

 **PROJECT**

SITE MAINTENANCE PROJECTS

AD DALI GOV. - YEMEN

FUNDED BY



YHF Yemen
Humanitarian
Fund

PREPARED BY:



Deem
For Development Organization
منظمة دعم للتنمية

DRAWINGS

APRIL 2025

Drawing Index :

I	MAIN NOTES
SECTION 1.	FLOOD MITIGATION
SECTION 2.	EMERGENCY LATRINES
SECTION 3.	SOLAR LAMP DRAWING
SECTION 4.	WATER POINT DRAWING

REMARKS: -

1. THE LABORS SHOULD TO WEAR SAFETY EQUIPMENTS DARING THE WORK HOURS.

2. EXCAVATION & BACKFILLING ARE IMPLEMENTED ACCORDING TO SPECIFIC DIMENSIONS AND INSTRUCTION OF THE SUPERVISOR ENGINEER

3. THE RATES OF BACKFILLING SHALL INCLUDE FOR WATERING AND COMPACTING IN LAYERS MAX 25CM OR AS INSTRUCTION OF THE SUPERVISOR ENGINEER.

4. SELECTED BACKFILLING MATERIAL APPROVED BY THE ENGINEER OR IMPORTED MATERIAL WILL BE USED SPECIFIED BY THE SUPERVISOR ENGINEER.
5. THE RATES OF EXCAVATION SHALL INCLUDE FOR EXCAVATIONS IN ALL TYPES OF SOIL AND REMOVING SURPLUS FROM SITE TO APPROVED LOCATIONS SPECIFIED BY THE SUPERVISOR ENGINEER.

6. SETTING OUT DIMENSIONS SHOWN ON THE DRAWINGS SHALL BE VERIFIED BY THE CONTRACTOR.

7. ANY MISSING DETAILS WHERE NOT SHOWN SHALL BE DISCUSSED WITH THE ENGINEER . IF ANY.

8. THE MINIMUM YIELD STRENGTH FOR ALL STEEL SECTIONS SHOULD TO BE (FY 240=MPA).

9. ALL BOLTS ARE A325 OR A490 HIGH STRENGTH BOLTS (HARDNESS EQUAL 8.8). AS AISC.
10. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH THE SPECIFICATION AND AMERICAN CONCRETE CODE ACI-318M-2014 (REINFORCED CONCRETE STRUCTURES).

11. CONCRETE BASES ARE SPRAYED FOR AT LEAST 7 DAYS THREE TIMES A DAY.

FLOOD MITIGATION DRAWING

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GABION

PROJECT NO. 1

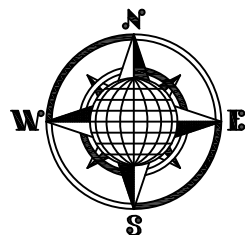
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Gabion Work Process



1. ASSEMBLY PROCESS

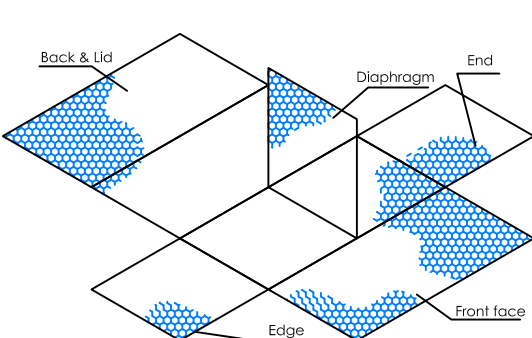


Fig. 1

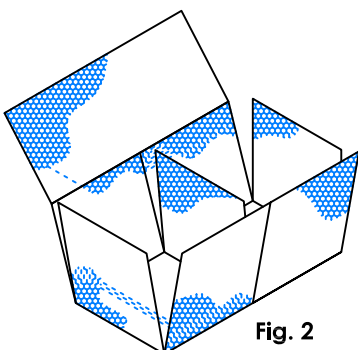


Fig. 2

1. Open and unfold the gabions one by one on a flat, hard surface. Eliminate all folds due to the packaging.

2. Pull up the sides and the diaphragms to form an open box. Be sure the top of the face and the side are at the same level.

3. Fold by hand the end of the reinforcing wire of the main unit and the diaphragms allowing the gabion to stand by itself.

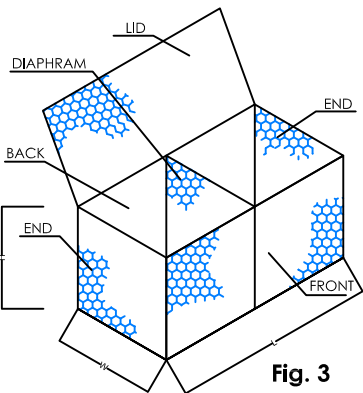
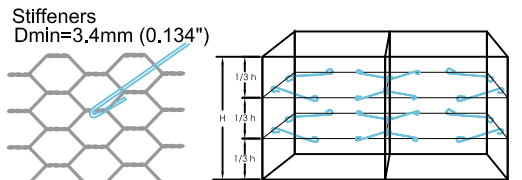
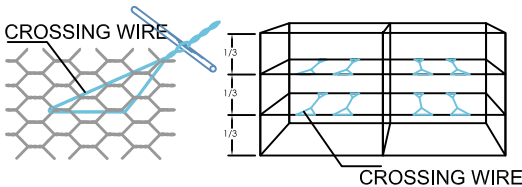


Fig. 3

2. REINFORCING DETAIL



D1 GABION DETAILS



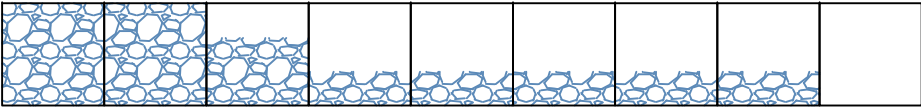
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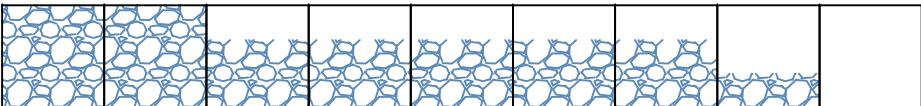
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3. FILLING PROCESSES

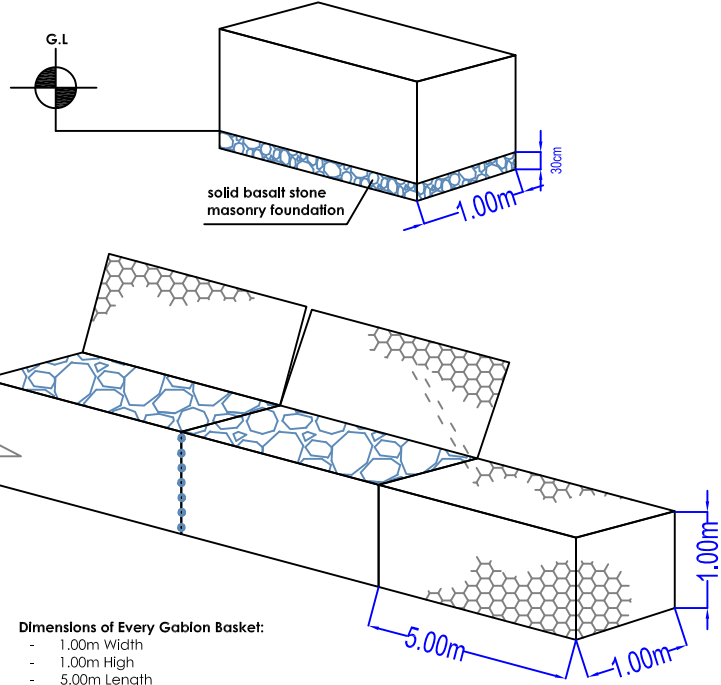
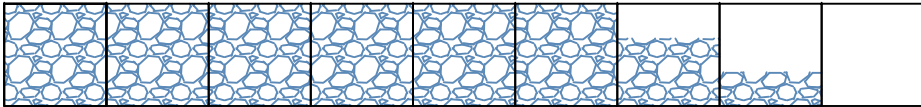
Phase 1



Phase 2



Phase 3



Dimensions of Every Gabion Basket:
- 1.00m Width
- 1.00m High
- 5.00m Length

4. CLOSING PROCESS

Edges are joined together, using the appropriate lacing techniques.
MANUAL: Continuous wire looped tightly around every other mesh opening, alternating single and double loops (fig. 5).
MECHANICAL: Using a pneumatic or hand power tool, employing stainless steel "C" shaped fasteners. For continuity and strength, the recommended spacing is 8 to 12 cm, Max 150mm (fig 4).

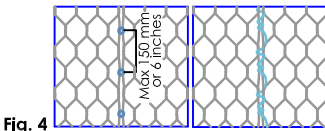


Fig. 4

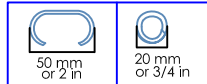
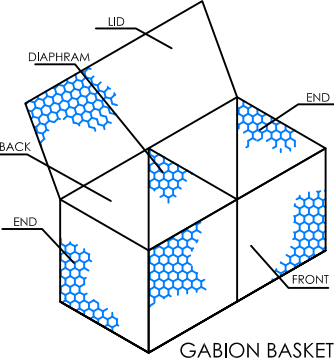
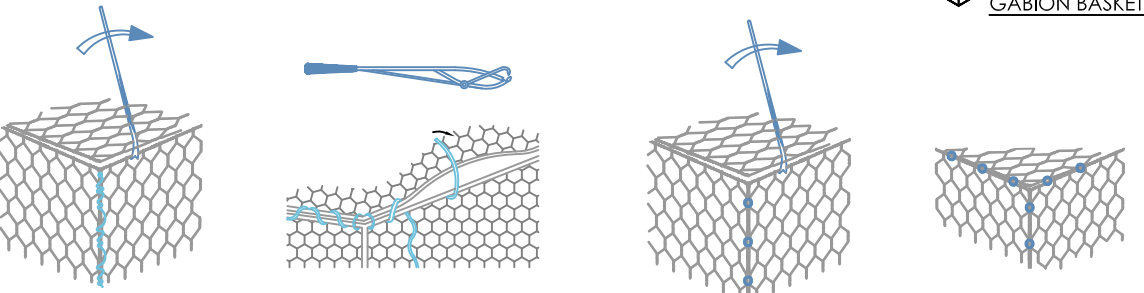


Fig. 5 The stainless steel fastener has a diameter of 50 mm open and 20 mm closed.



GABION BASKET

Legend :

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Project Engineer

Date

Checked

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WELL PROTECTION

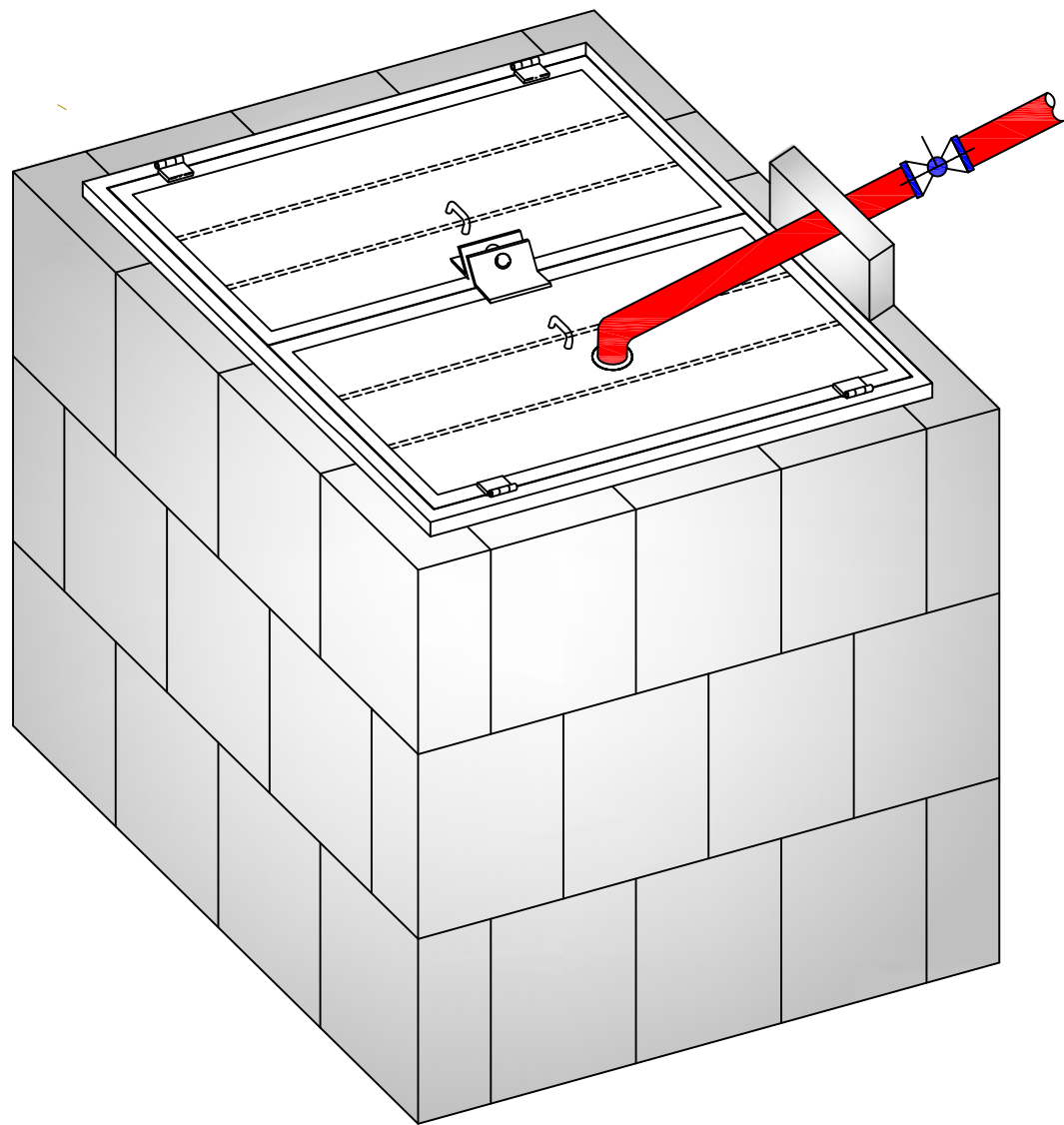
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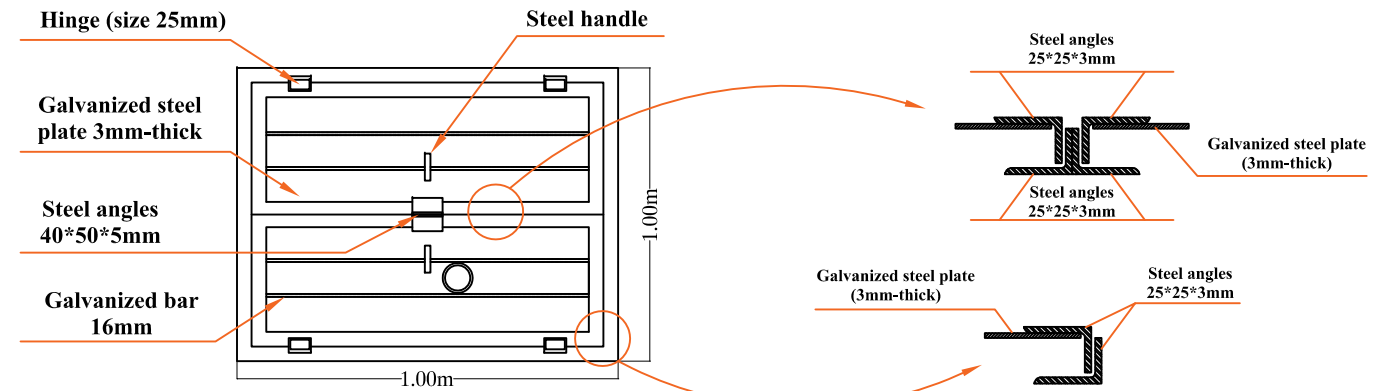
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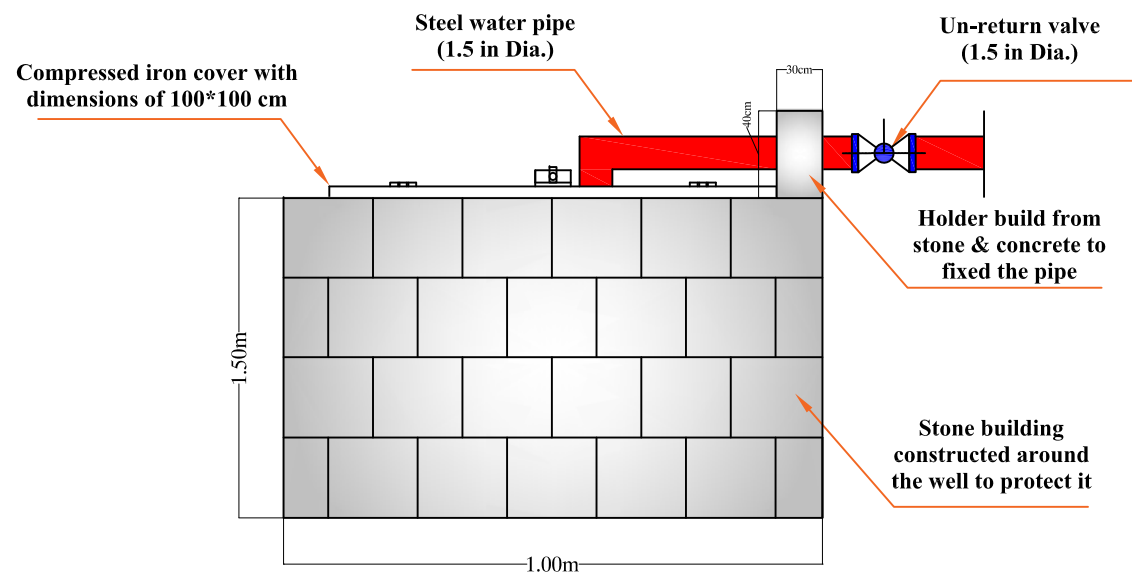




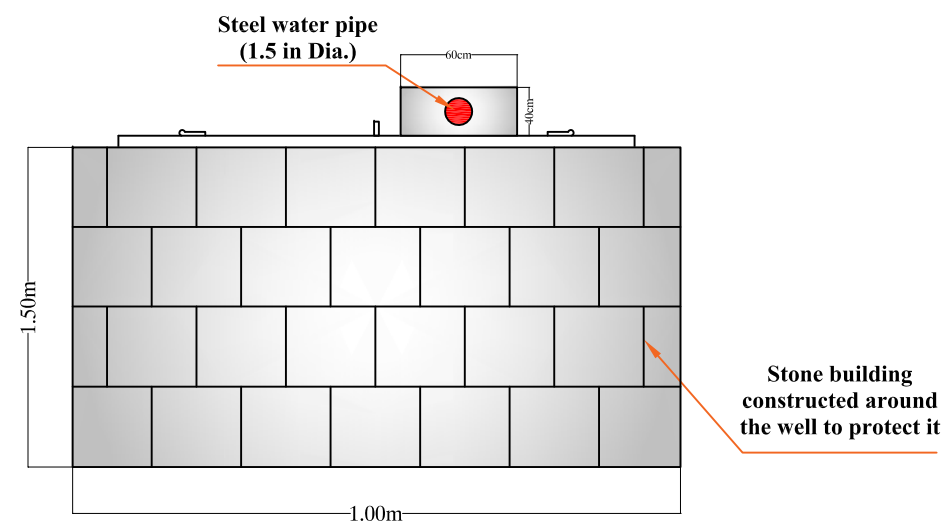
3D Model



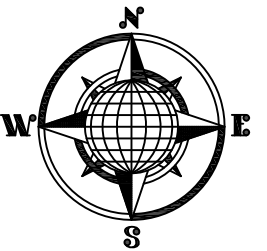
Well Cover Details



Side View



Back View



HATCHING KEY PLAN

Symbol	Description
	Ashlars masonry
	Masonry paving
	Mass concrete
	Reinforcement concrete
	Plain concrete
	Compacted gravel
	Soil

