 2003
52.225-13	Restrictions on Certain Foreign Purchases	JUN 2008
52.228-2	Additional Bond Security	OCT 1997
52.228-3	Worker's Compensation Insurance (Defense Base Act)	APR 1984
52.228-11	Pledges Of Assets	JAN 2012
52.228-12	Prospective Subcontractor Requests for Bonds	OCT 1995
52.229-6	Taxes--Foreign Fixed-Price Contracts	JUN 2003
52.232-5	Payments under Fixed-Price Construction Contracts	SEP 2002
52.232-6	Payment Under Communication Service Contracts with Common Carriers	APR 1984
52.232-17	Interest	OCT 2010
52.232-27	Prompt Payment for Construction Contracts	OCT 2008
52.233-3	Protest After Award	AUG 1996
52.233-4	Applicable Law for Breach of Contract Claim	OCT 2004
52.236-2	Differing Site Conditions	APR 1984
52.236-3	Site Investigation and Conditions Affecting the Work	APR 1984
52.236-6	Superintendence by the Contractor	APR 1984
52.236-7	Permits and Responsibilities	NOV 1991
52.236-8	Other Contracts	APR 1984
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements	APR 1984
52.236-10	Operations and Storage Areas	APR 1984
52.236-11	Use and Possession Prior to Completion	APR 1984
52.236-12	Cleaning Up	APR 1984
52.236-15	Schedules for Construction Contracts	APR 1984
52.236-17	Layout of Work	APR 1984
52.236-21	Specifications and Drawings for Construction	FEB 1997
52.236-23	Responsibility of the Architect-Engineer Contractor	APR 1984
52.236-24	Work Oversight in Architect-Engineer Contracts	APR 1984
52.236-25	Requirements for Registration of Designers	JUN 2003
52.236-26	Preconstruction Conference	FEB 1995
52.242-13	Bankruptcy	JUL 1995
52.244-6	Subcontracts for Commercial Items	DEC 2010
52.246-21	Warranty of Construction	MAR 1994

52.248-3	Value Engineering-Construction	OCT 2010
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	SEP 2011
252.203-7001	Prohibition On Persons Convicted of Fraud or Other Defense-Contract-Related Felonies	DEC 2008
252.203-7002	Requirement to Inform Employees of Whistleblower Rights	JAN 2009
252.203-7003	Agency Office of the Inspector General	DEC 2011
252.204-7000	Disclosure Of Information	DEC 1991
252.204-7003	Control Of Government Personnel Work Product	APR 1992
252.204-7004 Alt A	Central Contractor Registration Alternate A	SEP 2007
252.205-7000	Provision Of Information To Cooperative Agreement Holders	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
252.225-7039	Contractors Performing Private Security Functions	AUG 2011
252.225-7041	Correspondence in English	JUN 1997
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
252.243-7001	Pricing Of Contract Modifications	DEC 1991
252.243-7002	Requests for Equitable Adjustment	MAR 1998
252.247-7023	Transportation of Supplies by Sea	MAY 2002

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52.204-10 REPORTING EXECUTIVE COMPENSATION AND FIRST-TIER SUBCONTRACT AWARDS (FEB 2012)

(a) Definitions. As used in this clause:

Executive means officers, managing partners, or any other employees in management positions.

First-tier subcontract means a subcontract awarded directly by a Contractor to furnish supplies or services (including construction) for performance of a prime contract, but excludes supplier agreements with vendors, such as long-term arrangements for materials or supplies that would normally be applied to a Contractor's general and administrative expenses or indirect cost.

Total compensation means the cash and noncash dollar value earned by the executive during the Contractor's preceding fiscal year and includes the following (for more information see 17 CFR 229.402(c)(2)):

(1) Salary and bonus.

(2) Awards of stock, stock options, and stock appreciation rights. Use the dollar amount recognized for financial statement reporting purposes with respect to the fiscal year in accordance with the Financial Accounting Standards Board's Accounting Standards Codification (FASB ASC) 718, Compensation-Stock Compensation.

(3) Earnings for services under non-equity incentive plans. This does not include group life, health, hospitalization or medical reimbursement plans that do not discriminate in favor of executives, and are available generally to all salaried employees.

(4) Change in pension value. This is the change in present value of defined benefit and actuarial pension plans.

(5) Above-market earnings on deferred compensation which is not tax-qualified.

(6) Other compensation, if the aggregate value of all such other compensation (e.g., severance, termination payments, value of life insurance paid on behalf of the employee, perquisites or property) for the executive exceeds $10,000.

(b) Section 2(d)(2) of the Federal Funding Accountability and Transparency Act of 2006 (Pub. L. 109-282), as amended by section 6202 of the Government Funding Transparency Act of 2008 (Pub. L. 110-252), requires the Contractor to report information on subcontract awards. The law requires all reported information be made public, therefore, the Contractor is responsible for notifying its subcontractors that the required information will be made public.

(c)(1) Unless otherwise directed by the contracting officer, by the end of the month following the month of award of a first-tier subcontract with a value of $25,000 or more, (and any modifications to these subcontracts that change previously reported data), the Contractor shall report the following information at http://www.fsrs.gov for each first-tier subcontract. (The Contractor shall follow the instructions at http://www.fsrs.gov to report the data.)

(i) Unique identifier (DUNS Number) for the subcontractor receiving the award and for the subcontractor's parent company, if the subcontractor has a parent company.

(ii) Name of the subcontractor.

(iii) Amount of the subcontract award.

(iv) Date of the subcontract award.

(v) A description of the products or services (including construction) being provided under the subcontract, including the overall purpose and expected outcomes or results of the subcontract.

(vi) Subcontract number (the subcontract number assigned by the Contractor).

(vii) Subcontractor's physical address including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(viii) Subcontractor's primary performance location including street address, city, state, and country. Also include the nine-digit zip code and congressional district.

(ix) The prime contract number, and order number if applicable.

(x) Awarding agency name and code.

(xi) Funding agency name and code.

(xii) Government contracting office code.

(xiii) Treasury account symbol (TAS) as reported in FPDS.

(xiv) The applicable North American Industry Classification System code (NAICS).

(2) By the end of the month following the month of a contract award, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for the Contractor's preceding completed fiscal year in the Central Contractor Registration (CCR) database via https://www.acquisition.gov, if--

(i) In the Contractor's preceding fiscal year, the Contractor received--

(A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(B) $25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

(3) Unless otherwise directed by the contracting officer, by the end of the month following the month of a first-tier subcontract with a value of $25,000 or more, and annually thereafter, the Contractor shall report the names and total compensation of each of the five most highly compensated executives for each first-tier subcontractor for the subcontractor's preceding completed fiscal year at http://www.fsrs.gov, if--

(i) In the subcontractor's preceding fiscal year, the subcontractor received--

(A) 80 percent or more of its annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(B) $25,000,000 or more in annual gross revenues from Federal contracts (and subcontracts), loans, grants (and subgrants) and cooperative agreements; and

(ii) The public does not have access to information about the compensation of the executives through periodic reports filed under section 13(a) or 15(d) of the Securities Exchange Act of 1934 (15 U.S.C. 78m(a), 78o(d)) or section 6104 of the Internal Revenue Code of 1986. (To determine if the public has access to the compensation information, see the U.S. Security and Exchange Commission total compensation filings at http://www.sec.gov/answers/execomp.htm.)

(d)(1) If the Contractor in the previous tax year had gross income, from all sources, under $300,000, the Contractor is exempt from the requirement to report subcontractor awards.

(2) If a subcontractor in the previous tax year had gross income from all sources under $300,000, the Contractor does not need to report awards to that subcontractor.

(e) Phase-in of reporting of subcontracts of $25,000 or more.

(1) Until September 30, 2010, any newly awarded subcontract must be reported if the prime contract award amount was $20,000,000 or more.

(2) From October 1, 2010, until February 28, 2011, any newly awarded subcontract must be reported if the prime contract award amount was $550,000 or more.

(3) Starting March 1, 2011, any newly awarded subcontract must be reported if the prime contract award amount was $25,000 or more.

(End of clause)

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 debars 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)

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52.222-50 COMBATING TRAFFICKING IN PERSONS (FEB 2009)

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

Coercion means--

(1) Threats of serious harm to or physical restraint against any person;

(2) Any scheme, plan, or pattern intended to cause a person to believe that failure to perform an act would result in serious harm to or physical restraint against any person; or

(3) The abuse or threatened abuse of the legal process.

Commercial sex act means any sex act on account of which anything of value is given to or received by any person.

Debt bondage means the status or condition of a debtor arising from a pledge by the debtor of his or her personal services or of those of a person under his or her control as a security for debt, if the value of those services as reasonably assessed is not applied toward the liquidation of the debt or the length and nature of those services are not respectively limited and defined.

Employee means an employee of the Contractor directly engaged in the performance of work under the contract who has other than a minimal impact or involvement in contract performance.

Forced Labor means knowingly providing or obtaining the labor or services of a person--

(1) By threats of serious harm to, or physical restraint against, that person or another person;

(2) By means of any scheme, plan, or pattern intended to cause the person to believe that, if the person did not perform such labor or services, that person or another person would suffer serious harm or physical restraint; or

(3) By means of the abuse or threatened abuse of law or the legal process.

Involuntary servitude includes a condition of servitude induced by means of--

(1) Any scheme, plan, or pattern intended to cause a person to believe that, if the person did not enter into or continue in such conditions, that person or another person would suffer serious harm or physical restraint; or

(2) The abuse or threatened abuse of the legal process.

Severe forms of trafficking in persons means--

(1) Sex trafficking in which a commercial sex act is induced by force, fraud, or coercion, or in which the person induced to perform such act has not attained 18 years of age; or

(2) The recruitment, harboring, transportation, provision, or obtaining of a person for labor or services, through the use of force, fraud, or coercion for the purpose of subjection to involuntary servitude, peonage, debt bondage, or slavery.

Sex trafficking means the recruitment, harboring, transportation, provision, or obtaining of a person for the purpose of a commercial sex act.

(b) Policy. The United States Government has adopted a zero tolerance policy regarding trafficking in persons. Contractors and contractor employees shall not--

(1) Engage in severe forms of trafficking in persons during the period of performance of the contract;

(2) Procure commercial sex acts during the period of performance of the contract; or

(3) Use forced labor in the performance of the contract.

(c) Contractor requirements. The Contractor shall--

(1) Notify its employees of--

(i) The United States Government's zero tolerance policy described in paragraph (b) of this clause; and

(ii) The actions that will be taken against employees for violations of this policy. Such actions may include, but are not limited to, removal from the contract, reduction in benefits, or termination of employment; and

(2) Take appropriate action, up to and including termination, against employees or subcontractors that violate the policy in paragraph (b) of this clause.

(d) Notification. The Contractor shall inform the Contracting Officer immediately of--

(1) Any information it receives from any source (including host country law enforcement) that alleges a Contractor employee, subcontractor, or subcontractor employee has engaged in conduct that violates this policy; and

(2) Any actions taken against Contractor employees, subcontractors, or subcontractor employees pursuant to this clause.

(e) Remedies. In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraphs (c), (d), or (f) of this clause may result in --

(1) Requiring the Contractor to remove a Contractor employee or employees from the performance of the contract;

(2) Requiring the Contractor to terminate a subcontract;

(3) Suspension of contract payments;

(4) Loss of award fee, consistent with the award fee plan, for the performance period in which the Government determined Contractor non-compliance;

(5) Termination of the contract for default or cause, in accordance with the termination clause of this contract; or

(6) Suspension or debarment.

(f) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (f), in all subcontracts.

(g) Mitigating Factor. The Contracting Officer may consider whether the Contractor had a Trafficking in Persons awareness program at the time of the violation as a mitigating factor when determining remedies. Additional information about Trafficking in Persons and examples of awareness programs can be found at the website for the Department of State's Office to Monitor and Combat Trafficking in Persons at http://www.state.gov/g/tip.

(End of clause)

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52.228-1 BID GUARANTEE (SEP 1996)

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

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be $3,000,000.00.

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

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of provision)

CLAUSES INCORPORATED BY FULL TEXT

52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) “Irrevocable letter of credit” (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand

and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than $25 million in the past year, ILCs over $5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than $25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

_____

[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date _____

IRREVOCABLE LETTER OF CREDIT NO. _____

Account party's name _____

Account party's address _____

For Solicitation No. _____(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States $_____. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on _____, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

_____

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

_____
[Confirming Financial Institution's Letterhead or Name and Address]

(Date) _____

Our Letter of Credit Advice Number _____

Beneficiary: _____ [U.S. Government agency]

Issuing Financial Institution: _____

Issuing Financial Institution's LC No.: _____

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by _____ [name of issuing financial institution] for drawings of up to United States dollars _____/U.S. $_____ and expiring with our close of business on _____ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at _____.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of _____ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

_____

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

_____

[City, State]

(Date) _____

[Name and address of financial institution]

Pay to the order of _____ [Beneficiary Agency] _____ the sum of United States $_____.
This draft is drawn under Irrevocable Letter of Credit No. _____.

_____

[Beneficiary Agency]

By: _____

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

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)

CLAUSES INCORPORATED BY FULL TEXT

52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least **Twelve (12%) percent o**f the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

CLAUSES INCORPORATED BY FULL TEXT

52.236-4 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)

252.225-7039 CONTRACTORS PERFORMING PRIVATE SECURITY FUNCTIONS (AUG 2011)

(a) Definition.

Private security functions means activities engaged in by a contractor, including--

(i) Guarding of personnel, facilities, designated sites, or property of a Federal agency, the contractor or subcontractor, or a third party; or

(ii) Any other activity for which personnel are required to carry weapons in the performance of their duties.

(b) Requirements. The Contractor is required to--

(1) Ensure that all employees of the Contractor who are responsible for performing private security functions under this contract comply with any orders, directives, and instructions to Contractors performing private security functions that are identified in the contract for--

(i) Registering, processing, accounting for, managing, overseeing, and keeping appropriate records of personnel performing private security functions. This includes ensuring the issuance, maintenance, and return of Personal Identity Verification credentials in accordance with FAR 52.204-19, Personnel Identity Verification of Contractor Personnel, and DoD procedures, including revocation of any physical and/or logistical access (as defined by Homeland Security Presidential Directive (HSPD-12)) granted to such personnel;

(ii) Authorizing and accounting for weapons to be carried by or available to be used by personnel performing private security functions;

(A) All weapons must be registered in the Synchronized Predeployment Operational Tracker (SPOT) materiel tracking system.

(B) In addition, all weapons that are Government-furnished property must be assigned a unique identifier in accordance with the clauses at DFARS 252.211-7003, Item Identification and Valuation, and DFARS 252.245.7001, Tagging, Labeling, and Marking of Government-Furnished Property, and physically marked in accordance with MIL-STD 130 (current version) and DoD directives and instructions. The items must be registered in the DoD Item Unique Identification (IUID) Registry (https://www.bpn.gov/iuid/);

(iii) Registering and identifying armored vehicles, helicopters, and other military vehicles operated by Contractors performing private security functions;

(A) All armored vehicles, helicopters, and other military vehicles must be registered in SPOT.

(B) In addition, all armored vehicles, helicopters, and other military vehicles that are Government-furnished property must be assigned a unique identifier in accordance with the clauses at DFARS 252.211-7003 and DFARS 252.245.7001 and physically marked in accordance with MIL-STD 130 (current version) and DoD directives and instructions. The items must be registered in the DoD IUID Registry (https://www.bpn.gov/iuid/); and

(iv) Reporting incidents in which--

(A) A weapon is discharged by personnel performing private security functions;

(B) Personnel performing private security functions are attacked, killed, or injured;

(C) Persons are killed or injured or property is destroyed as a result of conduct by contractor personnel;

(D) A weapon is discharged against personnel performing private security functions or personnel performing such functions believe a weapon was so discharged; or

(E) Active, non-lethal countermeasures (other than the discharge of a weapon) are employed by personnel performing private security functions in response to a perceived immediate threat;

(2) Ensure that all employees of the Contractor who are responsible for personnel performing private security functions under this contract are briefed on and understand their obligation to comply with--

(i) Qualification, training, screening (including, if applicable, thorough background checks), and security requirements established by DoDI 3020.50, Private Security Contractors Operating in Areas of Contingency Operations, Combat Operations, or Other Significant Operations, at http://www.dtic.mil/whs/directives/corres/pdf;

(ii) Applicable laws and regulations of the United States and the host country and applicable treaties and international agreements regarding performance of private security functions;

(iii) Orders, directives, and instructions issued by the applicable commander of a combatant command relating to weapons, equipment, force protection, security, health, safety, or relations and interaction with locals; and

(iv) Rules on the use of force issued by the applicable commander of a combatant command for personnel performing private security functions; and

(3) Cooperate with any Government-authorized investigation by providing access to employees performing private security functions and relevant information in the possession of the Contractor regarding the incident concerned.

(c) Remedies. In addition to other remedies available to the Government--

(1) 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. Required Contractor actions include--

(i) Ensuring the return of personal identity verification credentials;

(ii) Ensuring the return of other equipment issued to the employee under the contract; and

(iii) Revocation of any physical and/or logistical access granted to such personnel;

(2) The Contractor's failure to comply with the requirements of this clause will be included in appropriate databases of past performance and may be considered in any responsibility determination or evaluation of past performance;

(3) If this is an award-fee contract, the Contractor's failure to comply with the requirements of this clause shall be considered in the evaluation of the Contractor's performance during the relevant evaluation period, and the Contracting Officer may treat such failure to comply as a basis for reducing or denying award fees for such period or for recovering all or part of award fees previously paid for such period; and

(4) This contract may be terminated for default if the Contractor fails to comply with the requirements of paragraph (b) of this clause or, if directed by the Contracting Officer, fails to remove or replace, at its own expense, any of its personnel who violate the requirements of paragraph (b) of this clause.

(d) Rule of construction. The duty of the Contractor to comply with the requirements of this clause shall not be reduced or diminished by the failure of a higher- or lower-tier Contractor to comply with the clause requirements or by a failure of the contracting activity to provide required oversight.

(e) Subcontracts. The Contractor shall include the substance of this clause, including this paragraph (e), in all subcontracts that will be performed in areas of contingency operations, complex contingency operations, or other military operations or exercises designated by the Combatant Commander.

(End of clause)

252.225-7045 BALANCE OF PAYMENTS PROGRAM--CONSTRUCTION MATERIAL UNDER TRADE AGREEMENTS (JAN 2012)

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

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

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

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

Commercially available off-the-shelf (COTS) item--

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

(i) A commercial item (as defined in paragraph (1) of the definition of ``commercial item'' in section 2.101 of the Federal Acquisition Regulation);

(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. 40102), such as agricultural products and petroleum products.

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

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

Cost of components means--

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

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

Designated country means--

(1) A World Trade Organization Government Procurement Agreement (WTO GPA) country (Armenia, Aruba, Austria, Belgium, Bulgaria, Canada, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hong Kong, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea (Republic of), Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Singapore, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Taiwan (known in the World Trade Organization as ``the Separate Customs Territory of Taiwan, Penghu, Kinmen, and Matsu'' (Chinese Taipei)), or the United Kingdom);

(2) A Free Trade Agreement country (Australia, Bahrain, Canada, Chile, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Mexico, Morocco, Nicaragua, Peru, or Singapore);

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

(4) A Caribbean Basin country (Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, Bonaire, British Virgin Islands, Curacao, Dominica, Grenada, Guyana, Haiti, Jamaica, Montserrat, Saba, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Sint Eustatius, Sint Maarten, or Trinidad and Tobago).

Designated country construction material means a construction material that is a WTO GPA country construction material, a Free Trade Agreement country construction material, a least developed country construction material, or a Caribbean Basin country construction material.

Domestic construction material means--

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

(2) A construction material manufactured in the United States, if--

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

(ii) The construction material is a COTS item.

Free Trade Agreement country construction material means a construction material that--

(1) Is wholly the growth, product, or manufacture of a Free Trade Agreement country; or

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

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

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

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

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

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

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

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

(b) This clause implements the Balance of Payments Program by providing a preference for domestic construction material. In addition, the Contracting Officer has determined that the WTO GPA and Free Trade Agreements apply to this acquisition. Therefore, the Balance of Payments Program restrictions are waived for designated country construction materials.

(c) The Contractor shall use only domestic or designated country construction material in performing this contract, except for--

(1) Construction material valued at or below the simplified acquisition threshold in part 2 of the Federal Acquisition Regulation;

(2) Information technology that is a commercial item; or

(3) The construction material or components listed by the Government as follows:

Materials from Pakistan, Turkmenistan Uzbekistan, Kazakhstan, Kyrgyzstan, Turkey, Russia

(End of clause)

252.225-7993 PROHIBITION ON CONTRACTING WITH THE ENEMY IN THE UNITED STATES CENTRAL COMMAND THEATER OF OPERATIONS (DEVIATION2012-O0005)(JAN 2012)
(a) The Contractor is required to exercise due diligence to ensure that none of the funds received under this contract are provided, directly or indirectly, to a person or entity who is actively supporting an insurgency or otherwise actively opposing U.S. or coalition forces in a contingency operation.
(b) The Head of the Contracting Activity (HCA) has the authority to—
(1) Terminate this contract for default, in whole or in part, if the HCA determines in writing that the Contractor failed to exercise due diligence as required by paragraph (a) of this clause; or
(2) Void this contract, in whole or in part, if the HCA determines in writing that any funds received under this Contract have been provided, directly or indirectly, to a person or entity who is actively supporting an insurgency or otherwise actively opposing U.S. or coalition forces in a contingency operation.
(End of clause)

252.225-7994 ADDITIONAL ACCESS TO CONTRACTOR AND SUBCONTRACTOR RECORDS IN THE UNITED STATES CENTRAL COMMAND THEATER OF OPERATIONS (DEVIATION 2012-O0005)(JAN 2012)
(a) In addition to any other existing examination-of-records authority, the Department of Defense is authorized to examine any records of the Contractor to the extent necessary to ensure that funds available under this Contract are not—
(1) Subject to extortion or corruption; or
(2) Provided, directly or indirectly, to persons or entities that are actively supporting an insurgency or otherwise actively opposing United States or coalition forces in a contingency operation.
(b) The substance of this clause, including this paragraph (b), is required to be included in subcontracts under this Contract that have an estimated value over $100,000.
(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 (18 U.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 web-based 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. 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 that 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. Personnel seeking other forms of victim or witness protections should contact the nearest military law enforcement office.

(End of clause)

252.232-7003 ELECTRONIC SUBMISSION OF PAYMENT REQUESTS AND RECEIVING REPORTS (MAR 2008)

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

(1) Contract financing payment and invoice payment have the meanings given in section 32.001 of the Federal Acquisition Regulation.

(2) Electronic form means any automated system that transmits information electronically from the initiating system to all affected systems. Facsimile, e-mail, and scanned documents are not acceptable electronic forms for submission of payment requests. However, scanned documents are acceptable when they are part of a submission of a payment request made using Wide Area WorkFlow (WAWF) or another electronic form authorized by the Contracting Officer.

(3) Payment request means any request for contract financing payment or invoice payment submitted by the Contractor under this contract.

(b) Except as provided in paragraph (c) of this clause, the Contractor shall submit payment requests and receiving reports using WAWF, in one of the following electronic formats that WAWF accepts: Electronic Data Interchange, Secure File Transfer Protocol, or World Wide Web input. Information regarding WAWF is available on the Internet at https://wawf.eb.mil/.

(c) The Contractor may submit a payment request and receiving report using other than WAWF only when--

(1) The Contracting Officer authorizes use of another electronic form. With such an authorization, the Contractor and the Contracting Officer shall agree to a plan, which shall include a timeline, specifying when the Contractor will transfer to WAWF;

(2) DoD is unable to receive a payment request or provide acceptance in electronic form;

(3) The Contracting Officer administering the contract for payment has determined, in writing, that electronic submission would be unduly burdensome to the Contractor. In such cases, the Contractor shall include a copy of the Contracting Officer's determination with each request for payment; or

(4) DoD makes payment for commercial transportation services provided under a Government rate tender or a contract for transportation services using a DoD-approved electronic third party payment system or other exempted vendor payment/invoicing system (e.g., PowerTrack, Transportation Financial Management System, and Cargo and Billing System).

(d) The Contractor shall submit any non-electronic payment requests using the method or methods specified in Section G of the contract.

(e) In addition to the requirements of this clause, the Contractor shall meet the requirements of the appropriate payment clauses in this contract when submitting payments requests.

(End of clause)

252.236-7001 CONTRACT DRAWINGS AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

(1) Check all drawings furnished immediately upon receipt;

(2) Compare all drawings and verify the figures before laying out the work;

(3) Promptly notify the Contracting Officer of any discrepancies;

(4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and

(5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

(1) Large-scale drawings shall govern small-scale drawings; and

(2) The Contractor shall follow figures marked on drawings in preference to scale measurements.

(d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.

(e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

APPENDIX A	Photos and Drawings
APPENDIX B	List of Applicable Design Guide and Codes
APPENDIX C	Historical Documents
APPENDIX D	Government Design Reviews

(End of clause)

52.228-15
52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (OCT 2010)

(a) Definitions. As used in this clause—

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is $150,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be **30 percent** of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be **30 percent** of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal **30 percent** of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of the Treasury, Financial Management Service, Surety Bond Branch, 3700 East West Highway, Room 6F01, Hyattsville, MD 20782. Or via the internet at http://www.fms.treas.gov/c570/.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 3133(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(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 730 calendar days than notice to proceed. * 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 $1,925.00 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.

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 408th 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 (Rutherfoord 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, Rutherfoord 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:

Bruce Barrett Email: bruce.m.barrett@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/Rutherfoord 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)

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)

C3 CLAUSES

952.222-0001 PROHIBITION AGAINST HUMAN TRAFFICKING, INHUMANE LIVING CONDITIONS, AND WITHHOLDING OF EMPLOYEE PASSPORTS (AUG 2011)

(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.

(End of 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

(End of Clause)

952.225-0001 ARMING REQUIREMENTS AND PROCEDURES FOR PERSONAL SECURITY SERVICES CONTRACTORS AND FOR REQUESTS FOR PERSONAL PROTECTION (DEC 2011)

(a) **General.** Contractor and its subcontractors at all tiers that require arming under this contract agree to obey all laws, regulations, orders, and directives applicable to the use of private security personnel in Iraq and Afghanistan, including U.S. CENTCOM, Office of Security Cooperation-Iraq (OSC-I) and United States Forces - Afghanistan (USFOR-A) Commander orders, instructions, polices and directives. Contractors will ensure that all employees, including employees at any tier of subcontracting relationships armed under the provisions of this contract, comply with the contents of this clause and with the requirements set forth in the following:

(1) DODI 3020.50, *Private Security Contractors (PSCs) Operating in Contingency Operations;*
(2) DODI 3020.41, *Operational Contract Support*
(3) DODI 5210.56, *Carrying of Firearms and the Use of Force by DoD Personnel Engaged in Security, Law and Order, or Counterintelligence Activities;*
(4) DFARS 252.225-7039, *Contractors Performing Private Security Functions;*
(5) DFARS 252.225-7040, *Contractor Personnel Authorized to Accompany U.S. Armed Forces Deployed Outside the United States;*
(6) Class Deviation 2011-O0004, Contractor Personnel in the United States Central Command Area of Responsibility (DFARS 252.225-7995);
(7) USFOR-A, FRAGO 11-128, Outlines Management of Armed Contractors and Private Security Companies Operating in the Combined Joint Operations Area - Afghanistan (CJOA-A);
(8) OSC-I OPORD 11-01, Annex C, Appendix 20;
(9) U.S. CENTCOM Policy and Delegation of Authority for Personal Protection and Contract Security Service Arming of DoD Civilian Personnel, dated 18 Jan 2011;
(10) Office of Security Cooperation-Iraq (OSC-I) Policy Memorandum #14 – Civilian Arming Program (CAP), dated 23 November 2011;

(b) **Required Contractor Documentation.** Contractors and their subcontractors at all tiers that require arming approval shall provide to the arming approval authority via the COR consistent documentation (signed and dated by the employee and employer as applicable) for each of their employees who will seek authorization to be armed under the contract as follows:

(1) Weapons Qualification/Familiarization. All employees must meet the weapons qualification requirements on the requested weapon(s) established by any DoD or other U.S. government agency, Law of Armed Conflict (LOAC); Rules for the Use of Force (RUF), as defined in the U.S. CENTCOM Policy, dated 23 December 2005; and distinction between the above-prescribed RUF and the Rules of Engagement (ROE), which are applicable only to military forces.
(2) Completed DD Form 2760 (or equivalent documentation) for each armed employee, indicating that the employee is not otherwise prohibited under U.S. law from possessing the required weapon or ammunition.
(3) Written acknowledgement by the individual of the fulfillment of training responsibilities and the conditions for the authorization to carry firearms. This document includes the acknowledgement of the distinctions between the ROE applicable to military forces and RUF that control the use of weapons by DoD civilians, DoD contractors and PSCs.
(4) Written acknowledgement signed by both the armed employee and by a representative of the employing company that use of weapons could subject both the individual and company to U.S. and host nation prosecution and civil liability.
(5) A copy of the contract between the contractor's company and the U.S. Government that verifies the individual's employment and addresses the need to be armed.
(6) One (1) copy of a business license from the Iraqi or Afghani Ministry of Trade or Interior.
(7) One (1) copy of a license to operate as a PSC (or a temporary operating license) from the Ministry of Interior.

(c) **Communication Plan**. The contractor will submit to the COR a communications plan that, at a minimum, sets forth the following:

(1) The contractor's method of notifying the OSC-I Base Defense Operations Center (BDOC) (Iraq) and military forces (Afghanistan) requesting assistance where hostilities arise, combat action is needed, or serious incidents have been observed.
(2) How relevant threat information will be shared between contractor security personnel and U.S. military forces.
(3) How the contractor will coordinate transportation with appropriate OSC-I or USFOR-A authorities.

(d) **Plan for Accomplishing Employee Vetting**. The contractor will submit to the COR an acceptable plan for vetting all contractor and subcontractor local national and third country national employees. The contractor shall, at a minimum, perform the following (which will be specifically addressed in its plan):

(1) Local Nationals: Perform Local and National Agency background checks in accordance with Host Nation Government policies and protocols.
(2) Use one or more of the following sources when conducting the background checks on Third Country Nationals: Interpol, FBI, Country of Origin Criminal Records, Country of Origin U.S. Embassy Information Request, or CIA records.
(3) All local nationals and third country nationals will voluntarily submit to full biometric enrollment in accordance with theater biometric policies prior to submitting arming requests. All local nationals and third country nationals will voluntarily submit to routine biometric screening in accordance with local installation policies and procedures. The contractor will immediately notify the COR, local installation Force Protection agency, and the theater arming approval authority of any individuals who are revealed as potential security risks during biometric processing.
(4) The Contractor shall provide to the COR official written certification of candidate(s) suitability for employment. This certification may address multiple employees on a single certification but must clearly

state each employee was vetted in accordance with the Contractor's plan for accomplishing employee vetting.

(e) **Penalties for Non-Compliance**. Failure of contractor or subcontractor employee(s) to comply with the laws, regulations, orders, and rules (including those specified herein) governing the use of force, training, arming authorization, and incident reporting requirements may result in the revocation of weapons authorization for such employee(s). Where appropriate, such failure may also result in the total revocation of weapons authorization for the contractor (or subcontractor) and sanctions under the contract, including termination.

(f) **Criminal and Civil Liability**. Arming of contractor or subcontractor employees under this contract may subject the contractor, its subcontractors, and persons employed by the same to the civil and criminal jurisdiction of the U.S. and Host Nation. "Host Nation" refers to the nation or nations where services under this contract are performed. Additionally, the arming authority's authorization letter is valid for a maximum of twelve (12) months from the date of the prior letter (unless authorization is earlier invalidated by a lapse in training).(Afghanistan only)

(g) **Lapses in Training or Authorization**. Failure to successfully retrain an employee who has been properly authorized to be armed under this contract within twelve (12) months of the last training date will constitute a lapse in the employee's authorization to possess and carry the weapon. All unauthorized employees will immediately surrender their weapon and authorization letter to the contractor and will remain unarmed until such time as they are retrained and newly approved by the arming authority.

(h) **Authorized Weapon & Ammunition Types**. Unless the BDOC for Iraq or the Deputy Commander of USCENTCOM (DCDRUSCENTCOM) (or a designee) for Afghanistan expressly provides otherwise, all arming requests and authorizations for contractor or subcontractor employees under this contract shall be limited to U.S. Government-approved weapons and ammunition. Notwithstanding Host Nation laws or regulations that would allow use of heavier weapons by contract security/PSC, all DoD security service / PSC contractors must have weapons approved by the RSO or DCDRUSCENTCOM (or a designee) before use. This restriction applies to all weapons in the possession of contractor employees, even if such weapons are required for personal protection. The following weapons and ammunition are currently authorized by the arming authority for use in Iraq and Afghanistan:

(1) The M9, M4, M16, or equivalent (equivalency determination by the appropriate arming authority).
(2) The M9 or equivalent sidearm will be the standard personal protection weapon unless other weapons are specifically requested and approved.
(3) Standard authorized weapons are selectable fire semi-automatic weapons only. All Non-U.S. and Non-standard weapons must be submitted to the theater arming authority for review and approval. Non-standard weapons are classified as any machine gun, belt- fed or crew served weapon or any weapon utilizing ammunition greater than 7.62mm X 51mm NATO. Contractors must also provide scorecards and criteria for qualification appropriate to the Non-standard weapon's caliber.
(4) U.S. government Ball ammunition is the standard approved ammunition.

(i) **Requirements for Individual Weapons Possession**. All employees of the contractor and its subcontractors at all tiers who are authorized to be armed under this contract must:

(1) Possess only those U.S. Government-approved weapons and ammunition for which they are qualified under the training requirements of section (b) and subsequently authorized to carry.
(2) Carry weapons only when on duty or at a specific post (according to their authorization).
(3) Not conceal any weapons, unless specifically authorized.
(4) Carry proof of authorization to be armed. Employees not possessing such proof will be deemed unauthorized and must surrender their weapon to their employer.
(5) IAW USCENTCOM G.O. #1, consumption of alcohol or use of any intoxicating substances which may impair judgment, medication or otherwise in Afghanistan is prohibited.
(6) Employees shall not consume any alcoholic beverage while armed or within eight (8) hours of the next work period when they will be armed. There are no circumstances under which a person will be authorized

to consume any alcoholic beverage or use any judgment impairing substance when armed for personal protection.

(j) **Weapons/Equipment Restrictions and Responsibilities**. Unless otherwise provided, the U.S. Government will not provide any weapons or ammunition to contractors, their subcontractors, or any employees of the same. The Contractor will provide all weapons and ammunition to those employees that will be armed under the contract. The contractor and its subcontractors at all tiers will also provide interceptor body armor, ballistic helmets, and the Nuclear, Biological, and Chemical (NBC) protective masks to those employees that require such equipment in the performance of their duties.

(k) **Rules for the Use of Force (RUF)**. In addition to the RUF and ROE training referenced in paragraph (b), the contractor and its subcontractors at all tiers will monitor and report all activities of its armed employees that may violate the RUF and/or otherwise trigger reporting requirements as serious incidents. Prompt reporting demonstrates a desire by the contractor and its subcontractors to minimize the impact of any violations and, therefore, will be given favorable consideration. Violations of the RUF include, though are not limited to:

(1) Failing to cooperate with Coalition and Host Nation forces.
(2) Using deadly force, other than in self-defense where there is a reasonable belief of imminent risk of death or serious bodily harm.
(3) Failing to use a graduated force approach.
(4) Failing to treat the local civilians with humanity or respect.
(5) Detaining local civilians, other than in self-defense or as reflected in the contract terms.

(l) **Retention and Review of Records**. The Contractor and all subcontractors at all tiers shall maintain records on weapons training, LOAC, RUF and the screening of employees for at least six (6) months following the expiration (or termination) of the contract. The Contractor and its subcontractors at all tiers shall make these records available to the Contracting Officer or designated representative, at no additional cost to the government, within 72 hours of a request.

(m) **Contractor Vehicles**. Vehicles used by contractor and subcontractor personnel in the course of their security duties shall not be painted or marked to resemble U.S./Coalition or host nation military and police force vehicles.

(n) **Monthly Reporting**. The prime contractor will report monthly arming status to the Contracting Officer responsible for this contract, and any other organization designated by the Contracting Officer in accordance with theater policy and the timelines defined in the Performance Work Statement.

(End of Clause)

952.225-0002 ARMED PERSONNEL INCIDENT REPORTS (DEC 2011)

(a) All contractors and subcontractors in the Iraq or United States Forces-Afghanistan (USFOR-A) theater of operations shall comply with and shall ensure that their personnel supporting the Office of Security Cooperation-Iraq (OSC-I) or USFOR-A personnel or forces are familiar with and comply with all applicable orders, directives, and instructions issued by the respective OSC-I or USFOR-A Commanders relating to force protection and safety.

(b) **IRAQ**: Contractors shall provide an initial report of all weapons firing incidents or any other serious incidents they or their contractors are involved in to nearest OSC-I Base Defense Operations Center (BDOC) (listed below) as soon as practical, but not later than 4 hours after the incident. The contractor and its subcontractors at all tiers shall submit a written report to the BDOC, the Contracting Officer (KO) within 96 hours of the incident. Interim reports shall be submitted between the initial and final report should also be sent to the OSC-I JOC: DLOSC-ICHOPS@iraq.centcom.mil or SVOIP 708-243-2483.

- Umm Qasr 708-241-5490

- Besmaya 708-242-0012/0014
- Taji 708-242-6775/6205
- Union III 708-243-2377
- Tikrit 709-242-1002
- Kirkuk 708-242-2203

(c) **AFGHANISTAN**: In the event a weapon firing incident or any other serious incident, contractors shall prepare and submit an initial incident report as soon as feasible, but not later than 4 hours from the beginning of the incident, to the Contracting Officer (KO), Contracting Officer's Representative (COR), USFOR-A ACOD, and USFOR-A J3 Situational Awareness Room (SAR). Additionally, the contractor and its subcontractors at all tiers shall submit a written report to the above personnel within 96 hours of the incident. Information shall include: the name of the company, where the incident occurred, time when the incident occurred, a brief description of the events leading up to the incident, and a point of contact for the company. Contractors and anyone re-transmitting the report shall make reasonable efforts to transmit incident reports via secured means (SIPRnet or CENTRIX) when the incident report includes operationally sensitive information.

(d) Contractors shall provide first aid and request MEDEVAC of injured persons, and remain available for U.S. or Coalition response forces, based upon the situation. In the event contractor personnel are detained by U.S. or Coalition Forces, prolonged detention due to lack of proper identification can be alleviated by contractor personnel possessing on their person information that includes the contractor's name, the contract number, a contractor management POC, and the phone number of the CONOC/SAR Watch. Contractor and subcontractor personnel shall carry their Letter of Authorization (LOA) on their person at all times.

(End of Clause)

952.225-0003 FITNESS FOR DUTY AND MEDICAL/DENTAL CARE LIMITATIONS (AFGHANISTAN) (DEC 2011)

(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 (i.e. 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 >/= 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 (< 1 year) 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 Federal Acquisition Regulation Supplement (DFARS) 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. Subject to availability at the time of need, a medical treatment facility may provide reimbursable treatment for emergency medical or dental care such as broken bones, lacerations, broken teeth or lost fillings.
(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 got to the following website: http://comptroller.defense.gov/rates/fy2012.html (change fiscal year as applicable).

(End of Clause)

952.225-0004 – COMPLIANCE WITH LAWS AND REGULATIONS (DEC 2011)

(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 US Central Command orders and directives as applicable to personnel in Iraq and Afghanistan, including but not limited to USCENTCOM, Multi-National Force and Multi-National Corps or Chief of Mission 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.

(1) Afghanistan – 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.

(2) Iraq – Contractor employees are not subject to General Order 1. Contractor employees will follow the policies or directives of the Office of Security Cooperation-Iraq (OSC-I) Installation Managers or Chief of Mission policies and directives regarding consumption of alcohol or any prohibited items for sites that they are assigned.

(c) Contractor employees may be ordered removed from the US Embassy, Chief of Mission sites, OSC-I sites, secure military installations or the theater of operations by order of the Chief of Mission (Iraq) or senior military commander of the battle space (Afghanistan) 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 Iraq or 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 Iraq or 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 in Iraq or within the AOR or administratively attached to a military command pending resolution of a criminal investigation.

(f) Contractors shall immediately notify the BDOC (Iraq) or military law enforcement (Afghanistan) 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 Chief of Mission (Iraq) or the senior U.S. commander (Afghanistan).

(End of Clause)

952.225-0005 MONTHLY CONTRACTOR CENSUS REPORTING (AUG 2011)

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 25th 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 252.225-7040 or DFARS DOD class deviation 2011-O0004.

(End of Clause)

CONTRACT DELIVERY REQUIREMENTS (JUL 2010)

REQUIRED DELIVERY DATE: _____

CONTRACTOR DELIVERY LOCATION: _____

POINT-OF-CONTACT RESPONSIBLE FOR INSPECTION & ACCEPTANCE:

Name: _____

Phone No.: _____ email: _____

FINAL DELIVERY DESTINATION: _____

POINT-OF-CONTACT AT FINAL DESTINATION: _____

Name: _____

Phone No.: _____ email: _____

REQUIRING ACTIVITY: _____

(End of Clause)

952.225-0009 MEDICAL SCREENING AND VACCINATION REQUIREMENTS FOR CONTRACTOR EMPLOYEES OPERATING IN THE CENTCOM AREA OF RESPONSIBILITY (AOR) (DEC 2011)

(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 of 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, 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 Contractor's 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. 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 CENTCOM Area of Operations. A copy of the TB screening documentation shall be provided to the responsible Base Operations Center prior to issuance of base access badges.

(b) Contractor employees, including subcontractors at any tier, who work in food service positions and/or 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 as Supplemented, and FRAGO's) as applicable regarding Medical Screening and Vaccination Requirements.

(End of Clause)

952.225-0011
GOVERNMENT FURNISHED CONTRACTOR SUPPORT
(MAY 2012)

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

☐ APO/FPO/MPO/DPO/ Postal Services**	☐ DFACs	☐ Mil Issue Equip
☐ Authorized Weapon	☐ Excess Baggage	☐ MILAIR
☐ Billeting	☐ Fuel Authorized	☐ MWR
☐ CAAF*	☐ Govt Furnished Meals	☒ Resuscitative Care
☐ Controlled Access Card (CAC)	☐ Military Banking	☐ Transportation
☒ Badge	☐ Military Clothing	☐ All
☐ Commissary	☐ Military Exchange	☐ None
☐ Dependents Authorized	☐ Embassy Air***	☐ Embassy Clinic Iraq***
☐ Embassy Housing, Meals****	☐ Embassy Clinic – Afghanistan****	
☐ Embassy Air****		

Third-Country National (TCN) Employees

☐ N/A	☐ DFACs	☐ Mil Issue Equip
☐ Authorized Weapon	☐ Excess Baggage	☐ MILAIR
☐ Billeting	☐ Fuel Authorized	☐ MWR
☐ CAAF*	☐ Govt Furnished Meals	☒ Resuscitative Care

☐ Controlled Access Card (CAC)	☐ Military Banking	☐ Transportation
☒ Badge	☐ Military Clothing	☐ All
☐ Commissary	☐ Military Exchange	☐ None
☐ Dependents Authorized	☐ Embassy Air***	☐ Embassy Clinic

Local National (LN) Employees

☐ N/A	☐ DFACs	☐ Mil Issue Equip
☐ Authorized Weapon	☐ Excess Baggage	☐ MILAIR
☐ Billeting	☐ Fuel Authorized	☐ MWR
☐ CAAF*	☐ Govt Furnished Meals	☒ Resuscitative Care
☐ Controlled Access Card (CAC)	☐ Military Banking	☐ Transportation
☒ Badge	☐ Military Clothing	☐ All
☐ Commissary	☐ Military Exchange	☐ None
☐ Dependents Authorized	☐ Embassy Air***	☐ Embassy Clinic

* CAAF means Contractors Authorized to Accompany Forces.
** Mail to Iraq limited to 2lbs
*** Applies to Iraq only
**** Applies to US Embassy Life Support in Afghanistan only

SPECIAL NOTE – Iraq Security: The Office of Security Cooperation-Iraq (OSC-I) will provide security support to contractor personnel commensurate with the level of security provided to DoD civilians working in Iraq. Security support will include static and mobile security support. Static security is provided at all OSC-I sites to include living and dining facilities, base perimeter and gates. Mobile security support includes Security Escort Teams (SETs) which provide the necessary security while personnel are transiting to their work site and while at the work location.

SPECIAL NOTE – US Embassy Afghanistan Life Support: The type and amount of support that the U.S. Embassy Mission in Kabul, Afghanistan, provides to contractors, if any, must be coordinated in advance between the U.S. Mission and the contracting agency in accordance with Department of State Foreign Affairs Handbook, 2-FAH-2. Contractors are not authorized to deploy personnel requiring US Mission support prior to receiving clearance from the contracting officer.

(End of Clause)

952.225-0016 CONTRACTOR DEMOBILIZATION (AFGHANISTAN) (AUG 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 is responsible to remain cognizant of Afghan laws regarding exit from Afghanistan. Currently, all foreigners traveling out of Afghanistan airports via commercial air transportation must have exit visas. Department of Defense, U.S. Forces-Afghanistan, Letters of Authorization (LOAs), and/or Embassy Badges are not accepted means of exiting Afghanistan. All U.S. citizens and foreign national contractors exiting via commercial means must obtain an Afghanistan exit sticker before departing the country. The exit sticker may be obtained from Ministry of Interior (MOI) office. 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. It is to the responsibility of the contractor to work with the Embassy of Afghanistan or Afghanistan MOI as required.

(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, 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) Contractor Personal Property: The contractor is advised that all personal property left on the respective installation after the date of departure of said premises, shall be sold or otherwise disposed of in accordance with 10 U.S.C. § 2575.

(i) A request for the return of the property will be honored, if feasible, and if received before the expiration of the period of time allowed to vacate the installation.
(ii) If abandoned property is left on the respective installation, contractual remedies may be enforced against the contractor, (See paragraph (b) of this clause for potential contractual remedies). Additionally, even if the contractor waives its interest to all abandoned personal property, the contractor may still be liable for all costs incurred by the USG to remove or dispose of the abandoned property.
(iii) The contractor hereby authorizes the USG authority to dispose of any and all abandoned personal property in any manner the USG may deem suitable and hereby releases and discharges the USG and its agents from any and all claims and demands whatsoever that could otherwise be asserted because of the disposition of said abandoned personal property.

(7) 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.

(8) 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.

(9) Personnel Recovery: Any DoD contractor with unaccounted for employees shall follow the instructions in the "Contractor Accountability and Personnel Recovery" Clause 952.225-20. The contractor may use the Contracting Fusion Cell as a resource to track or research employees last known location and/or to view LOA's.

(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.

(End of Clause)

952.225-0019 COMMODITY SHIPPING INSTRUCTIONS (AFGHANISTAN) (AUG2011)

(a) **USFOR-A FRAGO 10-200**. United States Forces Afghanistan (USFOR-A) has directed that all shipments into and out of the Combined Joint Operations Area - Afghanistan (CJOA-A) be coordinated through the Defense Transportation System (DTS) in order to expedite the customs clearance process and facilitate the use of in-transit visibility for all cargo in the CJOA-A

(b) **Information regarding the Defense Transportation System (DTS).** For instructions on shipping commodity items via commercial means using DTS, see the following websites:

1. Defense Transportation Regulation – Part II Cargo Movement - Shipper, Trans-shipper, and Receiver Requirements and Procedures: http://www.transcom.mil/dtr/part-ii/dtr_part_ii_203.pdf

2. Defense Transportation Regulation – Part II 4 Cargo Movement – Cargo Routing and Movement: http://www.transcom.mil/dtr/part-ii/dtr_part_ii_202.pdf

3. Defense Transportation Regulation – Part V - Department of Defense Customs and Border Clearance Policies and Procedures: http://www.transcom.mil/dtr/part-v/dtr_part_v_512.pdf

(c) **Responsibilities of the vendor carrier representative, shipping expediter, and/or customs broker:**

1. Afghanistan Import Customs Clearance Request Procedures: The carrier, shipping expediter, and/or customs broker is responsible for being knowledgeable about the Afghan Customs Clearance Procedures.
2. Status of Customs Clearance Requests: All inquiries regarding the status of a customs clearance request prior to its submission to Department of Defense (DoD) Customs and after its return to the carrier representative or shipping expediter should be directed to the carrier or shipping agent.
3. Customs Required Documents: The carrier representative or shipping expediter is required to provide the DoD Contracting Officer Representative (COR) with all documentation that will satisfy the requirements of the Government of the Islamic Republic of Afghanistan (GIRoA).

(d) **Required Customs Documents:** Documents must be originals (or copies with a company stamp). Electronic copies or photocopied documents will not be accepted by GIRoA. The carrier is responsible for checking the current requirements for documentation with the Afghanistan Customs Department (ACD) as specified by the U.S. Embassy Afghanistan's SOP for Customs Clearance Requests Operations (http://trade.gov/static/AFGCustomsSOP.pdf) and paragraph 4 below.

1. The U.S Ambassador Afghanistan diplomatic note guarantees that the U.S. Government (USG) shipments are exempt from Afghanistan Customs duties and taxes. USG shipments do not provide commercial carriers with the authority to unnecessarily delay shipments or holdover shipments in commercial storage lots and warehouses while en route to its final destination. The U.S. Embassy expects that shipments will be expedited as soon as customs clearance paperwork is received from the respective GIRoA officials.

2. Imports: Documentation must list the year, make, model, and color of the commodity, the commodity Identification Number (if applicable) and for vehicles, the Engine Block Number. The following documentation is required for all import shipments:

a. An original Customs Clearance Request (CCR) prepared by the COR in accordance with Afghanistan customs guidance referenced in paragraph 4 below.
b. Bills of Lading (for shipments by sea), Airway Bills (for shipments by air) or Commodity Movement Request (CMRs) (for overland shipments). In the consignee block, type in "US Military". This will help the Afghan Customs officials to recognize that the shipment belongs to the US Military and, therefore, the shipment is subject to tax exemption provisions as specified under the current Diplomatic Note or Military Technical Agreement (MTA).
c. Shipping Invoices.
d. Packing Lists. Required only if the shipping invoice does not list the cargo.
e. An Afghan Government Tax Exemption Form (Muaffi Nama) purchased from the Department of Customs and Revenue and prepared in the local language by the carrier representative, shipping agent, or customs broker.
f. A Diplomatic Note, prepared by DoD Customs, to the Ministry of Foreign Affairs requesting the initiation of customs formalities with the Ministry of Finance, Department of Customs and Exemptions. Please note that DoD Customs is not responsible for registering vehicles.
g. Commercially-owned equipment such as vehicles, construction machinery or generators that are leased and imported to Afghanistan for the performance of a USG contract may be subject to taxes and duties as determined by GIRoA. If commercially-owned equipment is imported into Afghanistan in a duty-free status, that duty-free status only applies as long as the equipment is under the exclusive use of the USG contract. If the equipment is released at the end of the contract, applicable GIRoA duties and taxes will apply to the owner if the equipment is not exported from Afghanistan or transferred to another USG contract.
h. USG-owned vehicles must be exported at the conclusion of the project period or transferred to another USG entity. Under certain conditions, the USG may transfer equipment or vehicles to GIRoA.

3. Exports: The following documentation is required for all export shipments:

a. An original CCR prepared by the COR. If COR is not available, the Contracting Officer (KO) will prepare the CCR.
b. Invoices.
c. Packing Lists. Required only if the shipping invoice does not list the cargo.
d. A Diplomatic Note, prepared by the DoD Customs Cell, to the Ministry of Foreign Affairs requesting the initiation of customs formalities with the Ministry of Finance, Department of Customs and Exemptions.

4. Customs requirements from the GIRoA may change with little notice. For current detailed instructions on customs guidelines in Afghanistan, refer to "The Instruction for Customs Clearance Request (Import/Export) Operations." In all cases, the carrier is required to obtain a copy of this document, found at the following link: http://trade.gov/static/AFGCustomsSOP.pdf

(e) **Point of contact (POC) for customs issues is the USFOR-A Joint Security Office (JSO) J3** at DSN: 318-449-0306 or 449-0302. Commercial to DSN conversion from the United States is (732) 327-5130, choose option #1, and then dial 88-318 followed by your seven-digit DSN number.

(End of Clause)

952.225-0020 CONTRACTOR ACCOUNTABILITY AND PERSONNEL RECOVERY (AFGHANISTAN) (AUG 2011)

(a) 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.

(1) Unaccounted Personnel: It is the expectation of the USG that any contractor brought into Afghanistan for the sole purposes of performance of work on a USG contract must be accounted for at all times by their respective employers. Additionally, contractors who maintain living quarters on a USG base shall verify the location of each of its employees' living quarters a minimum of once a month. If a DoD contracted employee becomes missing and evidence does not indicate foul play, a Personnel Recovery (PR) event is NOT automatically triggered. Such an event will be treated as an accountability battle drill by the employer's chain of command or civilian equivalent.

(2) Contractor Responsibilities: The contractor is responsible to take all necessary steps to locate and investigate the unaccounted for employee(s) whereabouts to the maximum extent practicable. To assist in this process, contractors may use the Contracting Fusion Cell as a resource to track or research employee's last known location and/or to view LOA's. All missing personnel will be immediately reported to the installation division Personnel Recovery Officer (PRO), Mayor's cell, Military Police Station and/or the Criminal Investigative Division, and the Base Defense Operations Center (BDOC).

(3) Contractor Provided Information: If it is determined that a potential criminal act has occurred, the USD PRO (or USFOR-A Personnel Recovery Division (PRD) with prior coordination) will attempt to validate the missing person's identity through the employer. The contractor shall provide the information to PRD within 12 hours of request. The required information the contractor should keep on file includes but is not limited to: copy of the individuals Letter of Authorization generated by the Synchronized Pre-deployment and Operational Tracker System (SPOT), copy of passport and visas, housing information of where the individual resides such as room number and location, DD Form 93, Record of Emergency Data, copy of badging, and contact information for known friends or associates.

(b) If USFOR-A PRD determines through investigation that the unaccounted personnel have voluntarily left the installation either seeking employment with another contractor or other non-mission related reasons, PRD will notify the contractor. The contractor shall ensure that all government-related documents such as LOA's, visas, etc. are terminated/reconciled appropriately within 24 hours of notification by PRD in accordance with subparagraph (a)(8) of C-JTSCC Clause 952.225-0016 entitled "Contractor Demobilization (Afghanistan)". Contractors who fail to account for their personnel or whose employees create PR events will be held in breach of their contract and face all remedies available to the Contracting Officer.

(End of Clause)

952.225-0022 VISIBILITY OF INBOUND/OUTBOUND CARGO AND CONTRACTOR EQUIPMENT CENSUS (AFGHANISTAN) (APR 2012)

a. Movement and coordination of inbound and outbound cargo in Afghanistan is critical to ensuring an effective drawdown. The contractor shall provide visibility of their inbound cargo and equipment via the Synchronized Pre-deployment Operational Tracker (SPOT) census for their contract. This requirement includes the prime and subcontractor's at all tiers cargo and equipment. The contractor shall report any individual piece of equipment valued at $50,000 or more. Incoming cargo and equipment census data shall be input 30 days prior to start of performance or delivery of supplies and quarterly thereafter for inbound and outbound equipment.

b. This reporting is required on Rolling Stock (RS), Non Rolling Stock (RNRS), and Twenty foot Equivalent Units (TEU). The following definitions apply to these equipment/cargo categories:

(1) Rolling Stock (RS): All equipment with wheels or tracks, that is self-propelled, or is un-powered and can be towed by a vehicle on a roadway. Also includes standard trailer mounted equipment such as generators, water purification equipment, and other support equipment with permanent wheels. Specific examples of R/S include Wheeled Armored Vehicles (WAVS), Mine-Resistant Ambush-Protected (MRAP) family of vehicles (FOVS), and Highly Mobile Multipurpose Wheeled Vehicles (HMMWVS).

(2) Non Rolling Stock (RNRS): All equipment that is not classified as Rolling Stock. Includes equipment that is not trailer-mounted or originally designed to be driven or towed over a roadway.
(3) Twenty foot Equivalent Units (TEU): Standard unit for describing a ship's cargo capacity, or a shipping terminal's cargo handling capacity. One TEU represents the cargo capacity of a standard intermodal shipping container, 20 feet long, 8 feet wide, and 8.5 feet high. One TEU is equivalent to 4 QUADCONS and 3 TRICONS. One TEU has an internal volume of 1,166 cubic feet.

c. This data will be used by United States Forces-Afghanistan (USFOR-A) to assist in tracking the drawdown of Afghanistan. The contractor is responsible for movement of their own cargo and equipment. The data provided by contractors is for informational purposes only in order to plan and coordinate the drawdown effort. The Government assumes no responsibility for contractor demobilization except as stated in individual contract terms and conditions.

(End of Clause)

952.236-0001 ELECTRICAL AND STRUCTURAL BUILDING STANDARDS FOR CONSTRUCTION PROJECTS (DEC 2011)

(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) 2011 National Electrical Code (NEC) for new construction
(3) 2008 National Electrical Code (NEC) for repairs and upgrades to existing construction
(4) American National Standards Institute (ANSI) C2, and
(5) 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 apply British Standard (BS 7671, Edition 17 defacto standard for 50 HZ installations). 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://www.wbdg.org/ccb/browse_cat.php?o=29&c=4
NFPA 70: http://www.nfpa.org
NESC: http://www.standards.ieee.org/nesc

(End of Clause)

Solicitation no. W5J9LE-12-R-0036

US Army Corps of Engineers
Afghanistan Engineer District South

Kajaki Dam – Irrigation Tunnel Works

Helmand Province, Afghanistan

Project Specifications And Drawings

Proposal Requirements, Contract Forms, Conditions of the Contract

May 2012

THIS IS AN INVITATION FOR BID

DIVISION 00 –CONTRACT REQUIREMENTS
SECTION 00 08 00

SPECIAL CONTRACT REQUIREMENTS FOR
DESIGN-BUILD: DESIGN AFTER AWARD

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SCR-1 DESIGN-BUILD CONTRACT-ORDER OF PRECEDENCE - AUG 1997

(a) The contract includes the standard contract clauses and schedules current at the time of award. It also entails: (1) the solicitation in its entirety, including all drawings, cuts and illustrations, and any amendments during proposal evaluation and selection, and (2) the successful Offeror's accepted proposal. The contract constitutes and defines the entire agreement between the Contractor and the Government. No documentation shall be omitted which in any ways bears upon the terms of that agreement.

(b) In the event of conflict or inconsistency between any of the provisions of the various portions of this contract, precedence shall be given in the following order:

(1.) Betterments: Any portions of the Offeror's proposal, which both meet and exceed the provisions of the solicitation.

(2.) The provisions of the solicitation (See also Contract Clause: SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION).

(3.) All other provisions of the accepted proposal.

(4.) Any design products, including but not limited to plans, specifications, engineering studies and analyses, shop drawings, equipment installation drawings, etc. These are "deliverables" under the contract and are not part of the contract itself. Design products must conform to all provisions of the contract, in the order of precedence herein.

