

<b>AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT</b>			1. CONTRACT ID CODE	PAGE OF PAGES
2. AMENDMENT/MODIFICATION NO. 0003	3. EFFECTIVE DATE 01-Dec-2011	4. REQUISITION/PURCHASE REQ. NO.		5. PROJECT NO.(If applicable) ANA 12-015
6. ISSUED BY AFGHANISTAN DISTRICT SOUTH (AES) US ARMY CORPS OF ENGINEERS APO AE 09355	CODE W5J9LE	7. ADMINISTERED BY (If other than item 6) <b>See Item 6</b>		
8. NAME AND ADDRESS OF CONTRACTOR (No., Street, County, State and Zip Code)		X	9A. AMENDMENT OF SOLICITATION NO. W5J9LE-12-B-0003	
		X	9B. DATED (SEE ITEM 11) 22-Oct-2011	
			10A. MOD. OF CONTRACT/ORDER NO.	
			10B. DATED (SEE ITEM 13)	
CODE	FACILITY CODE			
<b>11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS</b>				
<input checked="" type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offer <input type="checkbox"/> is extended, <input checked="" type="checkbox"/> is not extended.				
Offer must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended by one of the following methods: (a) By completing Items 8 and 15, and returning <u>1</u> copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. ACCOUNTING AND APPROPRIATION DATA (If required)				
<b>13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.</b>				
A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.				
B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(B).				
C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:				
D. OTHER (Specify type of modification and authority)				
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input type="checkbox"/> is required to sign this document and return _____ copies to the issuing office.				
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)				
1. Project: ANA 3/207th Garrison Chashma-e-Dosakh, Badghis Province, Afghanistan				
2. The purpose of this amendment is to answer final bidder inquiry questions. A revised bid schedule is provided to change SubCLIN 0003AM (Large Latrine Building) to 2 each.				
3. The bid due date remains 7 December 2011 at 2:00PM local time.				
4. POC is Mark Jones at mark.t.jones@usace.army.mil				
Except as provided herein, all terms and conditions of the document referenced in Item 9A or 10A, as heretofore changed, remains unchanged and in full force and effect.				
15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print)		
		TEL:	EMAIL:	
15B. CONTRACTOR/OFFEROR	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA		16C. DATE SIGNED
_____ (Signature of person authorized to sign)		BY _____ (Signature of Contracting Officer)		01-Dec-2011

SECTION SF 30 BLOCK 14 CONTINUATION PAGE

**SUMMARY OF CHANGES**

SECTION 00010 - SOLICITATION CONTRACT FORM

The following have been modified:

BID SKED AMD 0002

**BID SCHEDULE (AMENDMENT 0003)**

The Contractor shall provide a price for all items, including those labeled, "Optional Items."

<u>ITEM</u>	<u>DESCRIPTION</u>	<u>QTY</u>	<u>UNIT</u>	<u>Unit Price</u>	<u>AMOUNT</u>
<b>0001</b>	<b>GENERAL</b>				
0001AA	Mobilization/Demobilization	1	LS	XXX	\$ _____
0001AB	Security	1	LS	XXX	\$ _____
<b>0002</b>	<b>DESIGN PROGRAM</b>				
0002AA	Site Survey/Existing Conditions map	1	LS	XXX	\$ _____
0002AB	Engineering	1	LS	XXX	\$ _____
0002AC	Geotechnical Investigation	1	LS	XXX	\$ _____
0002AD	As-Built Drawings	1	LS	XXX	\$ _____
<b>0003</b>	<b>FACILITIES</b>				
0003AA	Headquarters Building	5	EA	\$ _____	\$ _____
0003AB	Administration Building	1	EA	\$ _____	\$ _____
0003AC	Tactical Operations Center	1	LS	XXX	\$ _____
0003AD	VIP Barracks	1	LS	XXX	\$ _____
0003AE	Officers Barracks - Large	5	EA	\$ _____	\$ _____
0003AF	Officers Barracks - Small	1	EA	\$ _____	\$ _____
0003AG	NCO Barracks	5	EA	\$ _____	\$ _____
0003AH	Combination NCO/Enlisted Barracks	4	EA	\$ _____	\$ _____
0003AJ	Enlisted Barracks	9	EA	\$ _____	\$ _____
0003AK	Training Building	6	EA	\$ _____	\$ _____
0003AL	Literacy Classroom Building	2	EA	\$ _____	\$ _____
0003AM	Large Latrine Building	2	EA	\$ _____	\$ _____
0003AN	Small Latrine Building	10	EA	\$ _____	\$ _____
0003AP	Medical Clinic	1	LS	XXX	\$ _____
0003AQ	Medical Waste Incinerator	1	LS	XXX	\$ _____
0003AR	Storage Building	7	EA	\$ _____	\$ _____

0003AS	Dining Facility	1	LS	XXX	\$ _____
0003AT	Fire Station	1	LS	XXX	\$ _____
0003AU	DPW Compound	1	LS	XXX	\$ _____
0003AV	MWR Building	1	LS	XXX	\$ _____
0003AW	PX Building	1	LS	XXX	\$ _____
0003AX	Small Arms Storage	6	EA	\$ _____	\$ _____
0003AY	Ammunition Supply Point (ASP)	1	LS	XXX	\$ _____
0003AZ	Detention Facility	1	LS	XXX	\$ _____
0003BA	Motor Pool Areas	6	EA	\$ _____	\$ _____
0003BB	Vehicle Maintenance Building	8	EA	\$ _____	\$ _____
0003BC	POL Storage Building	8	LS	\$ _____	\$ _____
0003BD	Vehicle Fuel Point	1	LS	XXX	\$ _____
0003BE	Vehicle Wash Rack	1	LS	XXX	\$ _____
0003BF	Trash Collection Point	14	EA	\$ _____	\$ _____
0003BG	Parade Field & Review Stand	1	LS	XXX	\$ _____
<b>0004</b>	<b>FORCE PROTECTION</b>				
0004AA	Perimeter Wall	1	LS	XXX	\$ _____
0004AB	Guard Towers	12	EA	\$ _____	\$ _____
0004AC	Entry Control Points (ECP)	2	EA	\$ _____	\$ _____
0004AD	Personnel Bunkers	50	EA	\$ _____	\$ _____
<b>0005</b>	<b>SITE DEVELOPMENT/ IMPROVEMENTS</b>				
0005AA	Site Grading and Stormwater Management	1	LS	XXX	\$ _____
0005AB	Roads	1	LS	XXX	\$ _____
0005AC	Footpaths and Fire Lanes	1	LS	XXX	\$ _____
0005AD	Well Drilling	2	EA	\$ _____	\$ _____

0005AE	Well House and System	2	EA	\$_____	\$_____
0005AF	Booster Pump System	1	LS	XXX	\$_____
0005AG	Water Storage Tank(s)	1	LS	XXX	\$_____
0005AH	Water Distribution System	1	LS	XXX	\$_____
0005AJ	Wastewater Collection System	1	LS	XXX	\$_____
0005AK	Wastewater Treatment Plant	1	LS	XXX	\$_____
0005AL	Site Power & Electrical Distribution System	1	LS	XXX	\$_____
0005AM	Site Communication System	1	LS	XXX	\$_____
0005AN	Convoy Assembly Area	1	LS	XXX	\$_____
<b>0006</b>	<b>DBA Insurance (CLINs 0001-0005)</b>	1	LS	XXX	\$_____
<p>The amount listed by the offeror on this CLIN is the estimated DBA insurance premium (estimated payroll of the offeror and its subcontractors, multiplied by the applicable rate(s)). The actual amount paid by the government under this CLIN will be based on the amount of the Rutherford invoice submitted by the offeror after 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.</p>					
<b>0007</b>	<b>REIMBURSEMENT FOR ACTUAL PERFORMANCE AND PAYMENT BONDS PREMIUMS</b>	1	LS	XXX	\$_____
	(see schedule note 9 for additional information)				Not to Exceed
<b>TOTAL BASE BID ITEMS</b>					\$_____
<b>OPTIONAL ITEMS</b>					
<b>0008</b>	<b>Site Access and Wadi Crossing</b>				
0008AA	Site Access Road	1	LS	XXX	\$_____
0008AB	Low Water Crossing	1	LS	XXX	\$_____
0008AC	Bridge	1	LS	XXX	\$_____
<b>0009</b>	<b>DBA Insurance for SUBCLIN 0008</b>	1	LS	XXX	\$_____

<p>The amount listed by the offeror on this CLIN is the estimated DBA insurance premium (estimated payroll of the offeror and its subcontractors, multiplied by the applicable rate(s)). The actual amount paid by the government under this CLIN will be based on the amount of the Rutherford invoice submitted by the offeror after 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.</p>					
	<b>OPTIONAL ITEMS</b>				
<b>0010</b>	<b>INFANTRY BATTALION FACILITIES (700 SERIES)</b>				
0010AA	Headquarters Building	1	LS	XXX	\$ _____
0010AB	Officers Barracks - Large	1	LS	XXX	\$ _____
0010AC	NCO Barracks	2	LS	XXX	\$ _____
0010AD	Enlisted Barracks	4	EA	\$ _____	\$ _____
0010AE	Training Building	1	LS	XXX	\$ _____
0010AF	Large Latrine Building	1	LS	XXX	\$ _____
0010AG	Small Latrine Building	2	EA	\$ _____	\$ _____
0010AH	Storage Building	1	LS	XXX	\$ _____
0010AJ	Small Arms Storage	1	LS	XXX	\$ _____
0010AK	Motor Pool Area	1	LS	XXX	\$ _____
0010AL	Vehicle Maintenance Facility	1	LS	XXX	\$ _____
0010AM	POL Storage Building	1	LS	XXX	\$ _____
0010AN	Trash Collection Point	2	EA	\$ _____	\$ _____
0010AP	Utilities	1	LS	XXX	\$ _____
0010AQ	Roads	1	LS	XXX	\$ _____
0010AR	Footpaths and Fire lanes	1	LS	XXX	\$ _____
0010AS	Personnel Bunkers	20	EA	\$ _____	\$ _____
<b>0011</b>	<b>DBA Insurance for SUBCLIN 0010</b>	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 Rutherford 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.

