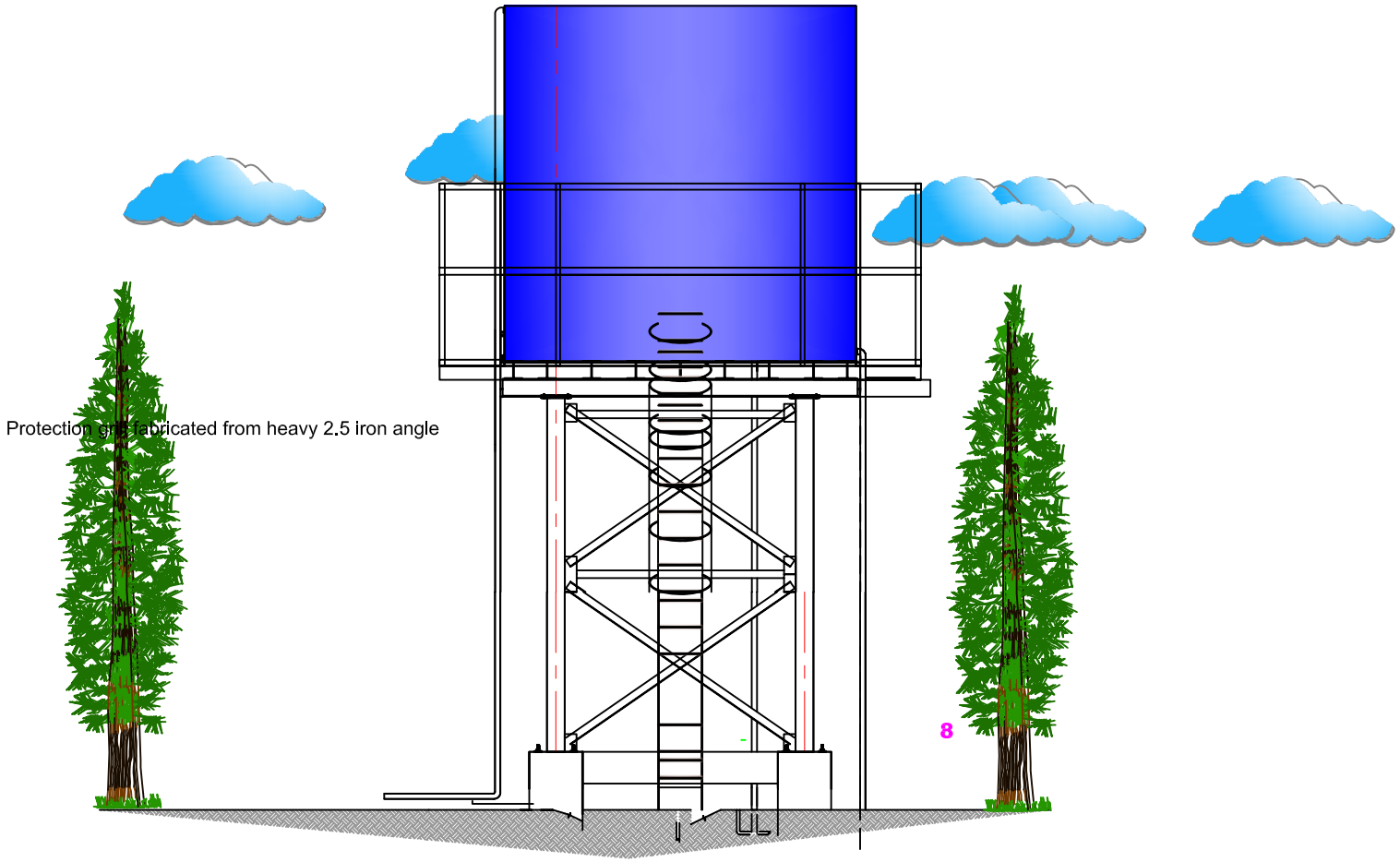
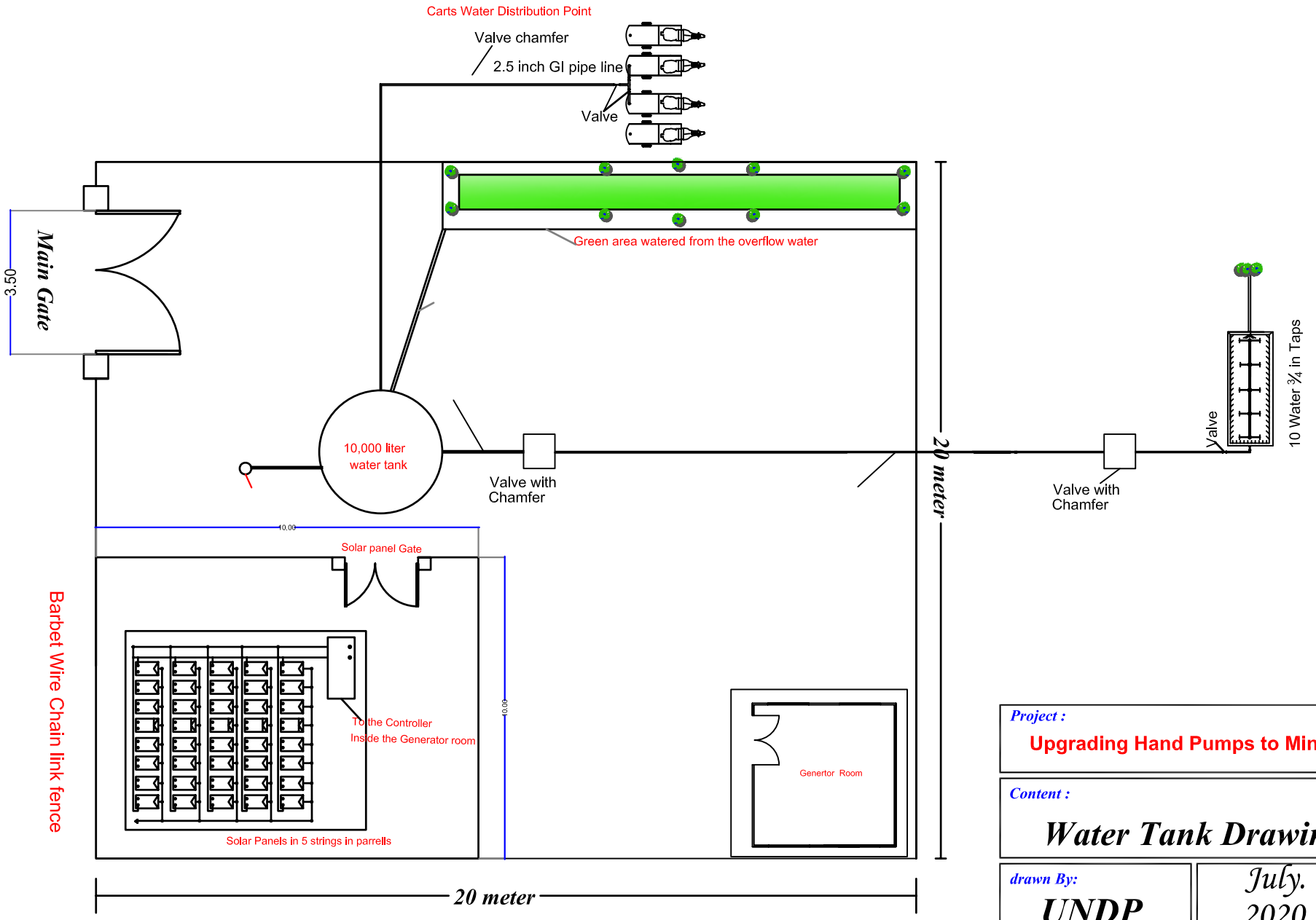
Set of Drawings for Upgrading 2 hand Pumps to Mini Water Yard



