



**STATEMENT OF WORK  
FOR  
LGF BREAKROOM  
BY  
CAC#1**

**GENERAL CONSTRUCTION SERVICES  
For  
FABRICATION AND INSTALLATION OF  
LGF BREAKROOM NEAR CAC#1  
TO MEET INTERNATIONAL BUILDING  
AND SAFETY CODES**

**U.S. CONSULATE  
Erbil, IRAQ**

***15 MARCH 2016***

**TABLE OF CONTENTS**

1.0 Project Description ..... 3

2.0 General Conditions..... 4-5

3.0 Bid Form.....6

4.0 Scope of Work ..... 7-14

5.0 Project Schedule..... 15

6.0 Responsibilities & Project Management .....16-17

## **1.0 PROJECT DESCRIPTION**

### **1. PROJECT SYNOPSIS**

The project is described as “Fabrication and installation of new LGF Breakroom by CAC#1 at the US Consulate, Erbil, Iraq.

The Contractor should furnish all necessary materials, labor, transportation, equipment, investigation and supervision, etc. Work will performed within in fixed-price contract.

### **2. BACKGROUND**

At present the LGF breakroom does not meet US life support and safety standards. The existing breakroom must be disposed to address various things such as wiring, windows, plumbing, electrical, and mechanical concerns.

### **3. SOLUTION**

Improve life safety conditions by replacing the existing CHU with new one (bigger size) and to meet the electrical and plumbing codes for example by replaying the electrical internal -panel boards and installing Ground Fault Circuit (GFCI) breakers for all areas as required. Confirm, repair and/or replace the ground in all electrical circuits within the building per NEC. Install additional circuits as necessary. Upgrade residence condition by installing a small kitchenette, bathroom surfaces, and fixtures. Upgrading the electrical system by changing the internal panel boards with a molded case panel; make sure all the power outlets and equipment are grounded. Put all the wires and cables in conduit and using a NEMA water proof cover for all outdoor power outlets.

## 2.0 GENERAL CONDITIONS

1. **Fixed-Price Proposal.** The Contractor shall provide one fixed-priced Proposal for the complete Project that includes every aspect of the Work.
2. **Specifications.** The Work shall be governed by the US Consulate, Erbil, Iraq. International Codes, which includes the National Fire Prevention Association (NFPA), International Building Code, International Mechanical Code, International Plumbing Code, and National Electric Code (NEC), also are applicable. Should there be a discrepancy between the US Consulate Specifications and the applicable Building Code, the more stringent of the two shall govern.

The Contractor is responsible for compliance with all Building Codes; Work not in compliance with the Codes shall be deemed to be unacceptable.

3. **Execution.** The Work shall be executed in a diligent and workmanlike manner in accordance with the negotiated fixed-price, this Scope of Work, the Project Schedule, International Building Codes, and the laws of the City of Erbil where applicable.
4. **Work Hours.** Unless otherwise agreed with COR or the Facility Manager, the Work shall be executed during normal Embassy work hours (0800-1700). Night, weekend or holiday work shall not be permitted except as arranged in advance with Facilities Management and COR. Embassy holiday schedule is available from Facilities Management or COR.
5. **Safety.** The Contractor shall be responsible for conducting the work in a manner that ensures the safety of residents, employees and visitors to the Embassy, and the Contractor's employees.
6. **Workforce.** The contractor shall provide all supervision, skilled and unskilled labor needed to perform the work. The contractor shall comply with embassy security policy by providing embassy approved escorts. Contractor provided escorts shall be in quantity sufficient to comply with RSO escort ratios for number of workers on the project. The contractor shall prepare requests to RSO for vetting of employees to get escort badges. The Contractor or government may request for workers to be badged for unescorted Embassy access by going through RSO vetting process. All vetting forms shall be submitted in 14 calendar days from the date of the award.
7. **Subcontractors.** Contractor shall be responsible for the conduct and workmanship of Subcontractors engaged in the Project, and for Subcontractors compliance with the terms of this Statement of Work. The Contractor is responsible for the behavior and workmanship of Subcontractors while on Consulate property.
8. **Modification to Contract.** The Contractor shall not incur any costs beyond those described in this SOW unless directed otherwise in writing by the Contracting Officer. Any work performed by the Contractor beyond this SOW without written direction from the Contracting Officer will be at the Contractor's own risk and at no cost to the Consulate.
9. **Stop Work.** At any time during the Project, the Contracting Officer reserves the right to Stop Work for protection of employees or visitors, security, or any other reason at his/her discretion.

