



## **STATEMENT OF WORK**

### **VOLLEYBALL COURT CONSTRUCTION**

**U.S. CONSULATE GENERAL  
ERBIL**

*March 29, 2015*

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## **1.0 PROJECT DESCRIPTION**

### **1. PROJECT SYNOPSIS**

The project is described as “Volleyball Court Construction at the US Consulate Erbil”. The Contractor shall furnish all necessary materials, labor, transportation, equipment, investigation and supervision, etc. Work will be performed within in a fixed-price contract.

### **2. BACKGROUND AND EXISTING CONDITIONS**

At present, the area is covered with gravel and dirt.

### **3. SOLUTION**

The volleyball court area will be built with proper drainage which shall not affect the existing underground lines. The volleyball court will be made with washed sand and will be enclosed with neat mesh fences. The court must be built without disrupting existing security lighting or fencing.

## 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 General Erbil. 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 Consulate work hours (0800 – 1700). Night, weekend or holiday work shall not be permitted except as arranged in advance with Facilities Management and COR. Consulate 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 Consulate, 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 Consulate security policy by providing Consulate 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 Consulate access by going through RSO vetting process. All workers must submit vetting paperwork.
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:
  - Installer Qualifications:

All work under this Scope of work shall be performed by Construction Contractor having experiences on civil works. The Contractor shall have the following qualifications:

1. Qualifications for installation firm and installation supervisor
2. A list of the relevant projects. Do not list projects that proposed staff was not involved, even if your firm was.
3. Qualifications/Experience of the firm
4. References

- Material and Equipment Lists:

Submit material lists as follows:

Furnish complete Material Lists. Include only information on exact material installed; not complete "line" of manufacturer. Where catalog sheets show proposed material as well as other materials or equipment, identify proposed material with rubber stamp arrow or similar concise method.

- Manufacturer's Recommendations:

Where installation procedures, or any part thereof, are required to be in accordance with the recommendations of the manufacturer of the material being installed, printed and electronic copies of these recommendations shall be submitted prior to installation. Installation of the item shall not proceed until the recommendations are received and approved.

- Proposed design and construction schedule

The Contractor shall submit a project design with proposed shop drawings and construction bar chart schedule with their technical proposal.

The bar chart schedule developed by the Contractor shall reflect their recommended project phases, phase activities and activity durations.

A written narrative shall also be included with the technical proposal explaining the schedule submitted and the reasons why and how it can be completed in the time frame proposed by the Contractor.

This schedule and narrative will be reviewed by the Technical Evaluation Committee as part of the evaluation process and will be assigned a score with clarity and comprehensiveness of the submission.

- Hazard control measures plan

The contractor must document in the bid for work how the hazard controls will be implemented and maintained during the project.

- Shop drawings prior to fabrication and release of any materials for the Facilities Specialist and COR Review and approval. The Facilities Specialist review, however, does not relieve 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.**

- a. At completion of work, the Contractor shall clean any impacted areas to a condition equal to original condition.
- b. All shipping materials and construction debris are to be disposed of in a legal manner outside of the Compound.
- c. Prior to Final Acceptance the Contractor shall submit to the Contracting Officer Representative:
  - The 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.
  - All compaction tests for each layer of the volleyball court.

13. **Housekeeping.** The contractor is responsible to clean up daily at the end of each work day.

**BID FORM**

**Construction Cost Breakdown  
To S-051 – Volleyball Court  
At the U.S. Consulate General Erbil, Iraq**

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	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>	

### **3.0 SCOPE OF WORK:**

“U.S. Consulate Sand Volleyball Court Construction” the Contractor shall provide all materials, tools and equipment, labor, transportation, and supervision. The contractor is to provide a construction proposal to build a volleyball court that meets the following requirements as stated in the following paragraphs. The construction proposal is to also include a detailed description of the construction process including a bar chart schedule.

#### **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 5 days of Notice to Proceed “NTP”, the Contractor shall provide to the COR details of the proposed installation utilizing written description or drawings or both.
- 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 construction based on location provided by COR.
- 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 (NEESC)

## **2. Site preparation**

### **2.1. Site Stripping and Clearance**

Unless otherwise specified, grass, topsoil, gravels, stone and other unsuitable materials shall be removed from the court area, and removed from the site. All trees and stumps are to be similarly removed. Any excavation work shall be done with mechanical equipment and assisting by laborers.

### **2.2. Engineering**

Proper grade elevation shall be set on court areas as per Section 2.4.