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WELL PROTECTION DETAILS



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SOLAR SYSTEM & WATER POINT

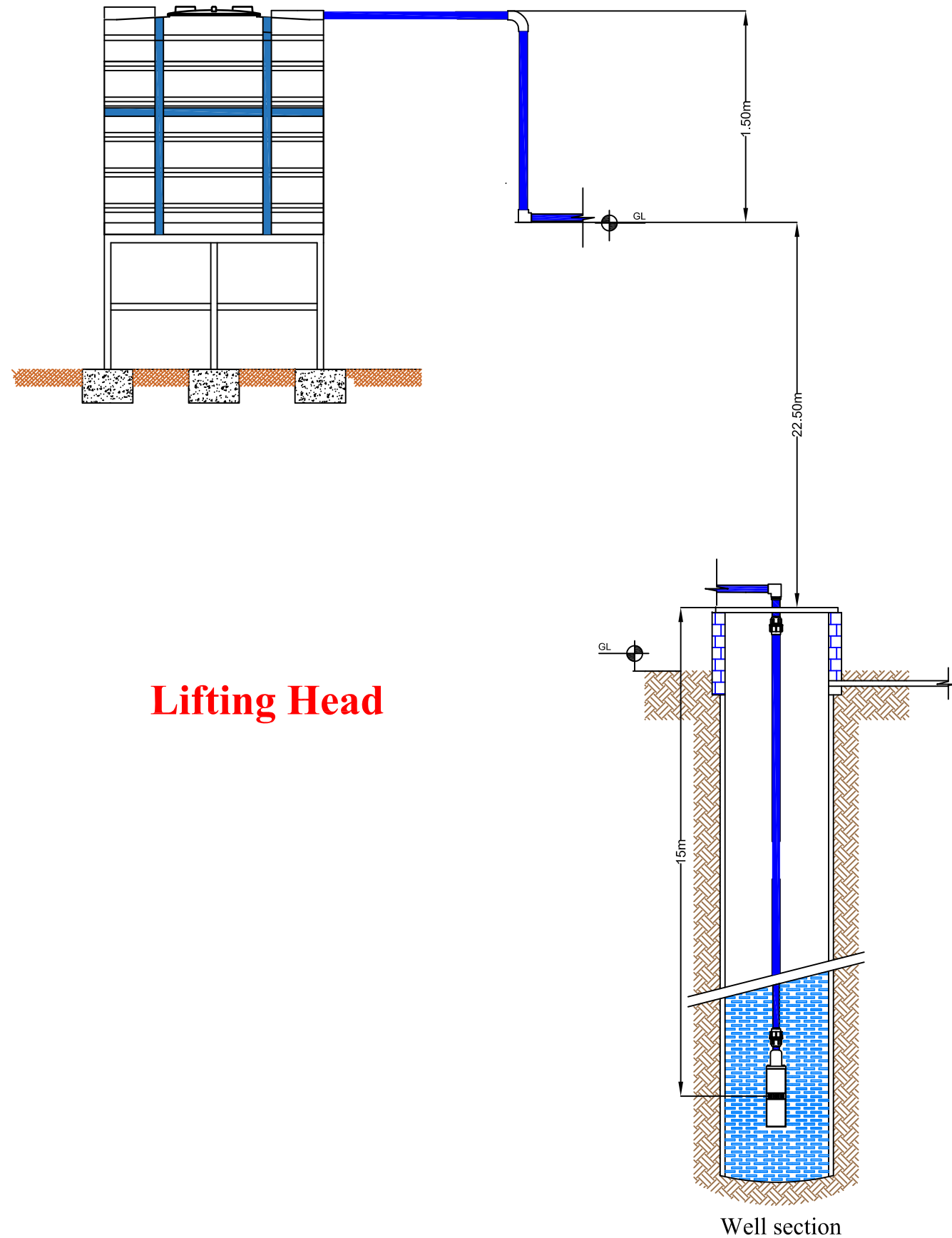
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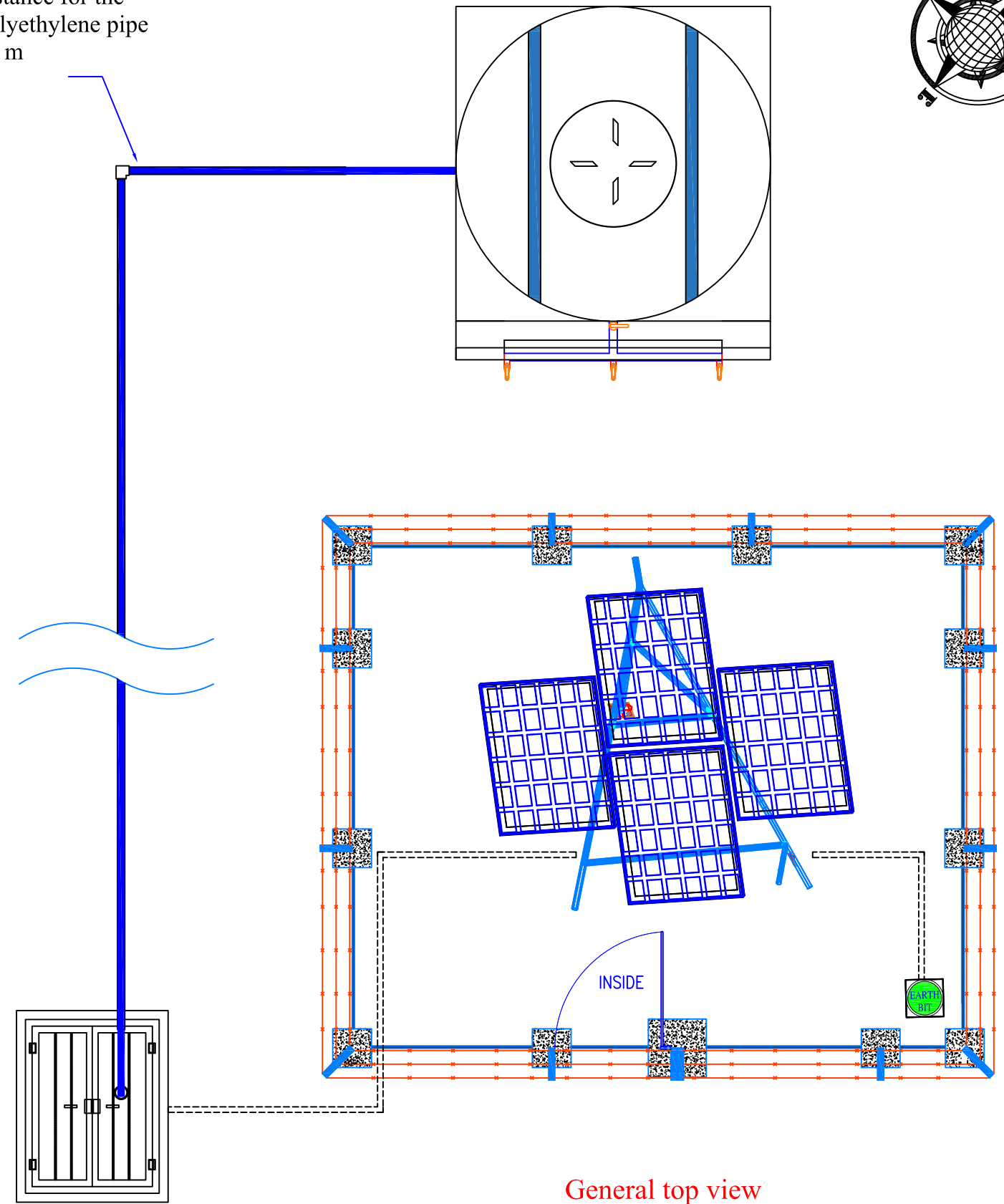
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The total horizontal distance for the polyethylene pipe 30 m



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GENERAL VIEW FOR THE PROJECT COMPONENTS

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Date

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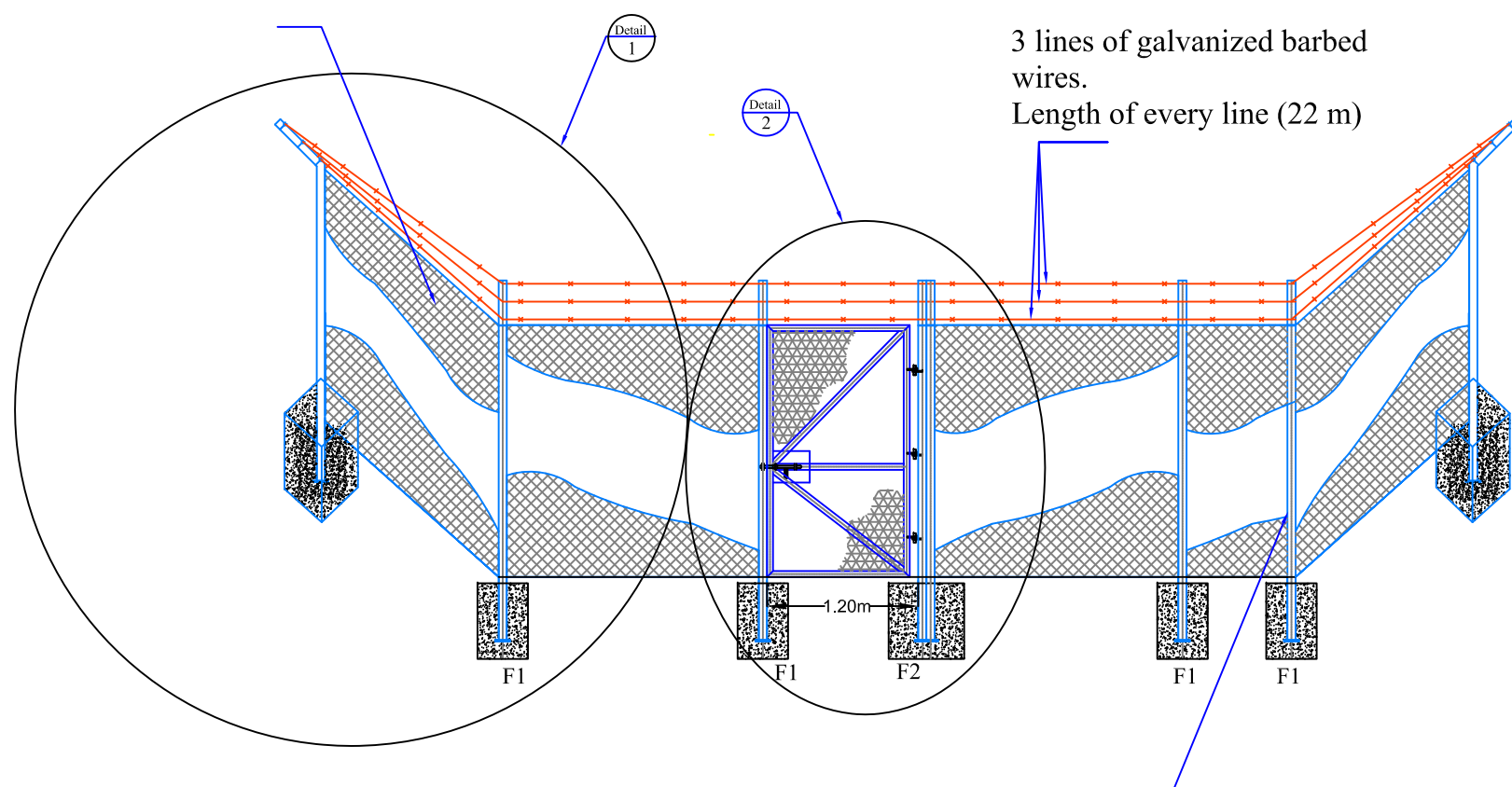
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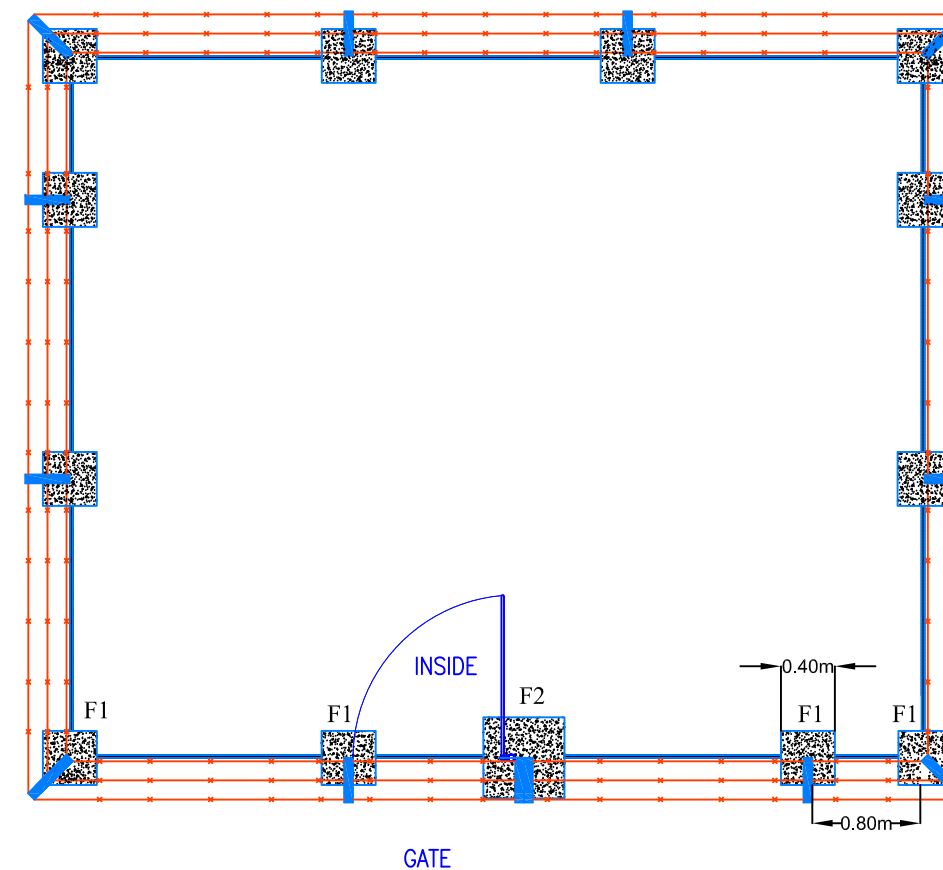
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Steel mesh plate, (2 meter-high & 1.5 mm thick and 20 meter length)
Coated by one layer of weather shield paint



Fence - Front View



Fence - Top view

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SECURITY FENCE PROJECTIONS VIEW



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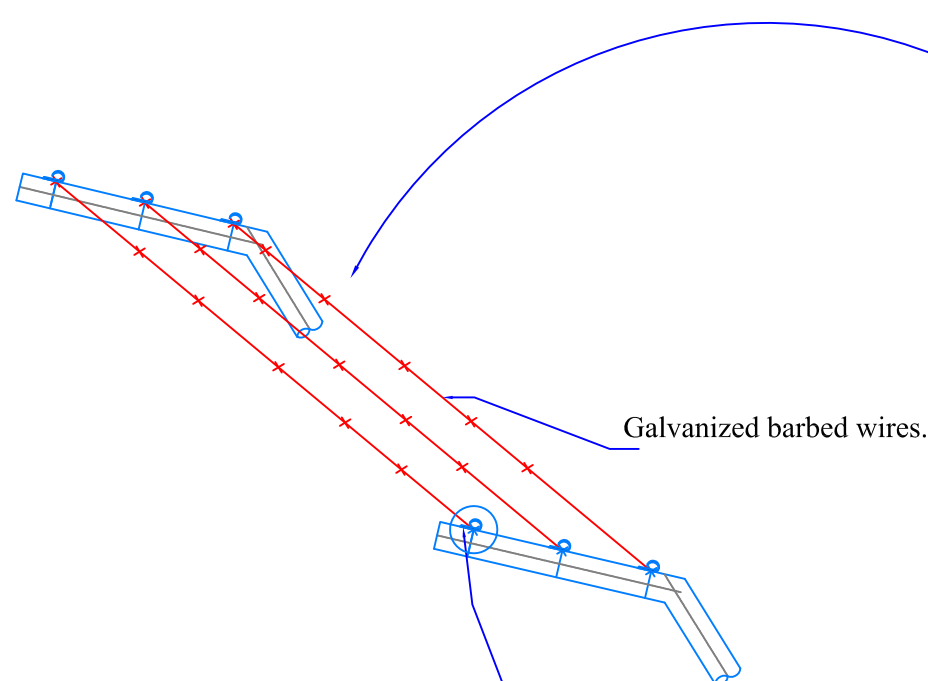
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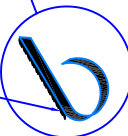
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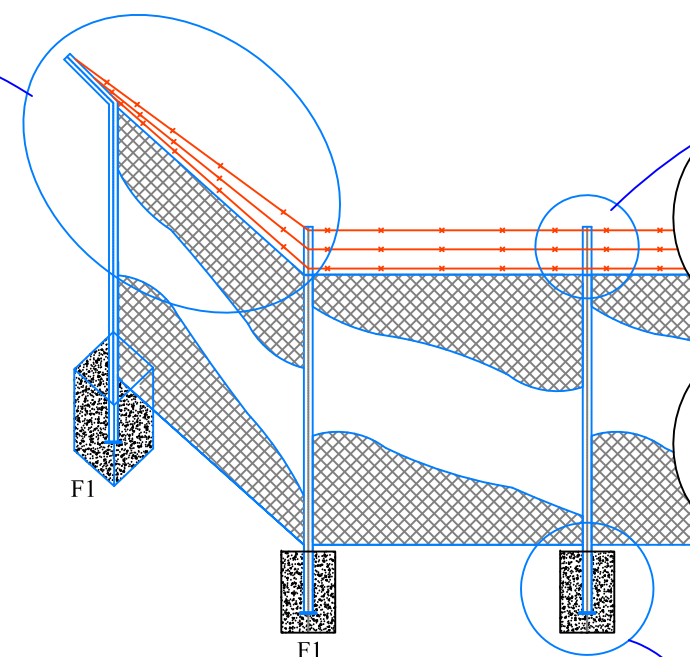


Galvanized barbed wires.

Welded to the pipe



Iron solid rectangular section to fix the (Barbed wires and the chain link)
Dim. (1.3 cm-width, 5 cm-length and 3 mm thickness)
Coat by one layer of read primer paint and one layer of weather shield paint.

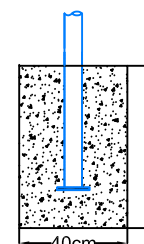


F1

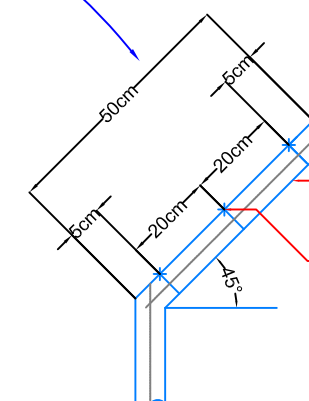
F1

F1

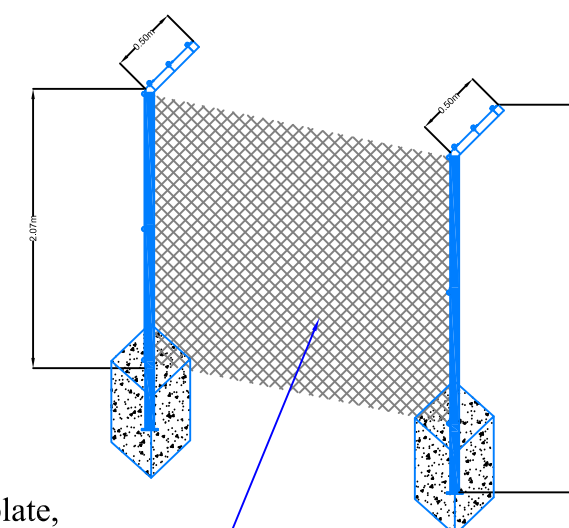
Detail (1)



Concrete footings (40x40x60 cm),
concrete class is (C20).

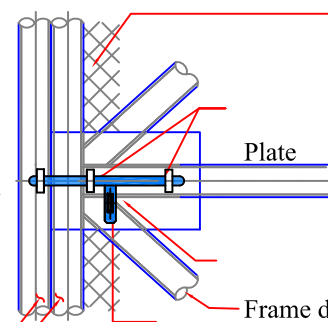


Un-solid galvanized /or anticorrosion iron pipes
Galvanized barbed wires.



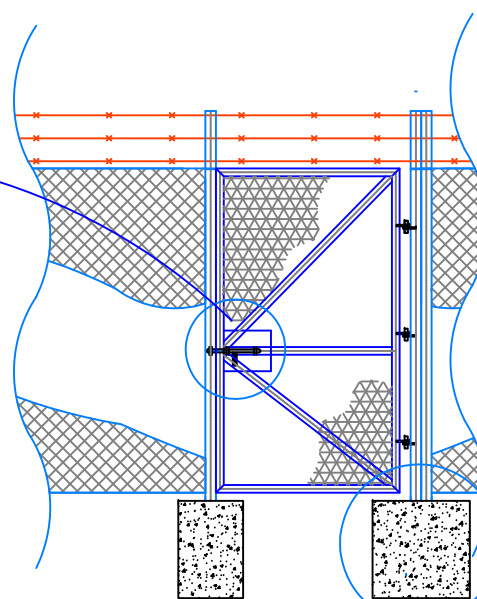
Steel mesh plate,
(2 meter-high & 1.5
mm thick and 20 meter
length)
Coated by one layer of
weather shield paint

Un-solid galvanized /or anticorrosion iron
pipes
Dim. (2 inch Diameter, 2.5 mm thickness,
3 meter-high)
Coated by one layer of weather shield
paint)



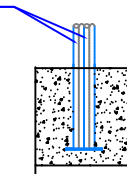
Steel mesh plate, (1.2 meter
-width, 2 meter-high & 3
mm thick)
Coated by one layer of
weather shield paint)

Plate
Frame diagonal support,
galvanized pipes,
Dim.(2 inch Diameter,
2.5 mm thickness)



Detail (2)

Un-solid galvanized /or
anticorrosion iron pipes
Dim. (2 inch Diameter,
2.5 mm thickness,
3 meter-high)
Coated by one layer of
weather shield paint)



Concrete footings (60x60x60 cm),
concrete class is (C20).

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SECURITY FENCE DETAILS VIEW



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Legend :

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Date

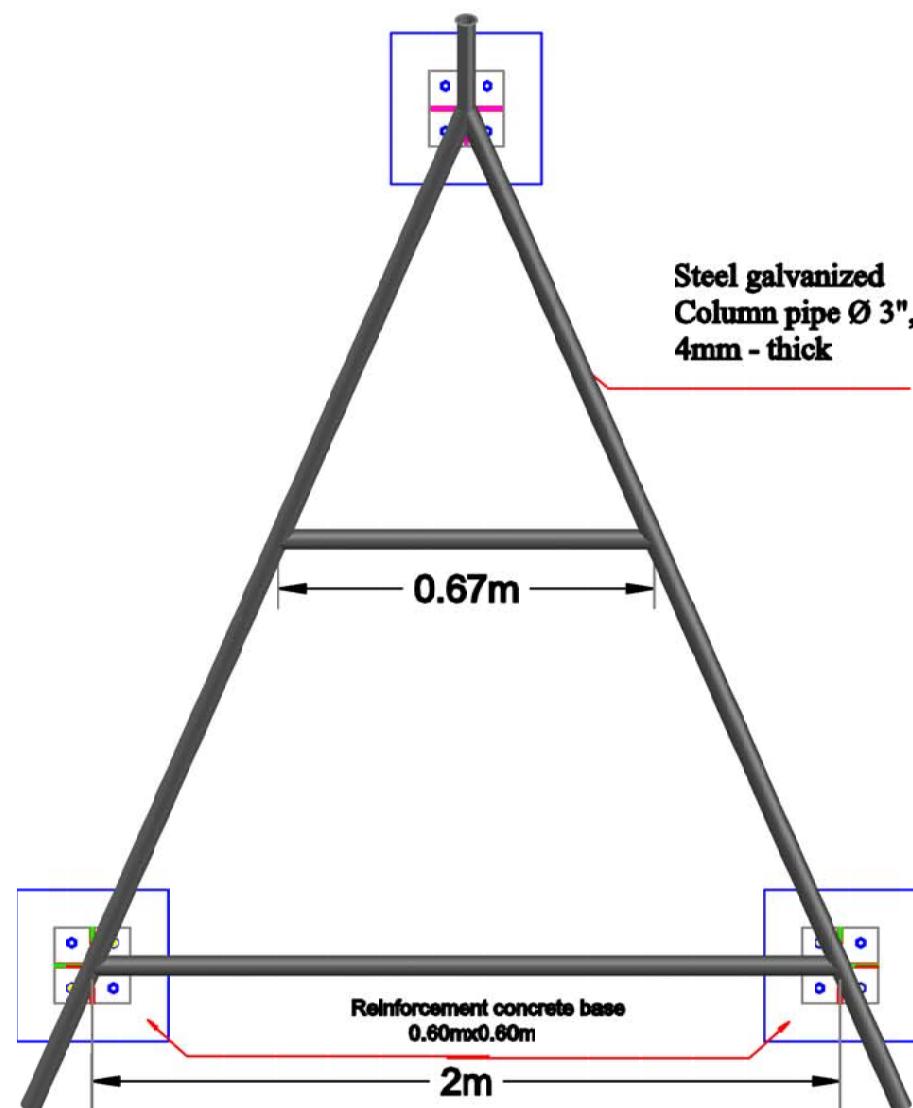
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Approve