Elhigair -Abukarshola Locality - Kordofan State

Maflou -Talodi Locality - Kordofan State



Project :

Upgrading Hand Pumps to Mini Water Yards

Content :

Water Tank Drawings

drawn By:		
UNDP	*July. 2020*	**01**

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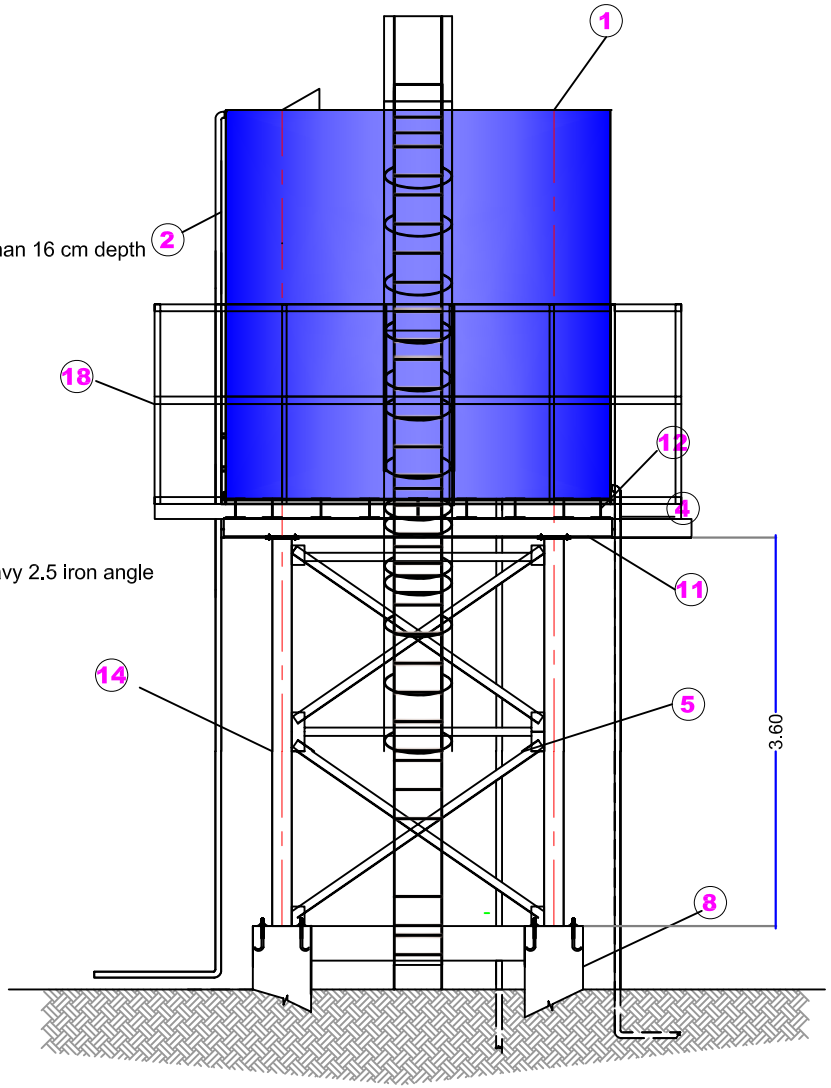
1. 10,000 litre heavy duty Plastic Water tank
2. 2.0-2.5 inch Inlet Galvanized steel pipe (to be adjusted after pumping test)
3. Internal antirust steel ladder
4. 3.0 inch outlet Galvanized steel pipe
5. 2.5 inch steel angle bracing
6. Gusset plate connection
7. 22 Diameter anchored bolts 40 cm long embedded in great beam re-concrete
8. Short column
9. heavy duty steel ladder with safety grail
10. 3inch galvanized steel overflow pipe to drainage channel
11. 18cm main universal beams
12. secondary universal beams not less than 14 cm
13. 1.6 cm steel plates attaching the to 20 cm universal beam and the 20cm main universal column
14. main universal columns not less than 16 cm depth
15. Cleaning plugged outlet
16. Heavy duty cover
17. Non-return Valves
18. Protection grill fabricated from heavy 2.5 iron angle the deck is from heavy steel sheet