10. **Submittals.** The contractor is responsible to submit shop drawings prior to fabrication and release of any materials for the Facility Manager and COR Review and approval. The Facility Manager review, however, does not relieve of the contractor's responsibility for the engineering work as to provide a complete working system.
11. **Excavation and Utilities.** The contractor is responsible to locate all existing utility lines prior to any excavation. Prior to disconnecting any existing utility services, the contractor is responsible to provide 48-hour advance notice to the COR.
12. **Close-out.** Prior to final acceptance, the contractor is to submit to the COR marked up drawings (As-Built) reflecting the work as constructed. The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.
13. **Housekeeping.** The contractor is responsible to clean up daily after working hours.

### 3.0 BID FORM

#### Construction Cost Breakdown: LGF Breakroom

Building Number; By CAC#1

#### US CONSULATE ERBIL

No	Descriptions	Unit	Qty	Unit Price \$	Total Price \$
<b>1</b>	<b>Administration</b>				
A	Mobilization / Demobilization	LS	1		
B	Submittals - product data & shop drawings	LS	1		
	<b>Administration</b>			<b>Sub-Total</b>	
<b>2</b>	<b>Construction Work</b>				
A	Architectural	LS	1		
B	Mechanical-Plumbing	LS	1		
C	Electrical	LS	1		
D	Close-out	LS	1		
	<b>Construction</b>			<b>Sub-Total</b>	
<b>3</b>	<b>DBA Insurance</b>				
A	Contractor shall cover each of its workers at the site with DBA Workers' Compensation coverage, and require its subcontractors to do the same. Contractor must furnish certificate evidencing this coverage to Engineer prior to starting work.	LS	1		
	<b>DBA Insurance</b>			<b>Sub-Total</b>	
	<b>Items 1 thru 3</b>			<b>Sub-Total</b>	
				G & A	
				Sub-Total	
				Profit	
<b>4</b>	<b>Basic Bid -</b>			<b>Contract Cost</b>	
A	<b>Bid -</b>			<b>Contract Cost</b>	

## 4.0 SCOPE OF WORK:

### 1. General Requirements

- a. Within 2 days of Notice to Proceed, the contractor shall provide to the COR a project schedule showing start to completion including significant milestones.
- b. Within 3 days of Notice to Proceed "NTP", the Contractor shall provide to the COR details of the proposed installation utilizing written description and design drawing.
- c. The contractor is responsible to dispose of the construction debris outside of the Consulate Compound. Include, but not limited to soils, rock excavation, packing materials and scrap steel.
- d. The contractor is responsible to properly layout and prepare for the renovation based on locations provided by FAC.
- e. When pursuing the work, the contractor is to take extra care as not to damage existing structure.
- f. All construction work will be in conformance with the following Codes:
  - f1) International Building Code, 2009 Edition plus the 2011 OBO International Code Supplement.
  - f2) International Plumbing Code, 2009 Edition plus the 2011 OBO International Code Supplement.
  - f3) International Mechanical Code, 2009 Edition plus the 2011 OBO International Code Supplement.
  - f4) International Fire Code, 2009 Edition plus the 2011 OBO International Code Supplement.
  - f5) National Electric Code, 2011 Edition plus the 2011 OBO International Code Supplement.
  - F6) International Residential Code 2009 Edition plus the 2011 OBO International Code Supplement.
  - F7) National Fire Protection Association, NFPA 101 & NFPA 58
  - F8) ICC/ANSI A117.1-98 Accessible and Usable Buildings and Facilities
  - F9) NECA 90 Recommended Practice for Commissioning Building Electrical Systems (ANSI)
  - F10) NECA 1-2010 Standard Practice of Good Workmanship in Electrical Construction (ANSI)
  - F11) IEEE C2-2012 National Electrical Safety Code (NESC)

## **A. ARCHITECTURAL**

### **General Notes for the Structure:**

#### **1. Existing Building:**

- a. Contractor is responsible to remove and dispose the existing CHU from S-057. Contractor shall disconnect the power and water pipes and fittings between the source and the CHU.
- b. Contractor shall provide all skilled and unskilled workers to have the work done up to standards.
- c. Contractor is responsible to clean around the area and disposed all unused items selected by the COR (6meters around the CHU in all directions).
- d. Contractor is responsible to remove the existing structure to outside the compound to area approved by the local government.