### **2.3. Washed Gravel Preparation**

- Washed gravel shall be compacted with not less than a ten (10) ton vibratory roller; two (2) passes minimum in each direction.
- The washed gravel shall then be proof-rolled slowly with a fully loaded truck.
- All soft areas shall be replaced with compacted stone.

### **2.4. Washed Gravel**

- a. Base area shall have minimum thickness of twenty centimeter (20cm) of thoroughly compacted gravel.

## **3. Washed Sand**

### **Excavation:**

The court should be excavated to a meter depth, plus create the drainage ditch listed below under drainage part B. Place a first layer of 20 cm of #57 gravel (washed gravel) over the drainage pipe. Then place a porous cover such as plastic landscaping mesh or some other artificial, small-hole mesh, over the gravel to prevent the sand from washing through. The contractor is responsible to excavate 360sqm (15mx24m see plan) and provide sand matching the sample provided by post and within the same measurements.

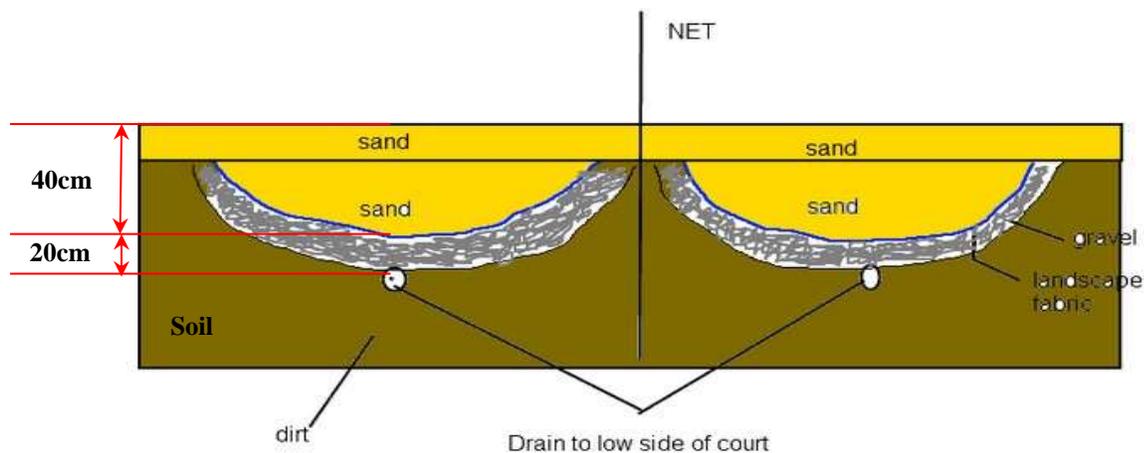
Sand is to be placed all the way to the edge of the t-walls. The 1meter space between the t-walls and the excavation line and the 2meters between the excavation line and the landscaping "north side of compound" shall be excavated to a depth of 15cm. check the sketch attached for more information:

a. Surface Course (Washed Sand)

- **A surface course:** of washed sand shall be 40cm thick (starting from the surface coat to the bottom). Sand shall be sieved and clean “free from debris”. Sand provided by contractor shall **match** the sand provided by post as a sample.
- **Color of sand:** shall be tan colored sand adsorbs less heat with minimum glare. Provide sample for COR approval.
- **Particle Size:** The size of the sand particles should be between .5 and 1 mm to allow for proper drainage and maximum safety
- **Particle Shape:** A sub angular shape will resist compacting and assist in drainage.

b. Drainage

- All drainage shall be under the sand. Drainage must consider both by grading the earth properly and even installing a surface below the sand to promote drainage.
- Installing drainage pipe on the standard leach slant (14 degrees).
- Perforated drainage pipe shall be laid in the serpentine fashion (check the figure 1 below) with one end capped and the other leading to the drainage ditch/point.
- Use 8inch plastic pipes for drainage. Drainage pipes shall be 15m long (same length of the excavation area) and contractor shall provide two lines of drainage. Provide 10cm of gravels around the drainage pipes.