	<b>OPTIONAL ITEMS</b>				
<b>0012</b>	<b>RCC (600 SERIES)</b>				
0012AA	Administration Building	1	LS	XXX	\$ _____
0012AB	Officers Barracks – Small	1	LS	XXX	\$ _____
0012AC	Combination NCO/Enlisted Barracks	1	LS	XXX	\$ _____
0012AD	Training Building	1	LS	XXX	\$ _____
0012AE	Small Latrine Building	1	EA	\$ _____	\$ _____
0012AF	Small Arms Storage	1	LS	XXX	\$ _____
0012AG	Motor Pool Area	1	LS	XXX	\$ _____
0012AH	Vehicle Maintenance Facility	1	LS	XXX	\$ _____
0012AJ	POL Storage Building	1	LS	XXX	\$ _____
0012AK	Trash Collection Point	2	EA	\$ _____	\$ _____
0012AL	Utilities	1	LS	XXX	\$ _____
0012AM	Roads	1	LS	XXX	\$ _____
0012AN	Footpaths and Fire lanes	1	LS	XXX	\$ _____
0012AP	Personnel Bunkers	2	EA	\$ _____	\$ _____
<b>0013</b>	<b>DBA Insurance for SUBCLIN 0012</b>	1	LS	XXX	\$ _____
<p>The amount listed by the offeror on this CLIN is the estimated DBA insurance premium (estimated payroll of the offeror and its subcontractors, multiplied by the applicable rate(s)). The actual amount paid by the government under this CLIN will be based on the amount of the Rutherford invoice submitted by the offeror after 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.</p>					
<b>TOTAL OPTIONAL BID ITEMS</b>					<b>\$ _____</b>

<b>SCHEDULE TOTAL:</b>	\$ _____
------------------------	----------

**SCHEDULE NOTES**

1. Offeror shall submit prices on all items. Scope of work on each item is described in Section 01010.
2. Only one contract for the entire schedule will be awarded under this solicitation. This project will be awarded as a single contract.
3. Costs associated with this project shall include design and construction costs, site development, and utility installation.
4. 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.
5. EXERCISE OF OPTIONAL BID ITEMS: Optional bid items (if any) may, at the option of the Government, be exercised by the Government at any time within 180 calendar days after receipt of the notice to proceed.
6. Design costs shall consist of design analysis, drawings, and specifications for all facilities where a standard design has not been provided by the Government. The cost of all design shall be paid for under the bid item in which the design work is associated.
7. ORDER of WORK: See Section 00150.
8. PERIOD OF PERFORMANCE AND LIQUIDATED DAMAGES: See Section 00150 for performance schedule. Period of performance is defined as the number of calendar days from receipt of notice to proceed. Liquidated Damages are included in this contract. See FAR Clause 52.211-12.
9. Notwithstanding the Contract Clause entitled "Payments Under Fixed-Price Construction Contracts," the Contractor shall not be reimbursed an amount which exceeds the dollar amount set forth in **bid item 0007**.
10. Abbreviations:

EA = Each

LS = Lump Sum

**-END OF SECTION-**

## SECTION 00800 - SPECIAL CONTRACT REQUIREMENTS

The following have been added by full text:

AMEND 0003 Q & A

## **BIDDER INQUIRY QUESTIONS AND ANSWERS (AMEND 0003)**

### **GENERAL QUESTIONS:**

1. Reference to Amend. # 2, Questions and answers , Answer for question no. 8, is mentioned that Enlisted Barrack buildings are 9 and on the Bid Schedule (amendment 2) item 0003AJ Enlisted Barracks are 9 ea , while on section 0010 (SOLICITATION CONTRACT FORM) amendment #2, it is required to construct 11 vice 9, please clarify which quantity we shall follow.

**Answer: The correct number of Enlisted Barracks is 9, as listed in Section 01010 Paragraph 3.9 and on the Bid Schedule CLIN 0003AJ from Amendment #2. There was an error in the summary of changes...it should have said “9 vice 11”.**

2. Reference to Amend. # 2, Questions and answers, Answer for question no. 9 is mentioned that large latrine buildings are 206 and 806 only, while on the Bid Schedule (amendment 2) item 0003AM, they are 3 buildings, please clarify which quantity we shall follow.

**Answer: There are two (2) large latrines (bldg. numbers 206 and 806) in the base bid and one (1) large latrine in the Infantry Battalion (700 Series Buildings) optional bid item. Please see Paragraph 3.12 in Section 01010 and CLIN 0003AM on the bid Schedule in the amendment.**

### **ELECTRICAL QUESTIONS:**

3. Referring to the followings facilities: (Headquarter, Tactical operations Center, NCO barracks, Combination NCO/Enlisted Barracks, Enlisted barracks, Training building, Literacy Classroom Building, Large Latrine Building, Small Latrine Building, Fire Station, PX-Building and Vehicle Maintenance Facility) it's mentioned within the scope that **“The drop ceilings shall be removed.”** So the light fixture found within the standard drawings will be changed, please submit the type and the specs for the new light fixture the contractor shall use.

**Answer: The Contractor shall select a fluorescent tube pendant fixture appropriate for the application (wet areas etc.) that meets the requirements of Section 01015.**

4. Referring to the followings facilities: (Headquarter, Tactical operations Center, NCO barracks, Combination NCO/Enlisted Barracks, Enlisted barracks, Training building, Literacy Classroom Building, Large Latrine Building, Small Latrine Building, Fire Station, PX-Building and Vehicle Maintenance Facility) it's mentioned within the scope that **“The drop ceilings shall be removed.”** So the light fix found within the standard drawings for these facilities will be changed, please submit a modified drawings that have the new suitable light fixtures for these facilities.

**Answer: See answer to # 3, no new drawings will be submitted.**

5. The USACE's answer Question 46 leaves the contractor in a position that they have to assume, due to the lack of any definable plans (the referenced aerial topographic map is really a site aerial photographic as it does not provide any contour/grading information), that they will have to move huge quantities of earth and rock ( up to 3,000,000 CM) and construct many hundreds of meters of retaining walls in order to meet the requirements of Section 01010, "Scope of Work", Part 5.2, "Grading and Storm Water Management". This places an unfair burden on the contractor in that what they have assumed may be far greater or far less than their competition. We ask that a more definitive means be established to evaluate this scope. Would it be possible to include CLINS for Earth Excavation - CM, Rock Excavation- CM, Embankment – CM, Retaining Walls (various heights) – LM, Culverts (various sizes) – LM, Water Distribution Pumping Stations – EA, Sanitary Sewer Pumping Stations - EA? With these unit prices along with a USACE defined quantities the playing field would be leveled.

**Answer: The Contractor shall bid using the information provided.**

6. Based upon the aerial photos provided it appears that there is a significant amount of site grading work required which will make the performance of the work within the current Period of Performance extremely difficult, if not impossible to meet. Will the Period of Performance be extended an additional 180 days to accommodate this work?

**Answer: The Period of Performance will not be extended.**

7. Due to the significant amount of evaluations, preliminary designs, and pricing efforts required to effectively evaluate the site grading requirements can the proposal due date be extended by at least one week?

**Answer: The due date shall not be extended.**

8. USACE response to Question #9 confirmed that only 2 Large Latrines are to be included in CLIN 0003AM since Building 305 is a Small Latrine. However, both CLIN 0003AM and 01010 Part 3.12, "Large Latrine Building", were updated via Amendment 02 to increase the quantity to 3 from 2. Please confirm that only two (2) Large Latrines are required as shown on the Site Plan (#206 and #806).

**Answer: Please see the answer to #2 above.**

(End of Summary of Changes)

**SECTION 01010**  
**SCOPE OF WORK**

**1. GENERAL**

The project consists of the design and construction of an Afghan National Army Garrison for the 3/207<sup>th</sup> Brigade in Chashma-I-Dozakh, Baghis Province, Afghanistan. The garrison project consists of new facilities for a Brigade HQ Kandak, GSU Kandak, Military police Company, CS/RCC Kandaks, CSS Kandak, two Infantry Kandaks, and other common facilities for the brigade including a waste water treatment plant, support facilities, utilities and infrastructure as applicable.

The project includes buildings and facilities that shall be designed and constructed using Arch-Span and CMU type construction according to the standard design drawings located in the Appendix of this solicitation. The project is defined as the design, materials, labor, and equipment to construct buildings, roads, utilities, and other infrastructure to accommodate a garrison with a design-end population of 3,200 personnel.

The contractor shall be responsible for providing final design and as-built drawings for most facilities, site work, and related designs and shall include all items listed in the Summary of Work.

The Contractor may be required to coordinate the efforts required under this contract with at least one other Contractor at the site. Such coordination is required as part of this contract. The coordination effort may be significant and include exchanging information such as design data, drawings, calculations, and technical information with other contractors. It is essential that the contractor fully understands and accounts for the difficulty in material transport and delivery to this remote location. The contractor will be required to provide a plan to mitigate any potential schedule delays due to security, weather, or road conditions related to this issue. 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 CONSTRUCTION PRIORITY**

The order of construction for all buildings and facilities shall be prioritized. The contractor shall construct in accordance with the Construction Priority Schedule and the requirements specified in Section 00150, Project Phases.

All work under this contract shall be completed and buildings ready for beneficial occupancy in accordance with the Construction Priority Schedule. The Required Period of Performance is stated in Days following the NTP, as described in the Table below:

<b>Construction Priority Schedule</b>	
<b>Priority</b>	<b>Construction Shall Be Completed By:</b>
1	180 Days After NTP
2	270 Days After NTP
3	450 Days After NTP
4	540 Days After NTP

Refer to the individual work item in Paragraph 2 “Summary of Work”, for the priority of each work item.

## **1.2 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 COR at all times when work is in progress.

## **1.3 CQM TRAINING REQUIREMENT**

The Contractor's Quality Control (QC) Manager is required to complete the U.S. Army Corps of Engineers (USACE) Construction Quality Management (CQM) course or equivalent as soon as available. The CQM course will be offered periodically by the USACE Transatlantic South (TAS). If the QC Manager has not completed the course, then he shall apply for the first available class after the award of the contract. 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 TAS can provide information related to AES 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, as defined in USACE Guide Specification 01451, entitled "Contractor Quality Control" (CQC), shall 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. In lieu of a certificate, provide date of enrollment for the next CQM course.

## **1.4 SUBMITTALS**

Submittals and a Submittal Register are required as specified in Section 01335.

## **1.5 COST ESTIMATE**

The Contractor shall prepare a parametric construction cost estimate for TAS data collection purposes. The Contractor shall prepare a thorough, well-supported, estimate reflecting the final design features, construction schedule, conditions, and any construction phasing requirements. The cost estimate shall be submitted as part of the 100% design submittal.

## **1.6 LOCATION**

All work under this solicitation is for the design and construction at the 3/207<sup>th</sup> Brigade, in Chashma-I-Dozakh, Badghis Province, Afghanistan. The approximate coordinates of the location of work can be found on the "Coordinate sheet" in the Appendix.

## **1.7 GENERAL REQUIREMENTS FOR FACILITIES**

All requirements set forth in the Scope of Work (01010), but not included in the Technical Requirements (01015), shall be considered as set forth in both and vice versa.

In general, this project consists of designing and constructing facilities as described in this Section, the Concept Plan, standard building designs attached in the Appendix and the requirements stated in Section 01015 - Technical Requirements. The USACE construction representative shall be notified immediately of any inconsistencies discovered in this document.

All construction of the Standard Building designs identified in the Appendix of this document shall be done in strict accordance with the plans and specification furnished, with no changes made to any feature of work shown in these design drawings and specifications, unless otherwise specified.

All standard construction amenities such as underground utilities, site grading, plumbing, heating, and electrical, etc. shall be implied as a design and construction requirement. The Contractor shall provide potable water, toilets, ablation areas, electrical, and communications service backbone in buildings as specified, connecting to and integrating with existing systems and shall be responsible for installing all upgrades. Specification of equipment and materials that match stocked items by the facility or central Department of Public Works is highly desirable. The Contractor shall reference the Appendix for building-specific construction details. All materials and

equipment shall be standard product of a manufacturer regularly engaged in the manufacture of the product and shall duplicate items that have been in satisfactory use for at least 2 years prior to bid opening.

The Contractor shall match existing on-site architectural materials and colors. All construction shall be done in the same style and paint schemes as existing buildings, respective of sustainable construction and design except as indicated. All paint and materials shall be approved by the Contracting Officer prior to construction/installation of the paint and material.