Note:

The details are for guiding and the contractor shall be responsible for design and construction

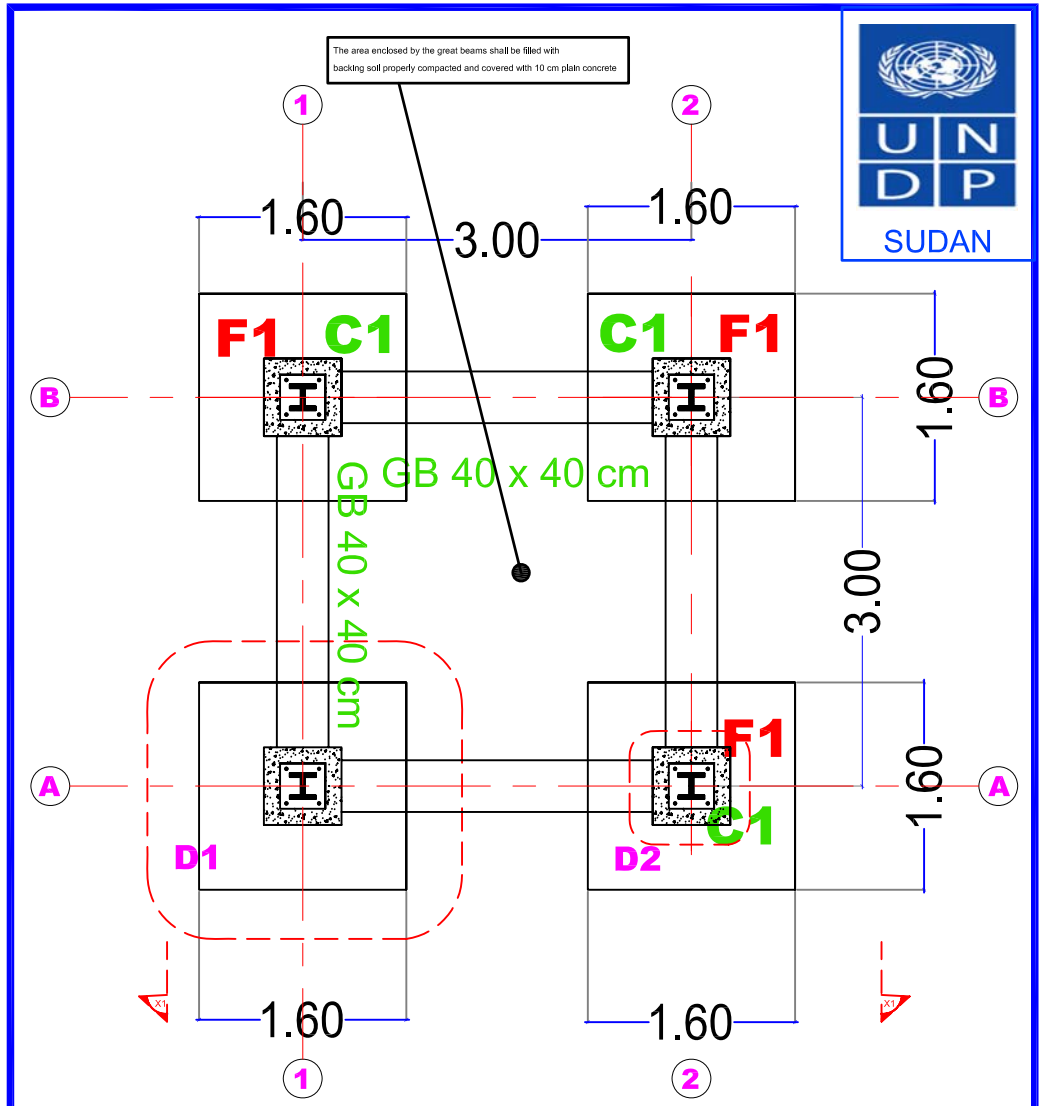
Project :
Upgrading Hand Pumps to Mini Water Yards

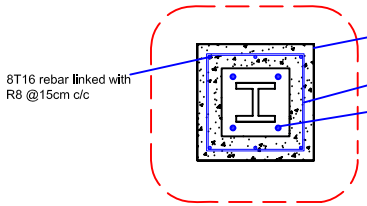
Content :
Elevated Tank Details

Drawn By:

July 2020

2



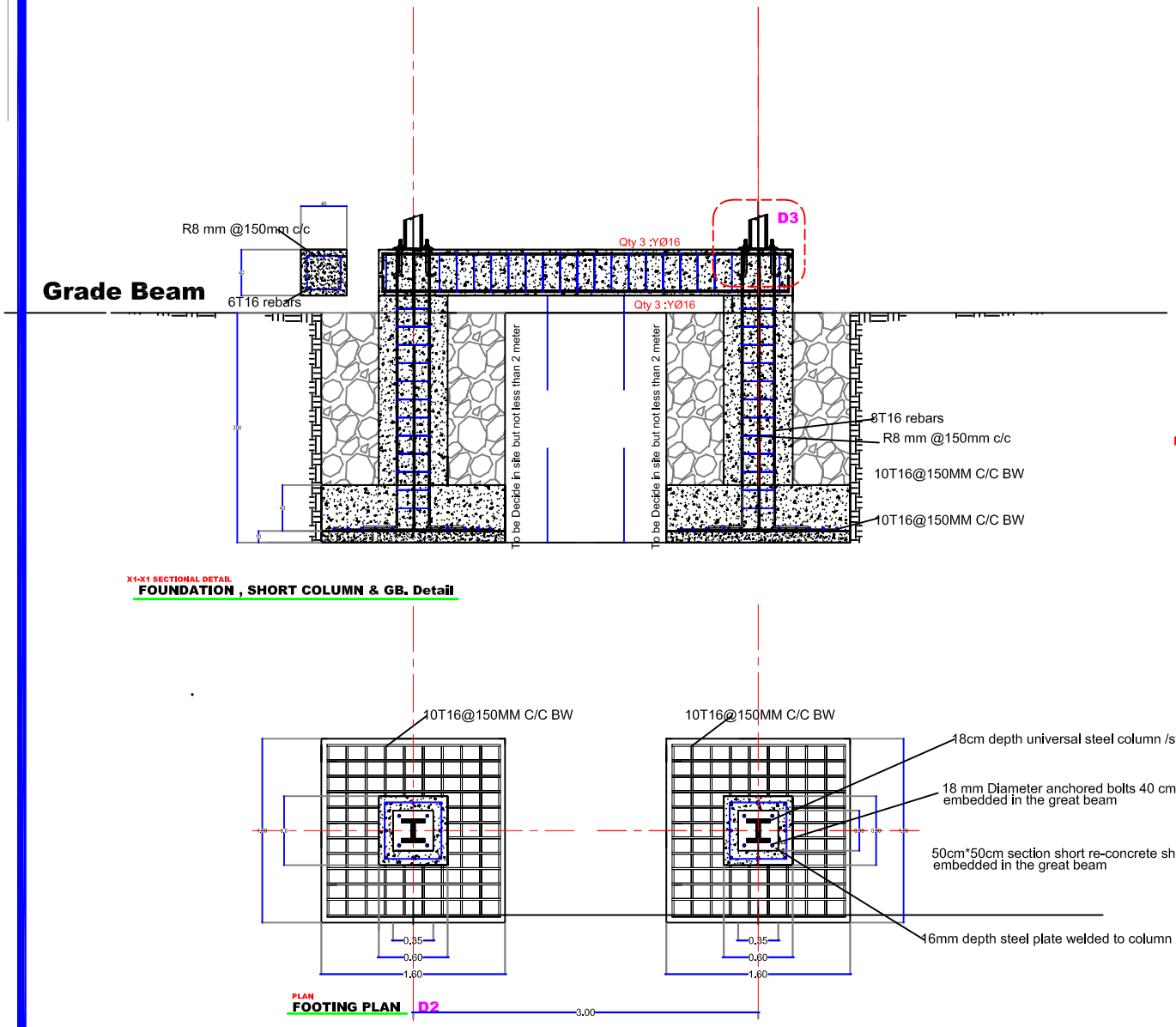


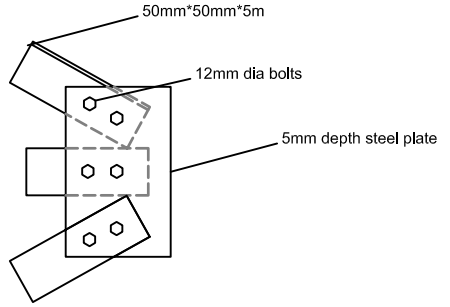
DETAIL D2

Project :
Upgrading Hand Pumps to Mini Water Yards

Content :
Tank foundation drawings

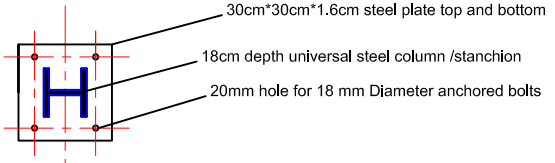
drawn By:		
UNDP	*July. 2020*	**03**





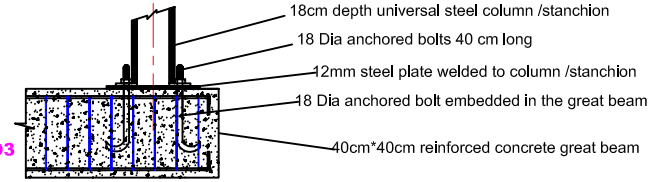
DETAIL D4

Connection plate



DETAIL D3

FOOT PLATE PLAN



DETAIL D3

DETAIL

UNIVERSAL COLUMN ATTACHED TO GREAT BEAM

NOTES

All dimension in centimeter unless otherwise mensioned

The area enclosed by the great beam shall be filled with