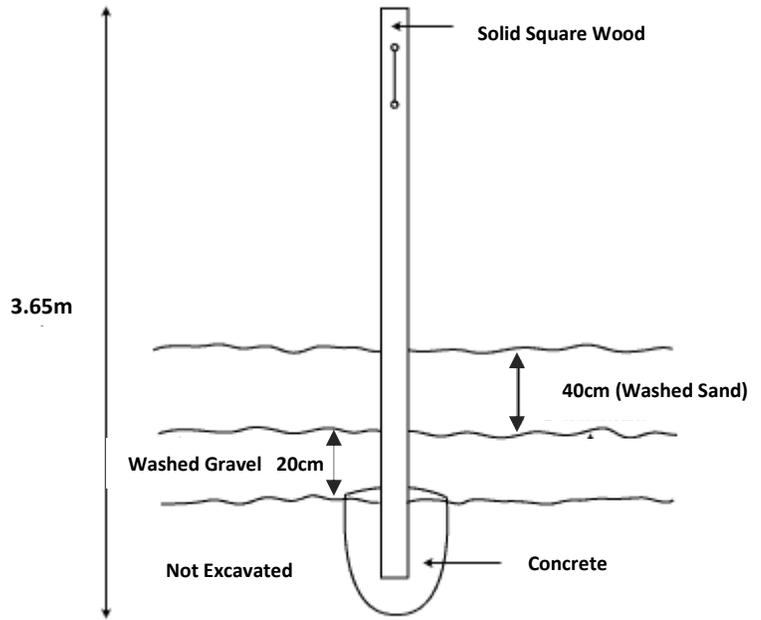
**Figure 1**  
Drainage Pipes Installation

4. Net Post Installation / Nets

- **Net posts** shall be solid square wood (per the photo below) installed with concrete foundations of no less than sixty centimeters (60cm) in diameter at the top, no less than sixty centimeters (60cm) in diameter at the base, and no less than one meter (1meter) in depth (Check figure 2 below for more information). Posts shall be (10cmx3.65meter) with eyebolts (3-1/2" diameter top section / 10cm diameter bottom). Provide sample for COR approval. Check the **figure 2** below:



**Solid Square Wood**  
Post



**Figure 2**  
Net Post Foundation



**Court JCNR Jose**  
**Cuervo Pro**  
Netting

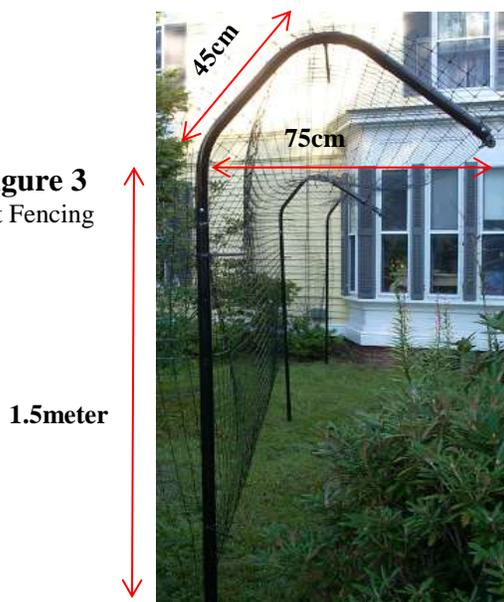
**Nets shall be:**

- ✓ Shall be **Court JCNR Jose Cuervo Pro** brand of equal). Provide catalog for COR approval.
- ✓ 99cm x 9.75m, #36 weather treated knotted polyester netting and three-inch wide yellow 18-oz vinyl tapes printed with Jose Cuervo logo top and bottom. Twisted 1/4-inch polypropylene rope inside top and bottom vinyl tapes. Ends have slip in 3/4-inch wooden dowel rods enclosed in vinyl pockets on three sides with the top open. Three web tension straps per side allowing you to get the netting tight.
- ✓ The height of the volleyball netting shall be (8ft) height from the sand top level.
- ✓ S-hook net connectors.
- ✓ Color of net will be determined later by COR. Provide catalog for COR approval.

**5. Fencing (Around the Volleyball Sand Court)**

- The height of the fence shall be meter and a half (1.5) meters on the north and east of the compound. The fencing shall include polypropylene, seventy-five centimeter (75cm) metal hexagrid cat fencing (bury bottom of fence 20cm below sand grade) low on the fence to prevent chewing), fence posts, post caps, post sleeves, a drive cap (for driving in the sleeves), wall mounts, zip-ties (for attaching the cat fencing to the posts), ground stakes (for securing the cat fencing to the ground) and self-tapping screws. Check **figure (3)** for more information.
- Cat fence gates shall match the height of the fence and meter and a half (1.5) meters width. The gate shall include materials for the gate frame and gate door; a protection bar to prevent cats from slipping through the gate on the latch side, a gate latch, gate hinges, a turnbuckle to adjust and tighten the gate door. The gate frame shall come with top and bottom spreader bars (the bottom one goes right on the ground), but the frame only has one vertical post, one drive sleeve, and one extender arm. That's because the gate is designed to be installed on an existing line post and includes only the materials needed for this type of installation. The fencing for the gate door shall be the same material of the fence itself.
- Check the link for more information regarding the fence and the gate.  
<http://www.topcatfences.com/index.htm>
- Provide sketch plan for the netting before the installation for COR approval.

