



**UNHCR**

United Nations High Commissioner for Refugees  
Haut Commissariat des Nations Unies pour les réfugiés

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## **ANNEX A: STATEMENT OF WORK (SOW): RFQ/HCR/KAD/SUP/2022/10**

### **Abstract:**

The UNHCR Sub Office at Kadugli is intended to supply and install prefabricated containers inside its premises in Kadugli, South Kordofan Sudan. The prefab container will be used as a gymnasium room allocated at the far Northwest corner of the compound. The purpose of establishing the gym is to promote the staff's welfare.

The overall technical goal is to transform and repurpose two (02) 40ft shipping containers into one (01) gymnasium. The prefab must be movable in case of changing the location or wanting to invest the building in a different place or shape with the same desired quantities.

Fabricated gymnasium room shall be installed with 2 doors, 4 windows, and 8 internal lights, supplied with the electrification of wiring, conduits, socket, and distribution board, the containers shall be framed with standard superstructure steel frame, well welded and bolted, weatherproof, and well coated as per below SOW.

### **1-Earth/Land Preparation Works:**

#### 1. Excavation Works:

Excavate area of 48 m<sup>2</sup> (6x8 m), with a depth of 40 cm, including disposal of excavated materials away from the site/according to the supervisors' directions, the rate including usage of manpower/ equipment to excavate the desired area as per standard way (sides protection).

#### 2. Backfilling:

Supply material and backfill sub-base selected materials with a total depth of 70 cm, the backfilling should be done by laying two layers thickness of 35 cm for each, with necessary compaction.

#### 3. Plain Concrete Flooring:

Supply materials and cast 10 cm thick plain concrete (1:3:6 mix) for the ground slab with the dimension of 6x8m.

### **2-Container Formation:**

1. Fabrication/formation of two 40ft shipping containers (provided by UNHCR) to become a one-room structure with a maximum area of 48 square meters by 6 \* 8 meters (with the original height of the container provided).

2.The formation includes all cutting, welding, and supporting works, especially for the corners. The containers body, the outer frame, and the corners must be of the same container structure, with 8 hooks in the long length number 4 and the short length number 2 fixed well to facilitate the transportation of containers,

### **3- Insulation & Roof Drainage:**

1.The roof and all joints between the different components must be well-proofed without any chance of water leak or heat transfer in and out. No gaps shall be kept particularly at the doors and windows.

2.The sound insulation shall be based on the used materials that must be solid and enough to resist sound transfer.

3.The roof drainage must use a metal channel gutter at least 120 mm in width and height with circular or tube pipes of vertical water drop-down. The top roof is recommended to be two sides cross-fall.

### **4- Electrical Works:**

Technical data:

1. (8) External plug and socket connection voltage:230V and 50/60 Hz frequency, 6 poles, 32 A, 15A, 13 A and 10 A frequency:50 Hz protection. Control panel in the shape of distribution board (DB) with 9 lines circuit breakers varies from 63 A to 10 A distribution box, surface mounted type.
- 2.Earthing: universally usable ground terminal: On both short sides in the floor frame of each corner.
- 3.Wiring: use Sharog cables or equivalent products 2.5 mm<sup>2</sup> and 4 mm<sup>2</sup> diameters passing in ½ inch conduits std quality equivalent and PVC box.
4. (6) units of lighting of fluorescent tubes and 2 -a unit of neon light outside the outer doors with weatherproof transparent covers, supply and install the approved type of spotlights (6 PSC) distributed on the roof in equal distances.
- 5.10x10 cm PVC trunk for data cable with four points of connection and proper cable outlet.

### **5-Air Conditioner:**

Supply and install two (2) Split Units, Dual inverter24,000 BTU:

- Energy saving: At least 55%
- Fast colling: At least 55 %
- Warranty: 10 years for the compressor and 2
- Years for the other parts (with serialized warranty card for the product)

The work includes all electrical connections, fixing of internal and external units, and finishing works if needed.