All toilets shall be eastern style and shall face north or south.

The Contractor shall provide boot scrapers for boot cleaning at all building ingress/egress points.

Barracks shall be spaced as far apart from each other as possible given the final site design configuration, as to minimize sound propagation and to increase privacy.

All other design work not specifically identified in this document shall be the responsibility of the Contractor and it shall be submitted for review in accordance with Section 01335 of this document.

### **1.7.1 LIFE SAFETY**

The facilities shall comply with all other safety requirements as required within references. A fire sprinkler system is not required. The Contractor shall equip buildings with wall-mounted A-B-C 6 kg fire extinguishers at a 1:100 SM density (minimum). Exit signs shall be placed above doors opening to the exterior and labeled in English, Dari, and Pashto. For other requirements, refer to Section 01015.

### **1.7.2 INTERIOR LIGHTING**

General lighting shall be provided for each building type and function within each building, in accordance with standard drawings in the Appendices. For any features that the contractor is responsible for, the contractor shall adhere to the requirements in Section 01015.

### **1.7.3 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC)**

Environmental control of the facilities shall be achieved by natural ventilation, mechanical ventilation, and heating per the standard drawings in the Appendices. Cooling shall be provided in only specified rooms of specified buildings. In the case of facilities to be designed by the Contractor, for inside design conditions and air cooling and heating requirements for various spaces, see Section 01015.

### **1.8 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 site has been cleared to a depth of 1.0 m (40") and the certificate of clearance is available for review. No construction activities are to be conducted without review of the written clearance certification for the site.

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

[Jeffrey.a.helmick2@usace.army.mil](mailto:Jeffrey.a.helmick2@usace.army.mil)

Roshan: 079-403-1452

Comm: 540-723-6129

[Marty.a.holmes@usace.army.mil](mailto:Marty.a.holmes@usace.army.mil)

Roshan: 079-752-9684

Comm: 540-667-6359

Mohammad Sediq, Chief of Operations

[mohammad.sediq@macca.org.af](mailto: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](mailto:Mullah.jan@macca.org.af)

+93 (0) 700 295 207

UXO Safety/ Demining COR, USACE

[tas.uxo-deminingsafety@usace.army.mil](mailto:tas.uxo-deminingsafety@usace.army.mil)

Roshan: 079-403-1452 or 079-752-9684

Comm: 540-723-6129 or 540-667-6359

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

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

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

The Contractor shall be aware of the possibility that UXO/mines may have been placed on the project site between the time the UXO/mine clearance has been conducted and the start of construction on the project site and take appropriate precautions prior to construction. It is the responsibility of the Contractor to be aware of the risk of encountering UXO/mines and to take all actions necessary to assure a safe work area to perform the requirements of this contract. The Contractor assumes the risk of any and all personal injury, property damage or other liability arising out of or resulting from any Contractor action taken hereunder. The Contractor and its subcontractors may not handle, work with, move, transport, render safe, or disarm any UXO/mine, unless they have appropriate accreditations from the MAC.

If a UXO/mine is encountered during project construction, the Contractor shall immediately stop work in the affected area, mark the area of the UXO/Mine and immediately notify the Contracting Officer, COR or the Government Construction Representative. If a UXO/mine is encountered after a UNMACA-approved clearance certificate is provided to the Government, UXO/mine disposal shall be handled in accordance with Section 01015, Technical Requirements. UXO/Mine disposal will not be the responsibility of the Contractor unless the area exceeds the 1.0 m (40") clearance depth of the original clearance certificate.

## **2. SUMMARY OF WORK**

### **2.1 MOBILIZATION/DEMOBILIZATION**

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. The location of all mobilization and staging areas is the responsibility of the Contractor. See Contract Clauses for further information.

The Contractor shall install temporary access points and roads, temporary parking, construction lay-down areas, and foot paths with compacted base, appropriately graded for drainage, and cover with a well graded, crushed stone aggregate surface capable of withstanding the anticipated construction traffic. At a minimum, the

Contractor shall place 50 mm of crushed, well-graded, and compacted aggregate over areas to be used for drainage, pedestrian circulation (not including foot paths), and/or dust control.

Portable latrines: During construction, the Contractor shall furnish and install 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 and install 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.

In the Bid Schedule (Section 00100) this portion of the project shall be paid for under Line Item "Mobilization/Demobilization".

## **2.2 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 01040 SECURITY shall be approved by the Government before construction notice to proceed. In addition to the site security, the security plan at a minimum shall cover the material and personnel transport, ground and air deliveries as applicable, and any logistics affecting the security to ensure year round continuous supply of materials, labor, and equipment.

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.

In the Bid Schedule (Section 00100) this portion of the project shall be paid for under Line Item "Security".

## **2.3 SITE SURVEY / EXISTING CONDITIONS MAP**

The site survey and existing conditions map shall consist of all labor, equipment and supplies necessary to produce the topographical data in accordance with the requirements specified in Sections 01015 and 01335.

The Site Survey/Existing Conditions map shall include the all areas within the ROW including the option items regardless if the option items are exercised by the Government

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

In the Bid Schedule (Section 00100) this portion of the project shall be paid for under Line Item "Site Survey Existing Conditions Map".

## **2.4 ENGINEERING**

The Contractor shall design all features of the project that are not included in the standard design drawings in the Appendix. All drawings shall be submitted in accordance with the requirements specified in Section 01335 and 01780A.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

In the Bid Schedule (Section 00100) this portion of the project shall be paid for under Line Item "Engineering".

## **2.5 GEOTECHNICAL INVESTIGATION**

Existing geotechnical information is not available at the project site. Any site-specific geotechnical data required to develop foundations, fill at elevated slabs, materials, earthwork, roads, and other geotechnical related design and construction activities for this project shall be the Contractor's responsibility.

The geotechnical report shall contain the results of a geotechnical investigation conducted in accordance with the requirements specified in Section 01015. All labor, equipment and supplies necessary to conduct a geotechnical investigation shall be considered a part of the geotechnical report.

The geotechnical Investigation shall include the all areas within the ROW including the option items regardless if the option items are exercised by the Government.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

In the Bid Schedule (Section 00100) this portion of the project shall be paid for under Line Item "Geotechnical Investigation".

### **2.5.1 FOUNDATION DESIGN**

As part of the Geotechnical Investigation line item the contractor shall design all foundations for this project. Foundations, including sub-grade, are based on an assumed soil bearing value for standard building designs. The Contractor shall confirm the assumed soil bearing capacity in the geotechnical investigation. If the assumed soil bearing capacity is inadequate for the standard designed foundations, the Contractor shall design and construct foundations for standard design facilities based on recommendations from the geotechnical investigation described in paragraph 2.5. If the results of the geotechnical investigation require the Contractor to redesign any foundations or sub grade there shall be no additional cost to the Government.

### **2.6 AS-BUILT DRAWINGS**

The Contractor shall provide the Government with complete as-built drawings at the conclusion of the project. The bid item "As-Built Drawings" shall consist of all labor, equipment, and all supplies needed to produce design records, documents and drawings in accordance with the requirements specified in Section 01335 and 01780A.

In the Bid Schedule (Section 00100) this portion of the project shall be paid for under Line Item "As-Built Drawings".

## **3. FACILITIES**

### **3.1 HEADQUARTERS BUILDING**

The Contractor shall construct five (5) Headquarters Buildings per the standard design titled "Headquarters Building – Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall design and construct a backup power generator system that is independent of the facility power plant for the headquarters in emergencies. The Contractor shall ensure that the power generator system will accommodate the headquarter buildings power needs. The backup power generator system shall provide fuel storage for the generators with a capacity of 48 hours of continuous generator runtime along with an electrical distribution system to the facility. The generators, fuel storage and distribution system shall be furnished by the contractor.

The contractor shall construct three flagpole structures for each Headquarters building, for a total of 15, according to the standard construction drawings attached in the Appendix.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Headquarters Building, in the Bid Schedule (Section 00100).

### **3.2 ADMINISTRATION BUILDING**

The Contractor shall construct one (1) Administration Buildings according to the Standard Building Design “Admin Building” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The contractor shall construct three flagpole structures for the Administration building, according to the standard construction drawings attached in the Appendix.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Administration Building, in the Bid Schedule (Section 00100).

### **3.3 TACTICAL OPERATIONS CENTER**

The Contractor shall construct one (1) Tactical Operations Center (TOC) according to the standard design titled “Tactical Operations Center” in the Appendix. The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall design and construct a backup power generator system that is independent of the facility power plant for the TOC in emergencies. The Contractor shall ensure that the power generator system will accommodate the TOC buildings power needs. The backup power generator system shall provide fuel storage for the generators with a capacity of 48 hours of continuous generator runtime along with an electrical distribution system to the facility. The generators, fuel storage and distribution system shall be furnished by the contractor.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Tactical Operations Center, in the Bid Schedule (Section 00100).

### **3.4 VIP BARRACKS**

The Contractor shall construct one (1) VIP barracks according to the Standard Building Design titled “VIP Barracks - Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned “Priority 2”; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, VIP Barracks, in the Bid Schedule (Section 00100).

### **3.5 OFFICERS BARRACKS - LARGE**

The Contractor shall construct five (5) Officers Barracks - Large according to the Standard Building Design titled "Officers Barracks Large - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Officers Barracks - Large, in the Bid Schedule (Section 00100).

### **3.6 OFFICERS BARRACKS - SMALL**

The Contractor shall construct one (1) Officers Barracks - Small according to the Standard Building Design titled "Officers Barracks Small - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Officers Barracks - Small, in the Bid Schedule (Section 00100).

### **3.7 NCO BARRACKS**

The Contractor shall construct five (5) NCO Barracks according to the Standard Building Design titled "NCO Barracks - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, NCO Barracks, in the Bid Schedule (Section 00100).

### **3.8 COMBINATION NCO/ENLISTED BARRACKS**

The Contractor shall construct four (4) Combination NCO/Enlisted Barracks according to the Standard Building Design titled "Combination NCO/Enlisted Barracks - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Combination NCO/Enlisted Barracks, in the Proposal Schedule (Section 00100).

### **3.9 ENLISTED BARRACKS**

The Contractor shall construct nine (9) Enlisted Barracks according to the Standard Building Design titled "Enlisted Barracks - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Enlisted Barracks, in the Bid Schedule (Section 00100).

### **3.10 TRAINING BUILDING**

The Contractor shall construct six (6) Training Buildings according to the Standard Building Design titled "Training Building - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Training Building, in the Bid Schedule (Section 00100).

### **3.11 LITERACY CLASSROOM BUILDING**

The Contractor shall construct two (2) Literacy Classroom Buildings according to the Standard Building Design titled "Classroom Building – Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Literacy Classroom Building, in the Bid Schedule (Section 00100).

### **3.12 LARGE LATRINE BUILDING**

The Contractor shall construct **two (2) Large Latrines** according to the Standard Building Design titled "Latrine Large – Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall provide three (3) 5.0 m long Clothesline units at each large Latrine according to the standard construction drawing in the appendix.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Large Latrine Building, in the Bid Schedule (Section 00100).