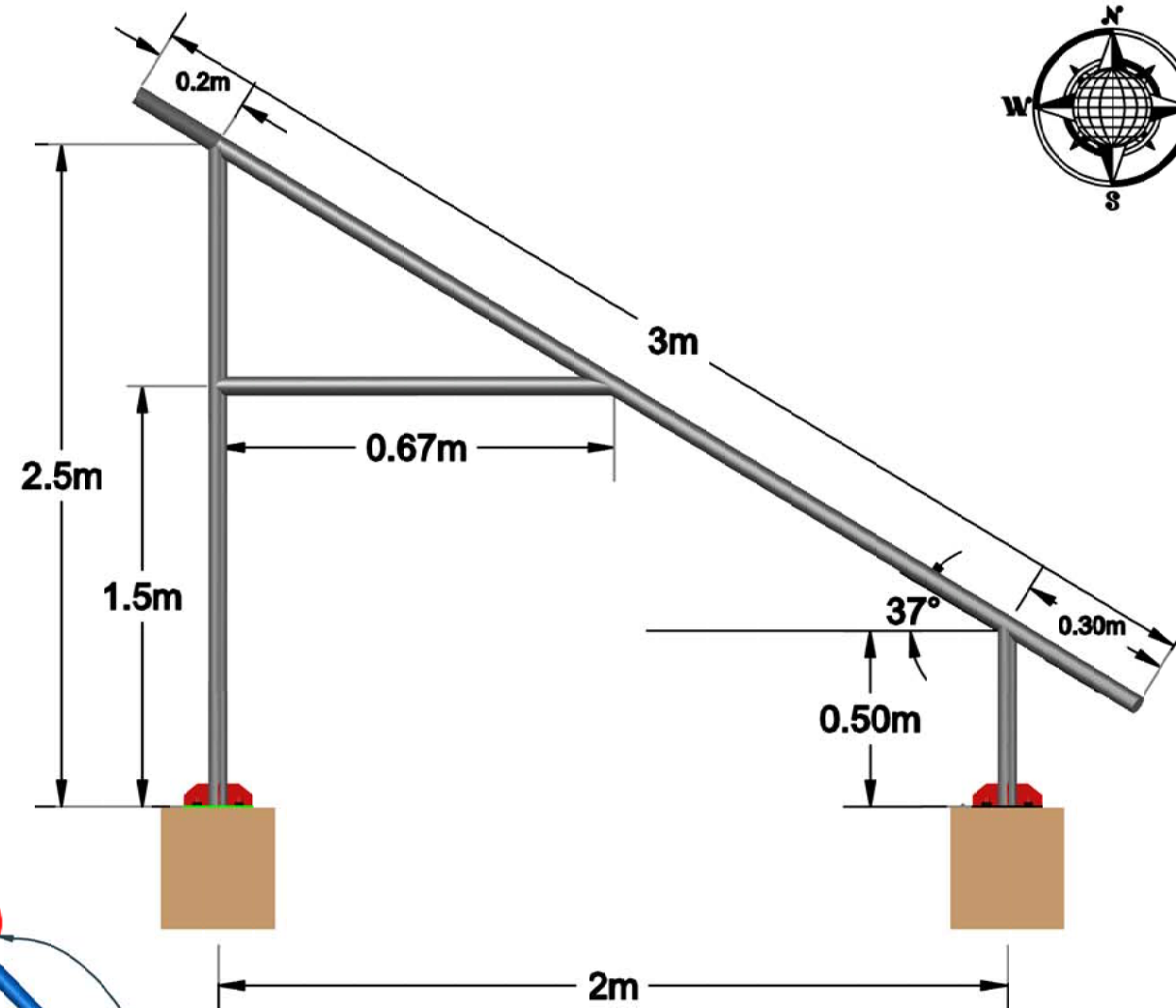
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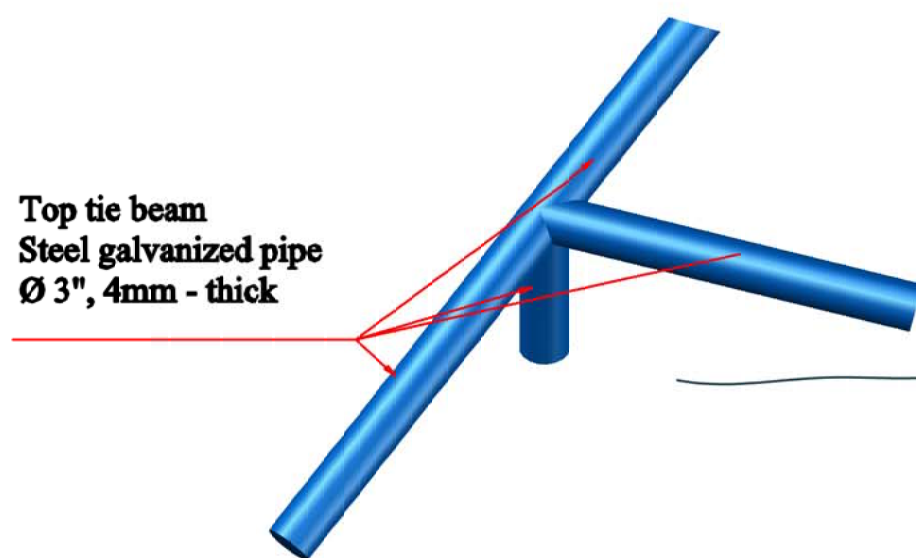
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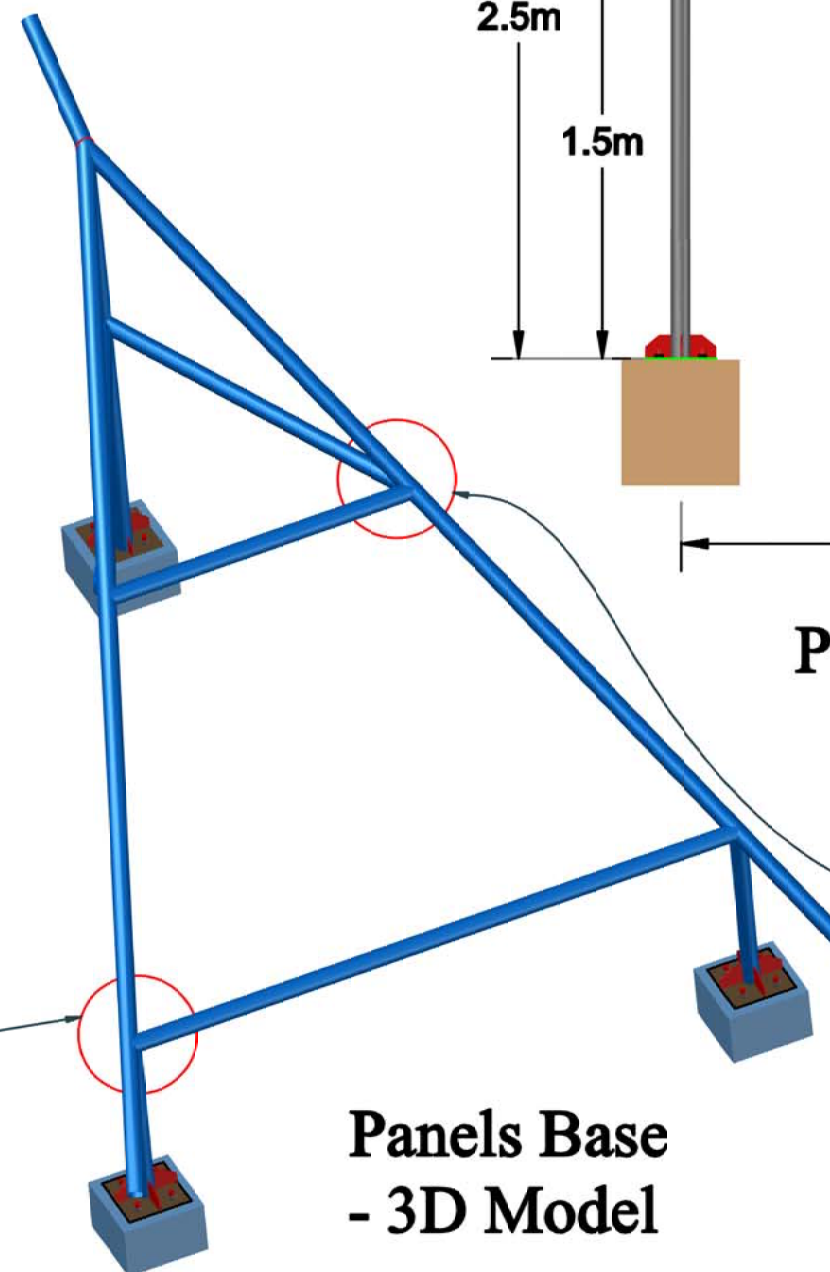
Panels Base - Front View



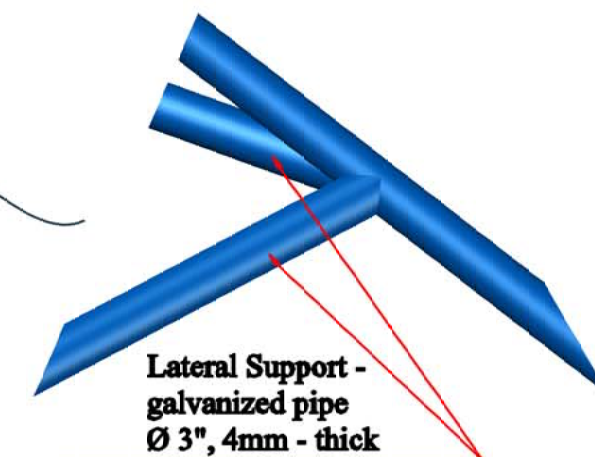
Panels Base - Side View



Top tie beam
Steel galvanized pipe
Ø 3", 4mm - thick



**Panels Base
- 3D Model**



Lateral Support -
galvanized pipe
Ø 3", 4mm - thick

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SOLAR PANEL BASE



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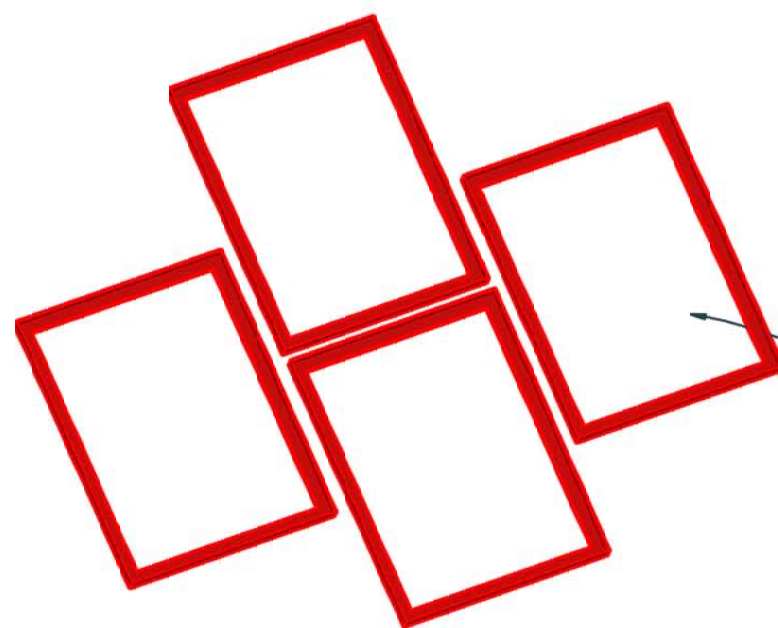
Legend :

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Approve		

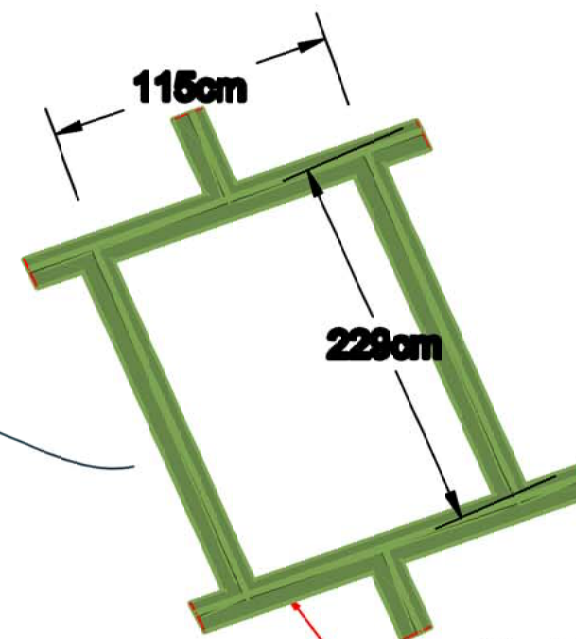
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SITE MAINTENANCE PROJECTS

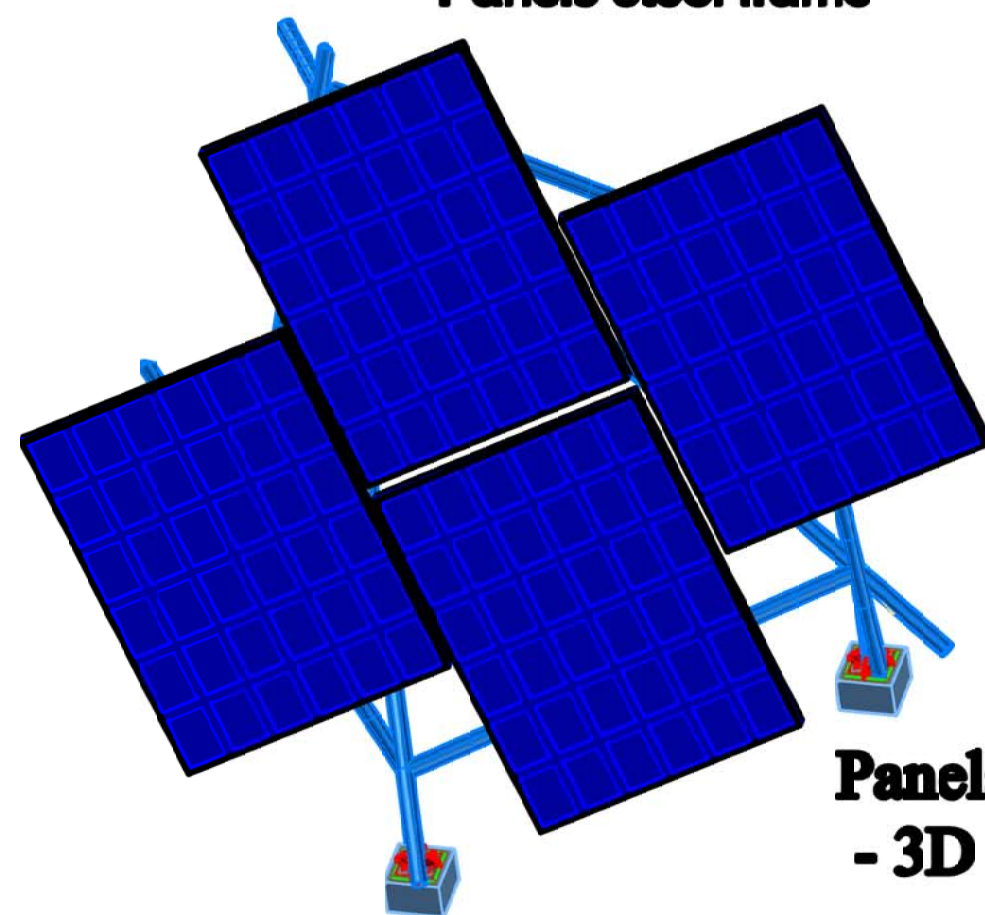
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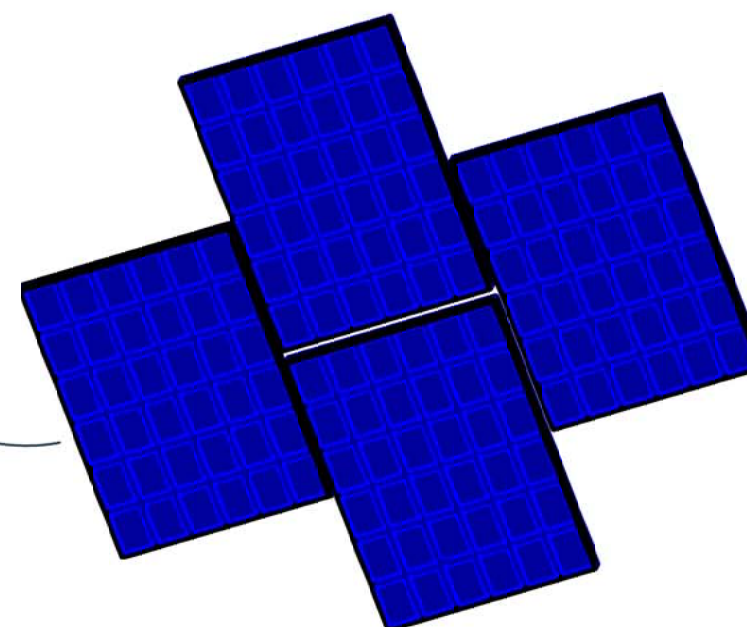
Panels steel frame



**Steel L-section , 2 in & 5mm - thick
Coat by one layer of red primer paint
and one layer of weather shield paint.**



**Panels Base
- 3D View**



**Poly-Crystalline solar panels ,
Dim. (2274x1134x35 mm) , P. max 500Wp**

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SOLAR PANEL BASE



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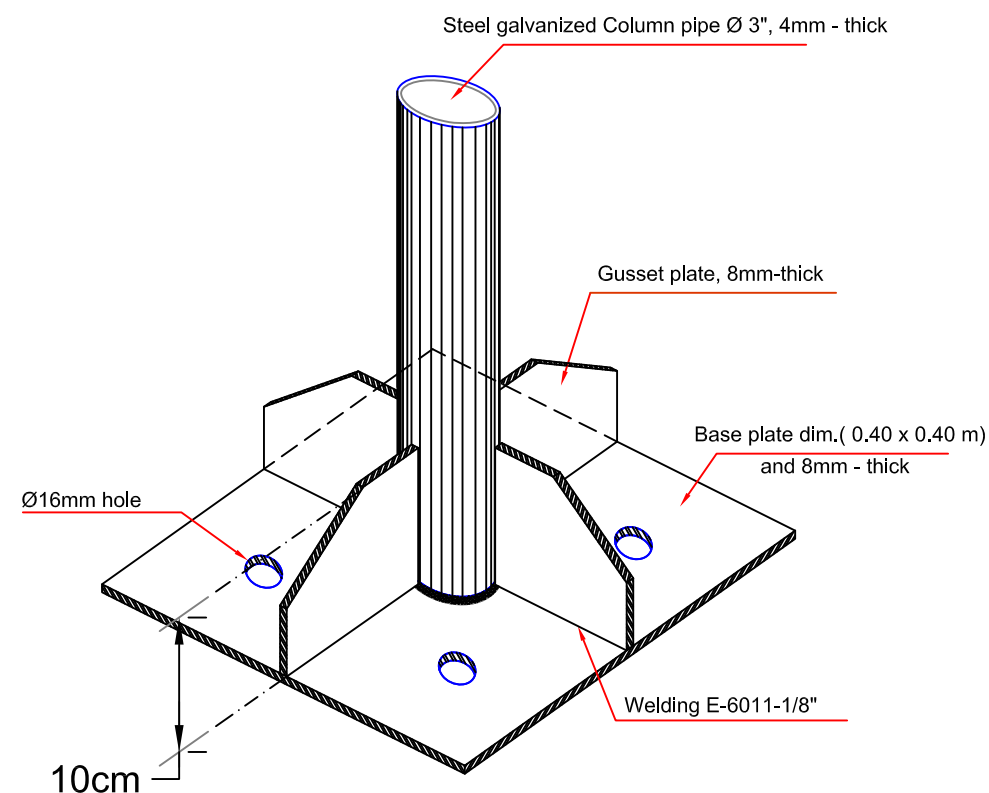
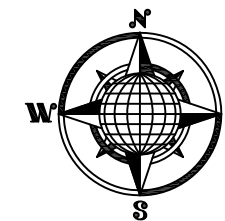
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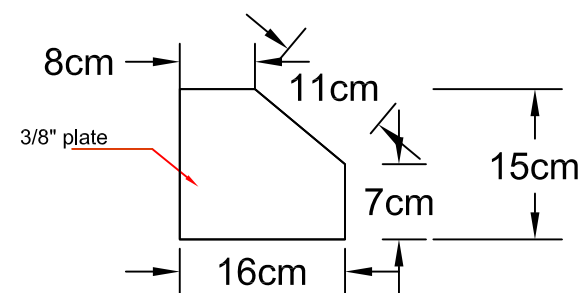
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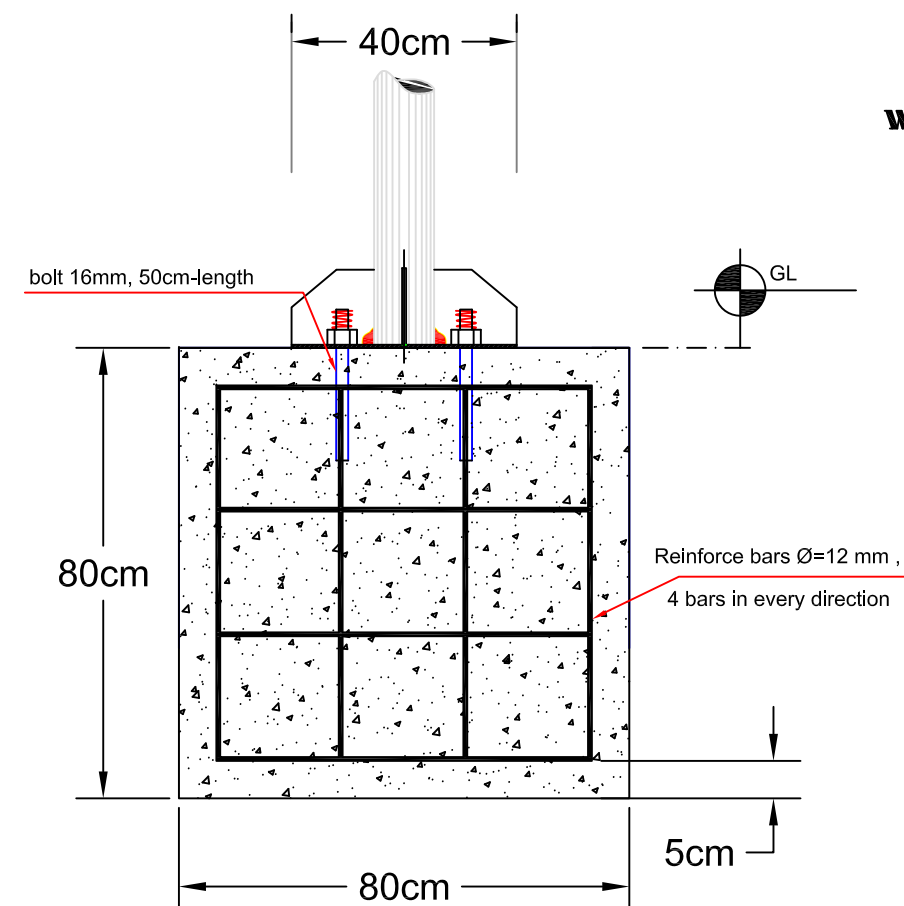
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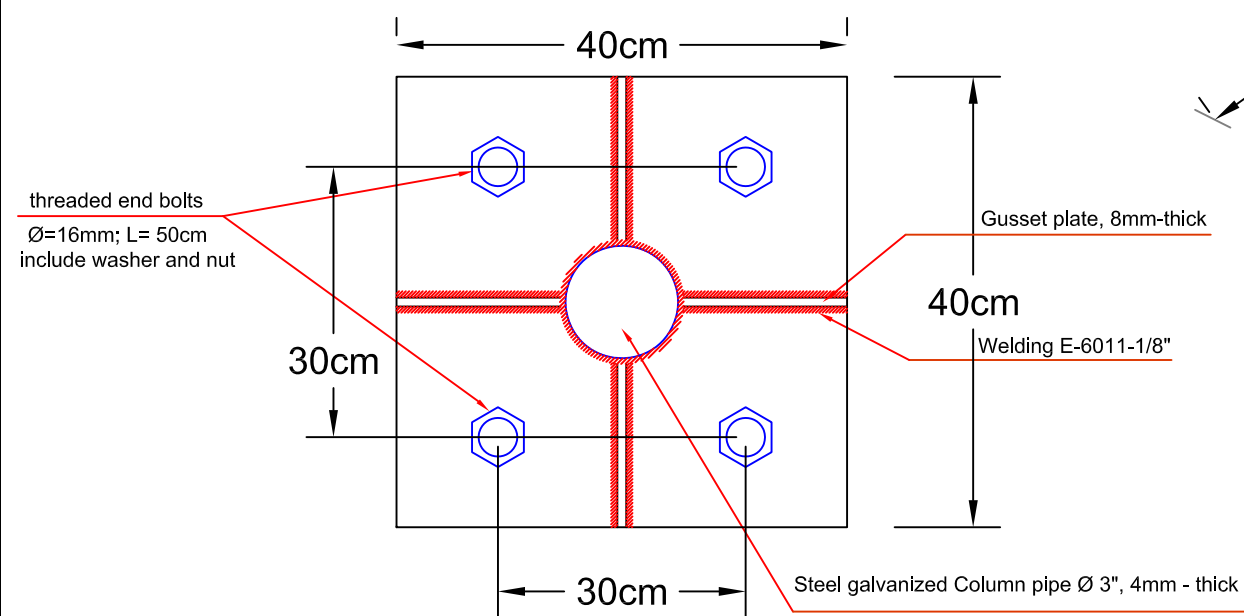
Steel Pipe Column