(End of Clause)

SCR-2 KEY PERSONNEL, SUBCONTRACTORS AND OUTSIDE ASSOCIATES OR CONSULTANTS - AUG 1997

In connection with the services covered by this contract, any in-house personnel, subcontractors, and outside associates or consultants will be limited to the individuals or firms that were specifically identified and agreed to during negotiations. The contractor shall obtain the Contracting Officer's written consent before making any substitution for these designated in-house personnel, subcontractors, associates, or consultants.

(End of Clause)

SCR-3 RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN - MAY 2002

(a) The Contractor shall be responsible for the professional quality, technical accuracy, and the coordination of all designs, drawings, specifications, and other non-construction services

furnished by the Contractor under this contract. The Contractor shall, without additional compensation, correct or revise any errors or deficiency in its designs, drawings, specifications, and other non-construction services and perform any necessary rework or modifications, including any damage to real or personal property, resulting from the design error or omission.

(b) The standard of care for all design services performed under this agreement shall be the care and skill ordinarily used by members of the architectural or engineering professions practicing under similar conditions at the same time and locality. Notwithstanding the above, in the event that the contract specifies that portions of the Work be performed in accordance with a performance standard, the design services shall be performed so as to achieve such standards.

(c) Neither the Government's review, approval or acceptance of, nor payment for, the services required under this contact shall be construed to operate as a waiver of any rights under this contract or of any cause of action arising out of the performance of this contract. The Contractor shall be and remain liable to the Government in accordance with applicable law for all damages to the Government caused by the Contractor's negligent performance of any of these services furnished under this contract.

(d) The rights and remedies of the Government provided for under this contract are in addition to any other rights and remedies provided by law.

(e) If the Contractor is comprised of more than one legal entity, each entity shall be jointly and severally liable hereunder.

(End of Clause)

SCR-4 WARRANTY OF DESIGN (FIRM-FIXED PRICE DESIGN-BUILD CONTRACT) – MAY 2002

(a) The Contractor warrants that the design shall be performed in accordance with the Contract requirements. Design and design related construction not conforming to the Contract requirements shall be corrected at no additional cost to the Government. The standard of care for design is defined in paragraph (b) of Special Contract Requirement "RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN".

(b) The period of this warranty shall commence upon final completion and the Government's acceptance of the work, or in the case of the Government's beneficial occupancy of all or part of the work for its convenience, prior to final completion and acceptance, at the time of such occupancy.

(c) This design warranty shall be effective from the above event through the Statue of Limitations and Statute of Repose, as applicable to the state that the project is located in.

(d) The rights and remedies of the Government provided for under this clause are in addition to

any other rights and remedies provided in this contract or by law.

(End of Clause)

SCR-5 WARRANTY OF CONSTRUCTION WORK – AUG 1997

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (1) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, or workmanship.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice:

(2) Require all warranties to be executed, in writing, for the benefit of the

Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of Clause)

SCR-6 SEQUENCE OF DESIGN-CONSTRUCTION (FAST TRACK)

(a) After receipt of the Contract Notice to Proceed (NTP) the Contractor shall initiate design, comply with all design submission requirements as covered under Division 01 General 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 ACO or COR 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 ACO or COR, the initial submission failed to meet the minimum quality requirements as set forth in the Contract.

(b) If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

(c) No payment will be made for any in-place construction until all required submitttals have been made, reviewed and are satisfactory to the Government.

(End of Clause)

SCR-7 CONSTRUCTOR'S ROLE DURING DESIGN – JUN 1998

The Contractor's construction management key personnel shall be actively involved during the design process to effectively integrate the design and construction requirements of this contract. In addition to the typical required construction activities, the constructor's involvement includes, but is not limited to actions such as: integrating the design schedule into the Master Schedule to maximize the effectiveness of fast-tracking design and construction (within the limits allowed in the contract), ensuring constructability and economy of the design, integrating the shop drawing and installation drawing process into the design, executing the material and equipment acquisition programs to meet critical schedules, effectively interfacing the construction QC program with the design QC program, and maintaining and providing the design team with accurate, up-to-date redline and as-built documentation. The Contractor shall require and manage the active involvement of key trade subcontractors in the above activities.

(End of Clause)

SCR-8 RECOMMENDED INSURANCE COVERAGE - MAR 2002

The Design-Build Contractor's attention is invited to the contract requirements concerning "RESPONSIBILITY OF THE CONTRACTOR FOR DESIGN", "WARRANTY OF DESIGN" and "WARRANTY OF CONSTRUCTION WORK". These requirements vest in the Contractor complete responsibility for the professional quality, technical accuracy, and coordination of all design, drawings, specifications and other work or materials furnish by his in-house or consultant forces. The Design-Build Contractor must correct and revise any errors or deficiencies in his work, notwithstanding any review, approval, acceptance or payment by the Government. The Contractor must correct and change any work resulting from his defective design at no additional cost to the Government. The requirements further stipulate that the Design-Build Contractor shall be liable to the Government for the damages to the Government caused by negligent performance. Though not a mandatory requirement, this is to recommend that the Design-Build Contractor investigate and obtain appropriate insurance coverage for such liability protection.

(End of Clause)

SCR-9 DESIGN CONFERENCES – AUG 1997

(a) Pre-Work: As part of the Pre-Work Conference conducted after contract award, key representatives of the Government and the Contractor will review the design submission and review procedures specified herein, discuss the preliminary design schedule and provisions for phase completion of the D-B documents with construction activities (fast tracking), as appropriate, meet with Corps of Engineers Design Review personnel and key Using Agency points of contact and any other appropriate pre-design discussion items.

(b) Design Charette: After award of the contract, the Contractor shall visit the site and conduct extensive interviews, and problem solving discussions with the individual users, base personnel, Corps of Engineers personnel to acquire all necessary site information, review user options, and discuss user needs. The Contractor shall document all discussions. The design shall be finalized as direct result of these meetings.

(c) Design Review Conferences: Review conferences will be held on base for each design submittal. The Contractor will bring the personnel that developed the design submittal to the review conference. The conferences will take place the week after the review is complete.

(End of Clause)

SCR-10 VALUE ENGINEERING AFTER AWARD – JUNE 1999

(a) 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 Solicitation documents which were addressed in the Contractor's accepted contract proposal and which were evaluated in competition with other offerors for award of this contract.

(b) 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.

(c) For purposes of this clause, the term "performance oriented" refers to those aspects of the design criteria or other contract requirements which allow the Offeror or 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.

(d) In contrast, 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 Offerors little or no freedom in the choice of design approach, materials, fabrication techniques, methods of installation or other approach to fulfill the contract requirements.

(End of Clause)

SCR-11 DEVIATING FROM THE ACCEPTED DESIGN (JUN 2002)

(a.) The Contractor must obtain the approval of the Designer of Record and the Government's concurrence for any Contractor proposed revision to the professionally stamped and sealed and Government reviewed and concurred design, before proceeding with the revision.

(b.) The Government reserves the right to non-concur with any revision to the design, which may impact furniture, furnishings, equipment selections or operations decisions that were made, based on the reviewed and concurred design.

(c.) Any revision to the design, which deviates from the contract requirements (i.e., the RFP and the accepted proposal), will require a modification, pursuant to the Changes clause, in addition to Government concurrence. The Government reserves the right to disapprove such a revision.

(d.) Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense.

(e.) The Contractor shall track all approved revisions to the reviewed and accepted design and shall incorporate them into the as-built design documentation, in accordance with agreed procedures. The Designer of Record shall document its professional concurrence on the as-builts for any revisions in the stamped and sealed drawings and specifications.

(End of Clause)

SCR-12 SUBMITTAL OF WORK TO BE PERFORMED BY THE CONTRACTOR

The Contractor shall furnish the Contracting Officer within 10 days after the award the items of work he will perform with his own forces and the estimated cost of those items. The percentage of work that must be performed by the Contractor is stated in Contract Clause 52.236-1, "PERFORMANCE OF WORK BY THE CONTRACTOR"

(End of Clause)

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SECTION 00 55 50
DESIGN CONCEPT DOCUMENTS

PART 1 GENERAL

This section establishes the concept, basis for the project design and/or the basis of construction. These requirements are minimum standards and may be exceeded by the Offeror. Deviations from these concepts, standards and design drawings may be approved if considered by the Government to be in its best interests.

The extent of development of these requirements in no way relieves the successful Offeror from the responsibility of completing the design, construction documentation, and construction of the facility in conformance with applicable criteria and codes.

1.1 ENGINEERING AND DESIGN CRITERIA

General design requirements are set forth in this document herein. The Contractor shall use the list of applicable guides, industry standards, codes, and USACE Corps of Engineers publications provided in Appendix B for design. The publications in Appendix B shall be used for design and incorporated by reference into the appropriate contract specifications. The Specifications Divisions 02 thru 48 are the primary specifications criteria for the project. No design criteria will be furnished by the Afghanistan Engineer District South except that which may be required for design and IS NOT available from commercial sources or from the Construction Criteria Base (CCB) or 'Techinfo' website located at http://www.wbdg.org/ccb/ . The references within CCB must be obtained by the A/E if the criteria are required or desired. All design, unless otherwise specified, shall be based on nationally recognized UFGS industry standard, criteria, and practice.

1.2 BASIS FOR DESIGN

All known original design drawings are included in Appendix A. Many of these are not redline drawings certified "as-built" by the designer of record. These are the only drawings known to still exists (as-built or otherwise).

Relevant historical documents supporting the basis for design are provided in Appendix C. This includes the original design report (1956), subsequent inspections of the irrigation conduits (1964), and original manuals and catalogue sheets for the valves.

1.2.1 ADDITIONAL DOCUMENTS FOR BASIS OF DESIGN

A copy of the relevant documents prepared by the government for defining the scope of work in this invitation to bid is attached as Appendix D which includes the following:

a. *USACE Value Engineering Alternative for the Irrigation Intake Structure (2011)*
b. *Government Review of existing and historical conditions for mechanical features (2011)*
c. *Government Review of Spillways for subsurface Investigation (2011)*
d. *Government Topographic Survey Report (2005)*

1.3 SPECIFICATIONS

Specifications shall utilize the design criteria herein and follow the format for Specifications Divisions 02 through 46 of the UFGS. The successful Offeror shall develop complete construction specifications using the criteria included in these specifications.

The Government will provide Division 1 specifications sections (this solicitation) as required, to the successful Offeror; and these sections shall be included in the final construction specifications without change. The Contractor shall furnish these specifications on electronic media for the production of construction specifications when requested. These specifications shall be submitted together with other required contractor prepared project

construction documents according to Section 01 33 16 DESIGN BUILD AFETR AWARD and Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

1.4 ORDER OF PRECEDENCE

In case of conflict, duplication, or overlap of design criteria specified in the documents referenced in this section the contractor shall submit a Request for Clarification to the Contracting Officer's Representative for resolution.

1.5 ADDITIONAL DOCUMENTS/CRITERIA FURNISHED BY THE GOVERNMENT

a. The following documents will be furnished to the 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 CCB website. These are available in Appendix B.

b. Commercial design criteria and specifications will not be furnished by the Government.
c. Conversion of electronic media to other formats shall be the responsibility of the Contractor.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- END OF SECTION --

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PART 1 GENERAL

1.1 SUMMARY

This section provides a summary of the various Contract work elements and their relationship to each other. This section shall be used in conjunction with all the other sections and the drawings to establish the total work requirements.

1.1.1 Project Background

Kajaki Dam serves a multi-purpose role in supplying hydropower, irrigation storage and, to a lesser extent flood control. Kajaki Dam is the primary source of sustainable power for the Kandahar City and Lashkar Gah regions. Kajaki Dam is an integral part of a larger irrigation scheme in Helmand and Kandahar Provinces and is regulated by the Helmand Arghandab Valley Authority under Ministry of Energy and Water (MEW). The project location and a plan of the reservoir are shown on Figures 1 and 2 respectively.

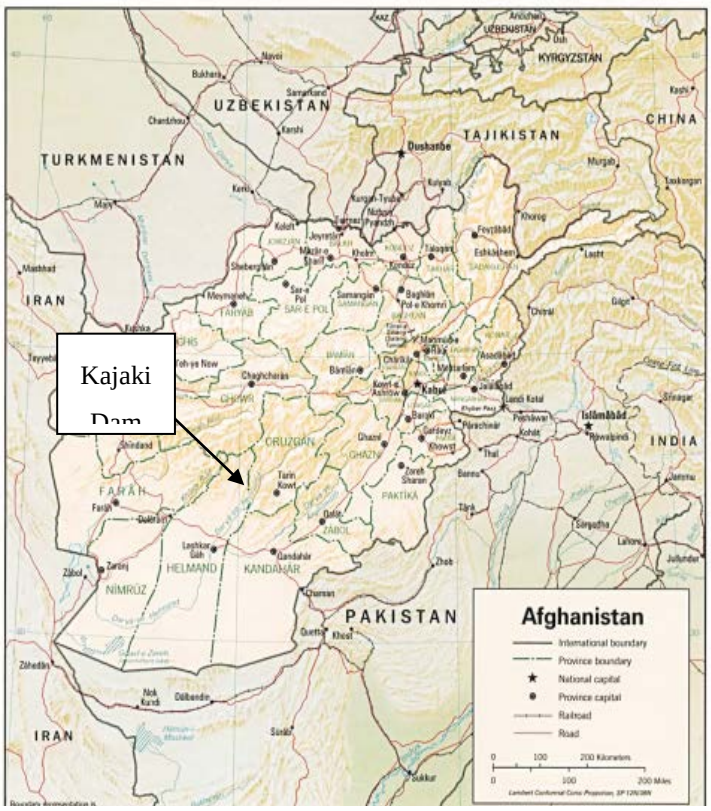

Figure 1. Location Map of Kajaki Dam

The dam site is accessible by road from Kandahar, travelling west through Marwand to Girishk, then turning north up the Helmand River Valley on the east side.

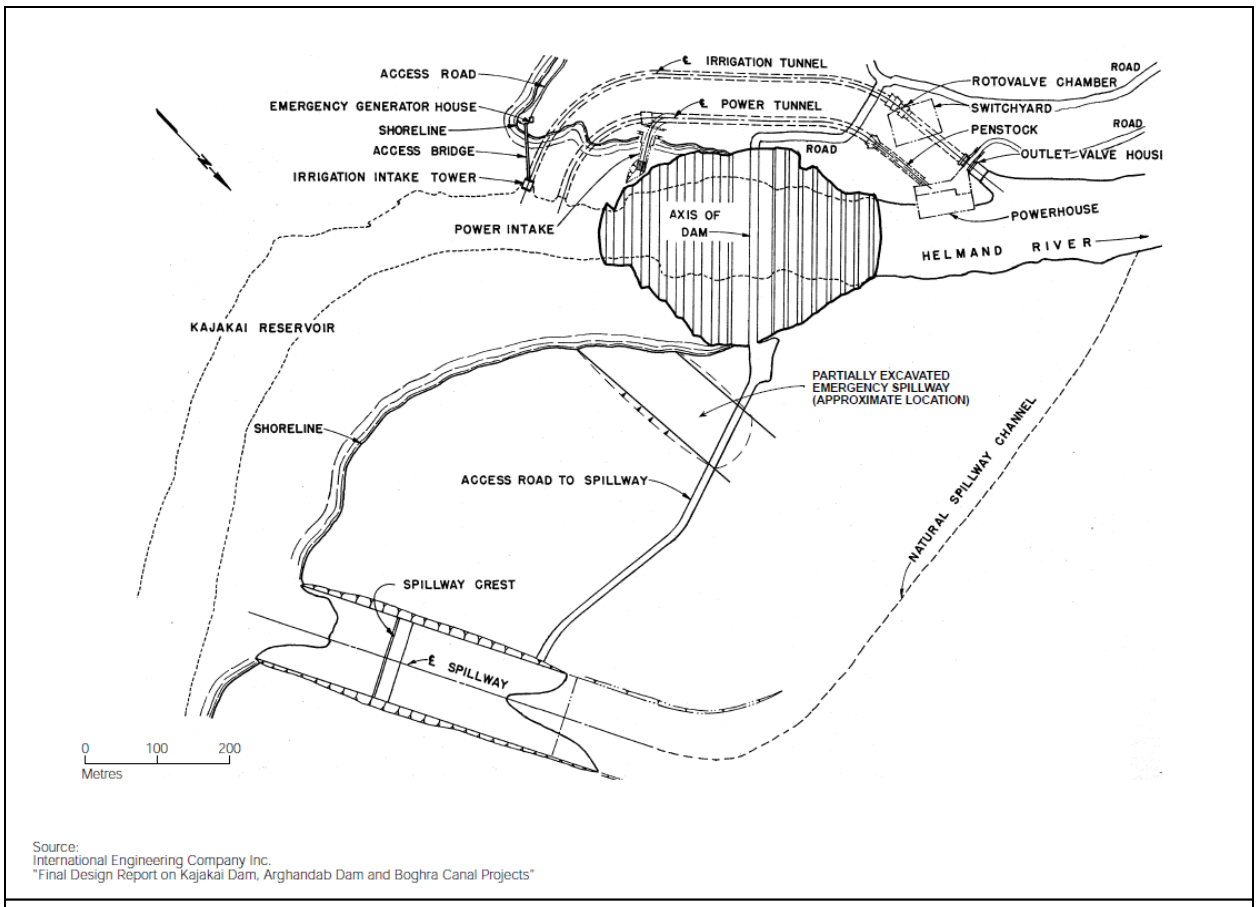

Figure 2. General Layout of Kajaki Dam Site.

Kajaki Dam was constructed in the early 1950s. A 33MW Power House project was added in 1975 and two of three turbines were installed and commissioned. However, during the Russian occupation, all work on the spillways stopped and maintenance has since been inconsistent. Many components have become inoperable or their condition is unknown as described below. Work to install Unit 2 in the powerhouse is ongoing under separate contract.

The service and emergency spillways for the dam were never completed. As a result, the reservoir has been operating at a pool elevation that is significantly lower than intended. The emergency spillway has not been excavated below the dam crest, and therefore is entirely unusable. The service spillway was partially completed, with some concrete foundation. When the reservoir reaches this elevation, water flows freely over the partial structure and into the river below the dam. Future work may include the completion of the service and emergency spillways, and raising of the pool elevation. Future work would be performed under a separate contract.

The Kajaki Irrigation Intake Structure system consists of an intake structure in the reservoir with two bulkheads (i.e. concrete STOP-LOG and steel WHEEL-GATE), unlined tunnel, emergency closure valves (a.k.a. ROTO-VALVES), and outlet service valves (a.k.a HOLLOW JET VALVES). The jet valves are the service control for regulation of flow and dissipation of energy, and the roto valves are for emergency closure. The intake structure is shown in Figure 3, Roto Valves and auxiliary equipment are shown in Figure 4, Jet Valves in Figure 5, and the Spillways are shown in Figure 6.

Reservoir water enters the system at the intake tower, which is located at the portal to one of the project diversion tunnels. A concrete bulkhead and a wheeled gate are suspended in slots which may be lowered with a hoist to close openings at the intake portal. Trash racks are located in slots upstream of the intake portals. Water flows through the diversion tunnel to a concrete plug where the water is distributed to the entrance of three large steel pipe lines (conduits). Each conduit is equipped with a Roto Valve just downstream of the concrete plug and a Hollow Jet

valve located at the end of the line. Water is also distributed to a 12-inch diameter penstock with valve feeding the micro-hydro-electric turbine that provides power service to the tunnel works.

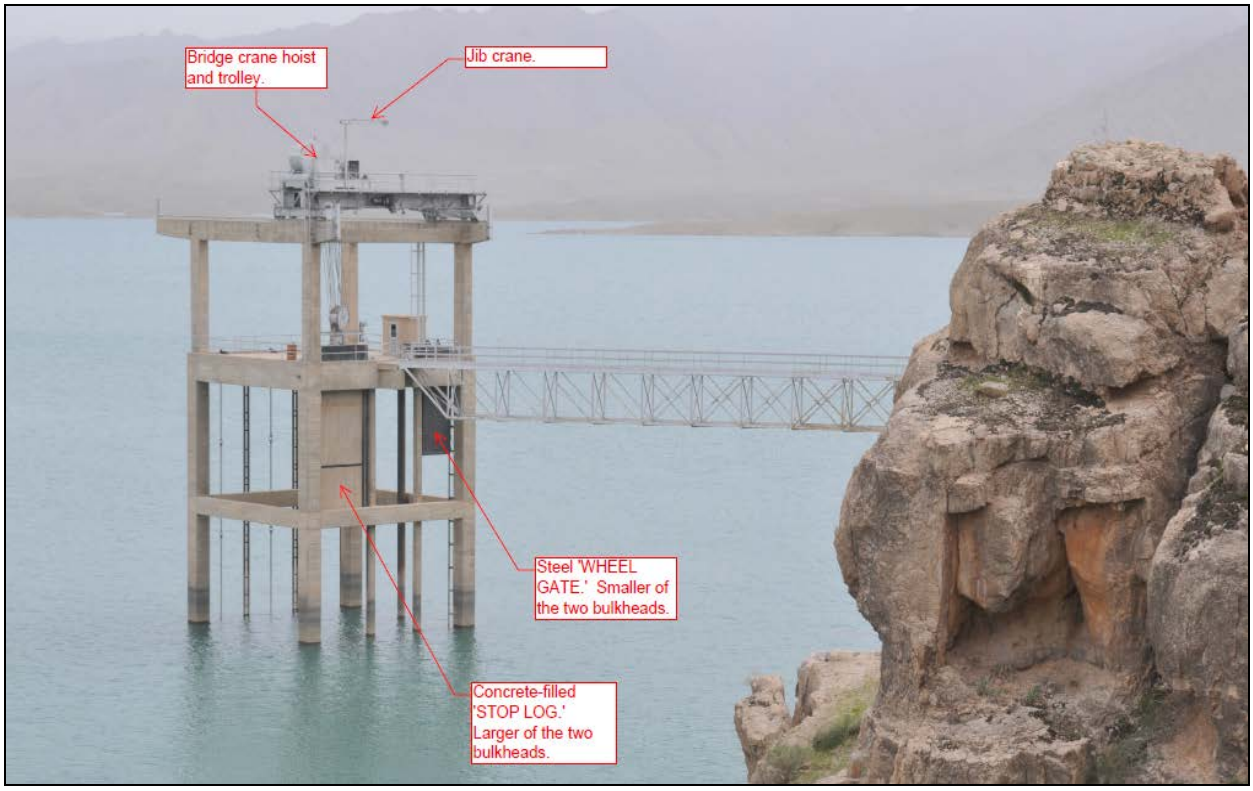

Figure 3. View of Irrigation Intake Structure from shore.

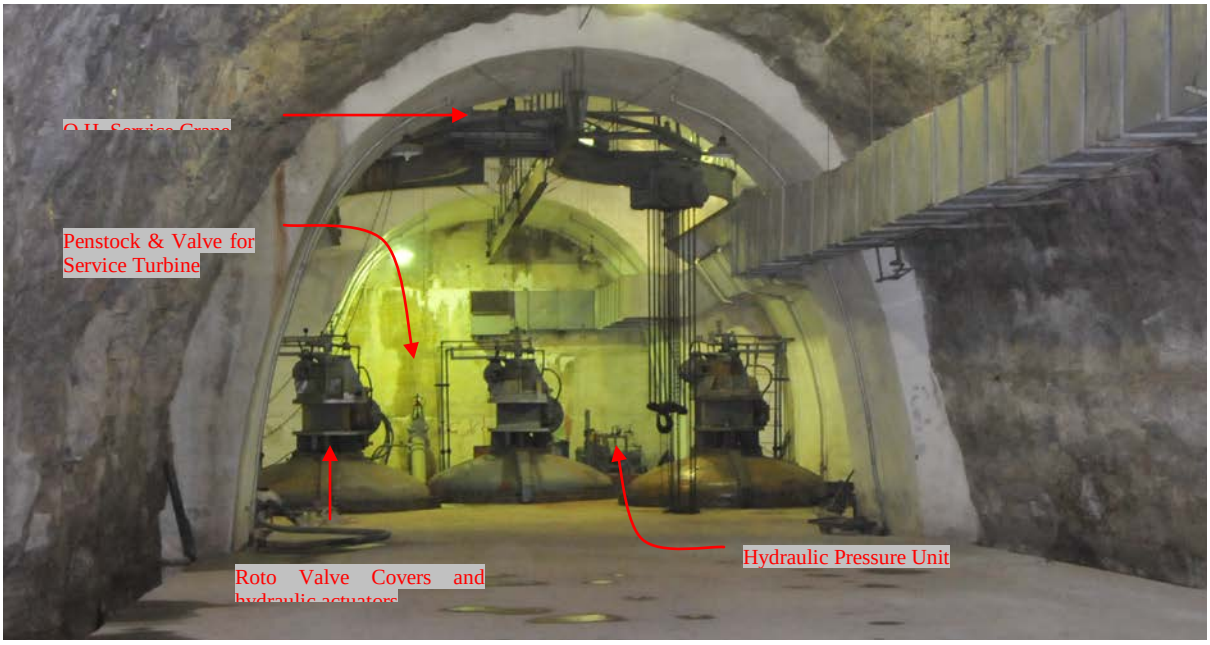

Figure 4. View of roto valves and auxillary equipment.

Jet Valve (1of 3) | Valve Actuator | Outlet structure with pipe to local water supply thrust into flowing jet valve

Figure 5. Jet valve

Service Spillway | Emergency Spillway

Figure 6. Service and Emergency Spillways

The existing Intake Structure Hoist is not functioning and does not have the rated capacity to lift the concrete bulkhead. Construction documentation indicates that the capacity was insufficient and today's design standards are more stringent (See Government Review in Appendix D). Rehabilitation of the intake structure hoist as well as an alternate method of watering the tunnel is required. This summary of work covers items intended to rehabilitate the irrigation intake structure.

The existing instrumentation for dam safety has fallen into disrepair or ceased functioning. The existing piezometers have failed in spite of recent attempts to rehabilitate them. This summary of work covers the installation of new dam safety instrumentation. No attempt to rehabilitate the existing piezometers shall be made.

As previously stated, the gates on the service spillway and the earth plug on the emergency spillway have not been completed. The future completion of the spillways is likely to include alternate designs due to changes in the

intended pool elevation, design standards on service gates, and alternate technologies on fuse gate design. This summary of work covers subsurface investigations to support future designs only. Design and construction work on the spillways would be performed under a separate contract.

1.1.2 Coordination

The Contractor may be required to coordinate the efforts required under this contract with at least one other contractor at the site. Coordination may include such tasks as the exchange of information with other contractors such as design data, drawings, calculations, and technical information. Additionally, it may be necessary for the contractor to conduct meetings, hold teleconferences, and prepare the submittal of additional information to the Contracting Officer (KO) that demonstrates the coordination and integration of new work with existing and future work of other contractors. All coordination shall be in agreement with the KO and approved prior to the commencement of any work.

1.1.3 English Language Requirement

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

1.1.4 CQM Training Requirement

The Contractor shall provide quality control for all design and construction activities as specified in Section 01 45 00 Contractor Quality Control. This includes a designated Quality Control (QC) manager, certification course for the QC Manager, and submittal of the Contractor Quality Control (CQC) Plan and Design Quality Control (DQC) Plan.

1.2 SUBMITTALS

Submittals and a Submittal Register are required as specified in Section 01 33 15 SUBMITTAL PROCEDURES.

1.3 UNEXPLODED ORDINANCE (UXO)/MINES

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 existing site has had numerous construction projects including underground utilities and foundations etc., and has been occupied and under security for an extended period of time. This site is therefore classified as "LOW PROBABILITY" for existence of UXO/Mines, but the contractor shall be aware that this site does not have demining certificates.

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.

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 United Nations Mine Action Center (UNMAC).

NOTE 1: For UXO/mine information, the following points of contact from the UN Mine Action Center of Afghanistan are provided:

Mohammad Sediq, Chief of Operations,
mohammad.sediq@macca.org.af
+93 (0)705 966 400 and +93 (0) 700 295 207
Mr. Mullah Jan
MACCA Senior Operations Manager
Mullah.jan@macca.org.af
+93 (0) 700 295 207

UXO Safety/ Mine clearance COR, USACE
tas.uxo-deminingsafety@usace.army.mil

Jeffrey Helmick USACE OESS/COR Mine Clearance AES
jeffrey.a.helmick2@usace.army.mil
Roshan: 079-403-1452

1.4 WORK COVERED BY CONTRACT DOCUMENTS

The work covered by this contract involves both mandatory items as well as optional items identified in the stated items below. Payment for the work items is covered in Section 01 22 00, "Measurement and Payment".

1.5 MANDATORY WORK

Mandatory work includes generally occurring work items, Intake Structure, Tunnel Works, and Spillways Exploration, and Dam Safety Instrumentation to be completed in accordance with provisions of this contract and paid for under the Bid Schedule CLINS listed in Section 00010 of this contract.

The general sequence of work is described in detail in Table 1 - General Sequencing for Design and Build by Phase in Section 01 33 16 Design Build After Award. Most of the items related to the Intake Tower must be completed prior to completing most of the items in the Tunnel works due to limitations on the tunnel operations, however the Dam Safey work and the Spillway Exploration work may be executed with more flexibility.

1.5.1 General Work Items

1.5.1.1 Mobilization/Demobilization

The work shall be located at the Kajaki Dam site and is located on the Helmand River approximately 90 kilometers northwest of Kandahar City, Afghanistan (32.323N, 65.119E). Based on recent construction activities near the subject site, the Contractor shall assume access to the site by air transport for all items except heavy equipment (e.g., trucks and drill rigs) and supplies (e.g., jet valves). The anticipated release point will likely be Bastion Air field. Contractor will be required to coordinate with USACE and Marine Expeditionary Forces for security status and traffic-ability of roads. There is no commitment of military assistance at this time.

Mobilization and Demobilization shall consist of all labor, equipment, supplies and facilities required to stage all equipment and facilities needed for construction of this project. All mobilization and staging areas shall be located within the limit of work or shall be coordinated with the Contracting Officer. See Contract Clauses for further information.

The Contractor shall install and maintain temporary access points, roads, temporary parking, construction lay-down areas, and foot paths that are appropriately graded for drainage and capable of withstanding the anticipated construction traffic.

Portable latrines: During construction, the Contractor shall furnish, install, and maintain portable latrine units in locations as required. Portable latrines shall be a mix of western and eastern style units. Mix shall be determined by Contracting Officer.

Portable lavatories: During construction, the Contractor shall furnish, install, and maintain handwash units in locations as required. Handwash units shall each include four (4) wash units. Each wash unit shall consist of a basin, foot controlled wash water dispenser, hand soap dispenser, and towel dispenser.

No separate allowance for contract management, tracking, reporting, subcontract management, quality control, safety, environmental controls, independent testing, operating and maintenance manuals, nor as-builts will be made under a separate CLIN within this contract.

1.5.1.2 Security

Security is critical to construction in Afghanistan, especially on roads and remote areas away from Coalition Force bases. The Contractor must have an appropriate amount of security/protection to match the threat in the project area, outside of the perimeter fence, and along the supply routes. A detailed security plan in accordance with Section 01 40 00 SECURITY shall be approved by the Government before construction notice to proceed.

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.

1.5.1.3 DBA Insurance

DBA insurance shall be provided in accordance with the guidance specified in the solicitation.

1.5.1.4 Performance and Payment Bonds

The Contractor shall provide performance and payment bonds in the proper amounts described in Contract Clause 52.228-15 entitled "Performance and Payment Bonds – Construction," stated in Section 0700 of the Contract Clauses.

1.5.1.5 Warranty Inspections

The Contractor shall perform warranty inspections on all work as described in Section 01 77 00 Closeout Procedures.

1.5.2 Intake Structure

The Contractor shall design and construct (or install) the work specified from the approved 'cleared for construction' plans and specifications in accordance with the stated standards and quality requirements therein. The standards and general requirements to be used for design are defined in Section 00 55 50 Design Concept Documents, and Section 01 01 50 Technical Requirements. The plans and specifications will be in accordance with Section 01 33 15 Submittal Procedures.

1.5.2.1 Intake Structure Modifications and Dam Safety Instrumentation

The Contractor shall design all features of the project as described in this Invitation to Bid according to the requirements of the documents including all mechanical, electrical and structural aspects of the following items:

a. **Bridge Crane:** Rehabilitation of the crane to include a structural analysis to increase the load rating, and replacement of the existing hoist and trolley to meet new load requirements

b. **Stop Log and Wheel Gates:** Repair corroded steel surface, and replace seals and wire ropes.

c. **Jib Crane:** Replace the existing jib crane with a new jib crane

d. **Lifting Beam:** Rehabilitate the existing lifting beam.

e. **Bulkhead Dogs:** Rehabilitate or repair the bulkhead dogs.

f. **Alternate Method of Watering the Tunnel:** Design and install an alternate method of watering the tunnel.

Designs shall include detailed inspections, design reports, design analysis, calculations, and completed plans and specifications. Designs shall also include an updated Commissioning Plan submitted at each design submittal as described in Section 01 64 00 START UP TESTING AND COMMISSIONING.

1.5.2.2 Diesel Generator for Intake Structure

The Contractor shall design all electrical features for the required stand by generator at the intake tower. The Contractor shall provide a complete operational diesel generator to meet power requirements for operation and maintenance of the intake structure water control components in the event of power outages.

The Contractor shall construct and/or install the work specified from the approved 'issue for construction' plans and specifications in accordance with the stated standards and quality requirements therein. The standards and requirements to be used for final designs are defined in 00 55 50 Design Concept Documents and 001 01 50.00 Technical Requirements The approved for construction issued plans and specifications will be in accordance with Section 01 33 15 Submittal Procedures as stated in this contract.

1.5.3 Tunnel Works

The Contractor shall design and construct (or install) the work specified from the approved 'cleared for construction' plans and specifications in accordance with the stated standards and quality requirements therein. The standards and general requirements to be used for design are defined in Section 00 55 50 Design Concept Documents, and Section 01 01 50 Technical Requirements. The plans and specifications will be in accordance with Section 01 33 15 Submittal Procedures.

1.5.3.1 Valve – Design

The Contractor shall design all features of the project including all mechanical and electrical aspects of the following items:

a. **Rotovalves:** The Contractor shall design all features of the tunnel works including design reports, design analyses, and completed plans and specifications. This design work will be based in part on the inspection work completed under separate CLINs. The major design features includes refurbishment of all three of the existing roto valves including repair or replacement of all elements of the hydraulic controls and pressure units.

b. **Jet Valves:** The Contractor shall design all features for the demolition and installation of new jet valves including new actuators. Work shall include design of a new bulk head to accommodate the new jet valves and allow for dewatering of the chamber.

c. **Electrical controls for Rotovalves and Jet Valves:** The Contractor shall design all features of the demolition and installation of new existing electrical systems for control of the new and refurbished valves.

d. **Sump Pumps.** The Contractor shall design all features associated with the sumps in the valve house (i.e., sanitary waste pumps, and sump in valve pit).

e. **Flap Gate**: Contractor shall locate and replacing a flap gate on sump discharge line that exits near the bottom of one of the jet valve.

f. **HVAC Repair:** Contractor shall replace the electric motors and repair the HVAC systems for the tunnel works.

g. **Dewatering Plan:** Contractor shall prepare a plan to dewater the conduit for jet valve repair (b), and dewater the tunnel for performing work on other mandatory and optional items i.e., valve replacement on the penstock for the service turbine, evaluation of the upstream conduit, evaluation of the downstream chamber, and evaluation of the unlined tunnel.

Designs shall include detailed inspections, design reports, design analysis, calculations, and completed plans and specifications. Designs shall also include an updated Commissioning Plan submitted at each design submittal as described in Section 01 64 00 START UP TESTING AND COMMISSIONING.

The Contractor shall construct and/or install the work specified from the approved 'issue for construction' plans and specifications in accordance with the stated standards and quality requirements therein. The standards and requirements to be used for final designs are defined in 00 55 50 Design Concept Documents, 001 01 50.00 Technical Requirements, and approved for construction issued plans and specifications will be in accordance with Section 01 33 15 Submittal Procedures as stated in this contract.

1.5.3.2 Conduit, Chamber and Apron - Evaluate and Report

The Contractor shall perform an inspection of the three conduits extending from the jet valve outlet to the head of the concrete tunnel plug. The Contractor shall coordinate with intake tower operations to dewater the tunnel as appropriate. Dewatering of the penstock will be performed under a separate mandatory item (See paragraph Valve – Construction). The inspection shall also include an underwater inspection of the Apron. The contractor shall also provide a mechanical and structural engineering evaluation and report on the condition of the inspected items, and make recommendations for repair as specified herein. Optional items under this contract exist for the repair of the conduits, however the final repair designs will depend on the evaluation and report.

1.5.3.3 Overhead Service Crane and Hoist – Evaluate and Report

The Contractor shall inspect the over head service crane and hoist used for lifting the roto valve components. The inspection shall therefore be coordinated with the repair of the roto valves. The contractor shall also provide an engineering evaluation and report on structural and mechanical aspects of the crane, track and chain fall hoist.

1.5.3.4 Local Water Supply Design

The Contractor shall perform an inspection of the existing local water supply line and provide an engineering evaluation and report on the mechanical aspects of modifying the connection. The intent is to provide a service connection that does not interfere with the operation of the tunnel works. Optional items under this contract exist for the repair of the water supply system , however the final repair designs will depend on the evaluation and report.

The report shall also include a plan to provided uninterrupted water supply during other mandatory work (See Paragraph on Valve-Construction)

1.5.3.5 Valve Construction

The Contractor shall repair or replace all mechanical, and electrical aspects covered under the paragraph on Valve Design, including the rotovalves, jet valves, electrical systems and sump pumps, and chamber bulkhead. Construction includes dewatering of the conduits and chamber. Contractor shall also provide uninterrupted public water supply to the exiting connection at the jet valves. The Contractor shall provide an engineering evaluation of the existing conditions of all components and provide recommendations for future service and/or replacement.

1.5.3.6 Replace Valve House Hydro-electric Generating Unit

Contractor shall perform all activities required to replace the existing hydro-electric unit with a new unit including all auxiliary equipment and new electrical systems. Work also includes replacing in-kind the 12-inch valve located upstream near the tunnel plug. Dewatering of the penstock will be performed under a separate mandatory item (See paragraph Valve – Construction).

1.5.4 Instrumentation Design and Construction

The Contractor shall design and install a piezometer on the left abutment of the dam. Contractor shall also design and install other dam safety instrumentation including survey monuments and pillars, staff gages, along with surveying equipment to provide settlement and deflection readings for the dam. The standards and general requirements to be used for design and installation are defined in Section 00 55 50 Design Concept Documents, and Section 01 01 50 Technical Requirements.

1.6 OPTIONAL ITEMS

The Contractor shall provide all the required services for options below. The Contractor shall design and build or install the work specified from the approved 'cleared for construction' plans and specifications in accordance with the stated standards and quality requirements therein. The standards and requirements to be used for final designs on the option items are defined in 00 55 50 Design Concept Documents, 001 01 50.00 Technical Requirements. Similar to the mandatory items, the construction issued plans and specifications will be in accordance with Section 01 33 15 Submittal Procedures as stated in this contract.

Many of the options depend on the outcome of some inspections and evaluations performed under mandatory and optional CLINs. In situations where the nature and quantity of the items to be provide is unknowable, the government assumptions for bidding purposes have been provided in Section 01 01 50 Technical Requirements and/or Section 01 20 00 Measurement and Payment. If exercised, the Contractor shall provide the following items:

a. **Unlined Tunnel**: Evaluate and Report. The Contractor shall perform all structural and geological elements of an inspection of the unlined tunnel from the head of the concrete tunnel plug to the closed bulkhead at the intake structure. Inspection data shall include video and photographic records of areas of concern and provide a general record of the overall condition of the unlined tunnel interior. The Contractor shall coordinate with intake tower operations to dewater the tunnel as appropriate. The contractor shall also provide an engineering evaluation and report on the condition of the geotechnical and structural aspects of the unlined tunnel as specified herein.

b. ***Inspection of Trash Racks and Guides****: The Contractor shall perform an underwater inspection of the trash racks and guides to evaluate their condition. The Contractor shall provide a report with recommendations for repair.*

c. **Replacement of Trash Racks**: The Contractor shall fabricate and install new trash racks, and perform any other associated site work.

d. **Repair of Trash Rack Guides**: The Contractor shall repair of the trash rack guides according to original design, and other subsurface work associated with repair. The existing trash rack will be put back into

service. The condition of the guides is unknowable until an inspection has been performed under a separate optional CLIN. Assumptions on the condition of the guides and the type of repair are provided herein.

e. **Conduit Repair**: The Contractor shall repair the any portion of the three steel conduits in the tunnel works. The condition of the conduits is unknowable until the tunnel has been dewatered and the evaluation work has been completed under previous mandatory CLIN. Assumptions on the type of repair are provided herein.

f. **Chamber Repair**: Contractor shall repair any one of the three chambers downstream of the jet valves. The condition of the chamber is unknowable until the evaluation work has been completed under a separate mandatory CLIN. The work includes placement of bulkheads and dewatering of the chamber. The quantities and nature of the repairs are estimated based on government review of historic documents, and a general understanding of cavitations outside of jet valves.

g. **Apron Repair**: Contractor shall repair the apron downstream of the jet valves including all associated work for dewatering the area. Assumptions on the tail race water elevations are included in Appendix D of this bid. The condition of the apron is unknowable until the evaluation work has been completed under previous CLIN. The work includes placement of a small cofferdam for dewatering purposes. The quantities and nature of the repairs are estimated based on government review of historic documents, and a general understanding of cavitations outside of jet valves. The assumed tailwater elevations are provided in Appendix D.

h. **Repair Overhead Service Crain - Tunnel**: Contractor shall the repair paint systems or coatings, replace corroded components, and repair deficient or damaged structural members or welds. The condition of the overhead service crane is unknowable until the evaluation work has been completed under previous CLIN. Therefore, the exact nature and quantity of the repairs is unknowable. The quantities and nature of the repairs are estimated based on government review of historic documents, and a general understanding of the mechanical devices.

i. **Replace Overhead Service Crane - Tunnel**: Contractor shall replace the rails, anchors, and structures in the valve room to restore the crane to original capacity.

j. **Powerhouse Diesel Generator**: The Contractor shall design all electrical features for the required stand by generator for the power house. The Contractor shall perform all activities required to provide and install a new diesel generator, including a detailed site inspection, design report, and completed plans and specifications.

k. **Modify Local Water Supply**: Contractor shall provide a replacement for the water supply to the downstream camp and village as specified. Modification may include a tap into the existing line that feeds the hydro-electric generating unit. The specifications provided assume that this connection is the most effective method, however other methods may prove more effective pending other evaluations and design work executed under separate mandatory CLINs.

l. **Spillway Exploration:** The Contractor shall perform a geologic investigation of the emergency and service spillways. The investigation work shall include performing electrical resistivity surveys and foundation drilling and testing of the emergency spillway area. The work shall include a visual surface investigation of the service spillway including the exposed fault. The standards and general requirements to be used for exploration are defined in Section 00 55 50 Design Concept Documents, and Section 01 01 50 Technical Requirements. The work includes specified pre-construction submittals and the results of the subsurface investigations and data collection shall be included in a detailed report and provided as a submittal in accordance with Section 01 33 15 Submittal Procedures for Design Build Projects.

1.7 CONTRACT DRAWINGS

The drawings that accompany these specifications are a part thereof. The contract drawings include but are not limited to the dam safety instrumentation.

Electronic copies of the contract drawings will be provided to the contractor. A schedule of all available design drawings is attached in Appendix A. Several useful record drawings have been lost to history and not recovered for this project. Contractor will be required to prepare informational drawings where the existing set is incomplete but necessary to the project.

Contractor shall check furnished drawings and notify the Government of any discrepancies. Further, Contractor shall verify field conditions and informational drawings provided.

Reference publications will not be furnished unless already provide with the appendices herein.

1.8 PHOTOS AND RECENT INSPECTIONS

Select photos of the project are included in Appendix A. Electronic copies of the photos will be provided to the contractor. A report on the results of a recent underwater inspection of the irrigation intake trash racks and the apron outside the jet valves is also included.

1.9 DESIGN GUIDANCE

A list of applicable guidelines is provided in Appendix B.

1.10 HISTORICAL DOCUMENTS

A copy of the relevant historical documents is attached as Appendix C which includes including the following:

a. Final Design Report on *Kajaki Dam, Arghandab Dam, and Boghra Canal Projects (1953)*
b. *Operating Instructions – 84" Hollow Jet Valves for Morrison Knudsen Afghanistan, Inc. Kajaki Project, Afghanistan(1953)*
c. *Operation and Maintenance Instructions for S. Morgan Smith Company Orders (i) 84" diameter Roto Valves, and (ii) Oil Pressure Unit(1953)*
d. Catalogue sheet for 84 inch diameter roto valves
e. *Inspection of Mechanical Features – Helmand Valley Development Project – Afghanistan. U.S. Bureau of Reclamation. (1964)*

1.11 BASIS OF DESIGN

A copy of the relevant documents prepared by the government for defining the scope of work in this invitation to bid is attached as Appendix D which includes the following:

a. USACE Value Engineering Alternative for the Irrigation Intake Structure (2011)
b. Government Review of existing and historical conditions for mechanical features (2011)
c. Government Review of Spillways for subsurface Investigation (2011)
d. Government Topographic Survey Report (2005)

1.12 OCCUPANCY OF PREMISES

Building(s) will be occupied during performance of work under this Contract. Occupancy notifications will be posted in a prominent location in the work area.

Before work is started, the Contractor shall arrange with the Contracting Officer a sequence of procedure, means of access, space for storage of materials and equipment, and use of approaches, corridors, and stairways. The sequencing should correlate directly to the Area Use Plan specified in Section 01 06 00 Special Clauses (p 1.5).

1.13 EXISTING WORK

In addition to Section 00700, Contract Clause 52.236-9, "Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvements", the Contractor shall not remove or alter existing work in such a manner that injures or damages any portion of the existing work to remain.

Upon completion of the work, the Contractor shall repair or replace portions of existing work, which have been damaged by Contractor's operations, to preconstruction conditions at the expense of the Contractor.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

– END OF SECTION –

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SECTION 01 01 50

TECHNICAL REQUIREMENTS

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PART 1. GENERAL

1.1 GENERAL

1.1.1 REFERENCES

This paragraph is used to list the sections and publications cited in the text. The publications are referred to in the text by basic designation only and listed in this paragraph by organization, designation, date, and title. Appendix B contains a complete list of a manuals and regulations for the entire RFP

CROSS REFERENCED SECTIONS

SECTION 00 12 00, PROPOSAL EVALUATION AND BASIS OF AWARD

SECTION 01 45 00, CONTRACTOR QUALITY CONTROL

SECTION 00 15 00, PROJECT PHASES

SECTION 01 33 16, DESIGN-BUILD AFTER AWARD

SECTION 016400 START UP TESTING AND COMMISSIONING

SECTION 017810 OPERATIONS AND MAINTENANCE DATA

SECTION 016640 TRAINING

SECTION 013315 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

SECTION 010140 SUMMARY OF WORK

USACE ENGINEERING MANUALS AND REGULATIONS

EM 385-1-1 (2008) Safety and Health Requirements Manual, including Changes in effect at the time of advertisement

EM 1110-2-1602 (1980) Engineering and Design - Hydraulic Design of Reservoir Outlet Works

EM 1110-1-1802 Geophysical Exploration for Engineering and Environmental Investigations

EM 1110-1-1804 Geotechnical Investigations, ENG 1836, ENG 1836A

EM 1110-2-2105 (1994) Design of Hydraulic Steel Structures Change 1

EM 1110-2-2701 (1997) Vertical Lift Gates

EM 1110-2-1908 (1995) Engineering and Design - Instrumentation of Embankment Dams and Levees

EM 1110-2-1009 (2002) Engineering and Design - Structural Deformation Surveying

EM 1110-2-4300 (1980) Engineering and Design - Instrumentation for Concrete Structures

EM 1110-2-2105 (1994) Design of Hydraulic Steel Structures Change 1

EM 1110-2-2701 (1997) Vertical Lift Gates

ER 1110-2-110 (1985) Instrumentation for Safety - Evaluations of Civil Works Projects

ER 1110-1-1807 (2006) Procedures for Drilling in Earth Embankments

ASTM STANDARDS

ASTM D1586 Standard Test Method for Standard Penetration Test (SPT) and Split-Barrel Sampling of Soils

ASTM D 2487-06 Standard Practice for Classification of Soils for Engineering Purposes (Unified Soil Classification System)

ASTM D5092 Standard Practice for Design and Installation of Ground Water Monitoring Wells

ASTM D5731 Standard Test Method for Determination of the Point Load Strength Index of Rock and Application to Rock Strength Classifications

NATIONAL ELECTRICAL MANUFACTURERS SPECIFICATIONS

NEMA 250 (2008) Enclosures for Electrical Equipment (1000 Volts maximum)

NEMA ICS 1 (2000, R 2008) Industrial Control and Systems General Requirements

NEMA ICS 2 (2000, R 2005) Industrial Control and Systems Controllers, Contactors and Overload Relays Rated 600 Volts

NEMA ICS 5 (2000, R 2010) Industrial Control and Systems Control-Circuit and Pilot Devices

NEMA ICS 8 (2000, R 2005) Industrial Control and Systems Crane and Hoist Controllers

NEMA RN 1 (2005) Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit and Intermediate Metal Conduit

NEMA WC 70 (2009) Non-Shielded Power Cable 2000V or Less for the Distribution of Electrical Energy

MISCELLANEOUS

AMSE B30.2 (2005) Overhead and Gantry Cranes

UFC 3-320-07N (2004; R 2007) Weight Handling Equipment

TM 5-811-1 (1995) Electrical Power Supply and Distribution

NFPA 70 (2011) National Electrical Code

IES Lighting Handbook, 9th edition

IEEE C2 (2007, Errata 2007; INT 2008) National Electrical Safety Code

UNITED STATES GEOLOGICAL SURVEY (USGS)

Open-File Report 2007-1137: Preliminary Earthquake Hazard Map of Afghanistan (Version1, Posted May 2007), available at: http://pubs.usgs.gov/of/2007/1137/.

The publications utilized shall be those of the most recent editions.

UFGS GUIDES

26 00 00.00 20	BASIC ELECTRICAL MATERIALS AND METHODS
26 05 00.00 40	COMMON WORK RESULTS FOR ELECTRICAL
26 05 19.00 10	INSULATED WIRE AND CABLE
26 28 00.00 10	MOTOR CONTROL CENTERS, SWITCHBOARDS AND PANELBOARDS
26 32 14.00 10	DIESEL-GENERATOR SET, STATIONARY 15-300 KW, STANDBY APPS.
26 51 00	INTERIOR LIGHTING
33 70 01.00	ELECTRICAL DISTRIBUTION SYSTEM, AERIAL
33 70 02.00	ELECTRICAL DISTRIBUTION SYSTEM, UNDERGROUND
01 74 19	CONST & DEMO WASTE MANAGEMENT; 33
01 50 00	TEMPORARY CONSTRUCTION FACILITIES AND CONTROL

05 05 23 WELDING, STRUCTURAL
05 59 13 FABRICATION OF HYDRAULIC STEEL STRUCTURES
09 97 02 PAINTING: HYDRAULIC STEEL STRUCTURES

U.S. BUREAU OF RECLAMATION GUIDE

(1996) Inspection of Steel Penstocks and Pressure Conduits

1.1.2 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 SECTION 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

ITEMS	PARAGRAPH
TUNNEL WORKS	
De-watering Plan; G	1.2.2
Conduit, Chamber, and Apron - Evaluation and Report; G	1.2.3.3
Report on Conduit Repairs; G	1.2.3.4
Valve Room Overhead Service Crane and Hoist – Evaluate and Report**;** G	1.2.3.5 (a)
Roto Valves – Design Package for Refurbishment; G	1.2.3.6
Report on Fluid Transient Pressures or original documentation; G	1.2.3.6 g
Report on Leakage from Valves; G	1.2.3.6 h
Hollow Jet Valve – Design Package for Replacement; G (Hydraulic Analysis – optional requirement for alternate configuration)	1.2.3.8
Sump Pumps – Design Package for Replacement; G	1.2.3.11
Flap Gate – Design Package for Replacement; G	1.2.3.12
Local Water Supply – Evaluate and Report**;** G	1.2.3.13
Local Water Supply – Design Package for Modified Connection	1.2.3.14
Report on Condition of Electrical Components and Drawings for Electrical Work; G • Single-Line Diagram (17-F-8) • Irrigation Tunnel – Valve Chamber and Tunnel - Power and Lighting (17-F-2) • Valve House - Power and Lighting Plans (17-F-3) • Valve House - Power and Lighting – Sections and Details (17-F-4)	1.2.4.2
Report on Service Turbine and Drawings for Hydro-Electric Work; G • Valve House - Power and Lighting Plans (17-F-3) • Valve House Switchboard Elementary Wiring (17-F-5R2) • Valve House Switchboard 3 & 4 Wire 400 Volt 50 Cycle (D-18555F-1) • Wiring Diagram Panels 1 & 2 Valve House Switchboard (D-18555F-2)	1.2.5.2
Commissioning Plan for Hydro-Electric Service	1.2.5.6

Operation and Maintenance Manual for Valve House Hydro-electric Generating Unit	1.2.5.9
Operation and Maintenance Manual for Power House Diesel Generator	1.2.6
Unlined Tunnel – Evaluate and Report	1.2.7.2
Chamber – Design Package	1.2.7.3
Apron – Design Package	1.2.7.4
Spare Parts Manual	1.2.8
INTAKE TOWER	
Report on Crane Inspection	1.3.1.2
Design Package for Bridge Crane and Hoist, Lifting Beam, and Bulkhead Dogs	1.3.1.3, 1.3.1.4, 1.3.1.5, 1.3.1.6
Electrical Inspection and Load Study on Intake Tower	1.3.2.2, 1.3.2.4
Design Package for Diesel Generator at Intake Tower	1.3.2.8
Structural Analysis and Report on Access Bridge to Intake Tower	1.3.3.1
Trash Rack and Guides - Report on Inspection and Design package	**Error! Reference source not found.**
Design Package for STOP LOG and WHEEL GATE, and Alternate Watering System	1.3.3.6, 1.3.3.7, 1.3.3.8
Manual for Spare Parts at Intake Tower	1.3.4
DAM SAFETY INSTRUMENTATION	
Report on Dam Safety Instrumentation	1.4.1.1
Spillways Exploration Plan	1.5.6
Spillways Exploration Report	1.5.7

1.1.3 COMPLIANCE

The Contractor's design and construction shall 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. Criteria for proposal evaluation is in Section 00 12 00 PROPOSAL EVALUATION AND BASIS OF AWARD. Qualifications for site inspection personnel shall be in accordance with Section 01 45 00, CONTRACTOR QUALITY CONTROL.

1.1.4 DESIGN PACKAGE

a. Technical requirements within this section shall be used to prepare Plans & Specifications in accordance with SECTION 01 33 16, DESIGN-BUILD AFTER AWARD.
b. Design Submittals identified within this section shall be submitted under the Interim Design submittal requirements of SECTION 01 33 16, DESIGN-BUILD AFTER AWARD.
c. These design and product requirements are minimum requirements.

1.1.5 ASBESTOS-CONTAINING MATERIALS

Asbestos-containing material (ACM) shall not be used in the design and construction of this project. ACM is defined as a material composed of 1% or more asbestos by weight.

1.1.6 SAFETY

Designs and finished products shall conform to EM 385-1-1.

Hearing protection shall be issued and used in the area of work in the presence of grinding, operating equipment or other loud processes. Additional hearing protection equipment will be readily available at the work site in the vicinity of the work

1.1.7 MANDATORY AND OPTIONAL ITEMS

All items in this section are considered mandatory work items to be performed by the Contractor, unless the paragraph title is indicated to be (OPTIONAL). For those items listed as optional, only the portion of work under that specific paragraph title and related subparagraphs shall be considered as optional.

1.1.8 SITE SPECIFIC LIMITATIONS

The Contractor shall become familiar with the nature of the work to be done and identify constraints which must be considered for design and construction. A list of notable items is included below. This list is not comprehensive, and failure to identify additional site constraints does not relieve the Contractor from the responsibility to become familiar with all aspects of work.

1.1.8.1 Maximum Reservoir Pool

The maximum reservoir pool elevation for design purposes is 1045m.

1.1.8.2 Valve Room

a. The emergency closure valves are located at the end of a tunnel. The Contractor shall supply forced ventilation as required to ensure adequate working conditions **(**See EM 385-1-1 0.6.G.01 Portable and Temporary Ventilation Systems required under the Safety and Health Requirements of this Contract**).** The contractor shall provide mechanically delivered fresh air to the furthest point in the tunnel (approximately 450ft) at a rate of no less than 80% of the exhaust quantity or as specified in 29 CFR 1910.94 and 29 CFR 1926.57, whichever requirement is more stringent. For historical reference, see paragraph 11. Tunnel Ventilation, Section III- page 30 of Appendix C – 1956 Final Design Report.

b. Equipment shall fit through existing access doorways and hatches.

1.1.8.3 Irrigation Tunnel Flows

The irrigation tunnel must not be shut for more than [14 days]. Outside that window, no more than [2] valves may be locked shut for a period of more than [30 days].

1.1.9 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.

1.1.10 SUBCONTRACTORS

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

1.1.11 APPLICABLE CODES AND TECHNICAL CRITERIA

The codes and guide specifications found in Appendix B shall be required for this project. This list is not comprehensive. Additional required codes and specific technical standards are referenced in other sections and paragraphs. The publications utilized shall be those of the most recent editions.

Any Code or Reference that can be determined to be substantially equivalent to those specified in this document may be used, but it is the Contractor's responsibility to show the equivalency of the alternate Code or Reference and the Contracting Officer must approve its use prior to implementation. A partial listing of references is included within the Request for Proposal.

1.1.12 SITE DEVELOPMENT

1.1.12.1 Environmental Protection

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 regulations with the contracting officer prior to design and discharge of any liquid wastes into natural streams or manmade channels.

1.1.12.2 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 he (she) is satisfied 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.

1.1.12.3 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.

1.1.12.4 Demolition and Disposal

Demolition and proper disposal needs to occur anywhere systems are being replaced or abandoned. At the end of the project all unused equipment, wiring, controls, conduit, pads, mounting structures should be removed and disposed of safely according to Host Nation Laws and Regulations.

Disposal of any materials, wastes, effluents, trash, garbage, oil, grease, chemicals, etc., shall be taken to a dumpsite approved by the Contracting Officer. Burning at the project site for the disposal of refuse and debris will not be permitted.

1.1.12.5 Project Identification

The Contractor shall provide project identification in accordance with Section 01 58 00 PROEJCT IDENTIFCATION and as specified in the paragraph for Dam Safety Instrumentation below.

a.

INTENTIONAL PAGE BREAK

1.2 PROJECT: IRRIGATION TUNNEL WORKS

1.2.1 Robustness of Components

The installation is occurring in an area of political instability and there may be extended periods of time, perhaps years, where the plant will not receive scheduled maintenance. The contractor is encouraged to select equipment and materials with this in mind, choosing simplicity of maintenance and robust construction where feasible.