### **3.13 SMALL LATRINE BUILDING**

The Contractor shall construct **ten (10) Small Latrines** according to the Standard Building Design titled "Latrine Small – Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall provide two (2) 5.0 m long Clothesline units at each large Latrine according to the standard construction drawing in the appendix.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Small Latrine Building, in the Bid Schedule (Section 00100).

### **3.14 MEDICAL CLINIC**

The Contractor shall construct one (1) troop medical clinic according to the Standard Building Design titled “Medical Clinic – Large – Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall design and construct a backup power generator system that is independent of the facility power plant for the Medical Clinic in emergencies. The Contractor shall ensure that the power generator system will accommodate the facilities power needs. The backup power generator system shall provide fuel storage for the generators with a capacity of 48 hours of continuous generator runtime along with an electrical distribution system to the facility. The generators, fuel storage and distribution system shall be furnished by the contractor.

The Contractor shall design and construct a parking area similar in size and location to what is shown on the Concept Plan.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Medical Clinic, in the Bid Schedule (Section 00100).

### **3.15 MEDICAL WASTE INCINERATOR**

The Contractor shall design and construct a self-contained diesel fuel medical waste incinerator with a minimum burn rate capacity of 100 kg/day. The incinerator shall meet the specifications here and in Section 1015. The Incinerator shall be located near the Medical Center, the standoff distance from the building and other facilities shall be as recommended by the manufacturer.

The contractor shall provide training to appropriate ANA staff according to the ‘Operations and Maintenance for Mechanical’ paragraph in Section 01015.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Medical Waste Incinerator, in the Bid Schedule (Section 00100).

### **3.16 STORAGE BUILDING**

The Contractor shall construct seven (7) Storage Buildings according to the Standard Building Design titled “Storage Building – Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Storage Building, in the Bid Schedule (Section 00100).

### **3.17 DINING FACILITY**

The Contractor shall construct one (1) Dining Facility (DFAC); it shall be Arch-Span type construction following the standard construction drawings in the Appendix – titled “DFAC- Large”.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the Concept Plan for the location of this facility type in relationship to other buildings and facilities on site.

All quantities of stoves, wood burning stoves, sinks, and other equipment shall be as illustrated in the standard construction drawings and described in Section 01015.

The DFAC shall include, as a minimum, the following:

- a.) A service area in support of the DFAC building. The service area shall be surrounded with a 3 m high chain link fence with Y-channel and triple strand concertina wire and one (1) lockable double swing arm vehicle gate and two (2) lockable personnel gates. Construct the fence and gates per the standard fencing details in the Appendix. The location and dimensions for the service area shall be as shown on the Concept Plan in the Appendix labeled, DFAC Outdoor Yard. The service area shall be able to accommodate propane storage, wood stoves, wood storage area, and storage areas, area for the future location of trailers, and maneuver area. At a minimum 200 mm of aggregate shall be used to surface the service area.
- b.) A covered wood storage area shall be designed and constructed in close proximity to the wood stoves and be fenced.
- c.) For a 30-day supply of fuel, provide four (4) bottles per cook stove. **The fuel tanks shall contain a full supply of fuel when the facility is turned over to the Government.**

This portion of the project has been assigned “Priority 2”; the period of performance for the work in this paragraph shall be as stated for Priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid for under item, Dining Facility, in the Bid Schedule (Section 00100).

### **3.18 FIRE STATION**

The Contractor shall construct a Fire Station according to the Standard Building Design titled “Fire Station” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Fire Station, in the Bid Schedule (Section 00100).

### **3.19 DPW COMPOUND**

The Contractor shall design and construct a DPW Compound consisting of a DPW building, an Admin Building, an Office Building, two (2) Public Works Shops and two (2) secure open storage areas. The Contractor shall refer to the concept plan in the appendix for the location and layout of this compound and its relation to other buildings and facilities on site.

Details about the facilities in the DPW compound:

- The Contractor shall Construct One (1) DPW Building according to the Standard Building Design titled “DPW Building” in the appendix.
- The Contractor shall Construct One (1) admin building according to the Standard Building Design titled “Admin Building – Arch Span” in the appendix.
- The Contractor shall Construct one Office Building according to the Standard Building Design titled “Tactical Operations Center – Arch Span” in the appendix.

**The contractor shall modify the Standard Design Drawings for the Tactical Operations Center; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.**

- The Contractor shall Construct two (2) Public Works Shops according to the Standard Building Design “Vehicle Maintenance Building – Arch Span” in the appendix.

**The Contractor shall modify the Vehicle Maintenance Building Standard Design Drawing; the floor plan in the drawing shall be deleted and replaced with the floor plan drawing titled “DPW Maintenance Building Conceptual Floor Plan” in the appendix.**

**The Contractor shall modify the Vehicle Maintenance Building Standard Design Drawings for this facility; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.**

**The contractor shall modify the Standard Design Drawings for the Vehicle Maintenance Building; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.**

- The Contractor shall design and construct two (2) secure outdoor storage areas. The outdoor storage areas shall have the size, location and configuration shown on the concept plan. The outdoor storage areas shall be fenced with lockable double swing arm gates as shown on the concept plan. The fence and gates shall be constructed according to the standard details in the appendix.
- The Contractor shall design and construct a perimeter fence around the compound with lockable single and double swing arm gates. The location and configuration of the perimeter fence and gates shall be as shown in the Concept Plan. The fence and gates shall be constructed according to the standard details in the appendix.
- The Contractor shall design and construct a 100 mm thick aggregate surface in the entire DPW compound.
- The Contractor shall design and construct area lighting on poles in the locations shown on the Concept Plan and according to the standard details in the appendix. See section 01015 for technical requirements.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, DPW Compound, in the Bid Schedule (Section 00100).

### **3.20 MWR BUILDING**

The Contractor shall construct a MWR Building according to the Standard Building Design titled “MWR Building- Arch Span” in the Appendix. The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, MWR Building, in the Bid Schedule (Section 00100).

### **3.21 PX BUILDING**

The Contractor shall construct a PX Building according to the Standard Building Design titled “PX Building-Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, PX Building, in the Bid Schedule (Section 00100).

### **3.22 SMALL ARMS STORAGE**

The Contractor shall construct six (6) Small Arms Storage Buildings; they shall be CMU type construction following the standard construction drawings in the Appendix titled “Small Arms Storage”. The Contractor shall refer to the Concept Plan for the location of this facility type in relationship to other buildings and facilities on site.

The Small Arms Storage building shall include the following:

- a. Wooden racks for storing long-arm weapons vertically. Racks shall not be furnished with locking bars.
- b. Power outlets in the walls no more than 4.0 m apart.
- c. The facility will be enclosed with a 3.0 m high fence and a secure entranceway. The fence shall be constructed according to the standard details for fences and gates in the Appendix.

This portion of the project has been assigned “Priority 2”; the period of performance for the work in this paragraph shall be as stated for Priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Small Arms Storage, in the Proposal Schedule (Section 00100).

### **3.23 AMMUNITION SUPPLY POINT (ASP)**

The Contractor shall construct one (1) Ammunition Supply Point facility; it shall be CMU type construction following the standard construction drawings in the Appendix titled “Small Arms Storage”. The Contractor shall refer to the Concept Plan in the Appendix for the location of this facility.

The Ammunition Supply Facility shall be surrounded with Alaska Barriers as shown in the Concept Plan in the Appendix. The barriers shall enclose an area 30m by 30m around the building. The facility shall be accessed by one (1) lockable double swing arm gate and one (1) personnel gate installed in the barrier wall. 100 mm thick aggregate shall be used to surface the fenced in area. Area lighting shall be provided at each entry door, access gate and building corner. The lighting shall illuminate a 30 m radius minimum. The ASP shall have a safety setback radius of 75 m, as defined in the UFC guide lines.

This portion of the project has been assigned “Priority 2”; the period of performance for the work in this paragraph shall be as stated for Priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Ammunition Supply Point (ASP), in the Proposal Schedule (Section 00100).

**3.24 DETENTION FACILITY**

The Contractor shall construct a Detention Facility according to the Standard Building Design titled “Detention Center” in the Appendix. The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

A 36 m area around the Detention Center shall be enclosed with a 3 m high chain link fence with Y-channel and triple strand concertina wire and one (1) lockable personnel gate. Construct the fence and gates per the standard fencing details in the Appendix. The entire fenced in area shall be surfaced with 100 mm of crushed aggregate.

This portion of the project has been assigned “Priority 1”; the period of performance for the work in this paragraph shall be as stated for priority 1 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Detention Facility, in the Bid Schedule (Section 00100).

**3.25 MOTOR POOL AREAS**

The Contractor shall design and construct six (6) Motor Pool Areas using the plans titled “Motor Pool Area” for information only. Adequate vehicle maneuver areas shall be provided for all parking and facilities.

The Contractor shall construct the Motor Pool Areas in the locations shown on the Concept Plan in the Appendix. Specific information for the Motor Pool Areas and support facilities are indicated in the table below:

Facility	Motor Pool Areas (Numbers below correspond to Concept Plan)						Total No. of Facilities
	#109	#208	#307	#408	#509	#809	
Motor Pool (Area in SM)	8,639 SM	13,263 SM	7,348 SM	24,294 SM	24,294 SM	20,628 SM	6
Vehicle Maintenance Building	0	1	1	3	2	1	8
POL Storage Building	0	1	1	3	2	1	8

Each Motor Pool Area shall be completely enclosed by a 3 m high chain link fence with Y-channel and triple strand concertina wire and one (1) lockable double swing arm vehicle gates and one (1) lockable personnel gate. The ground grade shall slope away from the fence for at least 5 m and shall be kept a minimum of 3 m below the top of the fence for a distance of 10 m minimum. The Contractor shall construct the fence and gates per the standard design drawings in the Appendix. The entire enclosed fenced area shall be surfaced with 100 mm of crushed aggregate. The Contractor shall provide exterior pole-mounted lighting along the fence line to illuminate the area and allow safe movement of vehicles during night-time operations.

This portion of the project has been assigned “Priority 2”; the period of performance for the work in this paragraph shall be as stated for priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Motor Pool Areas, in the Bid Schedule (Section 00100).

**3.26 VEHICLE MAINTENANCE FACILITY**

The Contractor shall construct eight (8) Vehicle Maintenance buildings; they shall be Arch-Span type construction following the standard construction drawings in the Appendix – titled “Vehicle Maintenance Building”.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the Concept Plan for the location of this facility in relation to other facilities on the compound. Additionally, the Contractor shall follow all of the requirements in Section 01015 and include the following elements:

- a. There shall be a concrete hardstand apron outside all garage doors with a minimum width of 10 m. The apron shall be designed for HS20 loading.
- b. Emergency eye-wash stations shall be provided; one for every two (2) maintenance bays.
- c. Battery rooms shall have emergency eyewash stations and one (1) acid resistant sink.
- d. An air compressor shall be located outside and to the rear of the building under a canopy to be designed by the contractor and enclosed in a security fence with a gate.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Vehicle Maintenance Facility, in the Proposal Schedule (Section 00100).

### **3.27 POL STORAGE BUILDING**

The Contractor shall construct eight (8) POL Storage Buildings according to the standard construction drawings in the Appendix. The Contractor shall refer to the Concept Plan for the location of this facility in relationship to other buildings and facilities on site.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid for under bid item, POL Storage Building, of the Proposal Schedule (Section 00100).