### **6-Doors & Windows:**

#### **1.Door:**

Supply and install two (2) good quality PVC doors framed from steel pipes 3x6, with dimensions (1mx215m), the works include all fixing, insulation works, and installation of protecting grill door made of steel pipes (Frame and internal grid) with all necessary locks and bolts.

#### **2.Windows:**

Supply and install four (4) good quality PVC windows framed from steel pipes 3x6, with dimensions (1mx120m), the works include all fixing, insulation works, and installation of protecting grill door made of steel pipes (Frame and internal grid) with all necessary locks and bolts.

### **7-Finishing Works:**

#### **1. Flooring Works:**

Supply and install an approved type of gym rubber interlocking mats (to ensure toughness, shock/vibration absorption, durability, and safety against sliding for users, with a total area of 70 m<sup>2</sup>, the work includes floor preparations, smoothing, and the assembly of the rubber mat.

The work includes adjusting mates to fit the needed area, workmanship, leveling, and any related work.

Technical specification of rubber mate should not be less than below:

Dimensions: 60cm x 60cm x thickness of 50 mm.

Density:	ASTM D3676	60 pcf
Hardness:	ASTM D2240 (Shore A)	60 +/-5
Tear Strength	ASTM D624	80 pli
Elongation min	ASTM D412	>145%
Tensile Strength	ASTM D412	>220 PSI
Flexibility	ASTM F137 1/4" Mandrel	Pass
Resistance To Chemicals	ASTM F925	No change

#### **2. Painting Works:**

Supply materials and apply paint (approved type of semi-glossy paint, suitable for exterior walls) 2 layers of paint (selected color: white color with blue strip in top and bottom), rate includes all related works, The paint

must be of a type of approved type against rust, moisture, sunlight, and even dust, as per normal standard and UNHCR engineer instruction.

### **8- Bill of Quantities (BOQ):**

No.	DESCRIPTION	UNIT	QTY
<b>1.0</b>	<b><u>Land Preparations/ Earth Works:</u></b>		
1.1	<p><b><u>Excavation works:</u></b> Excavate Area of 48 m<sup>2</sup> (6x8 m), with a depth of 40 cm, including disposal of excavated materials away from the site/according to the supervisors' directions, the rate including usage of manpower/ equipment to excavate the esired area as per standard way (sides protection).</p>	M3	19.2
1.2	<p><b><u>Backfilling:</u></b> Supply material and backfill sub-base selected materials with ta total depth of 70 cm, the backfilling should be done by laying two layers thickness of 35 cm for each, with necessary compaction.</p>	M3	33.6
1.3	<p><b><u>Plain Concrete (flooring):</u></b> Supply materials and cast 10 cm thick plain concrete (1:3:6 mix) for the round slab with a dimension of 6x8m.</p>	M3	4.8
<b>2.0</b>	<b><u>Container Formation:</u></b>		
2.1	<p>1.Fabrication/formation of two 40ft containers (provided by UNHCR) to become a one-room structure with a maximum area of 48 square meters by 6 * 8 meters (with the original height of the container provided).</p> <p>2.The formation includes all cutting, welding, and supporting works, especially for the corners. The containers body, the outer frame, and the corners must be of the same container structure, with 8 hooks in the long length number 4 and the short length number 2 fixed well to facilitate the transportation of containers,</p>	JOB	1
<b>3.0</b>	<b><u>Insulation &amp; Roof Drainage:</u></b>		
3.1	<p>1.Roof and all joints between the different components must be well-proofed without any chance of water leak or heat transfer in and out. No gaps shall be kept particularly at the doors and windows.</p> <p>2.Sound insulation shall be based on the used materials that must be sold and enough to resist sound transfer.</p> <p>3.Roof drainage must use a metal channel gutter at least 120 mm in width and height with circular or tube pipes of vertical water dropdown Top roof is recommended to de two sides cross fall.</p>	JOB	1
<b>4.0</b>	<b><u>Electrical Works:</u></b>		
4.1	<p><b><u>Technical data:</u></b> <b><u>Supply and install electrical items and link them to a power source, including the below:</u></b> 1-(8) External plug and socket connection voltage:230V and 50/60 Hz frequency, 6 poles 32 A, 15A, 13 A and 10 A frequency 50 Hz protection. Control panel in the shape of distribution board (DB) with 9 lines circuit breakers varies from 63 A to 10 A distribution box, surface mounted type.</p> <p>2-Earthing: universally usable ground terminal: On both short sides in the floor frame of each corner.</p> <p>3-Wiring: use only Sharon cables or equivalent products 2.5 mm<sup>2</sup> and 4 mm<sup>2</sup> diameters passing in ½ inch conduits std quality or equivalent and PVC box.</p> <p>4- (6) units of lighting fluorescent tubes and 2 -units of eon light outside the outer doors with weatherproof transparent covers, supply and install an approved type of spotlight (6 PSC) distributed on the roof in equal distances.</p>	JOB	1

	<p>5-10x10 cm PVC trunk for data cable with four points of connection and proper cable outlet.</p> <p>6- Supply and installation of armored power cable pure brass wire, 4 core, 16 mm, full length without cut or in between including cable tie and fixing clamps.</p>		
<b>5.0</b>	<b><u>AIR CONDITIONER:</u></b>		
5.1	<p>Supply and install two (2) Split Unit, Dual inverter 24,000 BTU:</p> <ul style="list-style-type: none"> <li>- Energy saving: At least 55%</li> <li>- Fast colling: At least 55 %</li> <li>- Warranty: 10 years for the compressor and 2 years for the other parts (with serialized warranty card for the product)</li> </ul> <p>The work includes all electrical connection, fixing of internal and external units and finishing works if needed.</p>	PSC	2
<b>6.0</b>	<b><u>DOORS &amp; WINDOWS:</u></b>		
6.1	<p><b><u>Doors:</u></b></p> <p>Supply and install two (2) good quality pvc door framed from steel pipes 3x6, with dimensions (1mx215m), the works include all fixing, insulation works, installation of protecting grill door made of steel pipes (Frame and internal grid) with all necessary locks and bolts.</p>	PSC	2
6.2	<p><b><u>Windows:</u></b></p> <p>Supply and install four (4) good quality pvc windows framed from steel pipes 3x6, with dimensions (1mx120m), the works include all fixing, insulation works, installation of protecting grill door made of steel pipes (Frame and internal grid) with all necessary locks and bolts.</p>	PSC	4
<b>7.0</b>	<b><u>FINISHING WORKS:</u></b>		
7.1	<p><b><u>FLOORING WORKS:</u></b></p> <p>Supply and install an approved type of gym rubber interlocking mats (to ensure toughness, shock/vibration absorption, durability, and safety against sliding for users), with a total area of 70 m<sup>2</sup>, the work including floor preparations, smoothing, and the assembly of the rubber mat.</p>	M2	70
7.2	<p><b><u>PAINTING WORKS:</u></b></p> <p>Supply materials and apply paint (approved type of semi glossy paint, suitable for exterior walls) 2 layers of paint (selected colour: white colour with a blue strip at top and bottom), rate includes all related works, The paint must be of a type of approved type against rust, moisture, sunlight, and even dust, as per normal standard and UNHCR engineer instruction.</p>	M2	80

### **8- Drawings:**

# DRAWING



**General note:**

- 1- All dimension should be checked and verified at site.
- 2- Don't scale from this drawing.
- 3- Any description found in the drawing is to be immediately brought to the notice and clarified with the main designer or supply unit.
- 4- Plain concrete Grade  $f_{cu}=15$  Mpa (1:3:6 mix ratio).