#### **2. Concrete Foundation and Excavation:**

- a. Conduct foundation lay-out in accordance with the drawings submitted by contractor and COR instructions, using standard survey/leveling instrument.
- b. Excavation for foundation of all types of materials to include but not limited to soil, rock and excavation through existing asphalt/concrete pavement.
- c. The contractor shall excavate for the foundation footing as per approved drawing/details or as per COR instruction.
- d. Sides and bottoms of excavation shall be cut sharp and true. Earth sides of excavations shall not be used in lieu of formwork for placement of concrete.
- e. When unstable material is encountered at the bottom of excavated trench, such materials shall be removed and replaced with suitable material.
- f. The contractor shall control the grading in the vicinity of all excavations so that the surface of the ground will be properly sloped, or diked to prevent surface water from running into the excavated areas during construction, while excavated areas shall be kept dry all the time by means of dewatering if required.
- g. For backfilling, compaction and leveling works, excavated materials cannot be used. Works shall be in layers not to exceed a maximum thickness of 10 cm each layer, using mechanical compactor, sprinkling right amount of water to reach optimum compaction of no less than 95% saturation with water shall not be allowed.
- h. Confer with COR the bottom elevation of excavations and that of backfill/leveling elevations. The depth of excavation will be determined on site by COR during the excavation operation. The COR will make decision about the foundation depth of excavation during the excavation process.
- i. Check actual excavation alignments and elevations using standard survey instrument jointly with COR.
- j. Prior to backfilling/compaction/leveling, seek approval of the actual excavation works from COR. Contractor is responsible to repair/replace all underground utilities get damaged during the excavation with no additional cost. Contractor shall coordinate with government to repair the pipes (PVC, cement, asbestos, etc...).
- k. Likewise, seek approval of the actual earthwork activities from COR prior to implementation of the next phase of work
- l. Formworks for foundation footing shall be rigidly constructed to the dimensions 15m (length) x 6m (width) x 0.40m (thickness) and alignments given in the drawings provided by contractor within five days from the date of the NTP.
- m. The joints of the formwork shall be tight enough to prevent leakages of cement paste. In no case shall the sides of the exposed earth be used as formwork. No stones, rocks nor cardboards shall be used as formwork.

- n. Stripping or removing forms after concrete pouring shall be done no earlier than two (2) days for the footing.
- o. No bar partially embedded in concrete shall be field-bent unless approved by the COR.
- p. Forms shall be designed and constructed in accordance with ACI 347 and ACI 301. It shall have sufficient strength to withstand the pressure resulting from placement and vibration of concrete.
- q. Form coatings shall be applied prior to installation of reinforcing bars. It shall not be allowed to come into contact with hardened concrete, construction joints, reinforcing bars, or any other items to be embedded.
- r. All rebar or any other necessary materials, hardware/accessories to be used shall be of approved quality as specified, clean and not rusted by the COR. Prior to installation, all materials shall have been inspected and duly accepted by COR. And tie wire shall be galvanized iron wire with proper diameter.
- s. Tie wire shall conform to Federal Specification QQ-W-461 and shall be of black annealed steel, 12-gauge minimum
- t. Reinforcing steel bars shall be securely place in such a way that individually or collectively, it shall only experience very minimal movement in any directions during placement and vibration of concrete.
- u. Lap splices shall be adequately over-lapped as per ACI 318, chapter 7 to fully develop the capacity of reinforcement.
- v. Welding of reinforcing bars shall not be allowed.
- w. Concrete block spacer or proprietary plastic spacers for reinforcements to maintain required concrete cover must be used having the same strength (in the case of concrete block spacers) as the concrete to be cast on the member.
- x. Standard hooks, bends and embedment as per ACI 318 shall be strictly followed.
- y. Submit a minimum of two (2) numbers of 1 meter lengths for each size of reinforcing steel bars taken at random under supervision of COR for laboratory testing.
- z. Prior to casting of concrete for the first time, the ready-mixed concrete supplier shall submit a concrete mix design for the specified concrete strength for approval by COR. Minimum cement content for all reinforced concrete work shall be 350 Kg/m<sup>3</sup>.
- aa. Maximum slump shall be 100 to 140 mm. Super-plasticizer shall be allowed to reduce the water-cement ratio and to meet required workability (manufacturer data sheet shall be provided for the plasticizer for verification and approval by COR.
- bb. The minimum cylindrical compressive strength for reinforced concrete foundation shall not be less than 35mpa.
- cc. Concrete shall be very well compacted by mechanical/electrical vibrators to reach a minimum of 2400 Kg/m<sup>3</sup> density.
- dd. Ready-mixed concrete with concrete pump shall be used and job-mixed concrete using mechanical mixer strictly following the required concrete mix design.
- ee. The placing of concrete shall be a continuous operation with no interruption.
- ff. Re-tampering of concrete or mortar which is partially hardened shall not be permitted.
- gg. Ensure proper curing of concrete. To avoid premature drying by wind or sun the contractor shall cure concrete with water for 7 days four times a day.
- hh. Slump tests shall be conducted during casting with maximum allowable of 140mm for direct poured concrete.
- ii. For ready-mixed concrete, batching time shall be duly recorded on the delivery receipt. COR shall monitor quality of concrete that is still unplaced one hour after batching to make sure that there is no over-mixing or segregation of concrete components. In no case shall concrete be allowed to be placed 1.5 hours after batching.