### **3.28 VEHICLE FUEL POINT**

The Contractor shall design and construct one (1) Vehicle Fuel Point with fuel dispensers, fuel tanks, and one (1) Operators Building. The Contractor shall include sufficient area around the fuel point for vehicle maneuvering. The area around the fuel point shall be graded with appropriate slope and drainage to tie into the storm drainage system.

The fuel point shall be designed to accommodate two (2) 7-ton vehicles side by side in accordance with the Concept Plan. The Contractor shall provide fire extinguishers at each fuel dispenser.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid for under the bid item, Vehicle Fuel Point, of the Proposal Schedule (Section 00100).

#### **3.28.1 DISPENSERS AND FUEL TANKS**

As part of the "Vehicle Fuel Point" bid item, the Contractor shall design, construct and install Dispensers and Fuel Tanks for a complete operational vehicle refueling facility. There shall be two (2) diesel and one (1) MOGAS fuel dispenser.

Provide a concrete parking pad and metal roof that extends for the full length of the dispensing area. The Contractor shall provide a minimum of 5 gallons of spill containment at the tank fill connection, breakaway nozzles, gauging system and fire extinguishers. The Contractor shall design and construct area lighting for general illumination of the vehicle fuel dispensing area. All lighting and electrical devices shall be explosion-proof.

The Contractor shall design and construct above-ground fuel tanks. Fuel Storage capacity shall be 50,000 liters of diesel fuel and 5,000 liters of MOGAS. The fuel lines shall be gravity feed and the fuel tanks shall have a sight glass or dipstick measuring system. Rubber hoses shall not be used. The storage tanks shall be single walled

surrounded by a concrete spill containment structure that is 110% of the fuel tank capacity. Any penetrations of the spill containment structure shall be fully sealed so that spilled fuel cannot leak out. Vertical penetrations shall be sleeved to a height at least as tall as the containment structures walls. The storage tanks shall have adequately protected distribution lines to the vehicle refueling points. The tanks shall be surrounded by concrete T-walls (Alaska barriers) and have a metal roof to keep precipitation out of the spill containment structure. The spill containment floor shall be flat to maximize evaporation. The dispensing meter shall be mechanical type.

Hot-dipped galvanized tanks or pipe in the fuel system shall not be used.

**The Contractor shall provide a full supply of fuel to the tanks at the time of turnover to the Government.**

### **3.28.2 FUEL OPERATORS BUILDING**

As part of the Vehicle Fuel Point the contractor shall construct one (1) Fuel Operators Building following the standard construction drawings attached in the Appendix. The Contractor shall refer to the Concept Plan for the location of this facility in relationship to other buildings and facilities at the site.

### **3.29 VEHICLE WASH RACK**

The Contractor shall design and construct a one (1) Vehicle Wash Rack to accommodate 2 (two) vehicles simultaneously. The Contractor shall refer to the Concept Plan for the location of this facility relationship to other buildings and facilities on the site. The Contractor shall refer to the Vehicle Wash Racks drawing in the Appendix for information only. The Contractor shall refer to Section 01015 for additional technical requirements. The Vehicle Wash Racks shall be provided with water service by a pressure pump connected to the nearest water source. The elevated concrete pad shall have a broom finish texture and have the appropriate slope for drainage run-off to a trench drain. The Contractor shall extend drainpipes from the trench drain away from the wash stations into grit chambers and an oil/water separator. The drain pipes shall have clean outs at appropriate locations. The drain shall ultimately tie into the facility storm drainage system.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

These facilities shall be priced under bid item, Vehicle Wash Rack, of the Proposal Schedule (Section 00100).

### **3.30 TRASH COLLECTION POINT**

The Contractor shall construct fourteen (14) trash collection points following the standard construction drawings titled "Trash Collection Point" in the Appendix. Place each Trash Collection Point in locations convenient for easy vehicular access. Trash points shall be evenly spaced around the facility, at each common facility and easily accessible by vehicle.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

These facilities shall be priced under bid item, Trash Collection Point, of the Proposal Schedule (Section 00100).

### **3.31 PARADE FIELD & REVIEW STAND**

The Contractor shall design and construct one (1) Parade Ground Review Stand and one (1) Parade Field. The Parade Field shall be 80m x 60m. The parade fields shall have a compacted base, be appropriately drained and graded, and surfaced with 100 mm of compacted and well-graded aggregate.

The Contractor shall construct the parade ground review stands according to the standard design drawings in the Appendix.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for Priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Parade Field & Review Stand, of the Proposal Schedule (Section 00100).

#### **4. FORCE PROTECTION**

Force protection requirements shall be in accordance with UFC 4-010-01, *Minimum DoD Anti-terrorism Standards for Buildings*; and UFC 4-010-02, *DoD Minimum Anti-terrorism Standoff Distances for Buildings*. A standoff distance of 45 m is required for billeting and high-occupancy facilities from the perimeter wall.

##### **4.1 PERIMETER WALL**

The Contractor shall construct the perimeter wall in the general location shown on the Concept Plan. The Contractor shall follow the standard construction drawing, Perimeter Wall, in the Appendix and the requirements in Section 01015.

The height of the walls shall measure the standard of 3.0 m from the inside and outside grades to the top of the concrete wall cap. The ground grade shall slope away from the wall for at least 5.0 m and shall be kept a minimum of 3.0 m below the top of wall for a minimum distance of 10 m.

The wall shall be designed to keep all pedestrian and truck traffic outside the compound from having a visual line of site into the compound.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This feature shall be priced under bid item, Perimeter Wall, of the Bid Schedule (Section 00100).

##### **4.2 GUARD TOWERS**

The Contractor shall construct twelve (12) Guard Towers per the standard drawings titled "Guard Tower" in the Appendix. The Contractor shall construct the guard towers at appropriate locations near the perimeter wall according to angle points, site lines, and elevations.

The Contractor shall install manually operated 360-degree, omni-directional searchlight and communications at each guard tower. The floor height shall be elevated as to allow the window sill to be 0.5 m above the top of the wall.

White lights shall not be used inside the Guard Towers. Red, blue, or black lenses for interior Guard Tower lighting shall be used.

The area in the immediate exterior vicinity of the Guard Towers shall be provided with an all weather non-slip surface and shall be graded to sufficiently drain away from structure.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Guard Towers, in the Bid Schedule (Section 00100).

##### **4.3 ENTRY CONTROL POINTS (ECP)**

The Contractor shall design and construct two (2) ECPs. Each ECP shall consist of two (2) manually operated drop arm barriers, one (1) manually operated steel sliding gate, one (1) personnel gate, one (1) covered canopy, one (1) guard shack, Jersey barriers, and an inspection/rejection area and turn out lane.

The Contractor shall install floodlights at the guard shack to illuminate the entrance and inspection/rejection area for force protection personnel at the gate.

Construct the drop arm barriers, sliding gate, covered canopy, and guard shack per the standard design drawings in the Appendix.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Entry Control Point (ECP), in the Bid Schedule (Section 00100).

#### **4.4 PERSONNEL BUNKERS**

The Contractor shall construct approximately fifty (50) Personnel Bunkers per the Standard Drawings titled "Personnel Bunker" in the Appendix. The Contractor shall choose locations for personnel bunkers based upon personnel density and locations.

This portion of the project has been assigned "Priority 2"; the period of performance for the work in this paragraph shall be as stated for Priority 2 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Personnel Bunkers, of the Bid Schedule (Section 00100).

### **5. SITE DEVELOPMENT/IMPROVEMENTS**

#### **5.1 DEMOLITION**

The Contractor shall remove and dispose of all debris, concrete, buildings and foundations within the limits of work. The Contractor shall be responsible for locating and paying all fees associated with removal and relocation of all debris and shall verify the location of debris disposal with the Contracting Officer. Scrap metal on site shall be moved to an area away from the site perimeter as directed by the COR and left for the host government to salvage. Demolished fencing and concertina wire shall be neatly rolled up and used fence posts and outriggers shall be neatly stockpiled for reuse by the host government. There will be no separate measurement or payment for demolition and the costs associated with any demolition work shall be accounted for by the Contractor in the bid item for which the demolition is associated.

#### **5.2 SITE GRADING AND STORMWATER MANAGEMENT**

Site grading and drainage features shall conform to the requirements and references specified herein for development of the facility. The Contractor shall design and submit a Site Grading and Drainage Plan showing the location of all required drainage structures.

The Grading and Drainage Plan shall indicate the existing and proposed contour lines, the location of drainage structures and the direction of flow. Spot elevations shall be indicated at the beginning and end of all drainage structures, at inflection points, and spaced every 25 meters along the alignment. Proposed contour lines shall meet with existing contour lines on the Grading and Drainage Plan. The Grading and Drainage Plan shall be at a scale that all lines and structures can be easily seen and ascertained.

**The Contractor shall be aware that potentially there will be a large amount of cut, fill, and grading on this project to mitigate stormwater/flooding issues and shall bid accordingly. All grading and infrastructure quantities are to be determined by the Contractor.**

**The overall site maximum slope shall not exceed 5%, therefore, terracing or retaining walls may be required. Terraces require erosion control measures and shall have a maximum slope of 1V:3H.**

Drainage ditches are required on both sides of the road; ditches shall be connected to a drainage network that shall convey drainage offsite. All culverts outside of and through the perimeter wall shall include personnel access denial system(s). The hydrology of the area shall be evaluated to determine drainage ditch and structure sizes.

The walls of all new earthen storm drainage (including canals, trenches, ditches, swales, etc) shall not have a slope greater than 1 V: 3 H without a stone and mortar finish or concrete lining to prevent erosion.

Native crushed stone 100 mm thick shall be placed around all buildings, from the building wall or building landscaping out

As part of the Site Grading and Stormwater Management line item the Contractor shall grade and provide proper drainage in the "Temporary Facilities and Future Class II Location" area shown on the Concept Plan in the Appendix.

All drainage shall be conveyed off site; stormwater retention shall not be allowed as a drainage solution.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Site Grading and Stormwater Management, of the Bid Schedule (Section 00100).

### **5.3 ROADS, FOOTPATHS AND FIRE LANES**

The road layout shall provide ease of access to entrance points, buildings, loading ramps and docks, vehicle maintenance facilities, fuel points, trash collection points, grease traps, oil/water separators, etc. Roads shall be designed for HS-20 loading. A storm drainage system shall also be included.

The Contractor shall design and construct the entire road and parking network based on an analysis of geotechnical data.

#### **5.3.1 ROADS**

The Contractor shall design and construct two-lane asphalt paved roads within the proposed developments using the Concept plan as a guide. The Contractor shall provide design drawings showing detailed cross sections and road structure and plan and profile drawings showing proper stationing. Roads shall be 8 m wide (4 m wide per lane for two lanes) unless otherwise noted and should be elevated from the graded site. The Perimeter road along the Perimeter Wall shall be 3.5 m wide and surfaced with aggregate. Roads shall be sloped for proper surface runoff.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Roads, in the Bid Schedule (Section 00100).

#### **5.3.2 FOOTPATHS AND FIRELANES**

The Contractor shall design and construct 1.5 m wide concrete foot paths. The concrete footpaths shall be required to connect all buildings, facilities, and features such as offices, classrooms, billeting, etc. Footpaths shall be appropriately graded for drainage. Footpaths shall be shown on the Site Plan and a detail of the foot paths shall be provided in the design drawings.