***KADUGLI  
SUB-OFFICE  
GYMNASIUM***

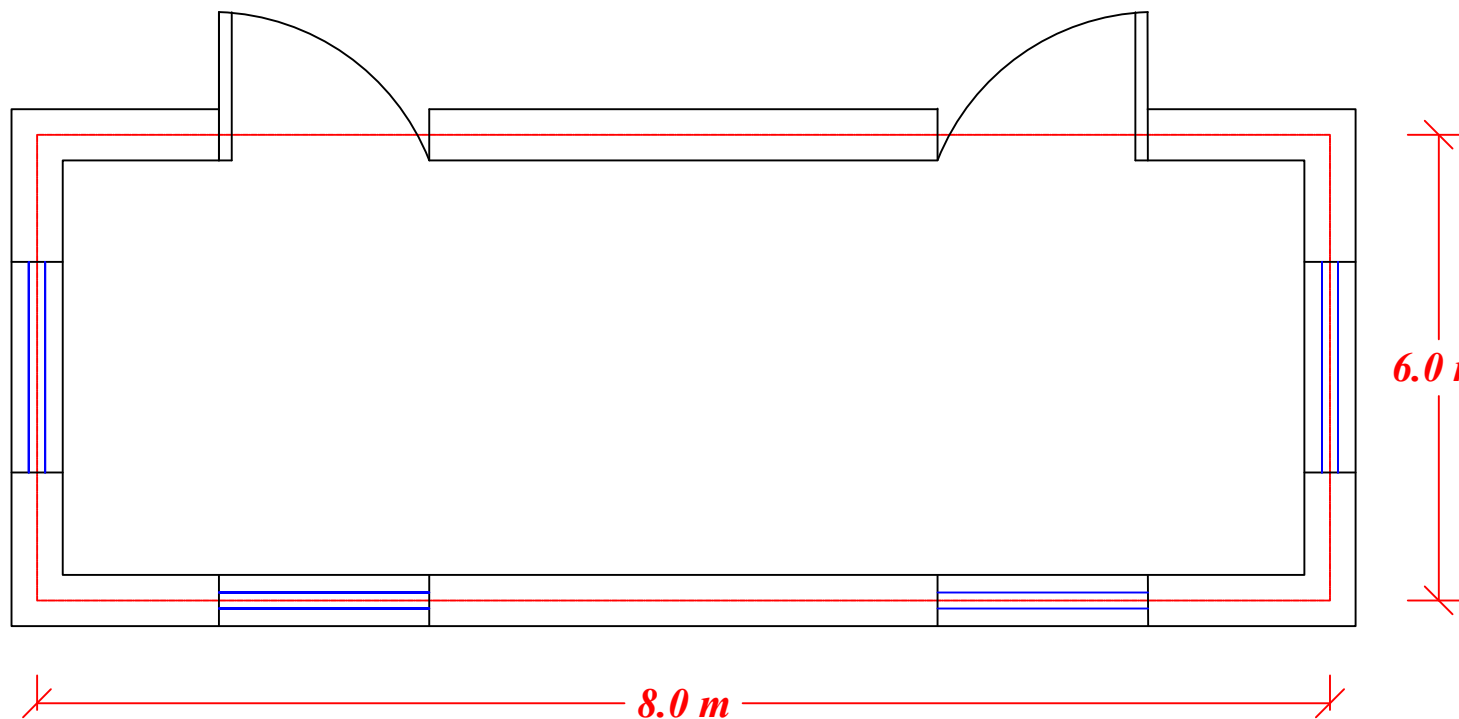


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***General layout Plan***

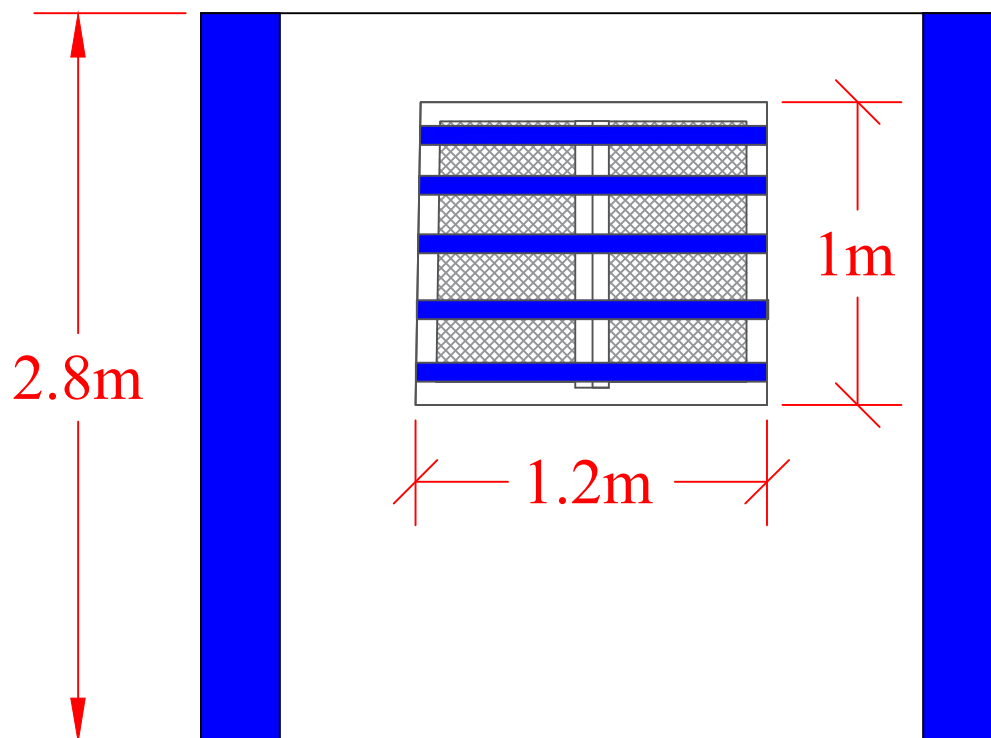


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***General layout  
Side View***



