

SCOPE OF WORK
Design and Construction of
Play Ground Shade Cover
July 2016
US EMBASSY DJIBOUTI

1. DESCRIPTION

- 1.1 This project is to design and Install a shade over the Embassy Play Ground.
 - 1.1.1 Projects includes Making use of existing steel columns
 - 1.1.2 Analyze load, Design and provide AutoCAD design drawings
 - 1.1.3 Provision and installation of shade including the joints and steel pipes etc. required to set up the shade.

2. GENERAL REQUIREMENTS

- 2.1.1 Contractor shall provide design drawings and proposal with in one (1) week of the notice to proceed.
- 2.1.2 Material must be purchased and on-site within two (2) weeks of Notice to Proceed.
- 2.1.3 Construction and installation must be completed within three (3) weeks of Notice to Proceed or liquidated damages may apply in the amount of **\$100** per calendar day will be assessed until substantial completion of the project is achieved.
- 2.1.4 All tools must be taken off-site every day or stored in a container at the end of the work-day.
- 2.1.5 Sub-contracting or utilization 3rd party contractor is prohibited.
- 2.1.6 Experience in shade building will be preferable.

3. SECURITY REQUIREMENTS

- 3.1.1 A list of employees who will work on this project to include names (as shown on ID), and ID numbers must be submitted to the COR/POC within one (1) day of the Notice to Proceed.
- 3.1.2 A list of the vehicles which will be used on this project to include VIN number, license plate number, vehicle description, and color must be submitted the COR within one (1) day of the Notice to Proceed.

4. Safety

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- 4.1.1 Contractor must submit with the bid, a Company Safety Plan including a specific Safety Plan tailored to this project to include an Activity Hazard Analysis (AHA).
- 4.1.2 All safety plans must conform to USACE (Army Corps of Engineers) Safety and Health Manual EM-385.
- 4.1.3 General. The contractor shall provide and maintain work environments and procedures which will safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to contractor operations and activities; avoid interruptions of Government operations and delays in project completion dates; and, control costs in the performance of this contract. For these purposes, the contractor shall:
 - 4.1.4 Provide appropriate safety barricades, signs and signal lights;
 - 4.1.5 Comply with the standards issued by any local government authority having jurisdiction over occupational health and safety issues; and,
 - 4.1.6 Ensure that any additional measures the contracting officer determines to be reasonably necessary for this purpose are taken.
 - 4.1.7 For overseas construction projects, the contracting officer shall specify in writing additional requirements regarding safety if the work involves:
 - 4.1.8 Scaffolding;
 - 4.1.9 Work at heights above two (2) meters;
 - 4.1.10 Trenching or other excavation greater than one (1) meter in depth;
 - 4.1.11 Earth moving equipment;
 - 4.1.12 Temporary wiring, use of portable electric tools, or other recognized electrical hazards. Temporary wiring and portable electric tools require the use of a ground fault circuit interrupter (GFCI) in the affected circuits; other electrical hazards may also require the use of a GFCI;
 - 4.1.13 Work in confined spaces (limited exits, potential for oxygen less than 19.5 percent or combustible atmosphere, potential for solid or liquid engulfment,

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or other hazards considered to be immediately dangerous to life or health such as water tanks, transformer vaults, sewers, cisterns, etc.);

- 4.1.14 Hazardous materials—a material with a physical or health hazard including but not limited to, flammable, explosive, corrosive, toxic, reactive or unstable, or any operations which creates any kind of contamination inside an occupied building such as dust from demolition activities, paints, solvents, etc.; or
 - 4.1.15 Hazardous noise levels.
 - 4.1.16 Records. The contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this contract resulting in death, traumatic injury, occupational disease, or damage to or theft of property, materials, supplies, or equipment. The contractor shall report this data in the manner prescribed by the contracting officer.
- 4.2 Written program. Before commencing work, the contractor shall:
- 4.2.1 Submit a written plan to the contracting officer for implementing this clause. The plan shall include specific management or technical procedures for effectively controlling hazards associated with the project; and,
 - 4.2.2 Meet with the contracting officer to discuss and develop a mutual understanding relative to administration of the overall safety program.
- 4.3 Notification. The contracting officer shall notify the contractor of any non-compliance with these requirements and the corrective actions required. This notice, when delivered to the contractor or the contractor's representative on site, shall be deemed sufficient notice of the non-compliance and corrective action 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 suspending 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 suspension of work order issued under this clause.