The Contractor shall design and construct firelanes on a minimum of three (3) sides of all buildings. Fire lanes shall be a minimum of three (3) meters wide and be surfaced with 100 mm (minimum) of aggregate. Footpaths may be used as firelanes if the footpath is a minimum of 3 m wide. All footpaths that are used as firelanes shall be concrete paved.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Footpaths and Firelanes, of the Bid Schedule (Section 00100).

### **5.4 WATER DISTRIBUTION SYSTEM**

The Contractor shall design and construct a potable water system for a population of 3,200 in accordance with the AED Design Requirements, latest version. The system shall be designed to deliver 744,000 liters per day (ADD (155 liters) X Population (3200 people) X Capacity Factor (1.5)) See Section 01015 for design and construction criteria. Water requirements for fire fighting, irrigation and landscaping shall not be included in design demand calculations.

The water system shall include water well(s), well pump(s), disinfection station(s), well/pump house(s), water tank(s), booster pumps, hydro pneumatic surge tank(s), booster pump building(s) and underground pipe distribution system with service connections to all buildings and features requiring water supply. The Contractor shall install totalizing flow meters between the water well and storage tanks and between the storage tanks and the distribution system.

#### **5.4.1 WELL DRILLING**

The Contractor shall locate well sites and drill a minimum of two (2) wells to a minimum of 100 meters and a maximum of 200 meters below ground surface in an attempt to find potable water. The attempt must be in accordance with AED well drilling standards and consistent with industry standards as determined by the COR.

The Contractor shall test the water from the well(s); they will be accepted if they meet the World Health Organization quality standards for human consumption. If water cannot be found the Contractor shall immediately notify the COR. The Contractor will be considered to have fulfilled the terms of the contract and will be entitled to the full price of the contract CLIN for "Water Well" The Contractor shall refer to the Concept Plan for the location of this facility type in relationship to other buildings and facilities on site.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Well Drilling in the Bid Schedule (Section 00100).

#### **5.4.2 WELL HOUSE AND SYSTEM**

The Contractor shall design and construct two (2) enclosed well houses, flow meters, well pumps and a disinfection system for each well according to the standard construction drawings in the Appendix and the requirements in Section 01015. Exterior lights shall be installed, either mounted to the side of the building or on poles. The Contractor shall refer to the Concept Plan for the location of this structure in relationship to other buildings and facilities on site.

FENCES: Surrounding the water well(s), tank(s), backup generator system and well / booster pump building(s) with a 3 m high chain link security fence with Y-channel and triple strand concertina wire with one (1) lockable double swing arm gate and one (1) personnel gate for the well and pump house building. The fencing shall be offset 3m from the exterior walls of the buildings. Construct the fencing and gates per the Fencing Details provided in the Appendix.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Well House and System, in the Bid Schedule (Section 00100).

#### **5.4.3 BOOSTER PUMP SYSTEM**

Booster pumps and hydro pneumatic tanks shall provide the necessary pressure in the water system. The Contractor shall construct a Booster Pump Building according to the standard drawings in the Appendix. The Contractor shall refer to the Concept Plan for the location of this structure in relationship to other buildings and facilities on site.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Booster Pump System, of the Bid Schedule (Section 00100).

##### **5.4.3.1 BACKUP POWER-WATER SYSTEM**

As part of the Booster Pump System bid item the Contractor shall design and construct a backup power generator system for the water system booster pump station and well house which is independent of the prime power plant. The Contractor shall ensure that the backup power generator system will accommodate the water facility's power requirements. The backup power generator system shall provide fuel storage for the generator with capacity to provide 48 hours of continuous generator run time along with an electrical distribution system to the facility. Additional requirements for the backup power system are in Section 01015. The generator and the fuel storage shall be placed on a concrete pad with secondary containment capable of holding 110% of the fuel storage tanks volume. Additionally the generator/fuel storage station shall have a metal canopy over it to protect it from weather and prevent water from accumulating in the secondary containment.

#### **5.4.4 WATER STORAGE TANK(S)**

The Contractor shall design and construct circular steel ground level storage tank(s) (GSTs) located near the booster pump system with a minimum capacity of 1,488,000 liters (155 l/p/d X Design Population X 3 days).

Storage tank(s) and piping shall be heated to prevent freezing of the tank and pipes entering the tank. A system of heat wrapped tape and exterior tank insulation is not considered a feasible permanent insulation system as it does not conform to a twenty (20) year life expectancy. The storage facility shall be located above drainage areas and locations subject to flooding as approved by the Contracting Officer or his representative. The storage facility shall be located at the higher elevations of the site to promote gravity flow and reduce pumping requirements. Overflow and air vents shall be screened so that birds, insects, rodents and debris cannot enter the reservoir. The Contractor shall provide pipe of adequate strength and durability with no adverse effect on water quality. The pipe shall be corrosion resistant.

The Contractor shall refer to the Concept Plan for the location of this facility type in relationship to other buildings and facilities on site.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Water Storage Tank(s), in the Bid Schedule (Section 00100).

#### **5.4.5 WATER DISTRIBUTION SYSTEM**

The Contractor shall design and construct a distribution system shall include all required piping, valves, fittings, and appurtenances required to serve water to all facilities requiring it according to the standard building designs. The Water system must be fully looped.

All materials, finishes, and equipment shall comply with the requirements of Section 01015.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Water Distribution System, of the Bid Schedule (Section 00100).

#### **5.5 WASTEWATER COLLECTION SYSTEM**

The Contractor shall design and construct a sanitary sewer collection system for all facilities that require it according to the standard building designs.

The sanitary waste water collection system shall consist of gravity sewer pipe and appurtenances such as manholes, cleanouts, building service connections and lift station(s). See Section 01015 for technical requirements.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid for under bid item, Wastewater Collection System, in the Bid Schedule (Section 00100).

#### **5.6 WASTEWATER TREATMENT PLANT**

The Contractor shall design and construct a wastewater treatment plant according to the requirements in Section 01015.

The wastewater treatment plant (WWTP) shall be a partial mix aeration lagoon system that has features including but not limited to a lift/pump station (if necessary), headworks, aeration pond, settling pond, sludge drying lagoons, and chlorine contact tank. In addition the Contractor shall design and construct a support building(s) for lab/office/storage space. The capacity of the wastewater treatment plant shall be 596,000 liters per day. Refer to the Site Concept Plan attached in the Appendix for the general location of the WWTP. The waste water treatment

lagoon system shall be designed and constructed such that the system shall not be flooded by a 25-year storm event and shall include considerations for potential flooding events originating upstream.

The Contractor shall design and construct a 35 m<sup>2</sup> CMU building. The Contractor shall provide lighting per Section 01015. The exterior finish shall be stucco per Section 01015. Interior Construction: The interior wall surfaces shall be painted plaster. No painted plywood or other wood panel product shall be used. Metal roofing on an overbuilt structure shall be used. The slope of the roof shall be a minimum of 2V:10H. The exterior door and frame shall be galvanized with a factory applied finish. Electrical: provide wall outlets, electric heating, ceiling fan, and an exhaust fan with makeup air opening. The Contractor shall provide one (1) counter mounted stainless steel sink, (1) one stainless work table. Provide hot and cold water, drain and venting for the sink. Provide a floor drain and hose bib to facilitate wash down of the laboratory.

The Contractor shall design and construct an approximately 14 m<sup>2</sup> CMU chemical feed/storage building as part of the waste water treatment plant. The chemical feed/storage building shall contain all hypochlorite system components and space for chemical storage. The chemical feed/storage building shall be adequately ventilated to prevent accumulation of chemical off gases. The Contractor shall provide a hose bib in the building and floor drain. The Contractor shall provide lighting per Section 01015. The exterior finish shall be stucco per Section 01015. Interior Construction: The interior wall surfaces shall be painted plaster. No painted plywood or other wood panel product shall be used. Metal roofing on an overbuilt structure shall be used. The slope of the roof shall be a minimum of 2V:10H. The exterior door and frame shall be galvanized with a factory applied finish. Provide four (4) aggregate surfaced vehicle parking spaces. Provide aggregate surfaced driveways and driving lanes as necessary.

The wastewater treatment plant shall be surrounded with a 3 m high chain link security fence with Y channel and triple strand concertina wire on top. The fence shall have one (1) lockable personnel gate and two (2) lockable double swing arm gates. The fencing shall be offset a minimum of 8 m from the exterior walls of buildings and other wastewater treatment plant facilities. Construct the fencing and gates per the Fencing Details provided in the Appendix.

Provide two (2) aggregate surfaced vehicle parking spaces. Provide aggregate surfaced driveways and driving lanes as necessary to provide access to the sludge drying beds and all facilities and buildings.

WWTP Outfall: The Contractor shall design and construct a gravity or force main outfall pipe from the waste water treatment lagoon system to the wadi located adjacent to the WWTP. The Contractor shall design the outfall pipe to adequately flow 596,000 liters per day accounting for peak flows. The outfall pipe shall be reinforced concrete pipe and be designed for HS-20 loading.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid for under bid item; Wastewater Treatment Plant, in the Bid Schedule (Section 00100).

## **5.7 SITE POWER AND ELECTRICAL DISTRIBUTION SYSTEM**

Prime Power Plant: The Contractor shall design and construct one (1) central power plant for power supply to all facilities requiring power on the garrison. The Contractor shall provide a concrete slab and metal canopy sized to contain the required generators and their associated switchgear, equipment, and all appurtenances necessary to meet all power requirements. All materials, finishes, and equipment shall comply with the requirements of Section 01015.

Generator Pads and Fuel Storage: Power Generation shall be provided by five (5) one (1) Megawatt generators. The Contractor is responsible for confirming all estimates and quantities prior to bidding. Generators and all equipment necessary for installation and operation of the generators shall be supplied and constructed by the Contractor. All generators shall be self contained outdoor generators rated for 50° C. The Contractor shall provide a synchronizer switch, so that when the total power demanded from one generator reaches 90% of the generators maximum, an additional generator automatically starts and supplements the running generator(s). Generators shall be programmed to run equally. The power plant must be designed and constructed to accommodate two (2) additional generators for future expansion.

Design and construct a suitable generator pad with secondary containment for the generators. The generator pad shall have vibration isolators and the capability to dampen vibration to the surrounding ground through the use of foam plastic and sand. Install the generators with connections to the fuel supply tank(s), complete transmission/distribution system, transformers, panels, and all other required appurtenances for a basic, fully operational system. Switchgear and control panels must be designed to accept the future expansion for (2) two additional generators.

The contractor shall design and construct fuel storage sized to store a 30 day supply. Fuel storage shall have secondary containment with a flat bottom to maximize evaporation. Any penetrations in the the secondary containment walls shall be sealed to prevent leakage of spilled fuel. Vertical penetrations shall be sealed and sleeved as high as or higher than the walls of the containment facility. The fuel storage area must be designed to accommodate two (2) additional tanks for future expansion at the power generation facility. **Fuel for commissioning and testing shall be provided by the Contractor. Also, the Contractor shall provide fuel tanks that are completely full at the time of turnover to the Government.**

The power plant and fuel storage shall be enclosed within a compound with aggregate surfaced vehicle roadway and maneuver area. The fuel tanks and generators shall be surrounded by Alaska barriers sized according to the standard detail in the appendix. The entire compound shall be surrounded with a 3 m high chain link fence with Y-channel and triple strand concertina wire on top, two (2) lockable double swing arm vehicle gates and one (1) lockable personnel gate. Construct the fencing and gates per the Fencing Details provided in the Appendix.