backing soil properly compacted and covered with 10 cm plain concrete

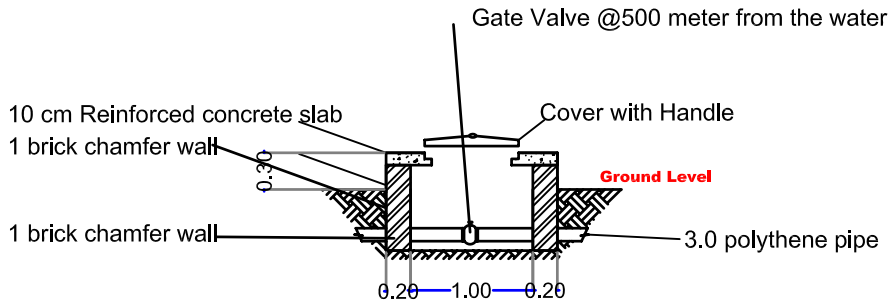
Project :

Upgrading Hand Pumps to Mini Water Yards

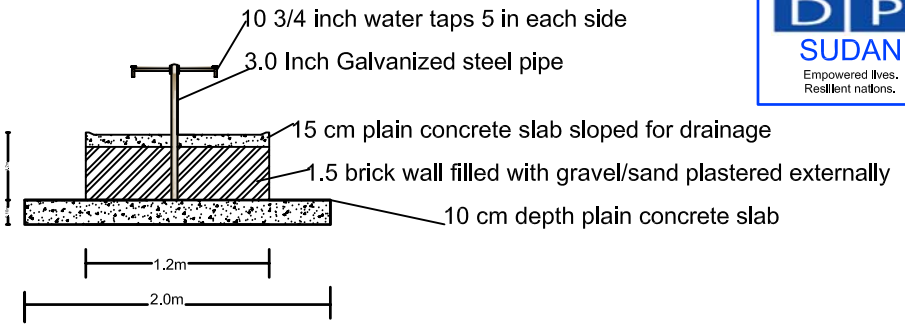
Content :

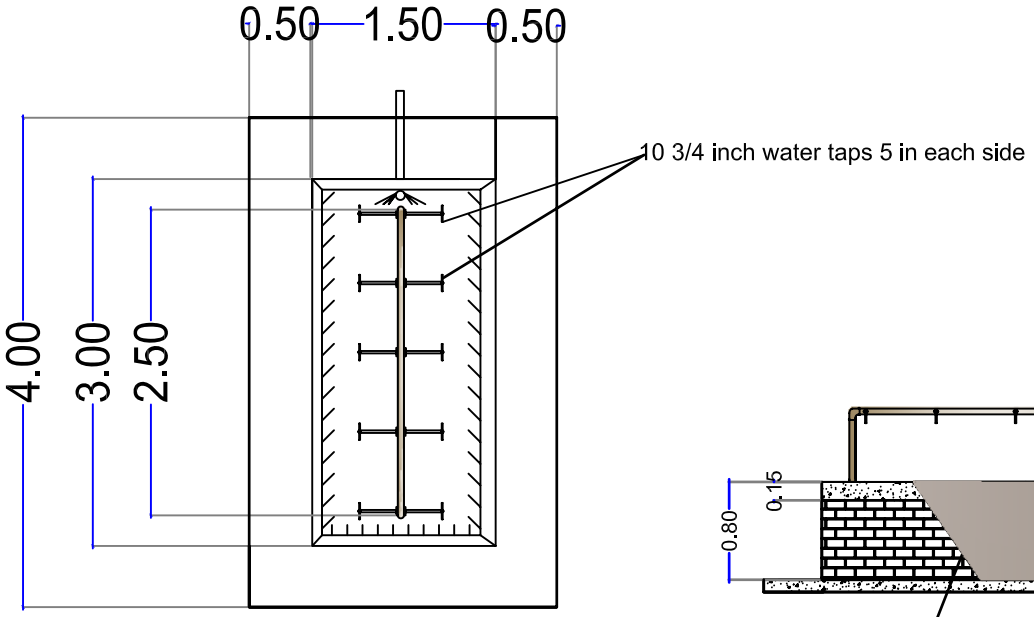
Tank foundation drawings

drawn By:		
UNDP	*July. 2020*	**04**



1.2m*1.2m Gate valve chamfer

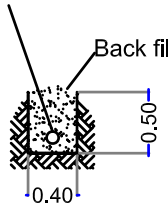




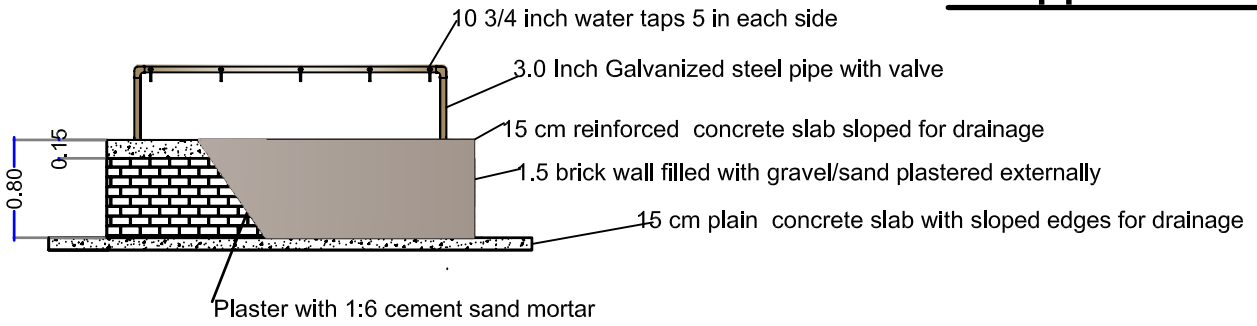
WATER POINT

SECTIONAL VIEW

3.0 inch High Density polythene pipe (HDPE)