5. Proposed Design

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- 5.1 Play Ground has already built 8 outer steel columns and 1 central steel column
 - 5.1.1 The height of the 8 columns is about 3m and the central column is about 4.5m (see attachments for exact measurement)
 - 5.1.2 The shade generally sits on a 21mx21m area (441 sq. m) and 2 columns are located on each side of this area with a 7m span between each of them on each side of the area. (see attachment for exact measurement)
- 5.2 There will be an extension and/or joints attached to the outer columns to connect a steel pipe that will be extended to the central column (an extension will also be installed on the central column to entertain the steel pipes emanating from the outer columns).
- 5.3 Another steel pipe will be connected between each two outer columns.
- 5.4 This creates 8 triangular shaped sections/areas to be covered with 2 outer and 1 central columns making up the triangular shape.
- 5.5 Project POC (Gouldon Farah) will provide rough sketch and will walk you through site and provide as much information as possible.

6. Scope

6.1 General Requirement

- 6.1.1 Visit Site and conduct survey to take exact measurements of steel columns and their span.
- 6.1.2 Design shall specify type of extensions and connections to add to the existing columns (outer and central).
- 6.1.3 Shade should be able to withstand wind pressure of 100KPH and temperatures exceeding 50 degrees Celsius.
- 6.1.4 Analyze loads of the steel pipes connecting the columns and wind load and insure the structural integrity of the design and installation.
- 6.1.5 Provide full report and submittals including but not limited CAD design drawings, materials and parts including but not limited to joints/extensions, plates and anchor bolts.

6.2 Implementation

- 6.2.1 Weld a platform on the existing outer columns and extend an elbow (with a flange) to prepare a connection point for crossbeam (pipe structure) to be connected to the center column.
 - 6.2.1.1 Do this for all outer columns

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- 6.2.1.2 Contractor can Remove Existing welded plates on the all columns if not usable.
- 6.2.2 Weld two plates on each side of the outer columns to support crossbeam to be connected between each outer column.
 - 6.2.2.1 These crossbeams between outer columns will be bolted to the welded plates.
- 6.2.3 Weld and prepare a circular plate around the center column to support the crossbeams emanating from all the eight (8) columns.
 - 6.2.3.1 This plate will have required holes for bolting down incoming crossbeams
 - 6.2.3.2 Provide required support for the circular plate extension as per the load analysis.
- 6.2.4 Install crossbeam between all outer columns which will be bolted to the plates (6.2.2) on each side of the outer column.
- 6.2.5 Install cross beam between outer column (see 6.2.1) and center column (see 6.2.3)
- 6.2.6 The size, thickness, weight, grade and material of crossbeam between outer columns and central column and between each consecutive outer column will be contingent on the load analysis done by the contractor.
- 6.2.7 Performance and structural stability will be guaranteed by the contractor.
- 6.2.8 Provide and install shade fabric conforming to requirements provided on 7.1.
- 6.2.9 Shades shall be provided and installed in eight (8) triangular parts to cover the structure. (size shall be defined on design drawings by contractor)
 - 6.2.9.1 Each part shall be replaceable without affecting other parts of the shade
 - 6.2.9.2 Installation shall be able to withstand wind speed up to 100kph.
 - 6.2.9.3 Provide 2 extra shades (triangular) and as per design size for future use.
- 6.2.10 Provide air vent on the central column.

