

STATEMENT OF WORK
NEC- Sand Volleyball court
PROPERTY OBO-10000
New Embassy Compound
U.S. EMBASSY KHARTOUM, SUDAN

1. Description of Services:

The US Embassy, Khartoum has a requirement to install a sand volleyball court in the north side lawn in the New Embassy Compound (NEC). The court shall be constructed as per drawings, scope of work, specifications and General contract conditions. This project requires an experienced contractor to execute the job.

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.

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

2. Submittals

Technical data for:

- a. Sand , Gravel sample (lab report /tests results from a recognized soil laboratory)
- b. Geotextile membrane sample- (specs sheet)
- c. PVC pipes and all related fittings. (Solid and perforated)
- d. Pad cover (specs sheet)
- e. Lighting fixtures and lamps (specs sheet)

3. Scope of Work

1. Prior to initiating the project, the contractor is responsible to identify and 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.
2. The contractor shall be responsible to relocate all existing utilities piping, irrigation pipes, etc. under the supervision of the embassy maintenance team.
3. The contractor shall be responsible to site Stripping and clearance, Unless otherwise specified, grass, topsoil and other unsuitable materials shall be removed from the court area, and removed from the site.
4. The contractor shall prepare the court area. This includes the excavation and the embankment to allow the finish level of the court.
5. The contractor shall prepare the surroundings between the green area and the new sand court to allow the smooth transition between the two areas and avoid the tripping hazard. The maximum acceptable slope shall be 3 cm per meter length.

6. Arrange your court perimeter around the edges of the excavated site. Install Edge Guard as a treated 2 x 12 cm moaski wood panel buried vertically three inches deep below grade. The edge to be covered with soft high durable soft cushion on top to avoid injury. The materials shall be approved by the COR before installation
7. Lay out two perforated drainage pipes, with the open end at the low point of the court. Install drainage pipe on the standard leach slant (14 degrees). Use 4 inch schedule 40 PVC pipes for drainage. Drainage pipes shall be along the excavation area and contractor shall provide two lines of drainage pipe. The pipes shall be connected taken to the nearest storm water manhole as shown in the attached diagram.
8. Surround the pipe and gravel (around 30 cm in diameter) with a geotextile filter fabric Woven or nonwoven geotextile filter fabric of PP or polyester fibers, or combination of both. Flow rates range from 110 to 330 gpm per square ft. when tested according to ASTM D 4491.
9. Cover the pipe and the remaining court area with a 15 cm thickness of small gravel. Use gravel known around the country as #56 gravel, #2 or #3 size gravel. Drainage fill shall be of Narrowly graded mixture of natural or crushed gravel, or crushed stone and natural sand; ASTM D 448; coarse-aggregate grading Size 67; with 100 percent passing a 25-mm sieve and 0 to 5 percent passing a 4.75-mm sieve.
10. Put a layer of the geotextile fabric above the gravel area. The fabric layer is to keep sand and dirt from working its way up to the sand level.
11. Install cleanouts and riser extensions from sub drainage piping to top of green area.
12. lay the top layer sand levelled, sieved and clean "free from debris"

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.

The (*Federation International de Volleyball*) FIVB requires the following sand specifications:

Name	Particle Size Spec	(% Retained on Sieves)
Fine gravel	2.0 mm	0%
Very Course sand	1.0 mm - 2.0 mm	0%-6%
Coarse sand	0.5 mm - 1.0 mm	min of 80%

Medium sand	0.25 mm - 0.5 mm	max of 92%
Fine sand	0.15 mm - 0.25 mm	7%- 18%
Very fine sand	0.05 mm - 0.15 mm	not greater than 2.0%
Silt and Clay	below 0.05 mm	not greater than 0.15%

13. Install net posts, net, pads and other court accessories in accordance to the manufacturers' instructions. The materials and accessories shall be provided by the USG.