- jj. The contractor shall take at least six cubes for any mix taken at random as specified by COR for testing the compressive strength. All such cubes shall be tested according to relevant ACI code and the result shall be submitted for verification and approval by COR.
- kk. In case of failure to pass the required compressive strength test, and after consideration of the standard procedure in concrete construction as specified in relevant ACI code, the contractor shall voluntarily demolish portion(s) as shall be specified by COR at no cost to US Consulate General Erbil, Iraq.
- ll. Dimension of foundation is 15mL x 6mW x 40cmD.
- mm. Consulate is not responsible for any delayed may cause any problem for the concrete in each mixer. Contractor is responsible to provide the original copy for each concrete mixer date sheet including the time of loading and mixed. Concrete shall not remain in the mixer for more than one hour before the pouring.
- nn. Contractor responsibilities include formwork, shoring and re-shoring procedures, and other work described in Article “Contractors Professional Design Services”, Article “Formwork”, and Article “Shores and Re-shores”.
- oo. Contractor is responsible to move 20 or/and 40ft containers as needed with no additional cost. Provide flatbeds and cranes as needed.

### **3. Design of New Structure (Wet CHU)**

#### 3.1 Steel Frame and Beams:

- a. Contractor is responsible to pre-fabricate wet CHU unit 120000mmL x 35000mmW.
- b. Floor tie beam I-section 100x200x(6-8)mm; longitudinal beams 40x80x3mm and transverse beams 80x80x3mm; columns 100x100x(3-4)mm and 60x60x3mm; roof beams 100x100x(3-4)mm and 60x60x3mm (hollow sections).
- c. All steel shall be welded together according to ACI and OBO standards. All steel frames shall be painted with double layers of anti-rust painting and three layers of oil paint. Color of paint will be determined later by the COR.
- d. Damaged frames will be rejected by COR and re-supplied by the contractor on his owned.

#### 3.2 Walls and Roof:

- a. Contractor is responsible to supply and install 50mm Polyurethane (PUR) insulated sandwich panel.
- b. External sheet: 0.45mm thick, 5 micron back coat and 20 micron RAL 9002 polyester painted (white color). Galvanized sheet plus protective foil.
- c. Internal sheet: 0.45mm thick, 5 micron back coat and 20 micron RAL polyester painted (white color). Galvanized plus foil.
- d. Density: Polyurethane insulated with 38-42 kg/m<sup>3</sup> (standard) density.
- e. Fire Class: B2-B3 (DIN 4102) U value: 0.43 W/m<sup>2</sup> K insulation. Thickness: 50mm and width of panel is 1000mm.
- f. Contractor is responsible to ensure the proper sealing and check for leakages.
- g. Roof edges shall be finished with metallic flashing.
- h. Contractor is responsible to install drainage (four sides) for wet CHU roof matching the drainage installed for S-072 balcony.
- i. Contractor shall fabricate steel stairway with handrail for both entrances. New exterior handrail shall be steel railing using circle metal material 2inch in diameter. Height shall match the standard which is (90cm on stairway and 107 on landing). Follow the safety code and instructions for handrails (Stairway and Handrails shall meet IBC code in construction and layout along with IBC criteria of 1012, 1013 and 1607.7. Provide sample for COR approval.