Main pipe trench and pipe



WATER POINT

PLAN VIEW

WATER POINT

SECTIONAL VIEW

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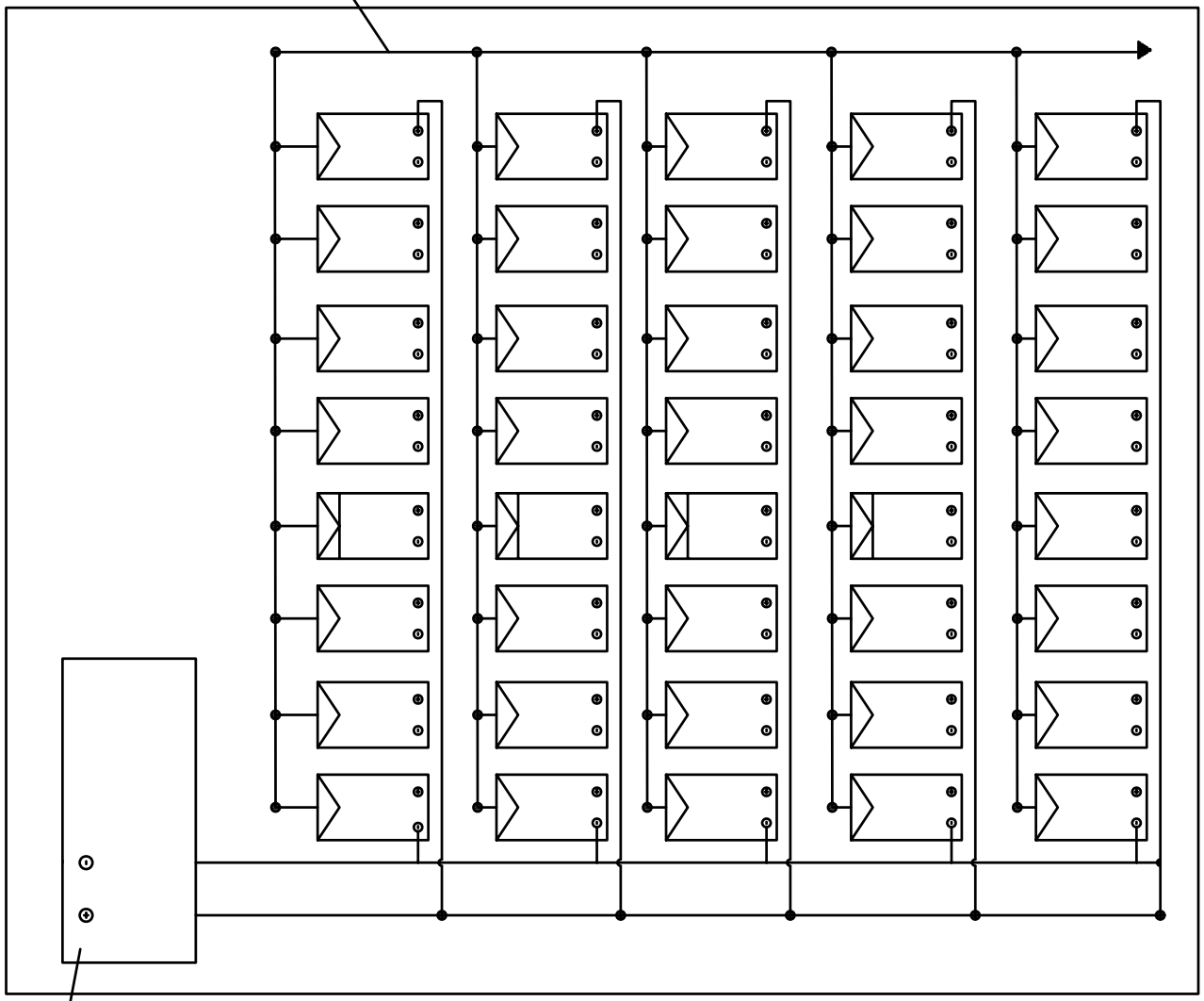
Project :
Upgrading Hand Pumps to Mini Water Yards

Content :
Water collection point

drawn By: *UNDP* | *July 2020* | 06

Solar Panels in 5 strings in parrells



Controller

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Resilient nations.

Note:

- The solar cell shall be mounted on galvanized stands
- The total output of the solar cells shall decided after pumping test

  but should not be less 3.5KVA
- The solar stands shall be fixed with plain concrete footings
- The solar cell be properly installed to manufacturers directions
- All electrical cables shall be through electrical pipes protected and trenched
- Bidder quoting for different arrangement or design has to state so and should provide all necessary information for evaluation

Project : Upgrading Hand Pumps to Mini Water Yards		
Content : ***Solar Cells Wiring***		
drawn By: ***Ahmed.M.Adam***	*July. 2020*	**07**