Underground Electrical Distribution System: The Contractor shall provide and install all appropriate transformers, cable and any other equipment necessary for a fully functioning electrical distribution system. All electrical design and installation shall meet British Standard BS 7671 requirements. All wiring shall be run and pulled through conduits. Electrical receptacles shall be provided as indicated in the standard drawings in the appendix. Conductors and circuits shall be sized for the specific design loads. Primary Voltage (generator Voltage) shall be 15kV, 50Hz. Secondary voltage shall be 220/380V, 50Hz.

Contractor shall design all interior electrical systems and any required exterior lighting as described in Section 01015, Technical Requirements. There shall be no lightning protection systems except as indicated on the standard building designs.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Site Power & Electrical Distribution System, in the Bid Schedule (Section 00100).

## **5.8 SITE COMMUNICATION SYSTEM**

The Contractor shall provide communication conduits, space requirements, and feeds in designated facilities as well as a communication system for perimeter security functions. Feeds shall run to all buildings and back to a central communications room in the designated facility communications room in the TOC. The communications wiring shall be installed by others. Communication infrastructure shall be designed in accordance with Section 01015, Technical Requirements.

This portion of the project has been assigned "Priority 1"; the period of performance for the work in this paragraph shall be as stated for Priority 1 items in the Construction Priority Table in Section 1.1.

This portion of the project shall be paid under bid item, Site Communication System, in the Bid Schedule (Section 00100).

### **5.8.1 LOUD SPEAKER AND ALARM SYSTEM**

As part of the Communications System CLIN the Contractor shall design and construct a Loud Speaker and Alarm System that can alert the entire compound via panic button from any tower or guard post station. The Loud Speaker System shall be connected to a microphone system and shall be located in the TOC. The speaker and alarm system shall consist of exterior grade components that can withstand severe cold, and hot weather, rain, sleet, and dust storms. The System shall be completely understandable during severe weather conditions from any point within the compound. All cable and wires shall be installed in conduits.

## **5.9 CONVOY ASSEMBLY AREA**

The Contractor shall design and construct one (1) asphalt paved Convoy Assembly Area 100m long x 8m wide. The Contractor shall refer to the Concept Plan in the Appendix for the location.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Convoy Assembly Area, in the Bid Schedule (Section 00100).

## **6. OPTIONAL ITEM: SITE ACCESS AND WADI CROSSING**

### **6.1 SITE ACCESS ROAD**

The Contractor shall design and construct a two-lane asphalt paved road from the main road in the adjacent village to the project site at the general locations shown on the Concept Plan in the Appendix. The Access Roads shall be 8 meters wide and elevated from the surrounding grade. The Access Roads shall be sloped for proper surface runoff. Drainage ditches on each side of the Access Roads shall be required to convey drainage to the wadi.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

The Site Access Road shall have a unit measure of lump sum under the option bid item, Site Access Road, of Bid Schedule (Section 00100).

### **6.2 WADI CROSSING**

#### **6.2.1 LOW WATER CROSSING**

The contractor shall design and construct a reinforced concrete paved Low Water Crossing across the wadi in the general location as shown on the Concept Plan in the Appendix. The Low Water crossing shall be an 8 M wide roadway with 4 meter wide lanes. The Low Water Crossing shall be elevated 15 cm above the existing grade. The contractor shall construct rip rap or concrete erosion protection a minimum of 5 M up-stream and downstream of the low water crossing. All other design criteria shall match the requirements for road ways as listed in this Section and Section 01015

The Option for the Low Water Crossing shall be Priority 3 as stated in the Construction Priority Table in Section 1.1.

The Low Water Crossing shall have a unit of measure lump sum under option bid item, Low Water Crossing, of the Bid Schedule (Section 00100).

#### **6.2.2 BRIDGE**

The Contractor shall design and construct a concrete reinforced Bridge in the general location shown on the Concept Plan provided in the Appendix. The Bridge shall be designed and constructed according to the information provided here and in Section 01015

The Contractor shall be responsible to design and construct an asphalt paved “causeway” between the Access Roads and the Bridge.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

The Bridge shall have a unit of measure lump sum under option bid item, Bridge, of the Bid Schedule (Section 00100).

## **7. OPTIONAL ITEM: INFANTRY BATTALION (700 SERIES FACILITIES)**

### **7.1 HEADQUARTERS BUILDING**

As an option to the Government the Contractor shall construct one (1) Headquarters Buildings per the standard design titled "Headquarters Building – Arch Span" in the Appendix

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall design and construct a backup power generator system that is independent of the facility power plant for the headquarters in emergencies. The Contractor shall ensure that the power generator system will accommodate the headquarter buildings power needs. The backup power generator system shall provide fuel storage for the generators with a capacity of 48 hours of continuous generator runtime along with an electrical distribution system to the facility. The generators, fuel storage and distribution system shall be furnished by the contractor.

The contractor shall construct three flagpole structures for the Headquarters building, according to the standard construction drawings attached in the Appendix.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Headquarters Building, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

### **7.2 OFFICERS BARRACKS - LARGE**

As an option to the Government, the Contractor shall construct one (1) Officers Barracks - Large according to the Standard Building Design titled "Officers Barracks Large - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Officers Barracks - Large, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

### **7.3 NCO BARRACKS**

As an option to the Government the Contractor shall construct two (2) NCO Barracks according to the Standard Building Design titled "Combination NCO/Enlisted Barracks - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, NCO Barracks, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

#### **7.4 ENLISTED BARRACKS**

As an option to the Government the Contractor shall construct four (4) Combination NCO/Enlisted Barracks according to the Standard Building Design titled "Enlisted Barracks - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Enlisted Barracks, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

#### **7.5 TRAINING BUILDING**

As an option to the Government the Contractor shall construct one (1) Training Buildings according to the Standard Building Design titled "Training Building - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Training Building, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

#### **7.6 LARGE LATRINE BUILDING**

As an option to the Government the Contractor shall construct one (1) Large Latrines according to the Standard Building Design titled "Latrine Large – Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall provide three (3) 5.0 m long Clothesline units at each large Latrine according to the standard construction drawing in the appendix.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Large Latrine Building, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

### **7.7 SMALL LATRINE BUILDING**

As an option to the Government the Contractor shall construct two (2) Small Latrines according to the Standard Building Design titled “Latrine Small – Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall provide two (2) 5.0 m long Clothesline units at each large Latrine according to the standard construction drawing in the appendix.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Small Latrine Building, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

### **7.8 STORAGE BUILDING**

As an option to the Government the Contractor shall construct one (1) Storage Buildings according to the Standard Building Design titled “Storage Building – Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Storage Building, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

## **7.9 SMALL ARMS STORAGE**

As an option to the Government the Contractor shall construct one (1) Small Arms Storage Buildings; they shall be CMU type construction following the standard construction drawings in the Appendix titled "Small Arms Storage". The Contractor shall refer to the Concept Plan for the location of this facility type in relationship to other buildings and facilities on site.

The Small Arms Storage building shall include the following:

- a. Wooden racks for storing long-arm weapons vertically. Racks shall not be furnished with locking bars.
- b. Power outlets in the walls no more than 4.0 m apart.
- c. The facility will be enclosed with a 3.0 m high fence and a secure entranceway. The fence shall be constructed according to the standard details for fences and gates in the Appendix.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Small Arms Storage, in the Optional Items: Infantry Battalion section of the Proposal Schedule (Section 00100).

## **7.10 MOTOR POOL AREA**

As an option to the Government the Contractor shall design and construct one (1) Motor Pool Areas using the plans titled "Motor Pool Area" for information only. Adequate vehicle maneuver areas shall be provided for all parking and facilities.

The Contractor shall construct the Motor Pool Area in the location shown on the Concept Plan in the Appendix. The facility size is approximately 20,032 SM.

The optional Motor Pool Area shall be completely enclosed by a 3 m high chain link fence with Y-channel and triple strand concertina wire and one (1) lockable double swing arm vehicle gates and one (1) lockable personnel gate. The ground grade shall slope away from the fence for at least 5 m and shall be kept a minimum of 3 m below the top of the fence for a distance of 10 m minimum. The Contractor shall construct the fence and gates per the standard design drawings in the Appendix. The entire enclosed fenced area shall be surfaced with 100 mm of crushed aggregate. The Contractor shall provide exterior pole-mounted lighting along the fence line to illuminate the area and allow safe movement of vehicles during night-time operations.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Motor Pool Area, in the Optional Items: Infantry Battalion section of the Bid Schedule (Section 00100).

## **7.11 VEHICLE MAINTENANCE FACILITY**

As an option to the Government the Contractor shall construct one (1) Vehicle Maintenance building; they shall be Arch-Span type construction following the standard construction drawings in the Appendix – titled "Vehicle Maintenance Building".

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the Concept Plan for the location of this facility in relation to other facilities on the compound. Additionally, the Contractor shall follow all of the requirements in Section 01015 and include the following elements:

- a. There shall be a concrete hardstand apron outside all garage doors with a minimum width of 10 m. The apron shall be designed for HS20 loading.
- b. Emergency eye-wash stations shall be provided; one for every two (2) maintenance bays.
- c. Battery rooms shall have emergency eyewash stations and one (1) acid resistant sink.
- d. An air compressor shall be located outside and to the rear of the building under a canopy to be designed by the contractor and enclosed in a security fence with a gate.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Vehicle Maintenance Facility, in the Optional Items: Infantry Battalion section of the Proposal Schedule (Section 00100).

#### **7.12 POL STORAGE BUILDING**

As an option to the Government the Contractor shall construct one (1) POL Storage Buildings according to the standard construction drawings in the Appendix. The Contractor shall refer to the Concept Plan for the location of this facility in relationship to other buildings and facilities on site.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid for under bid item, POL Storage Building, in the Optional Items: Infantry Battalion section of the Proposal Schedule (Section 00100).

#### **7.13 TRASH COLLECTION POINT**

As an option to the government the Contractor shall construct two (2) trash collection points following the standard construction drawings titled "Trash Collection Point" in the Appendix. Place each Trash Collection Point in locations convenient for easy vehicular access. Trash points shall be evenly spaced around the facility, at each common facility and easily accessible by vehicle.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

These facilities shall be priced under bid item, Trash Collection Point, in the Optional Items: Infantry Battalion section of the Proposal Schedule (Section 00100).

#### **7.14 UTILITIES**

As an option to the government the Contractor shall install and connect all utilities (water, sewer, power, and communications) to the camp facilities.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

These facilities shall be priced under bid item, Utilities, in the Optional Items: Infantry Battalion section of the Proposal Schedule (Section 00100).

#### **7.15 ROADS, FOOTPATHS AND FIRE LANES**

The road layout shall provide ease of access to entrance points, buildings, loading ramps and docks, vehicle maintenance facilities, fuel points, trash collection points, grease traps, oil/water separators, etc. Roads shall be designed for HS-20 loading. A storm drainage system shall also be included.

The Contractor shall design and construct the entire road and parking network based on an analysis of geotechnical data.

