

2022

# Marib Shelter Solution Recommendation Report

Marib TWiG, 28 Nov 2021 – 06 Apr 2022, Marib, Yemen  
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**Shelter Cluster Yemen**  
ShelterCluster.org  
Coordinating Humanitarian Shelter

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## Context

Over six years into the conflict in Yemen, the country remains the world's worst humanitarian crisis, with 20.7 million people in need of humanitarian assistance, which represents 71 per cent of the total population. The crisis has pushed the country to the edge of famine, deepened poverty, destroyed the economy, fostered the spread of diseases, including COVID-19, and uprooted more than four million people from their homes, one-third of whom are now living in informal settlements. On the 7.3 million Yemeni requiring Shelter/NFI assistance, almost 2.9 million individuals are living in extremely dire conditions, 75% are women and children. In the first nine months of 2021, the escalation of conflict in several front lines resulted in the displacement of an additional 61,000 people<sup>1</sup>. Natural disasters affected 150,000 people in 94 districts and 19 governorates across the country, with 114,000 people found to need Shelter/NFI assistance.

Further, more than half a million families are experiencing protracted displacement, and the vast majority reside in sub-standard shelter conditions. With the prolonged conflict and continued displacement, more sustainable and medium-term solutions are required, including identifying durable solutions such as local integration or return when possible.

## Objective

More than half a million families are experiencing protracted displacement, and the vast majority reside in sub-standard shelter conditions. With the prolonged conflict and continued displacement, more sustainable and medium-term solutions are required, including identifying durable solutions such as local integration or return when possible. After receiving number of complaints from local authority and IDPs about the current shelter that been distributed both EESKs and tents do not fit the Marib context

A meeting was held on Thursday by the TWiG to determine the best and most appropriate types of shelters for Marib. It was held at the beginning of November last year 2021 (at the request of the Executive Unit - Marib and in coordination with SNFI Cluster).

## Methodology

In order to evaluate the different type of shelter implemented in Marib Marib TWiG member agreed on three different type of data sources as follow:

- **Shelter Solution Exhibition Review**
- **Field Assessment visit**
- **Market Assessment**

## Shelter Solution Exhibition Review

On 25 Nov SNFIs Cluster call partner to participate on Marib shelter solution exhibition to present shelter option that implemented in Marib to review them by Marib TWiG as part of the process to identify emergency shelter that fit Marib context, on 28 Nov the shelter exhibition was officially opened by National Cluster and local Authority with 8 participants. Of the 8 participants, 6 were from Non-Governmental Organizations, 2 from UN agencies

The shelter option presented in the shelter exhibition varied between emergency shelter (4 different type of tents and I ESK) and long term ( 2 caravan and 1 TS) and 1 local shelter (Iron Net)

On 08 Dec Marib TWiG visited the exhibition to review the shelter options implemented in exhibition using Shelter Technical Assessment Checklist (See Annex V).

## Field assessment Result

Field assessment was one of the methods that Marib TWiG count on to assess the shelter option in Marib In coordination with local Authority Ex.u and shelter partner to identify 10 sites that Marib TWiG should visit especially the sites that have different type of shelter implemented such as tents, ESK, Iron Nets, Caravan and other type of shelter to assess the following points:

- The satisfaction of IDPs about the implemented shelter in IDPs site.
- Identify the most accepted shelter option.
- Issues with current shelter.

- Preferred shelter in the initial period of displacement.
- Preferred shelter as a long- or medium-term solution.
- Assess the current shelter against weather condition (wind, high temperature and cold).
- Change or improve in shelter to meet IDPs specific need.
- The description of the preferred shelter option among IDPs.

During the field assessment the Maib TWiG use different type of data collection methodology like Observation KII, interview with some families, and shelter assessment finally FGD (see Annex VI).

- **Focus Group Discussion**

During the visit to IDPs hosting sites FGD was conducted in each site using the FGD form to measure the satisfaction of the IDPs about the current shelte

- **Preferred shelter in the initial period of displacement.**

Tents and local shelter (Iron Nets) were the first option for most of IDPs as emergency shelter due to number of reasons mentioned during the discussion, however participants were not satisfied with the tent that where distributed by some partners (see the below figure 1) and they recommend some kind of tents such as (Al-jazira tent, Kadi tent and Alreea'a)

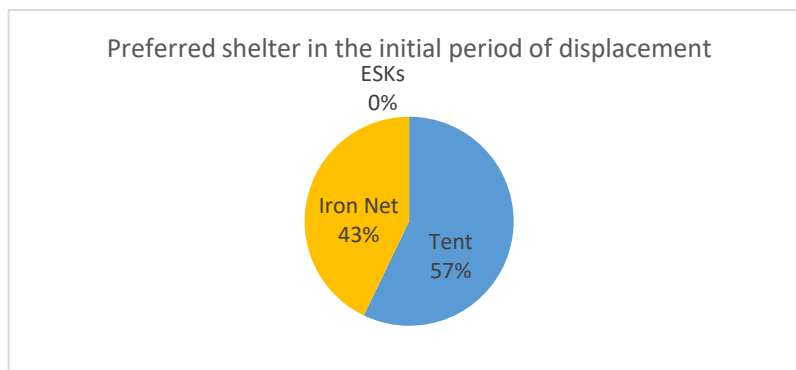


Figure 1: UNHCR Tent



Figure 2: JAZIRA TENT

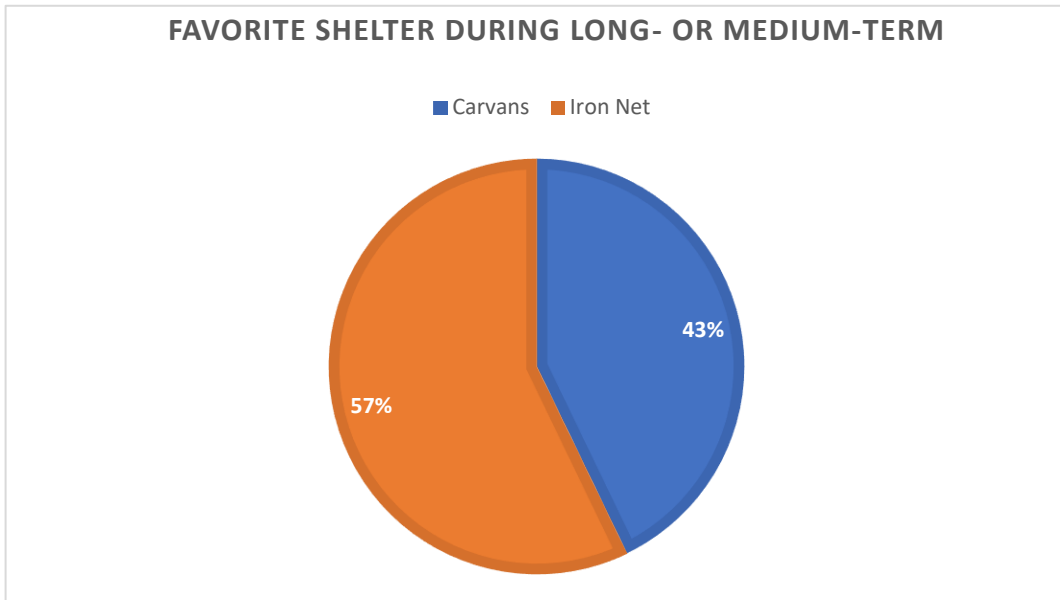


Figure 3: KADI TENT

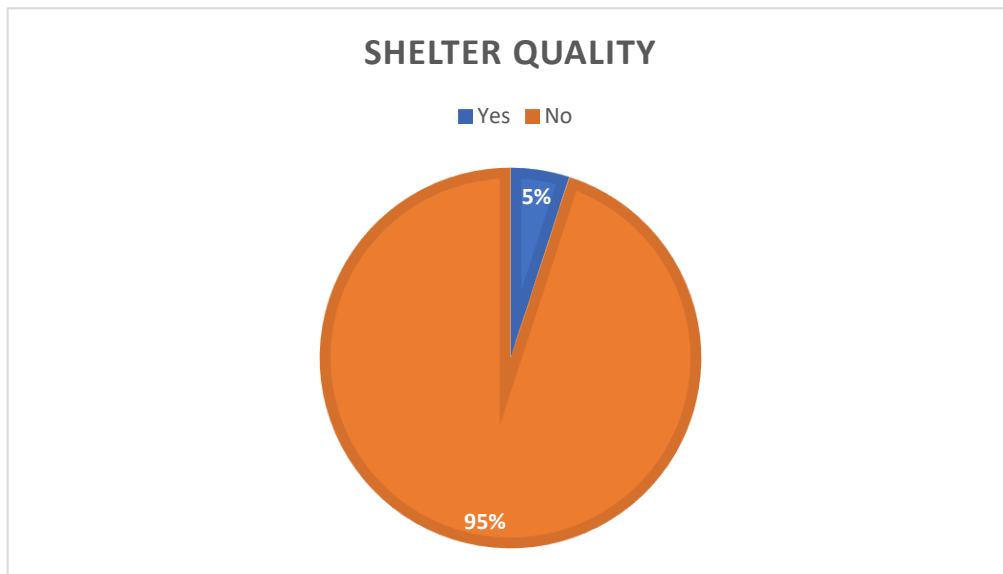


Figure 4: Local Shelter (Iron Net)

- **Preferred shelter as a long- or medium-term solution.**



- **Protection against weather condition (wind, high temperature and cold).**



- **Change or improve in shelter to meet IDPs specific need.**
  - Add insulation
  - Use plastic sheet with high quality

## Market Assessment

The main purpose for Market assessment is to identify the capacity of local market using the Market Assessment tools (See Annex VII)

Main highlighted Market assessment Result

- The current situation effect on the markets
  - price increases,
  - transport problems.
- The number of people (customers) coming to the marketplace increase through the past 5 years by 200%
- The purchasing capacity decrease
- The number of wholesalers supplying the key commodities in this market increase through the past 5 years
- The market supplying more of the key commodities compared to 5 years ago
- Before 5 years ago the commodities come from Al-Hoddida but now it comes from Saudi
- The current situation effect on the traders in the marketplace
  - Increase demand.
  - price increases.
  - transport problems.
- If households were given money, The traders can supply them with the key commodities
- In case of large request, traders are able to supply them.

## Emergency Shelter solutions Recommended by Marib TWiG

- **Enhanced Emergency Shelter Kit**

The current Emergency shelter kit that has been distributed so far does not fit Marib context, and need to be modified by

- Adding thermal insulation from the inside
- Increasing the number of Wooden (Plate and Pole), 15 Plates instead of 12, this is to change the layout to truss design.
- Change the plastic sheet with PVC-650, 2 mm.

- **Tents<sup>1</sup>**

Tents are preferable in emergency as mentioned by IDPs and there are some tents that have good feedback from IDPs such are Kadi, Al-Rabeea'a and Al-Jazira and similar tents with same quality These tents are available in the market, however in case of large request it need to be deliver from Saudi Arabia

- **Iron Nets**

This type of shelter is made locally It consists of an iron grid surrounded from the inside by thermal insulation and covered from the outside with a plastic sheet PVC 650, 2 mm (rain-resistant with a life span of one and a half to two years), and it contains a cement floor and is surrounded by the floor from the outside with a sapphire concrete wall 40 cm high to protect against rainwater and torrential rain. Available in the local market with an acceptable capacity (200-300 pieces per month for each workshop, more than 15 workshops are available in Marib). Its recommended to use Wooden door instead of iron for safety reasons.

This type of iron net, is used a lot in IDPs site build by IDPs themselves and they used it as emergency shelter given that the structure is iron and the quality of plastic sheet that long more than 2 years as indicated by IDPs it may consider as transitional shelter.






- **Caravans**

This type is implemented by some NGOs in Marib as transitional shelter (see Annex III) , which most of the displaced prefer this type from the shelter because of its longevity and they consider it to provide protection and give them more privacy (this is according to the results of the FGDs that were carried out in the IDP sites);






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<sup>1</sup> [Policy on Tents Distribution](#) need to be follow when distributing tents

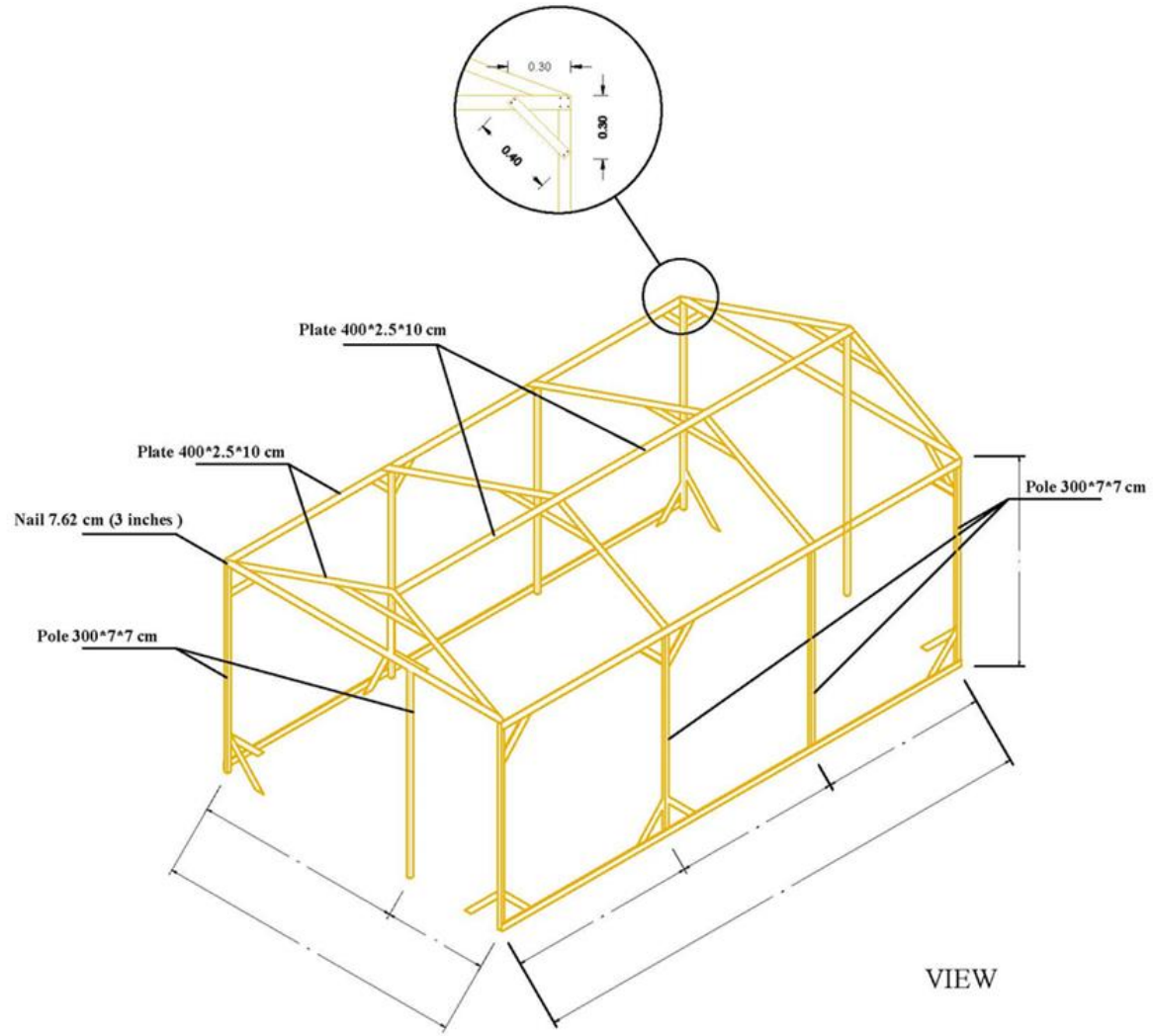
## Annex I. Marib-Enhanced Emergency Shelter kit (EESKs)