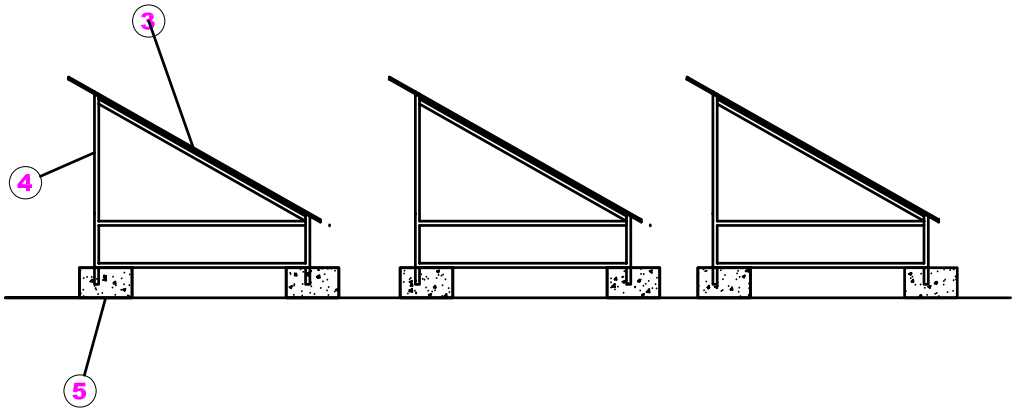
Note:

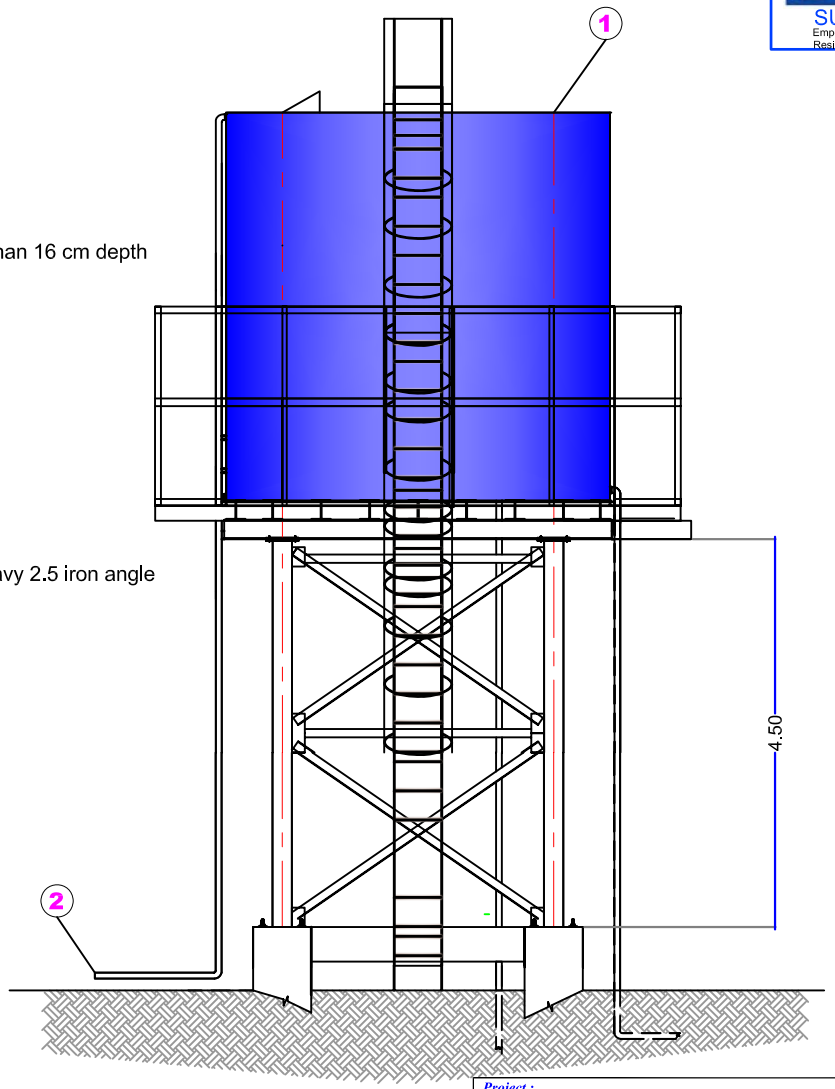
- The solar cell shall be mounted on steel / aluminum stands
- The total output of the solar cells shall decided after pumping test but should not be less 3.0KVA
- The solar cell be properly installed to manufacturers directions
- All electrical cables shall be through electrical pipes protected and trenched

main universal columns not less than 16 cm depth

1. 10,000 litre heavy duty water tank
2. 2.5 inch Inlet Galvanized steel pipe (to be adjusted after pumping test)
3. Solar panels (cells)
4. Cell steel stand fabricated from 3*6 steel box pipes painted with antirust paint
5. Plain concrete footing for the solar cell stand

Protection grill fabricated from heavy 2.5 iron angle





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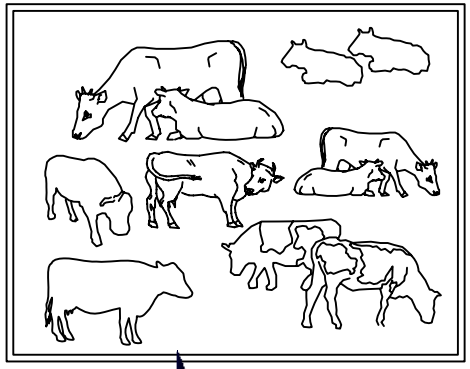
Project :	Upgrading Hand Pumps to Mini Water Yards
Content :	Solar Panel Stand Details
Drawn By: UNDP/DDR	July 2020
08	