**Figure 3**  
Cat Fencing



- Contractor is responsible to modify the height of the existing security fencing on the T-walls to two and a half (2.5) meters more to avoid the ball to go outside. The additional fence can be same kind of materials of the east and north side fencing as listed above. New fencing shall be installed from the inner side “inside the compound”.

## 6. Landscaping

- Remove and discard the existing concrete edges, all trees, weeds, etc... from the north side of the compound. Light/power poles shall be remaining.
- Remove and discard the existing concrete edges, trees, weeds and the asphalt until the edge of the street drainage on the east side of the compound (across from S-077 property). Construct new concrete edging 3cm high from the grass level along with the street drainage.
- Provide new soil, and install grass sod “green landscaping” on the east and north sides. Provide and install pavers as a walkway on east side. The width of the walkway shall not be more than 1meter. **Figure 5** below showing the sample of the stone walkway pavers. Check the sketch attached for the shape and location of the walkway. Provide catalog with design for COR approval.



**Figure 5**  
Stones Walkway Pavers

## 7. Padding (Covering the T-walls)

- Contractor is responsible to cover the first 2meters of the T-walls “starting from the ground” by gym mats (Vinyl Covered Foam) 6.5cm thick “Blue Color mat”. Provide sample for COR approval. The surface of the mat shall be smooth.
- Spongy mat shall be mounted into the t-walls using the correct type of materials and glue. **Figure 6** below showing the sample of mat contractor shall provide.



**Figure 6**  
Vinyl Covered Foam Mat  
– For T-Walls

## 8. Outdoor shower

- Provide and install outdoor shower “garden shower” to be install on the north west of the compound “See drawing for location”. Check the sketch attached for more information. Outdoor shower design can be similar to **figure 7** below. Provide pictures for COR approval with the catalog for the shower accessories.



**Figure 7**  
Outdoor Shower “Garden  
Shower” Design

- The outdoor shower shall be connected to the same source of water of S-067 property. Contractor is responsible to provide all pipes, clamps, fitting, pressure water pump, booster, power outlet, etc...
- Provide gravel base for underneath the shower base.
- Provide and install stainless steel shower head, stainless steel shower handle, stainless steel spray handle and stainless steel valve. Brand of all shower accessories shall be **DELTA Brand** or equal. Provide catalog with specifications for COR approval.

## Toilet

- The size of the toilet shall be as shown in the provided Toilet Building Sketch.
- The contractor shall install load bearing structure for the new toilet.
- Dig 1.2 meters deep for the strip footing.
- Add 10 cm of modified soil for suitable foundation and remove all the debris on daily basis. The contractor shall add and mechanically compact red modified soil in layers. Each layer should not exceed 25 cm in thickness.
- Lay a strip foundation 60 cm wide filled with foundation stones. The gaps shall be filled with sand. The top of the sand shall be plastered to have leveled surface.
- The contractor shall install 40 cm of 1 one CMU block wall.
- Above the ground, the contractor shall use CMU blocks to make the walls. The clear