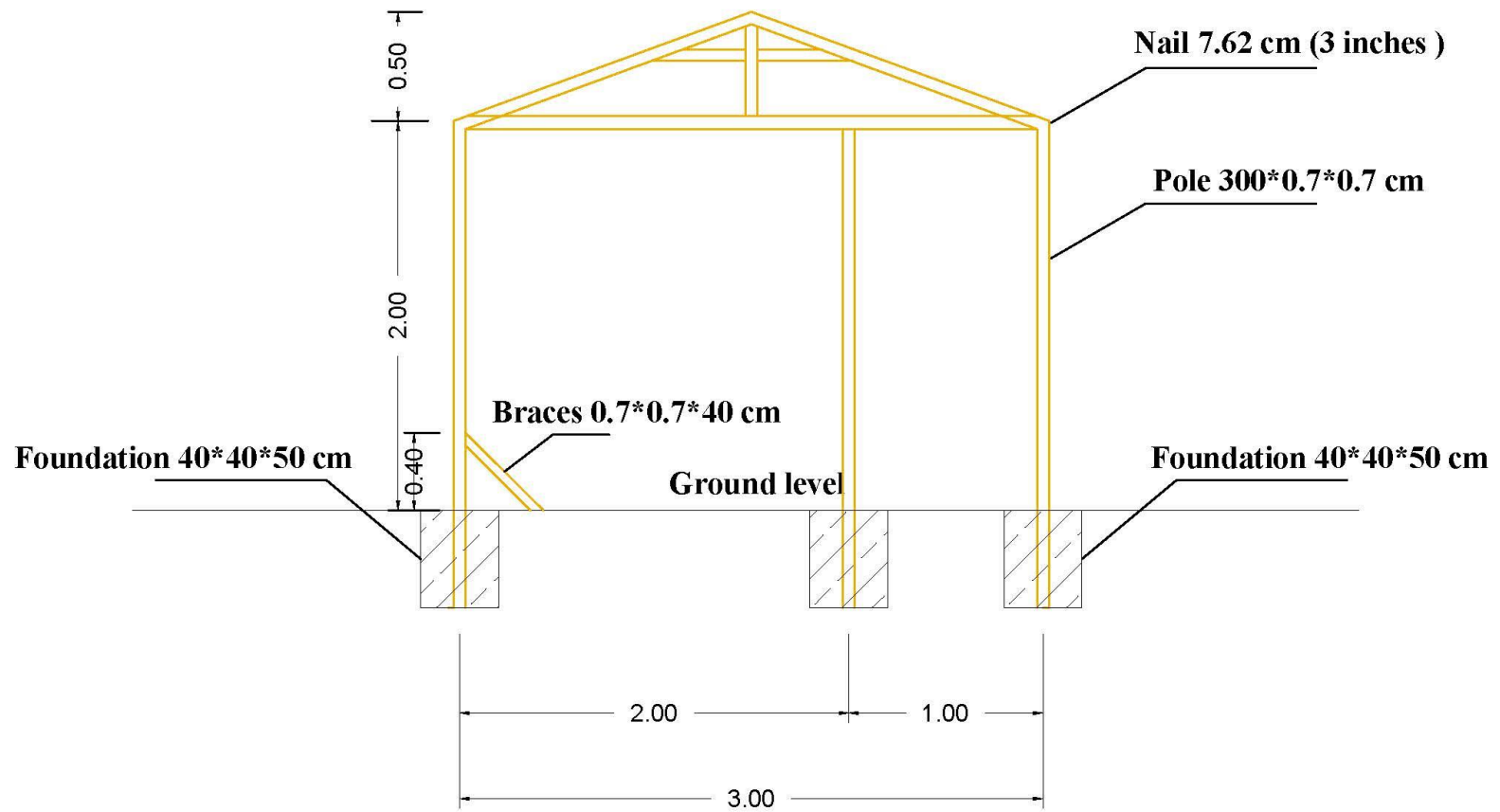
| . | Item Name     | Item Description  | Distribution protocol (per HH) | Unit price | Total cost | Picture of the item   |
|---|---------------|---|--------------------------------|------------|------------|---|
| 1 | Plastic sheet | PVC-650 2mm<br>56 m <sup>2</sup> fabric (4x4x2.5 for the sided length and 4x4 for the roof cover, all comes into one piece trailed in the shape of the shelter with its dimensions, the tailing is made specially for this type of the shelter  | 55 squ m                       | \$2.91     | \$160      |    |
|   | Insulation    | Insulation sheet for Roof and Walls: fire proof thermal insulation material double sided embossed aluminum foil XPE (Crosslinked Polyolefin Foam) foam for the walls and roofs of the emergency shelter with 8 mm thickness. One roll size is 20 m x 1 m (Length x width).  | 3 Rolls                        | \$ 15      | \$ 45      |    |
| 2 | Saw           | <b>Type:</b> Stanley type<br><b>Size:</b> 550 mm (±20mm) (22'') blade (hard pointy teeth in two different sides)<br><b>Materials:</b> steel Stanley type Blade thickness: 0.90 mm (±0.05mm)<br><b>Handle:</b> Plastic   | 1                              | \$3        | \$3        |  |
| 3 | Hammer        | <b>Head size:</b> steel head 5.5 inch (13.5cm) (±7 mm)<br><b>Head type:</b> metal head with finger groove (claw) to remove the nails. Mirror polished, fine polished.<br><b>Hammer weight</b> (incl. head and handle): 0.650kg (±0.05kg)<br><b>Materials:</b> carbon steel <b>Handle:</b> Double colour plastic coating fiber glass handle.<br><b>Handle length:</b> 33 cm (±3cm) | 1                              | \$3        | \$3        |  |
| 4 | Pickaxe       | <b>Head:</b> Iron head with two pointy edge <b>Size:</b> 48 cm (± 3cm) for digger iron head<br><b>Handle:</b> local wooden, straight, free of cracks and carries Handle Size: 60 cm or more. Type: flat / pick edge<br>The wooden handle thickness must be fit with the hole of the iron head   | 1                              | \$3        | \$3.0      |  |
| 5 | Sisal Rope    | <b>Length:</b> 30m (± 0.5m) <b>Type:</b> sisal – natural fiber<br><b>Thickness:</b> 10 mm (± 0.5 mm)  | 1                              | \$12       | \$12       |  |



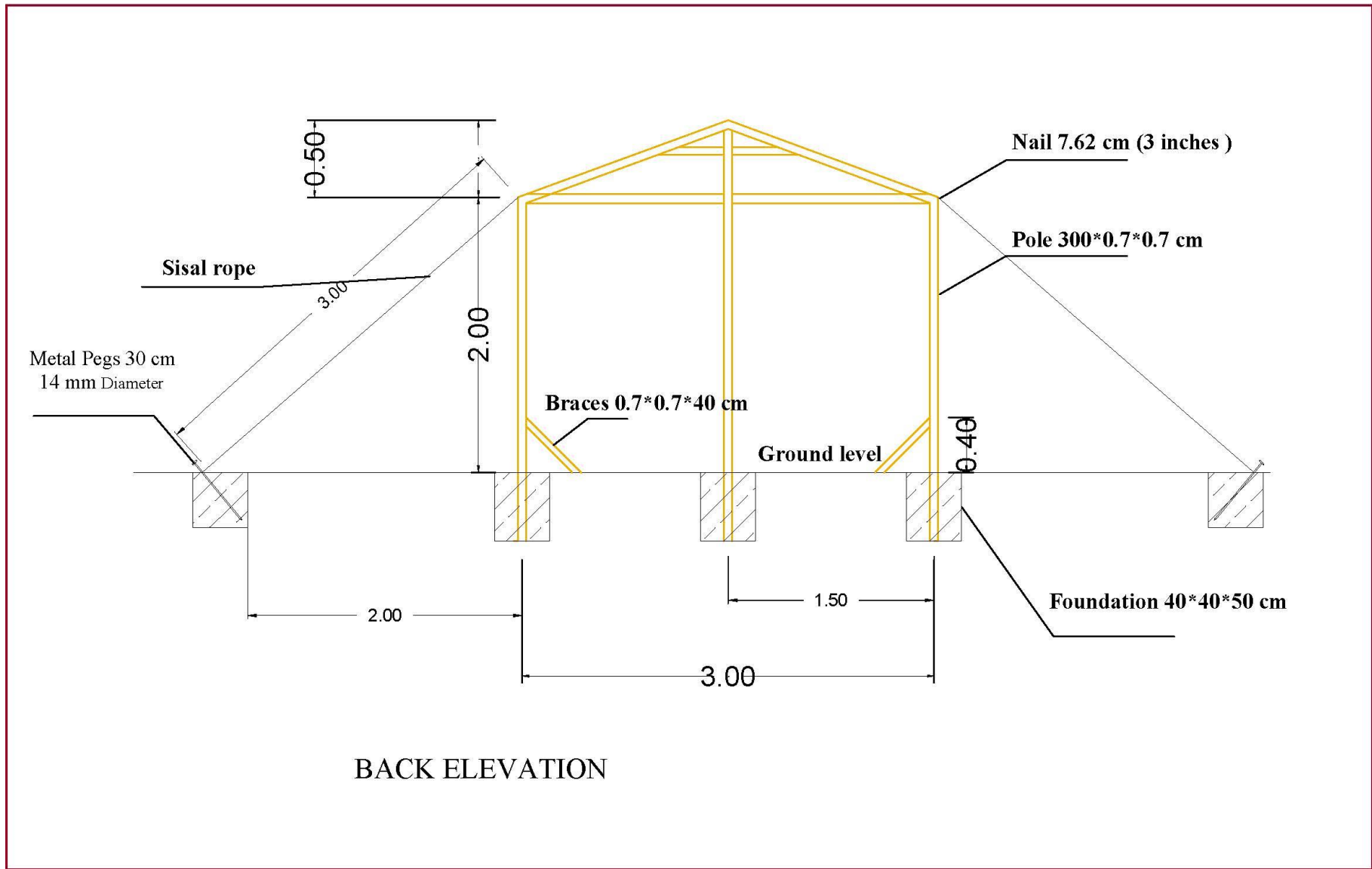
|    |                           |   |    |       |      |   |
|----|---------------------------|---|----|-------|------|---|
| 6  | Nylon Rope                | <b>Length:</b> 30m ( $\pm 0.5$ m)<br><b>Type:</b> nylon<br><b>Thickness:</b> 7 mm ( $\pm 0.3$ mm)   | 1  | \$2   | \$2  |    |
| 7  | Nails Box                 | <b>Nails Box:</b><br><b>Length:</b> (2.5 inches) or 60 MM ( $\pm 2$ .mm)<br><b>Diameter:</b> 2 mm<br><b>Box Weight:</b> 1 kg but the total count of nails in each box not less than 100 nails<br><b>Type:</b> Iron wires nails, galvanized with tapered head, | 1  | \$1   | \$1  |    |
|    | <b>Nails Box:</b>         | <b>Length:</b> (2 inches) or 48.6 MM ( $\pm 2$ mm)<br><b>Diameter:</b> 2 mm<br><b>Box Weight:</b> 1 kg but the total count of nails in each box not less than 100 nails<br><b>Type:</b> Iron wires nails, galvanized with tapered head,                       | 1  | 1     | 1    |    |
|    | <b>Galvanized Washer:</b> | <b>Diameter:</b> 0.75 inches (20mm)<br><b>Box weight:</b> 1kg , Steel galvanized Cylinder caps  | 1  | 1     | 1    |   |
| 8  | Wooden Plate              | <b>Dimensions:</b> 10x2.5x400 cm ( $\pm 3$ mm in width) ( $\pm 1$ mm in thickness) ( $\pm 3$ cm in length) Free of crack and caries <b>Color:</b> white or brown, dry with a moisture level between 9% to 14%   | 15 | \$3.0 | \$45 |  |
| 9  | Wooden Pole (Timber)      | <b>Dimensions:</b> 7x7x300 cm or more and ( $\pm 3$ cm in length only) Free of crack and caries<br><b>Color:</b> white or brown, dry with a moisture level between 9% to 14%.   | 10 | \$7.0 | \$70 |  |
| 10 | Metal Pegs                | Iron bar<br><b>Length:</b> 30 cm ( $\pm 3$ cm) <b>Diameter:</b> $\phi$ 14 mm ( $\pm 1$ mm) <b>Type:</b> Iron bar with circular head and tapered or pointed edge   | 10 | \$2.0 | \$20 |  |
| 11 | Utility Knife             | <b>Size :</b> 100x18x0.5 mm (length x width x thickness) ( $\pm 0.06$ mm in thickness)<br><b>Type:</b> steel series good quality <b>Handle:</b> plastic   | 1  | \$1.0 | \$1  |  |

|                              |                            |   |    |                      |              |   |
|------------------------------|----------------------------|---|----|----------------------|--------------|---|
|                              | Galvanizes<br>Iron slices: | Dimensions: 400mm * 50mm<br>Thickness: 1 mm<br>Made of high-density galvanized iron           | 15 | .5                   | 8            |  |
| <b>12</b>                    | Sandbags                   | Two layers of -Woven polypropylene resists punctures and tears Sandbags. <b>Size: 60x30cm</b> | 56 | \$0.5                | \$28         |  |
| <b>13</b>                    | Mosquito net (optional)    | Piece of Mosquito net at the top opening of the door (Size 1mx0.15m)                          | 1  | In-kind contribution | -            |  |
| <b>Total Cost of the kit</b> |                            |   |    |                      | <b>\$403</b> |   |








FRONT ELEVATION



## Annex II. Tents<sup>2</sup>

| Parts                    | Type 1  | Type 2  | Type 3  |
|--------------------------|---|---|---|
| <b>Dimensions</b>        | Dimensions Length:4m; Width: 4m; Height: 2.80m<br>4 Walls 1.75m Doors 4<br>Height:1.75 m; Width: 1.15 m<br>Windows 4 Height: 0.40 m;<br>Width: 0.25 m | Dimensions Length:4m; Width: 4m; Height: 2.80m<br>4 Walls 1.75m Doors 4 Height:1.75 m; Width: 1.15 m<br>Windows 4 Height: 0.40 m; Width: 0.25 m | Dimensions Length:4m; Width: 4m; Height: 2.80m<br>4 Walls 1.75m Doors 4 Height:1.75 m; Width: 1.15 m<br>Windows 4 Height: 0.40 m; Width: 0.25 m |
| <b>Outer</b>             | Cotton canvas (Grade-1), 624gm/m <sup>2</sup> for roof and walls, water proof and rot proof ( anti fungus) treated                                    | Cotton canvas (Grade-2) 680gm/m <sup>2</sup> for roof and 567gm/m <sup>2</sup> for walls, water proof.  | Outer Fabric Grey Cotton Canvas 600 gm/m <sup>2</sup> , made of water, heat and sunrays-resistant cotton cloth.                                 |
| <b>Middle</b>            | PP spunbonded non-woven black sheeting of weight 150g/m <sup>2</sup> , UV-Treated.  | PP spunbonded non-woven black sheeting of weight 150g/m <sup>2</sup> , UV-Treated.  | Made of black, sun blocking-lining 160 gm/m <sup>2</sup> thickness.   |
| <b>Inner</b>             | Cotton fabric of weight 170 g/m <sup>2</sup> , plain for cap and printed for walls.   | Cotton fabric of weight 140g/m <sup>2</sup> , plain for cap and printed for walls.  | Made from lining cloth with traditional trees design. Fabric. Dyed/Printed Fabric 160 gm/m <sup>2</sup>   |
| <b>Wall</b>              | Outer wall skirting by heavy duty HPDE fabric, 4 walls, 1.75m height,270g/m <sup>2</sup> , PVC coated mesh for windows.                               | Outer wall skirting by heavy duty HPDE fabric, 4 walls, 1.75m height, 270g/m <sup>2</sup> , PVC coated mesh for windows                         | Outer wall skirting by heavy fabric, 4 walls, 1.75m height,776g/m <sup>2</sup> , with coated mesh for windows                                   |
| <b>Steel wall pipes</b>  | 12 Iron Sticks 25mm(diameter) and 1.5mm(thickness).   | 12 Iron Sticks Steel wall pipes 25mm(diameter) and 1.0mm(thickness).  | 12 Iron Sticks, 25mm(diameter) and 1.5mm (thickness)  |
| <b>Steel stand poles</b> | Steel stand poles and ridge poles of 57mm(diameter) and 1.5mm(thickness).   | Steel stand poles and ridge poles of 57mm(diameter) and 1.0mm(thickness).   | One pole, 63.5 mm (diameter) and 1.4mm (thickness).   |
| <b>Ropes</b>             | Ropes 12 Pieces 14 mm<br>Premium quality cotton ropes are used for tobak and tie the tent all around.   | Ropes 12 Pieces 14 mm<br>Good quality cotton ropes are used for tobak and tie the tent all around.  | Ropes 12 Pieces 14 mm<br>Good quality cotton ropes are used for tobak and tie the tent all around.  |