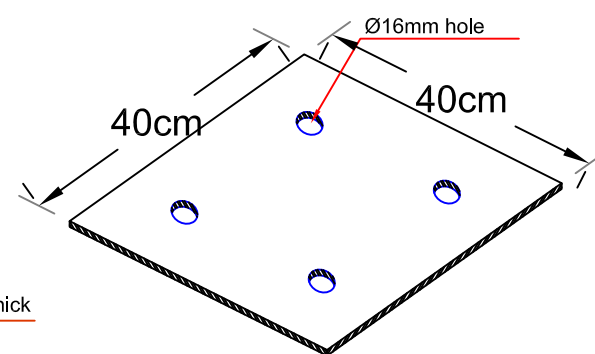
Gusset plate



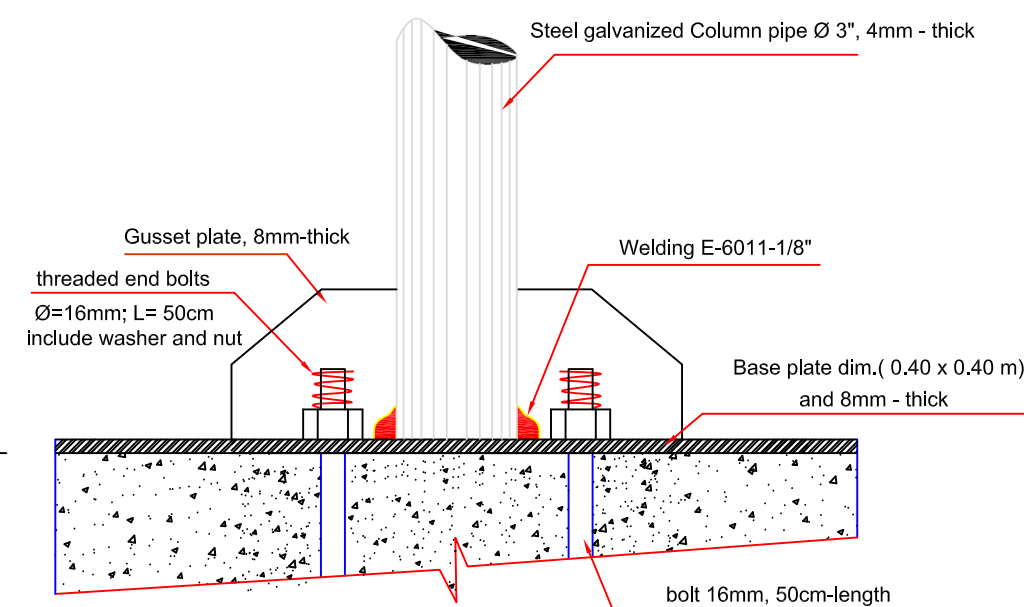
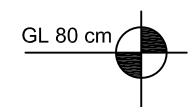
Reinforcement concrete base



Top View



Base plate



Steel Pipe Column

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FOUNDATION DETAILS



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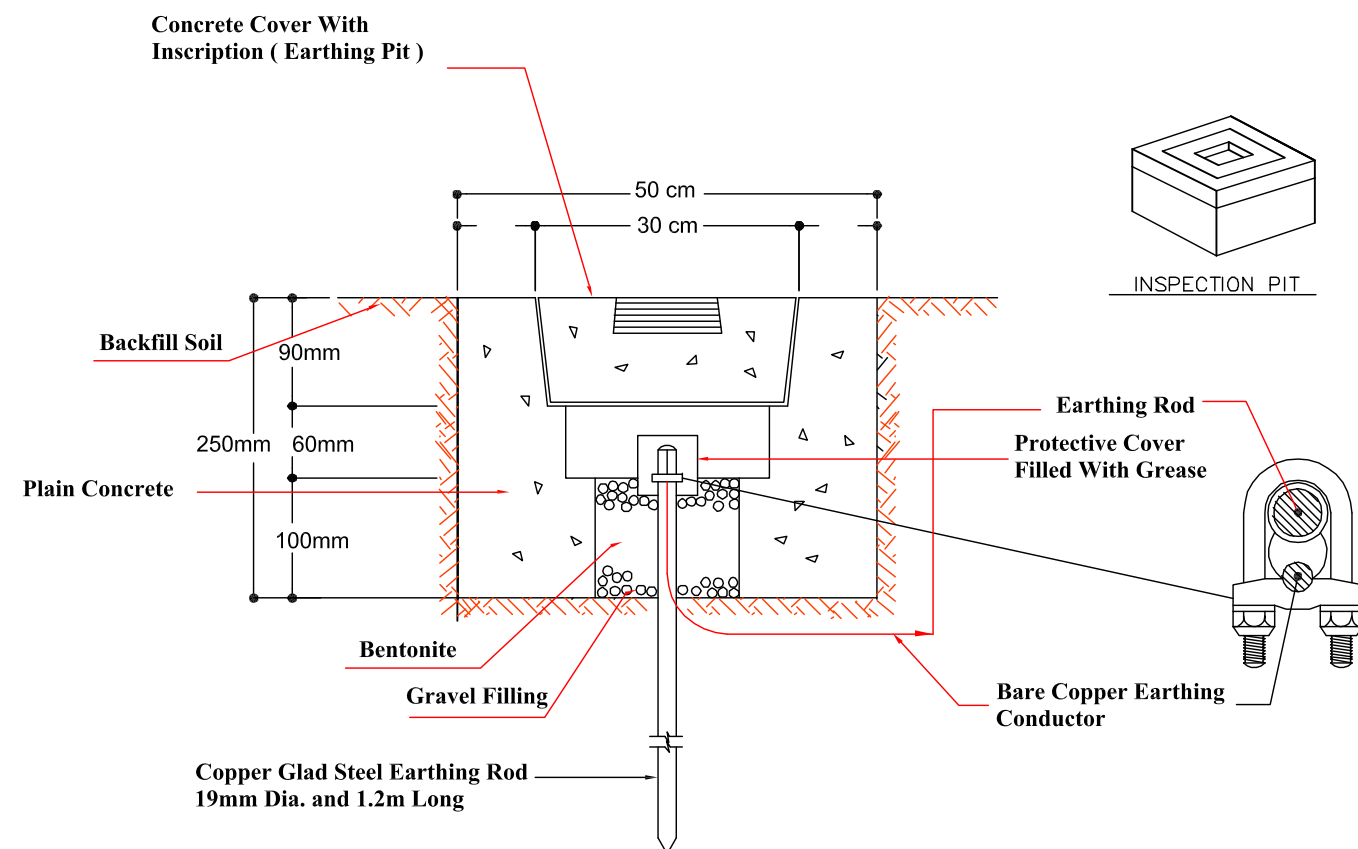
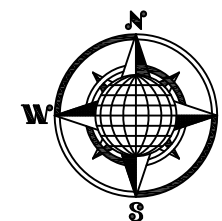
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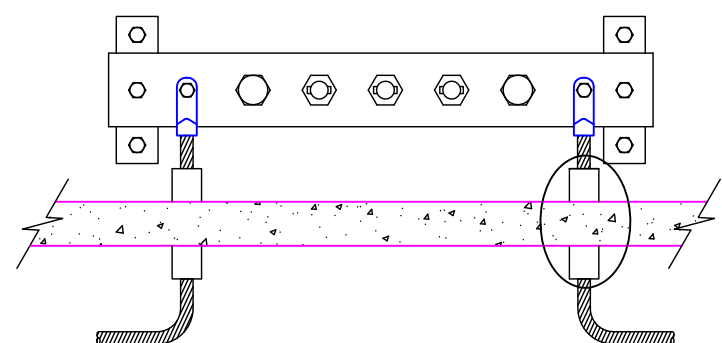
PROJECT

SITE MAINTENANCE PROJECTS

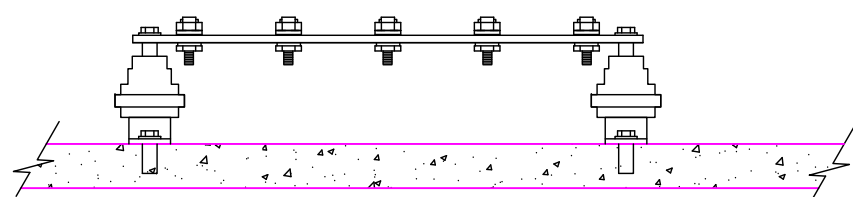
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Earthing Pit Details

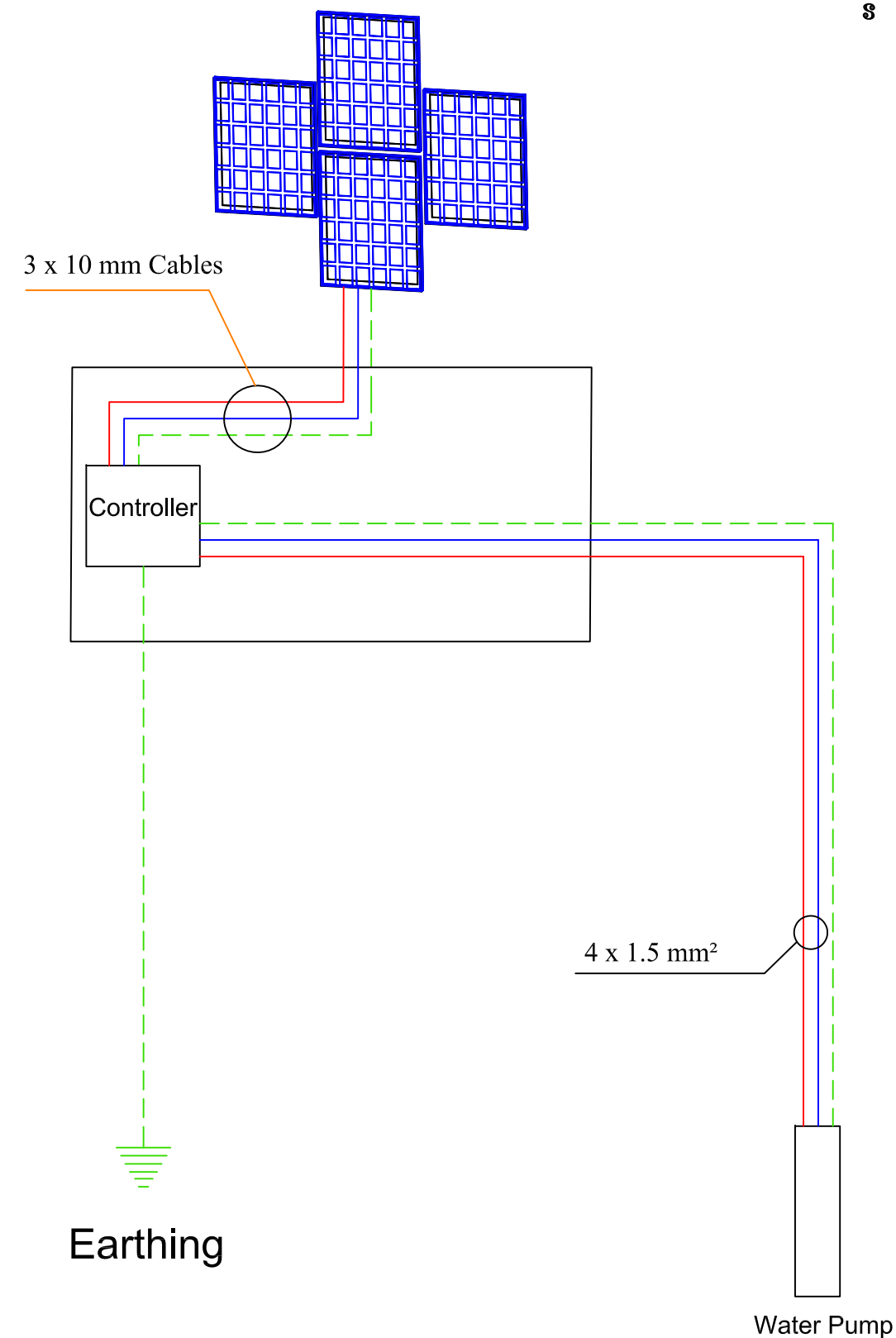


FRONT VIEW



SIDE VIEW

EARTHING BUSBAR



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EARTHING & THE ELECTRIC CYCLE DETAILS



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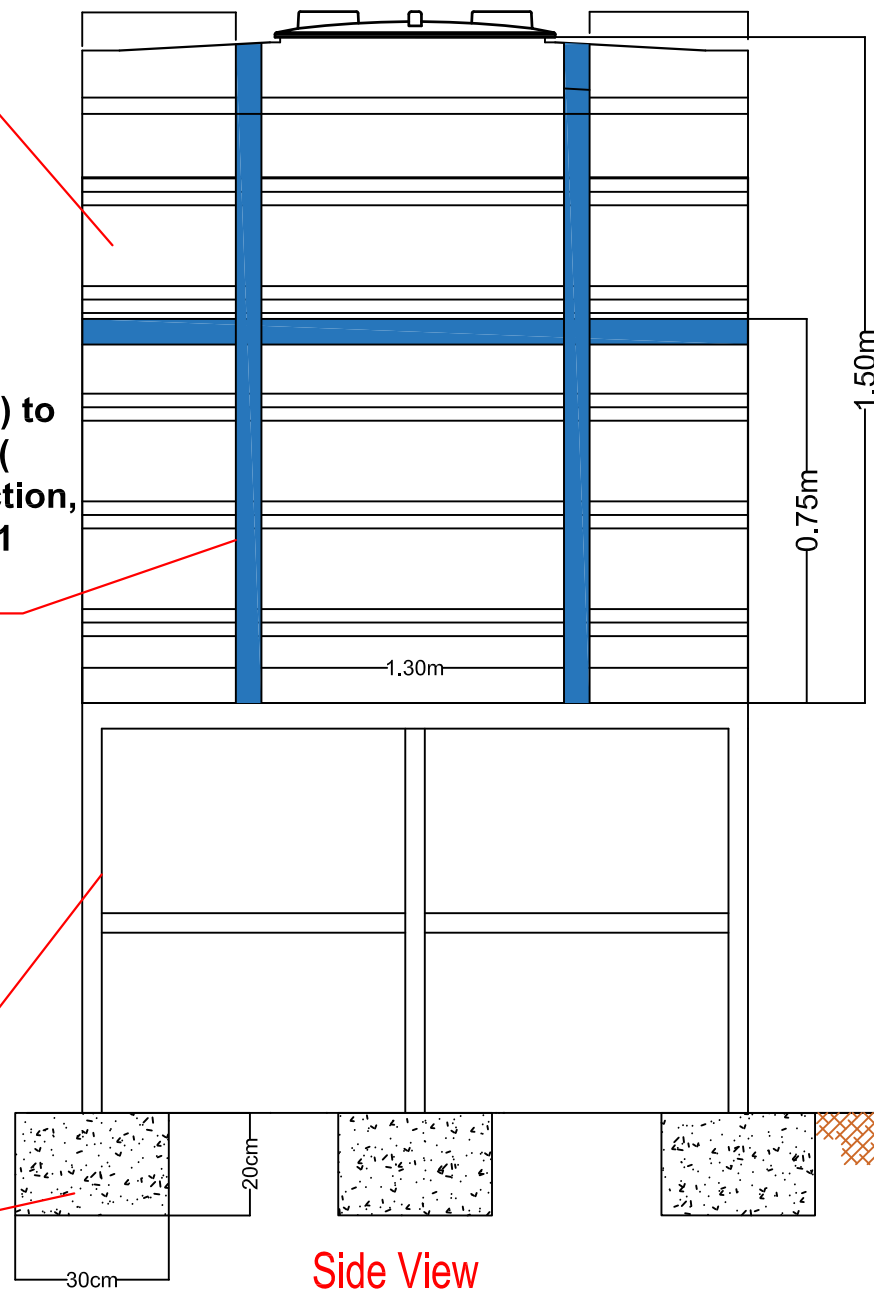
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Plastic water tank 2000 L, 3 layers

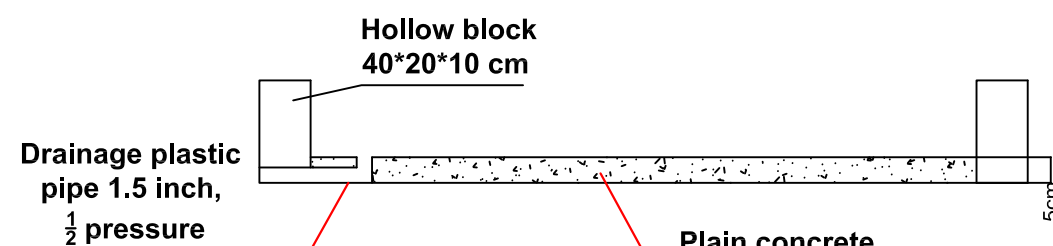
Belt (iron frame) to fixed the tanks (rectangular-section, width 1.5 inch, 1 mm-thick)

Iron tank's base

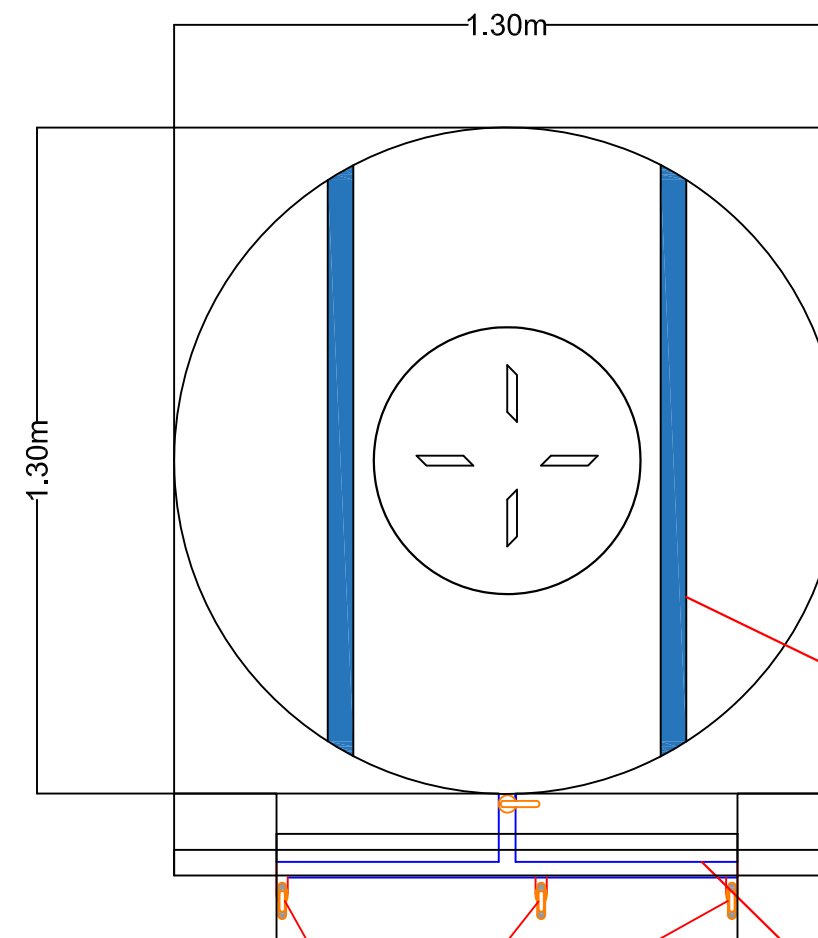
Plain concrete



Side View



Water Filling Basin Front View

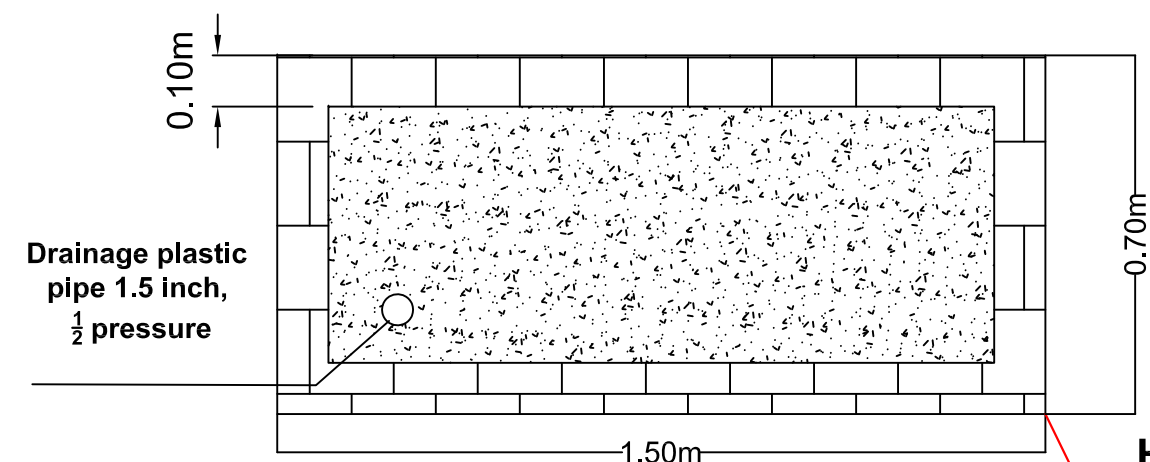


Water tap 3/4"

Top View

Belt (iron frame) to fixed the tanks (rectangular-section, width 1.5 inch, 1 mm-thick)

PVC pipe 3/4 "