- height inside the room shall be 2.7 m at least above FFL.
- The roof shall be made from corrugated metal. There is to be a ventilation gap between the top row of CMU block and the roof. The gap will be provided by placing one CMU block at each top corner of the wall. Provide a metal insert (4 each) into each gap CMU block and fill with concrete/grout to hold it in place. The metal roof will be supported and connected to the 4 metal inserts.
  - The contractor shall install steps at the entrance/exit.
  - The contractor is to provide and install a 1,000 liter septic tank to be placed underground adjacent to the toilet structure. Install vent pipe so it runs along the T-walls.
  - The contractor shall furnish and install new water line from the water line located at building S-67. Install the pipe underground to the new toilet location. Provide all supporting water pipe and fitting to make a complete water connection to the new toilet. Install a new water pump adjacent to the new toilet. Electricity provided from the circuit from S-67 electrical panel. The Facility Manager or his FM staff will indicate where electrical power may be connected.
  - Floor is to be concrete finished smooth sealed.
  - Mortar used is Portland cement and sand mortar; ratios are 1:3 by volume. White cement is to be used as grout.
  - The contractor shall furnish and install water pipes from the property S-67 to the new toilet and shower. Use UPVC pipes and all pipes shall be installed underground. Contractor is responsible to fix the street and sidewalk after the digging is complete.
  - The contractor shall seal the concrete floor after curing using oil sealer. Provide catalog for COR approval.
  - Contractor to install electrical wire from electrical panel at house S-67 for the light to be installed in the toilet and the water pump.
  - Provide and install new wood door with frame. Door shall be swing to the inside. Provide catalog for COR approval.
  - Provide and install new 4' (1.2M) Fluorescent light fixture with cover on interior wall with switch located at the entrance of the toilet. See toilet drawing.
  - Contractor is responsible to do install an electrical circuit from the electrical panel at house S-67. Provide and install all materials, such as clamps, cable, conduit, to have the work completed. The conduit is to be placed underground from house S-67. Saw cut the existing concrete, break out the concrete, place the conduit/wire 30 cm below grade, cover with sand and re-pour the concrete to match existing.
  - The sink and the toilet shall be stainless steel. Toilet paper and towel holder do not have to be stainless steel.

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

1. The Contractor shall provide and maintain work environment 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 with appropriate changes in the designation of the parties, in subcontracts.
6. The Contractor is responsible for initiating and maintaining a safety and health program that complies with the safety regulations of the Embassy, as well as those established by ANSI, and OSHA. Each employee is responsible for complying with applicable safety and occupational health requirements, wearing prescribed safety and health equipment, reporting unsafe conditions/activities, preventing avoidable accidents, and working in a safe manner. Safety and health programs, documents, signs, and tags shall be communicated to employees in a language that they understand. The Contractor shall prepare and implement an Activity Hazard Analysis (AHA) prior to the start of work. The Contractor must have a competent person on-site for inspection of equipment, training workers in the safe use of equipment and the recognition of hazards related to their use, supervision, and identifying and correcting unsafe work practices for high hazard work, such as working at heights that require fall protection.

The job hazards for this project are listed below with the control method requirements:

- Excavation and trenches:

<b>Job Description</b>	<b>Hazard Identification</b>	<b>Hazard Controls</b>
<b><i>MOBILIZE EQUIPMENT</i></b>	<ul style="list-style-type: none"> <li>• Surface Encumbrances</li> <li>• Struck By</li> <li>• Backed Over</li> </ul>	<ol style="list-style-type: none"> <li>1. All surface encumbrances shall be moved or supported, as needed, to safeguard employees.</li> <li>2. Workers shall wear hard hats, high-visibility safety vests, and safety glasses.</li> <li>3. Equipment operators shall use a spotter when they have an obstructed view to the rear.</li> <li>4. All non-essential workers shall remain outside of the equipment's swing radius and the excavation zone.</li> <li>5. Essential personnel will remain in a location where they can be seen by the operator at all times.</li> <li>6. All equipment shall have operational back-up alarms.</li> </ol>
<b><i>LOCATE UTILITIES</i></b>	<ul style="list-style-type: none"> <li>• Utility Damage</li> </ul>	<ol style="list-style-type: none"> <li>1. All underground utilities that may be encountered during the excavation must be located and marked prior to breaking ground.</li> <li>2. While the excavation is open, underground utilities shall be protected, supported, or removed as necessary to protect employees.</li> </ol>
<b><i>EXCAVATE OR TRENCH</i></b>	<ul style="list-style-type: none"> <li>• Cave In</li> <li>• Struck By</li> <li>• Electrocution</li> <li>• Toxic Atmosphere</li> </ul>	<ol style="list-style-type: none"> <li>1. Spoil piles will be placed a minimum of 2 feet away from the edge of the excavation/trench.</li> <li>2. All excavations shall be properly sloped, benched, or shielded. The Competent Person on site will determine which method to use.</li> <li>3. Stairways, ladders, or ramps shall be located in excavations or trenches that are more than 4 feet in depth. They shall be</li> </ol>

		<p>placed so that no worker is required to travel more than 25 feet laterally to access one.</p> <p>4. Ladders shall be secured and extend 3 feet above the point of access.</p> <p>5. Metal ladders may not be used where they may contact electrical lines.</p> <p>6. No worker is allowed underneath loads handled by lifting or digging equipment.</p> <p>7. A warning system shall be used to delineate the edge of the excavation if an operator cannot see the edge of the excavation from the cab of his machine.</p> <p>8. All excavations shall be inspected daily by the Competent Person.</p> <p>9. Workers shall not enter excavations where water has accumulated.</p> <p>10. The atmosphere shall be tested before workers enter an excavation or trench if a hazardous atmosphere exists or could reasonably be expected to exist such as in excavations in landfill areas or excavations in areas where hazardous substances are stored nearby.</p> <p>11. An emergency rescue plan should be in place before work begins inside an excavation.</p>
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**Employee Instructions:**

1. Hard hats, safety glasses, work clothes, work boots, and gloves shall be worn at all times.
2. Confirm that mark out has been done. Hand dig to locate/support the marked utilities before using mechanized equipment.
3. This JHA must be reviewed with all workers prior to entering an excavation or trench.

- Backfilling and compaction:

Job Description	Hazard Identification	Hazard Controls
	Slips, Trips, Falls	Clear walkways, work areas of equipment, tools, construction debris and other materials Mark, identify, or barricade other obstructions
	Handling Heavy Objects	Observe proper lifting techniques Obey sensible lifting limits (60 lb. maximum per person manual lifting) Use mechanical lifting equipment (hand carts, trucks) to move large, awkward loads
	Struck by/ Against Heavy Equipment, Flying Debris, Protruding Objects	Wear reflective hi-vis vests when exposed to vehicular traffic Isolate equipment swing areas Make eye contact with operators before approaching equipment Barricade or enclose the work area Restrict work area entry to authorized personnel only during construction activities Wear hard hats, safety glasses with side shields, and steel-toe safety boots Understand and review hand signals
	Vibration	Rotate compaction tasks to minimize worker exposure to equipment vibration Use compactors with vibration dampening devices
	High Noise Levels	Use hearing protection when exposed to excessive noise levels (greater than 85 dBA over an 8-hour work period) Assess noise level with sound level meter if possibility exists that level may exceed 85dBA TWA

	High/Low Ambient Temperature	Monitor for Heat/Cold stress Provide fluids to prevent worker dehydration Establish work/test schedule
<b>Personal Protective Clothing and Equipment:</b> Hard hat, Safety glasses, Steel toe work boots, anti-vibration gloves, ear plugs,		
<b>EQUIPMENT TO BE USED</b>	<b>INSPECTION REQUIREMENTS</b>	<b>TRAINING REQUIREMENTS</b>
<ul style="list-style-type: none"> <li>• Backhoe, loader, compactor</li> <li>• Seatbelt, back-up alarm</li> <li>• Personal protective equipment</li> <li>• Hand tools</li> <li>• First-aid kit, fire extinguisher</li> <li>• Operations manual for the equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Inspect equipment and tools daily per manufacturers requirements</li> <li>• Inspect all emergency equipment (i.e.: first aid kits, fire extinguishers)</li> </ul>	<ul style="list-style-type: none"> <li>• Proper use of equipment and tools</li> <li>• Review JSA with all site personnel</li> <li>• Hand signal</li> </ul>

- Cast-in place concrete:

<b>Principal Steps</b>	<b>Potential Hazards</b>	<b>Safe action or procedure</b>
Concrete Testing	Chemical burn	Rubber gloves and boots are required.
	Eye Hazard	Safety glasses w/side shields and/or goggles. Face shield as required.
	Hit by swinging chutes	One personnel will hold chute while testing personnel obtains sample.
Loading and unloading metal steel stakes	Fingers pinched or cut	Wear gloves and proper PPE.
Mobilization of manpower, equipment and materials to the jobsite	Emergency Procedures	<ol style="list-style-type: none"> <li>1. Employees will receive orientation and proper training covering emergency procedures before working onsite.</li> <li>2. Should an emergency occur, a responsible person will call Embassy representative or for emergency assistance. Embassy representative will</li> </ol>

		be notified as soon as possible and a report shall be filed within 24 hours of any injury and sent to the APOSHO.
Placing rebar with forklift	Pinch points, cuts, scrapes and crushing hazards	Gloves shall be worn while working around rebar. Have spotter while setting rebar with fork lift.
Rebar Placement	Impalement hazards	Rebar caps must be placed on all standing rebar and metal steel stakes.
	Material handling forklift operation	<ol style="list-style-type: none"> <li>1. Inspect forklift and rigging prior to use.</li> <li>2. Use spotter when necessary.</li> <li>3. Ensure all operators are properly trained.</li> </ol>
Rebar Placement/tie rebar	Impalement, puncture hazards of protruding steel rebar	Provide caps for rebar. Ensure that enough rebar caps will be available prior to installing rebar at the site.
	Strains, sprains and other hazards	Use proper lifting techniques. Lifting devices shall be used when the task requires them. Gloves shall be work while working
Working with Concrete	Concrete Burns and Blisters	Wear proper PPE, including rubber gloves and rubber boots (if necessary).
	Concrete Splashing	Worker(s) at end of chute or concrete pump hose and vibrator operators must use

		eye protection and gloves.
	Concrete vendor and worker access	Clear and safe path or roadway, no debris, well lighted when needed. Eliminate trip and other surface hazards.
	Dermal Irritant/Eye Irritant	For job specific training, review MSDS and avoid contact with wet station (portable or stationary) shall be located in the immediate work area. The location shall be told to the employee. Maintain dust control by application of wet mist for dust control but avoid direct contact to wet concrete. Wear long sleeve shirt, safety glasses, and rubber gloves.
Working with Concrete Bonding Agent	Dermal Contact	Have MSDS on site for job specific training. Review MSDS and avoid contact with the chemical. Wear acetate/acid resistant gloves and booties specific to chemical and face shield.
	Inhalation Hazard	Provide adequate ventilation
Working with a forklift	Equipment unoccupied in an energized state	Place in a de-energized state when not in operation. Set emergency brake when not in

		motion.
	Struck by moving equipment	Keep from the swing radius of the equipment; maintain fork at a 6-inch height when operating forklift unless a greater clearance is required. Signal the operator, insure he signals to the employee before the employee approaches equipment, and approach equipment in full view of operator.
	Uncontrolled fluid spill	Inspect equipment for improper mechanical or operational deficiencies: back up alarm, Fire extinguisher, seat belts, operating turn lights, hydraulic lines, observe posted speed limit. Use inspection form.
Working with Concrete mixing truck and concrete material	Dermal irritant/eye irritant	Review concrete MSDS and avoid contact with wet concrete or dry. Provide job specific training for concrete hazards prior to and concrete material it's use. Have MSDS available in case of an emergency. Eyewash station shall be located in the immediate work area. Inform

		employee of the location of the station. Maintain dust control by application of wet mist for dust control. Avoid direct contact with wet concrete. Wear long sleeve shirt, safety glasses and rubber gloves.
	Equipment left unattended in an energized state	Set emergency brake. Use chocks when parked on an incline and not in use.
	Fire in Equipment/Hydraulic line leak/working on unsecured equipment	Inspect equipment for improper mechanical or operational deficiencies: back-up alarm, Fire Extinguisher, seat belts, operating, turn lights, hydraulic lines, observe posted speed limit.
Equipment to be used	Inspection Requirements	Training Requirements
1. Forklift	1. Initial and Daily inspection of equipment	1. Certified operators
Personal Protective Equipment (PPE) Requirements: Rubber gloves and boots, Safety glasses w/side shields and/or goggles		

## 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	5	
FAC Review	2	
Procurement, Shipping	20	
Fabrication	15	
Construction Completion	45	
Project Acceptance	45	

### 3. Deliverables

Construction Schedule	2	Days from NTP
Project Design Notes / Sketches	5	
Submittals for Major Equipment	7	
Manufacturer's Literature	45	
As-Built, Warranties	45	

### 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 five (45) calendar days after NTP. The time stated for completion shall include final cleanup of the premises.

#### 4.0 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. Vendor License, Registration and Experience:**

The Vendor must be licensed and registered to conduct business in the Kurdistan Region, in accordance with all local laws and requirements. Vendor shall submit copy of current registration documents with proposal. The Vendor shall be an ongoing business specializing in the supply and installation of furniture, with minimum five years of regional experience. Proposal shall include documentation demonstrating conformance with this requirement. The Vendor shall have an established local or regional presence, with a permanent location containing examples of the proposed construction. Proposal shall include address, hours of operation, phone number, and email address. Proposal shall include detailed descriptions. Proposal shall be in English language. Failure to include these documents with the proposal will disqualify the Vendor from consideration for this work.