- j. Provide and install isogam materials on the top of the roof before place/install any other equipment. Sealed the spaces between the sandwich panel sheets using correcting type of materials. Foam is not accepted.

### 3.3 Flooring:

- a. Contractor is responsible to provide and install 10mm waterproof MDF (fixed with anti-rust screws to the secondary floor beams) of the high quality (Turkish brand are required).
- b. Contractor is responsible to provide and install 2mm PVC linoleum (waterproof wooden texture or similar – approved by COR) fixed with adhesive glue (to be covered all over) and plinth.
- c. Contractor is responsible to provide and install corrosion resistant metal (chequer plate) floor sheet before applying the PVC and wooden flooring.

### 3.4 Windows and Doors:

- a. Contractor is responsible to provide and install aluminum windows according to the attached drawings. Windows to be high quality (Dijla manufactured or equivalent) super section white color, 4mm glass two layers, hinges and handles.
- b. Contractor is responsible to apply GFE (Government Furnished Equipment) on all windows.
- c. Windows size is shown in attached drawing.
- d. Contractor is responsible to provide and install aluminum doors (dimensions shall meet SHEM standards). The price include 6mm glass (where applicable), hinges, metal handles and key locks (cylinder). Doors shall be reinforced aluminum (Dijla manufactured or equivalent) super section white color.

### 3.5 Sanitary Works:

- a. Contractor is responsible to provide and install steel tank within the same length and width of the CHU and with 50cm deep (21cubic meter) as a septic tank. The built-in septic tank shall be welded to the CHU and covered from all sides. New septic tank shall be located at the bottom of the wet CHU.
- b. Contractor is responsible to sealed all joints and spaces between the CHU and the tank. Contractor shall have 2meters of 3inch steel pipe with cap and lock for emptying the septic tank.
- c. Contractor is responsible to connect all sinks and shower bases to the septic tank using 2” PVC pipes.

### 3.6 Bathroom Fixtures and Accessories

- a. Contractor is responsible to provide and install two sinks and two shower bases (fiberglass), one for each space (male and female) as shown in drawing attached.
- b. Contractor is responsible to provide faucets for both sinks. New sinks shall be ceramic. Provide catalog for COR review and approval. New sink shall be vitra brand.
- c. Size of shower base shall be 70cm X 70cm. Shower head is not required. Provide and install one faucet for each shower base. Contractor shall provide catalog for COR approval (vitra brand is required).
- d. Contractor is responsible to provide and install all required accessories for each sink and shower space (2 towel holders for each sink and shower, one mirror and shelve above each sink, soap holder next each sink and shower base, shelves in each shower space, tooth brush holder, and one spray hose pressure near each shower base).
- e. Toilet is not required.
- f. Provide and install 25cm of exhaust fan in wet area. New exhaust fan shall be with louvers in the wall and switch located next to the light switch.

### 3.7 kitchen cabinet and counter

- a. Contractor is responsible to provide and install aluminum cabinets with granite counter. Contractor is responsible to provide the design for COR review and approval. Lower and upper cabinets are required for male and female kitchen space.
- b. Contractor is responsible to provide and install new wooden dining tables with benches for female and make space. Number of benches and size of dining table will be determined by COR as soon as contractor provides the design for COR approval.

### 3.8 Water Supply and piping

- a. Provide and install two insulated water tanks 1400liters each to be located on the top of the CHU. Provide and install pressure pump and pneumatic tank at water tanks to provide pressure to the CHU. Recommended pressure 2.75 – 3.45 bars. Includes level controls and limit switches.
- b. Provide and install new domestic water pressure pump system at city connection. Pump shall be 3/4 Hp and capable of providing appropriate water pressure to fill two (2x1400Lt) roof tanks. Provide/replace piping as needed. Provide warranty and service period for the installed equipment. Includes check valve and isolation valves.
- c. Supply 3/4" water system pipes for the CHU, connected to the tank with the main water network (available in same land) and providing cold/hot water for the kitchen sink, shower base faucet and bathroom sink. Include T and 90° connectors, plastic support braces and all needed accessories.
- d. Supply and install valves for water supply: 2 valves for each sink 1/2"; 1 valve for water tanks, and 1 valve for water heater.
- e. Supply and install one water heater 280liters Bradford brand is required. Water heater shall be attached for the CHU with steel base and sandwich panel cover.
- f. Supply and install cold water plastic tap feed from water tank (in the back, outside the CHU).
- g. Supply and install 3/4" float valve for each water tank.
- h. Supply and install floor drain for each dining, bathroom, and kitchen spaces 100X100mm.

### 3.9 Electrical Works

- a. All electrical work shall be provided in compliance with NEC 2015 standards.
- b. Provide and install grounding system for the CHU. One system for each electric panel (two panels plus one panel for main circuit). Supply and install two copper rods (2.45meter) for each panel and space between each panel shall be 1.8meter. The top of each rod with the copper clamp shall be installed in plastic or steel box with cover for maintenance purpose. Ohm reading shall not/not be more than 20 in both ends. Supply and install 35mm of grounding cable with yellow and green cover.
- c. Provide and install three waterproof panel (Legrand brand is required), two panels shall contain seven mini circuit breakers 20amps and three GFCI breakers (one for kitchen, one for bathroom, and one for water pump. GFCI shall be 10mA according to SHEM – NEC 2015 requirements. Last panel will be for the main circuit breaker 100amps – 230/400V (3-phase, 4-wires plus ground).
- d. Location of each panel will be determined during the work by the FAC engineer / COR.
- e. Contractor is responsible to label all breakers, outlets, and switches with English language.
- f. Connect service from MOE grid to new service panel. Provide new cable, clamps, basket crane, and laborers to have the work done.
- g. Exhaust fans to be on separate switch at door next to light switch.
- h. All circuits inside the house shall be in EMT conduit or similar.
- i. Conduits and Protection: All wiring and cabling shall be installed in panduit or Raceway.

- j. Provide and install an electrical outlet along all Interior walls 3 meters apart in each room. Provide sample for COR approval. Outlet shall be installed in 40cm height from the ground floor level.
- k. Provide and install AC weatherproof outlets on exterior walls near the outdoor condenser units
- l. Provide and install new Fluorescent lighting fixtures (double tubes) with covers on each interior wall with switches located at the entrances of all rooms.
- m. Provide and install one (1) outdoor weatherproof electrical receptacle on the wall at the service entrance to the building and four extra outlets. Total outdoor outlets are six and the location for the last four will be determined during the work by FAC engineer / COR.
- n. Provide and install energy-efficient outdoor lights at each exterior entrance with switches on interior side of door way.
- o. Provide and install new electrical receptacle at the roof top water tank for the new water pressure pump.
- p. All receptacles shall be 2-pole, 3-wire ground type. They must be local type or NEMA type receptacles.
- q. Local standard receptacles may be rated 240v, 13A or 16A

### 3.10 Split Units

- a. Provide and install four (4) new 24,000 Btu split-system direct-expansion heat pump units in four (4) rooms. New equipment, including condenser units, shall be installed at locations designed by COR – HVAC technician. Provide or repair electric service and condensate drains as necessary. Penetrate wall for new tubing and electric service - do not run cable or tubing through windows; seal wall penetrations water-tight. Terminate all condensate drains at grade or nearest drain. Set new condenser units on pads and steel stand; do not set condenser units directly on the earth or any roof surface; provide new pads as necessary. Damage and penetrations of the roof shall be sealed and flashed watertight. At the completion of the Work, provide equipment warranties to the COR.
- e. Install a second handrail for the outdoor metal stairway to match the safety standards. Both handrails shall be 90cm height.
- f. Remove and discard the existing sunshade.

### 4. Cover for S-068 back yard

- a. Provide and install steel frame structure for back yard using steel columns 4cmx8cmx2mm. Supply and install support column between the beams. New cover shall match the cardio room covering.
- b. Provide and install proper drain and connect the drain pipes to existing manholes. Provide sample for COR approval.
- c. New cover sloop shall be to east side of the building (facing PCAC). Sloop shall be 0.5%.

### F. Closeout

1. At completion of work, the Contractor shall clean any impacted areas to a condition equal to original condition.
2. All shipping materials and construction debris are to be disposed of in a legal manner outside of the Compound.
3. Prior to Final Acceptance the Contractor shall submit to the Contracting Officer Representative marked up drawings (As-Built) reflect the work as constructed. The drawings shall be digitally submitted on a CD-ROM in both AutoCAD and PDF format.

## **SAFETY (FAR 52.236-13 Accident Prevention)**

1. The Contractor shall provide and maintain work environments and procedures which will:
  - (a) Safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities.
  - (b) Avoid interruptions of Government operations and delays in project completion dates.
  - (c) Control costs in the performance of this contract.
2. For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-
  - (a) Provide appropriate safety barricades, signs, and signal lights
  - (b) Comply with the standards issued by the Secretary of Labor at 29 CFR part 1926 and 29 CFR part 1910
  - (c) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.
3. Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.
4. Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action.

This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action.

If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

5. The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts

## 5.0 PROJECT SCHEDULE

### 1. Approximate dates of pre-award activities

Pre-Bid Site Survey	o/a
Bids Due	o/a
Contract Award	o/a
Notice to Proceed (NTP)	o/a

### 2. Construction Milestones, from Notice to Proceed

Notice to Proceed (NTP)	0	Days from NTP
Project Schedule to OBO	2	
Project Design Notes / Sketches	3	
FAC Review	2	
Procurement, Shipping	5	
Fabrication	15	
Construction Completion	40	
Project Acceptance	40	

### 3. Deliverables

Construction Schedule	2	Days from NTP
Project Design Notes / Sketches	3	
Submittals for Major Equipment	10	
Manufacturer's Literature	40	
As-Built, Warranties	40	

### 4. Commencement, Prosecution, and Completion of Work

The Contractor shall be required to (a) commence work under this contract within two (2) calendar days after the date the Contractor receives the Notice to Proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than forty (40) calendar days after NTP. The time stated for completion shall include final cleanup of the premises.

## 6.0 RESPONSIBILITIES AND PROJECT MANAGEMENT

1. **COR.** A Contracting Officers Representative (COR) will be assigned to ensure quality assurance goals are met. The Contractor shall provide the COR access to the site at all times.
2. **Point of Contact.** The COR shall be the main point of contact for this Project. The Contractor shall report to the COR on (a) status of the Project, (b) changes in Schedule, (c) accidents and safety issues, (d) disruptions to elevator or utility services; and all other important information pertaining to the Project
3. **English Speaking Representative.** The Contractor shall provide an English-speaking representative on-site during all working hours with the authority to make all decisions on behalf of the Contractor and subcontractors.
4. **Management Personnel.** The Contractor shall staff the site, full-time, with a competent senior manager who shall perform project management. Remote project management is not an option. This individual shall keep a detailed photographic and written history of the project and shall update the Government weekly.
5. **Site Security.** The Contractor is responsible for on-site security as necessary to ensure no unauthorized access to their work sites. The Contractor is 100% responsible for securing their working materials and equipment. Any damage to facilities or infrastructure, which happens due to a lack of security, will be the responsibility of the Contractor to correct.
6. **Contractor's Temporary Work Center.** The Contractor will be permitted to use a designated area within the contract limits for operation of his construction equipment and office if warranted. If directed by the Contracting Officer, the Contractor shall not receive additional compensation to relocate his operations. The Contractor is responsible for obtaining any required additional mobilization area above that designated. On completion of the contract, all facilities shall be removed from the mobilization area within 5 days of final acceptance by the Contractor and shall be disposed of in accordance with applicable host government laws and regulations. The site shall be cleared of construction debris and other materials and the area restored to its final grade. The Contractor is responsible for maintaining this area in a clear orderly manner.
7. **Health and Safety.** The Contractor shall be solely responsible for risk assessments, managing health, and safety issues associated with this project. The Contractor must provide cold water to all workers at the job sites. Based on hazard assessments, Contractors shall provide or afford each affected employee personal protective equipment (PPE) that will protect the employee from hazards. At a minimum PPE shall consist of eye protection, hard hats, and closed toe shoes. If the workers arrive on-site with sandals or athletic shoes, the Contractor is expected to provide rubber boots to them or send them home. All construction workers and management personnel must wear hard hats at all times on the construction sites. Contractor provided rubber boots and rubber gloves shall be worn when working around concrete placement. Other PPE such as gloves, dust masks, air respirators (sewage work) are also recommended. These items must be provided at the Contractor's expense. Workers may use discretion if they feel unsafe in using the equipment in a hostile environment. Any worker at an elevated location above 4 meters, with the exception of a portable ladder, must be provided and utilize a safety harness.

8. **Progress Payments.** If the contract awarder expects to receive more than one (1) progress payment, the Contractor must submit a broken out Cost Proposal with a Schedule of Values in order to properly calculate the percentage of contract completion.