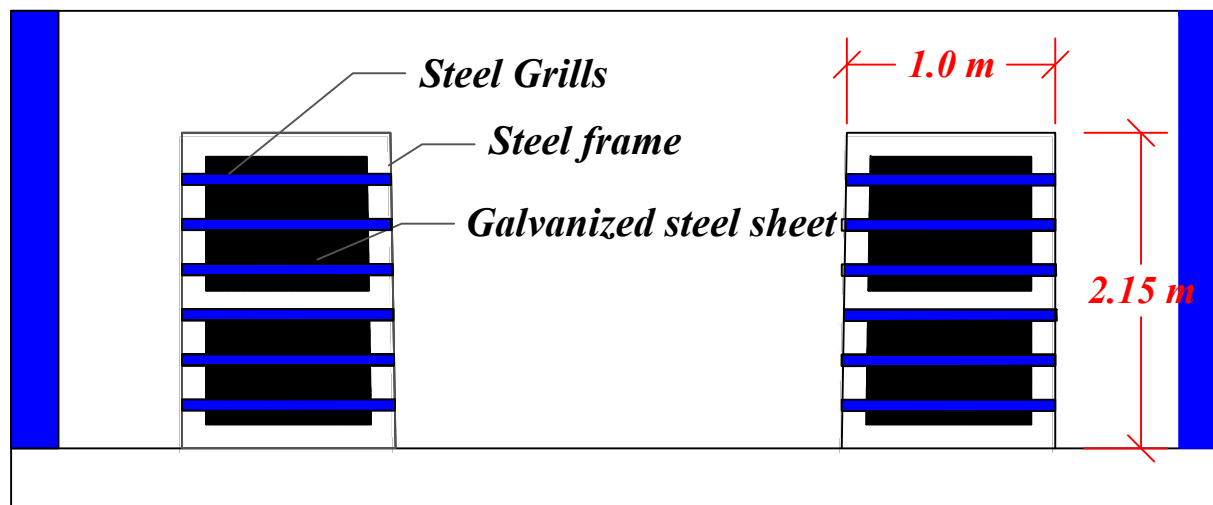
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8.0 m



2.8 m

70 cm

**General layout  
Front View**



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**General layout  
Earthworks  
details**



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