Water Filling Basin Top View

Hollow block 40*20*10 cm

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WATER TANKS DETAILS



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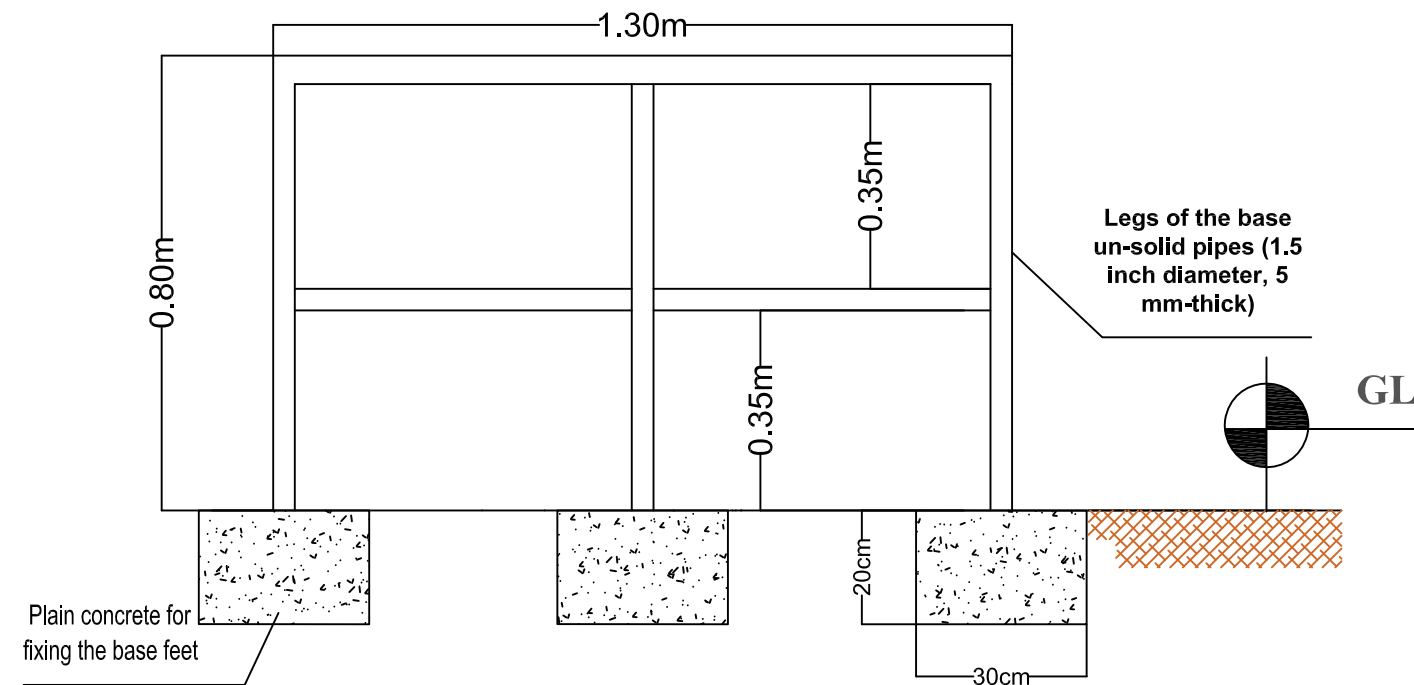
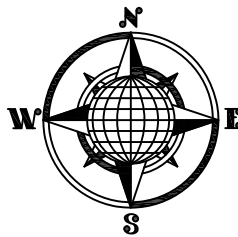
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Approve

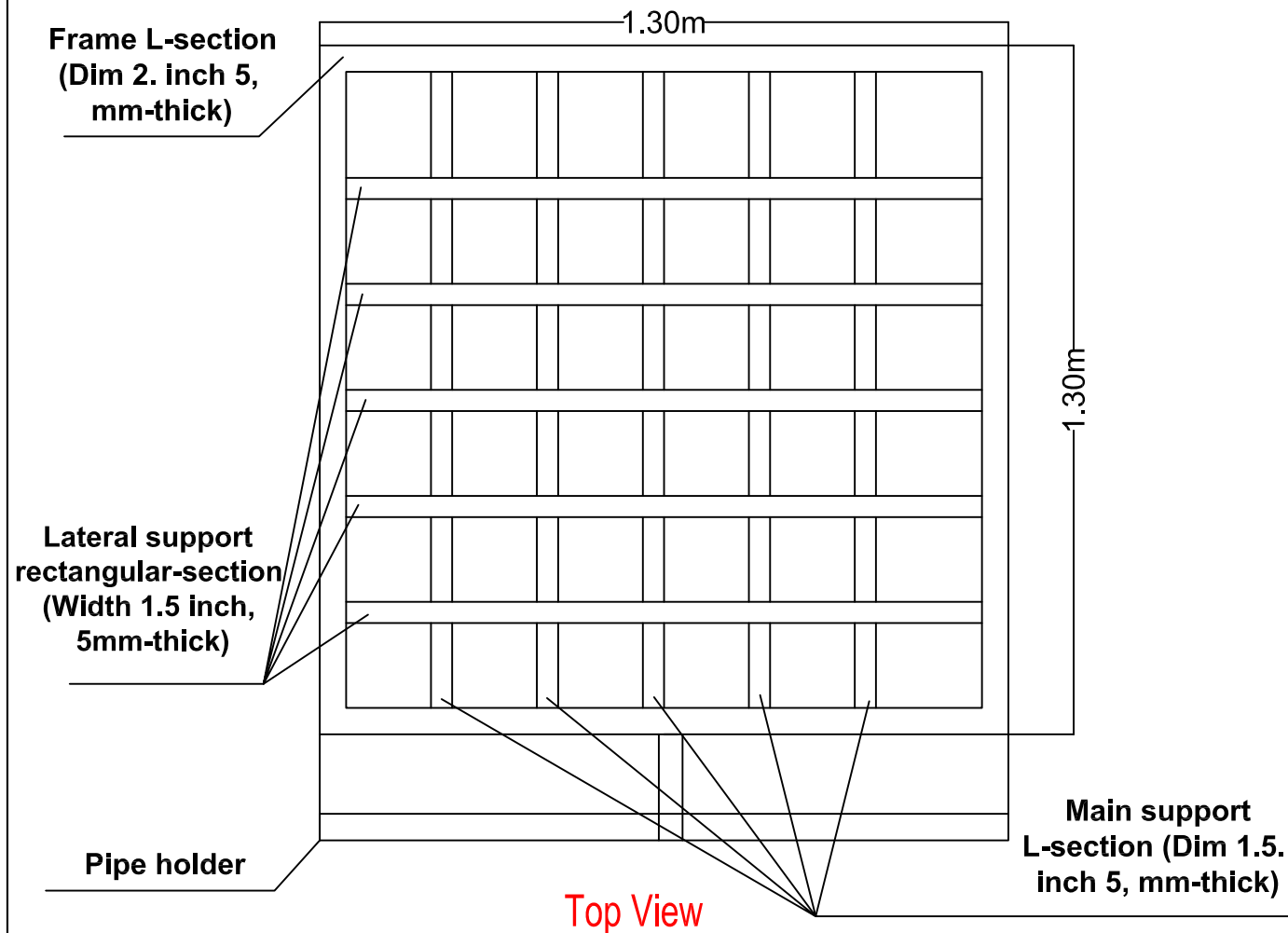
PROJECT

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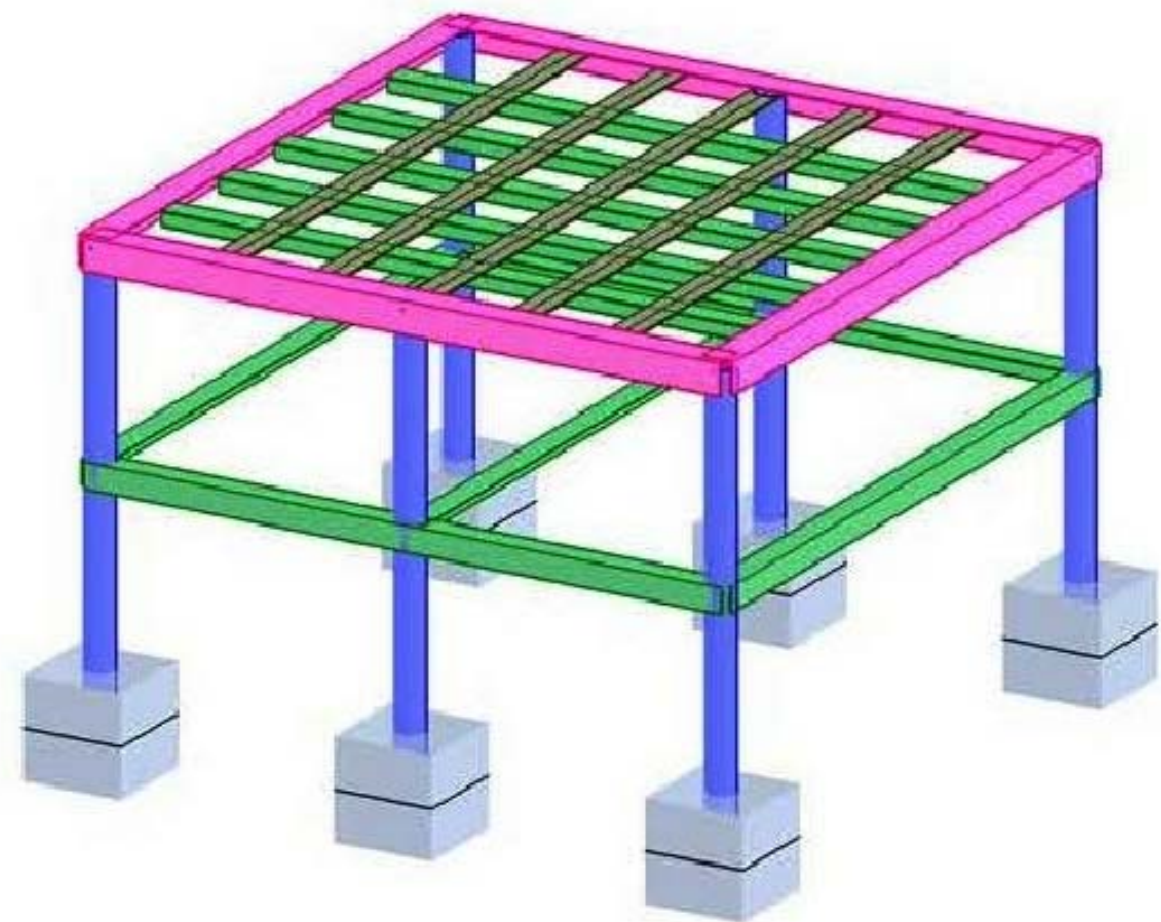
QATABAH DISTRICT AD DALI GOV. - YEMEN



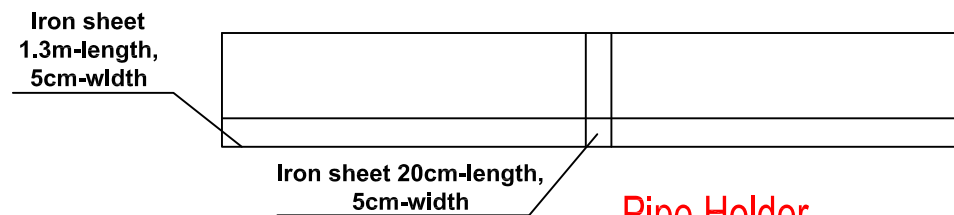
Side View



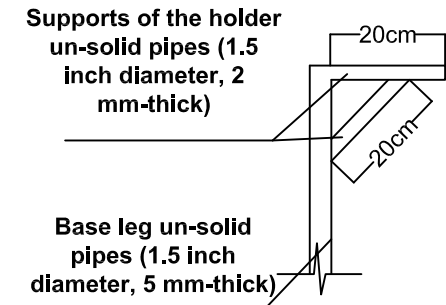
Top View



3D Model



Pipe Holder Top View



Pipe Holder Side View

PROJECT NO. 1

DEEM - CCCM

APRIL 2025

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D11

STEEL BASE DETAILS



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Yemen Humanitarian Fund

Legend :

Designed & Drawing by:	Date
Project Engineer	
Checked	
Approve	

PROJECT

SITE MAINTENANCE PROJECTS
QATABAH DISTRICT AD DALI GOV. - YEMEN

EMERGENCY LATRINES DRAWING

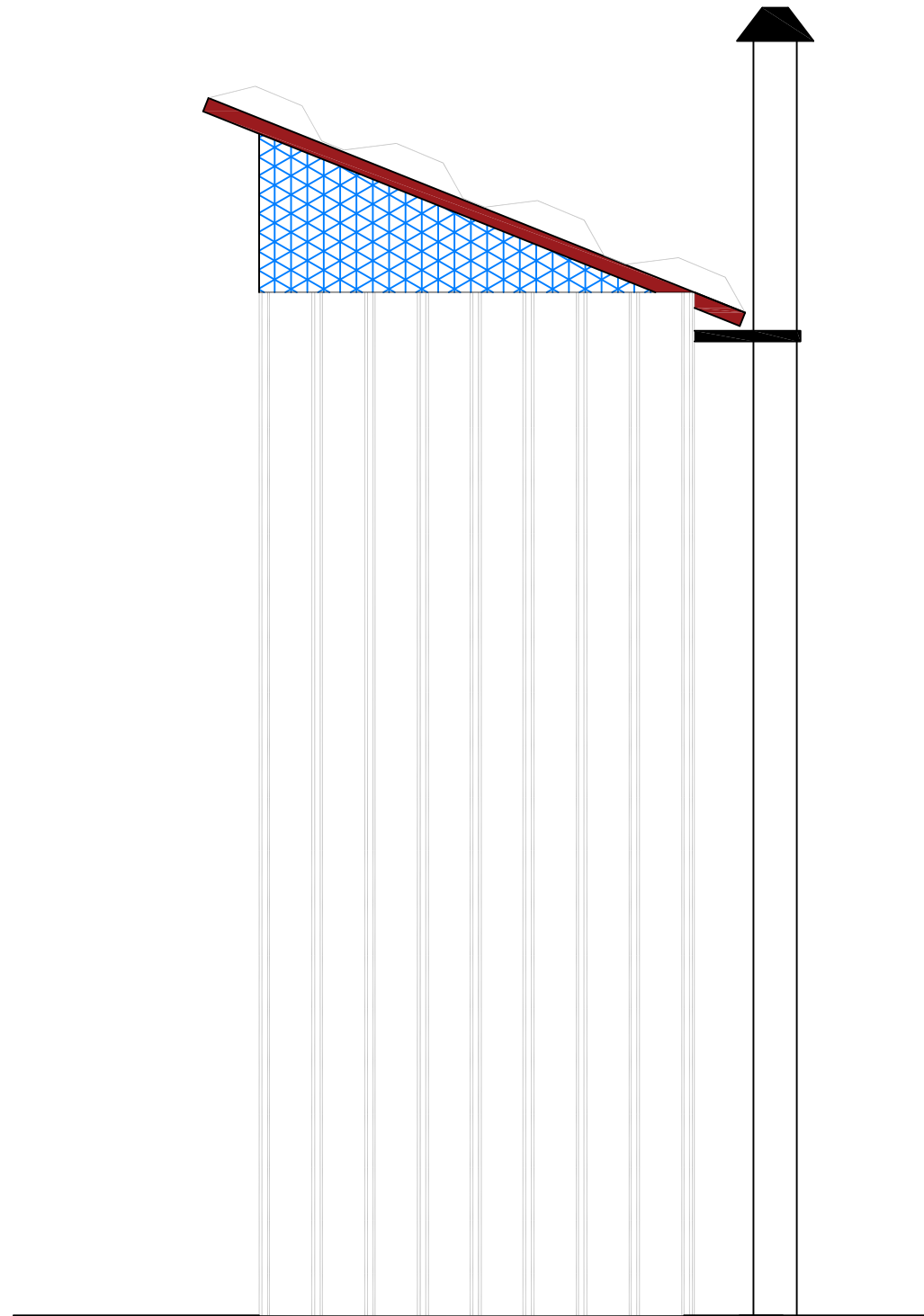
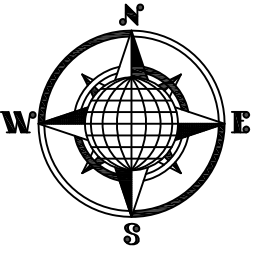
PROJECT NO. 1