7. Minimum Requirements

- 7.1 Shades fabric minimum requirement
 - 7.1.1 HDPE knitted

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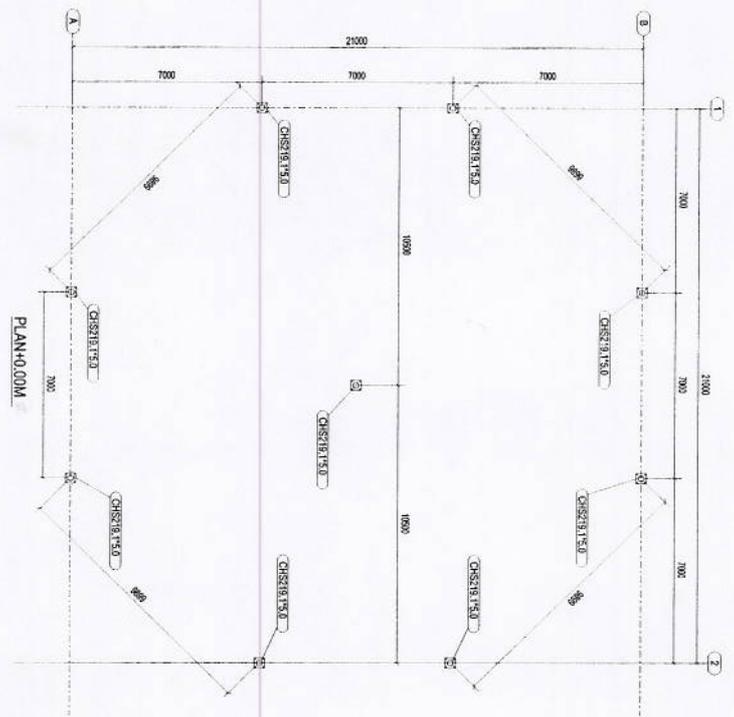
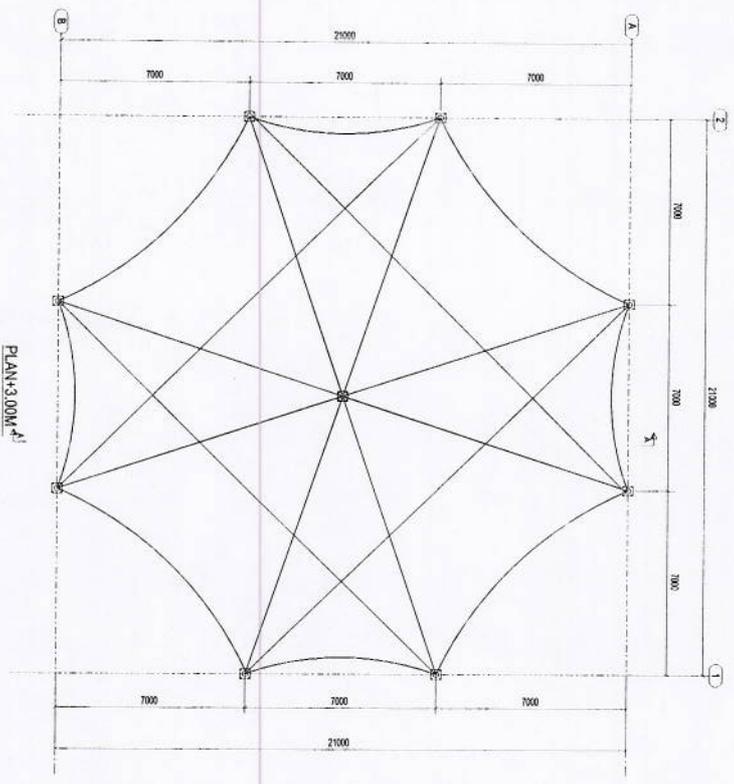
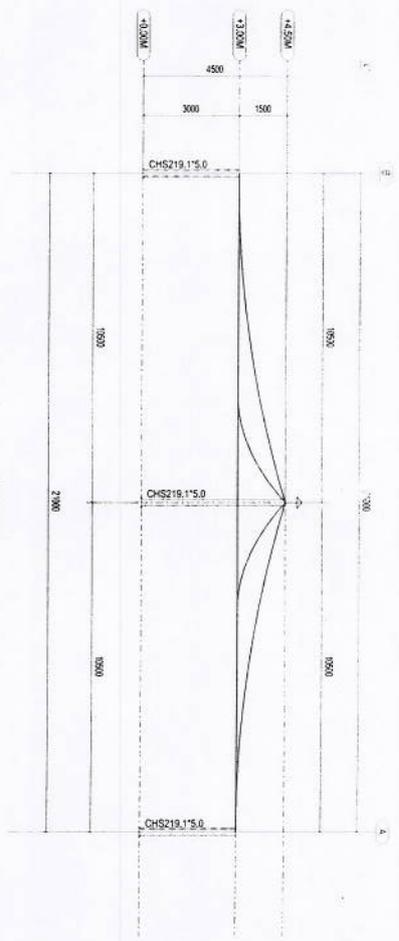
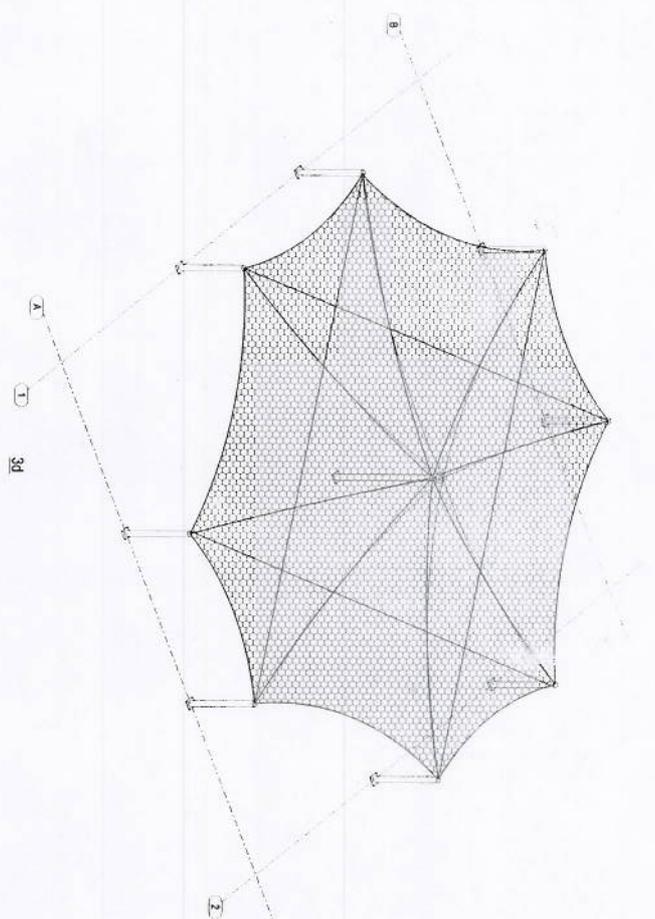
- 7.1.2 Can block more than 95% of sun rays
- 7.1.3 Able to stand temperature exceeding 50 Celsius
- 7.1.4 Able to withstand wind speeds exceeding 100Kph
- 7.1.5 Shade fabric color shall be sand (desert sand).
- 7.2 Minimum requirement for plates and crossbeams (pipes)
 - 7.2.1 Grade for plates shall be ASTM A36 or equivalent
 - 7.2.2 Grade for crossbeams (pipes) shall be ASTM A53 or equivalent.
 - 7.2.3 Connection bolts and anchor bolts shall be HDG (hot-dipped galvanized) grade 8.8 or equivalent.
 - 7.2.4 Welding's shall be AWS D1.1