1.2.2 De-watering Plan

Contractor shall submit a Dewatering Plan to support all aspects of design and construction in the tunnel works. The Dewatering Plan shall include but not be limited to sequence of work, schedule, ventilation and all safety requirements. The De-watering plan shall be subject to the criteria listed under paragraph SITE SPEIFIC LIMITATIONS.

1.2.3 Mechanical Work

1.2.3.1 General

Prepare construction plans & specifications, as well as perform construction, testing and commissioning for the valve house sump pumps and flap gate on discharge line, flow regulating valves (HOLLOW JET-VALVES), emergency closure valves (ROTO-VALVES), and overhead service crane and hoist, and local water supply connection.

1.2.3.2 Site Inspection

Become familiar with all aspects of the site, including size, weight, and environmental constraints. All inspections shall be performed by a qualified engineer of a relevant discipline. Perform visual inspection of equipment and structures not intended for demolition. Submit reports described below on the condition of existing equipment and structures, including recommendations for correcting deficiencies.

1.2.3.3 Conduit, Chamber, and Apron - Evaluation and Report

Contractor shall inspect the entire length of conduit upstream and downstream of the centerline of the existing valves. Submit a report on the condition of existing equipment and structures, including recommendations for correcting deficiencies. Conduit inspections shall include but are not limited to: videography, coating condition, non-destructive examination (NDE) assessment of wall thicknesses, weld defects, voids in concrete encasement and signs of erosion, corrosion and cavitations. A grouping of NDE measurements, of the shell thickness, shall be taken approximately every 5 feet for the length of the conduits. A grouping of measurements shall consist of 4 readings taken equidistant around the ring of the conduit. A similar grouping of measurements is to be taken of the welds at each joint. Use U.S. Department of the Interior Bureau of Reclamation, *Facilities Instructions, Standards, and Techniques Volume 2-8*, "Inspection of Steel Penstocks and Pressure Conduits" as an inspection guide (document available in Appendix B). Inspection is also required for elements of the Chamber and Apron that may have been subject to cavitations damage (below normal high water and jet spray) downstream of the Jet valves. The Chamber shall be inspected visually after dewatering. The Apron shall be inspected with underwater video where required to evaluate corrosion/erosion.

1.2.3.4 Conduit Repair (OPTIONAL)

Repair any damage to each conduit to an as-new condition. Scope of repairs shall extend from any location beyond the existing joints with the roto and jet valves up to the tunnel plug. The exact nature of the repairs cannot be determined until the evaluation and report has been completed. Contractor shall assume there is erosion and small cracks from cavitations that will require full depth penetration welds. Provide a report on the type and extent of repairs.

1.2.3.5 Valve Room Overhead Service Crane and Hoist

a. Evaluate & Report. Contractor shall evaluate and report on the condition of the service crane and track, see Informational drawing 15-F-52 *Irrigation Tunnel Rotovalve Chamber Hoist and Rail.*
b. Repair Crane (OPTIONAL). Contractor shall repair the crane rails, anchors, and structures in the valve room to restore the crane to original capacity. Crane repair shall include but is not limited to paint systems or coatings, replacement of corroded components, and repair of deficient or damaged structural members or welds. The hoist and track shall be capable of lifting all the valve components.

1.2.3.6 Refurbish Emergency Closure Valves (ROTOVALVES)

These valves are described as ROTOVALVES on informational drawings. These three valves were manufactured by S. Morgan Smith Company, which is now owned by Rodney Hunt. The valves were purchase by Morrison-Knudsen Afghanistan Incorporated under purchase order number 11.5031. The Operations and Maintenance Instructions list the three (3) – 84" diameter Rotovalve of steel construction, 125# standard A.S.A flanges, 115 psi working pressure, for water service. Special assembly required for multi-components. No controls or special equipment. Serial nos. VB-1844, VB-1845, VB-1846. See Appendix C- Rotovalve Operation & Maintenance.

For a brief description of the installation procedure of the valves during irrigation releases, see Appendix C -1956 Final Design Report.pdf, Section III, page 37, paragraph 5. Irrigation Outlets.

Refurbish the three 84-inch irrigation emergency closure valves, operators, and ancillary equipment. Refurbished valves shall meet the following requirements:

a. The operating mechanism components shall be replaced with new components. The guide rods for the crosshead shall be replaced with new stainless steel rods.

b. The hydraulic cylinders shall be replaced with new.

c. The trunnion greasing system shall be replaced with new.

d. The valve exterior and interior of the valve mechanism and mechanism components shall be painted with two coats of high solids epoxy.

e. Valves shall operate under full flow when the reservoir is at maximum pool.

f. Valves shall have a maximum operating time of five minutes from the fully open to fully closed position.

g. Valves shall have a minimum operating time sufficient to prevent detrimental fluid transients within the irrigation tunnel system. Contractor shall provide design calculations and submit a report for approval or provide some original documentation if it can be located.

h. Contractor shall submit both a plan and a report to determine the amount of leakage in gallons per minute. The results shall be contained in a single report.

i. Seals shall be resistant to dirt and debris.

j. Each valve shall have a means to visually indicate valve position.

k. Each valve shall have a means to positively lock the valve in position and prevent undesired or un-commanded operation during the refurbishment. The existing valves have no known locking mechanism in their design, therefore something will need to be fabricated for an external fit.

1.2.3.7 Hydraulic System for Emergency Closure Valves (ROTO-VALVES)

Replace existing hydraulic system with a new hydraulic system designed for and capable of operating the Emergency Closure Valves (ROTO-VALVES). The system shall meet the following requirements:

a. The hydraulic system overall shall be capable of delivering the volume and pressure of hydraulic fluid required to operate all three emergency closure valves at once.

b. The electrical supply shall be sized to operate all three valves at once.

c. Each valve shall be equipped with its own hydraulic power unit (HPU). Each HPU shall be capable of providing the pressure required to close and open the emergency closure valves at maximum reservoir pool.

d. Each HPU shall be attached to the hydraulic circuit using quick-connect fittings. Fittings shall be liquid-tight, such that disconnecting a hose does not introduce air into or allow fluid to leak out of the system.

e. HPUs shall be interchangeable between valves.

f. The valve room shall be outfitted with at least one manually powered hydraulic unit. The manual unit shall be easily connected to any individual valve, and capable of developing the full operating pressure required to open and close the valves at maximum reservoir pool.

g. Each hydraulic unit shall be push-button operated, for CLOSE, OPEN, and STOP operations.

h. Hydraulic units shall be protected from overpressure by means of a mechanical device.

i. Each HPU shall be provided with a pressure gage, indicating pressure in Pascals (MPa, kPa, or Pa as appropriate to the application)..

j. Each HPU shall have provisions (disconnect switch) to individually isolate it from electrical energy.

k. Each HPU shall have a means to safely depressurize the system.

l. Hydraulic fluid shall be filtered. Filters shall be of an automotive type, readily available on the regional market. Filter shall be mounted in an easily accessible location for maintenance purposes.

m. Hydraulic fluid shall be desiccated by means of replaceable-media desiccant breathers.

n. Pipe or hard-lines and fittings for the hydraulic system shall be corrosion-resistant.

o. Each HPU shall be skid-mounted, with all operating components less hoses and input power supply contained therein. Skids shall be provided with features that allow the unit to be moved with a standard lift truck or forklift.

p. Skids shall be leveled and anchored after final placement.

q. Individual skids shall be grounded.

r. Each skid shall be provided with a seven-pound ABC-type dry chemical fire extinguisher.

s. Demolish existing HPU system and appropriately dispose of hydraulic oils according to Afghan environmental regulations.

1.2.3.8 Flow Regulating Valve (HOLLOW JET VALVE) Replacement

These specifications cover the three existing 84-inch diameter valves located at the irrigation tunnel discharge to the tailrace. These valves are described as HOLLOW JET VALVES on informational drawings.

Flow Regulating Valves

Remove and replace the three existing 84-inch irrigation flow-regulating discharge valves. New valves shall meet the following requirements:

a. Valves shall be of a size, shape, and weight to interface with the existing discharge piping. Valve inlet diameter shall be 84 inches. The valve shall be complete with flanges to mate with adjacent equipment. Alternate size valves (e.g. smaller valves with reducer) may be acceptable if the Contractor provides a hydraulic system analysis (i.e. Intake Tower to Valve Outlet) supporting the use of the proposed valve and consistency with intended original design (i.e. energy dissipation for flows in the range of 58 to 77 cubic meters per sec).

b. Valves shall be able to completely stop the flow of water. Acceptable leakage is two gallons per minute at maximum reservoir pool during the warranty period.

c. Seals or valve seats shall be resistant to dirt and debris. Valves shall be able to pass dirt and debris that pass through the intake trash racks.

d. Allowable stresses in valve components shall not exceed one-half of the yield stress for the material.

e. Valve design shall exhibit a design life expectancy of at least 50 years.

f. Valves shall be designed with corrosion-resistant features. Where galvanic corrosion may take place, components shall be protected by a sacrificial galvanic cell.

g. Valves shall operate throughout the entire range of flow at any possible head condition of the reservoir.

h. Valves shall be able to fully open and close when no flow is present.

i. Valves shall be free of cavitations or vibration through the full range of operation and at any possible head condition of the reservoir.

j. The valve discharge pattern shall not contact structures. Depending on manufacturer a steel jet deflector hood may be required to reduce the discharge spray by confining the exiting water jet.

k. The valve discharge shall have energy dissipated such that erosion in the tailrace does not occur.

l. Valves shall be outfitted with a mechanical device to indicate valve position. The device shall be readable from the local operator station, and indicate from fully-opened to fully-closed in increments of 10 percent or less.

m. Valves shall be mechanically actuated.

n. Valves shall have a minimum operating time sufficient to prevent detrimental fluid transients within the irrigation tunnel system. Contractor shall provide design calculations and submit a report for approval unless some original documentation can be located.

o. Demolish existing HPU system and appropriately dispose of hydraulic oils according to Afghan environmental regulations.

p. Design and install a stoplog using the existing slots if the original stoplog is not available. Stoplogs shall be capable of dewatering the chamber for the jet valves. Contractor shall assume dewatering is required to a depth of 2m. The actual tail water elevation will depend on dam operations and work must be coordinated with the powerhouse manager and the COR. Stoplogs shall become the property of the government after construction is completed.

1.2.3.9 Valve Actuators for Flow Regulating Valves (HOLLOW-JET VALVES)

Replace the actuating mechanisms for each valve. Actuators shall meet the following requirements:

a. Each valve shall be actuated independently of the others.

b. Each actuator shall be capable of fully opening and closing the valve at any possible head condition of the reservoir.

c. Actuators shall be powered by an electric motor. A manual backup shall be provided that may be engaged via a clutch. Force required to actuate the valve manually shall not exceed 20 pounds-force (lbf).

d. Actuators shall be mounted on new pedestals located on the deck (EL. 973.10) above the valves.

e. Each actuator unit shall be push-button operated, for CLOSE, OPEN, and STOP operations.

f. Absolute limit switches shall be installed to prevent over travel of valves and to protect equipment from damage.

g. Each actuator shall have provisions (disconnect switch) to individually isolate it from electrical energy.

h. All actuation system components shall be capable of forgoing maintenance for five years with no adverse affects on operation. This does not mean that regular, routine maintenance should not be scheduled and accomplished as recommended by the equipment manufacturer.

i. Actuator design shall exhibit a design life expectancy of 50 years.

j. Actuators shall be designed with corrosion-resistant features.

k. All grease fittings for each actuator shall be plumbed to a single manifold.

l. Actuators shall be provided with a cover that prevents damage from dirt, debris, and the environment.

m. Actuators shall be provided with provisions for rigging or lifting with a crane or hoist.

1.2.3.10 Design/Manufacture for Flow Regulating (HOLLOW-JET VALVES)

Use U.S. Army Corps of Engineers Engineering Manual EM 1110-2-1602 as a guide in developing technical specifications for the design or purchase of valves. Develop a hydraulic analysis of flow conditions through the range of valve operation and head conditions. Develop and provide a table of flow rates, with one axis showing valve percent open and the other showing the range of reservoir pool elevations, with the tabular values expressed in cubic feet per second and cubic meters per second.

Installation

a. Shop-fit and assemble components and assemblies to the fullest extent possible prior to transportation to the site, to ensure proper fit. Match mark individual components for ease of field assembly. Perform a factory test on at least one of the three Flow Regulating Valves, to be witnessed by the Government. Testing shall include a full cycle of open and close operations using a power HPU, and an open-to-close cycle using the manual hydraulic unit.

b. After ensuring that components are acceptable, disassemble to a degree required for shipping.

c. Remove three existing (old) valves, valve actuators, and ancillary equipment. Old equipment becomes property of the Contractor. Transport old equipment off-site.

d. Install three new valves, valve actuators, and ancillary equipment.

e. Perform operational testing of valves in a no-flow condition. Make adjustments or rectify defects as necessary to meet manufacturer's specifications. Testing shall be performed in accordance with SECTION 016400 START UP TESTING AND COMMISSIONING.

f. Perform operational testing of valves under flow, from fully closed to fully open position. Make adjustments or rectify defects as necessary to meet manufacturer's specifications. Testing shall be performed in accordance with SECTION 016400 START UP TESTING AND COMMISSIONING.

1.2.3.11 Sump Pumps

Locate and replace the two valve house sump pumps that serve the powerhouse waste system. Contractor shall also locate and replace the sump to the Roto Valve pit. New pumps shall be similar in design, capacity, and horsepower as the existing. A photo of the sump pumps is listed in the 'Sump Pumps' folder of Appendix A. See drawings 17-F-1-R1, and 13-F-46 for some information.

1.2.3.12 Flap Gate

Locate and replace the flap gate for small diameter discharge line that exits near the jet valves. That pipe allows water to backup into tunnel when tail water is high. Drawings (15-F-61, and 13-F-46 Section C-C) indicate there is small diameter (about 4 inches) flap valve at elevation 961.5 meters. The pipe exits below the pier in one of the jet valve chambers.

1.2.3.13 Local Water Supply – Evaluate and Report

The water supply for the adjoining camp and village across the river is obtained at the discharge of one of the jet valves. A 6-inch pipe from the camp has been mounted to the outer frame of a jet valve so that as high velocity water is discharged from the jet valve it enters the open end of the pipe, ramming water into the pipe. During valve replacement this pipe will be removed and the local population will lose their source of piped water. Replacement of this source of water is part of this project, however, there is some concern that the current methodology may be unsafe to maintain, and may affect jet valve operation or warranty. The current system is also dependent on having the particular jet valve open. As a result the water supply is not consistently reliable.
The contractor shall investigate and report on the existing conditions concerning the water system and recommend options that are consistent with the ability of an impoverished village to operate and maintain its source of water. The report should present several options, with different levels of costs and benefits. One of the options shall be an in-kind replacement of the method currently being used (assuming the method does not affect operation or warranty of the new jet valve). Another option to be considered shall be a tap into the existing 12-inch line that feeds the service turbine (See optional bid items). The report shall include information as to the extent of the water system and how the water is being used. Due to the potentially sensitive nature of the subject to the local population as well as the potential for an open-ended investigation, the contractor shall coordinate his efforts with the COR and exercise care not to create unrealistic expectations among the local population.

Appendix A includes two pictures of the existing conditions.

1.2.3.14 Modify Local Water Supply (Optional)

Provide a replacement for the water supply to the downstream camp and village. The new system shall be similar in capacity as the existing, and shall be plumbed independent of the irrigation outlet works. Contractor shall provide and install one, 6-inch tap into the existing line that feeds the service turbine, a 6-inch valve, and 450 lineal feet of 6-inch diameter Schedule 80 steel pipe that extends to the end of the tunnel works. A pressurized connection to the existing water supply line shall be made to restore the flow of water once the valve is opened.

1.2.4 Electrical Work

1.2.4.1 General

Prepare construction plans & specifications, as well as perform construction, testing and commissioning for the valve house sump pumps, flow regulating valves, emergency closure valves and associated power distribution system. Design and installation shall conform to requirements of NFPA 70 and IEEE C2.

The designs will be complicated by a lack of available information, pending Load Study and design-build work by others on the Irrigation Intake Structure Therefore, the Contractor is directed to assume an in-kind replacement of existing components if not items are not otherwise specified herein

1.2.4.2 Electrical Site Inspection – Tunnel Works

Original As-constructed drawings required to facilitate design under this contract are not available. The available drawings are considered "Informational" since they are not certified "As-Constructed". Therefore, the Contractor shall conduct site inspections to gather the required information for preparation of as-constructed drawings required to complete design. All inspections shall be performed by a qualified electrical engineer. Submit a report on the condition of existing equipment, including recommendations for correcting deficiencies. A list of drawings required to be as-constructed is provided below:

Single-Line Diagram (17-F-8)
Irrigation Tunnel – Valve Chamber and Tunnel - Power and Lighting (17-F-2)
Valve House - Power and Lighting Plans (17-F-3)
Valve House - Power and Lighting – Sections and Details (17-F-4)

Drawings can be found in Appendix A.

1.2.4.3 Design

Design shall utilize guide specifications and industry standards referenced within this Section. Controls shall not use any solid-state devices unless similar electro-mechanical type devices are not available or will not provide the required function. Electrical materials shall be dust-tight, corrosion-resistant and have an operating temperature suitable for the harsh conditions found at this site. Existing electrical distribution system characteristics can be found on the Informational Drawings. See Appendix A for list of Informational Drawings.

1.2.4.4 Valve House Sump Pumps

a. Replace power conductors for valve house lift pump(s). Reference Dwgs 17-F-3, 17-F-4, and 17-F-8.
b. Replace control system and control conductors for valve house lift pumps. Controls shall conform to the requirements of NEMA ICS 1, ICS 2 and ICS 5.

1.2.4.5 Flow Regulating Valves (HOLLOW JET)

a. Provide new power conductors and conduits (as necessary) to the new flow regulating valve actuators.
b. Provide new control cabinet and all control components, conduits and conductors for each regulating valve actuator. Controls shall conform to the requirements of NEMA ICS 1, ICS 2 and ICS 5.

1.2.4.6 Emergency Closure Valves (ROTO VALVES)

a. Replace power conductors and conduits (as necessary) for each emergency closure valve hydraulic pump unit.
b. Replace control system and control conductors for each emergency closure valve hydraulic pump unit. Controls shall conform to the requirements of NEMA ICS 1, ICS 2 and ICS 5.

1.2.4.7 Products

Power and control conductors shall be stranded copper with cross-linked thermosetting polyethylene insulation and non-PVC jacket conforming to NEMA WC 70. Switchboard conductors shall be type SIS. Enclosures shall constructed of steel and conform to NEMA 250. Enclosures indoors shall be Type 12 and enclosures outdoors or in damp locations shall be Type 4X. Indicating (pilot) lights shall be push-to-test type. All exposed conduit shall be rigid galvanized steel conform to UL 6. All buried conduit shall be PVC-coated rigid galvanized steel conforming to NEMA RN 1**.**

1.2.4.8 Specifications

See Appendix B for a list of guide specifications to be tailored (by the contractor) to fit the required design.

1.2.4.9 Installation

Remove all unused electrical equipment & materials (control panels, conduit, wire, etc.) prior to installation of new equipment. Removed equipment and materials are the property of the Contractor and shall be removed from site. Installation of new equipment shall conform to applicable codes and standards, as well as manufacturer's recommendations.

1.2.4.10 Testing

Field and operating testing shall be conducted in accordance with SECTION 016400 START UP TESTING AND COMMISSIONING**.** As well, all new wire shall be given insulation resistance (Meggar) and continuity tests.

Operations and Maintenance

O&M Manual covering all equipment shall be prepared in accordance with SECTION 017810 OPERATIONS AND MAINTENANCE DATA.

1.2.5 Valve House Hydro-electric Generating Unit

1.2.5.1 General

The contractor shall replace the Valve House generating unit consisting of turbine, generator, exciter, controls and protection with a new hydro-electric generating unit that meets the requirements listed below. This generating unit is shown on pictures in Appendix A. The contractor shall furnish and install the new generating unit and commission it. The contractor shall replace the control equipment and the power and control cables to the generator and to the governor and exciter.

The contractor shall either provide a new governor or rehabilitate the existing governor.

The contractor shall also replace in kind the service supply line valve. The Contractor shall coordinate work on the supply valve with any evaluations for local water supply connections. Alternate valve configurations are permissible if it meets the requirements of feeding the service turbine and the local water supply.

1.2.5.2 Site Inspection

Original As-constructed drawings required to facilitate design under this contract are not available. The available drawings are considered "Informational" since they are not certified "As-Constructed". Therefore, the Contractor shall conduct site inspections to gather the required information for preparation of as-constructed drawings required to complete design. All inspection shall be performed by a qualified electrical engineer. Submit a report on the condition of existing equipment, including recommendations for correcting deficiencies. A list of drawings required to be as-constructed is provided below:

Valve House Power and Lighting Plans (17-F-3)
Valve House Switchboard Elementary Wiring (17-F-5R2)

Valve House Switchboard 3 & 4 Wire 400 Volt 50 Cycle (D-18555F-1)
Wiring Diagram Panels 1 & 2 Valve House Switchboard (D-18555F-2)

The as-constructed drawings shall include all electrical characteristics of the electrical equipment.

1.2.5.3 Design

Design shall utilize guide specifications and industry standards referenced within this section. Controls shall be electro-mechanical and shall not use any solid-state type devices. Electrical equipment shall be dust-tight and corrosion –resistant suitable for the harsh environment found at this site. Existing generator and control design and characteristics can be found on the Informational Drawings. See Appendix A for a list of the Informational Drawings.

1.2.5.4 General Design Requirements

All new equipment shall be air cooled.

Equipment and performance conditions shall conform to the requirements of IEC 60193, IEC 60041, and IEC 60609.

The available hydraulic head at the site shall be determined as part of the design.

The turbine and generator shall be able to withstand operation at full runaway speed for an unlimited amount of time with no damage to the equipment.

The maximum efficiency of the turbine generator unit, at the design hydraulic head, shall not be less than 80%. Input energy will be calculated as the difference between the total energy in the water at the turbine intake minus the total energy in the water one runner diameter downstream of the runner discharge. Output energy shall be calculated at the generator terminals, under the conditions of equalized phase load and unity power factor.

All equipment shall have a two year warranty. In the event that a component or piece of equipment requires service or repair under the terms of the warranty, the warranty for that piece of equipment shall be restarted for an additional two years at the completion of the repair.

a. The generating unit including all auxiliary equipment shall be supplied by a manufacturer that has manufactured similar equipment for a minimum of 5 years. The manufacturer must have manufactured a minimum of 5 generating units that are 50kW or larger each year for the past 5 years.
b. All Equipment shall be tested per manufacturer's recommended testing before shipment from the factory. Factory testing shall meet the requirements of SECTION 016400 STARTUP TESTING AND COMMISSIONING.

1.2.5.5 Generator

Generator shall produce 75 kW output at the generator terminals at 0.8 power factor.

Generator shall be a synchronous three phase, four wire, resistor grounded, 50Hz, 240/416V, at 0.8 power factor.

Generator insulation shall be class 155 insulation as defined in NEMA MG-1, and shall be insulated for 600 Volts AC or higher.

a. The generator shall conform to NEMA MG-1

Turbine

a. The contractor shall determine the operating ranges (head and flow) that the turbine will encounter in service.
b. The Turbine shall be designed such that at the worst case combination of load rejection, head and flow, the maximum stress in any turbine component shall not exceed 67% of the material yield strength.
c. The turbine shall operate smoothly, without water passageway pressure pulsation, torque fluctuation or load swing at all power outputs between 5% and 100% of maximum power;

d. The turbine runner, wicket gates, and stay vanes shall be made of stainless steel, either austenitic or martinsitic.
e. No 'greaseless' or self lubricating bushings or bearing pads shall be used.
f. All wicket gate mechanism bushings, wicket gate stem bushings and bearing pads shall be greased bronze.
g. Standard manual zerk grease fittings shall be fitted to the equipment at each grease point.
h. Cloth type packing shall be used at shaft sealing points—no 'O' rings or elastomer type seals shall be allowed where mating pieces have relative motion with respect to each other.
i. Main shaft bearings shall be either grease lubricated, sealed anti-friction roller bearings or they shall be babbited journal bearings immersed in an oil bath. Anti-friction rollers bearings shall be grease-able and shall have a pressure relief fitting. Oil baths shall not require external cooling.
j. The wicket gate actuator shall be hydraulically driven.
k. All consumables (such as filter elements) shall be readily available on the local market. As an example, in the case of filters—use an automotive engine filter, and make the filter fitting / connection adaptable to accommodate future filter design changes.
l. The turbine shall have a torque limiting mechanism that prevents overstressing of the wicket gate stems.
m. The turbine shall have a Wicket Gate operating ring. Individual wicket gate actuators shall not be allowed.
n. The turbine power shaft shall have a replaceable shaft sleeve at the turbine shaft packing area. The shaft sleeve shall have a wall thickness not less than 9 millimeters.
o. The Generator rotor / shaft assembly shall be supported by at least two shaft bearings. If a flexible coupling between the turbine and generator shaft is used, then the turbine shaft shall be supported by two bearings. If there is a rigid coupling between the turbine and generator shafts, then the turbine shaft need only have one bearing. If the turbine runner is mounted directly on the generator shaft, then a two bearing system is acceptable. Main shaft bearings shall have an infinite bearing life and loads shall be calculated based on coupled turbine and generator shafts.

Governor

a. If the contractor chooses to supply a new governor, the frequency tolerance shall be not more than +/- 1HZ over a range of 5% to 100% of the maximum turbine power output. The new governor shall include a Hydraulic Pumping Unit.
b. At his option the contractor may choose to rehabilitate the existing governor rather than supply a new governor. If the governor is rehabilitated, the work shall be performed by a firm that specializes in the rehabilitation and repair of mechanical governors. In this case, the specialty firm shall have rehabilitated a minimum of five (5) generating units that are 50kW or larger each year for the past five (5) years. Qualifications shall be submitted to the Contracting Officer's Representative (COR) to substantiate that the specialty firm meets this requirement.
c. All components comprising the governor system, including but not limited to Hydraulic Pumping Unit, Servo-motor, ball head and ball head motor shall be restored to 'as new' fits and tolerances.

Exciter

The exciter shall be a brushless, rotating exciter that is sized to meet the requirements of the generator.

Control Equipment

All equipment and control wiring located in Panel no. 1 of the Valve House Switchboard shown in drawings 17-F-5R2, D-18555F-1, and D-18555F-2 shall be replaced in kind with equal equipment. Where the equipment cannot be replaced in kind with new equipment, it shall be replaced with new equipment that is functionally equal to the original equipment. The new equipment shall not use integrated circuits, digital controls, solid state components or computers.

Power and Control Cables

Remove and replace the power and control cables that run between Panel no. 1 of the Valve House Switchboard and the station service generator. Perform cable size and voltage drop calculations. Size the new cables to meet the current carrying capacity allowed by NFPA 70 when the generator is running at full load, per the requirements of Section 1.12.2.

1.2.5.6 Commissioning

After completing installation of all components, testing to confirm the unit operates and functions per design specifications, and per contract requirements, shall be conducted. The contractor shall create a test program that identifies the tests to be performed and the detailed procedures for conducting the tests. The test program shall be submitted to the Contracting Officer for approval. In addition to the testing identified here, the testing and commissioning program shall comply with the requirements of SECTION 016400 START UP TESTING AND COMMISSIONING. In the event of conflicting requirements, the requirements stated in this section shall apply.

At a minimum, the test program shall include, and conform to, the following requirements as stated in IEEE Standard 1248-1998.

Turbine/Generator/Governor System
Visual Inspection (9.1.82)
Clearance Measurement (9.1.14)
Vibration Check (9.1.81)
Calibration (9.1.11)
Lubrication Check (9.1.54)
Function Check (9.1.37)
Leak Testing (9.1.49)
Shaft Runout (9.1.69)
Bearing Heat Run (9.1.6)
Overspeed (9.1.61)
Load Rejection, including a load rejection at 100% power output (9.1.51)
Initial Rotation (9.1.45)
Initial Operation (9.1.44)

Turbine
Runner
Visual Inspection (9.1.82)
Clearance Measurement (9.1.14)
Calibration (9.1.11)

Wicket Gates
Visual Inspection (9.1.82)
Clearance Measurement (9.1.14)
Vibration Check (9.1.81)
Calibration (9.1.11)
Lubrication Check (9.1.54)
Function Check (9.1.37)
Leak Testing (9.1.49)

Shaft
Visual Inspection (9.1.82)
Clearance Measurement (9.1.14)
Vibration Check (9.1.81)
Shaft Runout (9.1.69)
Guide Bearing
Visual Inspection (9.1.82)
Clearance Measurement (9.1.14)
Vibration Check (9.1.81)
Calibration (9.1.11)
Lubrication Check (9.1.54)
Shaft Runout (9.1.69)
Bearing Heat Run (9.1.6)
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1.2.5.7 Alignment

The Turbine-Generator shafts shall be aligned per the equipment manufacturer's tolerances and instructions.

1.2.5.8 Training

The contractor shall provide training to indigenous staff, providing information on how to operate and maintain the equipment supplied for the Valve House Hydroelectric Power System. Training shall conform to SECTION 016640 TRAINING.

1.2.5.9 Operation and Maintenance Manual

An operation and maintenance (O&M) manual for the equipment shall be provided. The O&M Manual shall comply with the requirements of SECTION 017810 OPERATION AND MAINTENANCE DATA and at a minimum shall contain:

Detail drawings of each component of the equipment

Specific instructions for the operation of the equipment, including but not limited to:
- Start-up sequences
- Steady State Operation
- Normal operating ranges for temperatures and pressures of bearings, oil and water.

Shut down sequences
Trouble shooting and repair instructions.
Procedures for replacing wear parts
Adjustment procedures for movable parts, including wicket gate closure and fit.
Packing box and seal maintenance, adjustment and repair
Gate Closure Timing settings
Maintenance Intervals and schedule for each maintenance activity.
Recommended types of oil and grease for each lubrication point.

1.2.6 Power House Diesel Generator (Optional)

Contractor shall inspect and replace in kind the existing Station Service diesel generator (SSG) located outside of the hydroelectric powerhouse. The contractor shall repair all power and control connections to the generator. The generator power rating is 121 kW based upon field photos of nameplate data. The cooling system shall be designed for both 50 degrees C ambient temperature, and the altitude at the location. Controls and instrumentation shall not use any solid-state devices unless similar electro-mechanical type devices are not available or will not provide the required function. Electrical control cabinets shall be dust-tight, corrosion-resistant and have an operating temperature suitable for the harsh conditions found at this site. See Informational Drawings GG-47-501(R5) and GG-47-531(R7) in Appendix A. Photos of the generator are also located in Appendix A. The emergency diesel generator shall be tested in accordance with Technical Specification 263214.00 IRRIGATION INTAKE STRUCTURE DIESEL GENERATOR (OPTIONAL). Contractor shall provide an operations and maintenance manual.

1.2.7 Structural/Geotechnical Work

1.2.7.1 General

Perform all evaluations and reports as specified below. Perform construction and prepare plans & specifications perform construction, testing and commissioning for the chamber repair, and apron repair.

1.2.7.2 Unlined Tunnel – Evaluate and Report

Contractor shall inspect and evaluate the unlined tunnel. This assumes that the bulkhead gate on the intake structure is operational and has been closed which is necessary for all of the valve and conduit work. The valuation will take place coincident with the valve replacement.

A qualified geotechnical engineer shall oversee dewatering operations and evaluate and report on the condition of the unlined irrigation tunnel. The concrete portal extends 30m into the tunnel and also should be evaluated by a qualified structural engineer. The original tunnel designs accounted for significant hydraulic and earthquake loading when the pool was at El. 1045 meters. The geotechnical evaluation shall follow the format outlined in the USACE EM 1110-1-1804. A review of the available foundation treatment drawings is required and a visual assessment on the condition of the grouting made. Peripheral geologic mapping is required since it was not done or the documentation has been lost. A video graphic log of the periphery is also required.

A qualified structural engineer shall evaluate the portal structure behind the bulkhead. A photographed and well documented assessment of the concrete is required.

1.2.7.3 Chamber Repair - Downstream of Jet Valve (OPTIONAL)

Repair any erosion or damage from cavitations to the Chamber to an as-new condition. Scope of repairs shall be that portion of the chamber exposed to flow outside the jet valve and confined by the concrete bulkheads. Placement of bulkheads may be required due to tailwater conditions. Contractor shall assume the tailwater conditions as illustrated in the Government review documentation of Appendix D. Bulkheads required to dewater the chamber are included under mandatory items and should not be included in this option. Work shall include placing concrete bulkheads and dewatering the chamber. The exact nature of the repairs cannot be determined until

the evaluation and report has been completed. Contractor shall assume a sawcut and patch of 4-inch depth across 30 square feet of area.

1.2.7.4 Apron Repair - Downstream of Jet Valve (OPTIONAL)

Repair any erosion or cavitations damage to the Apron to an as-new condition. Scope of repairs shall include that portion of the chamber exposed to flow outside chamber beyond the bulkheads. Work shall include placing a temporary cofferdam and dewatering the Apron. Contractor shall assume dewatering is required to a depth of 2m. The actual tail water elevation will depend on dam operations and work must be coordinated with the powerhouse manager and the COR. The exact nature of the repairs cannot be determined until the evaluation and report has been completed. Contractor shall assume a saw cut and patch of 4-inch depth across 300 square feet of area.

1.2.8 Spare Parts

Provide a spare parts list with associated annotated photographs for all parts actually delivered written in English and Pashto for all sub items listed below.

1.2.8.1 Roto Valves

a. Furnish a new set of nuts, bolts, gaskets (if any) to be shipped with valves as the original might get damaged during assembly and disassembly process. This is to avoid costly delays that may result from damage and the extreme transportation distances required.
b. Furnish four (4) complete sets of valve seals.

c. Furnish one (1) complete set of special tools specific to valve components.

d. Furnish five (5) years worth of consumables for servicing, based on the manufacturer's recommended service intervals.

e. Furnish three (3) replacement sets of hoses and fittings for hydraulic units.

f. Furnish three (3) complete sets of standard replacement parts and wear items for the HPUs.

g. Furnish one (1) set of hoses and fittings long enough to reach from any one HPU to any other HPU.

h. Furnish one (1) complete set of special tools specific to HPU components.

1.2.8.2 Flow Regulating Discharge Valves

a. Furnish four (4) complete sets of valve seals.

b. Furnish one (1) complete set of special tools specific to valve components.

c. Furnish five (5) years worth of consumables for servicing, based on the manufacturer's recommended service intervals.

1.2.8.3 Flow Regulating Discharge Valve Actuators

a. Furnish one (1) complete spare Valve Actutator.

b. Furnish one (1) complete set of special tools specific to valve components.

c. Furnish five (5) years worth of consumables for servicing, based on the manufacturer's recommended service intervals.

1.2.8.4 Valve House Hydroelectric Generating Unit

a. Furnish one (1) complete set of brushes for the exciter and for the generator

b. Furnish three (3) spare fuses for each fuse used in the control circuit for the generators

c. Provide two complete sets of packing for each location that packing is used. For the wicket gate packing this means two spare sets for each wicket gate.

d. If the wicket gate torque limiting device uses a breakable or consumable device (for example a shear pin or breaking link), two complete sets of consumable devices shall be supplied as spares.

1.2.8.5 Electrical Controls

a. Furnish four (4) indicating light assemblies of each type used

b. Furnish four (4) indicating light lens of each color used

c. Furnish two (2) control relays of each type used

d. Furnish five (5) fuses of each type and rating used

e. Furnish two (2) control transformers of each type and rating used

f. Furnish two (2) control (selector) switches of each type used

g. Furnish two (2) pushbutton assemblies of each type used

h. Furnish a minimum of two (2) for any other replaceable control component used.

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1.3 PROJECT: IRRIGATION INTAKE STRUCTURE

1.3.1 Mechanical Work

1.3.1.1 General

Prepare construction plans & specifications, as well as perform inspections, construction, testing and commissioning for the sub items listed below.

1.3.1.2 Site Inspection

All inspections should be performed by a qualified mechanical engineer. Perform visual inspection of crane structure, welds, rails, and paint system. Submit a report on the condition of existing equipment and structures, including recommendations for correcting deficiencies.

1.3.1.3 Bridge Crane and Hoist

Rehabilitate the irrigation intake structure bridge crane. The new hoist and trolley are estimated to weigh approximately 10,000 lbs. The actual weight of the hoist and trolley shall be determined prior to installation. All weights shall be coordinated with the appropriate agency to ensure that it is within the capacity of the proposed hoisting method. The rehabilitated bridge crane shall meet the following requirements:

a. The crane shall be able to be operated by one individual.

b. The crane shall be up-rated from the current capacity of 75 tons up to 100 tons (200,000 pounds-force, lbf). The Contractor shall perform a full analysis of the bridge crane and determine the modifications required. Contractor may assume an alternate method of watering the tunnel thus reducing the maximum load on the gate that would otherwise be required (See Paragraph “Alternate Tunnel Watering System”. The Contractor shall prepare new lifting diagrams. The intake tower structure, crane structure, and hoist components shall have a capacity adequate for all live and dead loads resulting from the rated load.

c. The crane shall be able to completely lower and raise each of the two closure bulkheads (i.e., both WHEEL GATE and STOP LOG) under static conditions.

d. The hoist block shall travel at least four feet per minute up or down at rated load. The hoist shall be electrically powered and push-button operated.

e. Replace all wire rope. The designers shall determine if stainless steel or galvanized wire rope is required for withstanding the environmental conditions, and provide design criteria accordingly.

f. The trolley traverse mechanism shall be able to traverse the trolley at rated load.

g. The trolley traverse may either be electrically powered and push-button operated, or manually operated with a maximum of 20 lbf manual input at rated load. If electrically powered, the trolley traverse shall operate at a minimum of five feet per minute.

h. The bridge traverse mechanism shall be able to traverse the bridge at least twenty feet per minute at rated load.

i. All hoist and bridge traverse components shall be rated for and capable of continuous operation. The bridge traverse shall be electrically powered and push-button operated.

j. Crane hoist, trolley, and bridge traverse mechanisms each shall be equipped with a brake capable of preventing movement that is not commanded.

k. All crane components shall be protected from damage due to corrosion, dust and debris, sun, weather, and lightning.

l. All crane components shall be capable of forgoing maintenance for five years with no adverse affects on operation.

m. The crane shall be outfitted with a pendant control to allow operation from the intake structure deck.

n. Motor starters shall be rated for plugging duty.

o. Motor functions shall be protected from over travel by limit switches or other means.

p. The bulkheads (i.e., both WHEEL GATE and STOP LOG) shall be protected from gate skew by slack cable switches or other means.

1.3.1.4 Jib Crane

Replace the jib crane located on the bridge crane. The jib crane is intended solely for crane service items, such as lubricants, hand tools, and small replacement pieces.

The jib crane shall meet the following requirements:

a. The jib crane shall be able to lift objects between the bridge crane deck and the intake structure deck.

b. The jib crane boom shall be high enough off the deck that normal service items will be fully suspended in the air over the crane deck at the upper limit of travel.

c. The jib crane shall be able to be operated by one individual.

d. The jib crane shall have a rated capacity of ¼ ton (500 lbf). If outfitted with a manual hoist, the operator shall be able to lift the rated load with a maximum of 20 lbf effort.

e. The jib crane hoist shall be outfitted with a brake capable of holding the rated load. The brake shall be operated from the operator station.

f. The jib crane shall be able to smoothly swing 360 degrees about the upright member at rated load. The crane shall have a provision to swing the boom from the operator station. All crane components shall be protected from damage due to corrosion, dust and debris, sun, weather, and lightning.

The jib crane may be upsized to assist with lifting components required for rehabilitation of the Bridge Crane.

1.3.1.5 Lifting Beams

Rehabilitate the two lifting beams for the intake bulkheads (i.e., both WHEEL GATE and STOP LOG). The lifting beams shall meet the following requirements for their respective bulkheads:

a. Each lifting beam shall be able to interface with the bulkhead.

b. Each lifting beam shall be able to fully lower the bulkhead, disengage, and be hoisted back to the intake structure deck with operation by a single person and without fouling or binding in the guide slots.

c. Each lifting beam shall be able to travel to the bottom of the guide slot, engage a bulkhead, and fully raise the bulkhead to the dogging position at the intake structure deck.

d. The lifting beam shall engage and disengage the bulkhead with the pull of a rope, at no more than 40 lbf.

e. The lifting beam shall have a mechanism or design that prevents the beam from being oriented in a manner which would prevent engagement or disengagement from the bulkhead.

f. The lifting beam shall have a mechanism that prevents inadvertent release of the bulkhead.

g. All lifting beam components shall be protected from damage due to corrosion, dust and debris, sun, and weather.

1.3.1.6 Bulkhead Dogs

Rehabilitate or replace the dogs for both bulkhead types (i.e., both WHEEL GATE and STOP LOG). Perform design analysis to ensure that the dogs have an adequate capacity as described below. New or existing dogs shall meet the following requirements:

a. Stops shall have a capacity of twice the weight of the held bulkhead.

b. Stops shall be operated/placed/installed with a maximum of 40 lbf manual input.

c. All dog/stop components shall be protected from damage due to corrosion, dust and debris, sun, and weather.

Rehabilitation of the dogs shall include:

d. Complete removal of the existing paint system.

e. 100% visual inspection of the dogs for structural deficiencies, and correction of any findings. Submit a report on the condition of existing equipment including recommendations for correcting deficiencies.

f. Repainting with an approved vinyl-based paint system. The system shall include primer, intermediate, and top coats and in thicknesses as specified by the paint manufacturer for the application.

If necessary, replacement of the dogs shall include:

g. Design, fabrication, and installation of new dogs. Dogs shall meet the performance requirements listed above.

1.3.1.7 Design/Manufacture

Use ASME B30.2-2005 and Unified Facilities Criteria UFC 3-320-07N for the development of technical specifications for the design, construction, and installation of all crane components. In the event of a conflict or an overlap in governance between the two standards, the most stringent requirements shall apply.

1.3.1.8 Installation and Site Work

a. Shop-fit and assemble components to the fullest extent possible prior to transportation to the site, to ensure proper fit. Match mark individual components for ease of field assembly. Disassemble as required for shipping.

b. Replace end truck wheel bearings on the bridge crane.

c. Replace all bridge crane drive components.

d. Replace entire jib crane.

e. Replace entire bridge crane trolley, hoist, and all hoisting equipment.

f. Replace all power/control wire and equipment. See paragraph 1.11.2. ELECTRICAL WORK.

g. Remove any existing rust, corrosion, or failed paint system. Repaint exposed surfaces.

h. Install grease distribution system.

i. Lubricate all components requiring lubrication.

j. Test bridge drive mechanism at no load. Correct any deficiencies. Test at rated load. Correct any deficiencies.

k. Test hoist and trolley mechanisms at no load. Correct any deficiencies. Test at rated load. Correct any deficiencies.

1.3.2 Electrical Work

1.3.2.1 General

Prepare construction plans & specifications, as well as perform construction, testing and commissioning for the irrigation intake crane, emergency diesel generator and associated power distribution system. Design and installation shall conform to requirements of NFPA 70 and IEEE C2.

1.3.2.2 Site Inspection

All inspections should be performed by a qualified electrical engineer. Original As-constructed drawings required to facilitate design under this contract are not available. The available drawings are considered "Informational" since they are not certified "As-Constructed". Therefore, the Contractor shall conduct site inspections to gather the required information for preparation of informational drawings required to complete design. Site inspections will also be necessary to determine condition of existing electrical systems where indicated below. All inspections shall be performed by a qualified electrical engineer. A list of drawings required to be as-constructed is provided below:

Single-Line Diagram (17-F-8)
Aerial Distribution Line – Plan and Details (17-F-6)
Intake Tower Access Bridge – Bent and Girder (15-F-65)
These drawings can be found in Appendix A**.**

1.3.2.3 Design

Design shall utilize guide specifications and industry standards referenced within this Section. Controls shall not use any solid-state devices unless similar electro-mechanical type devices are not available or will not provide the required function. Electrical materials shall be dust-tight, corrosion-resistant and have an operating temperature suitable for the harsh conditions found at this site. Existing electrical distribution system characteristics can be found on the Informational Drawings. See Appendix A for list of Informational Drawings.

1.3.2.4 Studies

a. Conduct load study and voltage drop study (and fault study if required) on the aerial distribution line (or optional buried line) to verify it has adequate capacity to service the existing connected loads plus the intake crane structure loads. Contractor shall notify the Contracting Officer of any unauthorized connections.

1.3.2.5 Irrigation Intake Structure

b. Replacement of electrical equipment for irrigation intake crane. Equipment includes, but not limited to: lighting fixtures/switches, crane control devices, motor starters, transformers, power distribution panels.

Motor starters shall be reduced voltage, non-solid state type; wye-delta, primary impedance, partial-winding, or primary resistive Use Technical Specification 412213.13, BRIDGE CRANES for guidance. Controls shall conform to the requirements of NEMA ICS 1, ICS 2, ICS 5 and ICS 8. Lighting shall utilize HID fixtures capable of producing a minimum level of illumination at the structure's main platform in accordance with IES Lighting Handbook guidance.

c. Replacement of power/control conductors for the irrigation intake crane (existing conduits may be used if undamaged, adequately sized, and conform to applicable standards).
d. Replace crane rail electrification systems for damage. Perform continuity tests on runway conductors and current collectors. See informational drawings 9698D20 and 9798D8.
e. Restore power to the Intake Structure by replacement of conductors between irrigation intake structure and overhead line. Design of aerial distribution components shall conform to requirements of TM 5-811-1.

1.3.2.6 Products

Power and control conductors shall be stranded copper with cross-linked thermosetting polyethylene insulation and non-PVC jacket conforming to NEMA WC 70. Enclosures shall constructed of steel and conform to NEMA 250. Enclosures indoors shall be Type 12 and enclosures outdoors or in damp locations shall be Type 4X. Indicating (pilot) lights shall be push-to-test type. All exposed conduit shall be rigid galvanized steel conform to UL 6. All buried conduit shall be PVC-coated rigid galvanized steel conforming to NEMA RN 1**.**

Installation

Remove all unused electrical equipment & materials (control panels, conduit, wire, etc.) prior to installation of new equipment. Removed equipment and materials are the property of the Contractor and shall be removed from site. Installation of new equipment shall conform to applicable codes and standards, as well as manufacturer's recommendations.

1.3.2.7 Testing

Field and operating testing shall be conducted in accordance with SECTION 016400 START UP TESTING AND COMMISSIONING**.** The emergency diesel generator shall be tested in accordance with Technical Specification 263214.00. As well, all new and reused wire shall be given insulation resistance (Meggar) and continuity tests.

Operation & Maintenance

O&M Manual covering all equipment shall be prepared in accordance with SECTION 017810 OPERATIONS AND MAINTENANCE DATA. O&M data for the emergency diesel generator shall include instructions on manual exercising in accordance with manufacturer's recommendations

1.3.2.8 Diesel Generator for Intake structure

Provide a new emergency diesel generator to serve as standby power for the intake structure crane. Controls and instrumentation shall not use any solid-state devices unless similar electro-mechanical type devices are not available or will not provide the required function. Electrical control cabinets shall be dust-tight, corrosion-resistant and have an operating temperature suitable for the harsh conditions found at this site. Provide manufacturer's weatherproof enclosure mounted on a concrete pad or, at contractor's option, provide a generator building similar to that originally provided, with power receptacles and lighting. Power distribution configuration shall be similar to that originally designed. See Informational Drawings 17-F-7 and 17-F-8. Generator shall be sized to carry the full load of the irrigation intake structure. See Informational Drawing 17-F-8 for electrical characteristics of original emergency generator. Provide electrical plans and specifications for the power service to the intake tower.

The generator set shall meet the following requirements:

a. The generator set shall provide power to the intake structure.

b. The generator set shall be sized such that it is capable of providing power to all equipment and lighting on the intake structure simultaneously.

c. The generator set shall be provided with a fuel tank supply (i.e. a "belly tank") adequate for 24 hours of continuous use under load. Fuel tanks shall have secondary containment integral to the generator.

d. The generator set shall be designed for outdoor and extreme-duty use. . The cooling system shall be designed for both 50 degrees C ambient temperature, and the altitude at the location.

There will be no load on the generator set when started. Provide an Operation and Maintenance manual for the diesel generator.

1.3.3 Structural Work

Provide all inspection reports, plans and inspections for all sub items below.

1.3.3.1 Access Bridge

The access bridge will require an inspection and structural analysis by a qualified engineer if used for moving heavy loads beyond the Site Specific Limitations in paragraph 1.6.

1.3.3.2 Structural Elements of Intake Structure

Contractor shall inspect the structural elements of the intake structure and prepare a reinforcement design if necessary to account for the rehabilitated Bridge Crane. A government review of the history of operations and the original design drawings indicates the proposed loads for the rehabilitated Bridge Crane will not exceed the original designs. Contractor's engineer shall verify the loading by performing an independent review designs and operational history of the intake structure.

1.3.3.3 Inspection for Trash Racks (Optional)

Inspect the existing trash racks and associated guide slots. Submit a report on the condition of existing equipment and structures, including recommendations for correcting deficiencies.

1.3.3.4 Trash Rack Replacement (Optional)

Replace trash racks according to original design. Trash racks shall exhibit corrosion-resistance, through an approved paint system, or bitumen coating according to original design. Galvanization is not required.

1.3.3.5 Trash Rack Guide Repair (Optional)

The government assumes the guides will have experienced less corrosion than the exterior racks due to their partial encasement in concrete. Contractor shall verify the corrosion with the results of the inspection. The trash racks and associated guide slots shall be repaired according to original design.

1.3.3.6 Irrigation Tunnel Closure Wheeled Bulkhead

This paragraph covers the smaller of the two intake tunnel closure bulkheads. It is listed on drawings as the WHEEL GATE. Analyze the design of the existing wheeled bulkhead to ensure an adequate design and capacity. Rehabilitate the wheeled bulkhead. Rehabilitation shall include:

a. Complete removal of existing paint or coating system to bright metal.

b. 100% visual inspection of welds and structural steel. Repair of defects or cracks discovered.

c. Complete replacement of wheels, bearings, and shafts.

d. Complete replacement of seals.

e. Modification of lifting points or rigging as necessary to interface with new lifting equipment.

f. Repainting with an approved vinyl-based paint system. The system shall include primer, intermediate, and top coats and in thicknesses as specified by the paint manufacturer for the application.

g. Functional testing to ensure the bulkhead meets the performance requirements set forth below and as outlined in SECTION 016400 START UP TESTING and COMMISSIONING.

The wheeled bulkhead shall meet the following performance requirements:

a. The bulkhead shall be inspected for conformance with current design in accordance with EM 1110-2-2105 and EM 1110-2-2701 for the reservoir at maximum pool.

b. If the bulkhead does not meet current design standard, then the Contractor shall prepare designs and upgrade the bulkhead to bring it into conformance.

c. The bulkhead shall interface with existing dogs.

d. Bulkhead travel shall be smooth throughout the entire range of travel up and down, without hesitation or binding on guide slots.

e. The bulkhead shall fully seat against the irrigation tunnel intake and prevent leakage, permitting the tunnel to be dewatered. Acceptable leakage is fifteen gallons per minute.

f. Depending on Contractor design, install valve in the face of the bulkhead to provide an alternate method of watering the tunnel. See Paragraph on Mechanical Work.

1.3.3.7 Irrigation Tunnel Closure Concrete Bulkhead

This paragraph covers the larger of the two intake tunnel closure bulkheads. It is listed on the informational drawings as the STOP LOG.

The existing concrete bulkhead shall be rehabilitated by lifting the bulkhead up clear of the structural elements and replacing the seals. The contractor shall provide the necessary scaffolding, and other temporary features. The contractor shall provide protection as necessary to assure that the existing intake tower and inlet structure is not damaged during the repair. The contractor shall repair any damage at no cost to the government.

The refurbished bulkhead shall meet the following requirements:

a. The bulkhead seals shall be replaced according to the original design.

b. Bulkhead travel shall be smooth throughout the entire range of travel up and down, without hesitation or binding on guide slots.

c. The bulkhead shall fully seat against the irrigation tunnel intake portal and prevent leakage, permitting the tunnel to be dewatered. Acceptable leakage is fifteen gallons per minute.

d. Remove corrosion, inspect welds and metal components for cracking (e.g., lifting eyes). Repair by welding and paint the steel surface.

1.3.3.8 Alternate Tunnel Watering System

Contractor shall design and install an alternate tunnel watering system to ultimately reduce the load on the hoist while lifting the wheeled bulkhead. The Government presumes that a valve system may be installed on the Wheeled Bulkhead. The Contractor may develop alternate designs. The O&M manual currently states that the time required to water the tunnel under current operations (6-inch lift on wheel gate) takes 3-4 hours. The Contractor shall design a system that takes no longer than 8 hours to water the tunnel.

1.3.4 SPARE PARTS

1.3.4.1 Bridge Crane

a. Furnish two (2) replacement bearings and couplings of each size for the bridge drive, trolley drive, and hoist.
b. Furnish one (1) complete set of standard replacement parts and wear items for all motors, speed reducers, bearings, and couplings.
c. Furnish one (1) complete set of special tools specific to crane components.
d. Furnish five (5) years worth of consumables for servicing, based on the manufacturer's recommended service intervals.

1.3.4.2 Electrical Controls

a. Furnish four (4) indicating light assemblies of each type used
b. Furnish four (4) indicating light lens of each color used
c. Furnish two (2) control relays of each type used
d. Furnish five (5) fuses of each type and rating used
e. Furnish two (2) control transformers of each type and rating used
f. Furnish two (2) control (selector) switches of each type used
g. Furnish two (2) pushbutton assemblies of each type used
h. Furnish a minimum of two (2) for any other replaceable control component used.

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1.4 DAM SAFETY INSTRUMENTATION

1.4.1 Civil/Geotechnical Work

1.4.1.1 General

Instrumentation type, location, depth (as applies), installation, and completion (finish) shall be in accordance with the Instrumentation Plan and applicable USACE and ASTM standards for embankment dam instrumentation for design, monitoring, and operation. The Instrumentation Plan and Elevation View are included Appendix A and should be used as a guide to required type and locations. Contractor shall provide a design package including the results of all site inspections, plans and specifications, equipment installed, equipment provided with operational procedures.

1.4.1.2 Geotechnical Requirements

Any site-specific geotechnical data required to develop 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 using appropriate ASTM and USACE Standards. The Contractor shall submit 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 be limited to: existing geotechnical (e.g. surface and subsurface) conditions, location of subsurface exploration logs on site plan, exploration point, ground-water levels, and construction materials (e.g. concrete cement, asphalt, and aggregates). For standard penetration test (SPT), the Contractor shall use ASTM D1586. For rock coring, perform core logging following the methodology in Section 5-10, Core Logging, in EM 1110-1-1804, Geotechnical Investigations. All geotechnical laboratory and field work shall be based on standards set forth in the ASTM. . Soil investigations shall conform to AED Design Requirements: Geotechnical Investigations for USACE Projects, latest version, or most recent version.

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. 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 013316 DESIGN BUILD AFETR AWARD.

1.4.1.3 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.

1.4.1.4 Site Inspection

Perform visual inspection of the embankment dam crest, abutment areas, Powerhouse grounds and walls, and Irrigation Intake Tower for proposed instrumentation installation locations. Location of instrument sites, access for installation, and site required work for access and disposal of cuttings from drilling shall be determined from the site inspection and coordination with the Government. All personnel and equipment needed to perform a thorough analysis shall be included in this inspection. Upon completion of the inspection, the contractor shall submit a formal Inspection Report (additional detail found in SECTION 013316 DESIGN BUILD AFETR AWARD). At a

minimum, the report shall provide additional detail, pictures, and findings of every location or component as found in the BID SCHEDULE, SECTION 010140 SUMMARY OF WORK and within this section.

1.4.1.5 Design/Manufacture

Instrumentation type shall be in accordance with applicable standards for materials, assembly, installation, and testing so that it will be complete and acceptable for use.

Designs and catalogue sheets for all equipment shall make reference to and be appended to the Site Inspection Report.

1.4.1.6 Installation and Site Work

Locks for all instruments shall be keyed alike where possible. Provide approved locks and keys. Use the following references for design.

a. Piezometers - reference for design include ASTM D5092, ER 1110-1-1807, and EM 1110-2-1908.

b. Survey monuments and pillars – reference for design includes EM 1110-2-1009, EM 1110-2-1908, EM 1110-2-4300, and associated references.

Piezometer and survey monuments on roadways and parking areas shall be designed to support the loads from vehicles and other equipment that the roadways and parking areas are rated for.

1.4.1.7 Piezometers

Install two piezometers in the left abutment as illustrated in the Base Instrumentation - Plan View, and Instrumentation - Elevation View drawings in Appendix A. Install the same number of open tube piezometers and corresponding sensing zone(s) as shown. Contractor shall install the piezometers according to ASTM D5092 and USACE guidance, as applicable, shall be used to design the piezometers, including locking cover or caps mounted flush to the ground surface over each piezometer. Take initial water level readings, then before and after tunnel dewatering operations at a sufficient interval to evaluate any changes.

1.4.1.8 Water Level Meters

Provide three (3) portable battery operated water level meter sensing units with light and sounding buzzer to indicate water with markings in meters and millimeters. Two sensing units shall have 100 meter length cables and one unit shall have a 50 meter cable. Sensing units shall be Stevens Water Monitoring Systems, In. Contact Meter or the Durham Geo Slope Indicator Water Level Indicator (230 mm reel – 100 m cable and 180 mm reel – 50 m cable), or equivalent.

1.4.1.9 Survey Monuments and Pillars

Install permanent survey monuments and survey pillars for the alignment lines shown as approved on Base Instrumentation - Plan View in Appendix A. All monument points and pillars shall include covers or caps mounted flush to the ground surface to provide secure installations, complete and ready for use. Monuments should be located at the edge of travelled areas to avoid vehicles and should be designed for protection from vehicle loads. Work to be designed and installed in accordance with EM 1110-2-1009, EM 1110-2-1908, EM 1110-2-4300, and associated references. Typical installation designs drawings are included in Appendix A. Initial survey reference elevations and survey monument data will be provided by the Government (See Topographic Survey Report – 2005 in the attached Appendix). Pillar types and monument point installations are shown in the drawings to provide a design basis.

1.4.1.10 Survey Instrumentation

The Contractor shall provide the necessary survey instrumentation and training to project staff. The intent is to allow project staff to detect movement and once detected the standard operating procedure would be to obtain the services of a qualified land surveyor capable of a deformational survey. Reference EM1110-2-1009 Structural Deformation Surveying – Embankment Structures Earth-Rockfill Dams and Levees. The deflection tolerances for measurement are ±25mm for slope/crest stability and alignment, and ±10mm for settlement.

Contractor shall provide a low technology system for measuring movement of the monuments. Survey system examples include an optical transit, or line laser used in tandem with simple staff gauges. The proposed low tech system and monument design should not preclude the use of future systems that include higher precision.

1.4.1.11 Staff Gages

Install staff gages for visual reference of pool elevation and tailrace elevation. Porcelain enameled staff gages similar to Stevens Water Monitoring Systems Style M metric measurement staff gages shall be installed with figure plates to denote pool elevation from elevation 1007 m to 1050 m and for tailrace elevation from elevation 962 m to 974 m. Staff gages panel or board and mounting to be Contractor designed. Equipment to be supplied shall include an optical spotting scope or binocular of sufficient magnification to read the pool elevation staff gage from a distance of 200m, or the distance from the Power Intake to the Irrigation Intake Structure where the pool staff gage will be mounted on the northwest leg of the intake structure. The tailrace staff gage shall be mounted on the upstream wall of the Powerhouse facility near the elevation reference point.