DEEM - CCCM

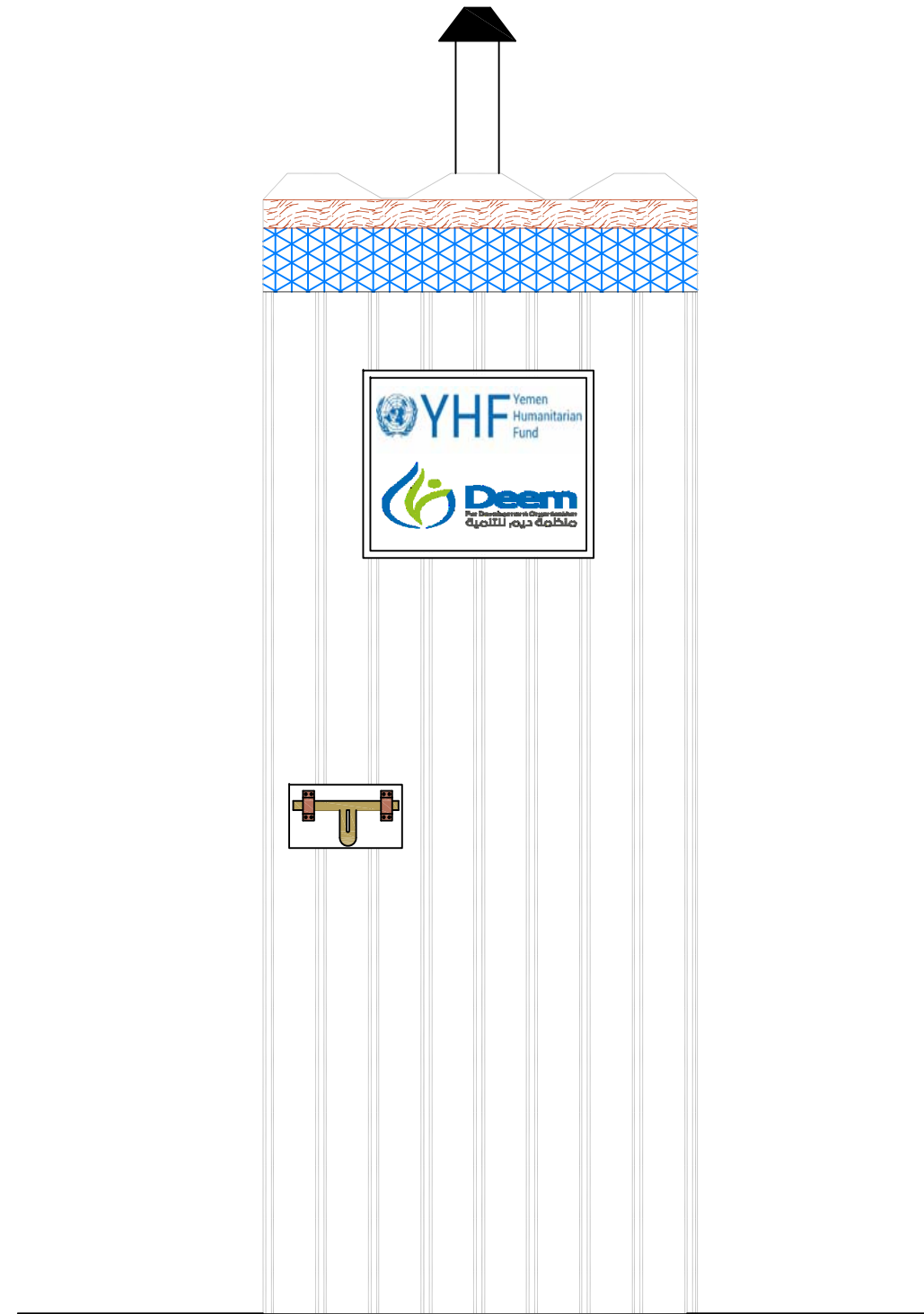
APRIL 2025

PREPARED BY





Latrine Side View



Latrine Front View

PROJECT NO. 1
DEEM - CCCM
APRIL 2025

PREPARED
BY



FUNDED
BY

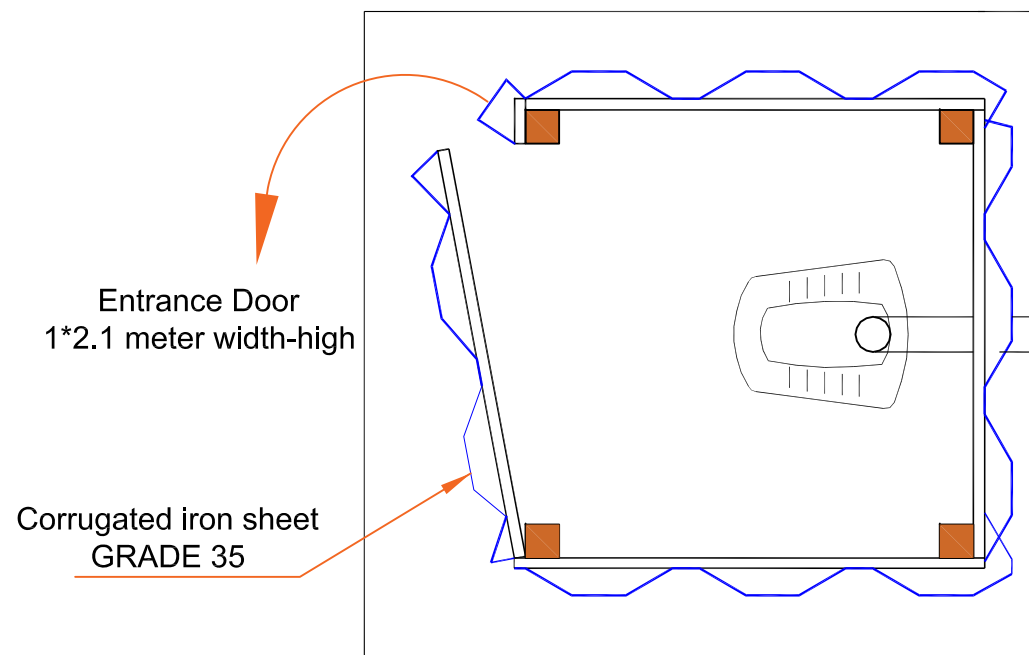


Legend :	
Designed & Drawing by: Project Engineer	Date
Checked	
Approve	

PROJECT

SITE MAINTENANCE PROJECTS

QATABAH DISTRICT AD DALI GOV. - YEMEN

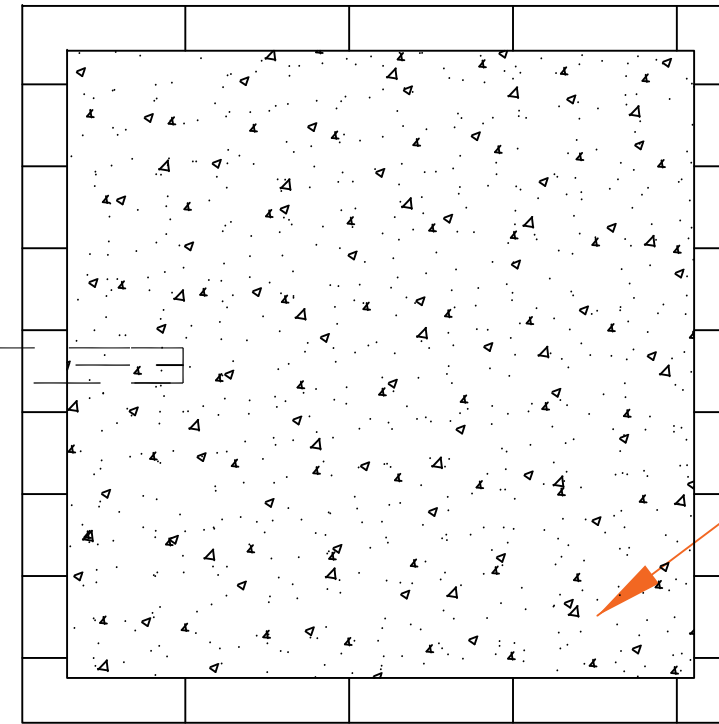


Entrance Door
1*2.1 meter width-high

Corrugated iron sheet
GRADE 35

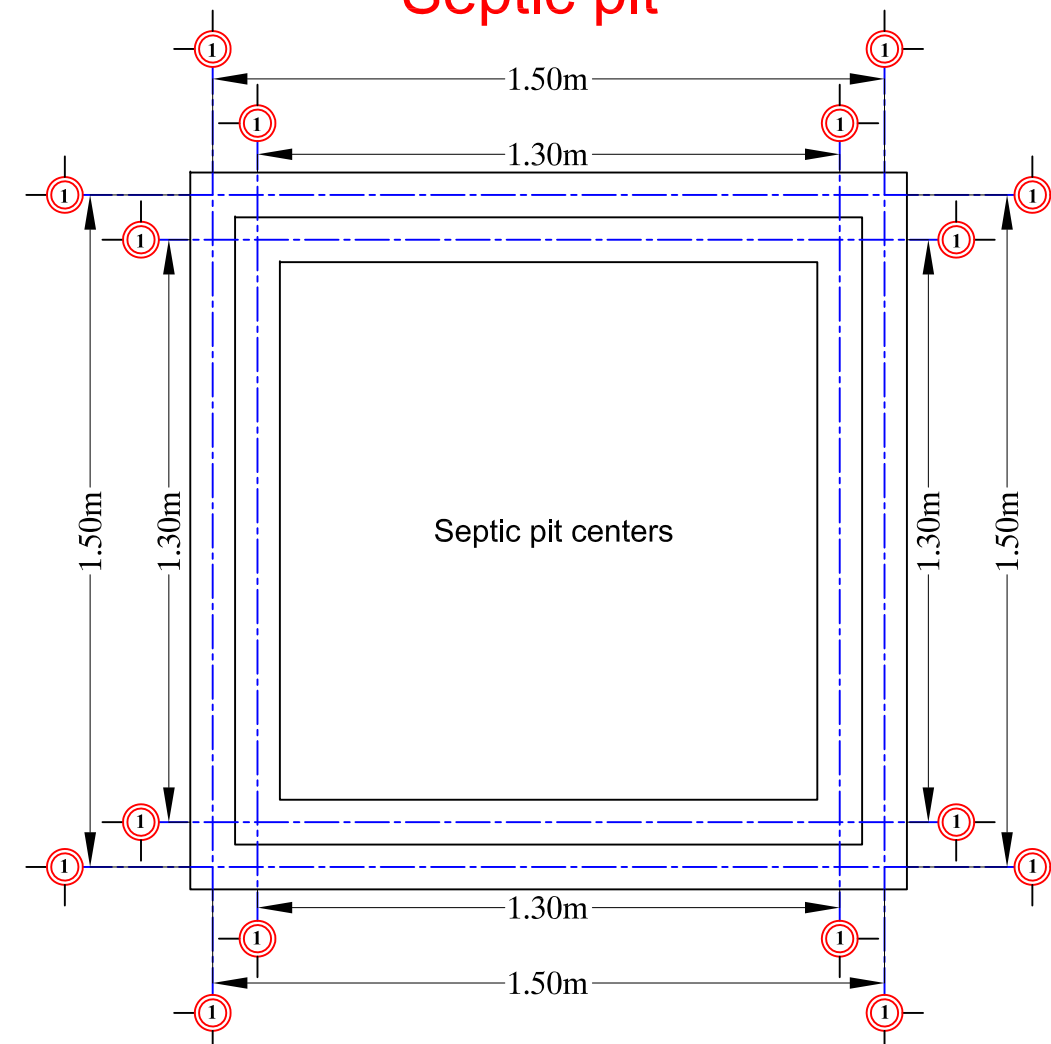
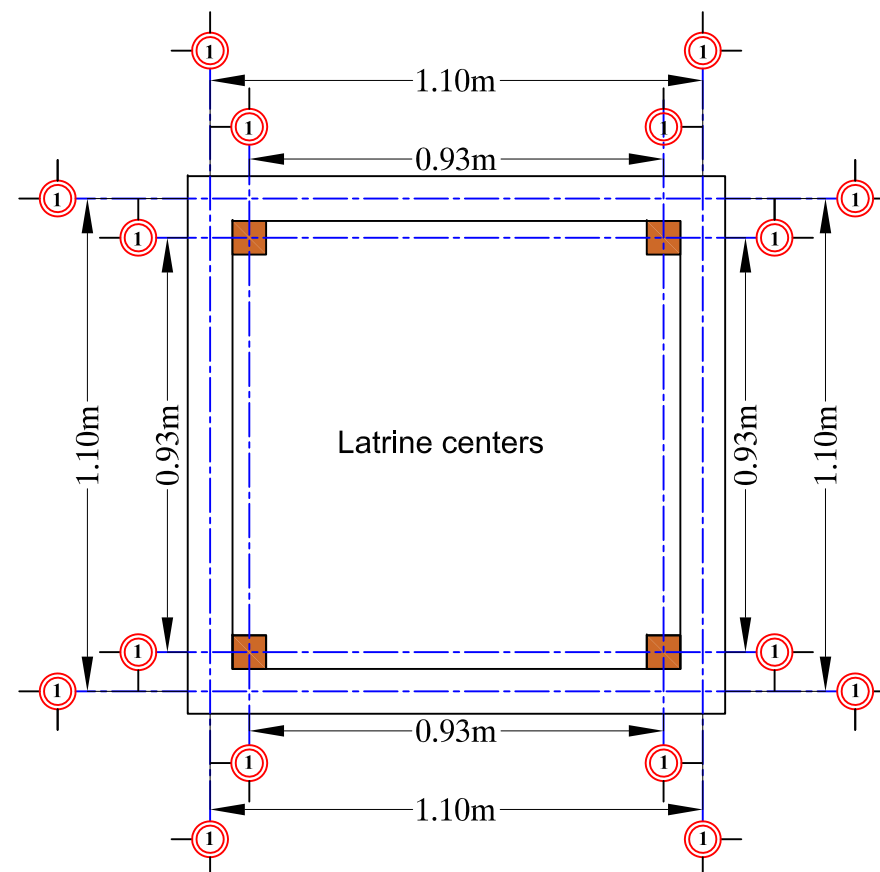
PVC Sewer pipe
10 cm dia. and
1.5 length

Latrine



Septic pit with internal
dimensions 1.2*1.2m
and 1.5 m-depth

Septic pit



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DEEM - CCCM

APRIL 2025

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BY

D-2

ELEVATION VIEW & CENTERS DIMENSIONS



FUNDED
BY



YHF Yemen
Humanitarian
Fund

Legend :

Designed & Drawing by:
Project Engineer

Date

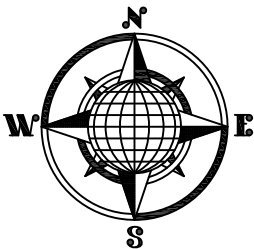
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Approve

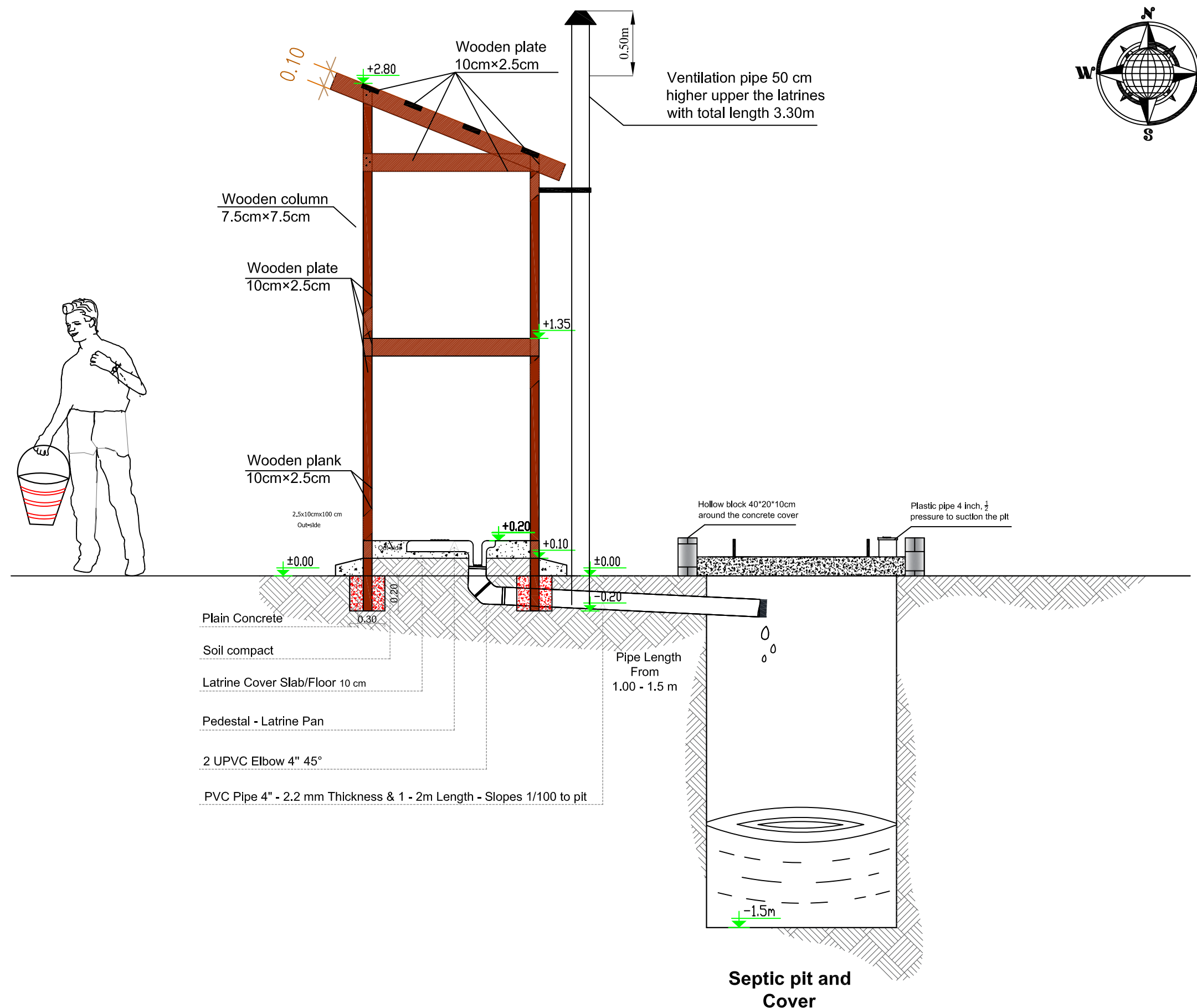
PROJECT

SITE MAINTENANCE PROJECTS

QATABAH DISTRICT AD DALI GOV. - YEMEN



Side Section for the latrine and the septic pit



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D-3

LATRINE & SEPTIC PIT SIDE SECTION DETAILS



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Legend :

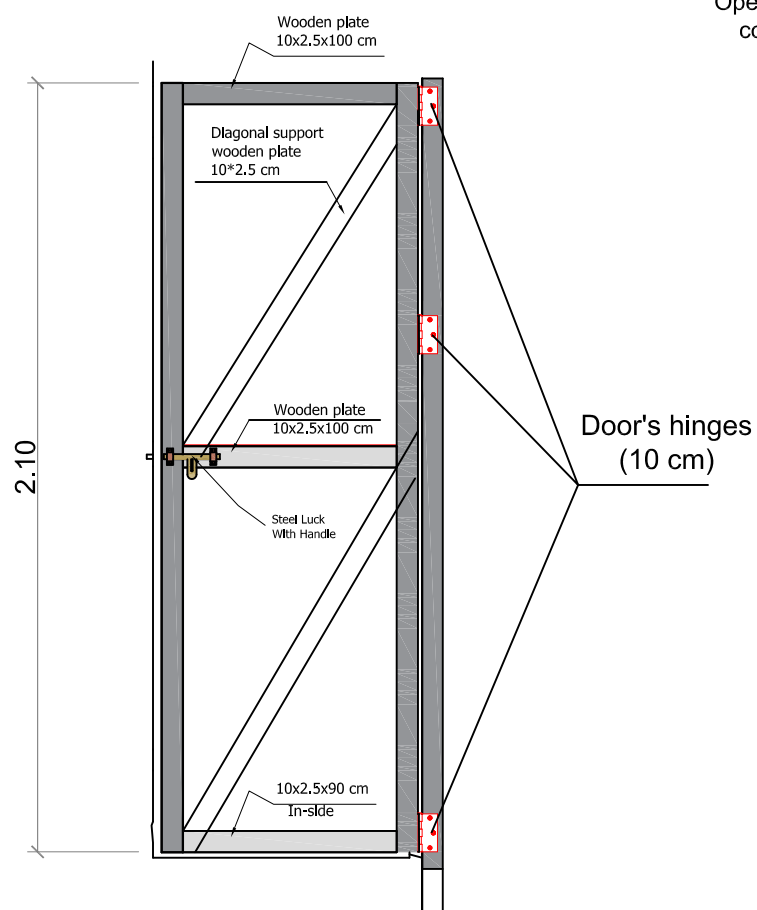
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Project Engineer	
Checked	
Approve	

PROJECT

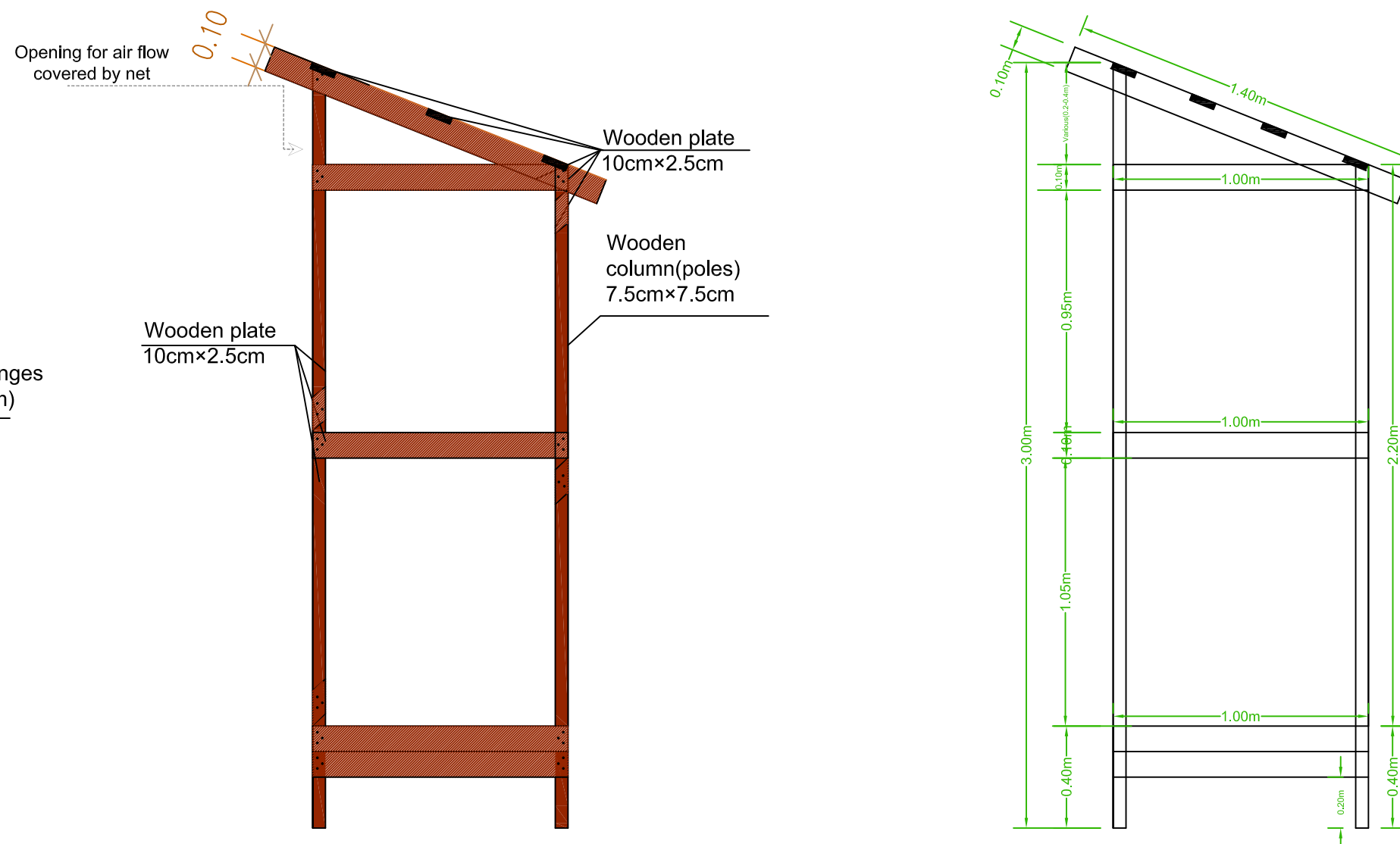
SITE MAINTENANCE PROJECTS
QATABAH DISTRICT AD DALI GOV. - YEMEN



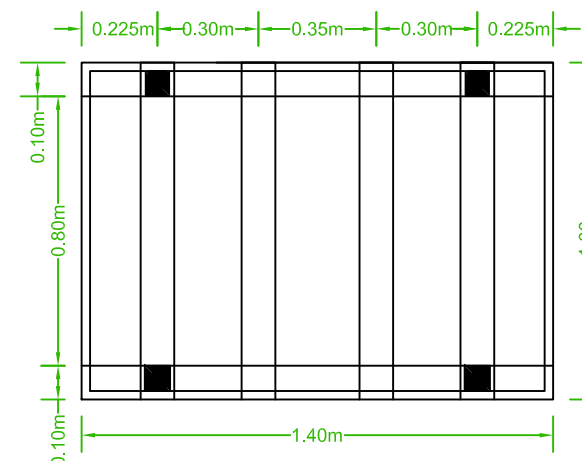
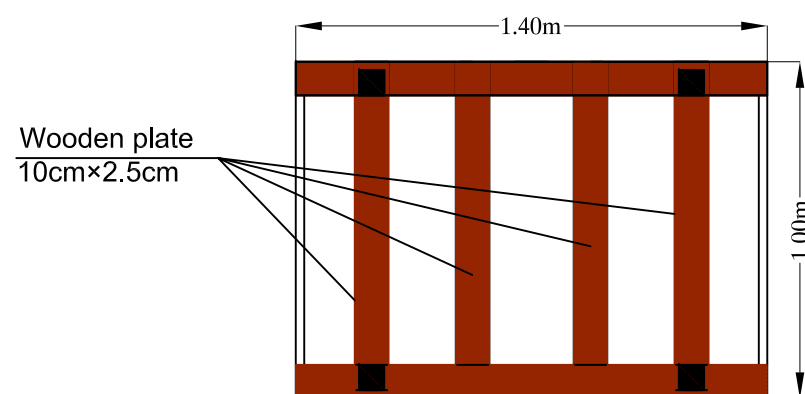
Latrine Door



Wooden Structure Dimensions



Latrine Roof Details



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D-4

WOODEN STRUCTURE DETAILS



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Legend :

Designed & Drawing by:
Project Engineer

Date

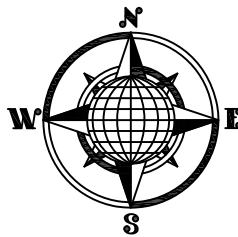
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Approve

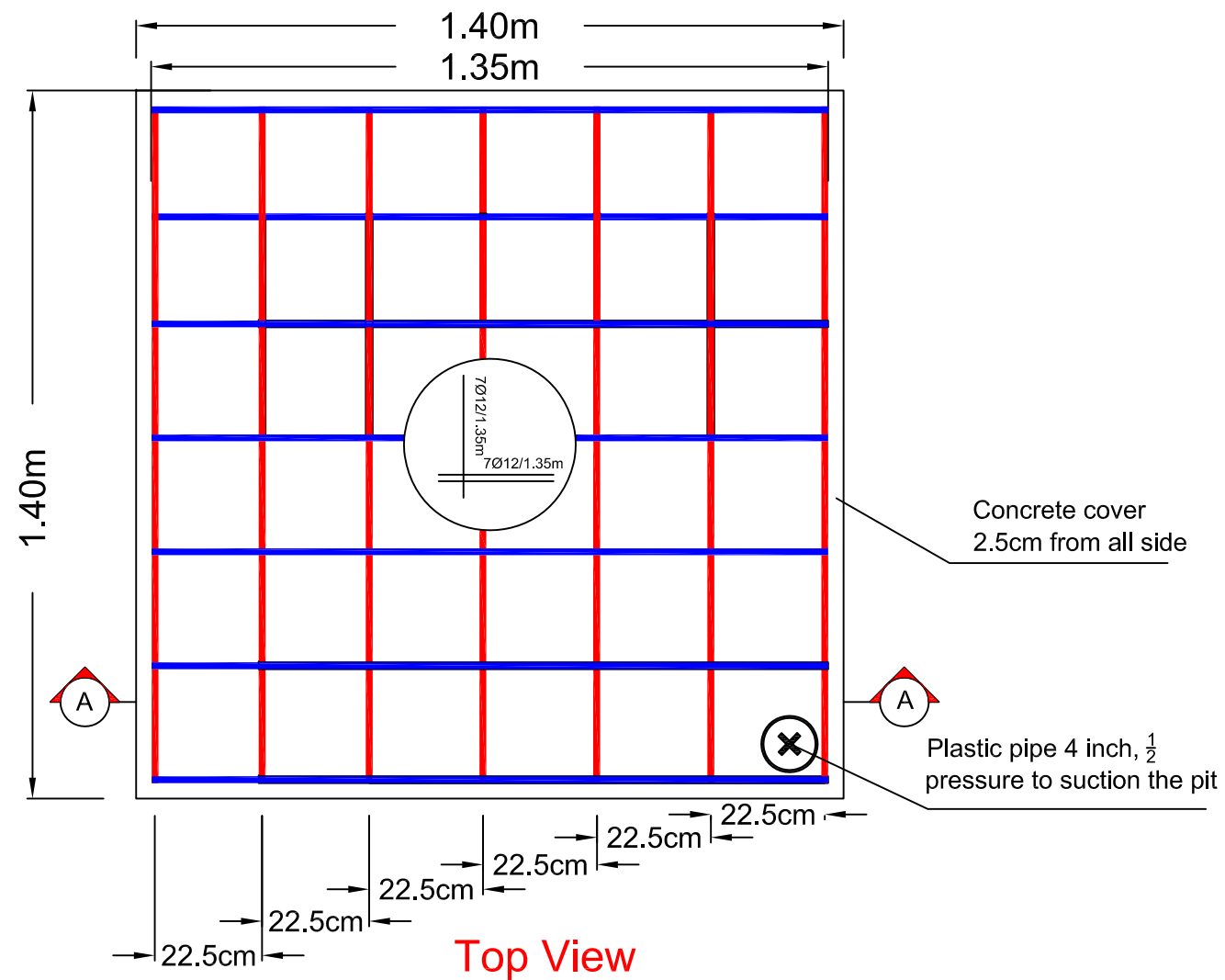
PROJECT

SITE MAINTENANCE PROJECTS

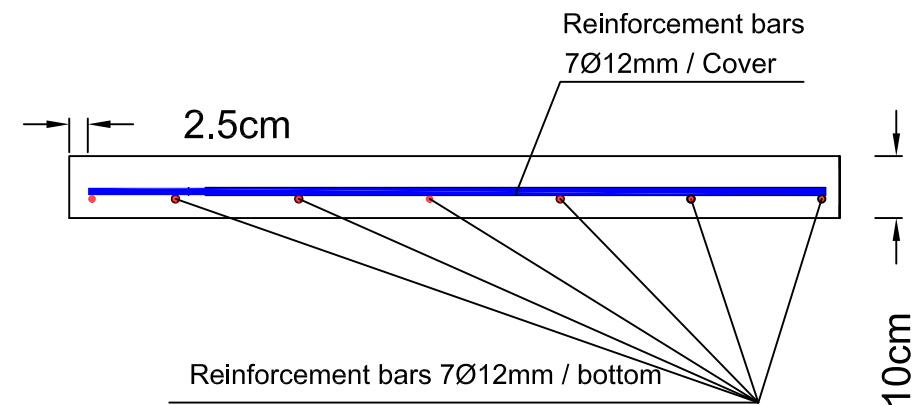
QATABAH DISTRICT AD DALI GOV. - YEMEN



Concrete Cover Reinforcement Details

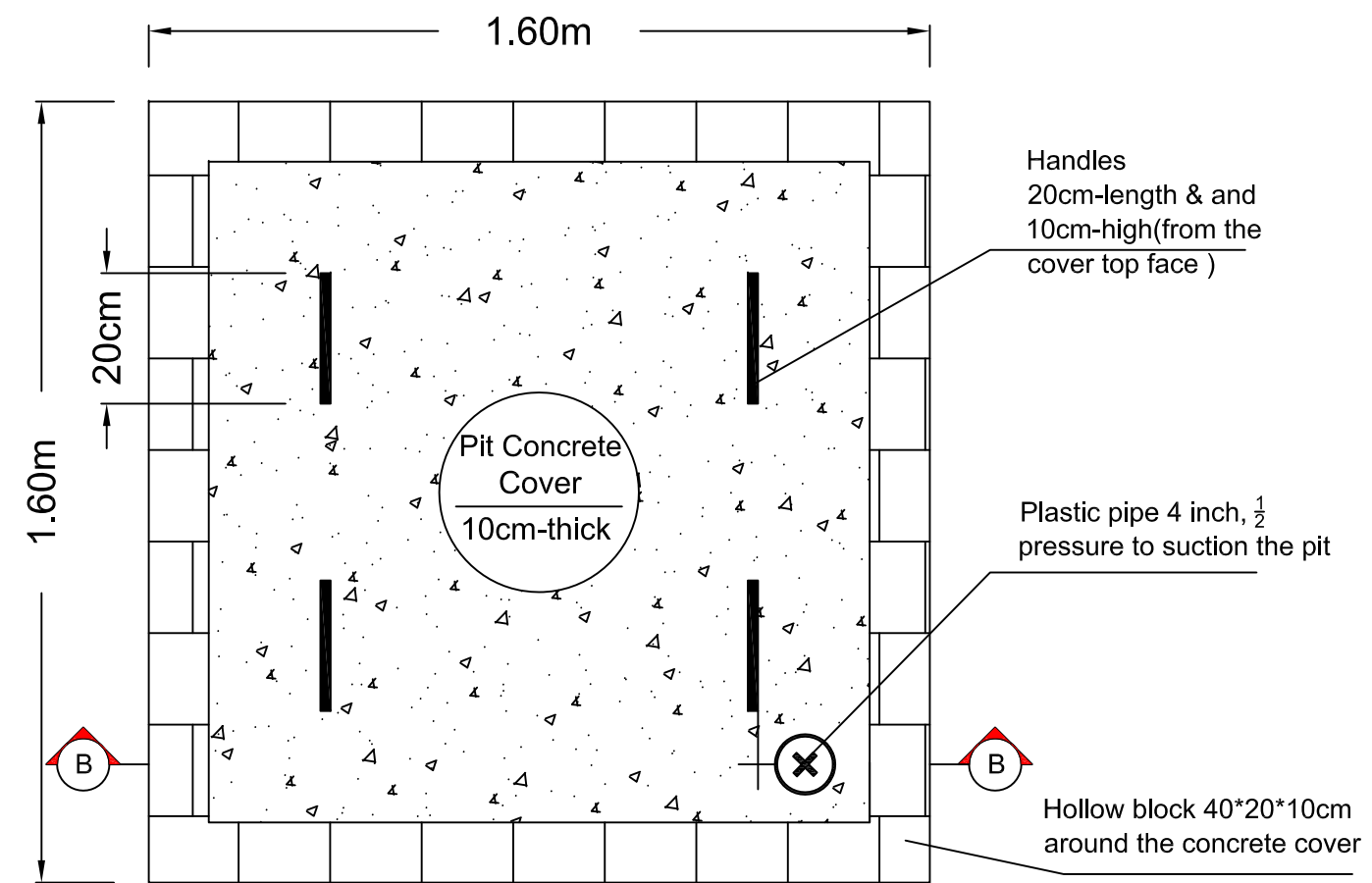


Top View

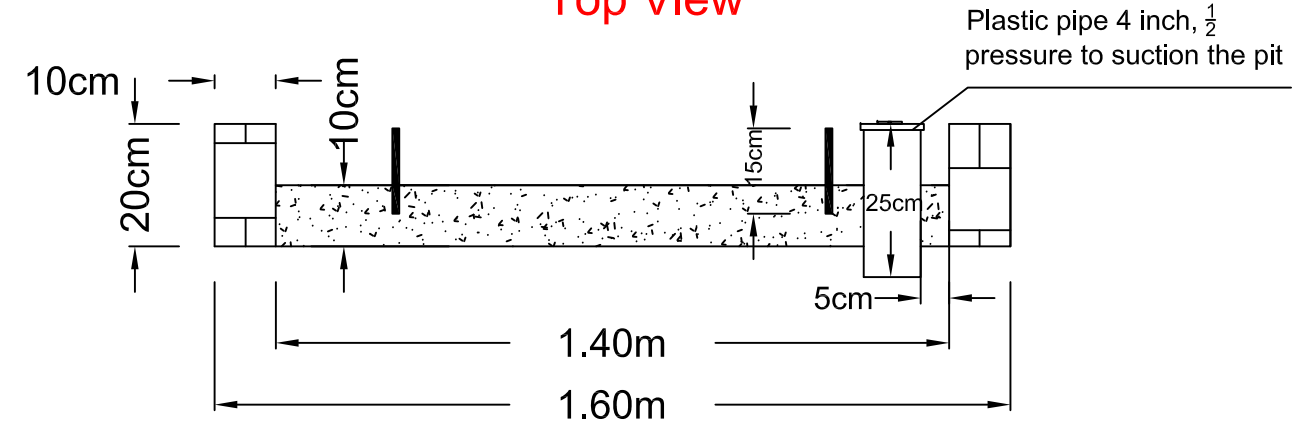


Section A-A

Concrete Cover & Block Raw Details



Top View



Section B-B

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DEEM - CCCM

APRIL 2025

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SEPTIC PIT COVER DETAILS



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Legend :

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Project Engineer	
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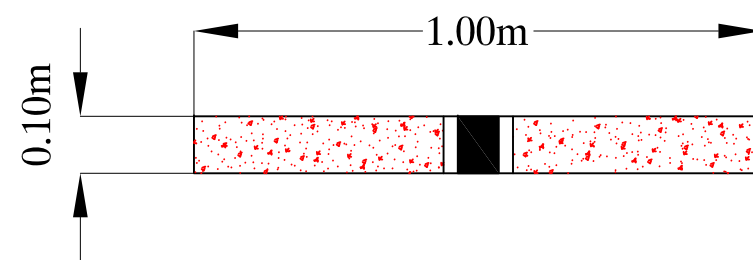
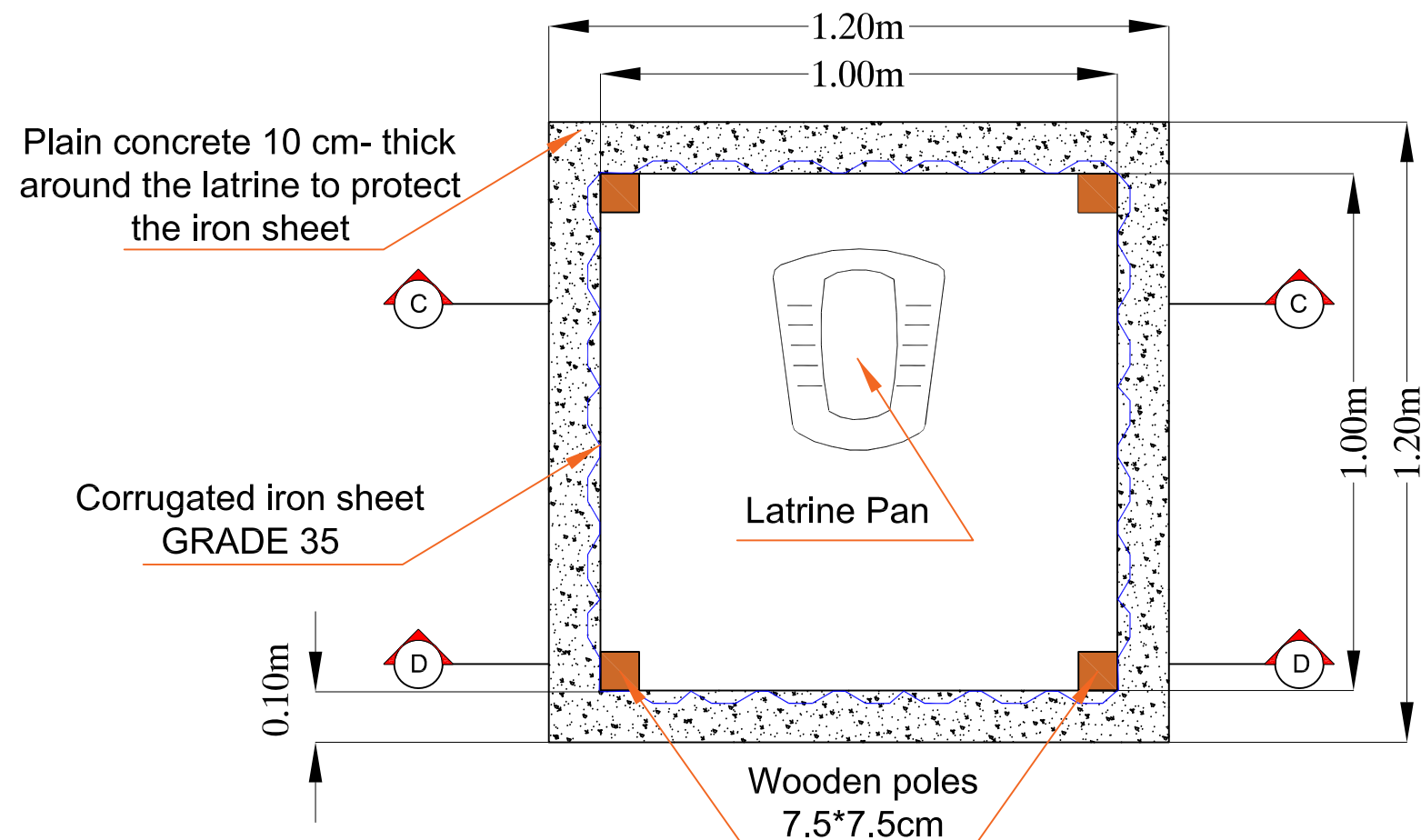
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PROJECT

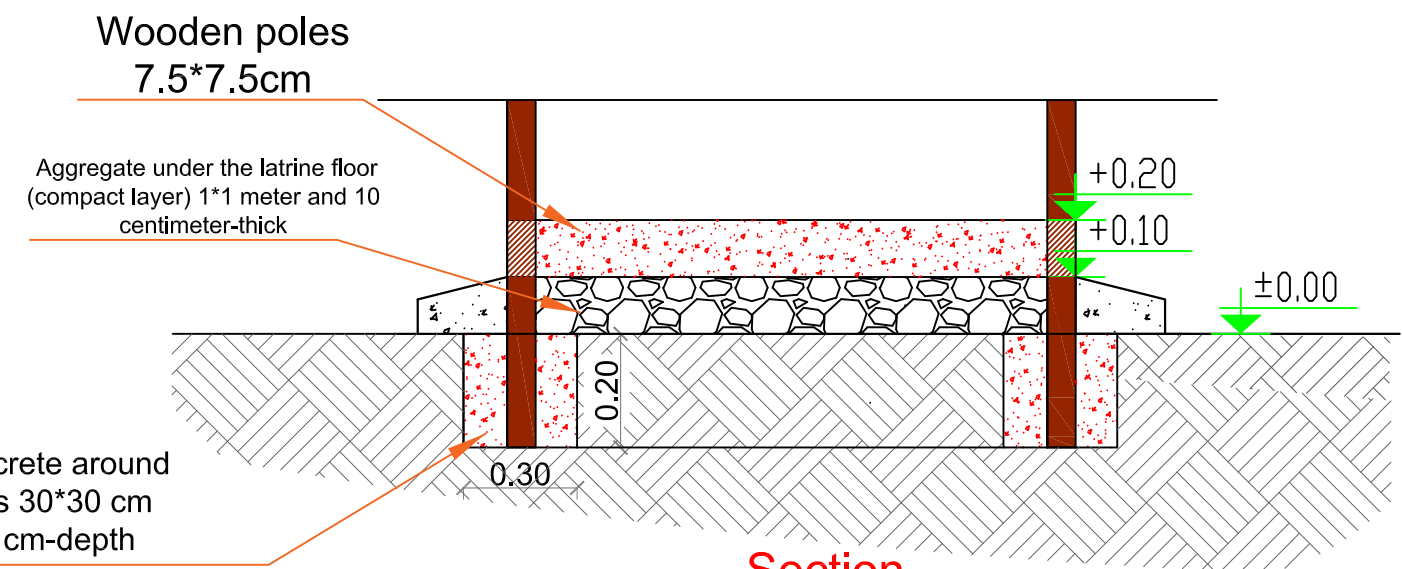
SITE MAINTENANCE PROJECTS
QATABAH DISTRICT AD DALI GOV. - YEMEN



Latrine top view



Section
A-A



Section
A-A

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BY

D-6

LATRINE FLOOR DETAILS



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Project Engineer

Date

Checked

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PROJECT

SITE MAINTENANCE PROJECTS

QATABAH DISTRICT AD DALI GOV. - YEMEN

SOLAR LAMP DRAWING

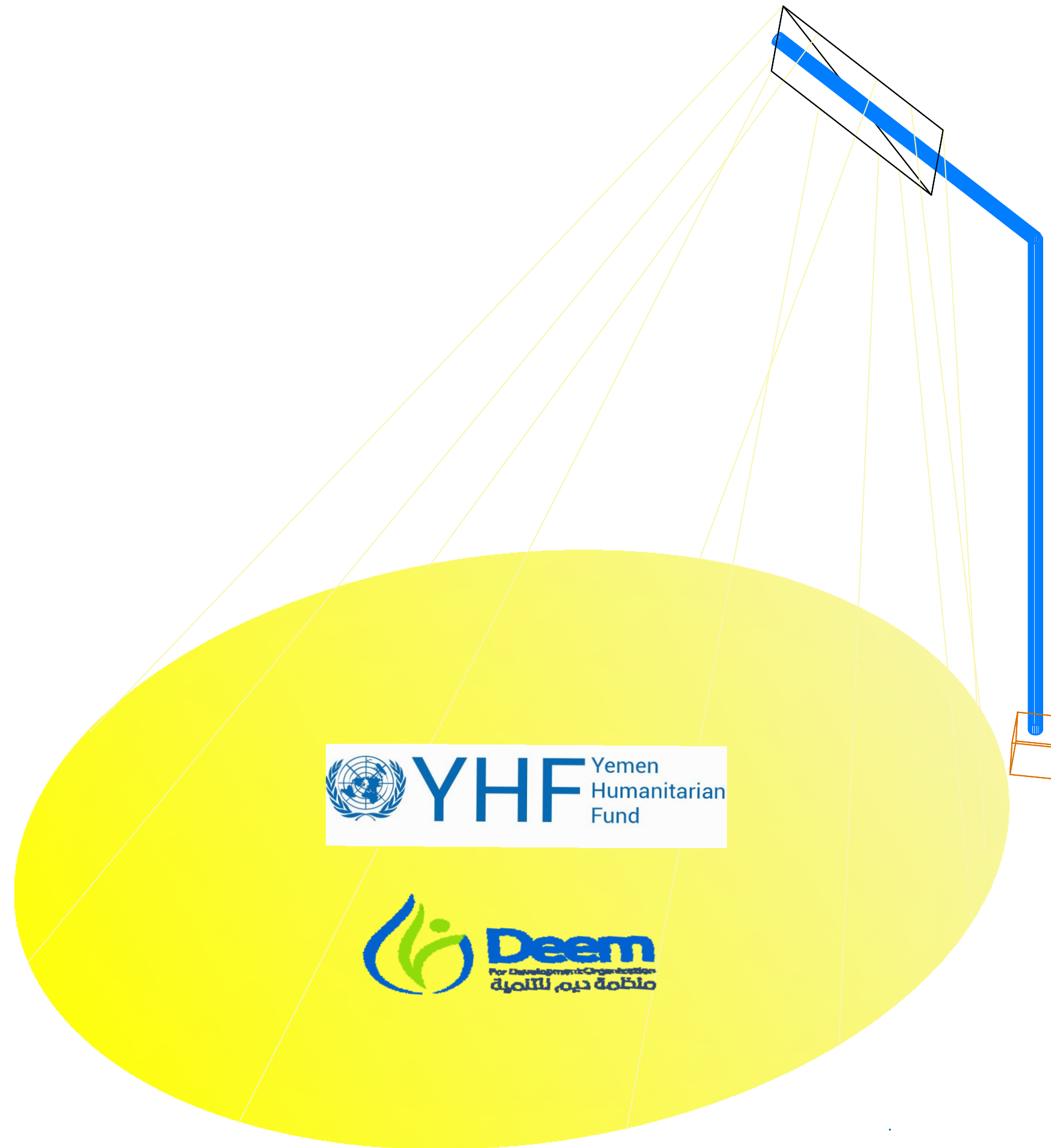
PROJECT NO. 1

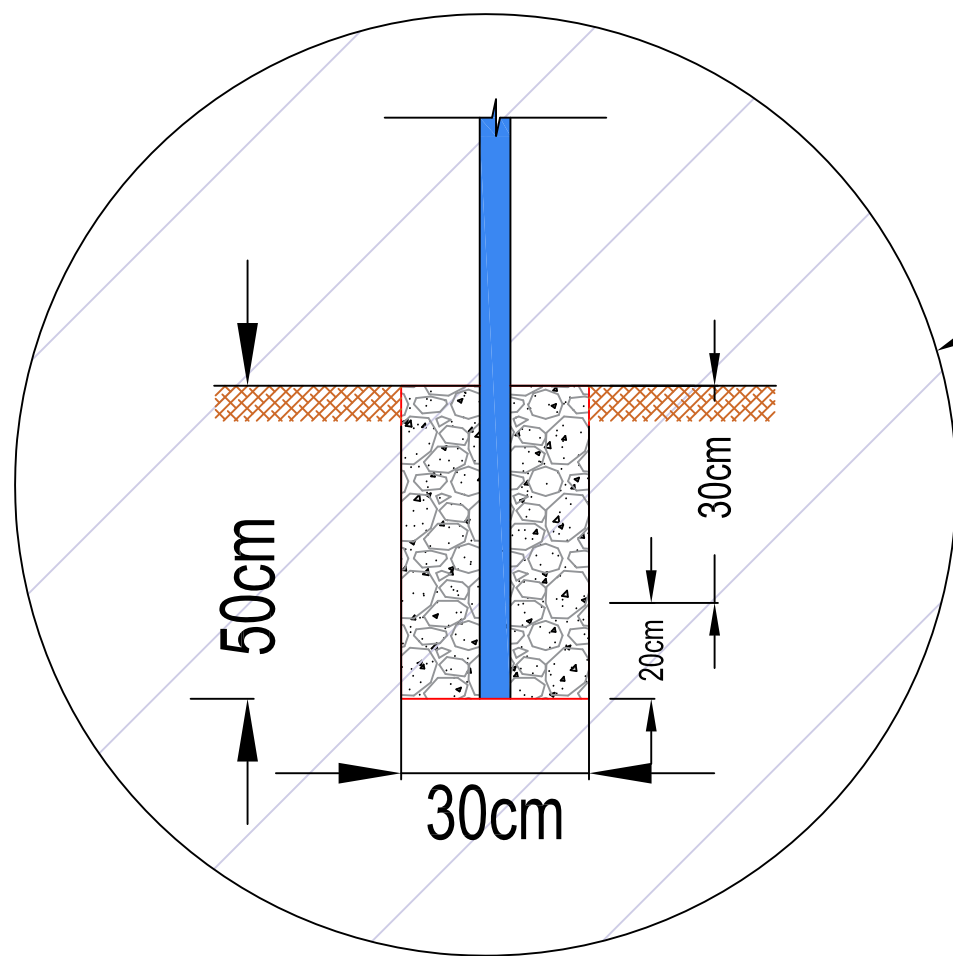
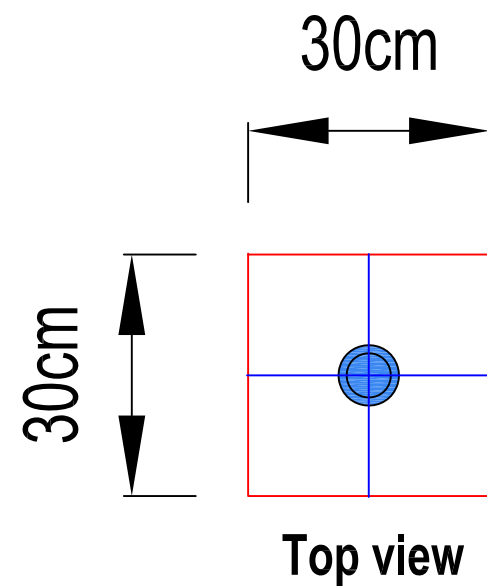
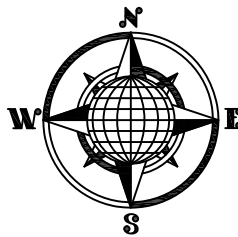
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APRIL 2025

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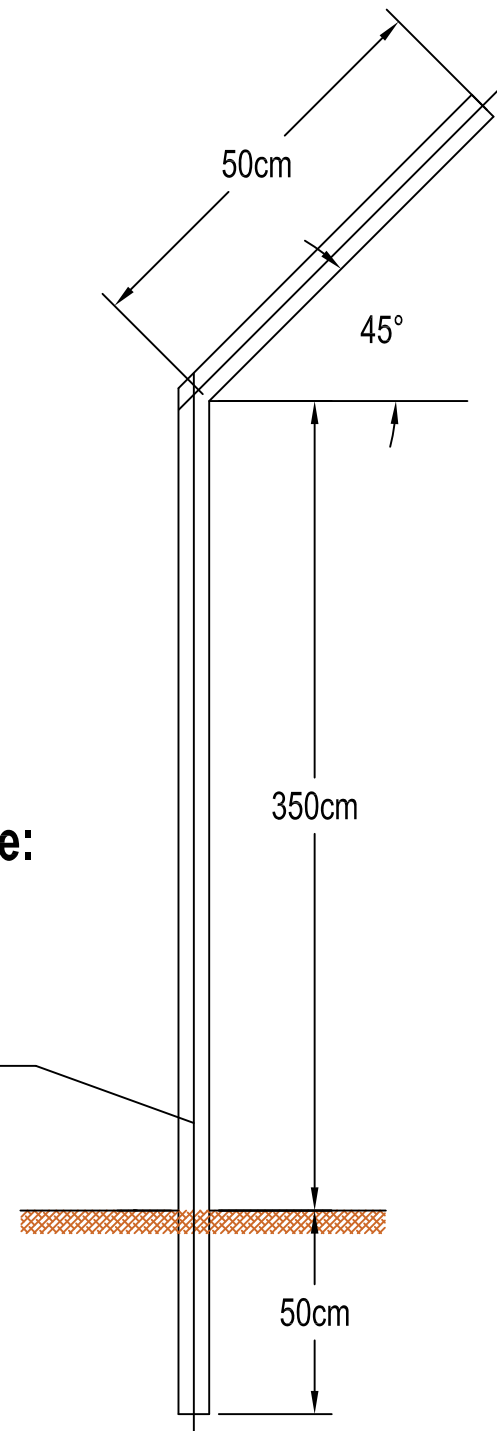




Section A-A



Galvanized iron pipe:
- Dia. 2.5 in
- Thickness 2.5 mm



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APRIL 2025

PREPARED BY

D-1

SOLAR LIGHTING



FUNDED BY



YHF Yemen Humanitarian Fund

Legend :

Designed & Drawing by:

Project Engineer

Date

Checked

Approve

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SITE MAINTENANCE PROJECTS

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WATER POINT DRAWING

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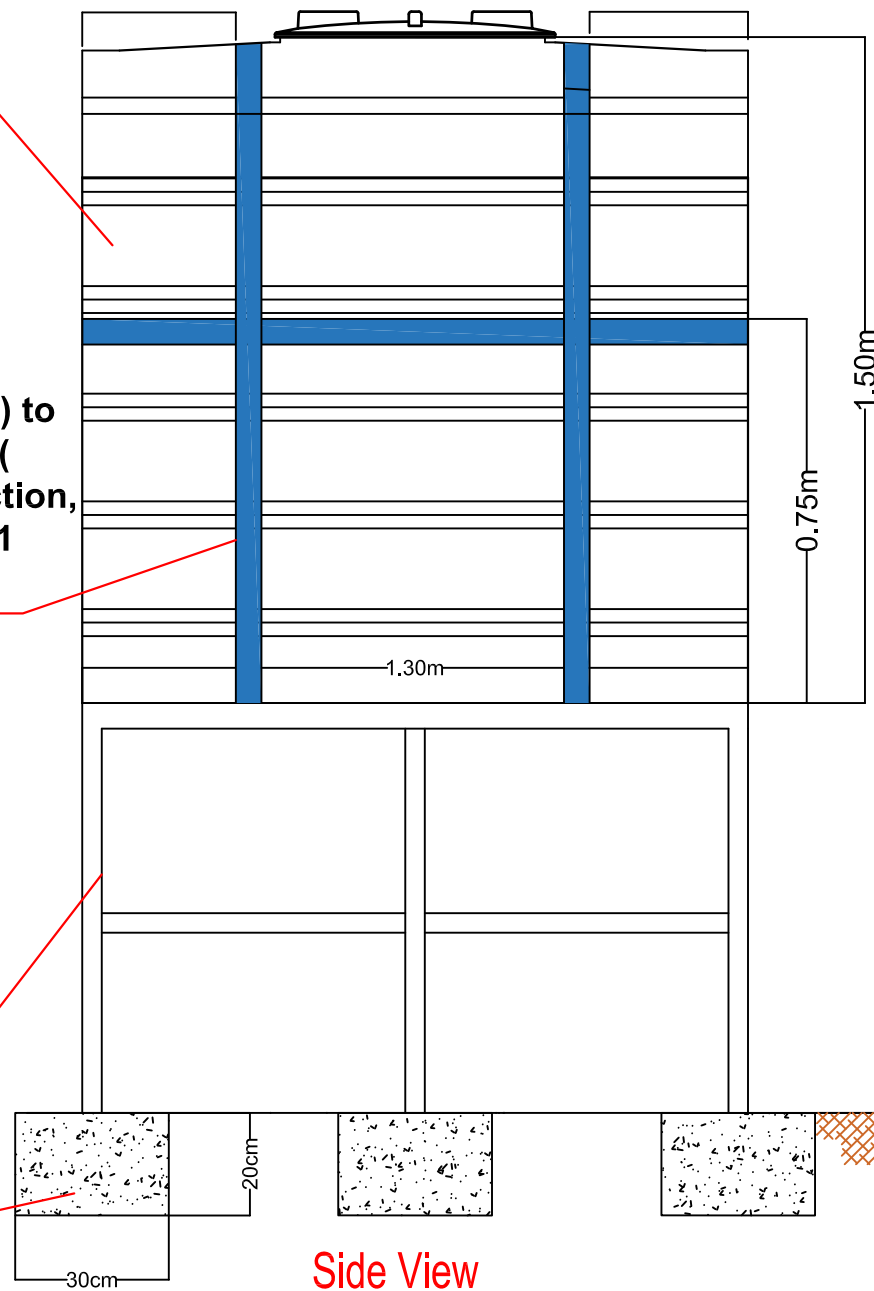


Plastic water tank 2000 L, 3 layers

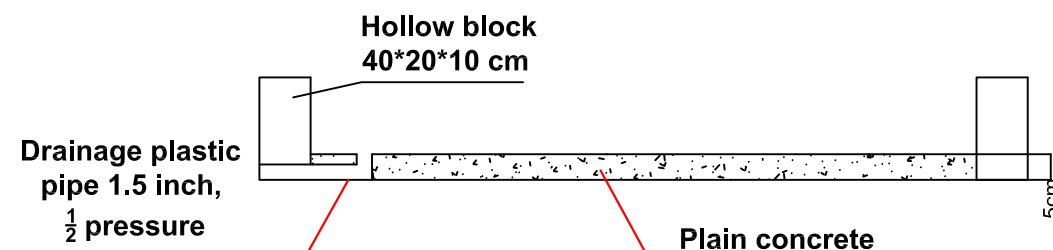
Belt (iron frame) to fixed the tanks (rectangular-section, width 1.5 inch, 1 mm-thick)

Iron tank's base

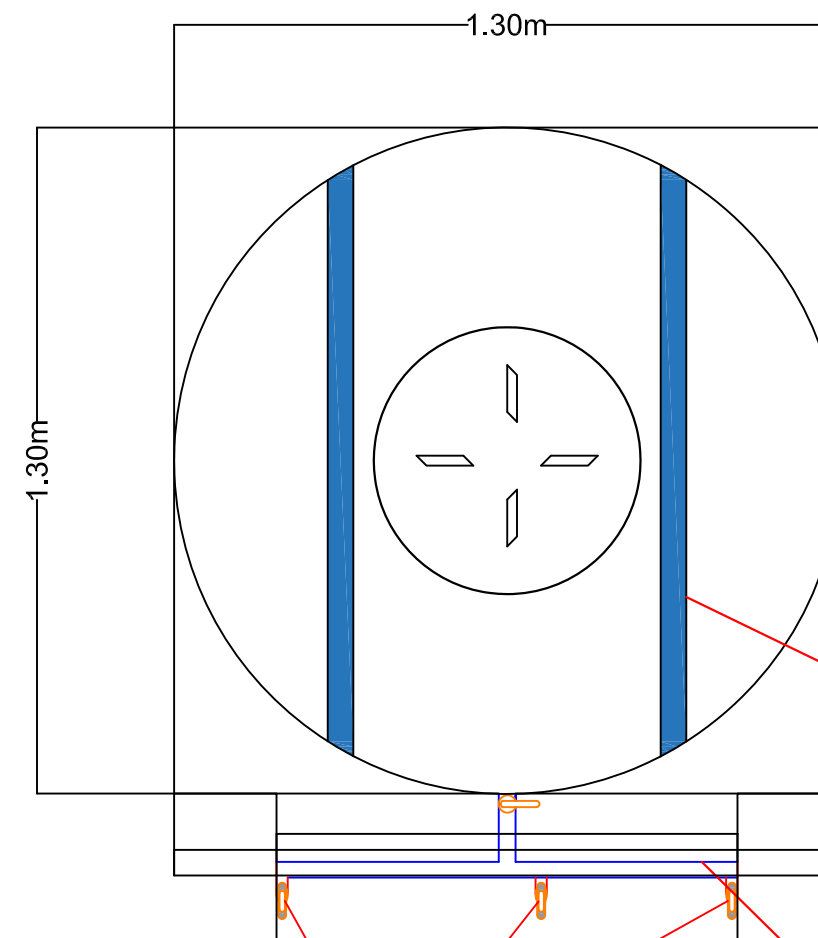
Plain concrete



Side View



Water Filling Basin
Front View

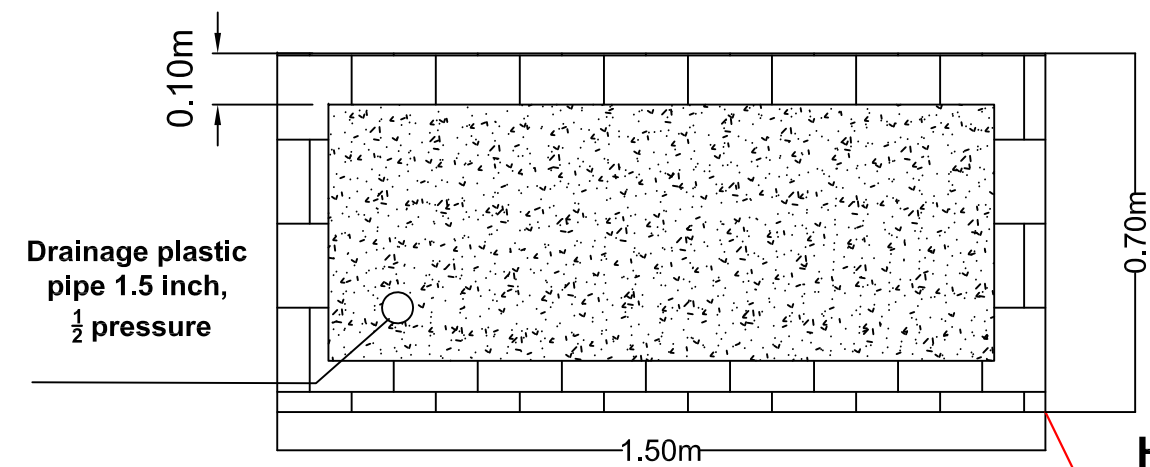


Belt (iron frame) to fixed the tanks (rectangular-section, width 1.5 inch, 1 mm-thick)

Water tap $\frac{3}{4}$ "

Top View

PVC pipe $\frac{3}{4}$ "



Water Filling Basin
Top View

Hollow block
40*20*10 cm

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D1

WATER TANKS DETAILS



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Project Engineer

Date

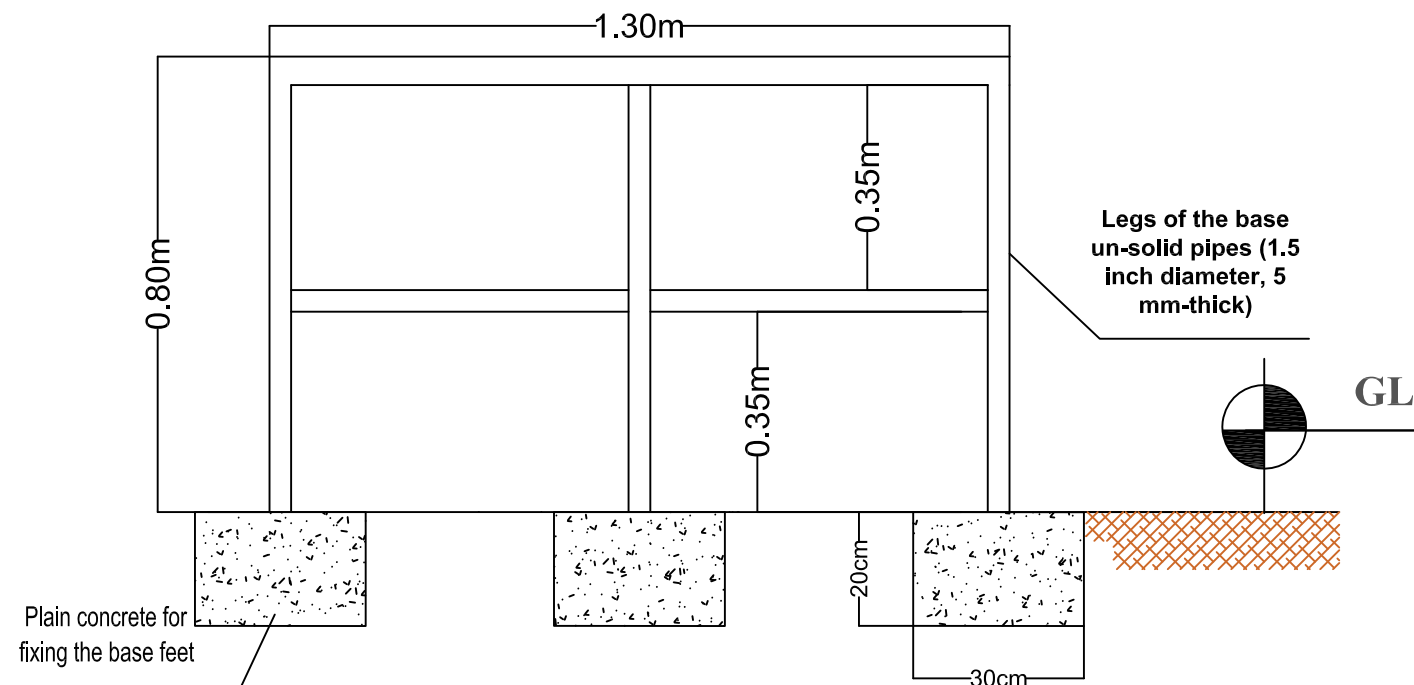
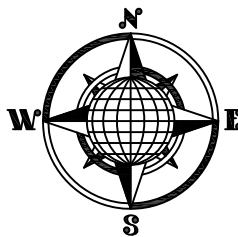
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Approve

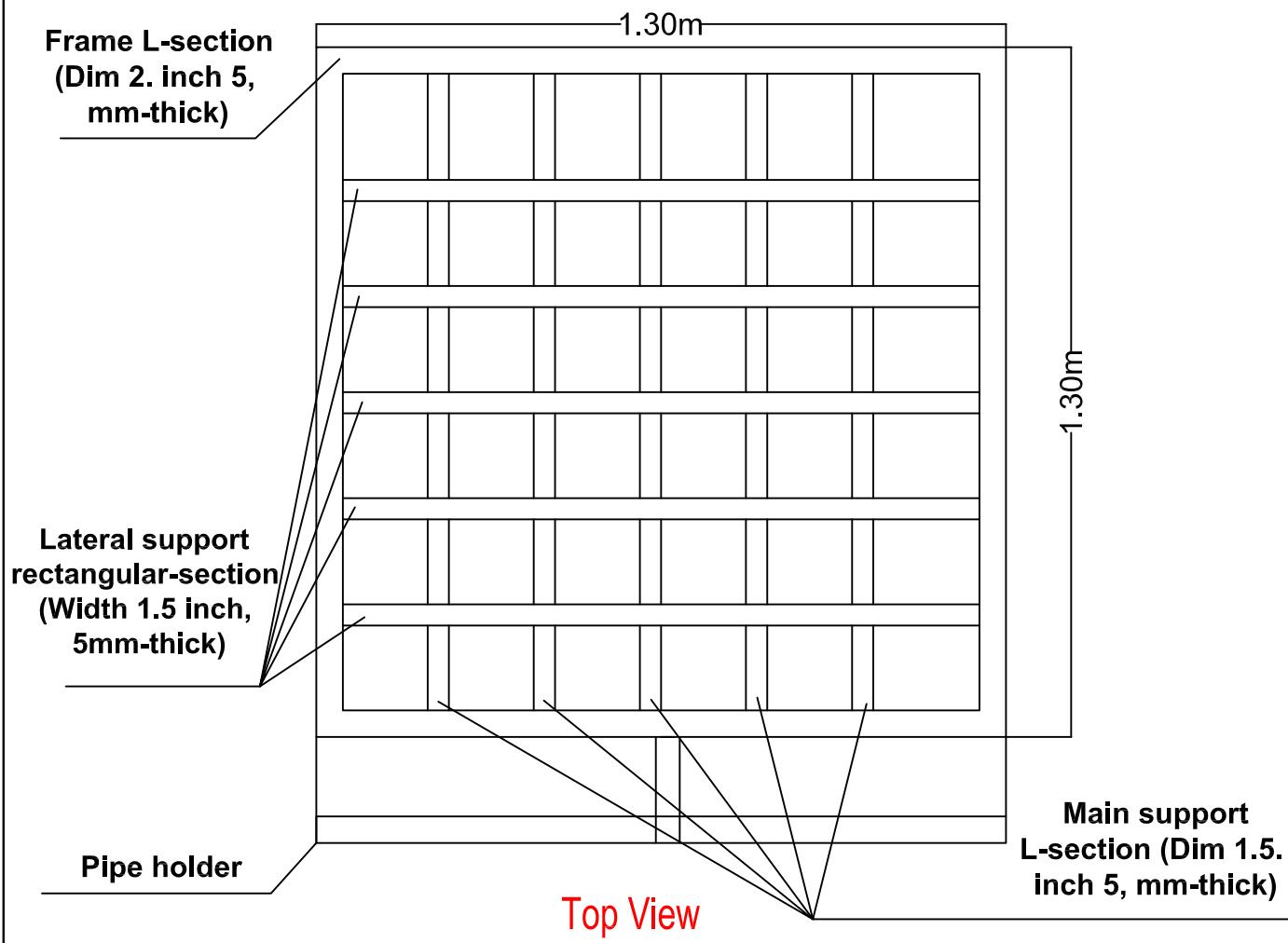
PROJECT

SITE MAINTENANCE PROJECTS

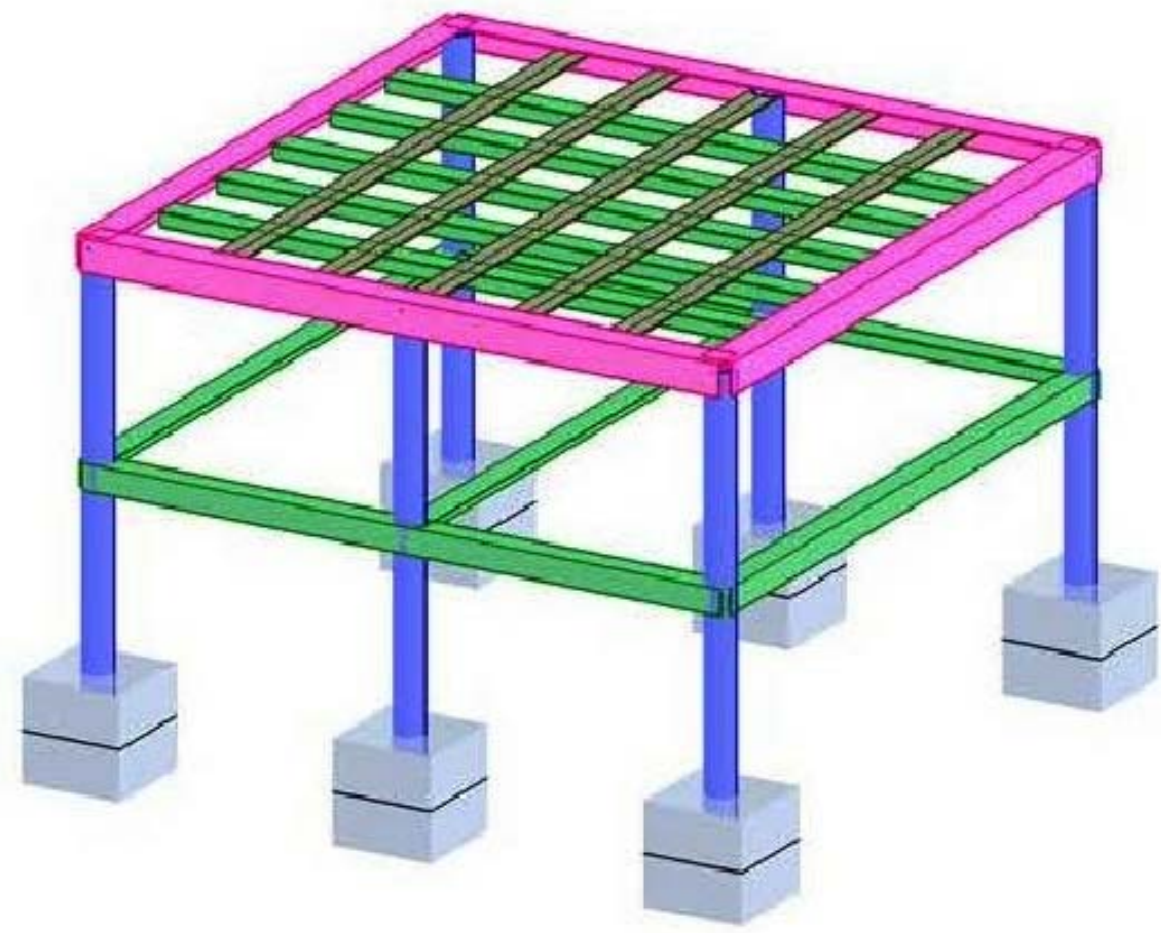
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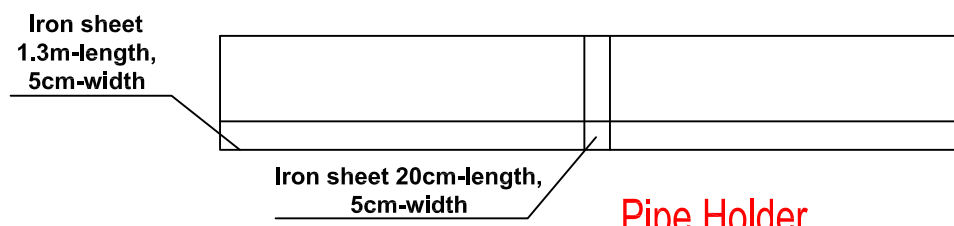
Side View



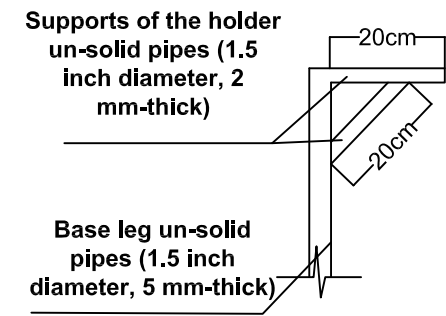
Top View



3D Model



Pipe Holder Top View



Pipe Holder Side View

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STEEL BASE DETAILS



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Legend :

Designed & Drawing by:	Project Engineer	Date
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Approve		

PROJECT

SITE MAINTENANCE PROJECTS

QATABAH DISTRICT AD DALI GOV. - YEMEN

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