### **7.15.1 ROADS**

The Contractor shall design and construct two-lane asphalt paved roads within the proposed developments using the Concept plan as a guide. The Contractor shall provide design drawings showing detailed cross sections and road structure and plan and profile drawings showing proper stationing. Roads shall be 8 m wide (4 m wide per lane for two lanes) unless otherwise noted and should be elevated from the graded site. The Perimeter road along the Perimeter Wall shall be 3.5 m wide and surfaced with aggregate. Roads shall be sloped for proper surface runoff.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Roads, in the Optional Items; Infantry Battalion section of the Proposal Schedule (Section 00100).

### **7.15.2 FOOTPATHS AND FIRELANES**

The Contractor shall design and construct 1.5 m wide concrete foot paths. The concrete footpaths shall be required to connect all buildings, facilities, and features such as offices, classrooms, billeting, etc. Footpaths shall be appropriately graded for drainage. Footpaths shall be shown on the Site Plan and a detail of the foot paths shall be provided in the design drawings.

The Contractor shall design and construct firelanes on a minimum of three (3) sides of all buildings. Fire lanes shall be a minimum of three (3) meters wide and be surfaced with 100 mm (minimum) of aggregate. Footpaths may be used as firelanes if the footpath is a minimum of 3 m wide. All footpaths that are used as firelanes shall be concrete paved.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Footpaths and Firelanes, in the Optional Items; Infantry Battalion section of the Proposal Schedule (Section 00100).

### **7.16 PERSONNEL BUNKERS**

The Contractor shall construct approximately twenty (20) Personnel Bunkers per the Standard Drawings titled "Personnel Bunker" in the Appendix. The Contractor shall choose locations for personnel bunkers based upon personnel density and locations.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Personnel Bunkers, in the Optional Items: Infantry Battalion of the Bid Schedule (Section 00100).

## **8. OPTIONAL ITEMS: ROAD CLEARANCE COMPANY-RCC (600 SERIES FACILITIES)**

### **8.1 ADMINISTRATION BUILDING**

The Contractor shall construct one (1) Administration Buildings according to the Standard Building Design "Admin Building" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The contractor shall construct three flagpole structures for the Administration building, according to the standard construction drawings attached in the Appendix.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Administration Building, in the Optional Items: RCC section of the Bid Schedule (Section 00100).

## **8.2 OFFICERS BARRACKS - SMALL**

The Contractor shall construct one (1) Officers Barracks - Small according to the Standard Building Design titled "Officers Barracks Small - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Officers Barracks - Small, in the Optional Items: RCC section of the Bid Schedule (Section 00100).

## **8.3 COMBINATION NCO/ENLISTED BARRACKS**

The Contractor shall construct one (1) Combination NCO/Enlisted Barracks according to the Standard Building Design titled "Combination NCO/Enlisted Barracks - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Combination NCO/Enlisted Barracks, in the Optional Items: RCC section of the Bid Schedule (Section 00100).

## **8.4 TRAINING BUILDING**

As an option to the Government the Contractor shall construct one (1) Training Buildings according to the Standard Building Design titled "Training Building - Arch Span" in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be "Trowel Finished Concrete-Broom Finish @Tile" (finish 'A') from the Finish Schedule, except wet areas. Wet areas shall have "Conc. Sealer" (finish 'D') from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be 'F' and the ceiling finish shall be 'D' from the Finish Schedule. Finish 'F' and finish 'D' are both "Polyurethane-Spray On".

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

This portion of the project has been assigned "Priority 4"; the period of performance for the work in this paragraph shall be as stated for priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Training Building, in the Optional Items: RCC section of the Bid Schedule (Section 00100).

### **8.5 SMALL LATRINE BUILDING**

As an option to the Government the Contractor shall construct one (1) Small Latrine according to the Standard Building Design titled “Latrine Small – Arch Span” in the Appendix.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the concept plan for the location of this facility type in relation to other buildings and facilities on site.

The Contractor shall provide two (2) 5.0 m long Clothesline units at each large Latrine according to the standard construction drawing in the appendix.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Small Latrine Building, in the Optional Items: RCC section of the Bid Schedule (Section 00100).

### **8.6 SMALL ARMS STORAGE**

As an option to the Government the Contractor shall construct one (1) Small Arms Storage Buildings; they shall be CMU type construction following the standard construction drawings in the Appendix titled “Small Arms Storage”. The Contractor shall refer to the Concept Plan for the location of this facility type in relationship to other buildings and facilities on site.

The Small Arms Storage building shall include the following:

- d. Wooden racks for storing long-arm weapons vertically. Racks shall not be furnished with locking bars.
- e. Power outlets in the walls no more than 4.0 m apart.
- f. The facility will be enclosed with a 3.0 m high fence and a secure entranceway. The fence shall be constructed according to the standard details for fences and gates in the Appendix.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Small Arms Storage, in the Optional Items: RCC section of the Proposal Schedule (Section 00100).

### **8.7 MOTOR POOL AREA**

As an option to the Government the Contractor shall design and construct one (1) Motor Pool Areas using the plans titled “Motor Pool Area” for information only. Adequate vehicle maneuver areas shall be provided for all parking and facilities.

The Contractor shall construct the Motor Pool Area in the location shown on the Concept Plan in the Appendix. The size of the facility is approximately 3,834 SM.

The optional Motor Pool Area shall be completely enclosed by a 3 m high chain link fence with Y-channel and triple strand concertina wire and one (1) lockable double swing arm vehicle gates and one (1) lockable personnel gate. The ground grade shall slope away from the fence for at least 5 m and shall be kept a minimum of 3 m below the top of the fence for a distance of 10 m minimum. The Contractor shall construct the fence and gates per

the standard design drawings in the Appendix. The entire enclosed fenced area shall be surfaced with 100 mm of crushed aggregate. The Contractor shall provide exterior pole-mounted lighting along the fence line to illuminate the area and allow safe movement of vehicles during night-time operations.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Motor Pool Area, in the Optional Items: RCC section of the Bid Schedule (Section 00100).

## **8.8 VEHICLE MAINTENANCE FACILITY**

As an option to the Government the Contractor shall construct one (1) Vehicle Maintenance building; they shall be Arch-Span type construction following the standard construction drawings in the Appendix – titled “Vehicle Maintenance Building”.

The Contractor shall modify the Standard Design Drawings for this item; the concrete floors shall be “Trowel Finished Concrete-Broom Finish @Tile” (finish ‘A’) from the Finish Schedule, except wet areas. Wet areas shall have “Conc. Sealer” (finish ‘D’) from the Finish Schedule.

The contractor shall modify the Standard Design Drawings for this item; the drop ceilings shall be removed. The wall finish shall be ‘F’ and the ceiling finish shall be ‘D’ from the Finish Schedule. Finish ‘F’ and finish ‘D’ are both “Polyurethane-Spray On”.

The Contractor shall refer to the Concept Plan for the location of this facility in relation to other facilities on the compound. Additionally, the Contractor shall follow all of the requirements in Section 01015 and include the following elements:

- b. There shall be a concrete hardstand apron outside all garage doors with a minimum width of 10 m. The apron shall be designed for HS20 loading.
- b. Emergency eye-wash stations shall be provided; one for every two (2) maintenance bays.
- c. Battery rooms shall have emergency eyewash stations and one (1) acid resistant sink.
- d. An air compressor shall be located outside and to the rear of the building under a canopy to be designed by the contractor and enclosed in a security fence with a gate.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid under bid item, Vehicle Maintenance Facility, in the Optional Items: RCC section of the Proposal Schedule (Section 00100).

## **8.9 POL STORAGE BUILDING**

As an option to the Government the Contractor shall construct one (1) POL Storage Buildings according to the standard construction drawings in the Appendix. The Contractor shall refer to the Concept Plan for the location of this facility in relationship to other buildings and facilities on site.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

This facility shall be paid for under bid item, POL Storage Building, in the Optional Items: RCC section of the Proposal Schedule (Section 00100).

## **8.10 TRASH COLLECTION POINT**

As an option to the government the Contractor shall construct two (2) trash collection points following the standard construction drawings titled “Trash Collection Point” in the Appendix. Place each Trash Collection Point in locations convenient for easy vehicular access. Trash points shall be evenly spaced around the facility, at each common facility and easily accessible by vehicle.

This portion of the project has been assigned “Priority 4”; the period of performance for the work in this paragraph shall be as stated for Priority 4 items in the Construction Priority Table in Section 1.1.

These facilities shall be priced under bid item, Trash Collection Point, in the Optional Items: RCC section of the Proposal Schedule (Section 00100).

### **8.11 UTILITIES**

As an option to the government the Contractor shall install and connect all utilities (water, sewer, power, and communications) to the camp facilities.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

These facilities shall be priced under bid item, Utilities, in the Optional Items: RCC section of the Proposal Schedule (Section 00100).

### **8.12 ROADS, FOOTPATHS AND FIRE LANES**

The road layout shall provide ease of access to entrance points, buildings, loading ramps and docks, vehicle maintenance facilities, fuel points, trash collection points, grease traps, oil/water separators, etc. Roads shall be designed for HS-20 loading. A storm drainage system shall also be included.

The Contractor shall design and construct the entire road and parking network based on an analysis of geotechnical data.

#### **8.12.1 ROADS**

The Contractor shall design and construct two-lane asphalt paved roads within the proposed developments using the Concept plan as a guide. The Contractor shall provide design drawings showing detailed cross sections and road structure and plan and profile drawings showing proper stationing. Roads shall be 8 m wide (4 m wide per lane for two lanes) unless otherwise noted and should be elevated from the graded site. The Perimeter road along the Perimeter Wall shall be 3.5 m wide and surfaced with aggregate. Roads shall be sloped for proper surface runoff.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Roads, in the Optional Items; RCC section of the Proposal Schedule (Section 00100).

#### **8.12.2 FOOTPATHS AND FIRELANES**

The Contractor shall design and construct 1.5 m wide concrete foot paths. The concrete footpaths shall be required to connect all buildings, facilities, and features such as offices, classrooms, billeting, etc. Footpaths shall be appropriately graded for drainage. Footpaths shall be shown on the Site Plan and a detail of the foot paths shall be provided in the design drawings.

The Contractor shall design and construct firelanes on a minimum of three (3) sides of all buildings. Fire lanes shall be a minimum of three (3) meters wide and be surfaced with 100 mm (minimum) of aggregate. Footpaths may be used as firelanes if the footpath is a minimum of 3 m wide. All footpaths that are used as firelanes shall be concrete paved.

This portion of the project has been assigned “Priority 3”; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Footpaths and Firelanes, in the Optional Items; RCC section of the Proposal Schedule (Section 00100).

### **8.13 PERSONNEL BUNKERS**

The Contractor shall construct approximately two (2) Personnel Bunkers per the Standard Drawings titled "Personnel Bunker" in the Appendix. The Contractor shall choose locations for personnel bunkers based upon personnel density and locations.

This portion of the project has been assigned "Priority 3"; the period of performance for the work in this paragraph shall be as stated for Priority 3 items in the Construction Priority Table in Section 1.1.

This facility shall be priced under bid item, Personnel Bunkers, in the Optional Items; RCC section of the Bid Schedule (Section 00100).

**-- END OF SECTION --**