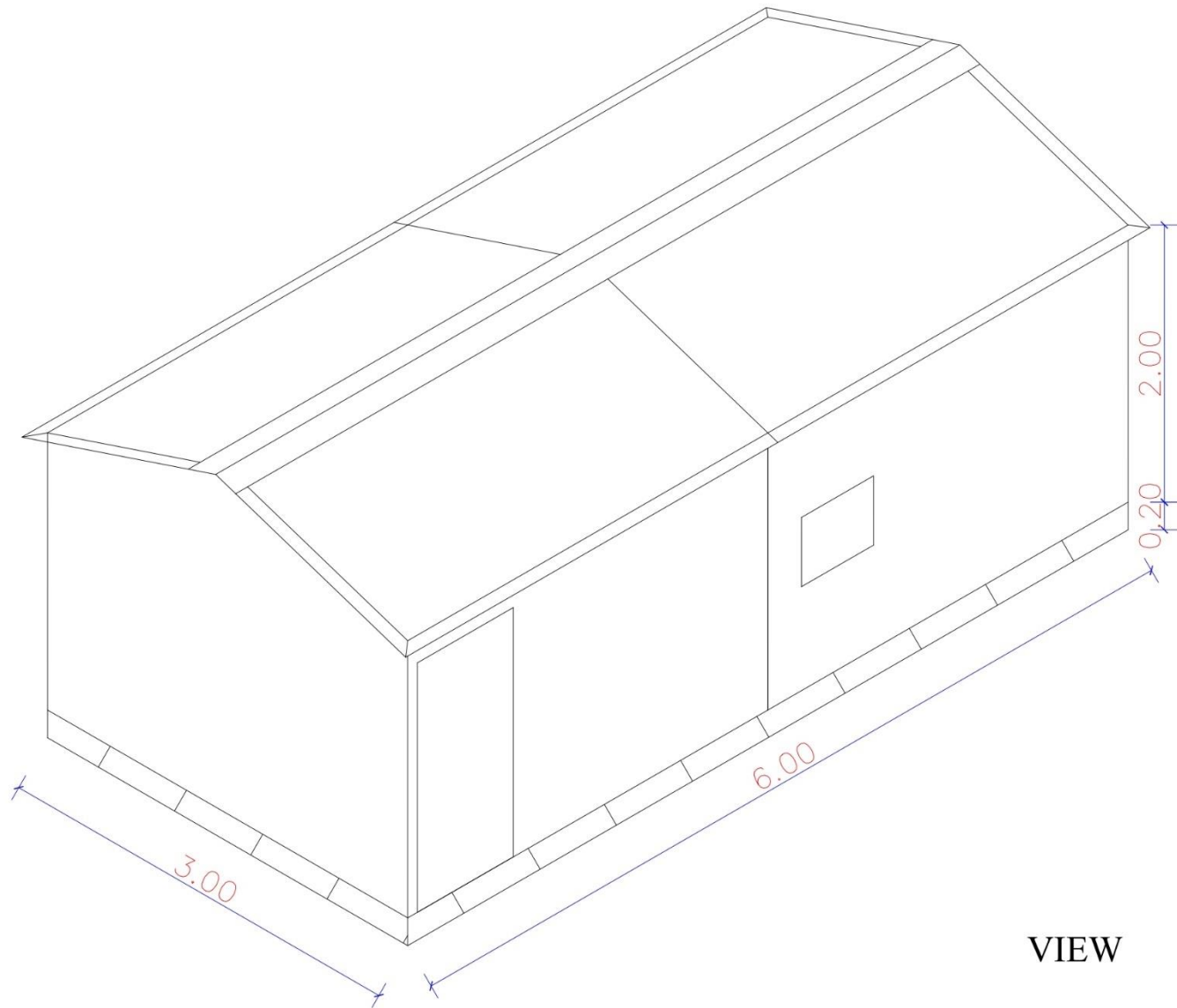
<sup>2</sup> Tents type is not limited to the type mentioned above other type with similar quality and specification are acceptable

| Parts                   | Type 1   | Type 2   | Type 3   |
|-------------------------|--|--|--|
| <b>Metal Pegs</b>       | 12 Iron bar<br><b>Length:</b> 40 cm ( $\pm$ 3 cm)<br><b>Diameter:</b> $\phi$ 16 mm ( $\pm$ 1 mm)<br><b>Type:</b> Iron bar with circular head and tapered or pointed edge | 12 Iron bar<br><b>Length:</b> 40 cm ( $\pm$ 3 cm) <b>Diameter:</b> $\phi$ 16 mm ( $\pm$ 1 mm) <b>Type:</b> Iron bar with circular head and tapered or pointed edge | 12 Iron bar<br><b>Length:</b> 40 cm ( $\pm$ 3 cm) <b>Diameter:</b> $\phi$ 16 mm ( $\pm$ 1 mm) <b>Type:</b> Iron bar with circular head and tapered or pointed edge |
| <b>Packing Material</b> | Export Packing - Packed in PE  | Export Packing - Packed in PE  | Inner: Canvas bag, 300GSM<br>Outer: PE Lamination, 250GSM  |
| <b>Price</b>            | 694 \$ (For One)   | 581 \$ (For One)   | 1 - 1000 (510 \$)<br>1000 - 2000 (475 \$)<br>2000 - 3000 (450 \$)  |
| <b>Pics</b>             |   |    |   |

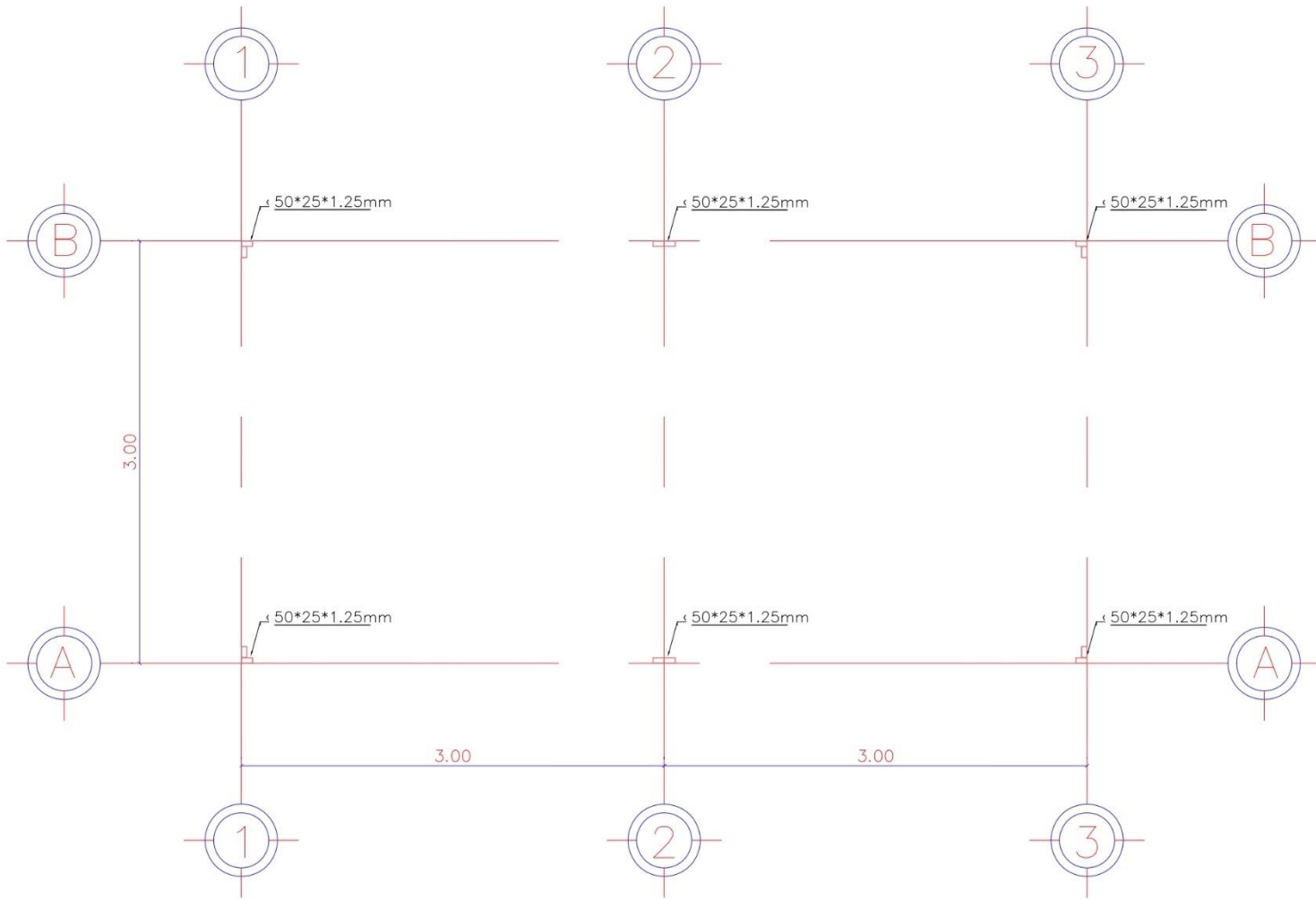
| BoQs for T- Shelter (3x6) m |  |      |          |               |                |       |
|-----------------------------|--|------|----------|---------------|----------------|-------|
| No                          | Item Description   | Unit | Quantity | Unit Price \$ | Total Price \$ | Notes |
| 1                           | <b>Supply and installation of a steel room with dimensions of 3 x 6 m</b><br>Supply and installation of a steel room with dimensions of 3 x 6 m to be installed on the site according to the plan and instructions of the supervising engineer, containing the following works:  |      |          |               |                |       |
| 2                           | <b>Construction work for the room's perimeter:</b>   |      |          |               |                |       |
|                             | Supply and construction of the external walls of the buildings of hollow block cement 20 x 20 x 40 cm, the hollowed out automatically (pressure). High (for a height of 20 cm), the construction will be carried out using a cement mortar (3:1), and the construction should be regular and level (building with screeds and scales), and the thickness of the mortar should not be less than (2 cm) according to the dimensions that specified in the drawings and in accordance with the specifications and instructions of the supervising engineer.<br>The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer. | M2   | 3.6      | 24            | 86.4           |       |
| 3                           | <b>Steel Works:</b><br>Supplying and installing a steel container with dimensions of 3 x 6 m and a height of 2.5 all the details as shown in the attached drawings. The room contains the following items:   |      |          |               |                |       |
|                             | Double hollow steel section columns, with a cross section of 50 * 25 mm and a thickness of 1.25 mm. The connection between them is made with an iron compass from the bottom and top, and the columns are installed on the wall built below.<br>The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer.   | PCs  | 7        | 22            | 154            |       |
|                             | Hollow steel section beams with a cross section of 50 * 25 mm and a thickness of 1.25 mm that are well welded on the columns, as well as the work of the gear for the surface of the room with the sectors and dimensions shown in the attached drawings. The beams are made above the slopes in double and in the same way as the bonding of the columns, and the surface inclinations shown in the attached drawings are adjusted.<br>The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer.   | PCs  | 20       | 18            | 360            |       |
|                             | Cutouts for walls and roofs are made of simplified soft iron, 6 mm diameter and length of 6 m , with distances not exceeding 30 cm. They are fixed by good empty welding as shown in the attached drawings and the price includes the stainless-steel primer pain and the work of  | PCs  | 17       | 3             | 51             |       |



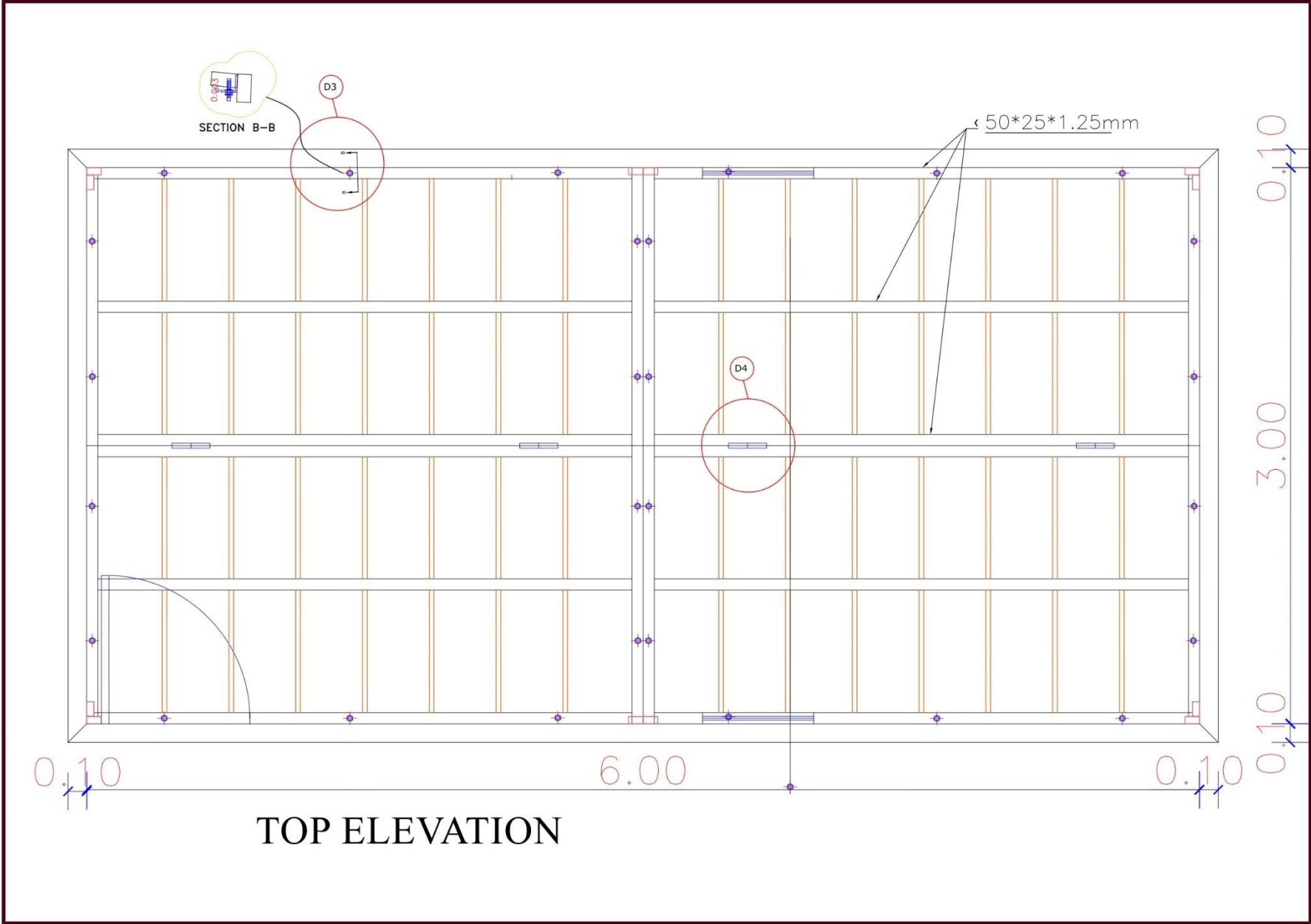
|   |      |    |                    |     |  |
|---|------|----|--------------------|-----|--|
| everything necessary to finish the item to the fullest extent according to the specifications and instructions of the supervising engineer.   |      |    |                    |     |  |
| <b>Door works:</b> Supply and installation of a single door made of wood, made of boards of wood thickness of 9 mm and dimensions of 1.8 * 0.8 m, and that it be installed on a frame of wooden boards, thickness of 9 mm and width of 7 cm, and wood rings of thickness 2 H and width of 5 cm and supplying 3 hinges of 15 cm with Hyands and closed. Also, with good fixation on the iron structure using screws with paint in the desired color.<br>The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer. | PCs  | 1  | 60                 | 60  |  |
| <b>Window works:</b> Supply and installation of two windows of 9 mm thickness, and dimensions of 0.6 * 0.5 m, and to be installed on a frame of wooden panels 9 mm thick and 7 cm wide, and a wood ring of thickness 2 H and 5 cm wide, and supplying 3 hinges of 10 cm With hydrangeas and closed. Also, with good fixation on the iron structure using screws and servicing with paint in the desired color. The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer.   | PCs  | 2  | 15                 | 30  |  |
| Installing a thermal insulator with length of 20 m for the surface and walls of the room, with a thickness of 8 mm and sufficient to isolate the heat of the sun. The sample must be provided for approval by the supervising engineer.<br>The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer.   | Roll | 3  | 25                 | 75  |  |
| Installing Corrugated Sheet length of 6 m and wide 1 m for the walls and surface of the room, with a thickness of 0.21 mm, and it is well fixed with screws at each bend on the downward side on the zinc board surface ,the screw shall be of the type with a cap surrounded by a piece of plastic and it is well kept and in a technical way according to the drawings and the instructions of the supervising engineer. The price includes everything necessary to complete the work according to the drawings, specifications and instructions of the supervising engineer.                             | PCs  | 11 | 25                 | 275 |  |
| <b>The price includes the stainless-steel primer paint for the entire room structure and the work of everything necessary to finish the item to the fullest extent according to the specifications, work principles and instructions of the supervising engineer.</b>   |      |    |                    |     |  |
| <b>Total Amount</b>   |      |    | <b>1,091.40 \$</b> |     |  |

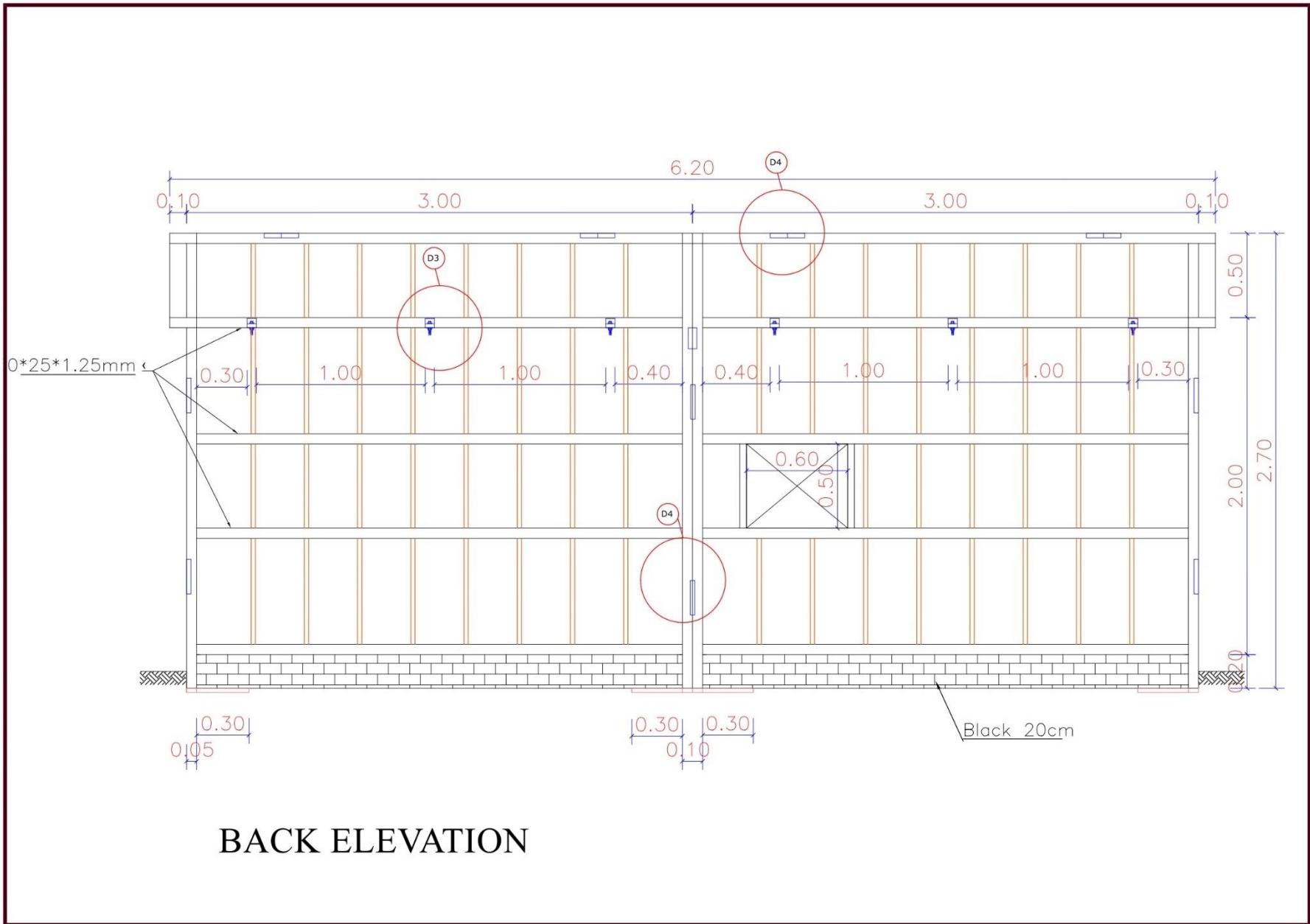


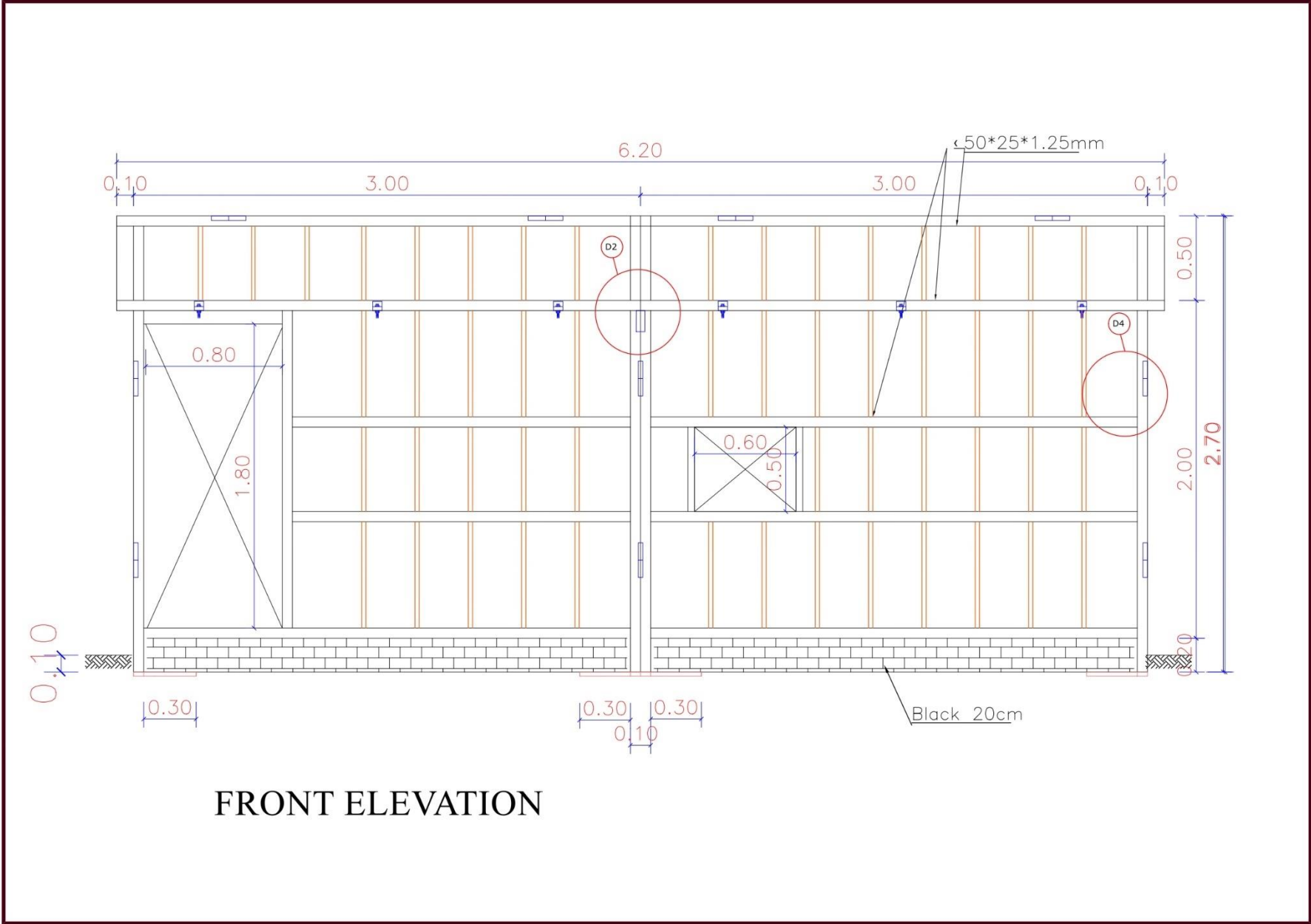
VIEW



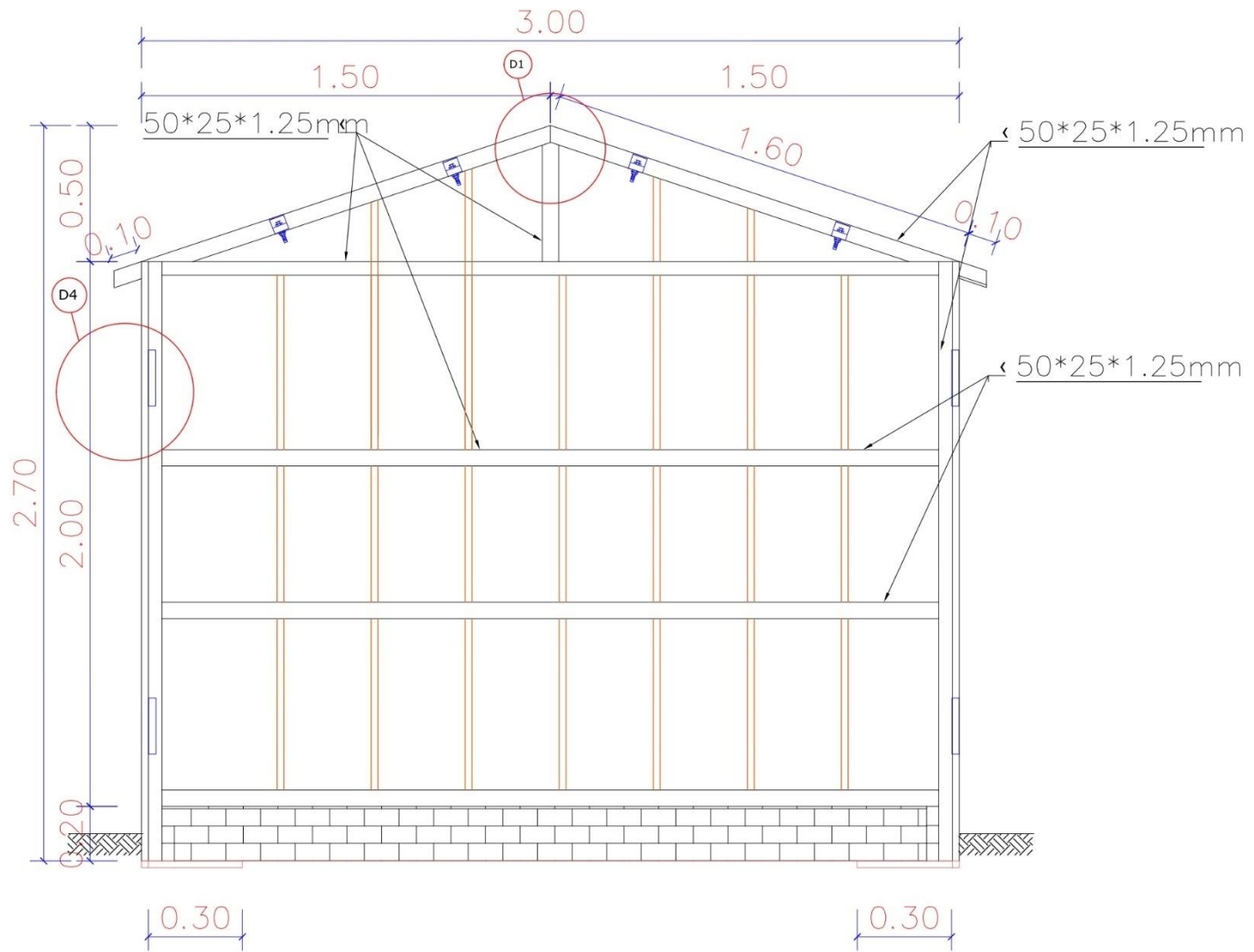
Axes plan



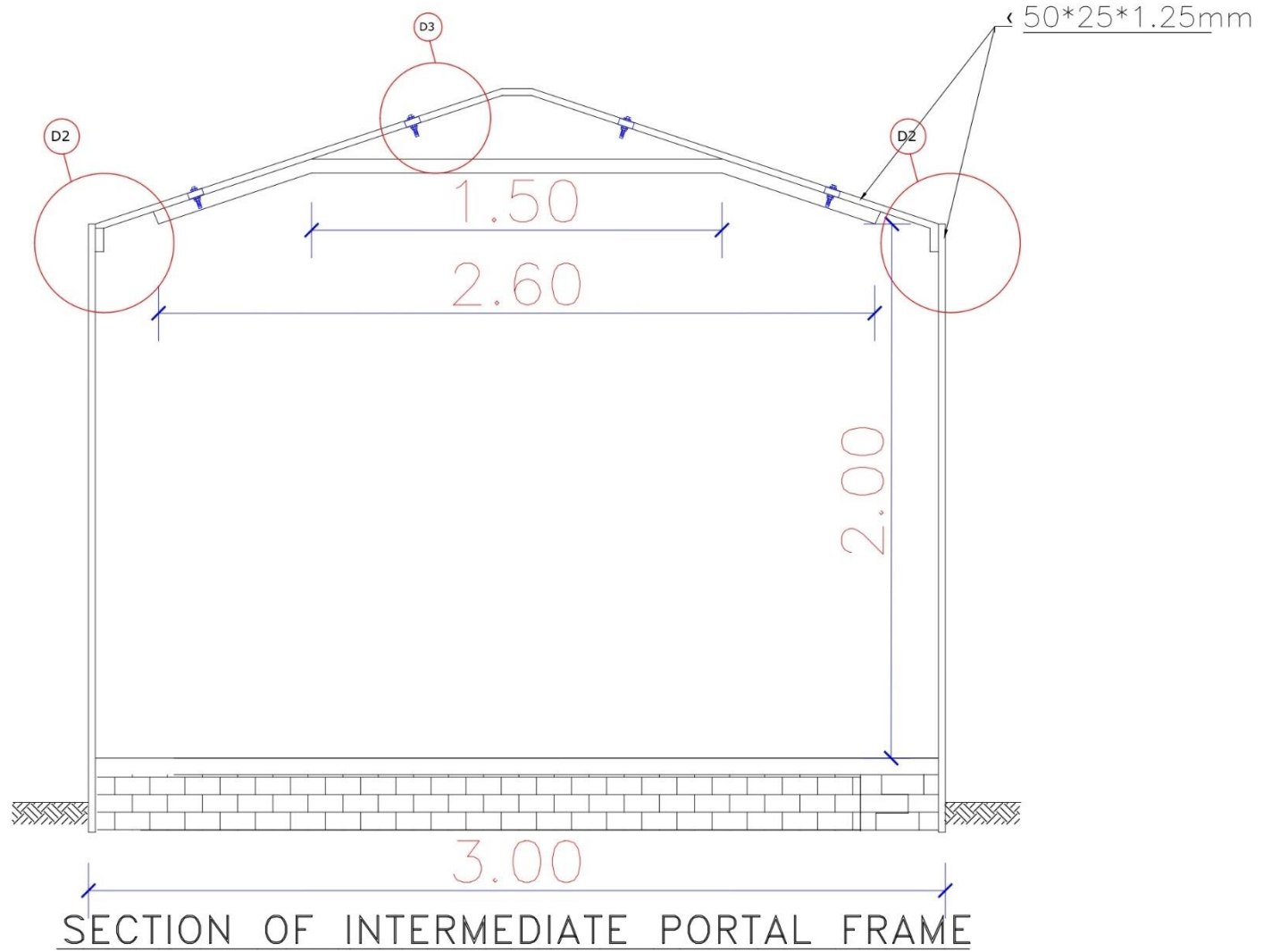




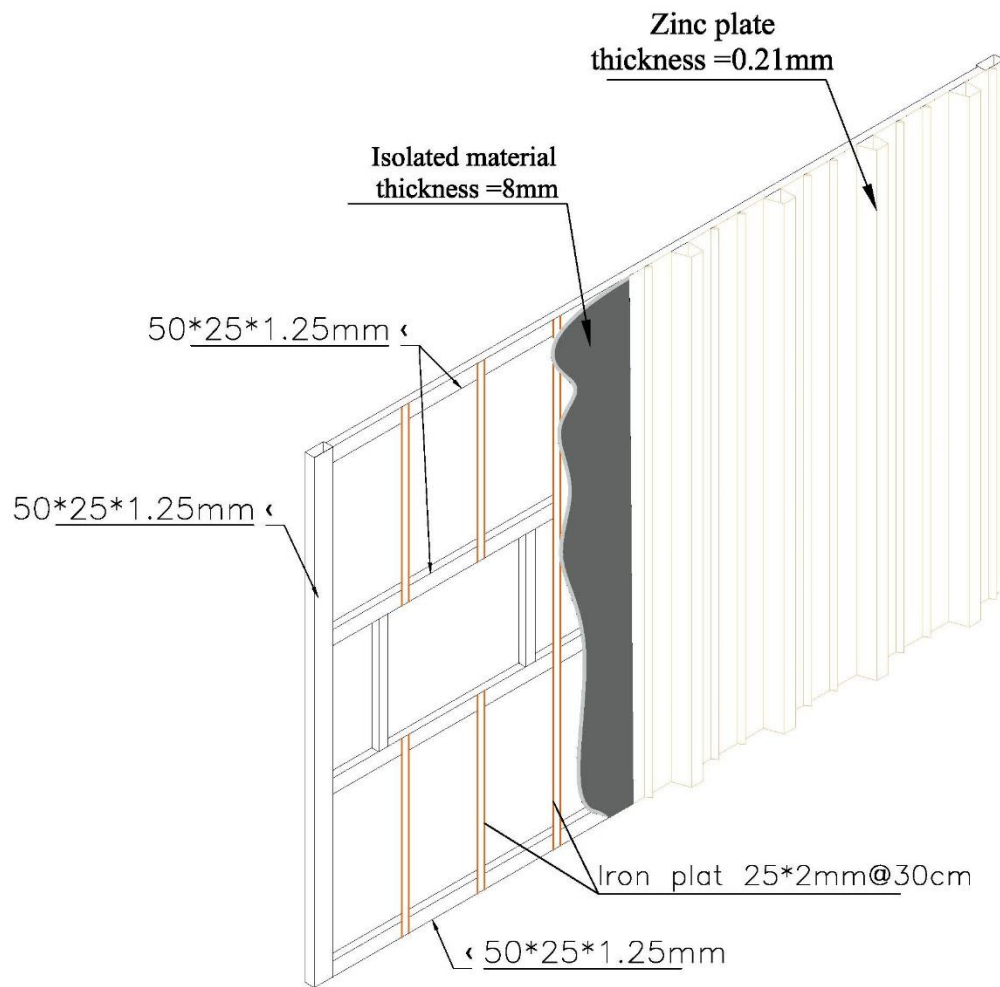
FRONT ELEVATION



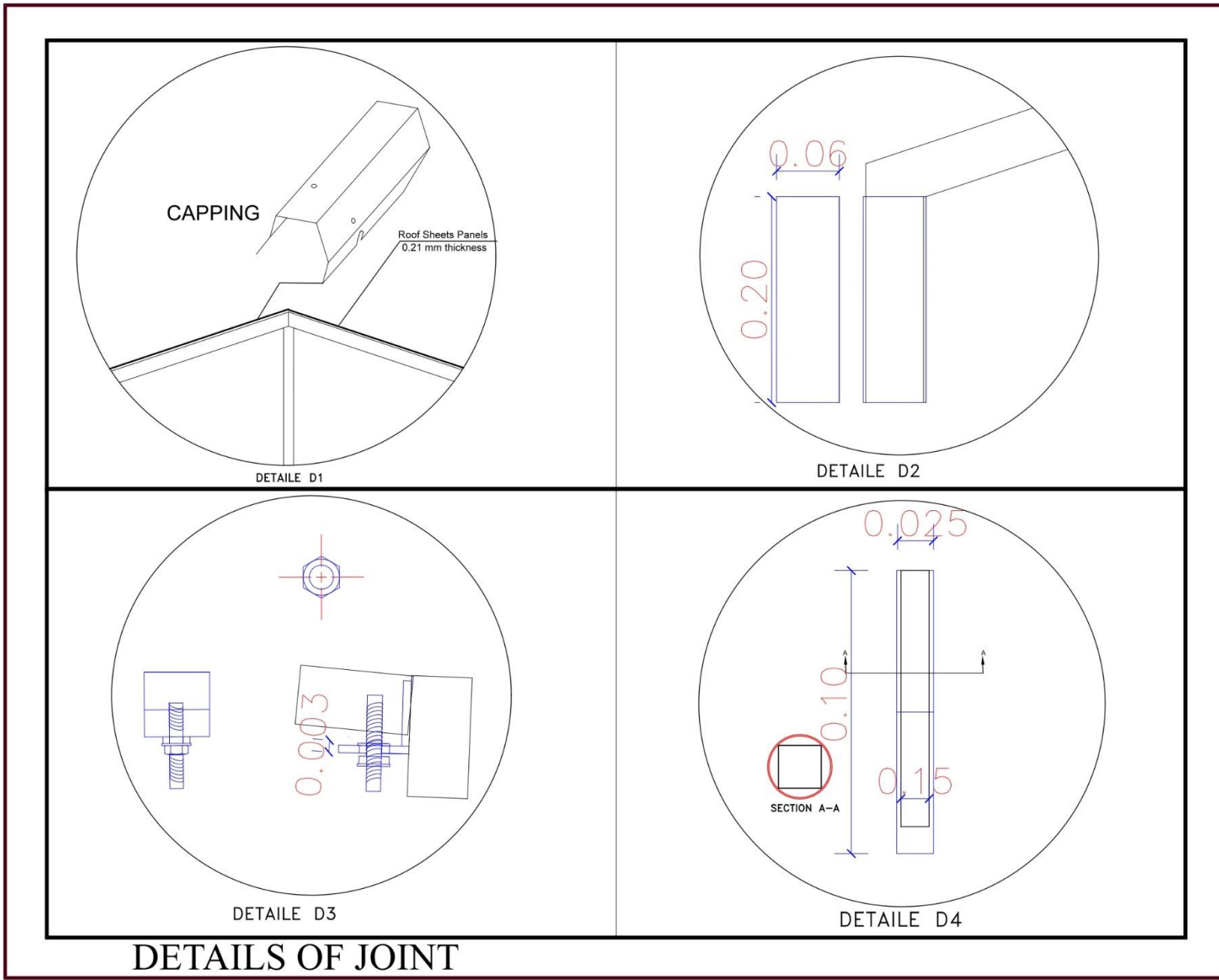
**SIDE ELEVATION**










## DETAILS

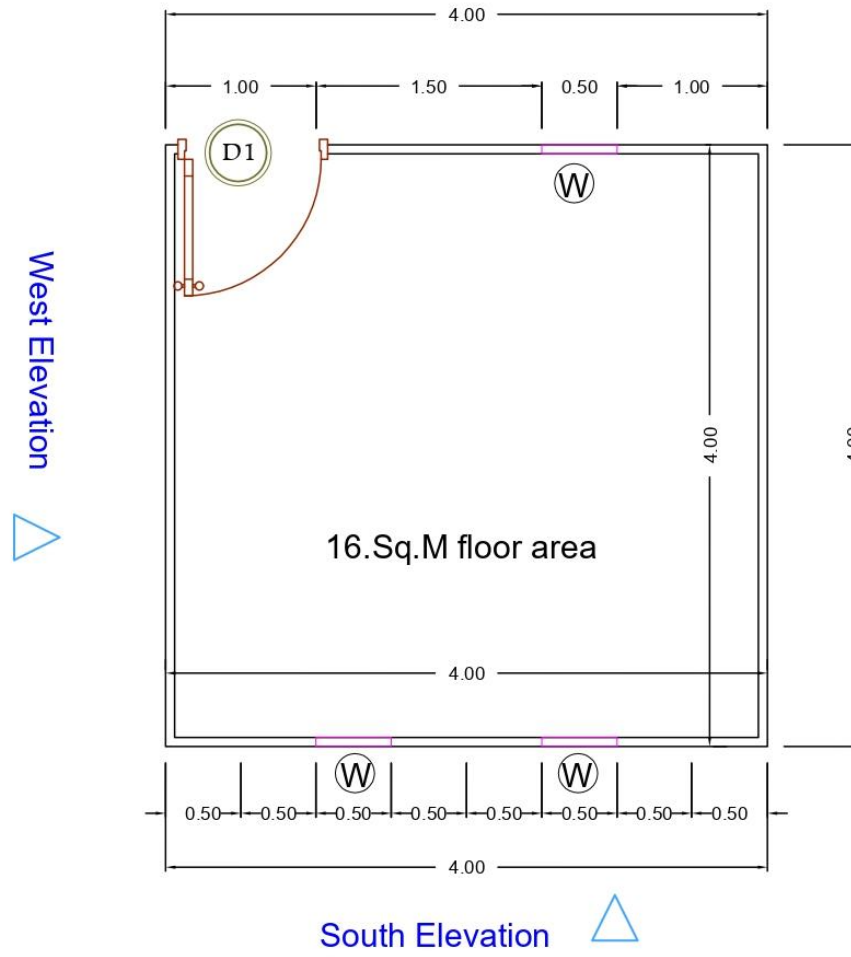


## Annex IV. Locally made emergency shelter Iron Nets

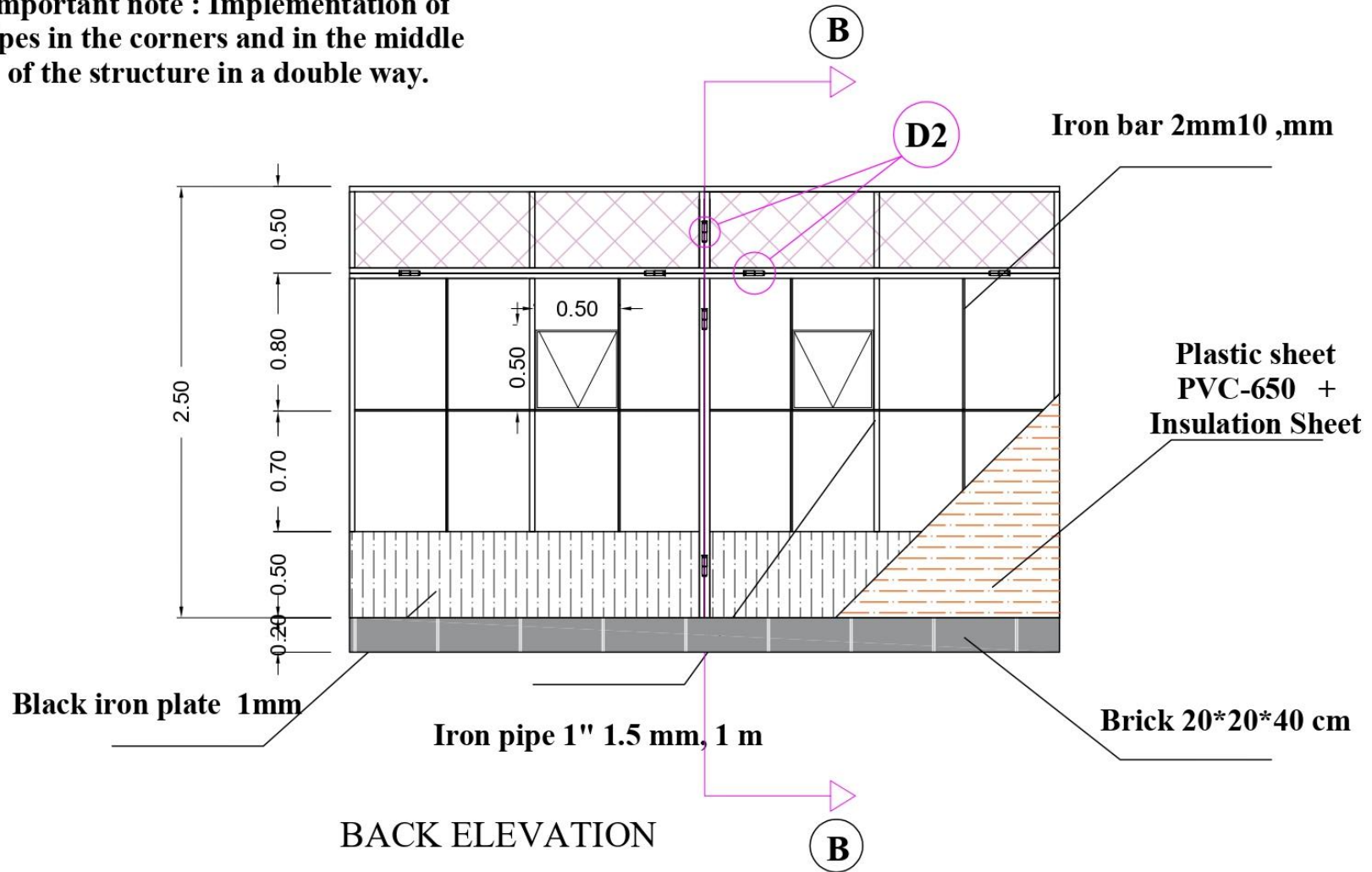
| No | Item Description   | Quantity | Unit price | Total cost | Picture of the item   |
|----|--|----------|------------|------------|---|
| 1  | Plastic sheet PVC-650 2mm<br>56 m2 fabric (4x4x2.5 for the sided length and 4x4 for the roof cover, all comes into one piece trailed in the shape of the shelter with its dimensions, the tailing is made specially for this type of the shelter   | 56 m sq  | 2.91 \$    | 163 \$     |    |
| 2  | Insulation sheet for Roof and Walls:<br>fire proof thermal insulation material double sided embossed aluminum foil XPE (Crosslinked Polyolefin Foam) foam for the walls and roofs of the emergency shelter with 8 mm thickness. One roll size is 20 m x 1 m (Length x width).  | 3        | 15 \$      | 45 \$      |    |
| 3  | Supply and install iron net 4m*4m and the cost include <ul style="list-style-type: none"> <li>Saudi Iron pipe 1-inch diameter with 1.5 mm thickness for the structure of iron net according to attached drawing details</li> <li>Iron plate with 1 mm thickness and 50 cm according to the attached drawing</li> <li>Iron net Saudi with 5*5 cm according to the attached drawing</li> <li>Iron bar 2 mm * 10 mm according to attached drawing details</li> <li>Wooden door 1.8m*1m with 16 mm thickness with all accessories.</li> <li>Electrical wiring inside PVs pipe with one socket, switch and LED lamp 20 Watt with 13 A 2 pole Circuit Breaker</li> </ul> | 1        | 384 \$     | 384 \$     |   |
| 4  | Wooden Plate<br>Dimensions: 1x2x400 CM<br>Color: white or brown, dry with a moisture level between 9% to 14%   | 15       | 3.560      | 54 \$      |   |
| 5  | Heavy Duty Nylon Cable Tie Wire Zip Ties Self Locking Tie Wraps Cable Management Kit 100 pcs 12-inch 400mmX4.6mm   | 1        | 2          | 2 \$       |  |
| 6  | Supply and install 40 Automatic black 40*20*20 cm and according to the attached drawing  | 40       | 0.7 \$     | 28 \$      |   |
|    |  |          |            | 673 \$     |   |

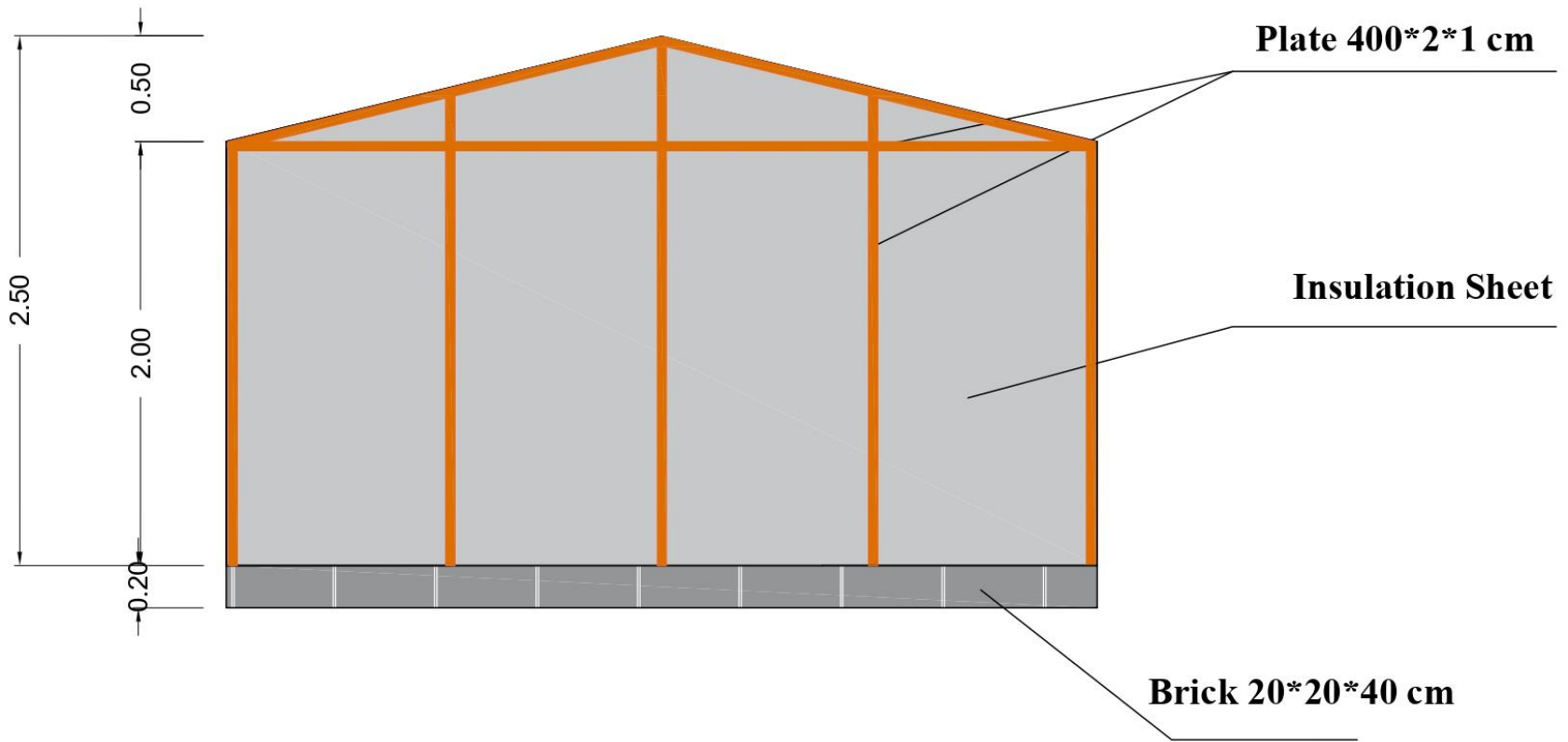
Door Table

| Blank | Specification     | High | Width | No | Code |
|-------|-------------------|------|-------|----|------|
| ---   | Wooden Door 16 mm | 180  | 100   | 1  | D1   |

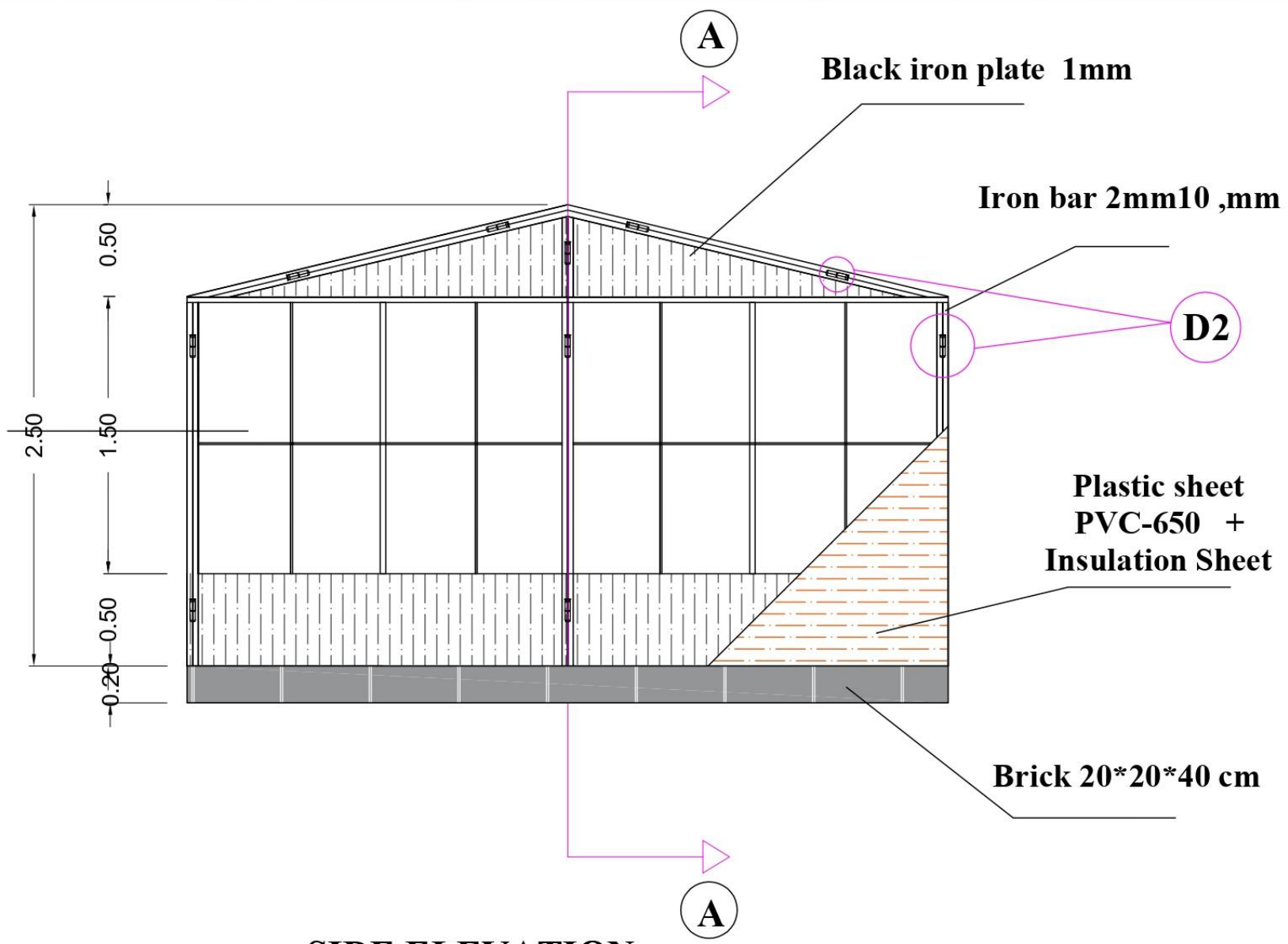


**Important note : Implementation of pipes in the corners and in the middle of the structure in a double way.**

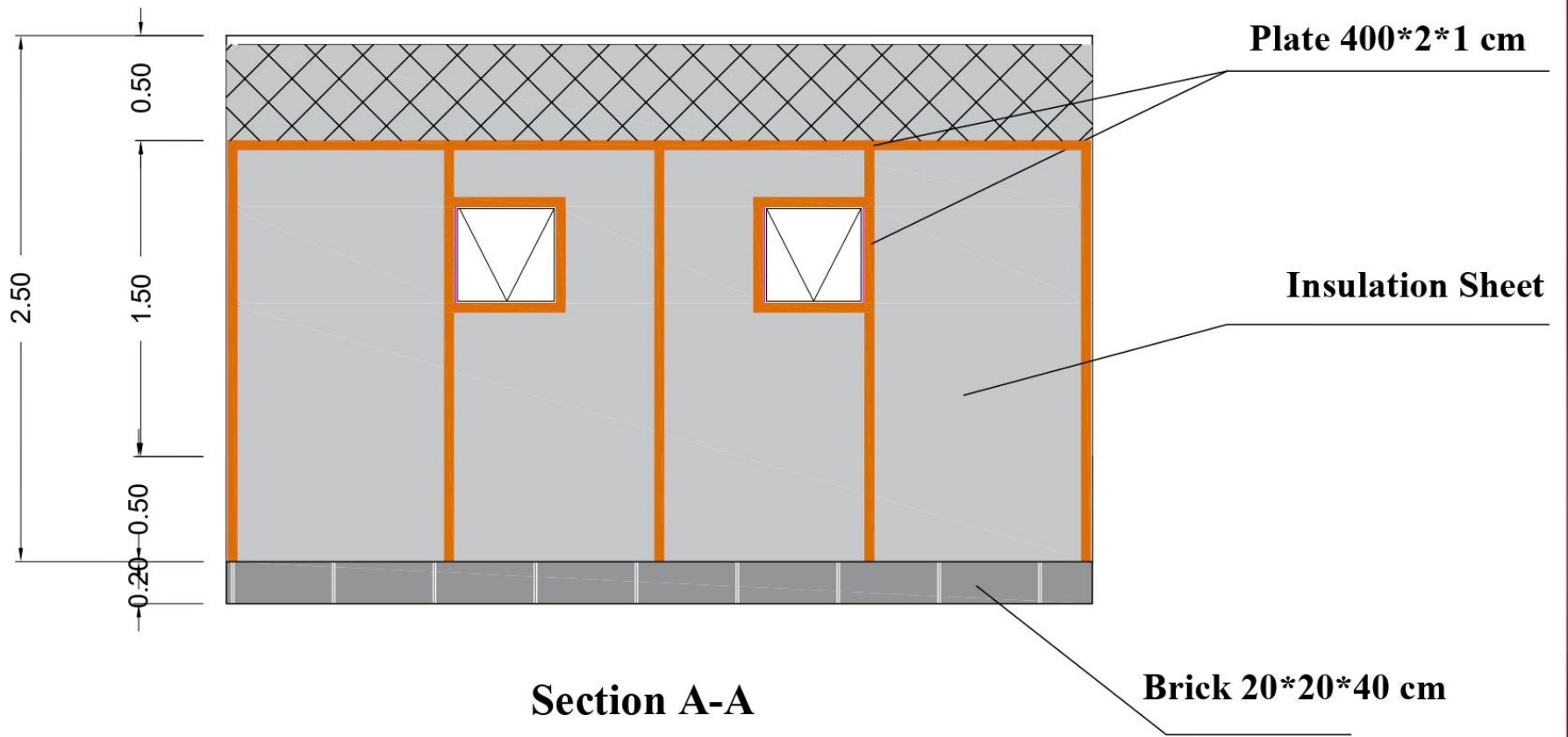




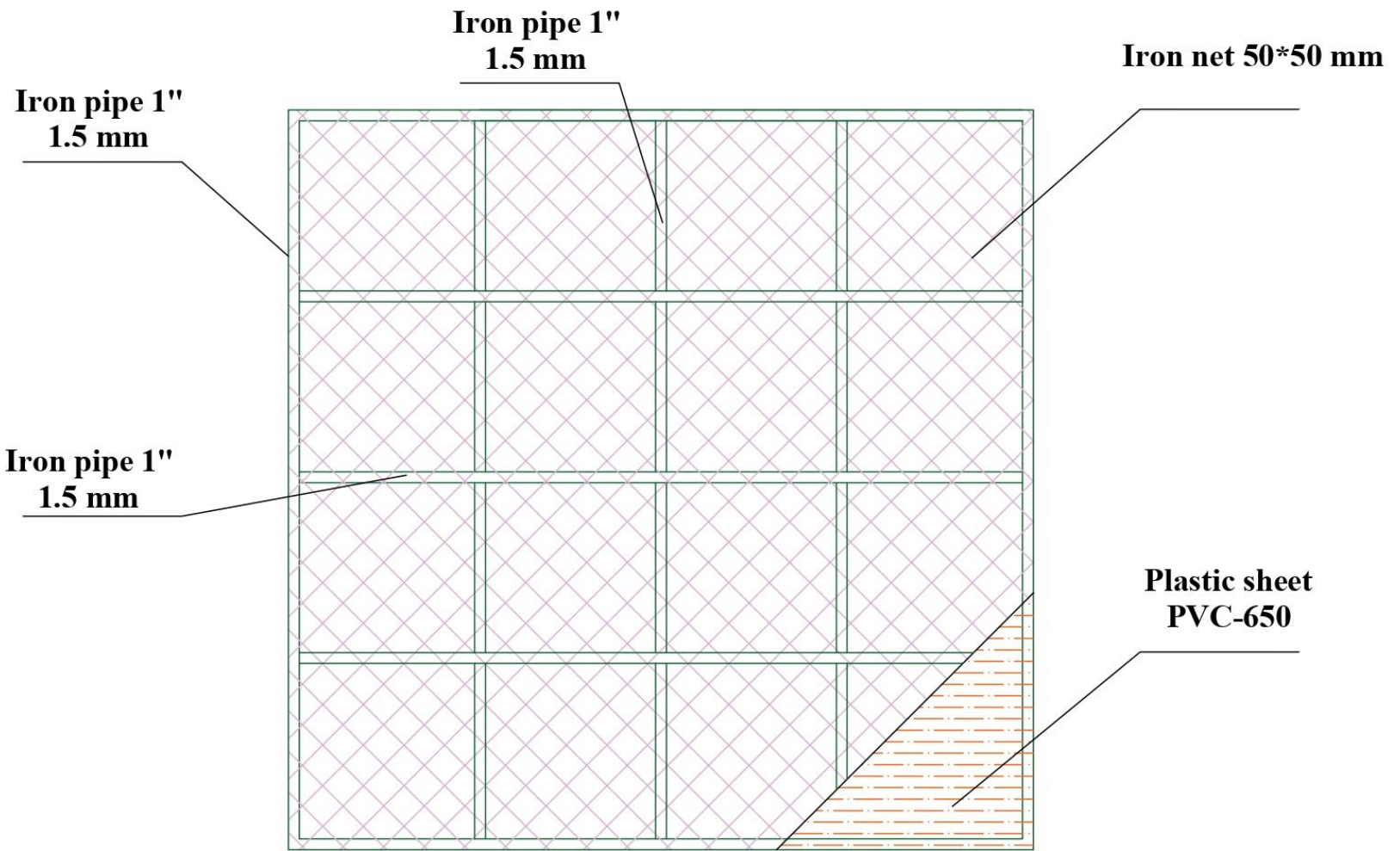
**Section B-B**



**SIDE ELEVATION**







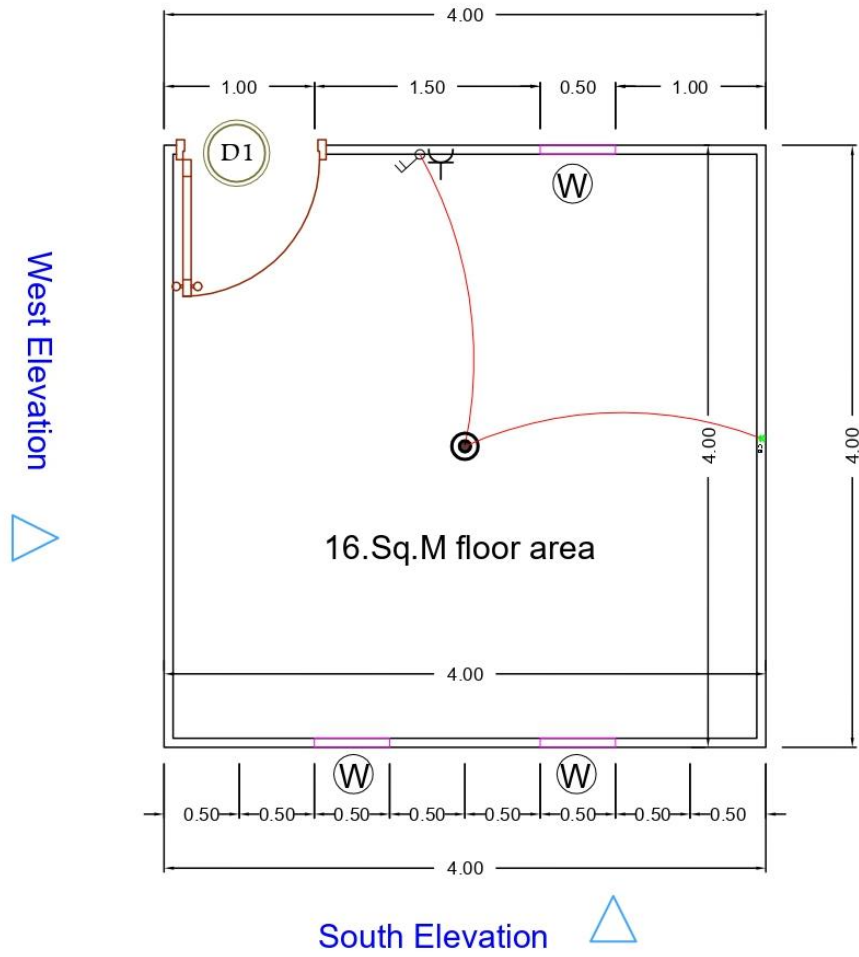


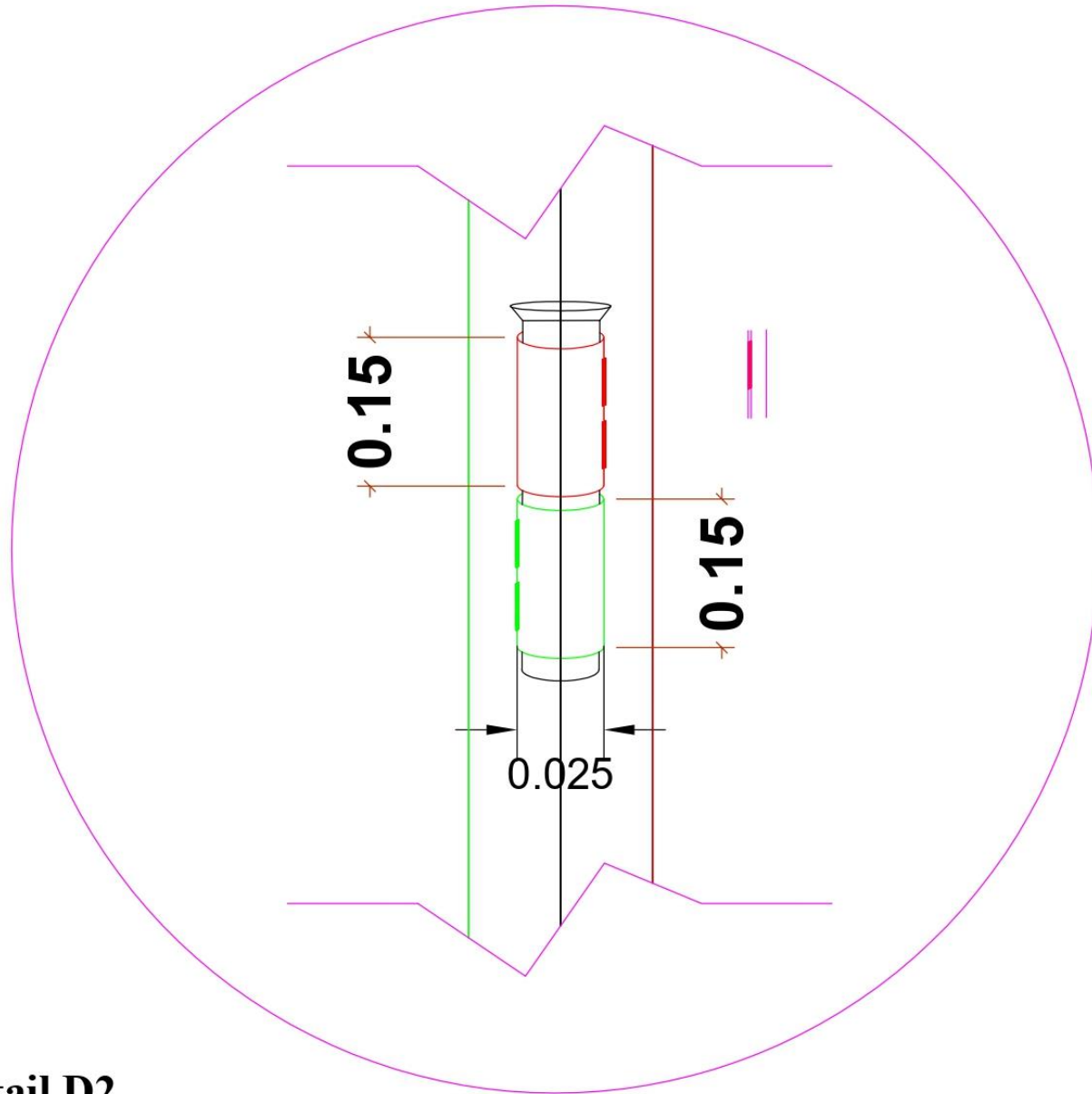


TOP ELEVATION

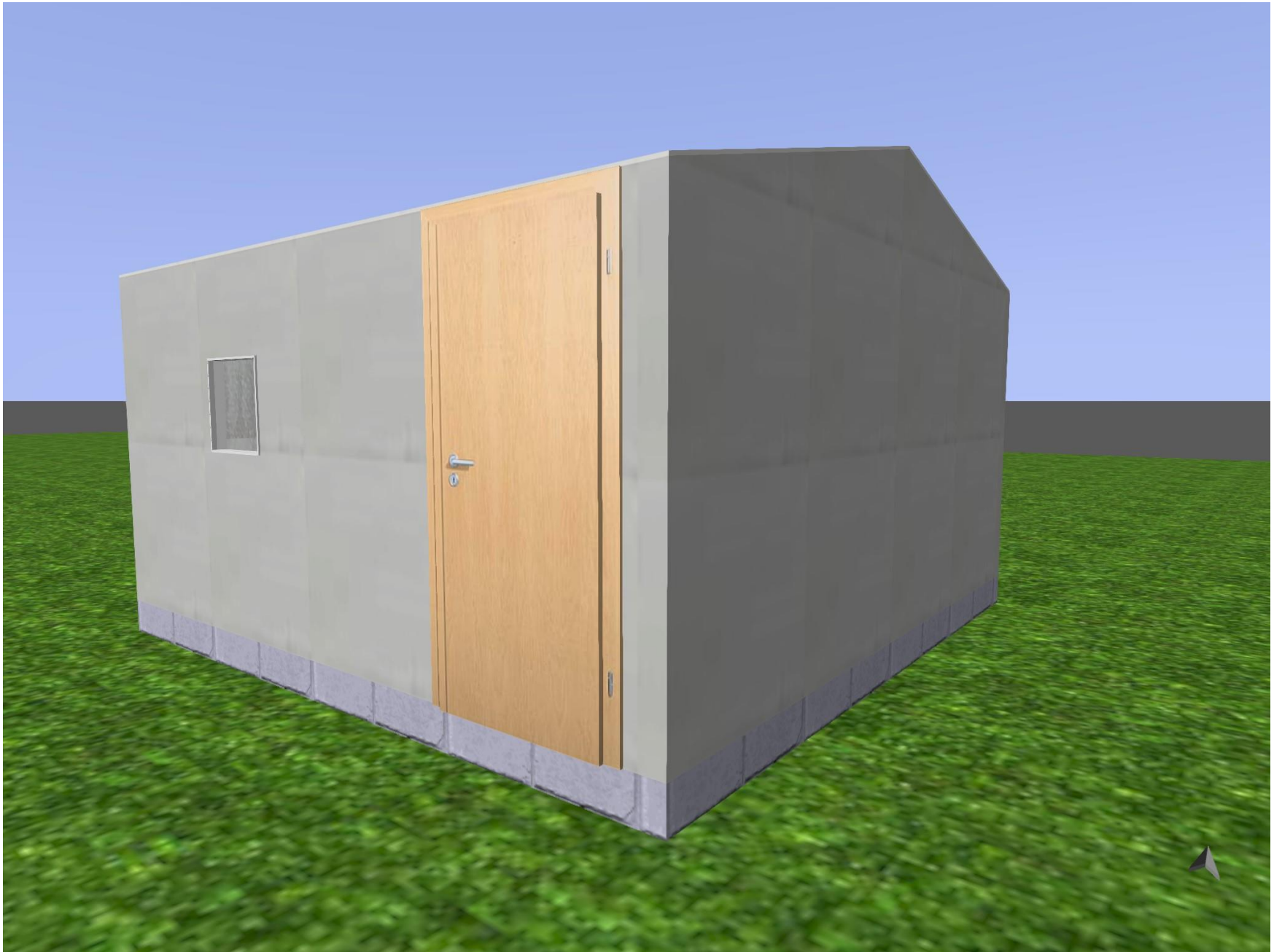
### Electrical Table

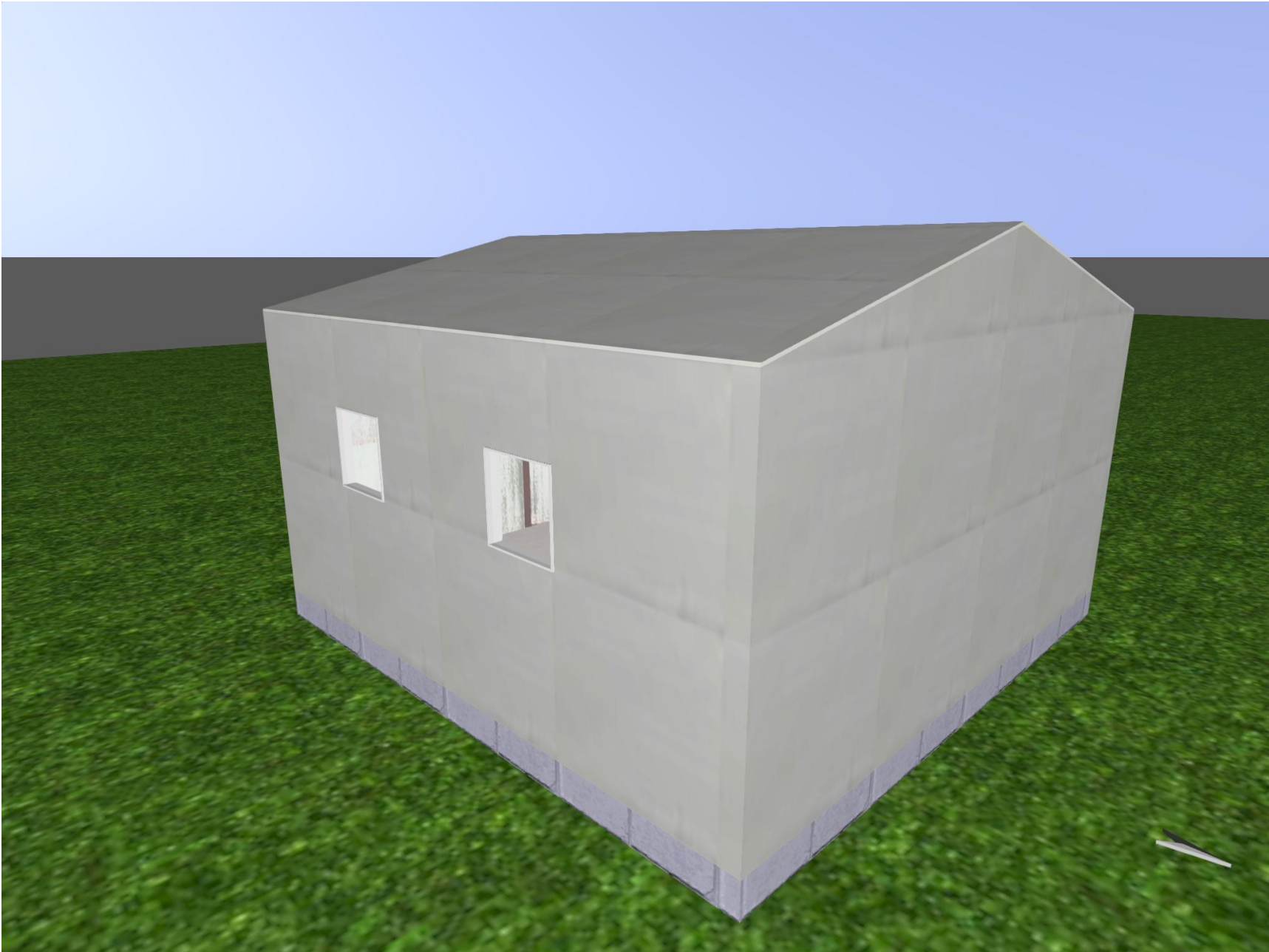
| Symble  | Specification               |
|---|-----------------------------|
|  | Socket 13 A                 |
|  | Switch 13 A                 |
|  | 2 pole Circuit Breaker 10 A |
|  | LED lamp 20 Watt            |

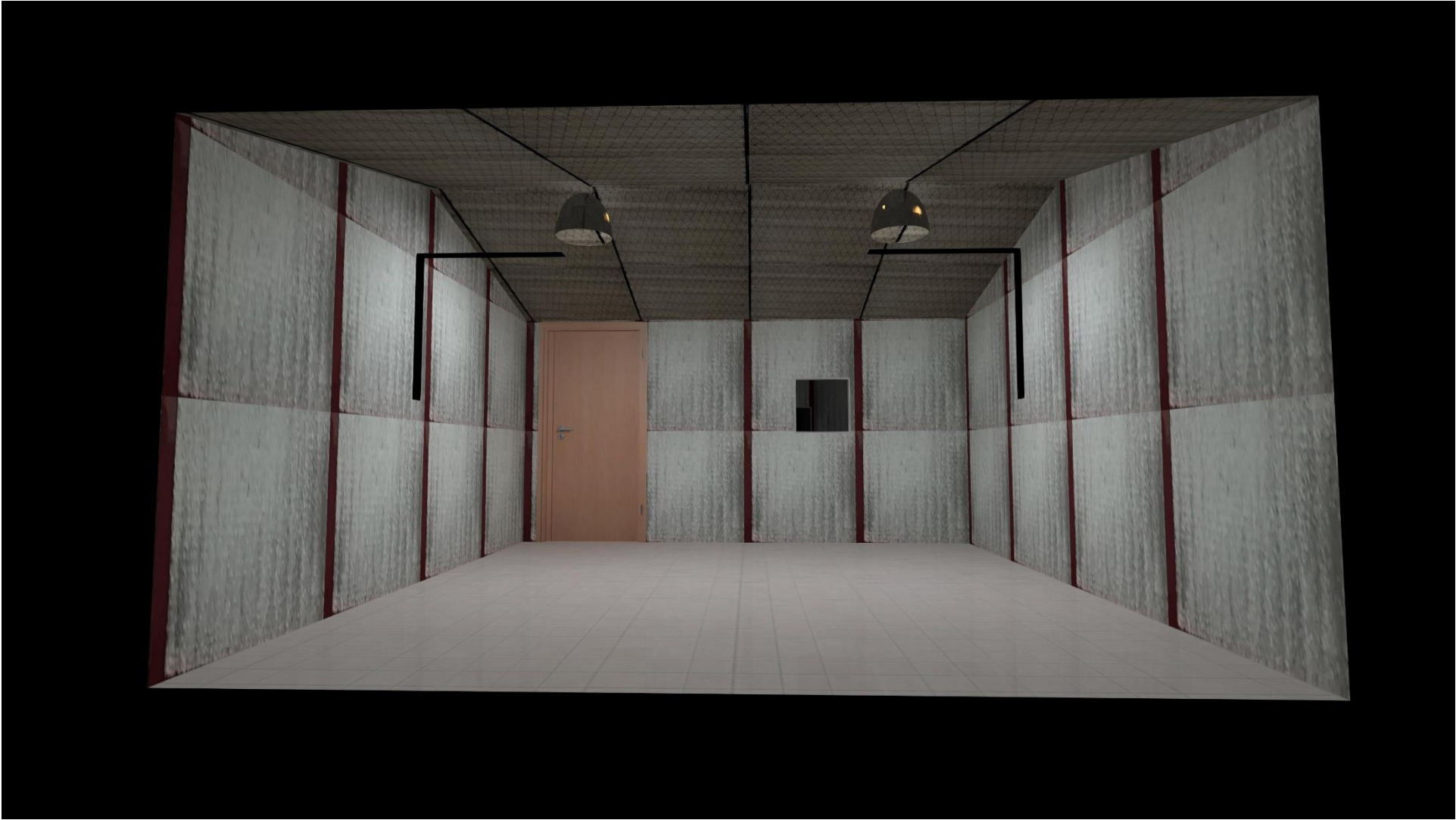




**Detail D2**









## Annex V. Shelter Technical Assessment Checklist

### INFORMATION

|   |  |
|---|--|
| 1.1 Assessment team:  |  |
| 1.2 Date:   |  |
| 1.3 Prepared by:  |  |
| 1.4 Type of Shelter (EESKs, Transitional shelter, Tents...) |  |
| 1.5 Dimensions of shelter: (in meter)                       |  |
| 1.5 The estimated Cost of Shelter? (USD)                    |  |

### 2 Comfort / Health and Safety:

|   |  |
|---|--|
| 2.1 Temperature inside the shelter and outside the shelter during peak sun: (in °C )  |  |
| 2.2 Is the shelter moisture and rainwater proof? (poor, good, excellent)  |  |
| 2.3 Is the shelter sufficiently ventilated? (poor, good, excellent)   |  |
| 2.4 Is the shelter resistant to wind and external erosion? (poor, good, excellent)  |  |
| 2.5 Is the shelter thermal insulating?  |  |
| 2.6 Are the components of the shelter electrical insulating and is it possible for the electrical wires to come into contact with conductive parts? |  |

### 3 Materials:

|  |  |
|--|--|
| 3.1 How do you rate the quality of the materials used? poor, good, excellent)      |  |
| 3.2 Is the shelter moisture and rainwater proof? (poor, good, excellent)           |  |
| 3.3 Are the materials used fireproof? poor, good, excellent)                       |  |
| 3.4 Is the shelter resistant to wind and external erosion? (poor, good, excellent) |  |
| 3.5 Is the shelter resistant to wind and external erosion? (poor, good, excellent) |  |
| 3.6 Are the materials used for transportable, storage and re-installation?         |  |
| 3.7 Are the materials used locally available?                                      |  |

### 4 components :

|   |
|---|
| (Describe the components of the shelter, the type of materials used, the method the size and dimensions of this materials and ....) |
|---|

### 5 Architectural Design/ Shelter Elements:



(Describe the Architectural Design and Shelter Elements as below:

- Sub Structure Anchoring:
- Roof shape, slope, anchoring system:
- Wall and Frame has proper bracing, temperature, proper connection between cladding and roof panel:
- Floor – No leaking, proper room temperature:
- Partition:
- Door – Proper lock, as an emergency exit, acceptable:
- Windows –Proper lock, as an emergency exit, acceptable:
- Shape:
- Height:

**6 Sketch Drawing:**

(Describe the shape of the shelter in a 3D or 2D illustration ....)

**Annex VI. Focus Group Discussion (FGD)**

|                                 |   |                             |   |                   |
|---------------------------------|---|-----------------------------|---|-------------------|
| <b>Basic Information:</b>       |   |                             |   |                   |
| Team names:                     |   | Facilitator(s):             |   |                   |
| Location:                       | Governorate:    District:    IDP site:    Place Code:   |                             |   |                   |
| FGD Number:                     |   | The type of shelter assess: |   |                   |
| Shelter setting:                | <input type="checkbox"/> No shelter (open air - no structure present)<br><input type="checkbox"/> Own house or apartment (own property)<br><input type="checkbox"/> With host family<br><input type="checkbox"/> Rented accommodation<br><input type="checkbox"/> Makeshift shelter (typically built from waste and temporary materials)<br><input type="checkbox"/> Spontaneous settlement |                             | <input type="checkbox"/> Collective center (existing building used as temporary living accommodation for displaced populations)<br><input type="checkbox"/> Transitional shelter (shelter that provides a habitable covered living space and a secure, healthy living environment with privacy and dignity until the achievement of a durable shelter solution) |                   |
| <b>FGD Composition:</b>         |   |                             |   |                   |
| Age and gender of participants: | Children/adolescents (10-18)  | Adults (19-49)              | Elders (50+)  | Total individuals |

|   |  |   |                                 |  |
|---|--|---|---------------------------------|--|
| Male  |  |   |                                 |  |
| Female  |  |   |                                 |  |
| Type of participants:   | <input type="checkbox"/> IDP <input type="checkbox"/> Returnee<br><input type="checkbox"/> Host Family<br><input type="checkbox"/> Conflict Affected<br><input type="checkbox"/> Other: _____. | Place of origin for majority of participants:           | Governorate:                    |  |
|   |  |   | District:                       |  |
|   |  |   | Village/Area:                   |  |
|   |  |   | Place Code:                     |  |
| How many of the following individuals are among the participants? (Provide number)  | Separated/Unaccompanied Child  |   | Physically or mentally disabled |  |
|   | Single Women Head of Household   |   | Persons with chronic illness    |  |
|   | Pregnant or lactating women/girls  |   | Other: _____.                   |  |
| Questions   |  | Participants Response                                   |                                 |  |
| How many times have you been displaced (from area of origin) before settling in this location?  |  | ™ Once    ™ 2 – 3 times    ™ 4 – 5 times    ™ 6 + times |                                 |  |
| How many months have you lived in this location/shelter?  |  | ™ 1- 3    ™ 4 – 9    ™ 10 – 12    ™ 12 +                |                                 |  |
| Where were you living before displaced? (i.e. Structured type/ housing, rented accommodation, own house/apartment, permanent/semi-permanent house etc.)   |  |   |                                 |  |
| How would you describe your current accommodation? Is there anything issues with your shelter?  |  |   |                                 |  |
| What are your intentions for the next 3 – 6 months? What will you do if you are asked to leave your current shelter <sup>1</sup> ? What support is need? (Note: Provide percentage for the majority of responses) |  |   |                                 |  |
| What would be your contribution to the solutions that you have identified?  |  |   |                                 |  |
| What is your favorite shelter in the initial period of displacement?  |  |   |                                 |  |
| What is your preferred shelter as a long or medium term solution?   |  |   |                                 |  |
| Does your current shelter protect you from rain, wind, high temperature and cold, and why?  |  |   |                                 |  |
| What would you change or improve in your house/shelter to fit your specific needs? Why?   |  |   |                                 |  |
| What is your favorite shelter option? Describe it in detail   |  |   |                                 |  |
| Is the current shelter design suitable and needs upgrade in the design, or do you need another shelter with a different design?   |  |   |                                 |  |

## Annex VII. Market Assessment Tool

| A. Assessment details  |  |                           |                              |  |   |   |
|--|--|---------------------------|------------------------------|--|---|---|
|  |  |                           |                              |  |   | The interviewer's name                                      |
|  |  |                           |                              |  |   | Date of the interview                                       |
|  |  |                           |                              |  |   | Market name   |
|  |  |                           |                              |  |   | Location (Directorate   Village)                            |
|  |  |                           |                              |  |   | Market Type (Local   Directorate   Regional   Urban Center) |
| Observations from travel to the marketplace<br>(Time needed, obstructions, trade flows observed, etc.)   |  |                           |                              |  |   |   |
|  |  |                           |                              |  |   |   |
| B. Markets Operation   |  |                           |                              |  |   |   |
| Q1: Are there markets in these districts? If yes, list down the main markets and provide all the details as shown in table   |  |                           |                              |  |   |   |
| Cost to get there<br>(by transport mean, e.g., by car, motorbike, by foot etc.)  | Time to get There (by transport mean, e.g., by car, motorbike, by foot etc.) | Means of transport        | Distance to Marketplace (km) | Frequency of Operation (daily, weekly) | Marketplace Location (district/village) | Name of the marketplace                                     |
|  |  |                           |                              |  |   |   |
| Q2: How significant has the markets been affected by the current situation?<br>(Note the answers. Possibilities include reduced demand, no supplies, damaged infrastructure, price increases, transport problems. Ask for an explanation of the answer.) |  |                           |                              |  |   |   |
|  |  |                           |                              |  |   |   |
| Q3: Are the traders able to continue their business as usual?<br>(Note the answer and if it is 'no' ask why traders are not able to operate as usual)  |  |                           |                              |  |   |   |
|  |  |                           |                              |  |   |   |
| Q4: Where do the people in this market come from? i.e., from which communities, villages, towns, etc.)   |  |                           |                              |  |   |   |
| Now  |  |                           | 5 Years ago,                 |  |   |   |
|  |  |                           |                              |  |   |   |
| Q5: How has the number of people (customers) coming to the marketplace changed through the past 5 years?<br>(If number has changed, try to estimate the percentage change)   |  |                           |                              |  |   |   |
| Don't know   |  | Increased by              |                              | No change                              |   | Decreased by  |
|  |  |                           |                              |  |   |   |
| Q5a: If the number of customer decreased, can you explain why more / fewer people are accessing the market place through the past 5 years? (Note the explanation. Possible prompts physical access, other markets destroyed, etc.)                       |  |                           |                              |  |   |   |
|  |  |                           |                              |  |   |   |
| B. Market Supply   |  |                           |                              |  |   |   |
| Q6: How has the number of wholesalers supplying the key commodities in this market changed through the past 5 years?   |  |                           |                              |  |   |   |
| Explain the numbers has changed?   |  | Number of Wholesalers Now |                              |  | Number of Wholesalers 5 years ago       |   |

|   |   |   |
|---|---|---|
| Q7: Has the number of retailers supplying the key commodities in the marketplace changed through the past 5 years?  |   |   |
| Explain the numbers has changed?  | Number of Wholesalers Now                             | Number of Wholesalers 5 years ago                         |
|   |   |   |
| Q8: Is the market supplying the same amount, more, or less of the key commodities compared to 5 years ago?  |   |   |
| Q9: Where the commodities come from to this market 5 years ago?<br>(Note where each type of commodities came 5 years ago, and after if it has changed)  |   |   |
| Supply source(s) now  | Supply source(s) 5 years ago                          | Type of Commodity   |
|   |   | Non-food items (Construction material, blanket....etc., ) |
| Q10: How has the current situation affected the traders in the marketplace?<br>(Note the answers. Possibilities include: reduced demand, no supplies, damaged infrastructure, price increases, transport problems. Ask for an explanation of the answer.) |   |   |
|   |   |   |
| <b>C. Market constraints and market response capacity</b>   |   |   |
| Q11: If households were given money, could traders supply them with the key commodities?<br><i>State yes, mostly, hardly, no, or don't know for each commodity according to answer given, and ask which commodities and why.</i>                          |   |   |
| Explanation, why  | If the answer is hardly or no, for which commodities? | Can traders supply?<br>(Mostly, hardly, no, don't know)   |
|   |   |   |
| Q12: In case of large request, could traders able to supply them?<br><i>State yes, mostly, hardly, no, or don't know for each commodity according to answer given, and ask which commodities and why.</i>   |   |   |
| What do you propose?  | If the answer is hardly or no, why ?                  | If yes how many (No / (day/month)                         |
|   |   |   |
| <b>E. Price information</b>   |   |   |
| Other comments:   |   |   |
|   |   |   |

| Notes                       | Market 4 | Market 3 | Market 2 | Market 1 | Unit | Specification of most available brands/types | Commodity | No |
|-----------------------------|----------|----------|----------|----------|------|--|-----------|----|
|                             | Price    | Price    | Price    | Price    |      |  |           |    |
|                             |          |          |          |          |      |  |           |    |
| <b>E. Price information</b> |          |          |          |          |      |  |           |    |
| Other comments:             |          |          |          |          |      |  |           |    |
|                             |          |          |          |          |      |  |           |    |

## Annex VIII List of Marib Technical Working Group

| Name              | Organisation Name | Position                       | Email                          |
|-------------------|-------------------|--------------------------------|--------------------------------|
| Abdullah Mjladan  | Shelter Cluster   | SN SNFIs CC                    | Marib.yemen@sheltercluster.org |
| Saleem Alazazi    | Shelter Cluster   | SN SNFIs CC                    | taizz.yemen@sheltercluster.org |
| Waleed Lagrab     | UNHCR             | Field Associate                | lagrabw@unhcr.org              |
| Shoaib Al_Qudaimi | IOM               | Field Assistant SNFIs          | salqudaimi@iom.int             |
| Mohmud Da'again   | YFCA              | Shelter &Protection Specialist | m.daagain@yfca.org             |
| Tariq Al-Bakeri   | SI                | WASH/Shelter Officer           | Tareq.albakeri2020@gmail.com   |
| Mahammed Handhal  | CRB               | Project Engineer               | Abnalyemen909@gmail.com        |
| Akram Al-Dourae   | NRC               | Shelter/CCCM Officer           | akram.aldourae@nrc.no          |
| Anas Alsharabi    | SHS               | Senior Site Engineer           | Site.eng1@shsye.org            |