1.4.1.12 Project Identifications

Design and install signs identifying major features of the site according to Section 01 58 00 PROJECT IDENTIFICATION. The project identification shall include the following;

a. Construction Project Signage; one for project identification and one for on-the-job safety performance of the contractor.
b. Rendered Drawing of the overall facility.

Signage for all major features will be provided along all vehicle and pedestrian ways where construction site workers and project facility workers are required to travel.

INTENTIONAL PAGE BREAK

1.5 SPILLWAY INVESTIGATION (OPTIONAL)

1.5.1 Emergency Spillway Geophysical Surveys

a. The Contractor shall perform geophysical surveys to explore the limestone foundation for faults, voids, or other features. The geophysical surveys shall use the electrical resistivity method. As a minimum, the Contractor shall perform electrical resistivity surveys along the six lines (ER-1 through ER-6) shown in the contract drawings. The surveys shall be designed to provide information to an elevation of 1018 m or below. EM 1110-1-1802, Geophysical Exploration for Engineering and Environmental Investigations, shall be used as a reference in the Contractor's survey design. In the Spillways Report, provide a plan map showing the survey lines and locations of any anomalies or features identified, and provide sections showing the geophysical results with depth along each survey line.
b. The Contractor may propose an alternative geophysical method to provide the same or more foundation information. The Contractor shall perform the specified method unless the COR approves the alternative method.
c. Appendix D includes survey data for the emergency spillway from 2005. The centerline and toe of walls were surveyed.

1.5.2 Emergency Spillway Foundation Drill Holes

a. The Contractor shall drill six holes in the foundation. The holes, labeled DH-111 through DH-116, shall be drilled at the locations shown on the contract drawings. The COR may modify the locations of the drill holes based on the results of the geophysical surveys. The bottom elevation of each drill hole shall be 1018 m. The Contractor shall use rock core drilling in the limestone rock.
b. A borehole TV camera shall be used in each drill hole for the entire depth of the hole.
c. The Contractor shall perform core logging following the methodology in Section 5-10, Core Logging, in EM 1110-1-1804, Geotechnical Investigations, with any gouge material classified per ASTM D2487.
d. The groundwater elevation shall be noted for each drill hole. The Contractor shall perform pressure tests (see Section 5-21 of EM 1110-1-1804, Geotechnical Investigations) in each hole at a testing interval of 3m, with permeability expressed in terms of Lugeon Value.
e. Perform Point Load Testing on rock samples on minimum 3 m spacing with depth, per ASTM D5731.
f. All rock core samples shall be stored at the dam site in core boxes according to Section 5-29, Disposition of Rock Cores, a., Care and storage. Assume outside storage and provide core boxes that will not deteriorate rapidly in the outside environment.
g. All drill holes shall be backfilled with grout and abandoned per EM 1110-1-1804, Geotechnical Investigations, Chapter F-14, and Paragraph 14-2.

1.5.3 Service Spillway Foundation Drill Holes

a. The Contractor shall drill thirteen holes in the foundation. The holes, labeled DH-121 through DH-133, shall be drilled at the locations and to the depths shown on the contract drawings. The Contractor shall use rock core drilling.
b. A borehole TV camera shall be used in each drill hole for the entire depth of the hole.
c. The Contractor shall perform core logging following the methodology in Section 5-10, Core Logging, in EM 1110-1-1804, Geotechnical Investigations, with any gouge material classified per ASTM D2487.
d. The groundwater elevation shall be noted for each drill hole. The Contractor shall perform pressure tests (see Section 5-21 of EM 1110-1-1804, Geotechnical Investigations) in holes DH-121, -122, and -123 at a testing interval of 3 m, with permeability expressed in terms of Lugeon Value.
e. Perform Point Load Testing on rock samples on minimum 3 m spacing with depth, per ASTM D5731.
f. All rock core samples shall be stored at the dam site in core boxes according to Section 5-29, Disposition of Rock Cores, a., Care and storage. Assume outside storage and provide core boxes that will not deteriorate rapidly in the outside environment.
g. All drill holes shall be backfilled with grout and abandoned per EM 1110-1-1804, Geotechnical Investigations, Chapter F-14, and Paragraph 14-2.

1.5.4 Spillway Surface Inspection and Geologic Mapping

Both the service spillway and emergency spillway shall be inspected visually and the condition of the rock shall be assessed. A color photo log shall be developed to accompany the written description of the spillway documenting rock condition and location, jointing, shearing, bedding, and foundation treatment.

1.5.5 Professional Geologist

A professional geologist shall be responsible for overseeing the emergency spillway geophysical surveys, emergency spillway foundation drill holes, and spillway surface inspection and geologic mapping. A professional geologist shall direct the testing for the drill holes, perform the core logging, and conduct the geologic mapping. The professional geologist shall have a minimum of 10 years experience logging drill core and geologic mapping for large civil works projects.

1.5.6 Spillways Investigation Plan

Prior to mobilizing to the site, the Contractor shall submit a Spillways Investigation Plan for submittal describing, at a minimum, the details of the geophysical surveys operation, the equipment that will be used for the rock coring, the borehole TV camera technology that will be used, and the name(s) and experience of professional geologist(s) that will perform the work.

1.5.7 Spillways Report

The Contractor shall provide a Spillways Report documenting all the work performed in this section of the specification. The report shall include, at a minimum, the results of the geophysical surveys, drill hole logs showing all the data collected, findings from the borehole TV camera investigation, a color photographic record of the core samples, and the findings from the spillway surface investigation and geologic mapping. Video from the borehole TV camera investigation shall be provided to the Government.

1.6 OPERATIONS AND MAINTENANCE (O&M) -

See SECTION 017810 OPERATION AND MAINTENANCE DATA for shop, assembly, and operations and maintenance drawing and data requirements.

PART 2. PRODUCTS

Not used.

PART 3. EXECUTION

Not used.

-- END OF SECTION --

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SPECIAL CLAUSES

REVISED 30 DEC 2011

PART 1 GENERAL

1.1 SUMMARY

This section was prepared for work performed under supervision of the Afghan Engineer District South and represents special clauses that have become customary for work in that region.

1.1.1 Related Sections and Clauses

Section 01 40 00 SECURITY

Section 01 33 15 SUBMITTAL PROCEDURES

01 01 50 TECHNICAL REQUIREMENTS

CONTRACT CLAUSE 52.236-13 entitled “ACCIDENT PREVENTION (NOV1991)-ALTERNATE 1

Contract Clause 52.249-10 entitled “DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984”; see 52.249-10(b)(1)(i) and (2)

1.1.2 Submittals

Area Use Plan, G

1.2 PRECONSTRUCTION CONFERENCE

1.3 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:

a. The Contractor's Quality Control (CQC) Program,
b. The Contractors Accident Prevention Program,
c. Submittals,
d. Correspondence,
e. Schedule,
f. Access to the work site,
g. Security requirements,
h. Interface requirements,
i. Temporary facilities and services,
j. Hazards and risks,
k. Working after normal hours or on weekends or holidays,
l. Assignment of inspectors,
m. Representations,
n. Special requirements,
o. Phasing,
p. Other aspects of this project that warrant clarification and understanding.

1.4 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.

1.5 AREA USE PLAN

The Contractor shall submit to the Contracting Officer, within thirty (30) calendar days after notice to proceed 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:

a. The proposed location and dimensions of any area to be fenced and used by the Contractor;
b. Construction plant and building installations/the number of trailers and facilities to be used;
c. Avenues of ingress/egress to the fenced areas and details of the fence installation;
d. Drawings showing temporary electrical installations;
e. Temporary water and sewage disposal installations;
f. Material storage areas;
g. Hazardous storage areas.
h. Any areas that may have to be graveled shall also be identified.
i. The plan shall also include a narrative description of the building structural system, the site utility system and the office or administration facilities.
j. 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.

1.6 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.

1.7 CONTRACTOR'S TEMPORARY FACILITIES

1.7.1 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.

1.7.2 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.

1.7.3 Contractor provided Government facilities

The Contractor shall provide office area for Government personnel within the project site, near the Contractor’s field offices. The office area shall consist of two (2) 8 ft. x 40 ft. CONEX containers or equivalent. One CONEX shall contain two rooms and one toilet room. The toilet room shall consist of one shower, one western style toilet and one sink. The offices shall be heated/cooled using split pac ductless heating/cooling units. The Contractor shall provide each office with two desks, two chairs, one drawing table, telephone, and two computer connections with internet access. The second CONEX shall be heated/cooled using ductless split pack units. The second CONEX shall be used for Government storage. The contractor shall provide four aggregate paved parking spaces for Government use. The Contractor shall provide water, sewer and electrical utilities for the Government office space. The

Contractor shall be responsible for all utilities, trash disposal and security for Government office area. No separate measurement and payment shall be provided for the Contractor Provided Government Facilities and all costs associated shall be distributed throughout the other bid items.

1.7.4 Storage Area

The Contractor shall construct a temporary 1.8 meter 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.

1.7.5 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.

1.7.6 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.

1.7.7 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. The gravel gradation shall be at the Contractor's discretion.

1.7.8 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 Section 01 40 00 Security.

1.7.9 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.

1.7.10 Telephone

The Contractor shall make arrangements to install and pay all costs for telephone facilities desired.

1.7.11 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.

1.8 PROTECTION AND MAINTENANCE OF TRAFFIC

During construction the Contractor shall provide access and temporary relocated roads as necessary to maintain traffic. The Contractor shall maintain and protect traffic on all affected roads during the construction period except as otherwise specifically directed by the Contracting Officer. Measures for the protection and diversion of traffic, including the provision of watchmen and flagmen, erection of barricades, placing of lights around and in front of equipment and the work, and the erection and maintenance of adequate warning, danger, and direction signs, shall be as required by the Host Nation and base authorities having jurisdiction. The traveling public shall be protected from damage to person and property. The Contractor's traffic on roads selected for hauling material to and from the site shall interfere as little as possible with base traffic. The Contractor shall investigate the adequacy of existing roads and the allowable load limit on these roads. The Contractor shall be responsible for the repair of any damage to roads caused by construction operations.

1.8.1 Use of Existing Roads as Haul Routes

The Contractor shall be responsible for coordinating with any applicable 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 any applicable authorities and is the sole responsibility of the Contractor.

1.8.2 Employee Parking

The Contractor’s employees may be allowed parking on the project site as determined by the COR. 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. The Government reserves the right to terminate any and all Contractor parking at any time.

1.9 TEMPORARY PROJECT SAFETY FENCING AND BARRICADES

The Contractor shall impose all measures necessary to limit public access to hazardous areas and to ensure the restriction of workers to the immediate area of the construction and mobilization site. The Contracting Officer may require in writing that the Contractor remove from the work any employee found to be in violation of this requirement**.** Contractor shall be responsible for fencing off individual project sites within the total contract limits to control safe access to individual project areas and to control movement of personnel and materials.

1.9.1 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.

1.10 HOST NATION AUTHORIZATIONS, PERMITS AND LICENSES

It shall be the Contractor's responsibility to obtain such local authorizations, permits and licenses necessary to establish his quarry/borrow pit operations, batching operations and haul routes (See Special Clause entitled: “COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS”).

1.11 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 01 40 00 SECURITY 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.

1.12 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.

1.13 CONNECTIONS TO EXISTING UTILITIES

1.14 GENERAL

Any outage involving disruption of electrical service beyond the site area shall be requested in writing at least ten (10) days in advance of the date requested for the commencement of the outage. The Contractor shall provide a request, detailing the type of outage needed (water, sewer, electrical, steam, etc.), the time needed to perform the work, the reason for the outage, and the known affected facilities. The Contracting Officer shall be contacted prior to the outage to confirm the time and date. If the Contractor fails to initiate work at the approved time, the Contracting Officer may cancel the approved outage and may direct the Contractor to resubmit a new request. No part of the time lost due to the Contractors failure to properly schedule an outage shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

1.15 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.

1.16 USE OF UNDERGROUND UTILITY DETECTING DEVICE

Prior to any excavation, a metal and/or cable-detecting device shall be used along the route of the excavation. All underground utilities discovered by this method will be flagged a minimum distance of one-half (1/2) meter on each side of the location.

1.17 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.

1.18 REPAIR OF DAMAGED UTILITIES

The Contractor shall be responsible to repair any utilities damaged by him. The method of repair and schedule for performance of the repair shall be coordinated with, and subject to the approval of, the Contracting Officer. The repair work and any temporary work required to keep the system operational while repairs are being completed, shall be performed at no cost to the Government.

1.19 TEMPORARY OUTAGES OF EXISTING SERVICES

To minimize outage impact to the mission of the installation, all outages shall be scheduled on weekends or from

2100 – 0530 hours on duty days and/or 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.

1.20 WATER

The Contractor shall install and maintain necessary supply connections and piping for same, but only at such locations and in such manner as may be approved by the Contracting Officer. Before final acceptance of systems, or facilities, all temporary connections and piping installed by the Contractor shall be removed at his expense in a manner satisfactory to the Contracting Officer.

1.21 ELECTRICITY

Electrical service is not available for use under this contract; therefore all electric current required by the Contractor shall be the responsibility of the Contractor, furnished at his own expense. The Contractor shall provide diesel generators to meet his demand requirements. 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.

1.22 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, Independence 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".

1.23 EXTERIOR NIGHT LIGHTING

Exterior night lighting shall be provided in conformance with EM-385-1-1 entitled Safety and Health Requirements Manual.

1.24 SCHEDULING OF WORK IN EXISTING FACILITIES

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

1.25 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.

1.26 CERTIFICATES OF COMPLIANCE

Any certificates required for demonstrating proof of compliance of materials with specification requirements shall be executed in accordance with Section 01 33 15 SUBMITTAL PROCEDURES. 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.

1.27 ACCIDENT PREVENTION

The Contractor shall comply with all applicable Host Country laws and with such additional measures as the Contracting Officer may find necessary in accordance with CONTRACT CLAUSE 52.236-13 entitled “ACCIDENT PREVENTION (NOV1991)-ALTERNATE 1”. 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 at Kandahar, Afghanistan.

1.28 ACCIDENT PREVENTION PROGRAM

Within fifteen (15) days after award of this contract, and at least ten (10) days prior to the accident prevention pre-work conference, four (4) copies of the Accident Prevention Plan required by the CONTRACT CLAUSE 52.236-13 entitled “ACCIDENT PREVENTION (NOV 1991)- ALTERNATE I”, shall be submitted for review by the Contracting Officer. The Contractor shall not commence physical work at the site until the Accident Prevention Plan (APP) has been reviewed and accepted by the Contracting Officer. The APP shall meet the requirements listed in Appendix "A" of EM385-1-1. The program shall include the following: TAC Form 61 “Accident Prevention Program Hazard Analysis (Activity Hazard Analysis)" fully completed and signed by an executive officer of the company in block No. 13. The Activity Hazard Analysis is a method in which those hazards likely to cause a serious injury or fatality are analyzed for each phase of operations. Corrective action is planned in advance, which will eliminate the hazards. An analysis is required for each new phase of work. On large or complex jobs the first phase may be presented in detail with the submittal of the Accident Prevention Plan rather than presenting the complete analysis. If the plan is to be presented in phases, a proposed outline for future phases must be submitted as a part of the initial Accident Prevention Plan submittal. Accident Prevention Plans will be reviewed for timeliness and adequacy at least monthly with a signature sheet signed and dated documenting that these reviews took place. The Contractor shall provide a copy of company policy statement of Accident Prevention and any other guidance as required by EM 385-1-1, Appendix A.

1.29 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.

1.30 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.

1.31 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.

1.32 SPARE PARTS

1.33 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 01 01 50 TECHNICAL REQUIREMENTS. The Contractor shall furnish spare parts under the provisions of this clause for all equipment for which O&M data is to be provided under Clause OPERATION AND MAINTENANCE (O&M) DATA of this contract. The term "spare parts" as used herein shall include spare parts, special tools and test equipment.

1.34 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.

1.34.1 Shipment and Delivery

The Contractor shall be responsible for the shipment and delivery of spare parts to the location on or near the site in Afghanistan as selected by the Contracting Officer. The Contractor shall provide all manpower and equipment required to receive and place into designated storage areas all spare parts purchased under this clause. The Contractor shall give the Contracting Officer thirty (30) calendar days notice of arrival at the site of the first shipment.

1.34.2 Turnover of Spare Parts

The Contractor shall notify the Contracting Officer seventy-two (72) hours prior to delivery of spare parts to the designated storage area. The Contractor and the Contracting Officer will perform a joint inventory of the spare parts and the spare parts will be turned over to the Contracting Officer. Spare parts purchased under this clause shall not be used by the Contractor.

1.34.3 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.

1.34.4 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 (one cubic foot) shall be packaged in waterproof wooden boxes and properly braced. Cushioning shall be used to prevent damage to the item and to the packaging material.

d. Solid state components, such as diodes, transistors, integrated circuits or equipment consisting of such parts that can be damaged as a result of static electricity and other stray electro-magnetic fields shall be packaged in heat-sealed, aluminum foil, laminated, flexible packages.

e. All other spare parts shall be packaged in heat sealed plastic bags or wrap. Delicate and more fragile items such as test equipment shall be cushioned or wrapped with transparent bubble wrap material prior to being inserted into the plastic package.

1.35 WARRANTY

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

1.36 PAYMENTS FOR SPARE PARTS

Payments for spare parts specifically required in this contract shall be considered as part of those equipment costs and shall be included in bid items as appropriate. 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 bid items of this contract. Payment for the spare parts portion of the appropriate bid items will be made after the spare parts have been accepted at the site by the Contracting Officer. Payments for equipment costs 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 bid items of this contract and no additional cost except as provided herein will be allowed.

1.37 OPERATION AND MAINTENANCE (O&M) DATA

1.38 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.

1.39 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 01 33 15 SUBMITTAL PROCEDURES of the specifications. 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.

1.40 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 “tri-lingual” in Dari, Pashto and English. 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 01 33 15 SUBMITTAL PROCEDURES.

1.41 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.

1.42 SUPPLEMENTAL SUBMITTALS OF DATA

After initial submittal of O&M manuals and until final acceptance of all equipment, the Contractor shall prepare and deliver to the Contracting Officer supplemental technical data as previously described for all changes, modifications, revisions and substitutions to equipment and components. For equipment or systems introduced into the contract under change order, or modified by change order, supplemental data shall be furnished within forty-five (45) calendar days after issuance of the change order. The supplemental data furnished shall be properly prepared and identified for insertion into the O&M manuals.

1.43 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.

1.44 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 thirty (30) calendar days after receiving notice by the Contracting Officer. All costs arising from these resubmissions shall be borne by the Contractor.

1.45 CONTRACTOR FURNISHED EQUIPMENT LISTS

The Contractor shall furnish a list of all items, other than integral construction type items, furnished under the contract. Items such as furniture, drapes, rugs, vehicles, office machines, appliances, etc., shall fall under this category. The Contractor's list shall describe the item; give the unit price and total quantities of each. Model and serial numbers for equipment shall be provided when applicable. The Contractor shall keep an up-to-date register of all covered items and make this information available to the Contracting Officer at all times. Prior to acceptance, the Contractor shall submit the complete register to the Contracting Officer.

1.46 TIME EXTENSIONS

1.47 GENERAL

This provision specifies the procedure for determination of time extensions for unusually severe weather in accordance with the Contract " 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

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

1.48 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 fifty percent (50%) or more of the Contractor's workday and delay work critical to the timely completion of the project. If the number of actual unusually severe weather days exceeds the number of days anticipated in the paragraph above, the Contracting Officer will determine whether the Contractor is entitled to a time extension. The Contracting Officer will convert any qualifying delays to calendar days and issue a modification in accordance with the Contract Clause 52.249-10 entitled “DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984”.

1.49 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.

1.50 STANDARDIZATION

Where two or more items of the same type or class of product, system or equipment furnished in this project are required, the units shall be products of the same manufacturer and shall be interchangeable when of the same size, capacity, performance characteristics, and rating. The only exception to this requirement is where the items are interchangeable due to conformance with industry standards (valves, fittings, etc.); they need not be by the same manufacturer. This requirement applies to all manufactured items in the project that normally require repair or replacement during the life of the equipment.

1.51 COMPLIANCE WITH HOST COUNTRY RULES AND CUSTOMS

The laws of Host Country may prohibit access to certain areas of the country that are under military control. The Contractor shall furnish the Contracting Officer the names of personnel, type, and amounts of equipment, dates and length of time required at the site, and the purpose of entering the host country. It is understood that areas to which rights of entry are provided by the Host Government are to be used only for work carried out under the contract and no destruction or damages shall be caused, except through normal usage, without concurrence of the Host Government.

1.52 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.

1.53 EMPLOYEE ACCESS TO PROJECT SITE

1.54 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.

1.54.1 Preparation of Identification Badges

The Contractor shall 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 for each employee. Each employee engaged on the work shall display this identification as directed by the Contracting Officer.

1.54.2 Employee Background and Historical Information

The Contractor shall be required to prepare and maintain personal background and historical information forms on each employee. 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 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.

1.55 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 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.

1.56 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.

1.57 PUBLIC RELEASE OF INFORMATION

1.58 PROHIBITION

There shall be no public release of information or photographs concerning any aspect of the materials or services relating to this bid, contract, purchase order, or other documents resulting there from without the prior written approval of the Contracting Officer.

1.59 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.

1.60 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.

1.61 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 Contract Clause 52.249-10 entitled "DEFAULT (FIXED-PRICE CONSTRUCTION) APR 1984"; see 52.249-10(b)(1)(i) and (2).

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- END OF SECTION --

SECTION 01 10 00.00 25

CONTRACT ADMINISTRATION DATA

PART 1 GENERAL

1.1. CONTRACT ADMINISTRATION

This Contract will be administered by the Office or Person(s) listed in Section 00800, Contract Clause 52.000-4006, CONTRACT ADMINISTRATOR.

1.2. CONTRACTING OFFICER

The Contracting Officer who signed this Contract is the primary Contracting Officer for the Contract. Nevertheless, any Contracting Officer assigned to the Portland District and acting within his/her authority may take formal action on this Contract when a Contract action needs to be taken and the primary Contracting Officer is unavailable.

1.3. SERIAL LETTER CORRESPONDENCE

1.3.1.General

The original and three copies of all correspondence pertaining to this Contract shall be sent to the Vancouver Resident Office, 4480 SE Columbia Way, Vancouver, WA 98661. Letters shall be signed by the Project Manager or by assistants designated to act for the Project Manager. A list of personnel so designated shall be furnished.

1.3.2.Numbering

All letter correspondence shall be independently numbered serially with no numbers missing or duplicated, and in sequence, commencing with number one (1). Each letter shall show the Contract number, description, and subject matter. Only one subject should be covered in the same letter.

1.3.3.Subcontractors

Subcontractors shall not correspond with either the Resident or District offices; the prime Contractor shall handle all correspondence.

1.3.4.Transmittals

Transmittals of signed pay estimates, payrolls, submittals, and other similar correspondence will not require a Serial Letter; use of a commercial transmittal form or speed letter is encouraged.

1.4. PROJECT-SPECIFIC MANAGEMENT PLAN

Particular Submittals identified as SD-01, Pre-Construction Submittals (Section 01 33 00, SUBMITTAL PROCEDURES FOR DESIGN BUILD PROJECTS), shall be submitted via the Project-Specific Management Plan. The Project-Specific Management Plan shall be submitted as a single document and address job-specific accident prevention program, environmental protection plan, construction quality control program, and project work plan. The current version of the SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1, including all errata and changes, shall be used for this Contract and is obtainable at http://140.194.76.129/publications/eng-manuals/. This manual is also available in hard copy (paper) version. All changes that are dated prior to the date of the Solicitation for this Contract (Reference paragraph 4.b (1) and 4.c introductory letter EM 385-1-1), will be contractually binding as part of any Contract issued. Changes can be obtained from http://www.usace.army.mil/CESO/Pages/EM385-1-1.aspx. Acceptance of the Project-Specific Management Plan is required prior to commencement of site work. It shall be organized as follows:

a. Section I - Accident Prevention Program.

(1) Accident prevention plan (EM 385-1-1 and Section 01 35 26.00 25, GOVERNMENT SAFETY REQUIREMENTS).

(2) Drug-free workplace policy.

(3) Hazard communication program.

(4) Activity hazard analysis (EM 385-1-1).

(5) Equipment certification.

b. Section II - Environmental Protection Plan (Section 01 57 20.00 25, ENVIRONMENTAL PROTECTION).

c. Section III - Construction Quality Management Program (Section 01 45 00.00 25, QUALITY CONTROL).

(1) Contractor's quality control (CQC) plan.

(2) CQC Daily Report form.

d. Project Work Plan. (The following are examples:)

(1) Roadway Access Agreement

(2) Temporary electrical systems

(3) Welder qualifications

(4) Welding procedures

(5) Bolt pre-tensioning procedure

e. Schedule for Construction.

f. Submittal Register.

1.5. LETTERS OF AUTHORITY

a. To authenticate actions required under terms of this Contract, a letter of authority shall be furnished to the Resident Engineer that indicates the names of individual or individuals who will be authorized to perform the following functions on behalf of the company:

(1) Sign progress payment estimates.

(2) Accept Government furnished property (if applicable).

(3) Sign Contract modifications, supplemental agreements and consent of surety.

(4) Monitor and report on the environmental protection plan, management plan, quality control plan, and safety plan.

(5) Supervise the field activities.

b. This letter of authority shall bear the typewritten names and the handwritten signatures of each individual and be signed by the person whose signature appears on the final Contract.

1.6. CONTRACTOR PERFORMANCE EVALUATIONS

In accordance with the provisions of Subpart 36.201 (Evaluation of Contractor Performance) of the Federal Acquisition Regulation (FAR), construction Contractor’s performance shall be evaluated throughout the performance of the Contract. For construction Contracts awarded at or above $650,000.00, the USACE will evaluate Contractor’s performance and prepare a performance report using the Construction Contractor Appraisal Support System (CCASS), which is now a web-based system. After an evaluation (interim or final) is completed by the USACE, the Contractor will have the ability to access, review and comment on the evaluation for a period of 30

days. Accessing and using CCASS requires specific software, called PKI certification, which is installed on the user's computer. The certification is a Department of Defense requirement and was implemented to provide security in electronic transactions. The certification software could cost approximately $110 - $125 per certificate per year and is purchased from an External Certificate Authorities (ECA) vendor. Current information about the PKI certification process and for contacting vendors can be found on the web site: http://www.cpars.csd.disa.mil/pki_info.htm. If the Contractor wishes to participate in the performance evaluation process, access to CCASS and PKI certification is the sole responsibility of the Contractor.

1.7. LABOR STANDARDS

1.7.1.General

The Contractor and all subcontractors are required to comply with the following labor standards, statutes, and regulations: Davis-Bacon Act; Contract Work Hours and Safety Standards Act; Secretary of Labor's regulations (Parts 3 and 5, Subtitle A, Title 29, Code of Federal Regulations).

1.7.2.Coverage

The Contract provisions relating to wages, overtime, payroll deductions, and other labor standards requirements cover foremen, laborers, and mechanics, including owner-operators of other than hauling equipment and other individual enterprises performing the duties of a laborer or mechanic. Bona fide owner-operators of hauling equipment, such as trucks, who are independent Contractors, are not covered, and the certified payrolls, including the names of such owner-operators, need not show hours worked nor rates paid, but only the notation "owner-operator."

1.7.3.Wages

Wages shall be paid at least once a week and shall be computed at hourly rates not less than those set forth in the Contract wage schedule, as set by the Davis-Bacon Act wage determinations, for the particular classifications of work performed. (Instructions regarding wage determination obligations are available on request.)

1.7.4.Overtime

Overtime for work in excess of 40 hours in any workweek shall be paid at not less than 1-1/2 times the basic rate of pay. Rates paid for fringe benefits are excluded in the computations of overtime.

1.7.5.Deductions

Deductions from wages earned may be only those that are permitted by the Copeland Act (Anti-Kickback) regulations. An instruction sheet entitled "Payroll Deductions" is available upon request.

1.7.6.Apprentices

Apprentices shall be individually registered in a program of a State apprenticeship and training agency approved and recognized by the U.S. Bureau of Apprenticeship and Training. Written evidence of such registration shall accompany the first payroll on which apprentices appear.

1.7.7.Equal Opportunity

Affirmative action shall be taken to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, religion, sex, or national origin. Section 00700, Contract Clause 52.222-26, EQUAL OPPORTUNITY, requires the posting of notices and sending of a notice to each labor union or representative of workers with which you have an agreement. Posting of the notice available from the Resident Engineer's office satisfies both requirements.

1.7.8.Reporting

In accordance with Section 00700, Contract Clause 52.222-27, AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION, a Form CC-257, Monthly Employment Utilization Report, shall be submitted on a monthly basis. A sample copy of the report form is available upon request.

1.7.9.Subcontracts

Subcontracts (first tier or otherwise) shall physically contain the labor standards provisions of the prime Contract. Subcontracts of any tier in excess of $10,000 must also contain Section 00700, Contract Clause 52.222-26, EQUAL OPPORTUNITY.

1.7.10. Payrolls

Correct Weekly Payrolls, including those of subcontractors, shall be prepared and submitted. An instruction sheet is available upon request. Incorrect and delinquent payrolls will delay processing of partial payment estimates.

1.7.11. Records

Payroll and Employment Records shall be maintained during the course of work and for three years thereafter. They are subject to inspection by authorized representative of the Contracting Officer and the U.S. Department of Labor.

1.7.12. Job Interviews

A Government representative will interview Contractor and Subcontractor employees from time to time during working hours on the job.

1.7.13. Work Stoppage

Work stoppages resulting, or, likely to result from actual or potential labor disputes, shall be promptly reported, with all relevant information, to the Government Quality Assurance Representative (GQAR).

1.7.14. Other

The Contractor's attention is called to the following Section 00600, Contract Clauses: 52.219-1, SMALL BUSINESS PROGRAM REPRESENTATIONS, 52.219-22, SMALL DISADVANTAGED BUSINESS STATUS; and 52.204-5, WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS). The Contractor assumes affirmative obligations with respect to subcontracting with such enterprises. The prime Contractor shall send a copy of the clauses to each subcontractor.

PART 2 PRODUCTS - NOT USED

PART 3 EXECUTION - NOT USED

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DIVISION 01 – GENERAL REQUIREMENTS

SECTION 01 22 00

MEASUREMENT AND PAYMENT

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SECTION 01 22 00
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.1. GENERAL INFORMATION

The price and payment shall constitute full compensation for all work relating to each contract line item number (CLIN) as herein specified, as shown, or as otherwise approved. The contract price and payment will also constitute completion of the item, unless such work is otherwise specifically mentioned for separate payment under another item. In the event any work is required by the specification sections or by the drawings and not specifically mentioned in the measurement and payment paragraphs, separate or direct payment shall not be made, and all costs thereof are incidental to, and included in, the prices and payment for all items listed in the Bid Schedule (also referred to as a price proposal schedule).

There are four (4) bid schedules for this project. The 4 schedules are:

SCHEDULE A: INTAKE STRUCTURE
SCHEDULE B: TUNNEL WORKS
SCHEDULE C: DAM SAFETY INSTRUMENTATION
SCHEDULE D: SPILLWAY INVESTIGATION

1.2. MEASUREMENT

1.2.1. **Lump Sum Price Payment Items**

Payment items for the work of this contract for which contract payments shall be made lump sum are listed in the BID SCHEDULE and described below. General items including mobilization/demobilization, security, Reimbursement for Actual Performance and Payment Bond, and DBA Insurance. The lump sum price and payment made for each subsequent base item listed shall constitute full compensation for the specific details that are stated in each item to include furnishing all plant, labor, materials, and equipment, and performing any associated or incidental Contractor quality control, environmental protection, meeting safety requirements, tests, analyses, computer files and reports, submittals and for performing all work required for which separate payment is not otherwise specified herein. The costs for mobilization/demobilization, and security are incidental to the option items.

1.2.2. **Optional Items**

The Government may require the performance of the line item(s) identified in the Bid Schedule as an "(OPTIONAL)" item. The Government may exercise the optional items by written notice to the Contractor as specified in the solicitation.

1.2.3. **Schedule of CLINS**

A schedule of individual CLIN #s is provided below.

	SCHEDULE A
0001	**INTAKE STRUCTURE**
0001AA	Mobilization/Demobilization
0001AB	Security
0001AC	Design Intake Structure Modifications
0001AD	Build Intake Structure Modifications
0001AE	Diesel Generator for Intake Structure
0001AF	DBA INSURANCE
0001AG	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS
0002	INSPECTION OF TRASH RACKS AND GUIDES **(OPTIONAL)**
0002AA	Inspection of Trash Rack and Guides
0002AB	DBA for SUBCLIN 0002AA
0003	REPLACE TRASH RACKS **(OPTIONAL)**
0003AA	Replace Trash Racks
0003AB	DBA for SUBCLIN 0003AA
0004	REPAIR TRASH RACK GUIDES **(OPTIONAL)**
0004AA	Repair trash rackguides
0004AB	DBA for SUBCLIN 0004AA

	SCHEDULE B
0005	**TUNNEL WORKS**
0005AA	Mobilization/Demobilization
0005AB	Security
0005AC	Valve Design
0005AD	Conduit, Chamber and Apron - Evaluate and Report

0005AE	Overhead Service Crane and Hoist – Evaluate and Report
0005AF	Local Water Supply – Evaluate and Report
0005AG	Valve Construction
0005AH	Replace Valve House hydro-electric Generating Unit
0005AJ	DBA INSURANCE
0005AK	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS
0006	**UNLINED TUNNEL (OPTIONAL)**
0006AA	Unlined Tunnel – Evaluate and Report
0006AB	DBA for SUBCLIN 0006AA
0007	**REPAIR CONDUIT (OPTIONAL)**
0007AA	Repair Conduit
0007AB	DBA for SUBCLIN 0006AA
0008	**REPAIR CHAMBER (OPTIONAL)**
0008AA	Repair chamber
0008AB	DBA for SUBCLIN 0007AA
0009	**REPAIR APRON (OPTIONAL)**
0009AA	Repair apron
0009AB	DBA for SUBCLIN 0008AA
00010	**REPAIR OH SERVICE CRANE (OPTIONAL)**
00010AA	Repair OH Service Crane
00010AB	DBA for SUBCLIN 0009AA
0011	**PROVIDE AND INSTALL DIESEL GENERATOR AT POWER HOUSE (OPTIONAL)**
0011AA	Provide and Install Diesel Generator at Power House
0011AB	DBA for SUBCLIN 0010AA
0012	**MODIFY LOCAL WATER SUPPLY CONNECTION (OPTIONAL)**
0012AA	Modify Local Water Supply Connection
0012AB	DBA for SUBCLIN 0011AA

	SCHEDULE C
0013	**DAM SAFETY INSTRUMENTATION**
0013AA	Mobilization/Demobilization
0013AB	Security
0013AC	Design and Install Dam Safety Instrumentation
0013AD	DBA INSURANCE
0013AE	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS

	SCHEDULE D
0014	**SPILLWAY INVESTIGATION**
0014AA	Mobilization/Demobilization
0014AB	Security
0014AC	Subsurface Investigation and Report
0014AD	DBA INSURANCE
0014AF	REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS

1.3. PAYMENT

1.3.1. General

Contractor shall perform all base activities as described in the Section 01 01 40 Summary of Work, and Section 01 01 50 Technical Requirements and throughout the Solicitation. Work is listed under various CLINs in the Section 00010 Bid Schedule as stated below.

1.3.1.1. Mobilization and Demobilization

Moving of all equipment and final demobilization will be measured for payment as a lump sum pay item (LS). Payment will be for work described in the summary of work and related provisions found throughout the Invitation. Price and payment shall be full compensation for all work required to transport all necessary plant, equipment, instrumentation, supplies, and personnel materials to and from the project as specified. This bid item also contains all costs associated with a documented comprehensive quality control plan submittal. The Mobilization and Demobilization item shall have a unit of measure of lump sum and paid for under bid items 0001AA, 0005AA, 0013AA and 0014AA of Section 00010 Bid Schedule. Mobilization and demobilization costs for optional items for SCHEDULES A and B are not included.

1.3.1.2. Security

Security is critical to construction in Afghanistan, especially on roads and remote areas away from Coalition Force bases. The Contractor must have an appropriate amount of security/protection to match the threat in the project area, outside of the perimeter fence, and along the supply routes. 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. The Security item shall have a unit of measure lump sum (LS) and paid for under bid items 0001AB, 0005AB, 0013AB and 0014AB of Section 00010 Bid Schedule. Security costs for optional items in SCHEDULES A and B are not included.

1.3.1.3. Reimbursement for Actual Performance and Payment Bond

The Reimbursement for Actual Performance and Payment Bond item shall have a unit of measure lump sum (LS) and paid for under bid items 0001AG, 0005AL, 0013AE and 0014AF of Section 00010 Bid Schedule. Note that each CLIN is a Not to Exceed (NTE) amount.

1.3.1.4. DBA Insurance

The DBA Insurance item shall have a unit of measure of lump sum (LS) and paid for under bid items 0001AF, 0005AK, 0013AD and 0014AD of Section 00010 Bid Schedule. DBA Insurance is also associated with each optional CLIN is SCHEDULE A and B but is not listed here separately.

1.3.2. **INTAKE STRUCTURE (SCHEDULE A)**

Contractor shall perform all required activities for the intake structure as described in the Section 01 01 40 Summary of Work, and Section 01 01 50 Technical Requirements and throughout the Solicitation. Work is listed under SCHEDULE A of the Section 00010 Bid Schedule. For all design items, Contractor shall provide an updated Commissioning Plan submitted as described in Section 016400 Start Up Testing and Commissioning. For all construction items, Contractor shall include all training activities according to Section 01 66 40 Training, and perform all commissioning activities according to Section 01 64 00 Start Up Testing and Commissioning. Work is listed under SCHEDULE A of the Section 00010 Bid Schedule.

1.3.2.1. Design Intake Structure Modifications

The Contractor shall design all features of the intake structure including detailed site inspections, design reports, design analyses, and completed plans and specifications. Design also includes an alternate method of watering the tunnel and an updated Commissioning Plan submitted as described in Section 016400 Start Up Testing and Commissioning. Field activities and testing described in that section will be included in the Intake Structure CLIN. The design work shall have a unit measure of lump sum and paid for under bid items 0001AC of Section 00010 Bid Schedule.

1.3.2.2. Build Intake Structure Modifications

Contractor shall perform all construction activities required to rehabilitate the intake tower. The described scope will be measured for payment as a lump sum pay item (LS). Payment will be made at the lump sum price for Bid Item No. 0001AD of Section 00010 Bid Schedule.

1.3.2.3. Diesel Generator for Intake Structure

Contractor shall provide and install a diesel generator for the intake structure including all electrical work required for power delivery to the intake tower. Contractor shall include work for coordination with the intake structure Construction and downstream operations. The described scope will be measured for payment as a lump sum pay item (LS). Payment will be made at the lump sum price for Bid Item No.0001AE of Section 00010 Bid Schedule.

1.3.3. **TUNNEL WORKS (SCHEDULE B)**

Contractor shall perform all mandatory activities for the intake structure as described in the Section 01 01 40 Summary of Work, and Section 01 01 50 Technical Requirements and throughout the Invitation to Bid. Work is listed under SCHEDULE B of the Section 00010 Bid Schedule. For all design items, Contractor shall provide an updated Commissioning Plan submitted as described in Section 016400 Start Up Testing and Commissioning. For all construction items, Contractor shall include all training activities according to Section 01 66 40 Training, and perform all commissioning activities according to Section 01 64 00 Start Up Testing and Commissioning. Work is listed under **SCHEDULE B** of the Section 00010 Bid Schedule.

1.3.3.1. Valve Design

Contractor shall be paid for all specified aspects of the valve designs including the refurbishment of controls for all three existing roto valves, demolition and replacement of jet valves, and all auxillary equipment such as the hydraulic and electric controls and the electrical systems. Work also includes the design of one new bulk head for the chamber surrounding the jet valves. Work also includes repair of existing service HVAC system in the tunnel. Work also includes replacement of the flap gate that discharges from the sump line to the bottom of the jet valve chamber. Work also includes preparing a Dewatering Plan. The design work shall have a unit measure of lump sum (LS) and paid for under bid items 0005AC of Section 00010 Bid Schedule. Field activities and testing will be included in the Tunnel Works CLIN.

1.3.3.2. Conduit, Chamber and Apron – Evaluate and Report

The contractor shall perform the specified inspections of the steel conduits downstream of the tunnel plug (about 150 meters), and chambers (3) and apron (1) downstream of the existing jet valves. The inspection activities shall be coordinated with rehabilitation work for the intake tower and all other tunnel works described herein. Dewatering of the Conduit and Chamber features will be completed under separate CLIN (Valve – Construction). The contractor shall provide an underwater video inspection of the Apron and be used to inform option on Apron Repair (separate CLIN). The Contractor shall provide the specified engineering evaluation and report with recommendations. Dewatering plans for the Conduit and Chamber are covered under Valve Design (separate CLIN). Dewatering operations are covered under Valve Construction (separate CLIN). The work shall have a unit measure of lump sum (LS) and paid for under bid items 0005AD of Section 00010 Bid Schedule. Based on the report recommendations, the COR may exercise their right to execute options (or negotiated contract modification) for repair as appropriate under separate CLINs.

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1.3.3.3. Overhead Service Crane – Evaluate and Report

The Contractor shall inspect the over head service crane and hoist used for lifting the roto valve components. The inspections shall be used for an engineering evaluation and report to inform the CORs right to execute options for repair or replacement. The inspection activities shall be coordinated with rehabilitation of the roto valves. The work shall have a unit measure of lump sum (LS) and paid for under bid items 0005AF of Section 00010 Bid Schedule.

1.3.3.4. Local Water Supply – Evaluate and Report

The Contractor shall inspect the existing water supply located at the outlet of the jet valves. The inspections shall be used for an engineering evaluation and report to inform the CORs right to execute options for repair or replacement. The report shall include a plan to provided uninterrupted water supply during work on other mandatory CLIN (See Valve-Construction). The inspection activities shall be coordinated with rehabilitation of the rotovalves. The work shall have a unit measure of lump sum (LS) and paid for under bid items 0005AG of Section 00010 Bid Schedule.

1.3.3.5. Valve Construction

Contractor shall perform all activities required to construct the items designed under Valve Design. This includes repairing all three of the roto valves and auxillary equipment, electrical systems, and replacing the hydraulic drive units. This includes replacing all three flow regulating valves and auxillary controls. Work shall also include providing and installing the new auxillary equipment and new electrical systems. Work shall also include the fabrication of a new bulkhead for dewatering the chambers surrounding the jet valves. Work shall also include one full cycle of dewatering the tunnel and conduits and placement of bulkhead in the chamber according to the Dewatering Plan. Work for dewatering shall include operation of the intake tower. Contractor shall also locate and

replace the flap gate for small diameter discharge line that exits near the jet valves. Contractor shall also replace the electric motor and perform repairs on the HVAC system for the tunnel works. Contractor shall include work for coordination with upstream operations and inspections. Work shall also include providing uninterrupted water supply to the public line thrust into the jet valve. Work shall also include replacing all sump pumps in the valve house. The described scope will be measured for payment as a lump sum pay item (LS). Payment will be made at the lump sum price for Bid Item No. 0005AH of Section 00010 Bid Schedule.

1.3.3.6. Replace Valve House Hydro-electric Generating Unit

Contractor shall perform all activities required to replace the existing hydro-electric unit with a new unit including all auxillary equipment and new electrical systems. Work also includes replacing in-kind the 12-ich valve controlling the penstock upstream of the service turbine. Contractor shall include work for coordination with upstream operations and inspections. Dewatering of the penstock will be completed under separate CLIN (Valve – Construction). Contractor shall also coordinate with the work performed on the local water supply if executed by the COR. The described scope will be measured for payment as a lump sum pay item (LS). Payment will be made at the lump sum price for Bid Item No. 0005AJ of Section 00010 Bid Schedule.

1.3.4. **DAM SAFETY INSTRUMENTATION (SCHEDULE C)**

Contractor shall perform all required activities for the dam safety instrumentation as described in the Section 01 01 40 Summary of Work, and Section 01 01 50 Technical Requirements and throughout the Invitation to Bid. Work is listed under SCHEDULE C of the Section 00010 Bid Schedule. The Contractor shall design and install all dam safety items including site investigation and reports, two piezometers in the left abutment of the dam, water level meters, staff gauges, survey pillars and survey equipment, and project identification (i.e., signage). The depth capability for the water level meter shall be for the deepest possible piezometer in the mandatory and optional items. The contractor shall also record the initial readings as specified. This work item also generally includes the commissioning, initial readings, and training of project personnel as specified. The work will be measured for payment as a lump sum pay item (LS) and will be paid for under bid item 0013AC.

1.3.5. **SPILLWAY INVESTIGATION (SCHEDULE D)**

Contractor shall perform all mandatory activities for the exploration of the spillways as described in the Section 01 01 0 Summary of Work, and Section 01 01 50 Technical Requirements and throughout the Solicitation. Work is listed under SCHEDULE D of the Section 00010 Bid Schedule. Contractor shall perform all work required for spillway investigations, including electrical resistivity surveys, foundation drilling and testing of rock cores from the Emergency Spillway, surface investigation and geologic mapping of the Service and Emergency Spillways, production of the Spillways Report, and all incidental activities required to complete the work. The work will be measured for payment as a lump sum pay item (LS) and will be paid for under bid item **0014AC**.

1.4. OPTION ITEMS

If exercised , the Contractor shall perform all required activities for the various optional items as described in the Section 01 01 40 Summary of Work, and Section 01 01 50 Technical Requirements and throughout the Solicitation. The optional work will be paid for the primary items lump sums (LS) or as an individual item (EA). The additional sub-items for DBA insurance associated with each primary item will be paid as lump sum (LS).

1.4.1.1. Inspection of Trash Racks and Guides (Optional)

All Contractor activities required for the inspection of trash racks and guides including subsurface video will be measured as a lump sum pay item (LS). Payment will be made for all items under SCHEDULE A, CLIN **0002AA** of Section 00010 Bid Schedule.

1.4.1.2. Replacement of Trash Racks (Optional)

All Contractor activities required for fabrication and installation, and other site work associated with replacing the irrigation intake structure trash racks will be measured as a lump sum pay item (LS). Payment will be made for all items under SCHEDULE A, CLIN **0003AA** of Section 00010 Bid Schedule.

1.4.1.3. Repair of Trash Rack Guides (Optional)

All Contractor activities required for repair of the trash rack guides according to original design, and other subsurface work associated with repair will be measured as a lump sum pay item (LS). The details of the requested repair are described in Section 010150 Technical Requirements. The condition of the conduits is unknowable until the trash racks have been inspected under a separate optional CLIN. Payment will be made for all items under SCHEDULE A, CLIN **0004AA** of Section 00010 Bid Schedule.

1.4.1.4. Unlined Tunnel – Evaluate and Report (Optional)

The Contractor shall perform an inspection of the unlined tunnel from the head of the concrete tunnel plug to the closed bulkhead at the intake structure (about 720 meters). The inspection activities shall be coordinated with rehabilitation work for the intake tower and all tunnel works. Dewatering plans for the unlined tunnel are covered under Valve Design (separate CLIN). Dewatering operations are covered under Valve Construction (separate CLIN). The work shall have a unit measure of lump sum (LS) and paid for under SCHEDULE B, bid item **0006AA** of Section 00010 Bid Schedule. This contract does not contain options for executing repairs to the unlined tunnel. If the decision is made to execute repairs, it will be done by contract modification.

1.4.1.5. Repair Conduit - (Optional)

Repair of conduit upstream or downstream of the emergency closure valves and associated work will be measured for payment for each segment of conduit as Lumps Sum (LS). The details of the requested repair are described in Section 010150 Technical Requirements. The condition of the conduits is unknowable until the tunnel has been dewatered and the evaluation work has been completed under mandatory CLIN (Valve – Construction). The repairs shall be executed concurrent will rehabilitation of the roto valves and replacement of the jet valves. The quantities and nature of the repairs are estimated based on government review of historic documents, and a general understanding of cavitations in conduits. The actual requirements for repair shall be outlined in the evaluation and report prepared by the contractor. Differences between the assumed repairs and the recommended repairs post evaluation will be dealt with by contract modification. The Government assumes the repairs will require partial depth welding for a total of 100 lbs of welding rod including all associated scaffolding, and ventilation activities. Therefore, the pay item is for 100 lbs of welding distributed across one or all of the conduits. Payment will be made for all items under SCHEDULE B, CLIN **0007AA** of Section 00010 Bid Schedule.

1.4.1.6. Chamber Repair - (Optional)

Repair of chamber downstream of the jet valves and associated work will be measured for payment for each chamber as individual pay items (EA). The details of the requested repair are described in Section 010150 Technical Requirements. The condition of the chamber is unknowable until the evaluation work has been completed a separate mandatory CLIN. Dewatering of the Chamber will be completed under separate CLIN (Valve – Construction). The quantities and nature of the repairs are estimated based on government review of historic documents, and a general understanding of cavitations outside of jet valves. The actual requirements for repair shall be outlined in the evaluation and report prepared by the contractor. Differences between the assumed repairs and the recommended repairs post evaluation will be dealt with through contract modification. Payment will be made for all items under SCHEDULE B, CLIN **0008AA** of Section 00010 Bid Schedule.

1.4.1.7. Apron Repair - (Optional)

Repair of apron downstream of the jet valves and associated work will be measured as a lump sum pay item (LS). The details of the requested repair are described in Section 010150 Technical Requirements. The condition of the apron is unknowable until the evaluation work has been completed a separate mandatory CLIN. The work includes

placement of a small cofferdam to dewater the apron. The quantities and nature of the repairs are estimated based on government review of historic documents, and a general understanding of cavitations outside of jet valves. The actual requirements for repair shall be outlined in the evaluation and report prepared by the contractor. Differences between the assumed repairs and the recommended repairs post evaluation will be dealt with through contract modification. Payment will be made for all items under SCHEDULE B, **0009AA** of Section 00010 Bid Schedule.

1.4.1.8. Replace Overhead Service Crane- Tunnel (Optional)

Replacement of the overhead service crane will be paid as lumps sum (LS). Replacement of crane components shall include but is not limited to crane rails, anchors, and structures in the valve room to original capacity. Details for replacement are included in Section 01 01 50 Technical Requirements. Payment will be made for all items under SCHEDULE B, CLIN **0010AA** of Section 00010 Bid Schedule.

1.4.1.9. Powerhouse Diesel Generator (Optional)

All Contractor activities required to provide and install a new diesel generator, including a detailed site inspection, design report, and completed plans and specifications, will be measured for payment as a lump sum pay item (LS). Details for the powerhouse diesel generator are include in Section 01 01 50 Technical Requirements. Payment will be made for all items under SCHEDULE B, CLIN **0011AA** of Section 00010 Bid Schedule.

1.4.1.10. Modify Local Water Supply (Optional)

Provide a replacement for the water supply to the downstream camp and village as specified. Modification will include a tap into the existing 12-inch line that feeds the hydro-electric generating unit. The specifications provided assume that this connection is the most effective method however, other methods may prove more effective pending other evaluations and design work executed under other CLINs. Payment will be made all items under SCHEDULE B, **0012AA** of Section 00010 Bid Schedule.

1.5. TRAINING AND COMMISSIONING

All training and commissioning shall be paid for under the bid item in which the training and commissioning is associated. The final 10% of all Construction/Rehabilitation/Repair/Replace CLINs will not be paid until Testing and Commissioning has been performed and the Government has accepted the various reports that process entails. The proper execution of Commissioning and Training will be considered in any contractor performance rating.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

- END OF SECTION –

SECTION 01 32 01

PROJECT SCHEDULE

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PART 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 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.

Submittals	Paragraph
Preliminary Schedule; G	Recommended but not currently specified. TAS to resolve/provide language
Initial Project Schedule Submission; G	3.4.1
Periodic Schedule Updates; G	3.4.2

1.3 QUALIFICATIONS

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

PART 2. PART 2 PRODUCTS

Not used.

PART 3. PART 3 EXECUTION

3.1 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 Contractor is responsible for scheduling the construction contract work to include procurement of critical materials and equipment, Contractor quality control and construction, acceptance testing and training. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments.

3.2 BASIS FOR PAYMENT

The schedule shall be the basis for measuring Contractor progress. Lack of an approved schedule or scheduling personnel 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. Resource loading of cost is required and will be used as the cost breakdown for progress payments.

3.3 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. Project schedules must be prepared and maintained in a software compatible with current versions of the government's systems RMS and Primavera Project Manager. Contracts with price value over $500,000 will use Primavera SureTrak, Primavera Project Manager P6, or current version of government's systems. The Licensed copy of scheduling software shall be submitted for acceptance to the Contracting Officer within two weeks after Contract Award.

3.3.1 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).

3.3.2 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 Network Analysis System (NAS) shall identify all Government, Construction Quality Management (CQM) Construction activities planned for the project and all other activities that could impact project completion if delayed. Refer to 3.5.5.4 Banding for further detail in grouping activities.

With the exception of the Contract Award and Contract Completion Date (CCD) milestone activities, no activity shall be open-ended; each activity shall have predecessor and successor ties. Once an activity exists on the schedule it may not be deleted or renamed to change the scope of the activity and shall not be removed from the schedule logic without approval from the Contracting Officer. The ID number for a deleted activity shall not be re-used for another activity. No more than 20 percent of the activities shall be critical or near critical. Critical is defined as having zero days of Total Float. "Near Critical" is defined as having Total Float of 1 to 14 days. Contractor activities shall be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days.

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:

3.3.2.1 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 2 percent of all non-procurement activities' Original Durations are greater than 20 days).

3.3.2.2 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.

3.3.2.3 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. The Contractor shall show each delivery with relationship tie to the Construction Activity

specifically for the delivery. For rejected material/equipment not in compliance with approved submittals a new procurement activity shall be inserted in the schedule.

3.3.2.4 Critical Activities

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

a. Submission and approval of mechanical/electrical layout drawings
b. Submission and approval of O & M manuals
c. Submission and approval of as-built drawings
d. Submission and approval of 1354 data and installed equipment lists
e. Submission and approval of testing and air balance (TAB)
f. Submission of TAB specialist design review report
g. Submission and approval of fire protection specialist
h. Submission and approval of testing and balancing of HVAC plus commissioning plans and data
i. Air and water balance dates
j. HVAC commissioning dates
k. Controls testing plan
l. Controls testing
m. Performance Verification testing
n. Other systems testing, if required
o. Pre-final inspection
p. Correction of punch list from pre-final inspection
q. Final inspection

3.3.2.5 Government Activities

Government and other agency activities germane to the contract shall be shown. These activities include, but are not limited to: design reviews, environmental permit approvals by State regulators, inspections, proposals and pay estimates reviews, and utility tie in.

3.3.2.6 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 responsible party. The responsible party for each activity shall be identified by the Responsibility Code.

3.3.2.7 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 work area. The work area of each activity shall be identified by the Work Area Code.

3.3.2.8 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 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. A new current approved baseline shall be created to reflect the changes to the previous approved baseline (see item 3.5.5.6 Baseline Network Analysis Schedule.)

3.3.2.9 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 work item. The work item for each appropriate activity shall be identified by the Work Item Code.

3.3.2.10 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 phase of work. The project phase of each activity shall be by the unique Phase of Work Code.

3.3.2.11 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.

3.3.2.12 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.

3.3.3 Scheduled Project Completion

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

3.3.3.1 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 day duration.

3.3.3.2 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 day duration.

3.3.3.3 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.

3.3.4 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.

3.3.4.1 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 day duration.

3.3.4.2 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 day duration.

3.3.4.3 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.

3.3.4.4 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 of these parameters from the other shall be disabled.

3.3.4.5 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.

3.3.4.6 Negative Lags

Lag durations contained in the project schedule shall not have a negative value.

3.4 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.

3.4.1 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.

3.4.2 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.

3.4.3 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. The contractor shall assure

the schedule contains the holidays, fiscal year starting month, work day start and finish shift and preferences for units of time, observed by the government.

3.5 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:

3.5.1 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.

3.5.1.1 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.

3.5.1.2 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.

a. 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.

b. 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.

c. 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.

d. 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.

3.5.1.3 File Name

Each file submitted shall have a name related to 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.

3.5.2 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 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.

3.5.3 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.

3.5.4 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, and Total Float. Actual Start and Actual Finish Dates shall be printed for those activities in progress or completed.

3.5.4.1 Activity Report

A list of all activities sorted according to activity number.

3.5.4.2 Logic Report

A Logic Report is 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.

3.5.4.3 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.

3.5.4.4 Earnings Report

An Earnings Report is 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.

3.5.5 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:

3.5.5.1 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.

3.5.5.2 Project Milestone Dates

Dates shall be shown on the diagram for start of project, any contract required interim completion dates, and contract completion dates.

3.5.5.3 Critical Path

The critical path shall be clearly shown.

3.5.5.4 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. Separate activities shall be created for each Phase, Area, Floor Level and Location in which the activity is occurring. Each set of activities identified as a separate group shall be included in a Work Breakdown Structure to avoid confusion with similar activities repeated in other phases, floors, or locations.

3.5.5.5 S-Curves

Earnings curves showing projected early and late earnings and earnings to date.

3.5.5.6 Baseline Network Analysis Schedule

The original approved baseline shall not change through the duration of the contract. The original baseline naming convention is B/L – Contract Name – (Date created). A second revised baseline shall be maintained to reflect approved time extensions, and/or changes to the contract; this could be named as Current Approved Baseline and follow the naming convention: C/A - Contract Name – (Date changed). A third monthly baseline shall be maintained to reflect the monthly updates submitted by the contractor for payment. Naming convention is Mmm-Contract Name-(Date created). Submittal of the Baseline Network Analysis Schedule, and subsequent schedule updates, shall be understood to be the Contractor's certification that the submitted schedule meets all of the requirements of the Contract Documents, represents the Contractor's plan on how the work shall be accomplished, and accurately reflects the work that has been accomplished and how it was sequenced (as-built logic).

Samples of baselines naming conventions:

Field Description in Primavera	Baseline Type	Naming Convention
Project Baseline	Current Approved Baseline	CA – Cerrillos Dam – (12-Jan-1992)
Primary	Monthly Baseline	M02 – Cerillos Dam – (1-Feb-1992)
Secondary	Original Baseline	BL – Cerrillos Dam – (12-Jan-1992)

3.6 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.

3.6.1 Meeting Attendance

The Contractor's Project Manager and Scheduler shall attend the regular progress meeting.

3.6.2 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 4 working days after the monthly progress meeting.

3.6.3 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.

3.6.3.1 Start and Finish Dates

The Actual Start and Actual Finish date for each activity currently in progress or completed.

3.6.3.2 Time Completion

The estimated Remaining Duration for each activity in-progress. Time-based progress calculations shall be based on Remaining Duration for each activity.

3.6.3.3 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.

3.6.3.4 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.

3.6.3.5 Other Changes

Other changes required due to delays in completion of any activity or group of activities include:

a. Delays beyond the Contractor's control, such as strikes and unusual weather.

b. Delays encountered due to submittals, Government Activities, deliveries or work stoppages which make re-planning the work necessary.

c. Changes required in order to correct a schedule which does not represent the actual or planned prosecution and progress of the work.

3.7 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.

3.7.1 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.

3.7.2 Submission Requirements

The Contractor shall submit a justification for each request for a change in the contract completion date of less than 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.

3.7.3 Additional Submission Requirements

For any requested time extension greater than 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 4 days of the Contracting Officer's request.

3.8 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 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 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 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.

3.9 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 --

ADDENDUM

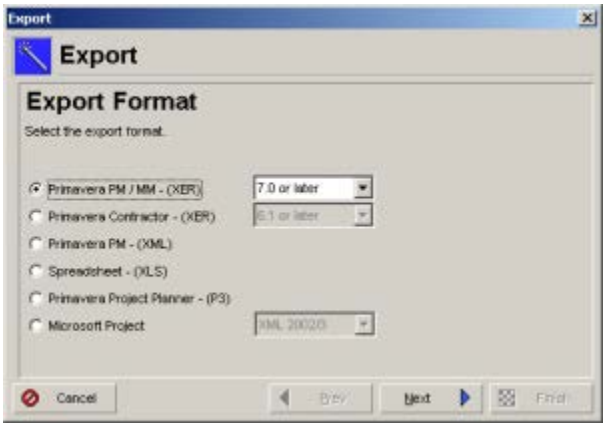
Exporting and Importing Project Information
October 25th, 2009 Activities, EPS primaverarena

As you know Primavera P6 is not a File based system, you need to export Project files if you wish to share your project with someone not in your network via email or other electronic delivery system. Export a Project file is simple and the exported file is a compressed file of all you project

As you know Primavera P6 is not a *File based system*, you need to export Project files if you wish to share your project with someone not in your network via email or other electronic delivery system. Export a Project file is simple and the exported file is a compressed file of all you project information which the other party needs to import in order to see it.

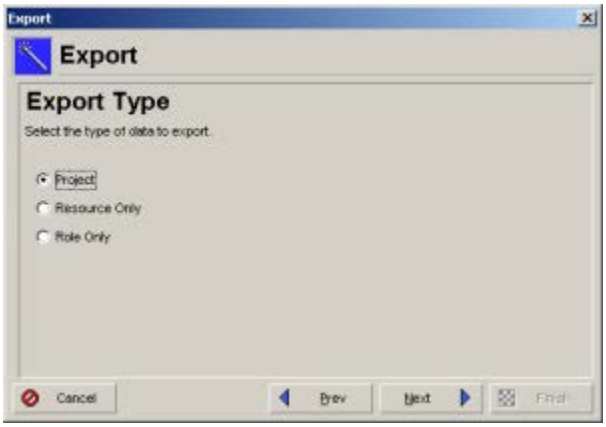
Export

To export a project file, you can go to File menu and click on Export.

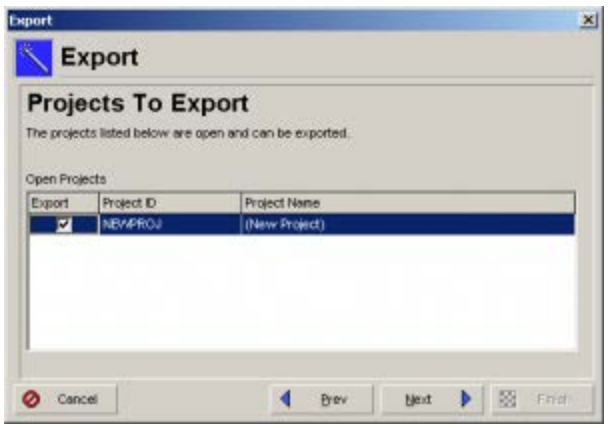


Select Primavera PM/MM format.

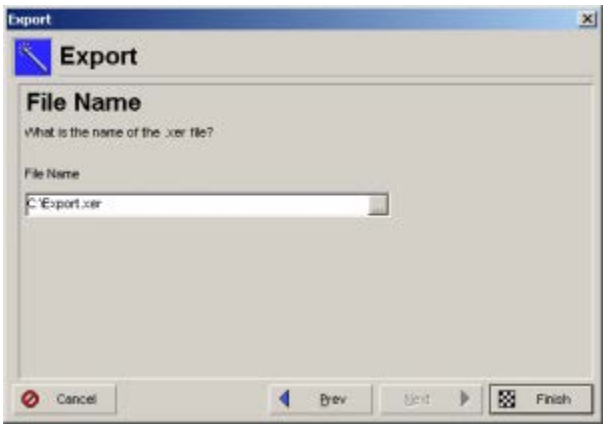
Choose which type of data you wish to export.



Select the Project.



Select the location of the exported file to be placed in.



Click Finish and Ta'daa

And you will find the*.XER file on your desktop (or the location you chose).

Import

To Import the file just double clicking the *.xer file would take you through the same steps and help you successfully update or create a new Project in your EPS.

Key definitions

1. Earned value is a technique for measuring project performance according to both project cost and schedule. This technique compares the budgeted or planned cost of the work to the actual cost. While earned value analyses are typically performed for WBS elements, you can also perform an earned value analysis for activities and groups of activities.

    a. In order to perform an earned value analysis, you must specify two calculation techniques. These techniques apply to activities that are currently in progress. The first technique is used to calculate an activity's percent complete. The second technique is used to calculate an activity's Estimate To Complete (ETC). A set of options is provided for both of these techniques, and you can set these options for each WBS element.

    b. The fundamental earned value parameters used to calculate an activity's Estimate to Complete are: Earned Value Cost; Budget at Completion; Planned Value Cost; and, Actual Cost. You can derive an activity's Estimate to Complete and other earned value indexes from these parameters.

    c. If you are the administrator for your organization, you can specify default earned value techniques for WBS elements.

2. Critical path: The critical path is a series of activities that determines a project's completion time. The duration of the activities on the critical path controls the duration of the entire project; a delay to any of these activities will delay the finish date of the entire project. Critical activities are defined by either the total float or the longest path in the project network.

3. Critical Path Method (CPM) scheduling: The method by which activity durations and the relationships between activities are used to mathematically calculate a schedule for the entire project. CPM focuses your attention on the critical path of activities that affect the completion date for the project or an intermediate deadline.

    Early dates, the earliest possible dates each activity can start and finish, and late dates, the latest possible dates each activity can start and finish without delaying the project finish or an intermediate deadline (constraint) are also calculated.

SECTION 01 33 15
SUBMITTAL PROCEDURES FOR DESIGN BUILD PROJECTS

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SUBMITTAL PROCEDURES

PART 1. GENERAL

1.1 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

1.2 SUBMITTALS

Construction Submittals are classified by design stage and fast-track sequence as specified in 01 33 16 DESIGN BUILD AFETR WARD and restated below. 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.

Submittal	Paragraph
General Design (35%); FIO	1.2.1.1
General Design (65%); G	1.2.12
Final Design (99%); G	1.2.1.3
Complete Design Package (100%); G	1.2.1.4

The submittals listed above are not unique items and do not show up as such on the submittal register. The submittals listed above generally represent the requirements for a range of mandatory and optional items listed in Section 01 05 50 TECHNICAL REQUIREMENTS.

1.2.1 Submittal Descriptions (SD)

SD-01 Preconstruction Submittals

SD-02 Shop Drawings

SD-03 Product Data

SD-04 Samples

SD-05 Design Data

SD-06 Test Reports

SD-07 Certificates

SD-08 Manufacturer’s Instructions

SD-09 Manufacturer's Field Reports

SD-10 Operation and Maintenance Data

SD-11 Closeout Submittals

1.3 Construction Submittals

1.3.1 Review Classification

Construction Submittals are classified as follows:

a) Government Approved (G). Government approval is required for critical materials, variations, deviations, an "or equal" decision, equipment whose compatibility with the entire system must be checked, and other items as designated by the COR. Within the terms of Section 00700, Contract Clause 52.236-21, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, these submittals are considered to be "shop drawings."
b) Information Only. Submittals not requiring Government approval will be for information only. Within the terms of the Section 00700, Contract Clause 52.236-21, SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION, these submittals are not considered to be "shop drawings."

1.3.2 Submittal Descriptions

Construction Submittals are described according to various aspects of construction as described in the following paragraphs.

SD-01 Preconstruction Submittals

Particular Submittals identified as SD-01, Pre-Construction Submittals shall be submitted via the Project-Specific Management Plan. The Project-Specific Management Plan shall be submitted as a single document and address job-specific accident prevention program, environmental protection plan, construction quality control program, and project work plan. The current version of the SAFETY AND HEALTH REQUIREMENTS MANUAL, EM 385-1-1, including all errata and changes, shall be used for this Contract and is obtainable at http://140.194.76.129/publications/eng-manuals/. This manual is also available in hard copy (paper) version. All changes that are dated prior to the date of the Solicitation for this Contract (Reference paragraph 4.b (1) and 4.c introductory letter EM 385-1-1), will be contractually binding as part of any Contract issued. Changes can be obtained from http://www.usace.army.mil/CESO/Pages/EM385-1-1.aspx. Acceptance of the Project-Specific Management Plan is required prior to commencement of site work.

It shall be organized as follows:

a. Section I - Accident Prevention Program.

1) Accident prevention plan (EM 385-1-1 and Section 01 35 26.00 25, GOVERNMENT SAFETY REQUIREMENTS).
2) Drug-free workplace policy.
3) Hazard communication program.
4) Activity hazard analysis (EM 385-1-1).
5) Equipment certification.
6) Critical Lift Plan

b. Section II - Environmental Protection Plan

1) Spill Prevention/Cleanup Plan
2) Waste Management Plan

c. Section III - Construction Quality Management Program (Section 01 45 00.00 25, QUALITY CONTROL).

1) Contractor's quality control (CQC) plan.

2) CQC Daily Report form.
3) Progress construction photos

d. Project Work Plan. (The following are examples:)

1) Security Plan
2) Communication Plan
3) Mobilization/site laydown plan
4) Temporary electrical systems
5) Welder qualifications
6) Welding procedures
7) List of proposed products

e. Schedule for Construction/Network Analysis.

f. Submittal Register.

g. Certificates of Insurance

h. Surety Bonds

i. List of proposed subcontractors.

SD-02 Shop Drawings

- Drawings, diagrams, and schedules specifically prepared to illustrate some portion of the work.
- Diagrams and instructions from a manufacturer or fabricator for use in producing the product and as aids to the Contractor for integrating the product or system into the project.
- Drawings prepared by or for the Contractor to show how multiple systems and interdisciplinary work will be coordinated.

SD-03 Product Data

- Catalog cuts, illustrations, schedules, diagrams, performance charts, instructions and brochures illustrating size, physical appearance and other characteristics of materials, systems or equipment for some portion of the work.
- Samples of warranty language when the Contract requires extended product warranties.

SD-04 Samples

- Fabricated or unfabricated physical examples of materials, equipment or workmanship that illustrate functional and aesthetic characteristics of a material or product and establish standards by which the work can be judged.
- Color samples from the manufacturer's standard line (or custom color samples if specified) to be used in selecting or approving colors for the project.
- Field samples and mock-ups constructed on the project site establish standards by which the ensuing work can be judged. Includes assemblies or portions of assemblies which are to be incorporated into the project and those which will be removed at conclusion of the work.

SD-05 Design Data

- Design calculations, mix designs, analyses or other data pertaining to a part of work.

SD-06 Test Reports

- Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements. (Testing must have been within three years of date of Contract award for the project.)
- Report which includes findings of a test required to be performed by the Contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

- Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.
- Investigation reports.
- Daily logs and checklists.
- Final acceptance test and operational test procedure.
- Any reports required by the Contracting Officer or designated representative to assure successful completion of tasks during the life of the Contract.

SD-07 Certificates

- Statements printed on the manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project Contract and clearly name the project.
- Document required of Contractor, or of a manufacturer, supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.
- Confined space entry permits.
- Text of posted operating instructions.

SD-08 Manufacturer's Instructions

- Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data Sheets concerning impedances, hazards and safety precautions.

SD-09 Manufacturer's Field Reports

- Documentation of the testing and verification actions taken by manufacturer's representative at the job site, in the vicinity of the job site, or on a sample taken from the job site, on a portion of the work, during or after installation, to confirm compliance with manufacturer's standards or instructions. The documentation must be signed by an authorized official of a testing laboratory or agency and must state the test results; and indicate whether the material, product, or system has passed or failed the test.
- Factory test reports.

SD-10 Operation and Maintenance Data

- Data that is furnished by the manufacturer, or the system provider, to the equipment operating and maintenance personnel, including manufacturer's help and product line documentation necessary to maintain and install equipment. This data is needed by operating and maintenance personnel for the safe and efficient operation, maintenance, and repair of the item.
- This Data is intended to be incorporated in an operations and maintenance manual or control system.

SD-11 Closeout Submittals

- Documentation to record compliance with technical or administrative requirements or to establish an administrative mechanism.
- Special requirements necessary to properly close out a construction Contract. For example, Record Drawings and as-built drawings.

1.3.3 Submittal package quantity

The Contractor shall submit five copies of "G" submittals with five corresponding 4025 forms. Upon completion of "G" submittal review, copies as specified below will be marked with an action code, dated, and returned to the Contractor:

1.3.4 Processing of "G" Submittals.

a. Submittals will be reviewed and processed as follows:

- **Approved as Submitted** (Action Code "A"): Shop drawings which can be approved without correction will be stamped "Approved" and one copy will be returned to the Contractor.

- **Approved, Except as Noted on Drawings** (Action Code "B"): Shop drawings which have only minor discrepancies will be annotated in red to indicate necessary corrections. Marked material will be stamped "Approved Except as Noted" and one copy returned to the Contractor for correction.

- **Approved, Except as Noted on Drawings, Resubmission Required** (Action Code "C"): Shop drawings which are incomplete or require more than minor corrections will be annotated in red to indicate necessary corrections. Marked material will be stamped "Approved Except as Noted - Resubmission Required" and one copy returned to the Contractor for correction. Resubmittal of only those items needing correction required.
- **Will be Returned by Separate Correspondence** (Action Code "D"): Shop drawings will be addressed by Serial Letter and the Contractor shall respond according to instructions in the letter.
- **Disapproved** (Action Code "E"): Shop drawings which are fundamentally in error, cover wrong equipment or construction, or require extensive corrections, will be returned to the Contractor stamped "Disapproved." One copy will be returned to the Contractor and an explanation will be furnished on the submitted material or on ENG Form 4025 indicating reason for disapproval. Complete resubmittal required.
- **Receipt Acknowledged** (Action Code "F"): Shop drawings stamped "Receipt Acknowledged" are complete and one copy will be returned to the Contractor.
- **Receipt Acknowledged, Does Not Comply** (Action Code "FX"): Shop drawings which have been received but do not comply with Contract requirements. One copy will be returned to the Contractor stamped "Receipt Acknowledged, Does Not Comply" and an explanation will be furnished. Resubmittal required.
- **Other (Specify)** (Action Code "G"): Shop drawings requiring other specific action will be stamped "Other (Specify)" and returned with a description in the Remarks section. One copy will be returned to the Contractor. Resubmittal of only those items needing correction required.

b. Resubmittal will not be required for approved shop drawings unless subsequent changes are made by Contractor or by Contract modification. For shop drawings required to be resubmitted, Contractor shall make corrections required, note any changes by dating the revisions to correspond with the change request date, and promptly resubmit the corrected material. Resubmittals shall be associated with the "parent" by use of sequential alpha characters (for example, resubmittal of transmittal 8 will be 8A, 8B, etc). Government costs incurred after the first resubmittal may be charged to the Contractor.

c. Construction submittals resulting from investigative studies, reports, and analysis, that lead to designs that involve various engineering disciplines shall be identified within the submittal paragraph of the desiginated CSI spec section.

d. The Contractor shall provide construction submittals for **G**overnment review and **A**pproval (**GA**) for any other construction materials, equipment, or systems required by the Contracting Officer's Representative throughout the construction performance period of this contract.

1.3.5 <u>For Information Only Construction Submittals (FIO)</u>

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.

1.3.6 Variations

After design submittals have been reviewed and cleared for construction by the Contracting Officer, no submittal for variation shall be considered by the Government.

1.3.7 Additional Shop Drawings and Submittals

In accordance with the paragraph entitled DESIGN DISCREPANCIES, the Government may request the Contractor to provide additional shop drawing and submittal type data subsequent to completion of the design.

1.3.8 Incomplete Design

The Contractor shall not use construction submittals as a means to supplant and/or supplement an incomplete design effort.

1.4 SUBMITTAL CERTIFICATION

The CQC organization shall be responsible for certifying that all submittals and deliverables have been reviewed in detail for completeness, are correct, and are in strict conformance with the contract drawings, specifications, and reference documents.

1.4.1 Effective Quality Control 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 entitled "SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION - ALTERNATE I", and SECTION 01451 CONTRACTOR QUALITY CONTROL.

1.4.1.1 Organizational Responsibility

The quality control system shall cover all design, construction, subcontractor, manufacturer, vendor, and supplier operations at any tier, both onsite and offsite.

1.4.1.2 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.

1.4.1.3 Determination of Compliance

Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements by the Contracting Officer. The contractor shall submit all required documentation with submittals. The U.S. Army Corps of Engineer (USACE) will not accept partial submittals.

1.4.2 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.

1.4.2.1 Government Review

Government review, clearance for construction, or approval of post design construction submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory.

1.4.3 Substitutions

No submittals for the purpose of substituting materials or equipment specified in the contract drawings, specifications, and reference documents shall be considered by the Government.

1.4.4 Additional Submittals

In conjunction with Contract Clause 52.236-5 entitled "MATERIAL AND WORKMANSHIP", the Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work.

1.4.5 Untimely and Unacceptable Submittals

Submittals covering component items forming a system or items that are interrelated shall be scheduled and submitted concurrently. Adequate time (a minimum of 30 calendar days exclusive of mailing time) shall be allowed and shown on the register for review and approval. No delay damages or time extensions will be allowed for time lost in late submittals.

a. Coordinate scheduling, sequencing, preparing and processing of submittals with performance of work so that work will not be delayed by submittal processing. Allow for potential resubmittal of requirements.

b. Submittals called for by the Contract documents will be listed on the register. Approval by the Contracting Officer does not relieve the Contractor of supplying submittals required by the Contract documents but which have been omitted from the register.

c. Re-submit register and annotate monthly with actual submission and approval dates. When all items on the register have been fully approved, no further re-submittal is required.

d. Carefully control procurement operations to ensure that each individual submittal is made on or before the Contractor scheduled submittal date shown on the approved "Submittal Register."

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.

1.4.6 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: _____

1.5 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.

1.6 UNITS OF MEASUREMENT

Design documents shall be prepared in accordance with the guidance offered in SECTION 01 41 50 METRIC MEASUREMENTS.

The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by the 11th CGPM in 1960.

1.6.1 Drawings

1.6.1.1 Site Layout

All site layout data shall be dimensioned in meters or coordinates, as appropriate. All details and pipe sizes shall be dimensioned in millimeters.

EXAMPLE: Masonry openings shall be a U.S. module to suit a standard U.S. door. The dimensions of the opening shall be given in SI units. Metric dimensions for site plans shall be in meters and fraction thereof. Dimensions for all other drawings shall be in millimeters using hard metric designations (example: 12 meters = 12 000). Hard metric is defined as utilizing standard metric products and the use of measurements in increments of fifty (50) and one hundred (100) millimeters.

1.6.1.2 Geo-reference

All site plans shall be geo-referenced using the WGS 1984 coordinate system, specifically the following: WGS 1984 UTM one 41 North. If the designer is not able to use the stated coordinate system the coordinate system used shall be correlated to the stated coordinate system. A table shall be provided within the site drawing set cross referencing the WGS84 system to that utilized. This is required to allow TAS to incorporate the plans into GIS for storage, map production, and possible geospatial analysis of the different work sites.

1.6.2 Design Calculations

Calculations shall be in SI units to meet the requirements of the design. Quantities on the contract drawings stated in SI units shall also be stated in SI units in the design analysis to match the drawings.

1.6.3 Specifications

All equipment and products shall be specified according to U.S. standards and described by appropriate units as required herein.

1.7 WITHHOLDING OF PAYMENT FOR SUBMITTALS

1.7.1 Design Submittals

Payment for Design work will not be made in whole or in part until the Government has reviewed and cleared the design for construction.

1.7.2 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.

PART 2. PRODUCTS

2.1 GENERAL

The following are contract deliverables which expound upon and finalize the design parameters/requirements outlined within the contract documents. They shall be prepared in such a fashion that the Prime Contractor is responsible to the Government and not as an internal document between the Prime Contractor and its Subcontractors, Vendors, Suppliers, etc.

2.2 PROJECT NARRATIVE

The Project Narrative shall be a bound set and shall contain the contract Sections 01 01 00 and 01 01 50 (and any additional sections that are appropriate). The Section 01 01 00 and 01 01 50 shall be the latest version. Any subsequent changes to the contract 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.

2.3 DESIGN ANALYSIS

2.3.1 Submittal

It shall be written in the English language with SI units of measure. 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.

2.3.2 Format

Format of design analysis shall closely match the standard format referenced within this document.

2.4 DESIGN CALCULATIONS

All design calculations shall be presented such that they are easily understood, correlated with the requirements (Section 01 01 00 and 01 01 50 criteria; codes; all other applicable or pertinent criteria) and all final conclusions clearly documented and summarized. The Design Submittal must include complete information (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.

2.4.1 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, 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.

2.4.2 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.

2.5 CONSTRUCTION SPECIFICATIONS

If the Contractor determines that features of this contract design by the Contractor require additional specifications, they shall be submitted for review and approval. 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 UFGS does not reference a specification section for specific work to be performed by this contract, the Contractor shall be responsible for creating the required specification in the UFGS format.

2.5.1 Use of Unified Facilities Guide Specifications (UFGS)

If additional specifications are deemed necessary by the Contractor, UFGS (Uniform Federal Guide Specifications) are required when U.S. products and systems are required or used. Current UFGS information may be obtained at the following location: http://www.wbdg.org/ccb/browse_org.php?o=70.

Specifications for UFGS are in SpecsIntact format. SpecsIntact is government sponsored software used to edit specifications for government contracts. The software is available at the following link: http://specsintact.ksc.nasa.gov/index.asp.

2.5.2 Quality Control and Testing

Any additional specifications deemed necessary by the Contractor shall include required quality control and further indicate all testing to be conducted by the Contractor, its subcontractors, vendors and/or suppliers.

2.5.3 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.

2.5.4 Industry Standards

2.5.4.1 U.S. Industry Standards

The Specifications shall be based on internationally accepted U.S. industry Standards, or as indicated in Section 01 01 50. 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.

2.6 DRAWINGS

2.6.1 Computer Assisted Design and Drafting (CAD)

Computer Assisted Design and Drafting (CAD) is required for all Afghanistan Engineer District South contracts. Only personnel proficient in the preparation of CAD drawings shall be employed to modify the contract drawings or prepare new drawings. The CAD deliverables shall meet the requirements of the A/E/C CAD Standards (V 3.0 or newer). The A/E/C CAD 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 or the website http://www.aed.usace.army.mil/engineeringtop2010.asp under the "Government Provided CAD Files" link.

The Contractor shall furnish all softcopy design submittals (and As-Builts) using software applications in either DWG format (Auto Desk, AutoCad Release 2009 or newer) or DGN format (Bentley Systems, MicroStation, version 8.0 or newer). Use of unregistered or student copies of software applications to prepare design drawings **IS NOT PERMITTED**. In addition, the Contractor is required to submit the softcopy design submittals in PDF (Adobe Acrobat) format.

CD media submitted containing the softcopy design submittals shall be organized per the instructions below and the diagram in Section 1335a:

CD Title:

Project Name and Location:
Project Number:
Submittal Number:
Date:
Contractor Name, Address, Telephone Number and email

Folders and Folder Contents/Structure:

Main Folder Name	Subfolders, Files and File Format	Description
Administrative	Multiple PDF files	Files shall include the contract, task order, approved modifications, approved BCDs, approved variations and non-administrative modifications (do not provide time extensions, COR appointments, and Requests for Information/responses, etc).
Design Analysis	One pdf file with identical contents as the printed document of the submittal.	All data, discussion, calculations and information presented in the printed Design analysis.
Specifications	One folder specifications in word format. One folder with specifications in pdf format.	All specification sections including table of contents edited as appropriate for the submittal stage of the project[2].
Geotechnical Report	One file in pdf format	All data, graphs, charts and tables generated during the geotechnical investigation.
PDF Drawings	One Binder of pdf files.	PDF Drawings. Files will be saved in a Binder and organized in the same order as indicated on the sheet index
CAD Drawings	DGN or DWG files organized in the following folders. Each folder shall contain only drawings pertaining to that discipline. General (Cover Sheet/ Index of Drawings, Vicinity Maps) Civil Architectural Structural Mechanical Plumbing Electrical Telecommunications	CAD Drawings. All referenced files are to be attached without drive or directories and placed in the same folder it is referencing. Do not save or use paths. Do not use live nesting when attaching reference files.

Notes:
1. The administrative folder shall provide documents submitted by the contractor and received from the COR related to the contract. These documents shall include Requests for Information related to design issues, Variation Requests, Modifications to the Contract. In addition, the folder shall contain a copy of the signed contract, relevant task orders and change orders.
2. DO NOT INCLUDE standard drawings or specifications provided to the Contractor as part of this document or as part of the contract.

2.6.2 Drawings

Drawings shall be prepared in the English language with metric (SI) units of measure. All drawings and details of the working drawings shall be labeled and cross-referenced, thoroughly checked and coordinated with other engineering disciplines. At the final design submittal (100%) 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. Prior to submitting the 100% Final Design drawings, the Contractor shall follow the procedures as described in Section 3 of the AED Design Requirements for CAD Design Guide.

2.6.3 Drawing Size Border Sheets

All drawings shall be prepared in size "A1" border sheets (594mm by 841mm). Hardcopy design submissions may be printed on half size drawing sheets (“A3”, 297 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.

2.6.4 Sequence of Design Drawings

Referencing the A/E/C CAD Standard 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

2.6.5 Drawing Folder Structure

CAD files shall be organized in folder names as described in Paragraph 2.6.4. For multi-building projects, a folder of each building type shall be created and the applicable folders shown in each building type folder.

2.6.6 Drawing Sheet Assembly

CAD files will be organized in what is described as "**Option 1a**" (page 9 in the A/E/C CAD Standards Drawing Sheet Assembly manual), normally referred to as "Model Space and Paper Space" in Autodesk Autocad applications and "Design Model and Sheet Model" in Bentley Microstation applications. All files will be drawn consistently in the same manner using this option throughout the entire project.

2.6.7 Model Files

Model files represent the building's physical layout and components such as floor plans, elevations and details. Model files shall be drawn to full size (1:1) in metric units in the default model view. Floor Plan Model files represent one floor. Example: do not use one model drawing file to draw several floor plan drawings with several border files. One paper space layout shall be provided per plotted sheet. Model files being referenced into another shall have insertion coordinates (x,y,z) of 0,0,0 in model space. The exception for model files with insertion coordinates other than 0,0,0 shall be the civil site plans (using Georeferencing and real-world coordinates.) Dimensioning shall be in millimeters unless noted otherwise, drawn associatively, and not be "forced". Example: if a wall is drawn 1:1, as 150 mm but the dimensioned number is modified to 200, this is unacceptable.

2.6.8 Border Sheet Files

Border sheet files are referenced into drawing files (in Paper Space) for plotting and viewing purposes. Every border sheet file has a drawing area, Title Block information and sheet trim border. The Afghanistan Engineer District – South uses a common Title Block sheet border for each project. The project Title Block sheet border with "sheet independent" data is referenced into each drawing. When a drawing file is created, "sheet dependent" Title Block data, such as the Sheet Identification and Title, is added to the specific drawing file and located in Paper Space where the Title Block is referenced and viewed. AED-S Title Block drawings may be downloaded at : http://www.aed.usace.army.mil/engineeringtop2010.asp under the "Government Provided CAD Files" link.

2.6.9 Layer/Level names

Layer or level files names shall follow the guidelines of the A/E/C CAD Standards V4.0. For AutoCAD, [discipline].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. Templates to be used are found on the CAD/BIM Technology Center at the following link: https://cadbim.usace.army.mil/default.aspx?p=s&t=13&i=4, or at the website: http://www.aed.usace.army.mil/engineeringtop2010.asp under the "Government Provided CAD Files" link.

2.6.10 Drawing File Naming Convention

The sheet identifier will consist of the discipline designator, the sheet type designator and the sheet sequence number as referenced in the A/E/C CAD Standards V4.0.

2.6.11 Sheet Identification Block

The sheet identifier will follow the format of the border sheet file. This will consist of the discipline designator, the sheet type designator and the sheet sequence number as referenced in the A/E/C CAD Standards Manual.

2.6.12 Drawing Scales

The scales indicated on the following list shall be the guide in determining the scale for all drawings. Bar scales shall be provided on drawings as printed copies may lose their plotted scale through generational copying.

TYPICAL DRAWING SCALES	
DRAWING TYPE	**METRIC**
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
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

2.6.13 Symbols, Line styles, & Patterns

Approved symbols, line styles, and patterns shall be in accordance with AEC CAD Standards V 3.0 or newer (see Appendix D of the A/E/C CAD Standards). The approved symbols, line styles, and patterns associated with AutoCAD software maybe downloaded at the following link:

https://tsc.wes.army.mil/products/standards/aec/aecstdsym.asp

2.6.14 Plotter Prepared Original Drawings AND PDF FILES

Design files shall be developed in anticipation of plotting on a monochrome, vector plotter. 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. (Please refer to the A/E/C CAD Standards). **Drawings plotted in color are not acceptable.** Manual changes to plotted originals are not acceptable. A separate Adobe PDF file shall be made of each drawing file oriented in "Landscape". Each PDF drawing file shall then be compiled into one "binder" PDF file for each set of drawings following the order of the Sheet Index.

2.6.15 Title and Revision Block

Only AED-S Title and Revision Blocks are allowed. These are available at the website for download at: http://www.aed.usace.army.mil/engineeringtop2010.asp under the "Government Provided CAD Files" link.

2.6.16 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.

2.6.17 Location/column Grid

To facilitate the location of project elements and the coordination of the various disciplines' drawings, all plans shall indicate a column line or planning grid, and all floor plans (except structural plans) shall show room numbers.

2.6.18 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 overall plan (key plan) shall be placed on one sheet at a smaller scale to accommodate entire building/site. Key plans shall be used not only to relate large scale plans to total floor plans but also to relate individual buildings to large complexes of buildings. This key plan with match lines shall be referenced on all segmented drawings and shall be placed in a convenient location to indicate the relative location of the represented plan area by crosshatching.

2.6.19 Specifications Placed on the Drawings

Details of standard products or items which are adequately covered by specifications shall not be included on the drawings.

2.6.20 Revisions

Drawing revisions shall be prepared only on the original CAD files. A revision history (located in the Title Block) is required on all sheets.

2.6.21 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.

2.6.22 Government Provided files

All CAD related files provided by the Government to the Contractor (AutoCad and MicroStation Afghanistan Engineering District-South Title Block and Cover/Index sheet files, AutoCAD template files) may be downloaded through the following website:

http://www.aed.usace.army.mil/engineeringtop2010.asp under the "Government Provided CAD Files" link.

If Contractor is unable to access this site, a CD will be provided upon request to the Project Manager.

PART 3. EXECUTION

3.1 GENERAL

3.1.1 Design Concept Coordination Meeting

Shortly after Notice To Proceed (NTP) the Government may require 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.

3.1.2 Government Design Changes

Government design changes which do not increase construction costs shall be made at no charge to the Government. The Contracting Officer may request design submittals in addition to those listed when deemed necessary to adequately describe the work covered in the contract documents. Submittals shall be made in the respective number of copies and to the respective addresses set forth in the paragraph entitled SUBMITTAL PROCEDURE. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements.

3.2 SUBMITTAL REGISTER

3.2.1 Design Submittals

The Contractor shall submit as part of his Project Schedule Design Submittal milestone dates. The Contractor shall post all actual dates of submittal actions (including clearance for construction) as they occur.

3.2.2 Construction Submittal Register (ENG Form 4288)

Attached to this section is ENG Form 4288 which the Contractor is responsible for developing for this contract. All 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.

3.3 TRANSMITTAL FORM (ENG Form 4025)

The sample transmittal form (ENG Form 4025) attached to this section shall be used for submitting both design and construction submittals in accordance with the instructions on the reverse side of the form. These forms will be furnished to the Contractor. This form shall be properly completed by filling out all the heading blank spaces and identifying each item submitted. Special care will be exercised to ensure proper listing of the specification paragraph and/or sheet number of the contract drawings pertinent to the data submitted for each item.

3.4 PROGRESS SCHEDULE

The Contractor shall prepare and submit a design progress schedule to the Contracting Officer. The Critical Path Method (CPM) of network calculation shall be used to generate the Project Schedule. The progress schedule shall show, as a percentage of the total design price, the various items included in the contract and the order in which the Contractor proposes to carry on the work, with dates on which he will start the features of the work and the contemplated dates for completing same. Significant milestones such as review submittals shall be annotated. The Contractor shall assign sufficient technical, supervisory and administrative personnel to insure the prosecution of the work in accordance with the progress schedule. The Contractor shall correct the progress schedule at the end of each month and 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.

3.5 SCHEDULING

3.5.1 Design Submittals

Adequate time (a minimum of fourteen (14) full calendar days exclusive of mailing time) shall be allowed for TAS review and comment in DrChecks$_{SM}$. **This time period starts on the next full day after delivery of the Design Submittal to both TAS and the Area Office. If a Design Review is received by TAS or the Area Office but not the other, the design review does not start until both TAS and the Area Office have full design submittals.** If the Contractor fails to submit design submittals in a timely fashion, or repetitively submits design submittals that are not in strict conformance with the Contract documents, no part of the time lost due to such actions shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.5.2 Construction Submittals

Contractor furnished Government Approved Construction Submittals (GA) for items noted in Paragraph 1.2.5 of 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 fourteen (14) full calendar days exclusive of mailing time) shall be allowed for TAS review and comment.

3.5.3 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 fourteen (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.

3.6 SUBMITTAL PROCEDURE

3.6.1 Design Submittals

3.6.1.1 Afghanistan Engineer District South (AES)

One (1) half-size hard copy and two (2) soft copies (electronic version) of all design submittals (calculations, reports of field tests, design analysis, plans, specifications, etc) shall be transmitted to the Government at the following address, by means of ENG Form 4025:

AFGHANISTAN ENGINEER DISTRICT SOUTH (TAS)

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District-South
Kandahar Air Field
USACE-TAS
APO AE 09355
Attention: Chief, Engineering Branch

The soft copy (electronic version) and CD case shall both be clearly labeled (hand written information is not acceptable – typed labels are required) with contract information (contract #, title, contractor name, specific design submittal stage including if it is a Resubmittal, date of submission, components of the submittal – design analysis, plans, specifications, and if more than one CD then state 1 of "X", 2 of "X", etc., anti-virus information below, etc.)

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 TAS. The label shall indicate it has been scanned for viruses and the anti-virus software and version clearly indicated.

3.6.1.2 Resident/Area Engineer Office

Complete design submittals shall be provided to the Area and/or Resident Engineer Office such that these are received **at the same time** as these submittals are delivered to the AES address in Para. 3.6.1.1. At the Pre-Construction meeting, the Contractor will be furnished the Area and/or Resident Office address to which these submittals shall be provided along with the number and size of hard and soft (electronic version) copies required for these offices. As per Paragraph 3.6.1.1, soft copies are to be properly labeled and checked for viruses by the contractor prior to delivery.

3.6.1.3 Editable CAD Format As-Builts

In accordance with Contract Clause 52.227-7022 entitled "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 01 78 00A CLOSEOUT SUBMITTALS, Paragraphs 1.1 and 1.2, for all requirements associated with submission of editable CAD format As-Builts required as part of this contract.

3.6.2 Post Design Construction Submittals

One (1) copy of all post design construction submittals shall be transmitted to:

AFGHANISTAN ENGINEER DISTRICT SOUTH (TAS)

(1) DHL, FEDEX, UPS or any other courier service:
U.S. Army Corps of Engineers
Afghanistan Engineer District-south
Kandahar Air Field
USACE-TAS
APO AE 09355
Attention: Chief, Engineering Branch

3.6.3 Submittal Numbering System

Instructions on the numbering system to be used for construction submittals follows.

3.6.3.1 Submittals

Shop drawings and materials are listed on the Submittal Register (ENG Form 4288) as follows:

List is prepared according to contract specifications and drawings, picking up all items involved in the project.

This list is divided into sections as indicated in the specifications. For example:

Section	01015	"Technical Requirements"
Section	01335	“Design Submittals”
Section	02831	"Chain-Link Fence"
Section	02710	"Sub-drainage System"
Section	03300	"Concrete For Building Construction"
Section	04200	"Masonry"

3.6.3.2 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 entitled “DESCRIPTION OF ITEM SUBMITTED” 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 the 65% Design Submittal 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	65% Plans
ITEM NO. 5	Outline of Construction Specifications to be used

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 Specification Sections included in the Request for Proposal or in the Construction Specifications compiled by the Contractor in the prosecution of work under the solicitation.

3.6.3.3 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 re-submittal, "-2" for the second re-submittal, "-3" for the third re-submittal, etc.

As an example, assume the 65% Design 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 65% Design Re-submittal #1 would be “Transmittal 01335-9.1”. Should a re-submittal again be necessary, it would be Design Re-submittal #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$_{SM}$. 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-AES.pdf” (Figures 1-4) for required Title Block Required Annotations drawing guidance.

3.6.4 Variations

If design or construction submittals show variations from the contract parameters and/or requirements due to site conditions, 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 shall be considered.

3.6.5 Non-Compliance

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the worksite, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

3.7 REVIEW OF CONTRACTOR PREPARED DESIGN DOCUMENTS

3.7.1 general

The work under contract will be subject to continuous review by representatives of the Contracting Officer. Additionally, joint design review conferences with representation by all organizations having a direct interest in the items under review may be held. The 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.

3.7.2 Contractor's Quality Control 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 shall 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.

3.7.3 Government Review

Within 14 days after Notice to Proceed, the Contractor shall submit, for approval, a complete design schedule with all submittals and review times indicated in calendar dates. The Contractor shall update this schedule monthly. After receipt, the Government will be allowed fourteen (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 TAS.

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.

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.

Upon completion of the review the Contractor will be notified by the Contracting Officer Representative that the DrChecks$_{SM}$ file is open for viewing and response to TAS 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, resubmission required

E - NOT Cleared for Construction, see attached comments, resubmission required

FX – Receipt acknowledged, does not comply as noted with contract requirements.

These codes shall NOT be used by the 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.

3.7.3.1 Incorporation of Government Review Comments

The Contractor shall review each comment, furnish a complete response in DrChecks$_{SM}$ 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$_{SM}$, with the next scheduled submittal. The disposition shall identify action taken with citation of location within the relevant design document. Generalized statements of intention such as "will comply" or "will revise the specification" are not acceptable. 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.

If the Contractor disagrees technically with any comment or comments and does not intend to comply with the comment, he must clearly outline, with ample justification, the reasons for noncompliance within five (5) days after close of review period in order that the comment can be resolved.

The Contractor 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$_{SM}$ as a scope change, and notify the COR in writing immediately.

If a design submittal is over one (1) day late in accordance with the latest design schedule, the Government review period may be extended 7 days. Submittal date revisions must be made in writing at least five (5) days prior to the submittal.

3.7.3.2 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 TAS review and subsequent Contractor response for each design submittal. The review conference will be held at the Corps District Office in Kandahar, Afghanistan. The Contractor shall bring the personnel that developed the design submittal to the review conference.

3.7.3.3 Design Deficiencies

Design deficiencies noted by the Government shall be corrected prior to the start of design for subsequent features of work which may be affected by, or need to be built upon, the deficient design work.

3.7.4 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".

3.8 Phased or "Fast-Track" Design

3.8.1 General

If approved by the Government, design and construction sequencing may be effected on an incremental basis as each approved phase or portion (e.g., demolition, geotechnical, site work, exterior utilities, foundations, substructure, superstructure, exterior closure, roofing, interior construction, mechanical, electrical, etc.) of the design is completed. The sequencing of the fast track design may be required to conform Section 01 33 16 DESIGN BUILD AFTER AWARD.

3.8.2 Sequence of Design-Construction (Fast-Track)

After receipt of the Contract Notice to Proceed (NTP) the Contractor shall initiate design, comply with all design submission requirements and obtain Government review of each submission. The contractor may begin construction on portions of the work for which the Government has reviewed the final design submission and has determined satisfactory for purposes of beginning construction. The Contracting Officer will notify the Contractor when the design is cleared for construction. The Government will not grant any time extension for any design resubmittal required when, in the opinion of the Government, the initial submission failed to meet the minimum quality requirements as set forth in the contract.

3.8.3 Notice-to-Proceed for Limited Construction

If the Government allows the Contractor to proceed with limited construction based on pending minor revisions to the reviewed Final Design submission, no payment will be made for any in-place construction related to the pending revisions until they are completed, resubmitted and are satisfactory to the Government.

3.8.4 In-Place Construction Payment

No payment will be made for any in-place construction until all required submittals have been made, reviewed and are satisfactory to the Government.

3.8.5 Commencement of Construction

Construction of work may begin after receipt of the clearance for construction (CFC) letter for each design phase. Any work performed by the Contractor prior to receipt of the clearance for construction, shall be at the Contractor's own risk and expense. Work cleared for construction that does not conform to the design parameters and/or requirements of this contract shall be corrected by the Contractor at no additional cost or time to the Government.

3.9 Conduct of Work

3.9.1 Performance

Perform the work diligently and aggressively, and promptly advise the Contracting Officer of all significant developments.

3.9.2 Telephone Conversations

Prepare a summary, and promptly furnish a copy thereof to the Contracting Officer, of all telephone conversations relating to the design work under this contract.

3.9.3 Cooperation with Others

Cooperate fully with other firms, consultants and contractors performing work under the program to which this contract pertains, upon being advised by the Contracting Officer that such firms or individuals have a legitimate interest in the program, have need-to-know status, and proper security clearance where required.

3.9.4 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. 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.

3.9.5 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.

3.9.6 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.

3.9.6.1 Construction Life Span

Buildings and facilities shall be designed and constructed to serve a life expectancy of more than 25 years, to be energy efficient, and to have finishes, materials, and systems that are low maintenance and low life cycle cost.

3.9.6.2 Operability

Systems including but not necessarily limited to mechanical, electrical, communications, etc., must be simple to operate and easy to maintain.

3.9.6.3 Standardization

Use of standardized materials, products, equipment, and systems is necessary to minimize the requirements for replacement parts, storage facilities, and service requirements.

3.9.6.4 Topographic Surveys, Easements, and Utilities

Unless otherwise stated in the contract, the Contractor will be responsible for detailed topographic mapping, available easements, and utility information for the project.

3.9.6.5 Horizontal and Vertical Control

The survey monuments shall be based on UTM WGS 1984 coordinate system. The horizontal and vertical control established on site shall be a closed loop with third order accuracy and procedures. 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.

3.9.7 Occupational Safety and Health Act

The facilities, systems, and equipment designed under this contract shall comply with the Occupational Safety and Health Act (OSHA), Code of Federal Regulations, Title 29, Chapter XVII, Parts 1910 and 1926. Any problems in incorporating these standards due to conflicts with other technical criteria shall be submitted to the Contracting Officer for resolution.

3.9.8 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 TAS.

3.9.8.1 Existing Construction

Asbestos containing materials (ACM) presently included in existing construction to be rehabilitated or otherwise modified as a result of this project shall be removed and a non-asbestos containing material substituted in lieu thereof.

3.9.8.2 Suspected Asbestos Containing Materials

All such structures and systems shall be inspected to determine the presence or probable presence of ACM. When ACM is suspected, a documented survey will be performed. The survey will be developed into an abatement design and will be made a part of the design documents. In the event no other material is available which will perform the required function or the use of a substitute material would be cost prohibitive due to initial cost and tear-out of existing construction, a waiver for the retention of the asbestos containing material must be obtained from the Contracting Officer.

3.10 ATTACHMENTS

The following attachments form an integral part of this specification:

ENG FORM 4025-R, 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 – AES Title Block

Figure 2 – AES Management Block

Figure 3 – AES Issue Block & Required Notations

Figure 4 – Border Sheet Size

-- END OF SECTION -

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE *(Read instructions on the reverse side prior to initiating this form)*	DATE	TRANSMITTAL NO.

SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS *(This section will be initiated by the contractor)*

TO:	FROM:	CONTRACT NO.	CHECK ONE: ☐ THIS IS A NEW TRANSMITTAL ☐ THIS IS A RESUBMITTAL OF TRANSMITTAL _____
SPECIFICATION SEC. NO. *(Cover only one section with each transmittal)*	PROJECT TITLE AND LOCATION		CHECK ONE: THIS TRANSMITTAL IS FOR ☐ FIO ☐ GOV'T. APPROVAL

ITEM NO. *a.*	DESCRIPTION OF ITEM SUBMITTED *(Type size, model number/etc.)* *b.*	MFG OR CONTR. CAT., CURVE DRAWING OR BROCHURE NO. *(See instruction no. 8)* *c.*	NO. OF COPIES *d.*	CONTRACT REFERENCE DOCUMENT		FOR CONTRACTOR USE CODE *g.*	VARIATION *(See instruction No. 6)* *h.*	FOR CE USE CODE *i.*
				SPEC. PARA. NO. *e.*	DRAWING SHEET NO. *f.*			

REMARKS	I certify that the above submitted items have been reviewed in detail and are correct and in strict conformance with the contract drawings and specifications except as other wise stated. _____ NAME AND SIGNATURE OF CONTRACTOR

SECTION II - APPROVAL ACTION

ENCLOSURES RETURNED *(List by Item No.)*	NAME, TITLE AND SIGNATURE OF APPROVING AUTHORITY	DATE

INSTRUCTIONS

1. Section I will be initiated by the Contractor in the required number 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-R for each entry on this form.

4. Submittals requiring expeditious handling will be submitted on 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-transmittal, letter of transmittal is not required.

8. When a sample of 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 below 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. Refer to attached sheet resubmission required.	FX	--	Receipt acknowledged, does not comply as noted with contract requirements.
D	--	Will be returned by separate correspondence.	G	--	Other *(Specify)*

10. Approval of items does not relieve the contractor from complying with all the requirements of the contract plans and specifications.

(Reverse of ENG Form 4025-R)

SUBMITTAL REGISTER

(ER 415 1-10)

CONTRACT NO.

TITLE AND LOCATION

CONTRACTOR

SPECIFICATION SECTION

ACTIVITY NO a.	TRANS-MITTAL NO. b.	ITEM NO c.	SPECIFICATION PARAGRAPH NUMBER d.	DESCRIPTION OF ITEM SUBMITTED e.	TYPE OF SUBMITTAL: DATA f.	DRAWINGS g.	INSTRUCTIONS h.	SCHEDULES i.	STATEMENTS j.	REPORTS k.	CERTIFICATES l.	SAMPLES m.	RECORDS n.	O&M MANUALS o.	CLASSIFICATION: INFORMATION ONLY p.	GOVERNMENT APPROVED q.	REVIEWER r.	CONTRACTOR SCHEDULE DATES: SUBMIT s.	APPROVAL NEEDED BY t.	MATERIAL NEEDED BY u.	CONTRACTOR ACTION: CODE v.	DATE w.	SUBMIT TO GOVERN-MENT x.	GOVERNMENT ACTION: CODE y.	DATE z.	REMARKS aa.

ENG FORM 4288-R, JAN 97 EDITION OF MAR 95 IS OBSOLETE. PAGE _____ O _____ PAGES (Proponent:

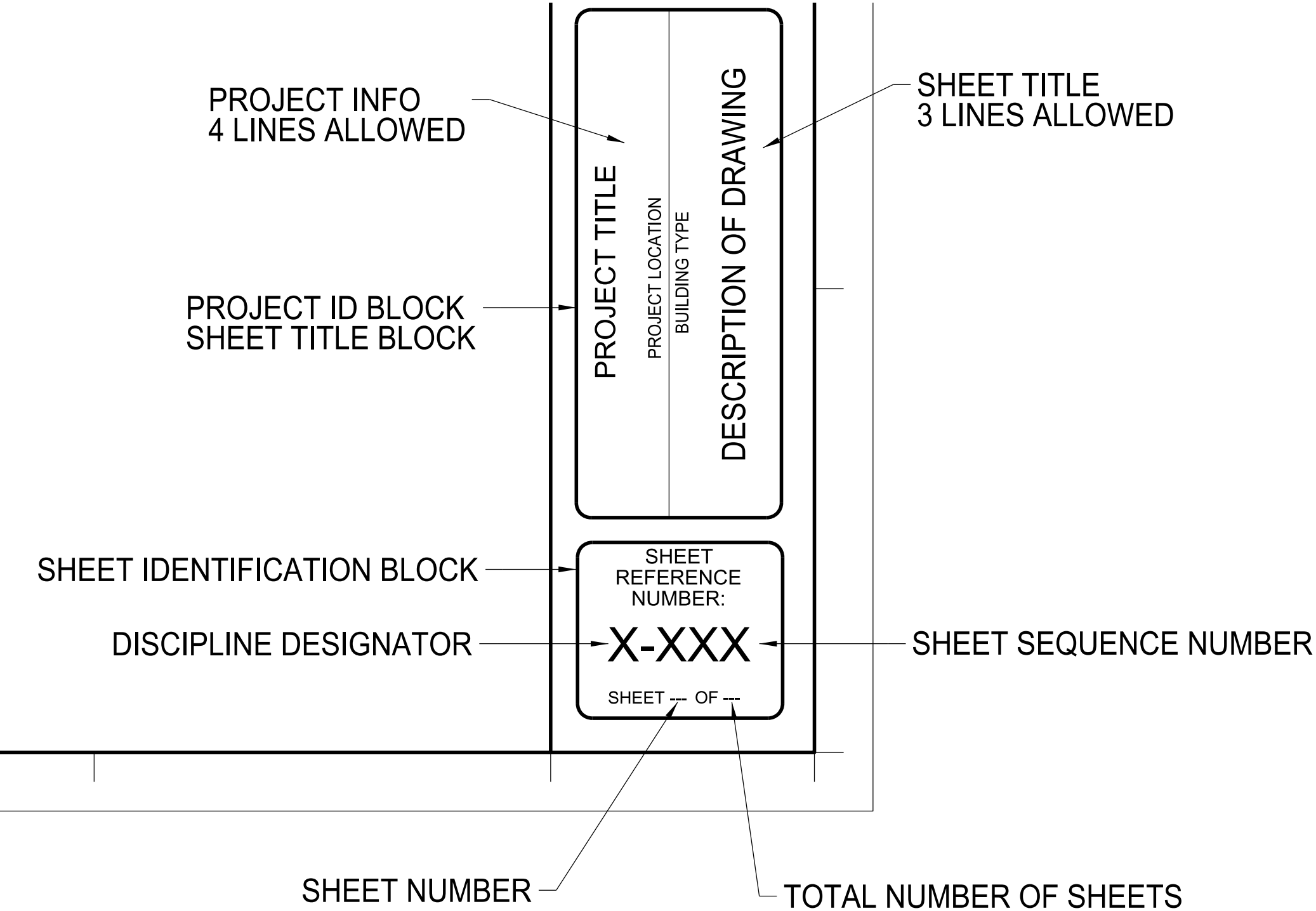

Figure 1: AED-S Title Block

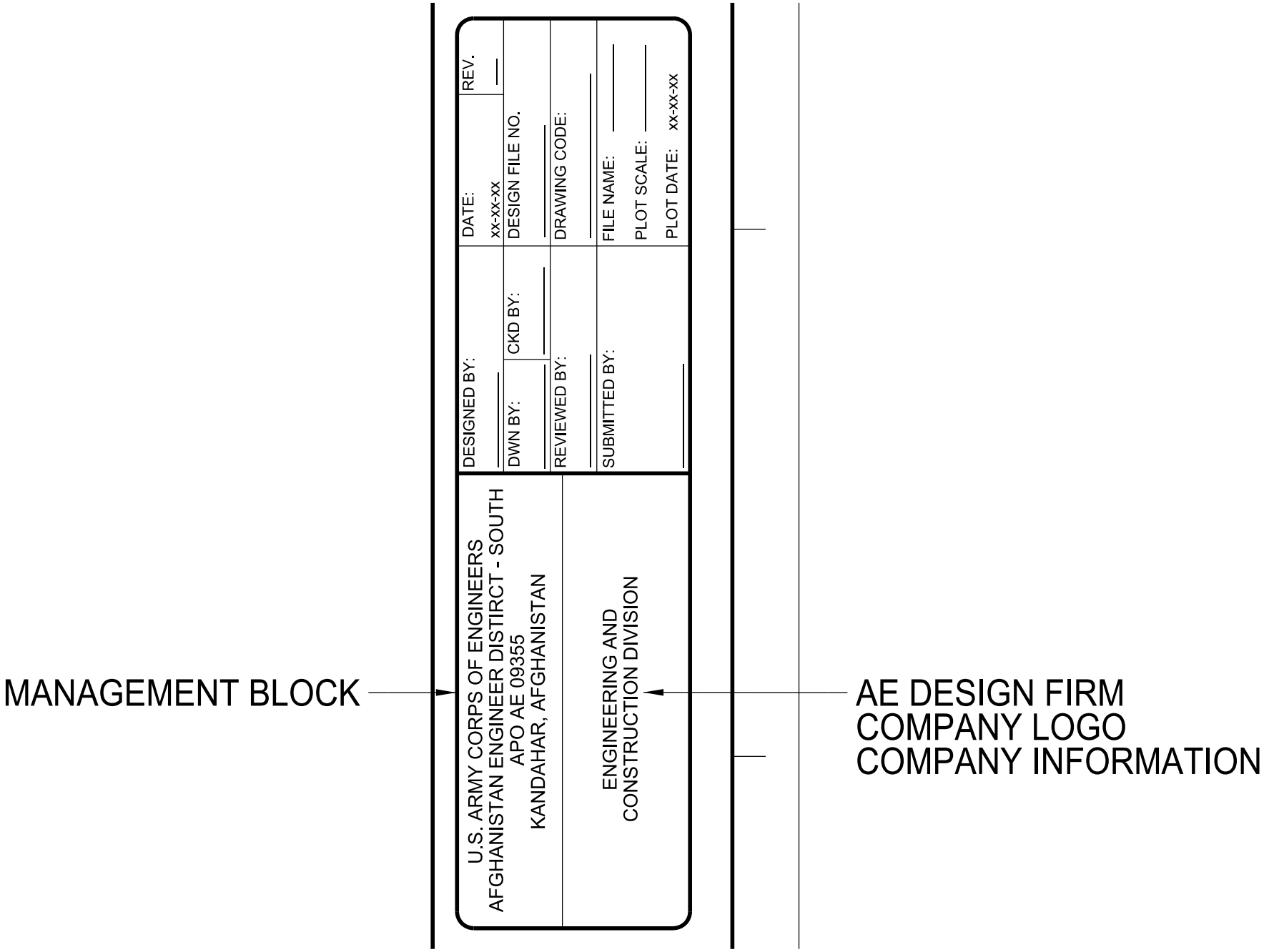

Figure 2: AED-S Management Block

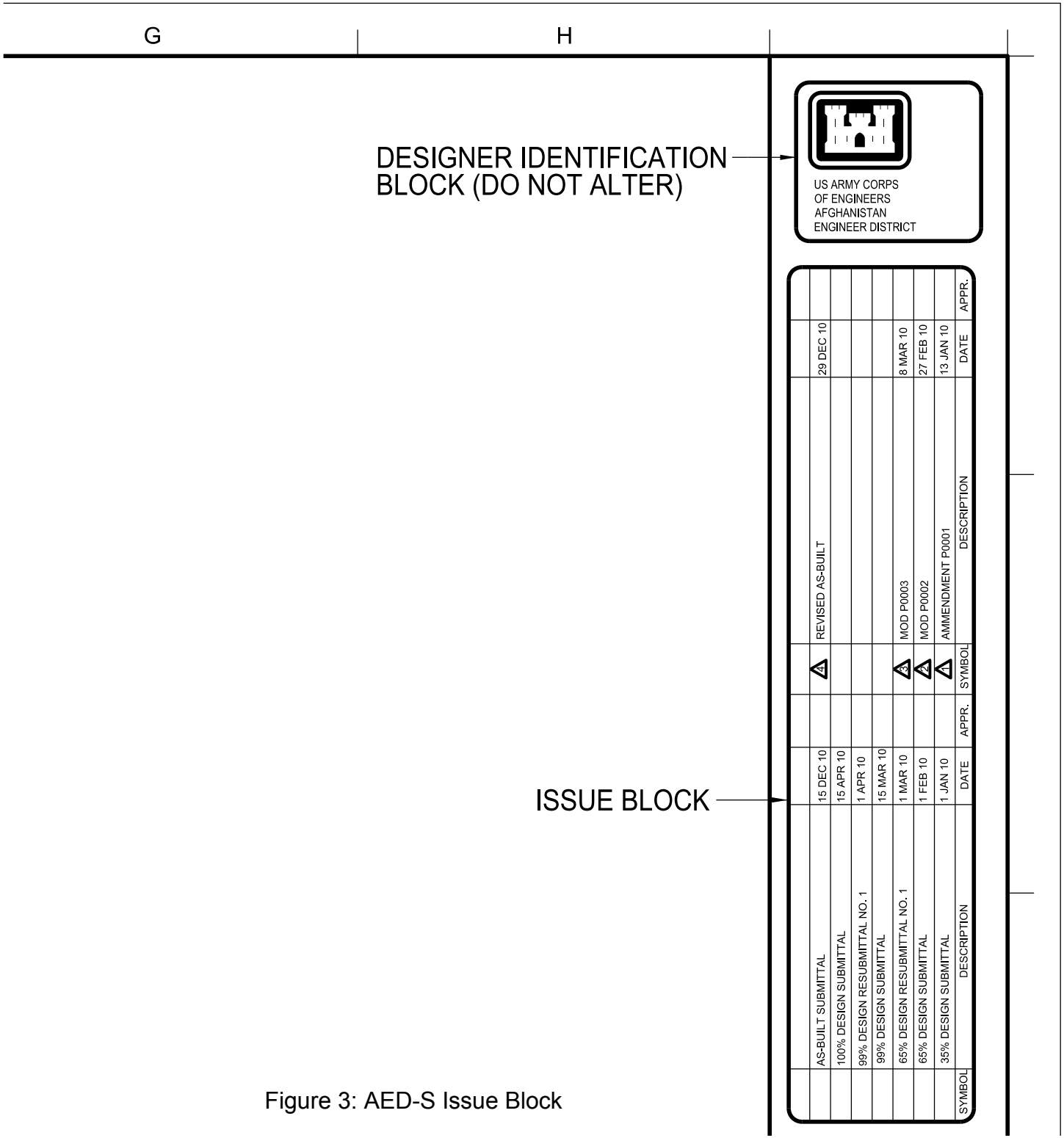

Figure 3: AED-S Issue Block

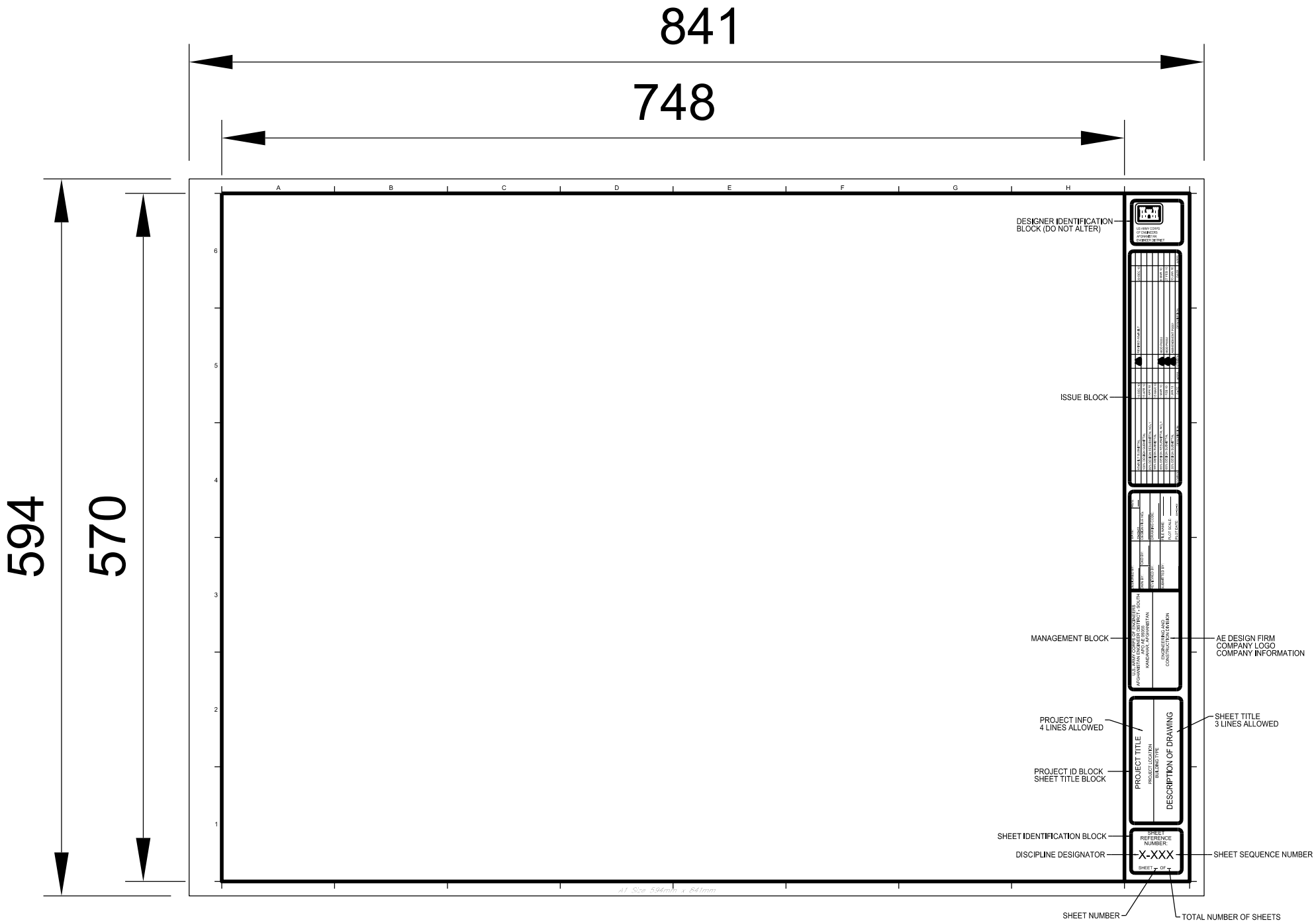

Figure 4: AED-S Sheet Dimensions

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.

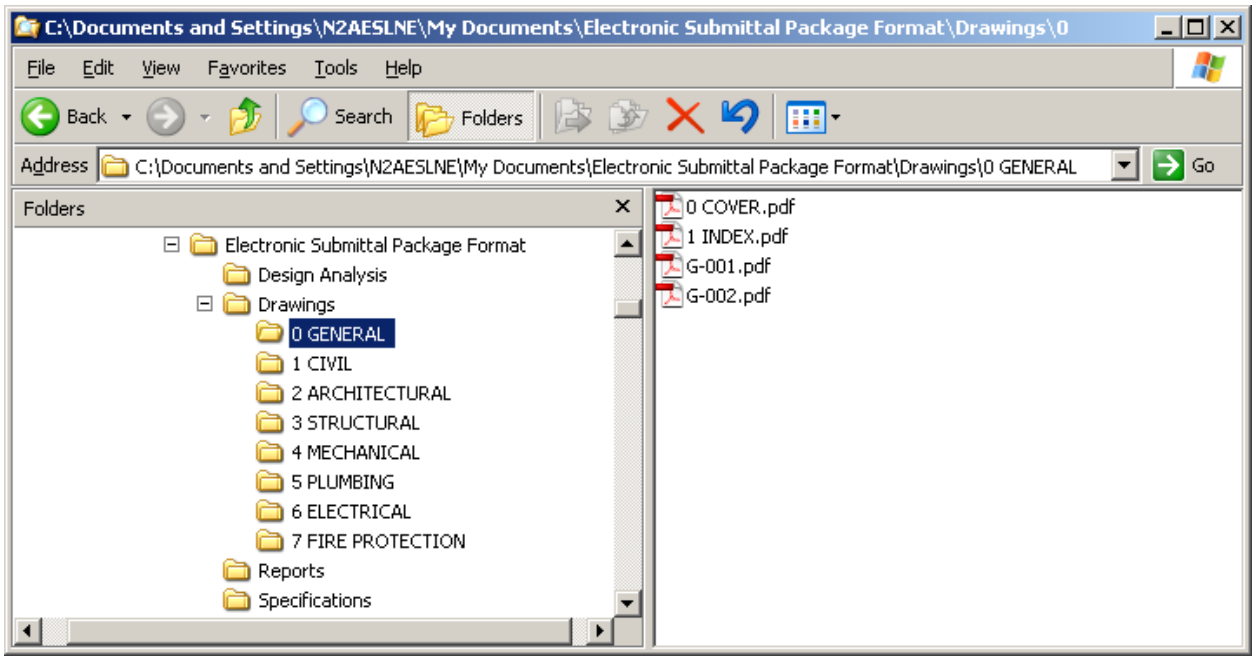

Figure 1: Submittal package file structure

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 meters 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 section of the document. For example, a compound containing three separate buildings would have three 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 meters 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 - -

DIVISION 01 – GENERAL REQUIREMENTS

SECTION 01 33 16

DESIGN-BUILD: DESIGN AFTER AWARD

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PART 1. GENERAL

1.1 SUMMARY

The information contained in this section applies to the design required after award. After award, the Contractor shall develop the accepted proposal into the completed design, as described herein.

1.1.1 References

Referenced Sections

Section 01 32 01, PROJECT SCHEDULE

Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

Section 01 35 26 GOVERNMENTAL SAFETY REQUIREMENTS

Section 01 45 00, QUALITY CONTROL

Section 01 01 50 TECHNICAL REQUIREMENTS

Section 00 55 50, DESIGN CONCEPT DOCUMENTS

Section 01 78 39 PROJECT RECORD DOCUMENTS

FAR Clauses

Clauses 52.242-14, SUSPENSION OF WORK, and 52.249-10, DEFAULT

Clause 52.236-23, RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR

Clause 52.236-25, REQUIREMENTS FOR REGISTRATION OF DESIGNERS

Section 0800 SCR Clauses for Design- Build

Design Build Contract-Order of Precedence

Key Personnel, Subcontractors, and Outside Associates or Consultants)

Responsibility of the Contractor for Design

Warranty of Construction Work

Warranty of Design

Sequence of Design/Construction (Fast Track)

Constructor’s Role During Design

Recommended Insurance Coverage

Value Engineering After Award

Partnering (Highly Recommended)

Deviating From the Accepted Design

Bulletins

Engineering and Construction Bulletin No. ECB 2006-15, Subject: Standardizing Computer Aided Design (CAD) and Geographic Information Systems (GIS) Deliverables for all Military Design and Construction Projects

1.2 SUBMITTALS

Government review is required for submittals listed below Government approval is required for submittals with a "G" designation and Designer of Record (DOR) approval is required for submittals with a "DA" designation:

SD-01 Preconstruction Submittals

Design Quality Control Plan; G

Interim Design Submittals; G

Final Design Submittals; G

Design Complete Submittals; G

Design and Code Checklists; G

1.3 CONTRACTOR-ENGINEER RELATIONSHIP

All items in the scope of work shall be designed and built as one project by a single contractor. The contractor may be a single firm or a team of firms that includes registered Architects and Engineers either employed by or subcontracted to the contractor. Licensing jurisdiction of Architects and Engineers of record shall be verifiable. The contractor shall be the Architect/Engineer-of-Record, regardless of whether the contractor utilizes services of licensed architects and engineers employed by its firm or subcontracts with independent architectural and/or engineering firm(s). The 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 Engineering District South (AES).

1.4 DESIGNER OF RECORD

The Design-Build Contractor (Design-Builder, D-B, or simply Contractor) shall identify, for approval, the Designer of Record (DOR) who will be responsible for each area of design. One DOR may be responsible for more than one area. All areas of design disciplines shall be accounted for by a listed, Professional Registered, DOR. The DOR(s) shall stamp, sign, and date each design drawing and other design deliverables under their responsible discipline at each design submittal stage (see Section, Contract Clause 52.236-25, REQUIREMENTS FOR REGISTRATION OF DESIGNERS).

The DOR(s) shall also be responsible for maintaining the integrity of the design and for compliance with the contract requirements through construction and documentation of the as-constructed condition by coordination, review and approval of extensions of design, material, equipment and other construction submittals, review and approval or disapproval of requested deviations to the accepted design or to the contract, coordination with the Government of the above activities, and by performing other typical professional designer responsibilities.

Section 01 45 00 Contractor Quality Control further specifies experience requirements for the DOR, marking of design submittals, and responsibility for conformance with the submitted Design Quality Control Plan (DQP).

1.5 DESIGN BASIS

Section 00 55 50, DESIGN CONCEPT DOCUMENTS identifies project documents furnished herewith to be used as the basis for the project design. The Contractor shall be required to use the concept documents as a starting point and then "extend" the design to completion, and ultimately produce the final plans and construction specifications. Section 00 55 00 also provides the results of Government review and assumptions on existing conditions. In preparing this request for proposal, the Government has effectively produced conceptual level designs from these documents and produced working estimates of cost. A qualified Contractor should be able to review the same documents, perform independent research as may be appropriate, and prepare an adequate response to this request for proposal.

1.6 SPECIAL CONTRACT REQUIREMENTS FOR DESIGN BUILD

Section 0800 of this contract include the Special Contract Requirements (SCR) for the design build process that are not otherwise in the Federal Acquisition Regulations (FAR). The following SCRs for this design-build project are included:

- Design Build Contract-Order of Precedence

- Key Personnel, Subcontractors, and Outside Associates or Consultants)
- Responsibility of the Contractor for Design
- Warranty of Construction Work
- Warranty of Design
- Sequence of Design/Construction (Fast Track)
- Constructor's Role During Design
- Recommended Insurance Coverage
- Value Engineering After Award
- Partnering
- Deviating From the Accepted Design

PART 2. PRODUCTS

Design products are further specified in Section 01 33 15 SUBMITTAL PROCEDURES – PART 2 PRODUCTS.

PART 3. EXECUTION

3.1 PRE-WORK ACTIVITIES AND CONFERENCES

3.1.1 Design Quality Control Plan

The D-B Contractor shall submit for Government Approval, a Design Quality Control Plan in accordance with Section 014500, QUALITY CONTROL, before design may proceed.

3.1.2 Post Award Conference

The Government will conduct a post award contract administration conference at the project site, as soon as possible after contract award. This will be coordinated with issuance of the contract notice to proceed (NTP). The Contractor, lead DOR and major sub-contractor representatives shall participate. Government representatives will include Government Project Engineer/COR , facility users, facility command representatives, and installation representatives. Prior to the meeting, the Government will provide an agenda, goals, meeting place and time.

The post award conference shall include determination and introduction of contact persons, their authorities, contract administration requirements, discussion of expected processes, and coordination of subsequent meetings for quality control. See Section 014500, QUALITY CONTROL, and paragraph titled Initial Design Conference).

3.1.3 USACE Team

The Government will introduce USACE team members, U.S. and Afghan military command, Kajaki Dam Operations personnel, and representatives from other Contracting firms working at the dam. The D-B Contractor shall introduce major subcontractors, and other needed staff. Expectations and duties of each person shall be defined for all participants. A meeting roster shall be developed and distributed by the Government with complete contact information including name, office, project role, phone, mailing and physical address, and email address. Contact information shall include all job site and duty locations.

3.2 DESIGN BUILD PROCESS

3.2.1 Design Development

The Government and Contractor shall establish comprehensive design development processes including conduct of conferences, expectations of design development at conferences, design approval, and project closeout. The Government will explain contract requirements and the D-B Contractor shall review their proposed project schedule and suggest ways to streamline processes.

3.2.2 Design Conference

The initial design conference may be scheduled and conducted at the project installation within 60 days of contract award, although it is recommended that the partnering process be initiated with or before the initial design conference. Any design work conducted after award and prior to this conference should be limited to site work and is discouraged for other items. All Designers of Record shall participate in the conference. The purpose of the meeting is to introduce everyone, to make sure any needs the Contractor has are assigned, establish schedule dates and critical milestones, and determine the informational requirements of all parties. The D-B Contractor shall conduct the initial design conference.

3.2.3 Pre-Construction Conference

Before starting construction activities, the Contractor and Government will jointly conduct a pre-construction administrative conference to discuss any outstanding requirements and to review local requirements for start of construction. It is possible there will be multiple Pre-Construction Conferences based on the content of the design packages selected by the Contractor. The Contractor will provide minutes of this meeting to all participants.

3.2.4 Sequence of Design Build (Fast Track)

The Kajaki Dam - Tunnel Works project requires an expedited design-build sequence that also follows a carefully sequenced construction operation due to the nature of the tunnel operations, limitations on hydro-regulation of the reservoir, and the detailed inspections that cannot physically be performed until construction begins. The spillway explorations and installation of dam safety instrumentation are in general much more independent of operations at the project site and may therefore be executed with more flexibility.

Major items such as the intake tower and the tunnel dominate the operations. Ancillary items (and their design-build sequence) are defined as those that are NOT critical to the operation providing irrigation flows, e.g. structural and mechanical work items of the intake tower or the tunnel valves.

In general, construction will begin with site inspections resulting in preliminary evaluations and reports. Subsequent designs shall be completed progressively at different levels, i.e. Preliminary (35%), Interim (65%), Final (99%), and Design Complete (100%). The tasks defining level of completion is partly specified herein and partly subjective and depends on the DOR.

Designs supported by an inspection and evaluation shall have the report completed by Interim (65%) design stage.

A Commissioning Plan for all items that require functional operation for the intake tower shall be submitted along with the Interim Design (65%) package. Likewise, a Commissioning Plan for all items that require functional operation for the downstream tunnel works shall be submitted along with the Interim Design (65%) package. If there are any deviations from design, the Contractor shall re-submit the Commissioning Plan with subsequent Final Design (99%) packages.

Training Plans, Lesson Plans, and O&M Manuals shall be submitted along with the Final Design (99%) Packages. Video recordings of all hands on training of project personnel shall be submitted no later than the Final Design stage and prior to any class room training. Professional videos shall be produced after the hands on training sessions according to Section 016600 Training and shall be submitted with the Design Complete package.

The sequence is referred to as “Fast-Track” in the sense that the build phase may proceed before final design at the Interim Phase of design, and as separate packages, subject to the issuance of a Clearance for Construction Letter from the Contracting Officer.

The sequencing shall be completed according to Table 1 below.

Table 1. General Sequencing for Design and Build by Phase

PHASE	DESIGN	BUILD
Pre-Design & Pre-Build	Plans for security, area use, inspections, and explorations.	• None
Tower Phase	Preliminary designs on intake tower and items that are accessible without dewatering the tunnel. Completed inspections on ancillary items (dry items) such as generators, service crane in tunnel Preliminary designs on accessible items with long lead times, e.g. Jet Valves Preliminary designs on options items	• Mobilization and site work to get Contractor established at the project • Conduct inspections which are accessible w/o tunnel closure.
Interim Phase	Preliminary designs on Tunnel items Interim designs on intake tower items including completed evaluation reports Final designs on ancillary items Preliminary and/ or Final designs on options items	• Construct intake tower items required to dewater tunnel including all commissioning and training • Complete necessary inspections in dewatered areas
Tunnel Phase	Interim designs on downstream tunnel items including completed evaluation reports Final designs on intake tower items including completed evaluation reports Final designs on options items	• Construct all downstream tunnel works items in dewatered areas including all commissioning and training • Subsurface explorations completed
Design & Build Complete	Project Closeout and As-built documentation	• Demobilization • Site clean up

3.2.5 Design Build Of Features Optional to Contract

Some items listed in Section 01 01 40 Summary of Work are optional to the contract and therefore to be executed at the discretion of the Contracting Officer. In general, these options will be executed as early as possible and in part dictated by the results of some inspections to be completed by the Contractor. The Notice to Proceed (NTP) for design and build of any option item shall be executed by a “no later than date” determined by the date of submission for inspection, plus the Government review period, plus 30 days. For example, the last date for executing a conduit repair would be about 60 days into the Tunnel Phase after the tunnel has been dewatered assuming timely performance of the design build contractor.

3.3 DESIGN SUBMITTALS

3.3.1 General

Contractor furnished design submittals are the various design documents which primarily consist of field investigations, calculations, design analysis, drawings and construction specifications.

In addition, for each design submittal, the contractor shall submit all non-administrative modifications issued for the contract as part of the Design Submittal package to enable TAS to validate that these modifications have been incorporated into this design submittal.

The Contractor shall clearly label and date all design submittals to reflect the current design stage and date of submission to the Government to avoid confusion between current and previous submittals. The Contractor shall not begin construction work until the Government has reviewed and approved the work presented in each Design Submittal, including complete resolution of all comments, and the Contracting Officer has cleared work 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 Contractor.

The sole responsibility of ensuring that the design submittals comply with contract documents remains with the Contractor, in accordance with this section of the contract. The Government retains the right to comment on the design at any design stage, and the lack of Government comments at a given review cannot be used as a basis for the Contractor to fail to address the Government's comments on subsequent reviews, regardless of design stage. Furthermore, approval of incomplete designs will not relieve the Contractor of the responsibility for any error which may exist, and which may require rework or other appropriate adjustment to the contract terms, as determined at the sole discretion of the Government. 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. Government review, clearance for construction, or approval of post design construction submittals shall not be construed as a complete check, but will indicate only that the general method of construction, materials, detailing and other information are satisfactory.

3.3.2 Total Design Package

A “total design package” is defined as plans, and constructions specifications along with design analyses and inspection reports for all technical disciplines.

3.3.3 Separate Design Package

The Contractor may request a separation of features for design. At the discretion of the COR, the Contractor may sub-divide the design into separate packages for each stage of design. For example, items combined in a single bid item such as “Valve Design” may be designed separately. However, due to potential constraints imposed by the site, operations or the Government, the Contracting Officer may refuse to separate design packages and withhold the CFC letter.

If a separate package is created, the Contractor may proceed with the construction work after the Government has issued a Clearance for Construction (CFC) letter, and review comments have been addressed and resolved to the Government's satisfaction.

3.3.4 Partial Design Submittals

In the interest of expediting construction, the Contracting Officer may approve partial design submittals, procurement of materials and equipment, as well as issue the Cleared for Construction (CFC) Letter. Such partial notices to proceed shall be solely at the discretion of the Contracting Officer. The Contractor must obtain the approval of the Designer of Record (DOR) and the Government’s concurrence for any Contractor proposed revision to the professionally stamped and sealed design reviewed and Cleared for Construction by the Government, before proceeding with the revision. The Government reserves the right to non-concur with any revision to the design, which may impact furniture, furnishings, equipment selections or operations decisions that were made, based on the reviewed and cleared for construction design. Any revision to the design, which deviates from the contract requirements (i.e., the RFP and the accepted proposal), will require a modification, pursuant to the Contract Clause 52.243-4 entitled “CHANGES”, in addition to Government concurrence. The Government reserves the right to disapprove such a revision. Unless the Government initiates a change to the contract requirements, or the Government determines that the Government furnished design criteria are incorrect and must be revised, any Contractor initiated proposed change to the contract requirements, which results in additional cost, shall strictly be at the Contractor's expense. The Contractor shall track all approved revisions to the reviewed and cleared for construction design and shall incorporate them into the As-Built design documentation, in accordance with Section 01 78 00A, CLOSEOUT SUBMITTALS, Paragraphs 1.1 and 1.2, which lists all requirements associated with submission of editable CAD format As-Builts required as part of this contract. The Designer of Record shall

document its professional concurrence on the As-Builts for any revisions by affixing its stamp and seal on the drawings and construction specifications.

3.3.5 Stages of Design

The stages of design submittals described below define Government requirements with respect to process and content. The Contractor shall determine how to best plan and execute the design and review process subject to the minimum required sequencing in the paragraph titled Sequence of Design-Build (Fast Track). As a minimum, the Contractor shall submit the following submittals:

a. Preliminary Design (35%) Submittal – For Information Only
b. Interim Design (65%) Submittal – for Government review
c. Final Design (99%) Submittal – for Government review
d. Design Complete (100%) Submittal documenting the As-built design. – For Information Only

3.3.6 Interim Design Submittals

The Contractor shall submit a single interim design for review, representing all design disciplines. As required in Section 013201, PROJECT SCHEDULE, the Contractor shall schedule its design and construction packaging plan to meet the contract completion period. This submittal is the Government's primary opportunity to review and approve the design for conformance to the solicitation and to the accepted contract proposal and to the building codes at a point where required revisions may be still made, while minimizing lost design effort to keep the design on track with the contract requirements. The requirements for the interim design review submittals and review conferences are described in paragraph INTERIM DESIGN REQUIREMENTS. This is not necessarily a hold point for the design process; the Contractor may designate the interim design submittal(s) as a snapshot and proceed with design development at its own risk. However, due to the sensitive nature of the project and downstream consequences, the Contractor shall not proceed with any construction until the CFC letter has been issued by the Contracting Officer.

3.3.7 Final Design Submittals

Final Design Submittals are required for each design package prior to Government acceptance of that design package for construction. The requirements for the final design submittal review conferences and the Government's acceptance for start of construction are described in paragraph FINAL DESIGN REQUIREMENTS.

3.3.8 Design Complete Submittals

After the final design submission and review conference for a design package, the Contractor shall revise the design package to incorporate the comments generated and resolved in the final review conferences, perform and document a back-check review and submit the final, design complete documents, which shall represent released for construction documents. The requirements for the design complete submittals are described in paragraph titled DESIGN COMPLETE CONSTRUCTION REQUIREMENTS.

3.3.9 Holiday Periods for Government Review or Actions

The Contractor shall not schedule meetings, Government reviews or responses during the last two weeks of December or other designated Government Holidays (including Friday after Thanksgiving) and shall exclude such dates and periods from any durations specified herein for Government actions.

3.3.10 Late Submittals and Reviews

If the Contractor cannot meet its scheduled submittal date for a design package, it must revise the proposed submittal date and notify the Government in writing, at least two weeks prior to the submittal due date, in order to accommodate the Government reviewers' other scheduled activities. If a design submittal is over one (1) day late in accordance with the latest revised design schedule, or if notification of a proposed design schedule change is less than seven (7) days from the anticipated design submittal receipt date, the Government review period may be

extended up to seven (7) days due to reviewers' schedule conflicts. If the Government is late in meeting its review commitment and the delay increases the Contractor's cost or delays completion of the project, Contract Clauses 52.242-14, SUSPENSION OF WORK, and 52.249-10, DEFAULT, provide the respective remedy or relief for the delay.

3.3.11 Government Review And Acceptance Of Design Submittals

Government review and acceptance of design submittals is for contract conformance only and shall not relieve the Contractor from responsibility to fully adhere to the requirements of the contract, including the Contractor's accepted contract proposal, or limit the Contractor's responsibility of design as prescribed under Section , Contract Clause 52.236-23, RESPONSIBILITY OF THE ARCHITECT-ENGINEER CONTRACTOR, or limit the Government's rights under the terms of the contract. The Government reserves the right to rescind inadvertent acceptance of design submittals containing contract deviations not separately and expressly identified in the submittal for Government consideration and approval.

Additional details on the Government review and submittal procedures for design packages are provided in Section 01 33 15 SUBMITTAL PROCEDURES paragraph REVIEW OF CONTRACTOR PREPARED DESIGN DOUMENTS.

3.4 DESIGN CONFIGURATION MANAGEMENT

3.4.1 Internal Procedures

The Contractor shall develop and maintain effective, acceptable Design Configuration Management (DCM) procedures to control and track all revisions to the design documents after the Interim Design submittal through submission of the As-Constructed documents. During the design process, this will facilitate and help streamline the design and review schedule. After the final design is accepted, this process provides control of and documents revisions to the accepted design. The system shall include appropriate authorities and concurrences to authorize revisions, including documentation as to why the revision must be made. The DCM data shall be available to the Government reviewers at all times. The Contractor may use its own internal system with interactive Government concurrences, where necessary or may use the Government's "DrChecks Design Review and Checking System."

3.4.2 Tracking Design Review Comments

Although the Contractor may use its own internal system for overall design configuration management, the Government and the Contractor shall use the DrChecks Design Review and Checking System to initiate, respond to, resolve and track Government design compliance review comments. This system may be useful for other data which needs to be interactive or otherwise available for shared use and retrieval. See paragraph TRACKING COMMENTS IN DRCHECKS, for details on how to establish an account and set-up the DrChecks system for use on the project.

3.4.3 Design and Code Checklists

The Contractor shall develop and complete various discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted with each design submittal, as applicable, as part of the project documentation. See Section 014500, QUALITY CONTROL.

3.5 INTERIM DESIGN REQUIREMENTS

3.5.1 General

At least one interim design submittal, review and conference is required for each design package. The D-B Contractor may include additional interim design conferences or over-the-shoulder reviews, as needed, to assure continued Government concurrence with the design work. The interim submittal review periods and conferences shall be included in the project schedule and shall indicate what part of the design work is at what percentage of completion, per Section 013201, PROJECT SCHEDULE, subparagraph entitled Design and Permit Activities. The

required interim design conferences shall be held when interim design requirements are reached per paragraph entitled Interim Design Deliverables.

3.5.2 Interim Design Deliverables

Interim design deliverables shall include drawings, construction specifications, submittal register, and design analysis for the part of design that the D-B Contractor considers ready for review at 65% level of completion. Inspection reports specified in Section 01 01 50 TECHNICAL REQUIREMENTS shall also be provided to facilitate conference and subsequent direction from the government on design selections. The inspection and evaluation reports shall be "final" and stamped by the DOR.

3.5.2.1 Design Analyses

The designers of record shall prepare and present design analyses with calculations necessary to substantiate and support all design documents submitted. For parts including sitework, site specific civil calculations shall be included. For parts including structural work, structural calculations shall be included. For parts including mechanical work, mechanical calculations shall be included. For parts including electrical work, lighting calculations to determine maintained foot-candle levels, electrical load analysis and calculations, electrical short circuit and protective device coordination analysis and calculations and arc fault calculations shall be included. The Contractor shall submit the geotechnical evaluation report, reports of soil and rock borings and logs, as well as any other investigations performed.

3.5.2.2 Drawings and Construction Specifications

Specifications shall conform to the requirements outlined in Section 01 33 15 SUBMITTAL PROCEDURES – see paragraph CONSTRUCTION SPECIFICATIONS. Drawings shall also conform to the requirements outlined in Section 01 33 15 SUBMITTAL PROCEDURES – see paragraph DRAWINGS.

3.5.3 Procedures

a. After receipt of an Interim Design submittal, the Government will be allowed up to thirty (30) calendar days after receipt of the submittal to review and comment on the interim design submittal. For smaller design packages, especially those that involve only one or a few separate design disciplines, the parties may agree on a shorter review period or alternative review methods (e.g., over-the-shoulder or electronic file sharing). For each interim design review submittal, the COR will furnish to the Contractor, a single consolidated, validated listing of all comments from the various design sections and from other concerned agencies involved in the review process using the DrChecks Design Review and Checking System. The review will be for conformance with the technical requirements of the solicitation and the Contractor's RFP proposal. The Contractor shall furnish disposition of all comments, in writing, through DrChecks. If the Contractor disagrees technically with any comment or comments and does not intend to comply with the comment, the Contractor shall clearly outline, with ample justification, the reasons for noncompliance prior to the closure of the review period in order to provide ample time for the comment to be resolved. The Contractor is cautioned that if it believes the action required by any comment exceeds the requirements of this contract, that it should take no action and notify the COR in writing immediately.

b. In order to facilitate and accelerate the Government code and contract conformance reviews, the Contractor shall identify, track resolution of and maintain all comments and action items generated during the design process and make this available to the designers and reviewers prior to the Interim and subsequent design reviews.

c. The Interim Review Conference will be held for each design submittal at the installation. The Contractor shall bring the personnel that developed the design submittal to the review conference. The conference will take place the week after the Contractor receives the Government's comments. For smaller fast-track packages that involve only a few reviewers, the parties may agree to alternative conferencing methods, such as teleconferencing or televideo.

3.5.4 Interim Review Conference Documentation

The D-B Contractor shall prepare meeting minutes and shall enter final resolution of all comments into DrChecks. Copies of comments, annotated with comment action agreed on, will be made available to all parties before the conference adjourns. Unresolved problems will be resolved by immediate follow-up action at the end of conferences. Valid comments shall be incorporated. The Government reserves the right to reject design document submittals if comments are significant. Participants shall determine if any comments are critical enough to require further design development prior to Government concurrence. Participants shall also determine how to proceed in order to obtain Government concurrence with the design work presented.

3.5.5 Government Review of Interim Design Package

The government will review a "total" Interim Design Package that includes all Plans and Specifications at 65% level of completion, design analyses, final inspection and evaluation reports (if any specified) used to support the design. The Government will check the basis for design and determine if the design has been "extended" according to the performance criteria provided. The government will review the package to determine if design is in conformance to specified codes and criteria. In general, the prescribed specifications provided in Section 01 01 50 Technical Requirements are limited to that necessary to form a design basis at the conceptual level. Therefore, the government will also perform a check on any prescribed specifications. It will be the responsibility of the DOR to demonstrate that any deviation from the prescribed specifications is necessary and this must be documented in the submittal. The Contracting Officer must approve any deviation before issuing CFC Letter.

The full and comprehensive details in the plans and specifications required for Final Design may not be necessary to determine conformance to specified codes and criteria, and therefore not necessarily be a barrier to issuing a CFC letter. Upon received the CFC letter, the Contactor may further extend design and/or initiate construction at risk.

3.6 FINAL DESIGN REQUIREMENTS

3.6.1 General

A final design review and review conference will be held upon completion of final design at the project installation, or - where equipment is available - by video teleconference or a combination thereof, for any design package to receive Government acceptance to allow release of the design package for construction. For smaller separate design packages, the parties may agree on alternative reviews and conferences (e.g., conference calls and electronic file sharing, etc.). The Contractor shall include the final design conference in the project schedule and shall indicate what part of the design work is at 100 percent completion. The final design conference will be held after the Government has had up to Thirty (30) calendar days, after receipt of the submittal, to review the final design package and supporting data. For smaller packages, especially those involving only one or a few design disciplines the parties may agree on a shorter review period.

3.6.2 Final Design Deliverables

Final design deliverables shall include drawings, specifications, submittal register, and design analysis for the part of design that the D-B Contractor considers ready for review at 99% level of completion.

3.6.2.1 Design Analyses

Further to the requirements for Interim Design Analyses the contractor shall update analyses for any required changes. The DOR shall specifically draw attention to any changes and that those changes do not deviate from the contract and code requirements.

3.6.2.2 Final Design Review Conference Documentation

The D-B Contractor shall prepare meeting minutes and shall enter final resolution of all comments into DrChecks. Copies of comments, annotated with comment action agreed on, will be made available to all parties before the

conference adjourns. Unresolved problems will be resolved by immediate follow-up action at the end of conferences. Valid comments shall be incorporated. The Government reserves the right to reject design document submittals if comments are significant. Participants shall determine if any comments are critical enough to require further design development prior to Government concurrence.

3.6.2.3 Government Review of Final Design Package

The government will review a "total" Final Design Package that includes all updated Plans and Specifications at 99% level of completion, and updated design analyses. The government will review the package to determine if the package still meets the contract requirements especially if there has been any deviation from the interim design (65%). In general, the specific details for the updated plans and specifications, and updated design analyses must meet the code and professional standards for As-Built design.

3.6.3 FINAL DESIGN DELIVERABLES

3.6.3.1 General

Final design deliverables of a design package for Government review and acceptance shall consist of: 100-percent complete drawings, 100-percent Division 02-49 specifications, submittal register, design analysis, and any permits required by the contract for each package submitted. Prior to the final design conference, the Contractor shall ensure that the Design Configuration Management (DCM) data and all review comment resolutions are up-to-date. The Contractor shall also have performed independent technical reviews (ITR) and back-checks of previous comment resolutions, as required by Section 014500 QUALITY CONTROL, paragraph Additional Requirements for Design Quality Control (DQC) Plan.

3.6.3.2 Drawings

a. Submit drawings complete with all contract requirements incorporated into the documents to provide a 100 percent design for each package submitted. Prepare all drawings with the Computer-Aided Design and Drafting (CADD) system, organized and easily referenced electronically, presenting complete construction information (see paragraph 3.6.3.3, CADD System).

b. The design documents shall be in compliance with Section 01 33 15, SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS. The D-B Contractor shall use approved vertical Corps of Engineers title blocks and borders on all drawings with the appropriate firm name included within the title block area.

c. The Contractor shall provide complete, detailed drawings that illustrate conformance with the contract. The Contractor is encouraged to utilize graphics, views, notes, and details which make the drawings easier to review or to construct but is also encouraged to keep such materials to those that are necessary.

3.6.3.3 CADD System

Use of CADD is mandatory. A complete set of computerized drawing files shall be submitted. Additionally, all plans and shop drawings shall be published to Adobe PDF. All computerized drawing files shall be submitted in MicroStation file format in the same model and sheet space as the design drawings. If the drawing files are to be created in other than MicroStation (versions 8 or newer), then the proposed CADD software and the conversion software shall be submitted for approval. All conversions shall be made prior to delivery.

3.6.3.4 Paper Copies

A complete set of paper copies of the drawings, printed as standard full-size drawings, per Section 01 33 15, SUBMITTAL PROCEDURES FOR DESIGN-BUILD CONTRACTS shall be submitted. The Designers of Record shall stamp and sign original hard copy sheets as Released For Construction, and provide copies for distribution from this set.

3.6.3.5 Design Analysis

The designers of record shall prepare a design analysis with calculations necessary to validate and support all design work submitted. The responsible DOR shall stamp, sign and date the design analysis. Identify the software used where applicable (name, version, vendor). Generally, provide design analyses individually, in an original (file copy) and one copy for the assigned Government reviewer. Do not combine multi-disciplined volumes of design-analysis, unless multiple copies are provided to facilitate multiple reviewers (one copy per each separate design analysis included in a volume).

3.6.3.6 Specifications

Further to the Interim Design Requirements, specifications shall be 100 percent complete and in final form. Prepare and submit specification sections (Division 02-49) as required to define project design requirements, materials, and workmanship; to coordinate with design drawings; to obtain accurate subcontractor bids; and to permit construction of the project features.

3.6.3.7 Submittal Register

The D-B Contractor shall prepare and update the Submittal Register and submit it with each design package. The Contracting Officer or Contracting Officer's Representative may request submittals in addition to those specified when deemed necessary to adequately describe the work covered in the respective sections.

3.6.3.8 Acceptance and Clearance for Construction

At the conclusion of the Final Design Review (after resolutions to the comments have been agreed upon between DOR and Government reviewers), the Contracting Officer or the Contracting Officers Representative (COR) will accept the Final Design submittal for the design package in writing and allow construction to start for that design package. The Government may withhold acceptance until all major corrections have been made or if the final design submittal requires so many corrections, even though minor, that it isn't considered acceptably complete.

3.7 DESIGN COMPLETE CONSTRUCTION DOCUMENT REQUIREMENTS

After the Final Design submittal and Review Conference and after Government acceptance of the Final Design, the Contractor shall revise the design documents for the design package to incorporate the comments generated and resolved in the final review conference, perform and document a back-check review and submit the final design complete documents. The following deliverables are required for distribution and field use: All documentation and supporting design analysis in final form, as well as the final review comments, disposition, and the back-check. As part of the quality assurance process, the Government may perform a back-check of the released for construction documentation. The Contractor shall promptly correct any errors or omissions found during the Government back-check. The Government may withhold retainage from progress payments for work or materials associated with a final design package until this submittal has been received and the Government determines that it is complete.

3.8 TRANSMITTAL FORM (ENG FORM 4025)

The sample transmittal form (ENG Form 4025 - Attachment A2) shall be used for submittals in accordance with the instructions on the reverse side of the form per Section 013315, SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

3.9 TRACKING COMMENTS IN DRCHECKS$_{SM}$

3.9.1 General

All TAS 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$_{SM}$". The web link to DrChecks$_{SM}$ is:

https://www.projnet.org/projnet/binKornHome/index.cfm

The D-B Contractor shall enter, track, and back-check comments. Designers of Record shall annotate comments timely and specifically to indicate exactly what action will be taken or why the action is not required. Comments considered critical by the conference participants shall be flagged as such.

3.9.2 DrChecks Review Comments

a. The D-B Contractor shall monitor DrChecks to assure all comments are annotated and agreed to by the designers and reviewers prior to the next submittal. The DrChecks comments and responses shall be printed and included in the design analysis for record.
b. Conference participants (reviewers) will expect coordination between Design Analysis calculations and the submitted design. Reviewers will also focus on the design submittal's satisfaction of the contract requirements.
c. The Designers of Record shall answer each comment in DrChecks with a formal response prior to the next submittal, clearly indicating what action will be taken and what drawing/spec will change. Designers of Record are encouraged to directly contact reviewers to discuss and agree to the formal comment responses rather than relying only on DrChecks and review meetings to discuss comments. With the next design conference, reviewers will back-check answers to the comments against the submittal, in addition to reviewing additional design work.
d. Comments that, in the D-B Contractor's opinion, require effort outside the scope of the contract shall be clearly indicated as such in DrChecks. The D-B Contractor shall not proceed with work outside the contract until a modification to the contract is properly executed, if one is necessary.

3.9.3 DrChecks Initial Account Set-Up

a. Upon notification of award, the contractor shall immediately coordinate with the Chief, Quality Assurance Branch, TAS to acquire a vendor identification and a brief tutorial on the use of DrChecks$_{SM}$. The contractor is responsible for providing their own DrChecks$_{SM}$ Administrator within their own design staff personnel to access and accomplish actions within DrChecks$_{SM}$.
b. To initialize an office's use of DrChecks, choose a contact person within the office to call the DrChecks Help Desk at 800-428-HELP, weekdays from 8AM-5PM, United States Central time (Coordinated Universal Time -06). This POC will be given an office password to distribute to others in the office. Individuals can then go to the hyperlink at {http://www.projnet.org} and register as a first time user. Upon registration, each user will be given a personal password to the DrChecks system.
c. Once the office and individuals are registered, the COE's project manager or lead reviewer will assign the individuals and/or offices to the specific project for review. At this point, persons assigned can make comments, annotate comments, and close comments, depending on their particular assignment.

3.9.4 Notification to Contractor

At completion of the government review, a notification will be issued to the Contractor by the Contracting Officer’s representative that the particular DrChecks$_{SM}$ file will be opened to the Contractor. Until this time, the Contractor is not able to view any TAS comments for that particular Design Submittal.

3.9.5 DrChecks Reviewer Role

The D-B Contractor shall take the role of the reviewer to enter comments into the DrChecks system that result from each design conference. To enter comments:

a. Log into DrChecks.
b. Click on the appropriate project.
c. Click on the appropriate review conference. An Add comment screen will appear.
d. Select or fill out the appropriate sections (particularly comment discipline and type of document for sorting) of the comment form and enter the comment in the space provided.

e. Click the Add Comment button. The comment will be added to the database and a fresh screen will appear for the next comment you have.
f. Once comments are all entered, exit DrChecks by choosing "My Account" and then Logout.

3.9.6 DrChecks Comment Evaluation

The role of the designers of record is to evaluate and respond to the comments entered by the D-B Contractor. To respond to comments:

a. Log into DrChecks.
b. Click on the appropriate project.
c. Under "Evaluate" click on the number under "Pending."
d. Locate the comments that require your evaluation. (Note: If you know the comment number you can use the Quick Pick window on your home page in DrChecks; enter the number and click on go.)
e. Select the appropriate evaluation (concur, non-concur, for information only, or check and resolve) and add the response.
f. Click on the Add button. The evaluation will be added to the database and a fresh screen will appear with the next comment.
g. Once evaluations are all entered, exit DrChecks by choosing "My Account" and then Logout.
h. Collaboration between designer and reviewer regarding clarification of complicated comments is encouraged by direct communication. The resultant agreement is documented in Dr.Checks by the evaluator.

3.9.7 DrChecks Back-check

At the following design conference, participants will back-check comment annotations against newly presented documents to verify that the designers' responses are acceptable and completed. The D-B Contractor and Government reviewers shall enter additional back-check comments, as necessary or close those that are resolved as a result of the design conferences:

a. Log into DrChecks.
b. Click on the appropriate project.
c. Under "My Backcheck" click on the number under "Pending."
d. If you agree with the designer's response select "Close Comment" and add a closing response if desired.
e. If you do not agree with the designer's response or the submittal does not reflect the response given, select "Issue Open," enter additional information.
f. Click on the Add button. The back-check will be added to the database and a fresh screen will appear with the next comment.
g. Once back-checks are all entered, exit DrChecks by choosing "My Account" and then Logout. The design is completed and final when there are no pending comments to be evaluated and there are no pending or open comments under back-check.

3.9.8 DrChecks Comment Clarification

If any review comment requires clarification and/or amplification to assure understanding, the Contractor shall notify the Contracting Officer. The Contractor is cautioned in that if he believes the action required by any comment exceeds the requirements of this contract, that he should take no action and notify the COR in writing immediately.

3.10 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.

Written Notice to Proceed (NTP)	Duration	Following Contract Award
Pre-Design Pre-Build	90	90
Tower Phase	180	270
Interim Phase	190	460
Tunnel Phase	180	640
Design Complete & Build Complete	90	730
Warranty Period Inspection (See Section Project Schedule)	120, 270	-

– SECTION END –

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SAFETY AND OCCUPATIONAL HEALTH REQUIREMENTS

PART 1 GENERAL

1.1. SUMMARY

For contractor safety on projects associated with this program, compliance with EM 385-1-1 safety requirements will be the long-term goal reached by growing a safety culture. This compliance will, by necessity, be achieved through a phased-in process. In the Commander's letter at the preface of the EM 385-1-1, he acknowledges that in OCONUS locations, strict compliance with the manual may not be possible – and through the hazard analysis process, safety measures can be developed to attain the same degree of safety.

1.2. REFERENCES

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

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI A10.32	Personal Fall Protection - Safety Requirements for Construction and Demolition Operations
ANSI Z359 (2010)	Safety Requirements for Personal Fall Arrest Systems
ASME B30.3(2009)	Construction Tower Cranes

ASME INTERNATIONAL (ASME)

ASME B30.22(2010)	Articulating Boom Cranes
ASME B30.5(2007)	Mobile and Locomotive Cranes

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 10(2010)	Portable Fire Extinguishers
NFPA 241(2009)	Safeguarding Construction, Alteration, and Demolition Operations
NFPA 51B(2009)	Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70(2012)	National Electrical Code
NFPA 70E(2010)	Electrical Safety in the Workplace

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1(2008)	Safety and Health Requirements

[including all changes located at http://140.194.76.129/publications/eng-manuals/, Dari Option available]

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 1919	Gear Certification
29 CFR 1926	Safety and Health Regulations for Construction
29 FR 1926.500	Fall Protection

1.3. SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with SECTION SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS:

SD-01 Preconstruction Submittals

Submittal	Paragraph
Accident Prevention Plan (APP); G, District Safety Office	1.4
Activity Hazard Analysis (AHA); G, District Safety Office	1.11
Crane Critical Lift Plan; G, District Safety Office	1.11.1 (d)
Proof of qualification for Crane Operators; G, District Safety Office	1.8.1.3
Demolition Plan/Safe Clearance Procedures; G	1.18
Outage Request; G	3.7.1
Loading Plan for Cranes and Heavy Equipment.	3.14

SD-06 Test Reports

Reports: Submit reports as their incidence occurs, in accordance with the requirements of the paragraph entitled, "Reports."

Accident Reports; G	1.16.1
Monthly Exposure Reports; G	1.16.3

Crane Reports; G	1.16.4

SD-07 Certificates

Confined Space Entry Permit; FIO	1.8.1.2
Hot Work Permits; FIO	1.17

Submit one copy of each permit/certificate attached to each Daily Quality Control Report.

1.4. UNEXPLODED ORDINANCE (UXO)/MINES

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 existing site has had numerous construction projects including underground utilities and foundations etc., and has been occupied and under security for an extended period of time. This site is therefore classified as "LOW PROBABILITY" for existence of UXO/Mines, but the contractor shall be aware that this site does not have demining certificates.

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.

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 United Nations Mine Action Center (UNMAC).

NOTE 1: For UXO/mine information, the following points of contact from the UN Mine Action Center of Afghanistan are provided:

Mohammad Sediq, Chief of Operations,
mohammad.sediq@macca.org.af
+93 (0)705 966 400 and +93 (0) 700 295 207
Mr. Mullah Jan
MACCA Senior Operations Manager
Mullah.jan@macca.org.af
+93 (0) 700 295 207

UXO Safety/ Mine clearance COR, USACE
tas.uxo-deminingsafety@usace.army.mil

Jeffrey Helmick USACE OESS/COR Mine Clearance AES
jeffrey.a.helmick2@usace.army.mil
Roshan: 079-403-1452
Comm: 540-723-6129

Before initiation of work at the job site, all Accident Prevention Plans, and any other safety related plans shall be submitted and reviewed by the TAS Safety Office.

1.5. DEFINITIONS

a. Competent Person for Fall Protection. A person who is capable of identifying hazardous or dangerous conditions in the personal fall arrest system or any component thereof, as well as their application and use with related equipment, and has the authority to take prompt corrective measures to eliminate the hazards of falling.

b. High Visibility Accident. Any mishap which may generate publicity and/or high visibility.

c. Medical Treatment. Treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

d. Qualified Person for Fall Protection. A person with a recognized degree or professional certificate, extensive knowledge, training and experience in the field of fall protection who is capable of performing design, analysis, and evaluation of fall protection systems and equipment.

e. Recordable Injuries or Illnesses. Any work-related injury or illness that results in:

(1) Death, regardless of the time between the injury and death, or the length of the illness;

(2) Days away from work (any time lost after day of injury/illness onset);

(3) Restricted work;

(4) Transfer to another job;

(5) Medical treatment beyond first aid;

(6) Loss of consciousness; or

(7) A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (1) through (6) above.

f. "USACE" property and equipment specified in USACE EM 385-1-1 should be interpreted as Government property and equipment.

1.6. DRUG PREVENTION PROGRAM

Conduct a proactive drug and alcohol use prevention program for all workers, prime and subcontractor, on the site. Ensure that no employee uses illegal drugs or consumes alcohol during work hours. Ensure there are no employees under the influence of drugs or alcohol during work hours. After accidents, collect blood, urine, or saliva specimens and test the injured and involved employees for the influence of drugs and alcohol. A copy of the test shall be made available to the Contracting Officer upon request.

1.7. 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.

1.8. SITE QUALIFICATIONS, DUTIES AND MEETINGS

1.8.1.Personnel Qualifications

1.8.1.1. Site Safety and Health Officer (SSHO)

Site Safety and Health Officer (SSHO) shall be provided at the work site at all times to perform safety and occupational health management, surveillance, inspections, and safety enforcement for the Contractor. The Contractor Quality Control (QC) person cannot be the SSHO on this project.

The SSHO shall meet the following requirements: Certification card for 30-hour OSHA construction safety class or equivalent (NCCCO or European) within the last 3 years. SSHO must be fluent in English and the local language for communication with the GDA. Competent person training as needed.

Site Safety and Health Officer (SSHO) shall meet the requirements of EM 385-1-1

1. The SSHO is also required to have five (5) years of construction industry safety experience or three (3) years if he/she possesses a Certified Safety Professional (CSP) or safety and health degree. (For complex or high hazard projects, the SSHO shall have a minimum of ten (10) years of safety-related work with at least five (5) years experience on similar type projects.

2. The SSHO(s), as a minimum, must have completed the 30-hour OSHA Construction safety class or as an equivalent, 30 hours of formal construction safety and health training covering the subjects of the OSHA 30-hour course (see Appendix A, paragraph 4.b. in EM385-1-1 applicable to the work to be performed and given by qualified instructors.

3. SSHOs shall maintain this competency through 24 hours of formal safety and health related coursework every four (4) years.

The SSHO shall have the following level of experience:

1. A minimum of 5 years safety work on similar projects.
2. 30-hour OSHA construction safety class or equivalent within the last 5 years.
3. An average of at least 24 hours of formal safety training each year for the past 5 years.
4. Competent person training as needed.

1.8.1.2. 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 Contractor to assess confined spaces and who possesses demonstrated knowledge, skill and ability to:

a. Identify the structure, location, and designation of confined space 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. Assess hazardous conditions including atmospheric hazards in confined space and adjacent spaces and specify the necessary protection and precautions to be taken;

d. Determine ventilation requirements for confined space entries and operations;

e. Assess hazards associated with hot work in confined and adjacent space and determine fire watch requirements; and,

f. Maintain records required.

1.8.1.3. Crane Operators

Crane operators shall meet the requirements in USACE EM 385-1-1, Section 16.B. (See Change 6 at http://140.194.76.129/publications/eng-manuals)

1.8.1.4. Divers

All divers shall meet the requirements of EM385-1-1 (2008) Section 30 and Appendix O. Failure to meet these requirements will be cause for rejection or cessation of operations.

1.8.2.Personnel Duties

1.8.2.1. Site Safety and Health Officer (SSHO)/Superintendent

a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Safety inspection logs shall be attached to the Contractors' daily quality control report.

b. Conduct mishap investigations and complete required reports. Maintain an accident/injury log such as the OSHA Form 300 or host nation equivalent, and Daily Production reports for prime and sub-contractors.

c. Be on site at all times while work is being performed.

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.

1.8.2.2. Competent person

A Competent Person shall be provided for all of the hazards identified in the Contractor's Safety and Health Program in accordance with the accepted Accident Prevention Plan, and shall be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. Provide the credentials of the Competent Persons(s) to the Contracting Officer for acceptance in consultation with the Safety Office.

1.9. MEETINGS

1.9.1.Preconstruction Conference

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project shall attend the preconstruction conference. This includes the project superintendent, site safety and health officer, quality control supervisor, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

b. The Contractor shall discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer's representative as to which phases will require an analysis. In addition, a schedule for the preparation, submittal, review, and acceptance of AHAs shall be established to preclude project delays.

c. Deficiencies in the submitted APP will be brought to the attention of the Contractor at the preconstruction conference, and the Contractor shall revise the plan to correct deficiencies and re-submit it for acceptance. Work shall not begin until there is an accepted APP.

d. The functions of a Preconstruction conference may take place at the Post-Award Kickoff meeting for Design Build Contracts.

1.9.2. 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.

1.10. TRAINING

1.10.1. 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.

1.10.2. 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.

1.10.3. Training on Activity Hazard Analysis (AHA)

Prior to beginning a new phase, training will be provided to all affected

1.11. 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. An TAS Minimum Basic Outline for Contractor APP Template is provided at the end of this section. Cover all paragraph and subparagraph elements in USACE EM 385-1-1, Appendix A, "Minimum Basic Outline for Accident Prevention Plan". Specific requirements for some of the APP elements are described below. The APP shall be job-specific and shall address any unusual or unique aspects of the project or activity for which it is written. The APP shall interface with the Contractor's overall safety and health program. Any portions of the Contractor's overall safety and health program referenced in the APP shall be included in the applicable APP element and made site-specific. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP shall be signed by the person and firm (senior person) preparing the APP, the Contractor, the on-site superintendent, the designated site safety and health officer.

In addition to following the requirements defined by EM 385-1-1, the Contractor shall submit for approval as part of the APP a DBA Insurance Plan describing how the following will be met including: (1) properly and promptly submit an injury claim within seven days of the incident, (2) provide Resident/Area Engineer with copies of submitted claim(3) gathering contact information of workers and their family, (4) follow-up on claim's status, (5) provided weekly claims report status to the Resident/Area Engineer,(6) providing prompt payment to an injured worker, or the family of a deceased worker, and (7) provide Resident/Area Engineer confirmation that payment has been provided from DBA insurance provider.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP.

Once accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP will be cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified.

Once work begins, changes to the accepted APP shall be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and quality control manager. Should any hazard become evident, stop work in the area, secure the area, and develop a plan to remove the hazard. Notify the Contracting Officer within 24 hours of discovery. In the interim, all necessary action shall be taken to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public, and the environment.

Copies of the accepted plan will be maintained at the Contracting Officer's office and at the job site.

The APP shall be continuously reviewed and amended, as necessary, throughout the life of the contract. Unusual or high-hazard activities not identified in the original APP shall be incorporated in the plan as they are discovered.

1.11.1. 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. Current competent person and safety training certificates shall be included in the Accident Prevention Plan (APP).

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 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 EM 385-1-1, Section 16.T.

(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 shall be submitted for review. Limitations on list and trim for proposed marine plant equipment shall be verified by a registered Naval Architect.

e. Fall Protection and Prevention (FP&P) Plan. The plan shall be site specific and address all fall hazards in the work place and during different phases of construction. It shall address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 1.8 m (6 feet). A qualified person for fall protection shall prepare and sign the plan. The plan shall include fall protection and prevention systems, equipment and methods employed for every phase of work, responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and

monitoring methods. Fall Protection and Prevention Plan shall be revised every six months for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. The accepted Fall Protection and Prevention Plan shall be kept and maintained at the job site for the duration of the project. The Fall Protection and Prevention Plan shall be included in the Accident Prevention Plan (APP).

1.12. ACTIVITY HAZARD ANALYSIS (AHA)

The Activity Hazard Analysis (AHA) format shall be in accordance with USACE EM 385-1-1, and shall be written in both English and the host nation language. Submit the AHA for review at least 15 calendar days prior to the start of each phase. Format subsequent AHAs as amendments to the APP. The analysis should be used during daily inspections to ensure the implementation and effectiveness of the activity's safety and health controls.

The AHA list will be reviewed periodically (at least monthly) at the Contractor supervisory safety meeting and updated as necessary when procedures, scheduling, or hazards change.

The activity hazard analyses shall be developed using the project schedule as the basis for the activities performed. Any activities listed on the project schedule will require an AHA. The AHAs will be developed by the contractor, supplier or subcontractor and provided to the prime contractor for submittal to the Contracting Officer.

1.13. DISPLAY OF SAFETY INFORMATION

Within 1 calendar day after commencement of work, erect a safety bulletin board at the job site. The safety bulletin board shall include information and be maintained as required by EM 385-1-1, section 01.A.06.

1.14. SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project. Maintain applicable equipment manufacturer's manuals.

1.15. 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. EM385-1-1 03A03 requires that the level of available medical treatment be progressive with the number of personnel comprising the work population (including security personnel).

1.16. REPORTS

1.16.1. Accident Reports

For recordable injuries and illnesses, and property damage accidents resulting in at least $2,000 in damages, the Prime Contractor shall conduct an accident investigation to establish the root cause(s) of the accident, complete the USACE Accident Report Form 3394 and provide the report to the Contracting Officer within 5 calendar day(s) of the accident. The Contracting Officer will provide copies of any required or special forms.

1.16.2. Accident Notification

Notify the Contracting Officer as soon as practical, but not later than eight 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.). For all accidents involving a fatality, permanent total disability, hospitalization of three or more persons, or property damage of $500,000 or more, the Contractor shall promptly suspend all operations at the scene of the accident and notify the Resident Engineer of the occurrence.

The Contractor shall immediately provide for the rescue and/or care of the injured. Except in situations where safety may be compromised, access to the area shall be restricted and the scene left undisturbed until investigated by a Government appointed board of investigation and until the Contractor is authorized to resume operations.

1.16.3. Monthly Exposure Reports

Monthly exposure reporting to the Contracting Officer is required to be attached to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both prime and subcontractor. The Contracting Officer will provide copies of any special forms.

1.16.4. Crane Reports

Submit crane inspection reports required in accordance with USACE EM 385-1-1, Appendix I and as specified herein with Daily Reports of Inspections.

1.17. 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 Site Safety and Health Officer. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. The Contractor will provide at least two (2) six kilogram ABC rated extinguishers for normal "Hot Work". All extinguishers shall be current inspection tagged, approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch shall be trained in fire fighting techniques and remain on-site for a minimum of 120 minutes after completion of the task or as specified on the hot work permit.

When starting work in the facility, Contractors shall require their personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency phone numbers. ANY FIRE, NO MATTER HOW SMALL, SHALL BE REPORTED.

1.18. SAFE CLEARANCE PROCEDURE PLAN

Prior to any on-site demolition, dis-assembly, or interruption of service for any system components generating hazardous energy, a plan defining safe clearance procedures for lock-out/tag-out shall be submitted for review and acceptance by the Government.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1. CONSTRUCTION AND/OR OTHER WORK

Before initiation of work at the job site, an accident prevention plan, written by the Contractor for the specific work and hazards of the contract and implementing in detail the pertinent requirements of EM 385-1-1, will be reviewed and found acceptable by designated Government personnel. Specific requirements for development of the accident prevention plan are found in sections 01.A and Appendix A of EM 385-1-1.

Before beginning each activity involving a type of work presenting hazards not experienced in previous project operations or where a new work crew or subcontractor is to perform the work, activity hazard analysis (AHA) shall be prepared by the Contractor performing the work activity. See paragraph 01.A.13 of EM 385-1-1.

The Contractor shall require subcontractors to submit their plan of operations showing methods they propose to use in accomplishing major phases of work.

The Contractor shall be prepared to discuss the plans in conferences convened by the Contracting Officer prior to starting work on each major phase of operation. Plans shall include all pertinent information such as layout of haul roads, access roads, storage areas, electrical distribution lines, methods of providing minimum exposure to overhead loads, and methods of access to work areas. The plan for accomplishing the initial work phase shall be submitted within 15 calendar days after award of the contract. Plans for subsequent major phases of work shall be submitted not later than 15 calendar days prior to initiation of work on each major phase.

All areas where construction, demolition, alteration, building, or similarly related activities take place, all workers shall have the following minimum personal protective clothing and equipment:

1. Short sleeve shirt.
2. Long trousers.
3. Safety-toed safety boots.
4. Hard hat.
5. Eye protection

Eye and face protection equipment shall meet the requirements of ANSI/ American Society of Safety Engineers (ASSE) Z87.1, and bear a legible and permanent "Z87" logo to indicate compliance with the standard. Eye and face protection equipment shall be distinctly marked to facilitate identification of the manufacturer and provides side protection.

Persons involved in activities that subject the hands to injury (for example, cuts, abrasions, punctures, burns, chemical irritants, toxins, vibration, and forces that can restrict blood flow) shall select and use hand protection appropriate for the hazard in accordance with ANSI/International Safety Equipment Association (ISEA) 105.

Protective equipment shall be of heat, fire, chemical, and/or electrical-resistive material when conditions require protection against such hazards.

3.1.1.Falling Object Protection

All areas must be barricaded to safeguard employees. When working overhead, barricade the area below to prevent entry by unauthorized employees. Construction warning tape and signs shall be posted so they are clearly visible from all possible access points. When employees are working overhead all tools and equipment shall be secured so that they will not fall. When using guardrail as falling object protection, all openings shall be small enough to prevent passage of potential falling objects.

3.1.2.Hazardous Material Use

Each hazardous material must receive approval prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material. Any work or storage involving hazardous chemicals or materials must be done in a manner that will not expose Government or Contractor employees to any unsafe or unhealthful conditions. Adequate protective measures must be taken to prevent Government or Contractor employees from being exposed to any hazardous condition that could result from the work or storage. The Prime Contractor shall keep a complete inventory of hazardous materials brought onto the work-site. Approval by the Contracting Officer of protective measures and storage area is required prior to the start of the work.

3.1.3.Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with USACE EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated

biphenyls, di-isocynates, lead-based paint are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials.

3.1.4.Unforeseen Hazardous Material

The design should have identified materials such as PCB, lead paint, and friable and non-friable asbestos. If material, not indicated, that may be hazardous to human health upon disturbance during construction operations is encountered, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous. If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to "FAR 52.243-4, Changes" and "FAR 52.236-2, Differing Site Conditions."

3.2. FALL HAZARD PROTECTION AND PREVENTION PROGRAM

The Contractor shall establish a fall protection and prevention program, for the protection of all employees exposed to fall hazards. The program shall include company policy; identify responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures.

3.2.1.Training

The Contractor shall institute a fall protection training program. As part of the Fall Hazard Protection and Prevention Program, the Contractor shall provide training for each employee who might be exposed to fall hazards. A competent person for fall protection shall provide the training. Training requirements shall be in accordance with USACE EM 385-1-1, section 21.B.

3.2.2.Fall Protection Equipment

The Contractor shall enforce use of the fall protection equipment designated for each specific work activity in the Fall Protection and Prevention Plan and/or AHA at all times when an employee is on a surface1.8 m(6 feet) or more above lower levels. Fall protection systems such as guardrails, personnel fall arrest system, safety nets, etc., are required when working within 1.8m (6 feet) of any leading edge. Personal fall arrest systems are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, Elevating Work Platforms/Scissors Lifts: Scissors lifts shall be equipped with standard guardrails. In addition to the guardrail provided, if the scissor lift is equipped with a manufactured anchorage, a restraint system shall be used in addition to guardrails. Lanyards used with the restraint system shall be sufficiently short to prohibit workers from climbing out of, or being ejected from, the platform.

3.2.3.Personal Fall Arrest Equipment

Personal fall arrest equipment, systems, subsystems, and components shall meet ANSI Z359.1 or European Union equivalent. Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. Body belts may only be used as a positioning device system (for uses such as steel reinforcing assembly and in addition to an approved fall arrest system). Harnesses shall have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Only locking snap hooks and carabiners shall be used. Webbing, straps, and ropes shall be made of synthetic fiber. The maximum free fall distance when using fall arrest equipment shall not exceed 1.8 m (6 feet). The total fall distance and any swinging of the worker (pendulum-like motion) that can occur during a fall shall always be taken into consideration when attaching a person to a fall arrest system.

3.2.4.Fall Protection for Roofing Work

Fall protection controls shall be implemented based on the type of roof being constructed and work being performed. The roof area to be accessed shall be evaluated for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 1.8 m (6 feet) of an edge, on low-slope roofs, personnel shall be protected from falling by use of personal fall arrest systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized.

(2) For work greater than 1.8 m (6 feet) from an edge, warning lines shall be erected and installed in accordance with USACE EM 385-1-1.

b. Steep-Sloped Roofs: Work on steep-sloped roofs requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also includes residential or housing type construction.

3.2.5.Existing Anchorage

Existing anchorages, to be used for attachment of personal fall arrest equipment, shall be certified (or re-certified) by a qualified person for fall protection in accordance with ANSI Z359.1 or European Union equivalent. Exiting horizontal lifeline anchorages shall be certified (or re-certified) by a registered professional engineer with experience in designing horizontal lifeline systems.

3.2.6.Horizontal Lifelines

Horizontal lifelines shall be designed, installed, certified and used under the supervision of a qualified person for fall protection as part of a complete fall arrest system which maintains a safety factor of 2.

3.2.7.Guardrails and Safety Nets

Guardrails and safety nets shall be designed, installed and used in accordance with EM 385-1-1 or Host Nation requirements, whichever is more stringent.

3.2.8.Rescue and Evacuation Procedures

When personal fall arrest systems are used, the contractor must ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. A Rescue and Evacuation Plan shall be prepared by the contractor and include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. The Rescue and Evacuation Plan shall be included in the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP).

3.3. SCAFFOLDING

Employees shall be provided with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Access to scaffold platforms greater than 6 m in height shall be accessed by use of a scaffold stair system. Vertical ladders commonly provided by scaffold system manufacturers shall not be used for accessing scaffold platforms greater than 6 m in height. The use of an adequate gate is required. Contractor shall ensure that employees are qualified to perform scaffold erection and dismantling. Do not use scaffold without the capability of supporting at least four times the maximum intended load or without appropriate fall protection as delineated in the accepted fall protection and prevention plan. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward.

Special care shall be given to ensure scaffold systems are not overloaded. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material is prohibited. The first tie-in shall be at the height equal to 4 times the width of the smallest dimension of the scaffold base. Work platforms shall be placed on mud sills. Scaffold or work platform erectors shall have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet. Delineate fall protection requirements when working above six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

3.4. EQUIPMENT

3.4.1.Material Handling Equipment

a. Material handling equipment such as forklifts shall not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions.

c. Operators of forklifts or power industrial trucks shall be trained/licensed in accordance with Host Nation requirements.

3.4.2.Weight Handling Equipment

a. Cranes and derricks shall be equipped as specified in EM-385-1-1 section 16.

b. The Contractor shall notify the Contracting Officer 15 days in advance of any cranes entering the activity so that necessary quality assurance spot checks can be coordinated. Contractor's operator shall remain with the crane during the spot check.

c. The Contractor shall comply with the crane manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Erection shall be performed under the supervision of a designated person. All testing shall be performed in accordance with the manufacturer's recommended procedures.

d. Under no circumstance shall a Contractor make a lift at or above 90% of the cranes rated capacity in any configuration.

e. When operating in the vicinity of overhead transmission lines, operators and riggers shall be alert to this special hazard and shall follow the requirements of USACE EM 385-1-1 section 11.

f. Crane suspended personnel work platforms (baskets) shall not be used unless the Contractor proves to the satisfaction of the Contracting Officer that using any other access to the work location would provide a greater hazard to the workers or is impossible. Personnel shall not be lifted with a line hoist or friction crane.

g. Portable fire extinguishers shall be inspected, maintained, and recharged.

h. All employees shall be kept clear of loads about to be lifted and of suspended loads.

i. The Contractor shall use cribbing when performing lifts on outriggers.

j. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

k. A physical barricade must be positioned to prevent personnel from entering the counterweight swing (tail swing) area of the crane.

l. Certification records which include the date of inspection, signature of the person performing the inspection, and the serial number or other identifier of the crane that was inspected shall always be available for review by Contracting Officer personnel.

m. Written reports listing the load test procedures used along with any repairs or alterations performed on the crane shall be available for review by Contracting Officer personnel.

n. Certify that all crane operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

o. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. Prior to conducting lifting operations the contractor shall set a maximum wind speed at which a crane can be safely operated based on the equipment being used, the load being lifted, experience of operators and riggers, and hazards on the work site. This maximum wind speed determination shall be included as part of the activity hazard analysis plan for that operation.

3.5. EXCAVATIONS

The competent person for excavations performed as a result of contract work shall be on-site when excavation work is being performed, and shall inspect, and document the excavations daily prior to entry by workers. The competent person must evaluate all hazards, including atmospheric, that may be associated with the work, and shall have the resources necessary to correct hazards promptly. All excavations shall conform with the requirements of Section 25 of EM 385-1-1.

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 the excavation, the adjacent areas, and protective systems daily; before each work shift; throughout the work shifts as dictated by the work being done; after every rainstorm; after other events that could increase hazards, e.g., snowstorm, windstorm, thaw, earthquake, etc.; when fissures, tension cracks, sloughing, undercutting, water seepage, bulging at the bottom or other similar conditions occur; when there is a change in size, location or placement of the spoil pile; and where there is any indication or change in adjacent structures. The competent person shall be able to demonstrate the following: training, experience, and knowledge of, soil analysis, use of protective systems; and requirements of EM 385-1-1 and 29 CFR 1926 Subpart P. They also need the ability to detect conditions that could result in cave-ins, failures in protective systems, hazardous atmospheres, and other hazards including those associated with confined spaces. They shall have the authority to take prompt corrective measures to eliminate existing and predictable hazards and stop work when required.

3.5.1. Utility Locations

Prior to any excavation, all underground utilities in the work area must be positively identified by the contractor utilizing a) a private utility locating service in addition to any station locating service, and/or b) a metal and/or cable-detecting device along the route of the excavation. All underground utilities discovered will be flagged a distance of one-half (1/2) meter on each side of the location, and any markings made during the utility investigation must be maintained throughout the contract.

Damage occurring to existing utilities, when the above procedures are not followed, will be repaired at the Contractor’s expense.

3.5.2. Utility Location Verification

The Contractor must physically verify underground utility locations by hand digging using wood or fiberglass handled tools when any adjacent construction work is expected to come within three feet of the underground system. Digging within 0.61 m (2 feet) of a known utility must not be performed by means of mechanical equipment; hand digging shall be used. If construction is parallel to an existing utility the utility shall be exposed by hand digging every 30.5 m (100 feet) if parallel within 1.5 m (5 feet) of the excavation.

3.5.3.Shoring Systems

Trench and shoring systems must be identified in the accepted safety plan and AHA. Manufacture tabulated data and specifications or registered engineer tabulated data for shoring or benching systems shall be readily available on-site for review. Job-made shoring or shielding shall have the registered professional engineer stamp, specifications, and tabulated data. Extreme care must be used when excavating near direct burial electric underground cables.

3.5.4.Trenching Machinery

Trenching machines with digging chain drives shall be operated only when the spotters/laborers are in plain view of the operator. Operator and spotters/laborers shall be provided training on the hazards of the digging chain drives with emphasis on the distance that needs to be maintained when the digging chain is operating. Documentation of the training shall be kept on file at the project site.

3.6. UTILITIES WITHIN CONCRETE SLABS

Utilities located within concrete slabs or pier structures, bridges, and the like, are extremely difficult to identify due to the reinforcing steel used in the construction of these structures. Whenever contract work involves concrete chipping, saw cutting, or core drilling, the existing utility location must be coordinated with station utility departments in addition to a private locating service. Outages to isolate utility systems shall be used in circumstances where utilities are unable to be positively identified. The use of historical drawings does not alleviate the contractor from meeting this requirement.

3.7. ELECTRICAL

3.7.1.Conduct of Electrical Work

Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Positive cable identification must be made prior to submitting any outage request for electrical systems. Arrangements are to be coordinated with the Contracting Officer and Station Utilities for identification. The Contracting Officer will not accept an outage request until the Contractor satisfactorily documents that the circuits have been clearly identified. Perform all high voltage cable cutting remotely using hydraulic cutting tool. Energized work may never be performed without prior authorization. An energized work permit shall be submitted to GDA for acceptance in acceptance in accordance with 385-1-1, Section 11.A02.c. When racking in or live switching of circuit breakers, no additional person other than the switch operator will be allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method. When working in energized substations, only qualified electrical workers shall be permitted to enter. When work requires Contractor to work near energized circuits as defined by the NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves with leather protective sleeves, fire retarding shirts, coveralls, face shields, and safety glasses. In addition, provide electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA.

3.7.2.Portable Extension Cords

Portable extension cords shall be sized in accordance with manufacturer ratings for the tool to be powered and protected from damage. All damaged extension cords shall be immediately removed from service. Portable extension cords shall meet the requirements of NFPA 70 or European Union equivalent.

3.8. WORK IN CONFINED SPACES

The Contractor shall comply with the requirements in Section 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. Ventilation shall conform with the requirements of Section 06.G of 385-1-1.

c. Additional detailed requirements for ventilation in the valve room of the tunnel are provided in Section 010150 TECHNICAL REQUIRMENTS.

d. Ensure the use of rescue and retrieval devices in confined spaces greater than 1.5 m (5 feet) in depth. Conform to Section 34 of USACE EM 385-1-1.

e. Sewer wet wells require continuous atmosphere monitoring with audible alarm for toxic gas detection.

f. Include training information for employees who will be involved as entrants and attendants for the work. Conform to Section 34 of USACE EM 385-1-1.

g. Daily Entry Permit. Post the permit in a conspicuous place close to the confined space entrance.

3.9. CRYSTALLINE SILICA

Grinding, abrasive blasting, and foundry operations of construction materials containing crystalline silica, shall comply with USACE EM 385-1-1, Appendix 06.H. The Contractor shall develop and implement effective exposure control and elimination procedures to include dust control systems, engineering controls, and establishment of work area boundaries, as well as medical surveillance, training, air monitoring, and personal protective equipment.

3.10. DEMOLITION

3.10.1. 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 1 week before the beginning of the work, including structural calculations for the demolition, if necessary. The demolition work shall not begin before the Contractor has received a written approval from the COR.

3.10.2. 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.

3.10.3. 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.

3.11. DIVE OPERATIONS

All dive operations shall meet be performed in accordance with EM385-1-1 (2008), specifically Section 30 and Appendix O. Failure to meet these requirements shall be cause for rejection or cessation of operations. The Contractor shall submit a dive operations plan identifying the crew structure, limitations and scope of dive operations, equipment to be used, periods of exposure, and emergency evacuation procedures.

3.12. BARGE OPERATIONS

All barge or water operations shall be performed in accordance with EM385-1-1 (2008), specifically Section 19 and Section 16.L.

3.13. HELICOPTER OPERATIONS

All helicopter operations shall be performed in accordance with EM385-1-1 (2008), specifically Section 19 and Section 16.P.

3.14. CRANE OPERATIONS

All heavy lift operations regardless of the type of crane or mount shall be described in a Loading Plan for Cranes and Heavy Equipment. For example, helicopter or barge operations may be required for work on the tower and that work must be coordinated with other operations and the information provided to the SSHO and the Government for situational awareness and safety. Further, the tunnel works will require crane operations to lift bulk heads, remove jet valves, and service to interior of the tunnel located below the accessible roadway. The Loading Plan for Cranes and Heavy Equipment must be provided at least 14 days prior to the lift.

3.15. HOUSEKEEPING

3.15.1. 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 01 35 50
ENVIRONMENTAL PROTECTION

1 GENERAL

1.1 REFERENCES

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

ISLAMIC REPUBLIC OF AFGHANISTAN

Official Gazette No. 912 Environmental Law (2007)

U.S. DEPARTMENT OF DEFENSE (DoD)

DoD 4715.05-G Overseas Environmental Baseline Guidance Document (OEBGD) (2007)

U.S. ARMY (DA)

AR 200-1 Environmental Protection and Enhancement (2007)

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1 Safety and Health Requirements Manual (2009)

Contract Clause: 52.236-12 "Cleaning Up".

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.

Items	Paragraph
Environmental Protection Plan	1.7

1.3 DEFINITIONS

1.3.1 Environmental Pollution

The condition resulting from the presence of chemical, mineral, radioactive, or biological substances that:

a. Alter the natural environment.

b. Adversely affect human health or the quality of life, biosystems, the environment, in structures and equipment, recreational opportunities, aesthetics, and/or natural beauty.

1.3.2 Environmental Protection

Environmental protection is the prevention/control of pollution.

1.3.3 Hazardous Material (HM)

A hazardous material is a useful product that requires special management because it has hazardous characteristics (ignitability, corrosivity, reactivity, or toxicity) that could pose dangers to human health or the environment. A HM becomes a Hazardous Waste when it can no longer be used for its intended purpose.

1.3.4 Hazardous Waste (HW)

A hazardous waste is a discarded material with hazardous characteristics that could pose dangers to human health or the environment.

1.3.5 Contractor Generated Hazardous Waste

Hazardous wastes generated or discarded by the Contractor. This includes materials not fully consumed during the course of construction - for example, paint thinners (i.e. methyl ethyl ketone, toluene etc.), waste thinners, excess paints, excess solvents, waste solvents, and fuel/oils/lubricants.

1.4 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The Contractor shall be responsible for delays resulting from failure to comply with environmental laws and regulations.

1.5 SUBCONTRACTORS

The Contractor shall ensure compliance with this section by all subcontractors, suppliers, and vendors.

1.6 LAWS AND REGULATIONS

The Contractor shall comply with all applicable Afghanistan environmental, natural and cultural resources, and historic preservation laws and regulations.

1.7 ENVIRONMENTAL PROTECTION PLAN

The Contractor shall submit an Environmental Protection Plan as part of the 35% design submittal for review and approval by the Contracting Officer. The purpose of the Environmental Protection Plan is to present an overview of known or potential environmental (natural and cultural) issues which the Contractor must address during construction. The Environmental Protection Plan shall be current and maintained onsite by the Contractor. The Environmental Protection Plan shall, at a minimum, contain the following:

1.7.1 Contents

The environmental protection plan shall include, but shall not be limited to, the following:

1. Name(s) of the on-site Environmental Manager who is responsible for ensuring adherence to the Environmental Protection Plan and monitoring and documenting environmental procedures.
2. An erosion and sediment control plan which identifies the type and location of the erosion and sediment controls to be provided. The plan shall include monitoring and reporting requirements to assure that the control measures are effective.
3. Work area plan showing the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.
4. Spill Control plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a hazardous material. This plan shall include as a minimum:
    a. The name of the individual who will immediately notify the Contracting Officer and report any spills or hazardous substance releases. The plan shall contain a list of the required reporting channels and telephone numbers.
    b. A list of materials and equipment contained in the job site spill kit (see Appendix for minimum requirements).
    c. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.
    d. The methods and procedures to be used for expeditious contaminant cleanup.
5. An air pollution control plan detailing how trash is disposed of without debris burning.
6. A non-hazardous solid waste disposal plan identifying methods and locations for solid waste disposal including clearing debris.
7. A contaminant prevention plan that identifies potentially hazardous substances to be used on the job site and identifies the intended actions to prevent introduction of such materials into the air, water, or ground. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.
8. A hazardous waste plan that identifies potentially hazardous waste that may be generated by the project.
9. A waste water management plan that identifies the methods and procedures for management and/or discharge of waste waters which are directly derived from construction activities.

10. A plan that defines procedures for identifying and protecting historical, archaeological, cultural resources known to be on the project site. The plan shall identify lines of communication between Contractor personnel and the Contracting Officer.

1.7.2 Unidentified issues

During Construction, the Contractor shall be responsible for identifying, implementing, and submitting, for approval, any additional requirements to be included in the Environmental Protection Plan.

1.8 PROTECTION FEATURES

The Contractor shall prepare a brief report including a plan describing the features requiring protection under the provisions of the Contract Clauses. This survey report shall be signed by both the Contractor and the Contracting Officer upon mutual agreement as to its accuracy and completeness.

1.9 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer.

1.10 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with elements of the Contractor's Environmental Protection plan. Upon notification or discovery of noncompliance, the Contractor shall propose corrective action to the COR and take such action when approved by the COR. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions.

2 PRODUCTS

Not used.

3 EXECUTION

3.1 ENVIRONMENTAL PERMITS AND COMMITMENTS

The Contractor shall be responsible for obtaining and complying with all permits and commitments required by Afghanistan environmental, natural and cultural resources, and historic preservation laws and regulations.

3.2 LAND RESOURCES

The Contractor shall confine all activities to areas defined by the drawings and specifications. No ropes, cables, or guys shall be fastened to or attached to any trees for anchorage unless specifically authorized. The Contractor shall provide effective protection for land and vegetation resources at all times as defined in the following subparagraphs. Stone, soil, or other materials displaced into uncleared areas shall be removed by the Contractor.

3.2.1 Work Area Limits

Prior to commencing construction activities, the Contractor shall mark the areas that need not be disturbed under this contract. Where construction operations are to be conducted during darkness, any markers shall be visible in the dark. The Contractor's personnel shall be knowledgeable of the purpose for marking and/or protecting particular objects.

3.2.2 Landscape

Features indicated to be preserved shall be clearly identified by marking, fencing, or wrapping with boards, or any other approved techniques. The Contractor shall restore landscape features damaged or destroyed during construction operations outside the limits of the approved work area.

3.2.3 Erosion and Sediment Controls

The Contractor shall be responsible for providing erosion and sediment control measures. The COR shall approve erosion and sediment controls prior to installation. Any temporary measures shall be removed after the area has been stabilized.

3.2.4 Contractor Facilities and Work Areas

The Contractor's field offices, staging areas, stockpile storage, and temporary buildings shall be placed in areas designated on the drawings or as directed by the Contracting Officer. Temporary movement or relocation of Contractor facilities shall be made only when approved. Erosion and sediment controls shall be provided for on-site borrow and spoil areas to prevent sediment from entering nearby waters. Temporary excavation and embankments for plant and/or work areas shall be controlled to protect adjacent areas.

3.2.5 Tree Protection

All costs associated with tree protection requirements required by specifications and drawings are the full responsibility of the Contractor. The Contractor shall exercise care when excavating trenches in the vicinity of trees.

3.3 WATER RESOURCES

The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation unless otherwise indicated. All water areas affected by construction activities shall be monitored by the Contractor.

3.3.1 Cofferdams, Diversions, and Dewatering Operations

Construction operations surface waters shall be controlled at all times to maintain compliance with designated uses of the surface water body.

3.3.2 Stream Crossings

Constructed stream crossings (wet or dry) shall not block the natural flow of water when present.

3.4 AIR RESOURCES

3.4.1 Burning

All areas within facility perimeter fence line are designated as no burn areas.

3.5 CHEMICAL MATERIALS MANAGEMENT AND WASTE DISPOSAL

3.5.1 Chemicals and Chemical Wastes

Chemicals shall not be spilled on the ground or water. Dispensing areas shall be clean and not subject to repetitive spills. Corrective action shall be quickly performed and documented. This documentation will be periodically reviewed by the Government. Chemical waste shall be collected in corrosion resistant, compatible containers. Wastes shall be classified, managed, stored, and disposed at an appropriate disposal site.

3.5.2 Contractor Hazardous Material / Generated Hazardous Wastes / Excess Hazardous Materials

The Contractor shall be responsible for storage, describing, packaging, labeling, and marking hazardous waste and hazardous material. The Contractor shall manage and store hazardous material and waste in a designated area designed to segregate and prevent mixing of incompatible chemicals. The area will be dry, securable and have warning signs appropriate for the wastes being accumulated. Facilities or areas shall provide adequate ventilation, containment, and protection from the elements. Contractor vehicles are not considered a proper storage facility. No HM or HW shall be stored in vehicles overnight or for any length of time. The Spills of hazardous or toxic materials shall be immediately reported to the Contracting Officer. Cleanup and cleanup costs due to spills shall be the Contractor's responsibility.

3.5.3 Fuel and Lubricants

Equipment and motor vehicle fueling, lubrication and storage shall be conducted on containment surfaces to minimize spills evaporation.

3.5.4 Waste Water

Disposal of waste water shall be as specified below.

a. Waste water from construction activities shall not be discharged prior to being treated to remove pollutants. The Contractor shall dispose of the construction related waste water off site, unless on-site disposal is approved by the Contracting Officers Representative.
b. Water generated from the flushing of lines after decontamination or decontamination in conjunction with hydrostatic testing or only hydrostatic testing shall be discharged into areas where the liquids will percolate into the ground.

3.6 HISTORICAL, ARCHAEOLOGICAL, AND CULTURAL RESOURCES

If during construction activities any historical, archaeological, and cultural resources are discovered or found, all activities that may damage or alter such resources shall be temporarily suspended. Resources include but are not limited to: any human skeletal remains or burials; artifacts; shell, midden, bone, charcoal, or other deposits; rock or coral alignments, pavings, wall, or other constructed features; and any indication of agricultural or other human activities. Upon such discovery or find, the Contractor shall immediately notify the Contracting Officer so that the appropriate authorities may be notified and a determination made as to their significance and what, if any, special disposition of the finds should be made. The Contractor shall secure the area and prevent employees or other persons from trespassing on, removing, or otherwise disturbing such resources.

3.7 BIOLOGICAL RESOURCES

The Contractor shall minimize interference with, disturbance to, and damage to fish, wildlife, and plants including their habitat. The Contractor shall protect animal and plant species including their habitat in accordance with Afghanistan regulations.

3.8 MAINTENANCE OF POLLUTION CONTROL

The Contractor shall maintain permanent and temporary pollution control facilities and devices for the duration of the contract or for that length of time construction activities create the particular pollutant.

3.9 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause 52.236-12 "CLEANING UP". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area restored to its original condition.

-- End of Section --

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SECTION 01 40 00
SECURITY

PART 1 GENERAL

1.1 RELATED SECTIONS

SECTION 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

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 SECTION 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS:

Section	Paragraph
Security Plan	1.11

1.3 SPECIFIC CONTRACT SECURITY ASSESSMENT

The Contractor shall 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.

1.4 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).

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).

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.

1.5 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").

1.6 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.

1.7 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.

1.8 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/NCIOC, 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.

1.9 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.

1.10 ESTIMATED THREAT ASSESSMENT

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

1.11 ADDITIONAL CIVILIAN ARMING REQUIREMENTS

The Contractor shall 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:

a. MOI license number,
b. AISA license,
c. Armed Contractor & subcontractor company names,
d. Contract number/title,
e. Contracting agency (USACE-AES),
f. Type of work,
g. Number/type of weapons authorized,
h. POC for company with contact details,
i. Government Contracting Officer and COR with contact details,
j. Number of security personnel by type (U.S., Afghan, Other),
k. Company's country of registration/origin, names,
l. Photos
m. 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 shall 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

1.12 SECURITY PLAN SUBMITTAL REQUIREMENTS

Contractors will submit all security plans in accordance with contract Section 01 33 15 – Submittal Procedures.

1.13 COMMUNICATION

The Contractor shall 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 shall 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.

1.14 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.

1.15 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 01 45 10). 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.

1.16 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 shall 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.
Contractor accidental or negligent discharge of a weapon.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

--End of Section--

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METRIC MEASUREMENTS

PART 1 GENERAL

1.1. REFERENCES

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

ASTM INTERNATIONAL (ASTM)

ASTM E 621	(1994e1; R 1999) Use of Metric (SI) Units in Building Design and Construction (Committee E-6 Supplement to E380)
IEEE/ASTM SI 10	(2002) American National Standard for Use of the International System of Units (SI): The Modern Metric System

1.2. GENERAL

This project includes metric units of measurements. The metric units used are the International System of Units (SI) developed and maintained by the General Conference on Weights and Measures (CGPM); the name International System of Units and the international abbreviation SI were adopted by 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.

1.3. USE OF MEASUREMENTS IN SPECIFICATIONS

Measurements in specifications shall be expressed as a soft metric, unless otherwise authorized. When only SI or I-P measurements are specified for a product, the product shall be procured in the specified units (SI or I-P) unless otherwise authorized by the Contracting Officer. The Contractor shall be responsible for all associated labor and materials when authorized to substitute one system of units for another and for the final assembly and performance of the specified work and/or products.

1.3.1. Hard Metric

A hard metric measurement is indicated by an SI value with no expressed correlation to an I-P value. Hard metric measurements are often used for field data such as distance from one point to another or distance above the floor. Products are considered to be hard metric when they are manufactured to metric dimensions or have an industry recognized metric designation.

1.3.2. Soft Metric

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 15-5/8 inches)).

1.3.3. Neutral

A neutral measurement is indicated by an identifier which has no expressed relation to either an SI or an I-P value (e.g., American Wire Gage (AWG) which indicates thickness but in itself is neither SI nor I-P).

1.4. COORDINATION

Discrepancies, such as mismatches or product unavailability, arising from use of both metric and non-metric measurements and discrepancies between the measurements in the specifications and the measurements in the drawings shall be brought to the attention of the Contracting Officer for resolution.

1.5. RELATIONSHIP TO SUBMITTALS

Submittals for Government approval or for information only shall cover the SI or I-P products actually being furnished for the project. The Contractor shall submit the required drawings and calculations in the same units used in the contract documents describing the product or requirement unless otherwise instructed or approved. The Contractor shall use IEEE/ASTM SI 10 and ASTM E 621 as the basis for establishing metric measurements required to be used in submittals.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

– END OF SECTION –

SECTION 01 45 00
CONTRACTOR QUALITY CONTROL

PART 1. GENERAL

1.1 RELATED SECTIONS

Section 01 45 00.10 QUALITY CONTROL SYSTEM

Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

Section 01 33 16 DESIGN BUILD AFTER AWARD

SPECIAL CONTRACT REQUIREMENTS

1.2 REFERENCES

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

U.S. ARMY CORPS OF ENGINEERS (USACE)

ER 1110-1-12 (1993)	Quality Management
EM 385-1-1	Safety and Health Requirements Manual

1.3 SUBMITALS

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 information shall be submitted to the Contracting Officer in accordance with the provisions of Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS or Section 01 33 16 DESIGN BUILD AFTER AWARD.

Items	Paragraph
Contractor Quality Control (CQC) Plan; G (Including CQM Course Certificate)	2.3
Design Quality Control (DQC) Plan; G	2.3.2

1.4 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

PART 2. PRODUCTS

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 design and 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 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 (AED), 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 of the AED can provide information related to AED 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 the Quality Assurance Branch.

The contractor's quality control plan, 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 CONTRACTOR QUALITY CONTROL (CQC) PLAN

The Contractor shall submit 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 design and construction operations, both on site and off-site, including work by subcontractors, fabricators, suppliers and purchasing agents:

a. A description of the quality control organization, including a chart showing lines of authority and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified. The staff shall include a CQC System Manager who shall report to the project superintendent.

b. The name, qualifications (in resume format), duties, responsibilities, and authorities of each person assigned a CQC function.

c. A copy of the letter to the CQC System Manager signed by an authorized official of the firm which describes the responsibilities and delegates sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities, and responsibilities. Copies of these letters shall also be furnished to the Government.

d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, consultants, and purchasing agents. These procedures shall be in accordance with Section 01335 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

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 design and construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.

h. Reporting procedures, including proposed reporting formats.

i. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature 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:

(1) The Contractor shall develop,submit for review, and maintain a Design Quality Control (DQC) Plan as an effective means to implement his quality control program to assure that all services required by this design contract are performed and provided in a manner that meets professional architectural and engineering quality standards. As a minimum, all documents shall be technically reviewed by competent, independent reviewers identified in the DQC Plan. The same element that produced the product shall not perform the independent technical review (ITR). The Contractor shall correct errors and deficiencies in the design documents prior to submitting them to the Government.

(2) The Contractor shall include the design schedule in the master project schedule, showing the sequence of events involved in carrying out the project design tasks within the specific contract period. This should be at a detailed level of scheduling sufficient to identify all major design tasks, including those that control the flow of work. The schedule shall include review and correction periods associated with each item. This should be a forward planning as well as a project monitoring tool. The schedule reflects calendar days and not dates for each activity. If the schedule is changed, the Contractor shall submit a revised schedule reflecting the change within 7 calendar days. The Contractor shall include in the DQC Plan the discipline-specific checklists to be used during the design and quality control of each submittal. These completed checklists shall be submitted at each design phase as part of the project documentation. Example checklists can be found in ER 1110-1-12.

(3) The DQC Plan shall be implemented by a 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

After acceptance of the CQC plan, the Contractor shall notify the Contracting Officer in writing a minimum of seven calendar days prior to any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

2.4 COORDINATION MEETING

After the Pre-construction Conference, before start of construction, and prior to acceptance by the Government of the CQC 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.

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.

2.5.3 Additional Requirement

0.0.1 CQC Specialists

In addition to CQC personnel previously specified, the Contractor shall provide as part of the CQC organization specialized personnel to assist the CQC System Manager in the areas listed below. These personnel may be employees of the prime Contractor or subcontractors. The CQC specialists shall be responsible to the CQC System Manager; be physically present at the construction site during work on their areas of responsibility; have the necessary education and/or experience in accordance with the experience matrix listed herein. These individuals may perform other duties but must be allowed sufficient time to perform their assigned quality control duties as described in the Quality Control Plan or they may be assigned only CQC duties, at the Contractor's option. The Contractor may elect for a person to perform one or more of the functions listed below, provided that the person meets the appropriate qualifications and has adequate time to properly cover the function.

EXPERIENCE MATRIX

Area	Minimum Qualifications
a. Mechanical	Graduate Engineer with 10 years work experience in the type of work to be performed on this project and must be a registered professional engineer.
b. Electrical	Graduate Engineer with 10 years work experience in the type of work to be performed on this project and must be a registered professional engineer.
c. Structural	Graduate Engineer with 10 years work experience in the type of work to be performed on this project and must be a registered professional engineer.
d. Geotechnical	Graduate Engineer with 10 years work experience in the type of work to be performed on this project and must be a registered professional engineer.
e. Geologist	Graduate Geologist with 10 years work experience in the type of work to be performed on this project and must be a registered professional geologist.
f. Submittals	Submittal Clerk with a minimum of 5 years experience.

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 AND DELIVERABLES

Submittals, if needed, shall be made as specified in Section 013315 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS. 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 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

The preparatory phase of quality control 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

The initial phase of quality control 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

The follow-up phase of quality control 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 and Initial Phases

Additional preparatory and initial phases may be required by the Contracting Officer on the same definable features of work if the quality of on-going work is unacceptable; if there are changes in the applicable QC staff or in the on-site production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

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 Contract Clause 52.211-10, "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 52.246-12 entitled "INSPECTION OF CONSTRUCTION".

PART 3. EXECUTION

3.1 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

a. Contractor/subcontractor and their area of responsibility.

b. Operating plant/equipment with hours worked, idle, or down for repair.

c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.

d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.

e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.

f. Submittals and deliverables reviewed, with contract reference, by whom, and action taken.

g. Offsite surveillance activities, including actions taken.

h. Job safety evaluations stating what was checked, results, and instructions or corrective actions.

i. Instructions given/received and conflicts in plans and/or specifications.

j. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within forty-eight (48) hours after the date covered by the report, except that reports need not be submitted for days on which no work is performed. As a minimum, one report shall be prepared and submitted for every 7 days of no work and on the last day of a no work period. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

3.2 SAMPLE FORMS

In accordance with Section 01 45 00.10 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 CQC Plan.

3.3 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 01 45 00

SECTION 01 45 00.10 10

QUALITY CONTROL SYSTEM (QCS)
02/10

PART 1 GENERAL

1.1 Contract Administration

The Government will use the Resident Management System for Windows (RMS) to assist in its monitoring and administration of this contract. The Contractor must 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 (www.rmssupport.com). This joint Government-Contractor use of RMS and QCS will facilitate electronic exchange of information and overall management of the contract. QCS provides the means for the Contractor to input, track, and electronically share information with the Government in the following areas:

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

1.1.1 Correspondence and Electronic Communications

For ease and speed of communications, both Government and Contractor will, to the maximum extent feasible, exchange correspondence and other documents in electronic format. Correspondence, pay requests and other documents comprising the official contract record will also be provided in paper format, with signatures and dates where necessary. Paper documents will govern, in the event of discrepancy with the electronic version.

1.1.2 Other Factors

Particular attention is directed to Contract Clause, "Schedules for Construction Contracts", Contract Clause, "Payments", Section 01 32 01.00 10 PROJECT SCHEDULE, Section 01 33 00 SUBMITTAL PROCEDURES, and Section 01 45 00.00 10 QUALITY CONTROL, 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 will be included in the contract pricing for the work.

1.2 QCS SOFTWARE

QCS is a Windows-based program that can be run on a stand-alone personal computer or on a network. The Government will make available the QCS software to the Contractor after award of the construction contract. Prior to the Pre-Construction Conference, the Contractor will be responsible to download, install and use the latest version of the QCS software from the Government's RMS Internet Website. Upon specific justification and request by the Contractor, the Government can provide QCS on CD-ROM. Any program

updates of QCS will be made available to the Contractor via the Government RMS Website as they become available.

1.3 SYSTEM REQUIREMENTS

The following is the minimum system configuration that the Contractor must have to run QCS:

QCS and Quality Assurance System (QAS) System

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

Compact Disk (CD) Reader 8x speed or higher

SVGA or higher resolution monitor (1024x768, 256 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, XP, Vista or Windows 7

QAS-Word Processing software: MS Word 2000 or newer

Latest version of: Netscape Navigator, Microsoft Internet Explorer, or other browser that supports HTML 4.0 or higher

Electronic mail (E-mail) MAPI compatible

Virus protection software that is regularly upgraded with all issued manufacturer's updates

1.4 RELATED INFORMATION

1.4.1 QCS User Guide

After contract award, download instructions for the installation and use of QCS from the Government RMS Internet Website. In case of justifiable difficulties, the Government will provide the Contractor with a CD-ROM containing these instructions.

1.4.2 Contractor Quality Control (CQC) Training

The use of QCS will be discussed with the Contractor's QC System Manager during the mandatory CQC Training class.

1.5 CONTRACT DATABASE

Prior to the pre-construction conference, the Government will 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 using the Government's SFTP repository built into QCS import/export function. These updates will generally consist of submittal reviews, correspondence status, QA comments, and other administrative and QA data.

1.6 DATABASE MAINTENANCE

Establish, maintain, and update data in the QCS database throughout the duration of the contract at the Contractor's site office. Submit data updates to the Government (e.g., daily reports, submittals, RFI's, schedule updates, payment requests, etc.) using the Government's SFTP repository built into QCS export function. If permitted by the Contracting Officer, e-mail or CD-ROM may be used instead of E-mail (see Paragraph DATA SUBMISSION VIA CD-ROM). The QCS database typically includes current data on the following items:

1.6.1 Administration

1.6.1.1 Contractor Information

Contain within the database 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, deliver Contractor administrative data in electronic format.

1.6.1.2 Subcontractor Information

Contain within the database 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. Assign each subcontractor/trade a unique Responsibility Code, provided in QCS. Within 14 calendar days of receipt of QCS software from the Government, deliver subcontractor administrative data in electronic format.

1.6.1.3 Correspondence

Identify all Contractor correspondence to the Government with a serial number. Prefix correspondence initiated by the Contractor's site office with "S". Prefix letters initiated by the Contractor's home (main) office with "H". Letters must be numbered starting from 0001. (e.g., H-0001 or S-0001). The Government's letters to the Contractor will be prefixed with "C".

1.6.1.4 Equipment

Contain within the Contractor's QCS database a current list of equipment planned for use or being used on the jobsite, including the most recent and planned equipment inspection dates.

1.6.1.5 Management Reporting

QCS includes a number of reports that Contractor management can use to track the status of the project. The value of these reports is reflective

of the quality of the data input, and is maintained in the various sections of QCS. Among these reports are: Progress Payment Request worksheet, QA/QC comments, Submittal Register Status, Three-Phase Control checklists.

1.6.1.6 Request For Information (RFI)

Exchange all Requests For Information (RFI) using the Built-in RFI generator and tracker in QCS.

1.6.2 Finances

1.6.2.1 Pay Activity Data

Include within the QCS database a list of pay activities that the Contractor must develop in conjunction with the construction schedule. The sum of all pay activities must be equal to the total contract amount, including modifications. Group pay activities Contract Line Item Number (CLIN); the sum of the activities must equal the amount of each CLIN. The total of all CLINs equals the Contract Amount.

1.6.2.2 Payment Requests

Prepare all progress payment requests using QCS. Complete the payment request worksheet, prompt payment certification, and payment invoice in QCS. Update the work completed under the contract, measured as percent or as specific quantities, at least monthly. After the update, generate a payment request report using QCS. Submit the payment request, prompt payment certification, and payment invoice with supporting data using the Government's SFTP repository built into QCS export function. If permitted by the Contracting Officer, e-mail or a CD-ROM may be used. A signed paper copy of the approved payment request is also required, which will govern in the event of discrepancy with the electronic version.

1.6.3 Quality Control (QC)

QCS provides a means to track implementation of the 3-phase QC Control System, prepare daily reports, identify and track deficiencies, document progress of work, and support other Contractor QC requirements. Maintain this data on a daily basis. Entered data will automatically output to the QCS generated daily report. Provide the Government a Contractor Quality Control (CQC) Plan within the time required in Section 01 45 00.00 10 QUALITY CONTROL. Within seven calendar days of Government acceptance, submit a QCS update reflecting the information contained in the accepted CQC Plan: schedule, pay activities, features of work, submittal register, QC requirements, and equipment list.

1.6.3.1 Daily Contractor Quality Control (CQC) Reports.

QCS includes the means to produce the Daily CQC Report. The Contractor may use other formats to record basic QC data. However, the Daily CQC Report generated by QCS must be the Contractor's official report. Summarize data from any supplemental reports by the Contractor and consolidate onto the QCS-generated Daily CQC Report. Submit daily CQC Reports as required by Section 01 45 00.00 10 QUALITY CONTROL. Electronically submit reports to the Government within 24 hours after the date covered by the report. Also provide the Government a signed, printed copy of the daily CQC report.

1.6.3.2 Deficiency Tracking.

Use QCS to track deficiencies. Deficiencies identified by the Contractor will be numerically tracked using QC punch list items. 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. Regularly update the correction status of both QC and QA punch list items.

1.6.3.3 QC Requirements

Develop and maintain a complete list of QC testing and required structural and life safety special inspections required by the International Code Council (ICC), transferred and installed property, and user training requirements in QCS. Update all data on these QC requirements as work progresses, and promptly provide this information to the Government via QCS.

1.6.3.4 Three-Phase Control Meetings

Maintain scheduled and actual dates and times of preparatory and initial control meetings in QCS.

1.6.3.5 Labor and Equipment Hours

Log labor and equipment exposure hours on a daily basis. This data will be rolled up into a monthly exposure report.

1.6.3.6 Accident/Safety Reporting

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. Regularly update the correction status of the safety comments. In addition, 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, e.g., ENG Form 3394 and OSHA Form 300.

1.6.3.7 Features of Work

Include a complete list of the features of work in the QCS database. A feature of work may be associated with multiple pay activities. However, each pay activity (see subparagraph "Pay Activity Data" of paragraph "Finances") will only be linked to a single feature of work.

1.6.3.8 Hazard Analysis

Use QCS to develop a hazard analysis for each feature of work included in the CQC Plan. Address any hazards, or potential hazards, that may be associated with the work.

1.6.4 Submittal Management

The Government will provide the initial submittal register in electronic format. Thereafter, 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. Use QCS to track and transmit all submittals. ENG Form 4025, submittal transmittal form, and the submittal register update must be produced using QCS. QCS and RMS will be used to update, store and exchange submittal registers and transmittals, but will not be used for storage of actual submittals.

1.6.5 Schedule

Develop a construction schedule consisting of pay activities, in accordance with Section 01 32 01.00 10 PROJECT SCHEDULE. Input and maintain in the QCS database this schedule either manually or by using the Standard Data Exchange Format (SDEF) (see Section 01 32 01.00 10 PROJECT SCHEDULE). Include with each pay request the updated schedule.

1.6.6 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 from RMS, and schedule data using SDEF.

1.7 IMPLEMENTATION

Contractor use of QCS as described in the preceding paragraphs is mandatory. Ensure that sufficient resources are available to maintain its QCS database, and to provide the Government with regular database updates. QCS shall be an integral part of the Contractor's management of quality control.

1.8 DATA SUBMISSION VIA CD-ROM

The Government-preferred method for Contractor's submission of QCS data is by using the Government's SFTP repository built into QCS export function. Other data should be submitted using E-mail with file attachment(s). For locations where this is not feasible, the Contracting Officer may permit use of CD-ROM for data transfer. Export data onto CDs using the QCS built-in export function. If used, submit CD-ROMs in accordance with the following:

1.8.1 File Medium

Submit in English required data on CD-ROM conforming to industry standards used in the United States.

1.8.2 CD-ROM Labels

Affix a permanent exterior label to each CD-ROM submitted. Indicate on the label in English, the QCS file name, full contract number, contract name, project location, data date, name and telephone number of person responsible for the data.

1.8.3 File Names

The files will be automatically named by the QCS software. The naming convention established by the QCS software must not be altered.

1.9 MONTHLY COORDINATION MEETING

Update the QCS database each workday. At least monthly, 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, meet with the Government representative to review the planned progress payment data submission for errors and omissions.

Make all required corrections prior to Government acceptance of the export file and progress payment request. Payment requests accompanied by incomplete or incorrect data submittals will be returned. The Government will not process progress payments until an acceptable QCS export file is received.

1.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the requirements of this specification. Take immediate corrective action after receipt of such notice. Such notice, when

delivered to the Contractor at the work site, will be deemed sufficient for the purpose of notification.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

-- End of Section --

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SECTION 01 64 00 START UP, TESTING AND COMMISSIONING

PART 1 GENERAL

1.1. SUMMARY

This Section includes the requirements for integrated services to start-up, test, commission, and turnover all Contractor furnished equipment and related work. The purpose of this Section is to define the Contractor requirements for bringing individual equipment, systems, and facilities online and for proving proper operation and performance of that work. Contractor is required to develop, submit, and maintain detailed plans for these activities as specified elsewhere in this Section or other Sections of the RFP.

1.1.1. General Requirements

The Contractor shall furnish all labor, tools, instruments, and consumable materials required to perform all testing activities specified. The Contractor shall be responsible for costs associated with outside subcontractors or testing agencies required to perform or certify the work.

Any consumables or expendables consumed during testing shall be replaced following testing so that equipment is ready for operation by the owner.

1.1.2. Related Sections

a. Section 01 01 50 TECHNICAL REQUIREMENTS

b. Section 01 22 00 MEASUREMENT AND PAYMENT

c. Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

d. Section 01 33 16 DESIGN BUILD AFTER AWARD

e. Section 01 45 00.10 QUALITY CONTROL SYSTEM (QCS).

f. Section 01 66 40 TRAINING

g. Section 01 77 00 CLOSEOUT PROCEDURES

h. Section 01 78 10 OPERATION AND MAINTENANCE DATA

1.1.3. Submittals

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government.

Items	Paragraph
Commissioning Package at 65% Design (a.k.a Commissioning Plans)	1.4.2
Commissioning Package at 99% Design (a.k.a Start Up & Testing) Including all of the following:	1.4.3
Start-Up Plan	1.4.4
Final Test Reports	1.4.5
Device Settings	1.4.6
Factory and Field Test Manuals	1.4.7
Factory Testing	1.6.1
Functional Testing	1.6.2
Performance Testing	1.6.3
Dynamic Balancing Report	1.7.3

1.2. CONSTRAINTS

The Contractor shall be responsible for developing a comprehensive startup, testing, and commissioning plan to meet the project requirements and to fully coordinate with related existing systems and local stakeholder needs.

1.3. DEFINITIONS

1.3.1. Commissioning

Commissioning generally refers to all field activities on equipment or systems between the time that equipment (or system) is turned over from the construction team and the time that the equipment (or system) is ready for functional and performance testing. All commissioning activities shall be managed by a designated Commissioning Manager directly employed by the Contractor.

1.3.2. Commissioning Manager

An employee of the Contractor responsible for coordinating and managing all commissioning activities and related documentation.

1.3.3. Commissioning Plan

The Commissioning Plan is the document that describes the goals of the commissioning effort and the specific procedures that will be performed to demonstrate the installation meets the intended level of performance and operability. The plan shall include:

1. A narrative describing an overview of the commissioning process.
2. A list of each major component and the associated testing requirements for that component as defined by the manufacturer and by specification or standards listed in the Invitation to Bid.
3. A listing of specific testing procedures for the items listed above along with acceptance criteria.
4. A detailed checklist of performance tests including all manufacturer recommended tests, all subcomponents of installed systems, including switches, sensors, control panels, indicator lamps, motor performance, leakage tests, equipment access, and all other items that represent a complete documented review of the performance of the installed systems.

The Commissioning Plan is developed early in the design process and modified throughout the design and construction process by the project stakeholders in a formalized process. The value of the Commissioning Plan is the early identification of goals and requirements which will assist Quality Control and design efforts.

1.3.4. System Integrator (SI)

The System Integrator (SI) is the party responsible for interfacing the facility control systems. The SI duties include, but are not limited to, performing all work necessary to design, select, furnish, customize, debug, supervise installation, connect, calibrate, field modify existing control and instrumentation wirings and place into operation all hardware, communication lines and equipment, and provide all programming of all software. The SI shall provide all field commissioning services required to properly commission the control system. The System Integrator shall coordinate scheduling of work, testing, training of Government personnel, and documentation with the Contractor's Commissioning Manager.

1.3.5. Control System Functional Acceptance Test (CSFAT)

The control systems functional acceptance testing demonstrates the proper interaction of the individual facility and overall control system components and the related equipment individual control systems. The Systems Integrator will be responsible for this test.

1.3.6. Field Tests

Denotes all field testing including installation testing, functional, performance, and start-up tests.

1.3.7. Functional Test

The field testing is required to determine whether the installed equipment or system will operate in a satisfactory manner and as specified. The functional test is a point-by-point test to confirm that all components associated with the equipment or systems are operating properly. All non-operating adjustments, cold alignment checks, cleaning shall be completed prior to functional tests.

1.3.8. Installation Checks and Testing

Field testing shall be by the Contractor or equipment manufacturers to ensure that all installation work has been performed satisfactorily and in compliance with manufacturer's requirements. Equipment suppliers or manufacturers must sign-off on the installation checks and testing before further commissioning work can proceed.

1.3.9. Operational Testing

Field testing shall demonstrate sustained operation of the facilities in actual operating conditions.

1.3.10. Performance Test

The field testing is required to demonstrate the individual equipment or system meets all of the contract performance requirements.

1.3.11. Start-Up Test

A field test of all systems operating together is required to demonstrate satisfactory performance of the facilities as a whole, for the specified start-up test period without failure and to the satisfaction of the Contractor and the Contracting Officer. Successful completion of start-up testing is a pre-requisite for substantial completion.

1.3.12. Start-Up Re-test

At Contracting Officer's discretion, minor issues that are observed during Start-up Testing may be noted and re-tested following substantial completion. The Start-up Re-Test will repeat those portions of the Startup Test that are required to close-out those minor issues.

1.4. SUBMITTALS

1.4.1. General

Unless otherwise indicated, delivery of all test plans required for the systematic factory and field tests for all equipment and systems installed or provided for field use under this contract shall be made at least eight weeks in advance of the date the Contractor wishes to begin such testing. Once the Government has reviewed and taken no exception to the Contractor's test plans, the Contractor shall reproduce the plans in sufficient number for the Contractor's purposes and an additional three copies for delivery to the Government. No test work shall begin until the Contractor has delivered the specified number of final test plans to the Government. Submittals shall be made as required in Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS. In addition, the following specific commissioning related information shall be submitted:

1.4.2. Interim Design (65%) Submittals

1.4.2.1. Submit a Commissioning Plan along with the following:

a. A list of all factory and field tests with reference to appropriate specification sections and submittal dates.

b. Commissioning Manager's qualifications & past project experience including contact names, addresses, and current telephone numbers that can be used to verify the accuracy of the provided information.

c. Manufacturer's representatives' resumes demonstrating their qualifications and ability to perform the specified services.

d. Details and descriptions of the record keeping plan and systems to be employed by Contractor for retention of all start-up, testing, and commissioning documentation.

e. The goal of the 35% submittal is to establish the framework of the plan. The Commissioning Plan shall be organized to anticipate the additional requirements as listed below.

1.4.3. Final Design (99%) Submittals

1.4.3.1. The Government understands that some items cannot be completed by the Interim Design (65%) stage. Therefore, if necessary, and at the discretion of the COR, the Interim Design (65%) submittals listed above may be submitted at the Final Design (99%) stage. The contractor is encouraged to produce as complete a package as possible or risk having to re-submit the Interim Design (65%). The following items shall be added to the Commissioning Plan:

a. Test Plan and procedures for all tests:
   i. All test procedures shall be comprehensive, neatly organized, type written, and numbered step-by-step.
   ii. Equipment and system test documentation shall include the date of the test, equipment number or system name, nature of the test, test objectives, test results, test instruments employed and signature spaces for the Government's witness and the Contractor's Quality Assurance Manager. Documentation shall be provided for the following tests as a minimum:
      - Metallurgical tests
      - Factory tests
      - Field calibration work and tests
      - Field pressure and leak tests
      - Field functional tests
      - Field performance tests
      - Field start-up tests
      - Field operational tests

1.4.3.2. Submit a detailed test plan of all testing activities describing the tests to be performed, the staff or organization responsible for the tests, and documentation processes necessary to record the results of all tests. The Contractor shall develop test plans detailing the coordinated, sequential testing of each item of equipment and system installed or provided for field use under this contract. Each test plan shall be specific to the item of equipment or system to be tested. Test plans shall identify by specific equipment or tag number each device or control station to be manipulated or observed during the test procedure and the specific results to be observed or obtained. Test plans shall also be specific as to support systems required to complete the test work, subcontractors' and manufacturers' representatives to be present and expected test duration. As a minimum, the test plans shall include the following information:

a. Step-by-step proving procedure for all control and electrical circuits by imposing low voltage currents and using appropriate indicators to affirm that the circuit is properly identified and connected to the proper device.

b. Calibration of all instruments and control sensors.

c. Testing of each individual item of mechanical, electrical, and instrumentation equipment. Tests shall be selected to duplicate the operating conditions.

d. Operational tests designed to duplicate, as closely as possible, operating conditions described in other Sections:
   i. Detailed test methods, including sample calculations and reference to standards as required or applicable.

ii. Comprehensive schedule of all factory and field tests. The schedule shall be in bar chart form, plotted against calendar time, shall detail the equipment and systems to be tested, and shall be coordinated with the Contractor's construction schedule. The schedule shall show the contemplated start date, duration of the test and completion of each test. No testing activity shall take place until the Contractor has submitted a schedule to which the Government takes no exception. The test schedule shall be updated weekly, showing actual dates of test work, indicating systems and equipment testing completed satisfactorily and meeting the requirements of this project manual. List all equipment testing by specification section number and name. Include the following for each equipment/system:

- Specification section and paragraph number
- Test type (factory, functional, performance, start-up)
- Test procedure submittal dates
- Testing and start-up dates
- Test report submittal dates

After initial submittal, update and provide test schedules on a weekly basis (or as arranged with the Commissioning Manager and the COR) at project progress meetings and/or test coordination meetings. All data for testing schedules shall be full coordinated with the overall project schedule.

All communication systems and systems designed for control through the facility control system will require testing and coordination with the project Systems Integrator (SI). The Contractor shall make scheduling allowances for these tests and incorporate this information into the construction schedule.

Pre-test checklist to ensure readiness and any safety measures are in-place.

Pre-operational checklists or procedures from each equipment manufacturer showing all installation checks or tests that must be completed prior to operation of the equipment.

Safety turnover procedures for all equipment and systems clearly demonstrating the safety processes to be followed as equipment or systems are turned-over from construction to commissioning.

Descriptions and drawings showing any temporary systems or facilities that will be installed to facilitate testing. Temporary systems for testing shall be incorporated into the testing schedule to indicate the installation and removal sequences for the temporary components.

Details of all necessary adjustments, balancing, required equipment isolation or configuration, test equipment and instruments, calibration, and personnel needed.

List of all installation checks and testing work that will be performed for mechanical, electrical, and instrumentation equipment.

i. Specific calibration program for all instruments, meters, monitors, gages, and other instrumentation provided under this Contract.

ii. Specific calibration program for all testing instruments that will be used for performing tests of equipment and systems installed under this Contract. Include the credentials and certification of any testing laboratories required by the Contractor for calibration of test equipment.

iii. Acceptance Criteria: For each test phase, specifically indicate what is considered an acceptable test result.

iv. Data Forms: Include the test name, equipment (with tag numbers as applicable) or system name, specification section and paragraph number, test instrument tag numbers, test date, space for testing personnel names, test data names, and units, reference equations for all calculated values, and signature lines for manufacturer’s representative, Contractor and Contracting Officer witness.

1.4.4. Start-up Plan

In addition to submitting test procedures, the Contractor shall develop and submit a start-up plan. The start-up plan shall systematically describe the details of preparing for and starting each system at all facilities at the beginning of the start-up tests. The start-up plan shall also include detail procedures for the systematic shutdown of all systems at the facility.

1.4.4.1. At a minimum, the start-up plan shall include the proposed chronological sequence of activities and detailed procedures for starting or shutting down facilities and systems. In addition, provide the following detailed information:

a. A list of new and existing facilities, equipment, and systems with applicable references to device name and Government tag number that must be in operation before the startup test can begin

b. CAD drawings and schematics highlighting the facilities, systems, and equipment included in the start-up testing

c. Expendables required for the start-up test

d. The chronological sequence of activities clearly divided into activities to be completed in preparation for start-up test versus activities completed during the start-up test

e. Expected durations of each test activity

1.4.5. Final Test Reports

Upon successful completion of testing for each equipment item or system, the Contractor shall submit complete typewritten test reports including data forms.

Upon substantial completion, all factory, functional and performance test reports shall be inserted by the Contractor into the applicable O&M data packages.

1.4.6. Device Settings

Submit all final device settings for all field adjustable devices. These settings shall be incorporated into the final O&M manuals for each piece of equipment supplied.

1.4.7. Factory and Field Test Manuals

When all factory and field testing is complete, submit all test documents in bound form and electronic copy (on DVD). This consolidated submittal is in addition to the individual submittal of test procedures and test results. Format requirement for this field testing manual shall be the same as for the final closeout submittals specified in Section 01 77 00 CLOSEOUT PROCEDURES, including section dividers by system or equipment. Note: Electrical Equipment data shall be provided on approved NETA forms and Instrumentation and Control data shall be provided on ISA forms.

1.5. QUALITY CONTROL

All startup, testing, and commissioning activities, work, and personnel shall be subject to the general Project Quality Control Systems requirements specified in Section 01 45 00.10 QUALITY CONTROL SYSTEM (QCS). All documentation created for or generated by testing activities shall be considered part of the project quality documentation.

For the purposes of this Section, a system shall include all items of equipment, devices and appurtenances connected in such a fashion as their operation or function complements, protects or controls the operation or function of the others. The Contractor shall coordinate the activities of all subcontractors and suppliers to implement the requirements of this Section.

All testing will be witnessed by the Government. All test plans and reports shall include signoff by the Government witness.

1.6. TESTING REQUIREMENTS

1.6.1. Factory Testing

Factory testing of equipment or systems shall be submitted as necessary. All factory testing for a system or individual equipment item shall be complete, with results approved by the Contracting Officer, prior to shipment of that system or equipment to the job site.

1.6.1.1. Minimum requirements for factory tests shall be as given below and as indicated in the individual equipment or system specifications:

a. Complete test plans and schedules for all factory tests.

b. Contractor shall plan for all factory tests to be witnessed by the Government. At the Government's discretion certain factory tests may not be witnessed by the Government. The Government will issue a waiver for un-witnessed factory tests that the Contractor shall include in their final documentation. Results from all tests, whether witnessed or un-witnessed, shall be submitted to the Contracting Officer.

c. Factory test conditions shall be made as close to field conditions as is practical and shall be approved by the Contracting Officer prior to commencing factory tests.

d. Factory tests shall be conducted to prove that the equipment or system performs in accordance with the specifications and is ready for shipment to the job site.

1.6.2. Functional Testing

1.6.2.1. Functional tests shall not proceed until the Contracting Officer has received and approved the items listed below:

a. Interconnection and Loop diagrams

b. All factory test reports

c. Manufacturer's Certificate of Proper Installation (where required)

d. Equipment or system functional test submittal

e. All specified spare parts and special tools

f. Draft O&M Manuals

1.6.2.2. Each functional test shall include:

Device Calibrations, Loop Checks, and Electrical Commissioning:

a. Calibration Check: Verify that all devices have been properly field calibrated and that field calibration tags have been completed and installed.

b. Loop Checks if not performed as part of pre-operational testing.

c. Electrical Commissioning of related wiring and equipment.

1.6.2.3. All device calibrations, loop checks and electrical systems commissioning shall be completed and accepted by the Government prior to starting the remaining functional test elements specified hereinafter.

a. Installation Check: Check for proper rotation, adjustment, alignment, balancing, mechanical and electrical connections, proper lubrication, and any other conditions that may damage or impair equipment from functioning properly.

b. Operations Check: Check for proper operation of all system components.

c. Controls Check: Demonstrate proper function of all local and remote controls, instrumentation, and other equipment functions.

d. Alarms Check: Simulate alarm conditions and verify the proper operation of each alarm at the specified set point. Simulations shall be by means of direct element stimulation whenever possible or by other means when direct element stimulation is not practical as determined by the Government

e. Run Check: Each system or equipment item shall be operated continuously for a minimum of one (1)-hour or three complete operating cycles, unless noted otherwise.

f. Additional Test Requirements: The individual technical specifications or the equipment manufacturer may specify additional functional test requirements for each component or system.

1.6.3. Performance Testing

1.6.3.1. Performance tests shall demonstrate that the equipment or systems meets all specified performance requirements described in the individual technical specifications.

1.6.3.2. Where previous functional testing has been configured to prove performance of individual components or systems, the Contractor may request waiving performance testing of that equipment. Such requests must be approved by the Contracting Officer before the performance tests can be waived. All baseline data shall be available from the functional testing if performance testing is to be waived.

1.6.3.3. Performance Tests

Once all affected equipment has been subjected to the required preoperational checkout procedures and functional testing and the Contracting Officer has witnessed and has not found deficiencies in that portion of the work, individual items of equipment and systems may be started and operated under simulated operating conditions to determine as nearly as possible whether the equipment and systems meet the requirements of these specifications.

The equipment shall be operated to determine machine operating characteristics, including noise, temperatures and vibration; to observe performance characteristics; and to permit initial adjustment of operating controls.

When testing requires the availability of auxiliary systems such as looped piping, electrical power, compressed air, control air, or instrumentation which have not yet been placed in service, the Contractor shall provide acceptable substitute sources, capable of meeting the requirements of the machine, device, or system at no additional cost to the Government. Disposal methods for test media shall be subject to review by the Government.

During the functional test period, the Contractor shall obtain baseline operating data on all equipment with motors greater than 1 horsepower to include amperage, bearing temperatures, and vibration. The baseline data shall be collected for the Government to enter in a preventive maintenance system.

Test results shall be within the tolerances set forth in the detailed technical criteria sections of Section 01 01 50 TECHNICAL REQUIREMENTS and in the specifications provided by the Contractor. If no tolerances have been specified, test results shall conform to tolerances established by recognized industry practice. Where, in the case of an otherwise satisfactory functional test, any doubt, dispute, or difference should arise between the Government and the Contractor regarding the test results or the methods or equipment used in the performance of such test, then the Contracting Officer may order the test to be repeated.

If the repeat test, using such modified methods or equipment as the Contracting Officer may require, confirms the previous test, then all costs in connection with the repeat test will be paid by the Government. Otherwise, the costs shall be borne by the Contractor. Where the results of any functional test fail to comply with the contract

requirements for such test, then such repeat tests as may be necessary to achieve the contract requirements shall be made by the Contractor at his expense. The Contractor shall provide, at no expense to the Government, all power, fuel, compressed air supplies, water, chemicals, and any other necessary consumable item, all labor, temporary piping, heating, ventilating, and air conditioning for any areas where permanent facilities are not complete and operable at the time of functional tests, and all other items and work, required to complete the functional tests. Temporary facilities shall be maintained until permanent systems are in service.

1.7. COMMISSIONING REQUIREMENTS

1.7.1. Calibration

All test equipment (gages, meters, thermometers, analysis instruments, and other equipment) used for calibrating or verifying the performance of equipment installed under this contract shall be calibrated as specified in cited test codes, standards or procedures. In no case shall the calibration be less than plus or minus 2 percent of actual value at full scale. Test equipment employed for individual test runs shall be selected so that expected values as indicated by the detailed performance specifications will fall between 60 and 85 percent of full scale. Pressure gages shall be calibrated in accordance with ANSI/ASME B40.1. Thermometers shall be calibrated in accordance with ASTM E77 and shall be furnished with a certified calibration curve.

Calibration of analysis instruments, sensors, gages, and meters installed under this contract shall proceed on a system-by-system basis. No equipment or system performance acceptance tests shall be performed until instruments, gages, and meters to be installed in that particular system have been calibrated and the calibration work has been witnessed by the Government.

1.7.2. Manufacturer Field Service Testing and Inspection

A manufacturer’s authorized representative shall perform all services when manufacturer’s services are specified in this section or are specified in any other technical section of the RFP. The authorized representative shall be factory trained and experienced in the technical applications, installation, operation and maintenance of the equipment, subsystem or system. Additional qualifications may be specified elsewhere.

Manufacturer’s representatives shall be subject to the acceptance of the Contracting Officer. No substitute representatives will be allowed without prior written approval by the Contracting Officer.

Manufacturer’s representatives shall be qualified for the work to be performed and different representatives may be required for specific tasks (installation assistance, testing, start-up, training, etc.).

Where required, the Manufacturer's or Supplier's field personnel shall perform the following:

a. Observe the erection, installation, start-up and testing of equipment.

b. Instruct and guide Contractor in proper procedures.

c. Supervise the initial start-up, operational check, and any required adjustments of equipment.

d. Training as required by Section 01 66 40 TRAINING.

e. Furnish a written report to Contracting Officer covering all Work done at least once each week and when Work on each item of equipment or system is completed.

Contractor shall provide five (5) day's notice prior to the arrival of any Manufacturer's and Supplier's field personnel at the site.

1.7.3. Dynamic Balancing of Equipment

Perform dynamic balancing of rotating equipment.

a. Record initial dynamic balance analysis data, including vibration velocity and vibration displacement at the rated speed of equipment.

b. Identify and quantify unbalance and make corrections as necessary to meet manufacturer specifications.

c. Record final dynamic balance analysis data, including vibration velocity and vibration displacement at the rated speed of equipment.

Submit dynamic balancing report. The dynamic balancing report shall be included in the Operations and Maintenance Manual. Equipment vibration testing is considered part of installation checks and testing and shall be completed before any functional testing of equipment begins.

1.7.4. Installation Checks and Pre-Operational Testing

An installation check and pre-operations testing shall be performed on the equipment prior to operation of the equipment and prior to any functional testing.

A Certificate of Proper Installation shall be provided for valve and hoist installation. A qualified representative from the manufacturer shall visit the site, inspect the installed equipment, and observe any installation testing required. The manufacturer's representative shall sign the Certificate of Proper Installation certifying that the equipment is properly installed and ready for functional testing.

1.7.4.1. Placing Equipment in Operation:

Place all Equipment and Materials installed under this Contract into successful operation according to instructions of the Supplier, Manufacturer, or field representative, including making all required adjustments, tests, operation checks, and the following:

a. Cleaning, sounding, blowing-out, and flushing of lubricating oil and water systems, and other pipelines.

b. Lubrication, fuels, supplies, power, consumables, water, and labor to be supplied by the Contractor for the duration of start up and testing, and until substantial completion of the work.

c. Tests of lubrication system safety interlocks and system performance.

Final alignment checks and measurements made under observation of Government staff or designated agent. Alignment checks shall include opening connections, if required, to ensure there are no abnormal stresses on equipment from pipes, ducts, or other attachments. Alignment shall be within tolerances specified by the Manufacturer, and measurements shall be recorded and furnished to Contracting Officer.

1.7.4.2. Motor rotation checks

Before connecting couplings, verify that motor rotors rotate freely. Verify that the motors rotate in the correct direction to corresponding control inputs.

1.7.4.3. Anchor-bolt tensions, grout and shims

Tighten anchor bolts with calibrated torque wrenches using care not to over stress bolts. Check condition of grout and shims to ensure proper contact and installation.

1.7.4.4. Pressure and leakage tests

Pressure and leakage tests shall be conducted in accordance with applicable portions of the Specifications. All acceptance tests shall be witnessed by the Government. Evidence of successful completion of the pressure and leakage tests shall be the Contracting Officer's signature on the test forms prepared by the Contractor.

1.7.4.5. Final Installation

a. After acceptance of alignment and installation, and where specified, affix major equipment in place using standard tapered dowels with jack-out nuts at head end to facilitate removal.

b. Record all above operations on forms acceptable to the Contracting Officer, including Certificate of Proper Installation, where required.

c. Furnish all necessary personnel as part of the Work to accomplish the above operations until such time as individual items, systems, equipment, or sections of the plant are acceptable for operation by the Owner.

1.8. STARTUP REQUIREMENTS

1.8.1. Startup Testing

The start-up testing procedure shall verify that all facilities are completely installed, that all systems are correctly set up and that the facilities will reliably function over time in real world conditions.

The start-up test shall not proceed until all of the following have been completed:

a. All factory, functional and performance test record have been approved by Government. Copies of these test records shall be available on-site as well.

b. All draft O&M manuals have been approved by the Government.

c. Owner's personnel have been trained in accordance with the individual technical specifications.

d. All tagging and labeling including but not limited to piping, conduit, panels, and equipment, have been completed.

e. All near final as-built drawings (not CAD set) that are still subject to further updating for incomplete work, have been approved by the Government.

f. Start-up test procedures have been approved by the Government. The Contractor shall coordinate with the Government to start-up the facility equipment and systems as outlined in the Contractor's start-up plan.

Only Contractor's personnel approved by the Government shall operate the equipment and systems during the startup test. It is the intent of this section that the performance of any and all: turbine equipment, valves, compressed air systems, mechanical systems, electrical sub-systems and systems, and controls be tested as a complete, operational, and integrated system conforming to the performance and design parameters outlined in this Contract. The entire facility shall be tested in the normal operational sequence in all control modes.

The system start-up test procedure is intended to demonstrate satisfactory operation and integration of the control system and all the mechanical and electrical sub-systems and systems, and accessory equipment including but not be limited to:

a. Demonstrate all control sequences at a prescribed operating range defined by head, flow rate, and power demand under normal operating conditions.

b. Repeat control sequences as required in order to test each subsystem. Check and record all system flows, levels and pressures.

The start-up test requires that all new work of this Contract shall operate as designed and function in an uninterrupted and trouble-free manner with no mechanical or electrical failures for an extended time period.

During the test periods, the Facilities shall operate without failure, with exceptions to demonstrate non-normal functioning.

The start-up test shall be conducted at a time and date to be mutually agreed upon by the Contractor and the Government.

The Contractor shall provide the services of all-technical and craft personnel required to support the work covered under the Contract during the entire start-up testing. Additionally, the Contractor shall arrange for on-call services of these personnel as needed to respond to emergencies.

Contractor shall maintain the appropriate staff (either on site or on call) to be able to respond immediately (24-hours per day) to system or equipment related questions and to correct deficiencies until Startup Testing is complete.

The Contractor shall install any temporary connections, bulkheads, intake gates, and make other provisions necessary for the anticipated operating conditions. During the operational testing period, the Contractor's Commissioning Manager and testing team shall monitor the characteristics of each machine and system and report any unusual conditions to the Contracting Officer.

At the satisfactory conclusion of the start-up test, dismantle and remove all temporary valving, hoses and other equipment used during the test.

All deficiencies found during start-up testing, and subsequent correction thereof must be inspected by the Government.

1.8.2. Operational Testing

Following successful completion of start-up testing and any re-testing requirements, Contractor shall initiate operational testing of the facilities.

During operational testing Contractor shall be available to correct any deficiencies or problems which are encountered during the testing period.

Contractor shall correct all deficiencies noted during the operational testing prior to final completion.

1.9. TESTING AND SUMMARY REQUIREMENTS

1.9.1. Startup, Testing, and Commissioning Coordination Meetings

Weekly meetings shall be held to discuss overall scheduling, procedures, strategy, and preparations for the forthcoming startup, testing, or commissioning activities. The first meeting shall be conducted no later than 30 calendar days prior to the first scheduled activities.

These weekly planning meetings shall continue until all field tests are completed and approved by the Government.

The Contractor shall attend all meetings, and the Contractor shall provide suitable representation from each subcontractor having testing responsibilities so that informed decisions can be made during the meetings.

1.9.2. Re-Testing

If any portion of any test does not pass, the Contractor shall correct the problem in a timely manner and repeat the test until it passes to the satisfaction of the Government.

If any failure of any component or system occurs during the start-up testing, then the entire test shall be restarted. If the Contractor determines that the failure is minor and recommends continuation of the test rather re-starting, then the Contracting Officer may permit continuation of testing at their sole discretion.

If a failure of any component should occur during the start-up test, the Contractor shall be responsible for the actual cost of any idle time due to such failure. Such costs of idle time shall include personnel costs of Government personnel who are assigned to coordinate, assist and witness the start-up test, personnel costs of the Government’s duly authorized representatives, rental of equipment and any other incidental costs of the delay.

1.9.3. Pre-Turnover (Post-Testing Period)

Once testing has been completed, all equipment shall be made ready for turnover to the Government. All machines shall be rechecked for proper alignment, realigned, if necessary, and dowelled in place. All equipment shall be checked for loose connections, unusual movement, or other indications of improper operating characteristics. Any deficiencies shall be corrected to the satisfaction of the Government. All machines or devices which exhibit unusual or unacceptable operating characteristics shall be disassembled and inspected. They shall then be repaired or removed from the site and replaced at no cost to the Government.

Prior to turnover, Contractor shall perform the following minimum activities to restore equipment and systems to turnover-ready conditions:

a. Drain and flush all cooling and lubrication systems and refill as recommended by the equipment manufacturer.

b. Fill all fuel tanks.

c. Replace any spare parts, test equipment, batteries, or similar expendables that were consumed or damaged during the testing procedures.

1.10. PAYMENT

i. See Section 01 22 00 MEASUREMENT AND PAYMENT, last paragraph of Part 1.

PART 2 PRODUCTS
Not used.

PART 3 EXECUTION
Not used.

– END OF SECTION –

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DIVISION 01 – GENERAL REQUIREMENTS

SECTION 01 66 40

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PART 1. GENERAL

1.1 SUMMARY

This section contains requirements for training the Owner/Operator's personnel, by persons retained by the Contractor specifically for the purpose, in the proper operation and maintenance of the equipment and systems installed and/or rehabilitated under this contract and how that equipment is integrated with the rest of the equipment in the Irrigation System and Instrumentation Improvements.

The following general categories of training shall be provided:

a. Equipment specific operations and maintenance training, conducted by qualified staff from the equipment or system supplier in conjunction with the O&M Data Package.

b. Overall facility operations and maintenance training, conducted by qualified staff employed by Design- Builder.

1.2 RELATED SECTIONS

Section 01 33 15, SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS
Section 01 33 16 DESIGN BUILD AFTER AWARD
Section 01 64 00 STARTUP TESTING AND COMISSIONING
Section 01 66 40, TRAINING
Section 01 77 00 CLOSEOUT PROCEDURES
Section 01 78 10 OPERATION AND MAINTENANCE DATA

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following information shall be submitted to the Contracting Officer in accordance with the provisions of Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

Items	Paragraph
Training Plan at 65% Design	2.1
Lesson plans including training manuals at 99% Design	2.3
Video Recordings in DVD Format at 100% Design	2.5

1.4 QUALITY CONTROL

All training shall be scheduled and coordinated by Contractor’s Commissioning Manager or other designated staff that report directly to the Commissioning Manager. All training materials and documentation shall be controlled by the project quality control plans and policies.

PART 2. PRODUCTS

2.1 GENERAL:

Contractor shall provide a Training Plan for each Interim Design Package (65%). Subject of each training session, identity and qualifications of individuals to be conducting the training, and tentative date and time of each training session.

The Contractor shall provide operational and maintenance training for all systems furnished and/or rehabilitated under this contract in accordance with this section. The training shall not take place until the operation and maintenance data packages are submitted and approved in accordance with this section. Training will be given to personnel responsible for the operation and maintenance of the system at the installation. Obtain approval of the training course before beginning that phase of training. Furnish a qualified instructor approved by the system manufacturer to conduct training for the specific system. Training manuals shall include an agenda, defined objectives and a detailed description of the subject matter for each lesson. Furnish audio-visual equipment and all other training materials and supplies. A training day is defined as 8 hours of classroom or lab instruction, including two 15 minute breaks and excluding lunch time, Monday through Friday, during the daytime shift in effect at the training facility. For guidance, the Contractor should assume the attendees will have an elementary school education. Students speak Pashto and do not have a sophisticated technical background. As a result, the contractor will be responsible for providing a trainer fluent in Pashto. Provide qualifications of the trainer to the COR for review. The trainer may be a fluent Pashto translator, with material being translated from English from a trainer who also speaks English. Due to the educational level of the staff, the handouts for procedures shall be graphical in nature with simple, straightforward narrative.

The Contractor shall video record the training session and provide the recordings in DVD format to the Government. A copy of the DVD shall be provided in the regional format for Southeast Asia (region 2) as well as for the United States (region 1).

All errors or deficiencies in the O&M Data Packages identified by contractor, site, or government personnel shall be identified, tracked and resolved as required in Section 01 78 10, OPERATION AND MAINTENCANCE DATA.

2.2 LOCATION

Training sessions shall take place on site in Afghanistan.

2.3 LESSON PLANS

Contractor shall provide a Lesson Plan for each Final Design Package (99%). Formal written lesson plans shall be prepared for each training session. The lesson plans shall be in Pashto and English. Lesson plans shall contain an outline of the material to be presented along with a description of visual aids to be utilized during the session. Each plan shall contain a time allocation for each subject. One complete set of originals, in each language, of the lesson plans, training manuals, handouts, visual aids, and reference material shall be the property of the Government and shall be suitably bound for proper organization and easy reproduction. The Contractor shall furnish 5 copies of necessary training manuals, handouts, visual aids and reference materials in each language at least 1 week prior to each training session.

Lesson plans for each training session to be conducted by the manufacturer's representatives or Contractor. In addition, training manuals, handouts, visual aids, and other reference materials shall be included.

2.4 FORMAT AND CONTENT

Each training session shall be comprised of time spent both in the classroom and at the specific location of the subject equipment or system, or at the specific dam instrument locations or sites with the field instrument. As a minimum, the training session shall cover the following subjects for each item of equipment, monitoring instrument, or system:

2.4.1 Equipment Specific Training

2.4.1.1 Familiarization

a. Review catalog, parts lists, drawings, etc., which have been previously provided for the plant files and operation and maintenance manuals
b. Observe the installation of the specific equipment items
c. Demonstrate the unit and indicate how all parts of the specifications are met
d. Answer questions

2.4.1.2 Safety

a. Using material previously provided, review safety references
b. Discuss proper precautions around equipment and safety for access to embankment instrumentation locations or sites for both personnel and transport of equipment in the field

2.4.1.3 Operation

a. Using material previously provided, review reference literature
b. Explain all modes of operation (including emergency)
c. Supervise Government or Operator's personnel on proper use of the equipment and handling of equipment in the field for instrument readings and surveys

2.4.1.4 Preventive Maintenance

Using material previously provided, review preventive maintenance (PM) lists including:

a. Reference material
b. Daily, weekly, monthly, quarterly, semiannual, and annual Pm requirements
c. Show how to perform PM requirements
d. Show Operator's personnel what to look for as indicators of equipment problems
e. Perform battery checks and charging of field instruments' batteries prior to use and rotation of fresh batteries in fixed instruments
f. Perform cleaning of instruments or equipment prior and after field use

2.4.1.5 Corrective Maintenance

a. List possible problems
b. Discuss repairs--point out special problems
c. Open up equipment and demonstrate procedures, where practical

2.4.1.6 Parts

a. Show how to use previously provided parts list and order parts
b. Check over spare parts on hand
c. Make recommendations regarding additional parts that should be available

2.4.1.7 Equipment Representatives

a. Where to order parts: Name, address, telephone.
b. Service problems: Who to call ?, How to get emergency help?

2.4.1.8 Operation and Maintenance Manuals

Review any other material submitted and update material, as required.

2.4.2 Overall Facility and Embankment Dam Instrumentation Training

2.4.2.1 Familiarization

a. Review major components of the facilities and discuss their intended interaction and operation.
b. Review the facility control descriptions and normal operating procedures from the operations and maintenance manuals.
c. Answer questions.

2.4.2.2 Safety

a. Discuss overall facility safety issues and safety measures incorporated into facility design.
b. Review safety shutdown, alarming, and other automatic safety features.

2.4.2.3 Operation

a. Describe general operation of each major sub-system and the overall facility.
b. Explain all modes of operation (including emergency).
c. Explain all features of the facility control systems including:
d. Available control modes and methods to switch from one mode to another.
e. Setpoint adjustment for any systems.
f. Emergency and process interlocks.
g. Alarm displays and reset/acknowledgement functions.
h. Any reporting functions implemented for the control system.
i. Local control overrides

2.4.3 SITE OPERATION AND MAINTENANCE DATA PACKAGE

a. Review any other material submitted.
b. Review process for field data reduction for each instrument or system and interpretation of results.
c. Update material, as required

2.5 VIDEO RECORDING

The hands on training and any videos provided by the manufacturer and equipment suppliers is intended to satisfy the training needs for the existing project personnel. However, there is a future need for training of Afghans by Afghans. Therefore, all hands on and class room training must be video recorded. Further, all videos must be professionally edited and produced with final dubbing in the appropriate language with English subtitles (including those produced in studios outside Afghanistan and supplied by the equipment manufacturers). The Contractor shall record each hands on training session, post process the videos and submit the recordings according to Section 013315 Submittal Procedures for Design Build Projects and Section 013316 Design Build After Award. The Contractor shall advise all manufacturers providing training sessions that the material will be recorded. Contractor shall make available to the Government and/or Operator such utility services and accommodation as may be required to facilitate the production of the video record.

PART 3. EXECUTION

3.1 TRAINING

Training shall be conducted in conjunction with the testing periods. Classes shall be scheduled such that classroom sessions are interspersed with field instruction in logical sequence. The Contractor shall arrange to have the training conducted on consecutive days, with no more than 6 hours of classes scheduled for any one day. Concurrent classes shall not be allowed.

3.2 OPERATION AND MAINTENANCE DATA

Acceptable operation and maintenance data for the specific equipment shall be provided to the Government prior to the start of any training. Video recording shall take place concurrently with all training sessions.

3.3 SERVICES

The following services shall be provided for each item of equipment or system as required in individual specification sections. Additional services shall be provided, where specifically required in individual specification sections.

3.3.1 Class Room Training

As a minimum classroom equipment training for operations personnel will include:

a. Using slides and drawings, discuss the equipment's specific location in the plant and an operational overview
b. Purpose and plant function of the equipment
c. A working knowledge of the operating theory of the equipment
d. Start-up, shutdown, normal operation, and emergency operating procedures, including a discussion on system integration and electrical interlocks, if any
e. Identify and discuss safety items and procedures
f. Routine preventative maintenance, including specific details on lubrication and maintenance of corrosion protection of the equipment and ancillary components
g. Operator detection, without test instruments, of specific equipment trouble symptoms.
h. Required equipment exercise procedures and intervals
i. Routine disassembly and assembly of equipment if applicable for purposes such as operator inspection of equipment

3.3.2 Hands On Training

As a minimum, hands-on equipment training for operations personnel will include:

a. Identify location of equipment and review the purpose
b. Identifying piping and flow options
c. Identifying valves and their purpose
d. Identifying instrumentation

3.4 LOCATION OF PRIMARY ELEMENT.

a. Location of instrument readout.
b. Discuss purpose, basic operation, and information interpretation.
c. Discuss, demonstrate, and perform standard operating procedures and round checks.
d. Discuss and perform the preventative maintenance activities.
e. Discuss and perform start-up and shutdown procedures.
f. Perform the required equipment exercise procedures.
g. Perform routine disassembly and assembly of equipment if applicable.
h. Identify and review safety items and perform safety procedures, if feasible.

3.4.1 Class Room Training

As a minimum classroom equipment training for operations personnel will include:

a. Theory of operation.
b. Description and function of equipment.
c. Start-up and shutdown procedures.
d. Normal and major repair procedures.

e. Equipment inspection and troubleshooting procedures including the use of applicable test instruments and the "pass" and "no pass" test instrument readings.
f. Routine and long-term calibration procedures.
g. Safety procedures.
h. Preventative maintenance such as lubrication; normal maintenance such as belt, seal, and bearing replacement; and up to major repairs such as replacement of major equipment part(s) with the use of special tools, bridge cranes, welding jigs, etc.

3.4.2 Hands On Training

a. As a minimum, hands-on equipment training for operations personnel will include:
b. Locate and identify equipment components.
c. Review the equipment function and theory of operation.
d. Review normal repair procedures.
e. Perform start-up and shutdown procedures.
f. Review and perform the safety procedures.
g. Perform Operator approved practice maintenance and repair job(s), including mechanical and electrical adjustments and calibration and troubleshooting equipment problems.

-- END OF SECTION --

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SECTION 01 78 00
CLOSEOUT SUBMITTALS

PART 1 GENERAL

1.1 RELATED SECTIONS

Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS

1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. 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 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS and as described herein:

SD-02 Shop Drawings	Paragraph
As-Built Drawings; G	1.3.1
SD-03 Product Data	
As-Built Record of Equipment and Materials; G	1.3.2
Warranty Management Plan; G	1.41
Warranty Tags; G	1.4.4

1.3 PROJECT RECORD DOCUMENTS

1.3.1 As-Built Drawings

This paragraph covers as-built drawings completed, 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.

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.

1.3.1.1 Government Furnished Materials

One set of electronic CADD files in the specified software and format revised to reflect all bid amendments will be provided by the Government at the preconstruction conference for projects requiring CADD file as-built drawings.

1.3.1.2 Working As-Built and Final As-Built Drawings

The Contractor shall revise 2 sets of paper drawings by red-line process to show the as-built conditions during the prosecution of the project. These working as-built marked drawings shall be kept current on a weekly basis and at least one set shall be available on the jobsite at all times. Changes from the contract plans which are made in the

work or additional information which might be uncovered in the course of construction shall be accurately and neatly recorded as they occur by means of details and notes. Final as-built drawings shall be prepared after the completion of each definable feature of work as listed in the Contractor Quality Control Plan (Foundations, Utilities, Structural Steel, etc., as appropriate for the project). The working as-built marked prints and final as-built drawings will be jointly reviewed for accuracy and completeness by the Contracting Officer and the Contractor prior to submission of each monthly pay estimate. If the Contractor fails to maintain the working and final as-built drawings as specified herein, the Contracting Officer will deduct from the monthly progress payment an amount representing the estimated cost of maintaining the as-built drawings. This monthly deduction will continue until an agreement can be reached between the Contracting Officer and the Contractor regarding the accuracy and completeness of updated drawings. The working and final as-built drawings shall show, but shall not be limited to, the following information:

a. The actual location, kinds and sizes of all sub-surface utility lines. In order that the location of these lines and appurtenances may be determined in the event the surface openings or indicators become covered over or obscured, the as-built drawings shall show, by offset dimensions to two permanently fixed surface features, the end of each run including each change in direction. Valves, splice boxes and similar appurtenances shall be located by dimensioning along the utility run from a reference point. The average depth below the surface of each run shall also be recorded.

b. The location and dimensions of any changes within the building structure.

c. Correct grade, elevations, cross section, or alignment of roads, earthwork, structures or utilities if any changes were made from contract plans.

d. Changes in details of design or additional information obtained from working drawings specified to be prepared and/or furnished by the Contractor; including but not limited to fabrication, erection, installation plans and placing details, pipe sizes, insulation material, dimensions of equipment foundations, etc.

e. The topography, invert elevations and grades of drainage installed or affected as part of the project construction.

f. Changes or modifications which result from the final inspection.

g. Where contract drawings or specifications present options, only the option selected for construction shall be shown on the final as-built prints.

h. If borrow material for this project is from sources on Government property, or if Government property is used as a spoil area, the Contractor shall furnish a contour map of the final borrow pit/spoil area elevations.

i. Systems designed or enhanced by the Contractor, such as HVAC controls, fire alarm, fire sprinkler, and irrigation systems.

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:

a. Directions in the modification for posting descriptive changes shall be followed.

b. A Modification Circle shall be placed at the location of each deletion.

c. For new details or sections which are added to a drawing, a Modification Circle shall be placed by the detail or section title.

d. For minor changes, a Modification Circle shall be placed by the area changed on the drawing (each location).

e. 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.

f. For changes to schedules or drawings, a Modification Circle shall be placed either by the schedule heading or by the change in the schedule.

g. The Modification Circle size shall be 12.7 mm 1/2 inch diameter unless the area where the circle is to be placed is crowded. Smaller size circle shall be used for crowded areas.

1.3.1.3 Drawing Preparation

The as-built drawings shall be modified as may be necessary to correctly show the features of the project as it has been constructed by bringing the contract set into agreement with approved working as-built prints, and adding such additional drawings as may be necessary. These working as-built marked prints shall be neat, legible and accurate. These drawings are part of the permanent records of this project and shall be returned to the Contracting Officer after approval by the Government. Any drawings damaged or lost by the Contractor shall be satisfactorily replaced by the Contractor at no expense to the Government.

1.3.1.4 Computer Aided Design and 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 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 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 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 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 set of electronic files on compact disc, read-only memory (CD-ROM), one set of full size paper prints and one set of the approved working as-built drawings. They shall be complete in all details and identical in form and function to the contract drawing files supplied by the Government. Any transactions or adjustments necessary to accomplish this is the responsibility of the Contractor. The Government reserves the right to reject any drawing files it deems incompatible with the 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 above.

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.

f. The contractor shall in addition to other requirements, provide all as-built documentation in PDF format maintaining all drawing layer information.

1.3.1.5 Payment

No separate payment will be made for as-built drawings required under this contract, and all costs accrued in connection with such drawings shall be considered a subsidiary obligation of the Contractor.

1.3.2 As-Built Record of Equipment and Materials

The Contractor shall furnish one copy of preliminary record of equipment and materials used on the project 15 days prior to final inspection. This preliminary submittal will be reviewed and returned 2 days after final inspection with Government comments. Two sets of final record of equipment and materials shall be submitted 10 days after final inspection. The designations shall be keyed to the related area depicted on the contract drawings. The record shall list the following data:

Furnish the record of materials used in the following format:

MATERIALS DESIGNATION	SPECIFICATION	MANUFACTURER	MATERIALS USED (MANUFACTURER'S DESIGNATION)	WHERE USED

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

1.4.1 Warranty Management Plan

The Contractor shall develop a warranty management plan which shall contain information relevant to the Contract Clause 52.246-21 entitled “WARRANTY OF CONSTRUCTION”. At least 30 days before the planned pre-warranty conference, the Contractor shall submit the warranty management plan for Government approval. The warranty management plan shall include all required actions and documents to assure that the Government receives all warranties to which it is entitled. The plan shall be in narrative form and contain sufficient detail to render it suitable for use by future maintenance and repair personnel, whether tradesmen, or of engineering background, not necessarily familiar with this contract. The term "status" as indicated below shall include due date and whether item has been submitted or was accomplished. Warranty information made available during the construction phase shall be submitted to the Contracting Officer for approval prior to each monthly pay estimate. Approved information shall be assembled in a binder and shall be turned over to the Government upon acceptance of the work. The construction warranty period shall begin on the date of project acceptance and shall continue for the full product warranty period. A joint 4 month and 9 month warranty inspection shall be conducted, measured from time of acceptance, by the

Contractor, Contracting Officer and the Customer Representative. Information contained in the warranty management plan shall include, but shall not be limited to, the following:

a. Roles and responsibilities of all personnel associated with the warranty process, including points of contact and telephone numbers within the organizations of the Contractors, subcontractors, manufacturers or suppliers involved.

b. Listing and status of delivery of all Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and for all commissioned systems such as fire protection and alarm systems, sprinkler systems, lightning protection systems, etc.

c. A list for each warranted equipment, item, feature of construction or system indicating:

   I. Name of item.
   II. Model and serial numbers.
   III. Location where installed.
   IV. Name and phone numbers of manufacturers or suppliers.
   V. Names, addresses and telephone numbers of sources of spare parts.
   VI. Warranties and terms of warranty. This shall include one-year overall warranty of construction. Items which have extended warranties shall be indicated with separate warranty expiration dates.
   VII. Cross-reference to warranty certificates as applicable.
   VIII. Starting point and duration of warranty period.
   IX. Summary of maintenance procedures required to continue the warranty in force.
   X. Cross-reference to specific pertinent Operation and Maintenance manuals.
   XI. Organization, names and phone numbers of persons to call for warranty service.
   XII. Typical response time and repair time expected for various warranted equipment.

d. The Contractor's plans for attendance at the 4 and 9 month post-construction warranty inspections conducted by the Government.

e. Procedure and status of tagging of all equipment covered by extended warranties.

f. Copies of instructions to be posted near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

1.4.2 Pre-Warranty Conference

Prior to contract completion, and at a time designated by the Contracting Officer, the Contractor shall meet with the Contracting Officer to develop a mutual understanding with respect to the requirements of this section. Communication procedures for Contractor notification of construction warranty defects, priorities with respect to the type of defect, reasonable time required for Contractor response, and other details deemed necessary by the Contracting Officer for the execution of the construction warranty shall be established/reviewed at this meeting. In connection with these requirements and at the time of the Contractor's quality control completion inspection, the Contractor shall furnish the name, telephone number and address of a licensed and bonded company which is authorized to initiate and pursue construction warranty work action on behalf of the Contractor. This point of contact will be located within the local service area of the warranted construction, shall be continuously available, and shall be responsive to Government inquiry on warranty work action and status. This requirement does not relieve the Contractor of any of its responsibilities in connection with other portions of this provision.

1.4.3 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 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.

First Priority Code 1. Perform onsite inspection to evaluate situation, and determine course of action within 4 hours, initiate work within 6 hours and work continuously to completion or relief.

Second Priority Code 2. Perform onsite inspection to evaluate situation, and determine course of action within 8 hours, initiate work within 24 hours and work continuously to completion or relief.

Third Priority Code 3. All other work to be initiated within 3 work days and work continuously to completion or relief.

The "Construction Warranty Service Priority List" is as follows:

Code 1-Air Conditioning Systems
1) Recreational support.
2) Air conditioning leak in part of building, if causing damage.
3) Air conditioning system not cooling properly.

Code 1-Doors
1) Overhead doors not operational, causing a security, fire, or safety problem.
2) Interior, exterior personnel doors or hardware, not functioning properly, causing a security, fire, or safety problem.

Code 3-Doors
1) Overhead doors not operational.
2) Interior/exterior personnel doors or hardware not functioning properly.

Code 1-Electrical
1) Power failure (entire area or any building operational after 1600 hours).
2) Security lights
3) Smoke detectors

Code 2-Electrical
1) Power failure (no power to a room or part of building).
2) Receptacle and lights (in a room or part of building).

Code 3-
Electrical
Street lights.

Code 1-Gas
1) Leaks and breaks.
2) No gas to family housing unit or cantonment area.

Code 1-Heat
1) Area power failure affecting heat.
2) Heater in unit not working.

Code 2-Kitchen Equipment
1) Dishwasher not operating properly.
2) All other equipment hampering preparation of a meal.

Code 1-Plumbing
1) Hot water heater failure.
2) Leaking water supply pipes.

Code 2-Plumbing
1) Flush valves not operating properly.
2) Fixture drain, supply line to commode, or any water pipe leaking.

3) Commode leaking at base.

Code 3 –Plumbing
Leaky faucets.

Code 3-Interior
1) Floors damaged.
2) Paint chipping or peeling.
3) Casework.

Code 1-Roof Leaks
Temporary repairs will be made where major damage to property is occurring.

Code 2-Roof Leaks
Where major damage to property is not occurring, check for location of leak during rain and complete repairs on a Code 2 basis.

Code 2-Water (Exterior)
No water to facility.

Code 2-Water (Hot)
No hot water in portion of building listed.

Code 3-All other work not listed above.

1.4.4 Warranty Tags

At the time of installation, each warranted item shall be tagged with a durable, oil and water resistant tag approved by the Contracting Officer. Each tag shall be attached with a copper wire and shall be sprayed with a silicone waterproof coating. The date of acceptance and the QC signature shall remain blank until project is accepted for beneficial occupancy. The tag shall show the following information.

Type of product/material_____.
Model number_____.
Serial number_____.
Contract number_____.
Warranty period_____from_____to_____.
Inspector's signature_____.
Construction Contractor_____.
Address_____.
Telephone number_____.

Warranty contact_____
Address_____.
Telephone number_____.

Warranty response time priority code_____.
WARNING - PROJECT PERSONNEL TO PERFORM ONLY OPERATIONAL MAINTENANCE DURING THE WARRANTY PERIOD.

1.5 MECHANICAL TESTING, ADJUSTING, BALANCING, AND COMMISSIONING

Prior to final inspection and transfer of the completed facility; all reports, statements, certificates, and completed checklists for testing, adjusting, balancing, and commissioning of mechanical systems shall be submitted to and approved by the Contracting Officer as specified inapplicable technical specification sections.

1.6 FINAL CLEANING

The premises shall be left broom clean. Stains, foreign substances, and temporary labels shall be removed from surfaces. Carpet and soft surfaces shall be vacuumed. Equipment and fixtures shall be cleaned to a sanitary condition. Filters of operating equipment shall be replaced. Debris shall be removed from roofs, drainage systems, gutters, and downspouts. Paved areas shall be swept and landscaped areas shall be raked clean. The site shall have waste, surplus materials, and rubbish removed. The project area shall have temporary structures, barricades, project signs, and construction facilities removed. A list of completed clean-up items shall be submitted on the day of final inspection.

1.7 OPERATION AND MAINTENANCE MANUALS

Two electronic copies in English of all Operation and Maintenance (O&M) manuals shall be submitted as follows:

U.S. Army Corps of Engineers
Afghanistan Engineering District – South
Att:, O&M
Kandahar Air Field, Afghanistan
APO, AE 09355

One hard paper copy and an electronic copy of the O&M manuals in English, Pashto, and Dari shall be delivered to the O&M Regional Site manager at the Resident Office or Area Office responsible for contract administration.

Operation manuals and maintenance manuals shall be provided in a common volume, complete, clearly differentiated and separately indexed.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- END OF SECTION --

SECTION 01 78 10
OPERATION AND MAINTENANCE DATA

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1. PART 1 GENERAL

1.1 SUMMARY

This Section includes the requirements for Contractor Operation and Maintenance (O&M) data. This section specifies the general requirements, O&M data language, quality and content, as well as types of information and operations to be covered.

1.1.1 General Requirements

The Contractor shall furnish all labor, tools, instruments, and consumable materials required to provide all O&M data specified. The Contractor shall be responsible for costs associated with outside subcontractors or testing agencies required to perform or certify the work.

1.1.2 Related Sections

a. Section 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

b. Section 01 33 16 DESIGN BUILD AFTER AWARD

c. Section 016400 START UP, TESTING AND COMMISSIONING

d. Section 01 66 40 TRAINING

e. Section 017700 CLOSEOUT PROCEDURES

f. Section 017810 OPERATION AND MAINTENANCE DATA

1.1.3 Submittals

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following information shall be submitted to the Contracting Officer in accordance with the provisions of Section 01 33 15, SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS:

Submittals	Paragraph
SD-03/08/10	
Operation and Maintenance Data; G	1.2
Pre-commissioning Data Package with Operation and Maintenance Data	1.2.4
Final Data Package with Operation and Maintenance Data	1.2.5

1.2 SUBMISSION OF OPERATION AND MAINTENANCE DATA

Contractor shall submit Operation and Maintenance 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 01 33 15 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS. The O&M data shall be “bi-lingual” in Pashto and English.

1.2.1 Package Quality

Documents must be fully legible. Poor quality copies and material with hole punches obliterating the text or drawings will not be accepted.

1.2.2 Package Content

Data package content shall be as shown in the paragraph titled "Schedule of Operation and Maintenance Data Packages." Comply with the data package requirements specified in the individual technical sections, including the content of the packages and addressing each product, component, and system designated for data package submission.

1.2.3 Changes to Submittals

Manufacturer-originated changes or revisions to submitted data shall be furnished by the Contractor if a component of an item is so affected subsequent to acceptance of the O&M Data. Changes, additions, or revisions required by the 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.

1.2.4 Testing and Training Evaluation and Revision of the O&M Data Package Submittal

The approved pre-commissioning data package with manufacturer-originated changes or revisions shall be used for the testing and training identified in Section 016400 START UP, TESTING AND COMMISSIONING and Section 016640 TRAINING. During the execution of the requirements of Sections 01 64 00 and 01 66 40 any errors or deficiencies identified by the contractor, site or government personnel shall be formally identified, tracked (a resolution log), and incorporated into the O&M data package. The resolution log shall include a description of the issue, the source of the issue's identification, and a description of how the issue what addressed including reference to the location in the data package. The contractor shall submit both the revised O&M data package and resolution log for government approval at least 30 days prior to Site Closeout.

1.2.5 Final O&M Data Package

After all comments and revisions have been incorporated into the O&M data package, and the government has approved the O&M Data Package, the contractor shall submit the Final O&M data package for that site in accordance with Section 017700 CLOSE OUT PROCEDURES and the requirements listed below.

1.3 TYPES OF INFORMATION REQUIRED IN O&M DATA PACKAGES

1.3.1 Operating Instructions

Include specific instructions, procedures, and illustrations for the following phases of operation:

1.3.1.1 Safety Precautions

List personnel hazards and equipment or product safety precautions for all operating conditions.

1.3.1.2 Operator Prestart

Include procedures required to set up and prepare each system for use.

1.3.1.3 Startup, Shutdown, and Post-Shutdown Procedures

Provide narrative description for Startup, Shutdown and Post-shutdown operating procedures including the control sequence for each procedure.

1.3.1.4 Normal Operations

Provide narrative description of Normal Operating Procedures. Include Control Diagrams with data to explain operation and control of systems and specific equipment.

1.3.1.5 Emergency Operations

Include Emergency Procedures for equipment malfunctions to permit a short period of continued operation or to shut down the equipment to prevent further damage to systems and equipment. Include Emergency Shutdown Instructions for fire, explosion, spills, or other foreseeable contingencies. Provide guidance and procedures for emergency operation of all utility systems including required valve positions, valve locations and zones or portions of systems controlled.

1.3.1.6 Operator Service Requirements

Include instructions for services to be performed by the operator such as lubrication, adjustment, inspection, and recording gage readings.

1.3.1.7 Environmental Conditions

Include a list of Environmental Conditions (temperature, humidity, and other relevant data) that are best suited for the operation of each product, component or system. Describe conditions under which the item equipment should not be allowed to run.

1.3.2 Preventive Maintenance

Include the following information for preventive and scheduled maintenance to minimize corrective maintenance and repair.

1.3.2.1 Lubrication Data

Include preventative maintenance lubrication data, in addition to instructions for lubrication provided under paragraph titled "Operator Service Requirements":

a. A table showing recommended lubricants for specific temperature ranges and applications.

b. Charts with a schematic diagram of the equipment showing lubrication points, recommended types and grades of lubricants, and capacities.

c. A Lubrication Schedule showing service interval frequency.

1.3.2.2 Preventive Maintenance Plan and Schedule

Include manufacturer's schedule for routine preventive maintenance, inspections, tests and adjustments required to ensure proper and economical operation and to minimize corrective maintenance. Provide manufacturer's projection of preventive maintenance work-hours on a daily, weekly, monthly, and annual basis including craft requirements by type of craft. For periodic calibrations, provide manufacturer's specified frequency and procedures for each separate operation.

1.3.3 Corrective Maintenance (Repair)

Include manufacturer's recommended procedures and instructions for correcting problems and making repairs.

1.3.3.1 Troubleshooting Guides and Diagnostic Techniques

Include step-by-step procedures to promptly isolate the cause of typical malfunctions. Describe clearly why the checkout is performed and what conditions are to be sought. Identify tests or inspections and test equipment required to determine whether parts and equipment may be reused or require replacement.

1.3.3.2 Wiring Diagrams and Control Diagrams

Wiring diagrams and control diagrams shall be point-to-point drawings of wiring and control circuits including factory-field interfaces. Provide a complete and accurate depiction of the actual job specific wiring and control work. On diagrams, number electrical and electronic wiring and pneumatic control tubing and the terminals for each type, identically to actual installation configuration and numbering.

1.3.3.3 Maintenance and Repair Procedures

Include instructions and a list of tools required to repair or restore the product or equipment to proper condition or operating standards.

1.3.3.4 Removal and Replacement Instructions

Include step-by-step procedures and a list required tools and supplies for removal, replacement, disassembly, and assembly of components, assemblies, subassemblies, accessories, and attachments. Provide tolerances, dimensions, settings and adjustments required. Instructions shall include a combination of text and illustrations.

1.3.3.5 Spare Parts and Supply Lists

Include lists of spare parts and supplies required for maintenance and repair to ensure continued service or operation without unreasonable delays. Special consideration is required for facilities at remote locations. List spare parts and supplies that have a long lead-time to obtain.

1.3.3.6 Exploded View, Section, and Assembly Drawings

Include drawings clearly indicating the position of parts in each final assembly, as well as detailed indications or descriptions of how parts or sub-assemblies fit into the greater assembly. Note critical assembly procedures or steps, as well as requirements for assembly with consumables, such as anti-galling or threadlocking compounds. Include torque values for fasteners in both foot-pounds and Newton-meters on the drawings.

1.3.4 Corrective Maintenance Work-Hours

Include manufacturer's projection of corrective maintenance work-hours including requirements by type of craft. Corrective maintenance that requires completion or participation of the equipment manufacturer shall be identified and tabulated separately.

1.3.5 Appendices

Provide information required below and information not specified in the preceding paragraphs but pertinent to the maintenance or operation of the product or equipment. Include the following:

1.3.6 Parts Identification

Provide identification and coverage for all parts of each component, assembly, subassembly, and accessory of the end items subject to replacement. Include special hardware requirements, such as requirement to use high-strength bolts and nuts. Identify parts by make, model, serial number, and source of supply to allow

reordering without further identification. Provide clear and legible illustrations, drawings, and exploded views to enable easy identification of the items. When illustrations omit the part numbers and description, both the illustrations and separate listing shall show the index, reference, or key number that will cross-reference the illustrated part to the listed part. Parts shown in the listings shall be grouped by components, assemblies, and subassemblies in accordance with the manufacturer's standard practice. Parts data may cover more than one model or series of equipment, components, assemblies, subassemblies, attachments, or accessories, such as typically shown in a master parts catalog

1.3.6.1 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.

1.3.6.2 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.

1.3.6.3 Testing Equipment and Special Tool Information

Include information on test equipment required to perform specified tests and on special tools needed for the operation, maintenance, and repair of components.

1.3.6.4 Contractor Information

Provide a list that includes the name, address, and telephone number of the General Contractor and each Subcontractor who installed the product or equipment, or system. For each item, also provide the name address and telephone number of the manufacturer's representative and service organization most convenient to the project site. Provide the name, address, and telephone number of the product, equipment, and system manufacturers.

1.4 O&M DATA PACKAGE FORMAT

All O&M Data Packages shall be submitted in accordance with the requirements of Section 013315 SUBMITTAL PROCEDURES FOR DESIGN-BUILD PROJECTS.

1.4.1 Initial O&M Data Packages

All Non-Final O&M data packages shall be submitted in both unbound hard copy format and electronic format in Adobe-Acrobat (.pdf) file format. Each submittal shall include a minimum of three (3) copies in both formats.

1.4.2 Final O&M Data Package

The Final O&M Data package for each site shall be submitted in both a hard bound copy and electronic format after all final revisions have be incorporated and formal government comments addressed, including those identified during the testing required in Section 016400 START UP, TESTING AND COMMISSIONING and Section 016640 TRAINING.

1.4.3 Hard Bound Format

The contractor shall provide a minimum of 6 (six) hard bound copies of the O&M data package. Each data package cover shall be clearly titled in all three languages listed above, detailing at a minimum the site and date. The copies shall be sectioned by language.

1.4.4 Electronic Format

The electronic format shall be Adobe-Acrobat (.pdf) and fit on a single DVD/CD. The contractor shall provide a minimum of 6 (six) electronic copies of the O&M data package. The data package shall be divided into three files, one for each of the three languages listed above. Each file shall have each chapter and/or section bookmarked with title.

2. PART 2 PRODUCTS

2.1 BINDER REQUIREMENTS

Data for equipment shall be assembled in a binder for 8 1/2- by 11-inch sheets with slide binding or screwpost fastening for replacement. Loose-leaf ring binders are not acceptable. A title on the cover shall show the project name, equipment or system, contract, and bid item numbers.

3. PART 3 EXECUTION

3.1 TRAINING

the Contractor shall provide operational and maintenance training for all systems furnished under this contract in accordance with this section and Section01 66 40 Training. 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 aide in contractor provided activity personnel training. Manuals shall be delivered for each trainee with two additional sets delivered for archiving at the project site. Submit a training course schedule, syllabus, and training materials 14 days prior to the start of training. Obtain approval of the training course before beginning that phase of training. Furnish a qualified instructor approved by the system manufacturer to conduct training for the specific system.

Training manuals shall include an agenda, defined objectives and a detailed description of the subject matter for each lesson. Furnish audio-visual equipment and all other training materials and supplies. A training day is defined as 8 hours of classroom or lab instruction, including two 15 minute breaks and excluding lunch time, Monday through Friday, during the daytime shift in effect at the training facility. For guidance, the Contractor should assume the attendees will have a high school education.

The Contractor shall video record the training session on CD/DVD and provide the recordings to the Government.

3.2 SPECIFIC REQUIREMENTS

Shop assembly or special drawings for manuals or parts catalogs shall be of a size that requires folding only in left to right coordinate. Each sheet shall be numbered and an index shall be provided. All standard catalog cuts, manufacturer's data, parts sheets, or illustrations shall be originals. One copy of such manual shall contain all original copies. Non-permanent copies are not acceptable. All nonapplicable data such as description of other models, optional equipment not included, etc. shall be marked out. If reference is made to other drawings or data they shall be included. The manual shall list equipment covered; the manufacturer; and name, address, and telephone number of the local representative.

3.3 PARTS CATALOGS

Parts catalogs shall include identification, nomenclature, part numbers, required parts, recommended spare parts stocked, and spare parts supplied. Data shall match equipment furnished. Standard catalog data will not be acceptable unless irrelevant parts are marked out and relevant parts are clearly identified.

3.4 OPERATIONS DATA

Operations data in the Operation and Maintenance Manual shall include operating instructions, procedures, sequences, and precautions; and description of parts. Subcontractors, suppliers, and manufacturers shall be coordinated to assure complete submittals on interrelated components. Instructions shall be included for all systems designed or furnished.

3.5 MAINTENANCE DATA

Maintenance data in the Operation and Maintenance Manual shall include instructions for lubrication, dismantling, assembly, repair and adjustment; parts catalogs; electric schematic and connection diagrams; hydraulic circuit diagrams with control and relief valve settings; control and interlock system diagrams; and lists of special tools required.
Lubrication instructions shall be for service intended and shall include tables indicating items, frequencies, grades, and types of lubricants. Instructions shall include clearances, bolt torques, pressure settings, and other data.

3.6 FAILURE TO SUBMIT OPERATIONS AND MAINTENANCE DATA

Where operations and maintenance (O&M) data are required, failure to furnish the data is justification to hold or adjust the retained percentage in accordance with Section Contract Clause 52.232-5 entitled "PAYMENTS UNDER FIXED PRICE CONSTRUCTION CONTRACTS". Final payment will not be made until all six copies of the O&M manuals have been accepted. Moreover, failure to provide O&M Manuals as required in this section will result in a final unsatisfactory overall performance rating, despite the nature of all other ratings.

3.7 PAYMENT

Separate payment will be not be made for compliance with this section. All costs for Operations and Maintenance Data are to be included in the contract prices of the various items. The Operations and Maintenance Data will be jointly inspected for accuracy and completeness by a GQAR and a responsible representative of the Contractor prior to submission. Final payment will not be made until the final Operations and Maintenance Data as required in this section will result in a final unsatisfactory overall performance rating, despite the nature of all other ratings.

-- END OF SECTION --

SECTION 01 58 00

PROJECT IDENTIFICATION

08/09

PART 1 GENERAL

1.1. REFERENCES

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

AMERICAN WOOD PROTECTION ASSOCIATION (AWPA)

AWPA C1 (2003) All Timber Products - Preservative Treatment by Pressure Processes

AWPA C2 (2003) Lumber, Timber, Bridge Ties and Mine Ties - Preservative Treatment by Pressure Processes

U.S. ARMY CORPS OF ENGINEERS (USACE)

EP 310-1-6a(2006) Sign Standards Manual, VOL 1

EP 310-1-6b(2006) Sign Standards Manual, VOL 2, Appendices

Exhibit A – Construction Project Signage for Afghanistan

1.2. SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are [for Contractor Quality Control approval.][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 01 33 00 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Preliminary one line drawings of project rendering ;G

SD-04 Samples

Final framed rendering and copies; G

Facility Recognition Plaque; G

1.3. QUALITY ASSURANCE

1.3.1.Rendering

Provide the project rendering in accordance with the following drawing stages as required in paragraph entitled "Submittals". The following submittal data is required to properly identify the appropriate view and approve the final rendering of the facility. The final painted rendering will be used to produce the image for the signboard and framed photographic copies provided to the Contracting Officer.

1.3.1.1 Preliminary One Line Drawings

Provide a 3-D view of the facility in a preliminary single line drawing (black and white) format. This drawing will represent the best angles at which to view the proposed facility showing the major features, i.e., spillways, intake tower, tunnels, power house, and the three dimensional character of the facility. For reference to major features see the Kajaki Dam Layout Drawing for the 1956 Final Design Report

1.3.1.2 Final Rendering Sample

Provide a photographic copy (200 by 250 millimeters 8 by 10 inches minimum size) of final rendering for approval of color, landscaping, and foreground/background development prior to final submittal.

1.3.1.3 Final Framed Rendering and Copies

Provide final full color rendering of the proposed facility as specified.

1.4. PROJECT SIGN

1.4.1.Construction Project Signs (USACE)

Furnish the construction project sign package, maintain the signs during construction, and remove the signs from the job site upon completion of the project. The construction project sign package consists of two signs: one for project identification and the other to show the on-the-job safety performance of the contractor. The package shall conform to the requirements of EP 310-1-6a and EP 310-1-6b, specifically Section 16. Submit the sign legend orders as described in Section 16 of EP 310-1-6a prior to erecting the signs.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

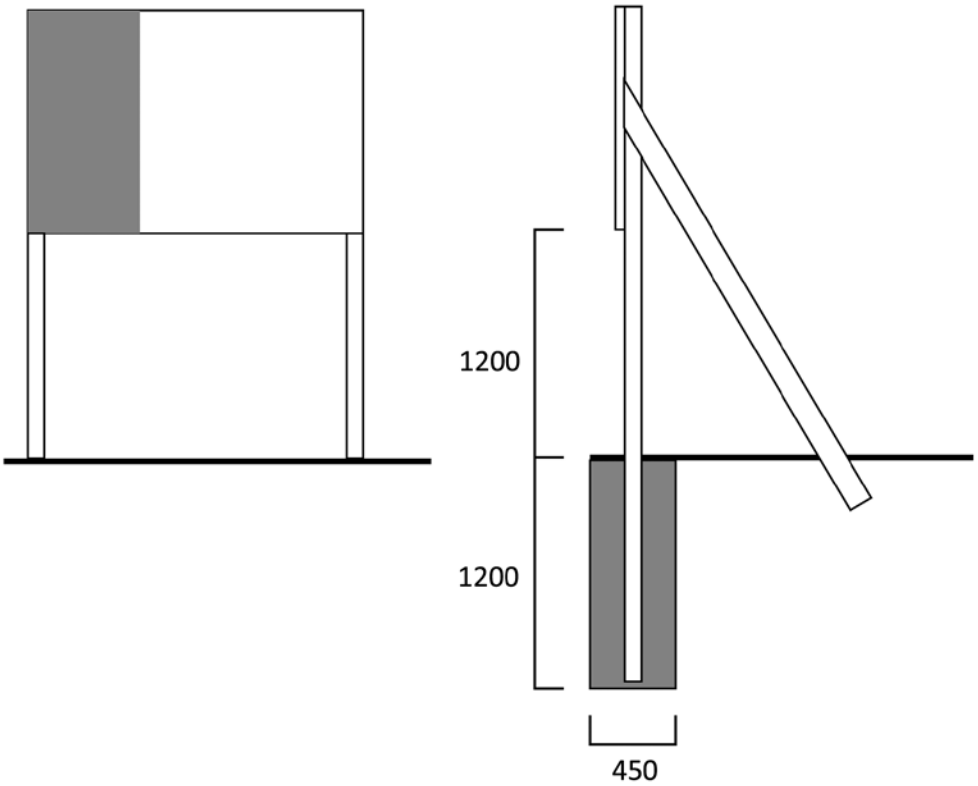
Not Used

Exhibit A
Construction Project Signage for Afghanistan

Construction Project Sign Dimensions (mm)

T1:	Text Group 1	Typeface: 150mm Large Standard Dari Font Color: White
T2:	Text Group 2	Typeface: 150mm Large Standard Dari Font Color: Black
T3:	Text Group 3	75mm Small Standard Dari Font Color: Black
T4:	Text Group 4	35mm Helvetica Bold, all capital letters Color: Light Yellow, matching GIROA logo
T5:	Text Group 5	35mm Helvetica Bold Color: Green, Pantone 370 PC
T6:	Text Group 6	45mm Helvetica Bold Color: Green, Pantone 370 PC

Mounting Diagram



Ministry of Defense

Government of the Islamic Republic of Afghanistan