14. The contractor shall install two fixtures per court 2 luminaires per pole LED lamps, the lighting system provides a maintained light level Maintains 30 foot candles over the entire court area at least. The fixtures uniformly light the courts with minimal spill light outside of the court boundaries. Light fixtures do not interfere with player's line of vision. The fixtures, posts and the lamps, conduits, wires, cables, etc, shall be provided by the contractor and approved by COR. The contractor shall connect the electrical cables to the nearest power supply source provided by the embassy.

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

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

4. Conditions of Contract

1. 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.

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.

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

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 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 all items below via email:

- a. Bar chart within 3 days for approval by the Contracting Officer Representative (COR). All dates and time schedule agreed upon should be strictly adhered to. Contractor shall notify the COR in advance regarding anticipated problems through the project.

- b. Proposed start date
- c. Weekly schedule/activity plan for the duration of the project *prior to the start date*.

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.

The duration of the project shall be (twenty) 20 working days.

5. 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 pre-approval.

All materials used on the project shall be approved by the Contracting Officer Representative (COR) before use. Any changes/substitutes on material shall be approved by COR before proceeding.

6. Storage of Materials

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

7. Site Clearance and Cleanup

The Contractor shall clear away all debris and excess materials accumulated at the site and dispose of it away from Embassy premises, maintaining a neat site condition.

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

8. Workmanship

Workers working on the site shall be skilled in their job and have related job experience.

9. Working Hours

Working hours shall be 8:30 A.M. to 4:30P.M Sunday to Thursday. No work shall be done on Fridays, Saturdays and holidays without the prior approval of the Contracting Officer.

10. 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 workers names at least 3 days in advance to get the security clearance. All the workers shall have an official photo ID or photo ID with the company name on it.

11. Safety procedures

Scope and Application

Contractor must meet with POSHO or representative before each phase of work begins to discuss safety concerns and agree upon appropriate PPE, methodology, and risk mitigation plans.

Contractor shall acknowledge POSHO authority to specify ideas, monitor towards completeness until shut down.

This document applies to all contractors and subcontractors working at or on American Embassy property owned or leased as specified in the scope of work. While working on U.S. Government projects the contractor or subcontractor are responsible for maintaining at least an agreed upon minimum amount of safety for the workers and public.

This basic requirement is as follows:

1. Proper Protective Equipment will be worn by workers while in any work area or while performing tasks that create hazards for workers. The requirements listed below are minimum requirements, and may be supplemented or added to by the POSHO.
 - a. Safety glasses will be worn while performing the following
 - i. Drilling
 - ii. Chiseling, chipping
 - iii. Wood working, metal working
 - B. Hearing protection will be provided for all those who operate loud power tools and equipment.
 - a. Hard hats will be worn in areas where falling objects are a hazard.
 - C. Gloves will be worn for cleanup and removal of work area waste and materials.
 - a. Proper footwear will be worn by all workers, including safety shoes.
 - D. The contractor will identify a safety officer for each project responsible for the following:
 - E. Shoring and trenching operations:
 - a. Shoring will be used for any trenching/digging deeper than 5 feet if a slope is not used in excavation.
 - b. At least one worker will remain topside at all times.
 - c. A ladder that allows for immediate escape will be available at all times.
 - F. Use of Signs and Barriers
 - a. Barriers and signs shall identify workplace hazards and special instructions.
 - b. Minimum space required to perform work shall be identified.
 - c. Ribbon, tape, fencing or portable barriers will create a controlled area around work site.
 - G. Electrical issues
 - a. All power cords and power taps will be wired appropriately, leaving no exposed wires that are live or could come in contact with staff.

- b. While working on electrical systems proper lockout/tag-out procedures will be followed, and the circuit being worked on will be de-energized (turned off at the main breaker).
- c. Power cords and temporary power will be GFCI protected and shall not be placed in areas that are prone to flooding or are wet, (i.e. running through puddles on the floor).
- H. Equipment will be plugged into a standard GFCI-protected receptacle and not wired directly into power taps.
- I. Waste cleanup and removal
 - a. All excess or waste materials will be removed from the site at the close of each work day. Debris will be removed to include food bags and containers. Staging of materials shall be in an agreed upon location.
Safety meetings shall occur at least once a week with at least one Embassy staff member present.

12. 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 years 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.