 - 7.2.5 All steel pipes shall be blasted to SA 2.5 and 3 coats of painting system (zinc rich, high build epoxy and polyurethane) but not more than 200 microns total.

8. POINTS OF CONTACT

- 8.1 CONTRACTING OFFICER: The Contracting Officer (CO) shall be the Embassy General Services Officer, Edith Davis (DavisEA2@state.gov)
- 8.2 CONTRACTING OFFICER REPRESENTATIVE (COR) shall be the Embassy A-Facility Manager, Edith Davis (DavisEA2@state.gov)
- 8.3 POINT OF CONTACT shall be Gouldon Farah (FarahGM@state.gov)

- 9. **PROPOSAL SUBMITTAL:** proposal shall be submitted to Procurement Group, U.S. Embassy Djibouti (DjiboutiProcurement@state.gov)

END SOW



ALBADDAD
ENGINEERING

Contractor : **ALBADDAD ENGINEERING**

Project : 2802

Project Description : TENSILE FABRIC STRUCTURE 21 X 21M

Drawing Title : PLAN AND ELEVATION

Rev	Description	Drw	Chk	App	Date

Client :

Drawn by: IMTEVAZ
Checked by: MUSTAFA
Project no: A3
Scale: A3
Date: 27.10.2013
Drawing No: ALE-TS-2802-001
Rev: