

**STATEMENT OF WORK**  
**Swimming Pool Barrier**  
**Presidential Villas Compound**  
**U.S. EMBASSY KHARTOUM, SUDAN**

## **1. Description of Services:**

The US Embassy, Khartoum has a requirement to fabricate and install a swimming pool barrier inside the presidential villas compound (PVC), Khartoum in compliance with the requirements of the department of State safety regulatory body, SHEMA. The barrier shall be constructed as per drawings, scope of work, specifications and General contract conditions.

The Contractor shall provide all labor, material tools, equipment, supervision and other related items required to complete the project as per scope of work, specifications and attached drawings.

This project requires an experienced contractor to design and execute the job.

Contractors are advised to visit the site, verify the existing site conditions to develop their proposal.

## **2. SUBMITTALS**

A. Product Data:

1. Submit complete shop drawings and product data for all materials and equipment furnished including layout and details of construction and erection of the fence and accessories required.
2. Shop drawings showing finish, material gauge, footings dimensions, locking mechanism and keepers for gates, heights, dimension of metal to finish grade.

B. Samples:

1. Submit three samples approximately 6-in long, or 6-in square of metal material.

## **3. Scope of Work**

The contractor shall furnish and install the swimming pool area barrier as shown in the attached diagram with the following specs:-

1- The contractor shall pour a continuous beam 30 cm X 30 cm, with 4 steel bars, 12 mm in diameter and the stirrups shall be 10mm in thickness @ 20 cm. The contractor will connect the new beam to the outside boundaries of the existing concrete deck of the swimming pool. The Finish level of the beam shall match the adjacent floor finish level

Concrete: Provide concrete consisting of Portland Cement, ASTM C 150, aggregates ASTM C 33 and clean water. Mix materials to obtain concrete with a minimum 28-day compressive strength of 2500psi using at least four (4) sacks of cement per cubic yard, 1 inch maximum size aggregate and maximum 3 inch slump.

2- The contractor shall furnish and install the new barrier. The barrier design shall be as shown in the attached drawing

- Each vertical column shall be of 2 C sections ( 10 X 5 )welded face to face, the thickness of the section shall not be less than 5 mm, The spacing between each two columns shall not exceed 3 meters

- The horizontal bars shall be made of rectangular pipe 10 X 5 cm, the thickness shall not be less than 2.6 mm
- The vertical bars shall be made of hollow square pipes; the size of the pipes shall be 2cm X 2 cm, the thickness shall not be less 1mm.
- A steel base (300 X300 X10 mm) shall be welded to the center of the base of the columns. The base shall be bolted to the concrete beam using at least four 20 X230 mm J bolts. All bolts, nuts and washers shall be hot-dip galvanized.
- Stick welding (Shielded metal arc welding) is to be used. Welding Rods to provide as required by AWS specifications, for the metal to be welded. All around welding technique for the all welding connections. After complete welding process, the steel shall be sanded to have a smooth finish surface.
- All exposed vertical and horizontal ends shall be covered by welded steel caps, thickness of the cap shall match the member thickness.

3. The top of the barrier shall be at least 4 feet above grade measured on the side of the barrier that faces away from the swimming pool.

4. The maximum clearance at the bottom of the pool barrier must not exceed 4 inches (10 centimeters) above grade when the measurement is done on the side of the barrier facing away from the pool. The barrier shall be designed so that there are no footholds or handholds.

5. The distance between the tops of the horizontal members shall be more than 45 inches (1.1 meters) the horizontal members must be on the swimming pool side of the barrier. The spacing between vertical members must not exceed 4 inches (10 centimeters).

6. Paint: The contractor shall be responsible to paint the steel work with primer followed by Shop spray Semi-gloss enamel paint. The color of the paint shall match the adjacent walls color. All Paint materials shall be contractor furnished, subject to compliance with requirements to products of "NILE PAINTS", or approved equal. Apply paint in accordance with manufacturer's directions. Use applicators and techniques best suited for substrate and type of material being applied and to ensure full and adequate coverage.

Apply additional coats when undercoats, stains, or other conditions show through final coat of paint until paint film is of uniform finish, color, and appearance.

Priming or painting in the vicinity of welds shall not be carried out over any field welding until the weld has been inspected and approved.

7. The contractor shall paint the exposed surface of the concrete beam with epoxy paint. The paint shall have the same color of the adjacent swimming pool tiles.

8. The contractor shall maintain existing utilities indicated to remain and protect them against damage during the works. Damages caused by demolition and renovation operations, shall be repaired by the contractor at no additional cost to the Government.

9. The contractor shall transport from site all debris, rubbish, and materials resulting from demolition operations and dispose off site on a daily basis in accordance with local regulations

### **3. GENERAL CONDITIONS OF CONTRACT**

#### **I General**

This is a firm fixed price turnkey job for the entire work and amount quoted shall include all work described in attached drawing, scope of work and general condition of contract. The lump sum price quoted shall be fixed and nothing extra will be entertained on any account.

Contractor's staff is subject to such restriction for entry and exit as are required by the Embassy's security requirement. Contractor's staff will be subject to security cleared as required by the Embassy.

Contractor shall restore all surfaces disturbed by construction to match with existing finish.

Any deviation from the original contract/scope of work shall be informed to COR before work begins. No additional work or changes will be carried out without a contract modification.

All material shall be new, checked and approved by COR prior to installation and proper test certificate of the materials to be submitted.

#### **2 Responsibilities of contractor**

Contractor shall be responsible for procuring, supplying, transporting, and providing all labor, materials, tools and plant and equipment etc., required for completion of the work in all respects and as per the scope of the work unless otherwise specified.

All expenses towards mobilization at site and demobilization including bringing in equipment, workforce and materials, dismantling the equipment, clearing the site etc. shall be deemed to be included in the rates quoted by the contractor against various items of schedule of rates and no separate payment on such expenses shall be entertained.

Contractor shall employ and provide one full time engineer to supervise the project and has experienced of carrying out such type of work.

Contractor shall not proceed with next activity until previous activity will be checked and approved by COR. Contractor shall mentioned all inspection dates in the schedule chart Contractor should keep the site clean and accessible to Embassy employee all time.

The contractor shall submit a detailed schedule showing each activity along its duration, predecessors, and successors. A computerized schedule is preferred; however a bar chart may be acceptable.

Duration of work for the project shall not exceed **25 (twenty five)** working days. Any changes will be arranged NOT LESS than 4 days ahead of schedule.

Five days after contract award, the contractor shall submit for approval, this schedule shall be discussed and approved by the COR prior to work commencement. The schedules shall be closely monitored. The contractor shall identify areas of problem and take the necessary actions to improve and maintain progress within the approved schedule.

### **3 Specifications**

Work under this contract shall be carried out strictly in accordance with specifications attached and will meet US and Local codes.

### **4 Execution of work**

The Contractors are advised to review the attached set of drawings, material specifications and scope of work. The Contractor should visit and walk through the site to familiarize themselves with the site conditions to understand the exact quantum of work.

On award of the work, Contractor shall submit a bar chart within 3 days for approval of the Contracting Officer Representative (COR). All dates and time schedule agreed upon should be strictly adhered. Contractor shall notify the COR well in advance regarding the problems, if contractor is expecting/facing during the execution of the project.

The contractor shall prepare and send week's ahead activity plan via e-mail.

For dismantling/blocking or making connection to any existing services or any shut-down, contractor shall inform the COR at least three working days in advance and proceed with the work only after the permission from the COR.

### **5 Drawings**

Drawings shall be followed as closely as actual construction allows. Any deviations require the Contracting Officer's prior approval.

### **6 Materials**

All materials used on this work shall be new and conforming to the contract specifications as per US and Local codes

Materials shall conform to the latest US Standards specifications as amended to date and carry certification mark. Contractor shall submit material samples and catalog for approval.

All materials used on the project shall be approved by the Contracting Officer Representative (COR) before use.

Any changes/ substitute on material shall need to be approved by COR before proceed.

### **7 Storage of materials**

All materials shall be stored in a proper manner protected from natural elements so as to avoid contamination and deterioration.

### **8. Site clearance and cleanup**

The Contractor shall clear away all debris and excesses materials accumulated at the site and dispose it away from the Embassy premises and maintain a neat site conditions.

On completion of project, Contractor shall remove all surplus materials and leave the site in a broom clean condition.

### **9. Workmanship**

Workers working on the site shall be skilled in their job and have experience in same type of job.

## **10. Working Hours**

Working hours shall be 8:30 A.M. to 6:30 P.M. Saturday to Thursday. No work shall be done on Fridays, and holidays without the prior approval of the Contracting Officer.

## **11. Security Clearance**

The Contractor shall inform and provide in writing transportation details (vehicle registration number, drivers name and date of delivery) to the COR at least 24 hours in advance for material deliveries.

Contractor shall give his workers name at least 3 days in advance to get the security clearance. All the workers shall have the photo ID or photo ID with the company name.

## **12. Safety**

- Contractor is responsible and shall continue management and implementation of a safety and health program throughout construction.
- The Contracting Officer and the Post Occupational Safety and Health Officer [OSHA] reserve the right to suspend work when and where Contractor's safety and health program is considered to be operating in an inadequate or non-complying manner.
- Contractor shall provide all Personal Protective Equipment for the workers as per the requirement of the site. Work will be stopped in case the proper protection equipment is not found with the workers and the lapse of time shall be at the Contractor's expense.
- Contractor will not leave the work site in an unsafe condition or any other condition that might cause injury to personnel, damage to existing work, plants or equipment.
- Contractor will use all safety gadgets e.g. hard hats, cotton gloves and goggles as required on site to avoid the accident.
- Any equipment or work considered dangerous shall be immediately discontinued
- Contractors must demonstrate understanding of their responsibilities under Post Managed Construction Project safety program by addressing hazards in preplanning processes and meetings
- Prior to starting a project, each contractor is required to review the work site and identify hazards that may occur while performing the job.
- Prior to starting a project, the contractor shall contact contracting officer, to ensure they have received pertinent information for the project including requirements for permits, floor plans, utility information, asbestos, lead based paint, and other hazardous materials.
- Per 15 FAM 935, contractors must provide their employees with a safe and healthful condition of employment.
- Contractors are expected to provide a "competent person" to implement site health and safety plan and to oversee its compliance. A competent person is an individual who, by way of training and/or experience, is knowledgeable of applicable standards, is capable of identifying workplace hazards relating to the specific operation, is designated by the employer, and has authority to take appropriate actions.

- The contractor shall be responsible for the removal and/or disposal of hazardous waste generated from the project. Hazardous waste generated from the project must be removed and disposed of in accordance with the Department's Hazardous Waste Management Policy as well as local rules and regulations.
- The contractor shall ensure proper safety, health and environmental requirements of EM 385-1-1 applicable to their project as followed.
- The contractor shall ensure individuals working at the site are trained and are aware of potential hazards. Contractors shall ensure that these individuals are provided with proper safety equipment to prevent accidental injury in accordance with the requirements of the contract
- Contractors will report accidents to Contracting officers, Contracting officer's representative and POSHO.

**13. Warranty**

The contractor shall guarantee that all work performed will be free from all defects in workmanship and materials and that all installation will provide the capacities and characteristics specified. The contract further guarantees that if, during a period of three months from the date of the certificate of completion and acceptance of the work, any such defects will be repaired by the contractor at his expenses.