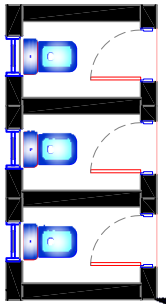
NOTES

Distance of pollution sourses to be observed when siting the bore hole



Washing Slab

Latrines



Animal Den (Zariba)

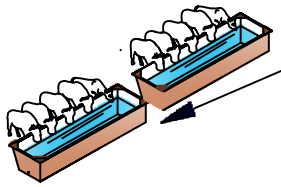
minimum 30 meter

minimal 30 meter

50 meter minimum from latrines &bath rooms/waste pits

Borehole

Minimum 30 meter



Animal Troughs

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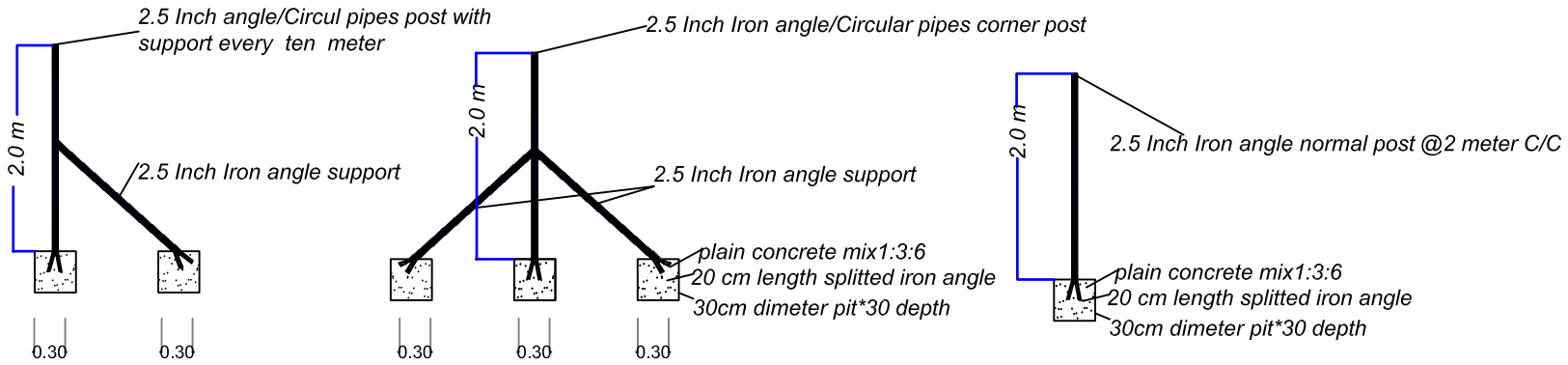
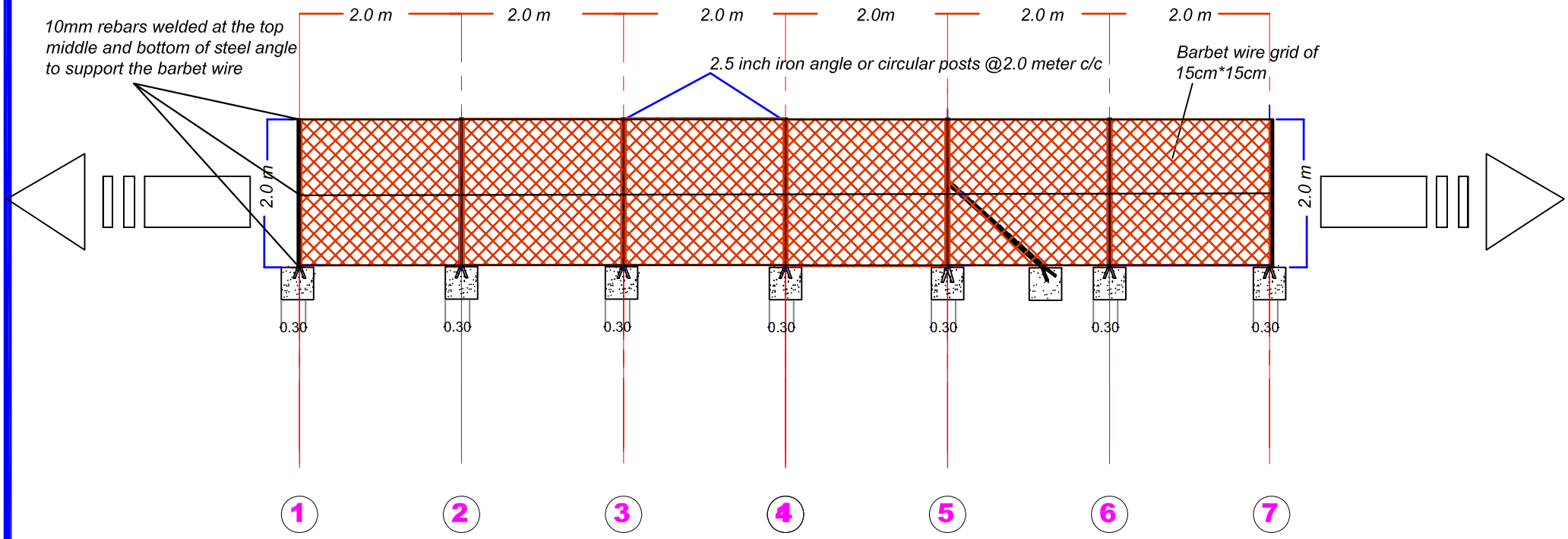
Project :	Upgrading Hand Pumps to Mini Water Yards
Content :	Pollution sources distances
Drawn By: Ahmed.M.Adam	July 2020
05	

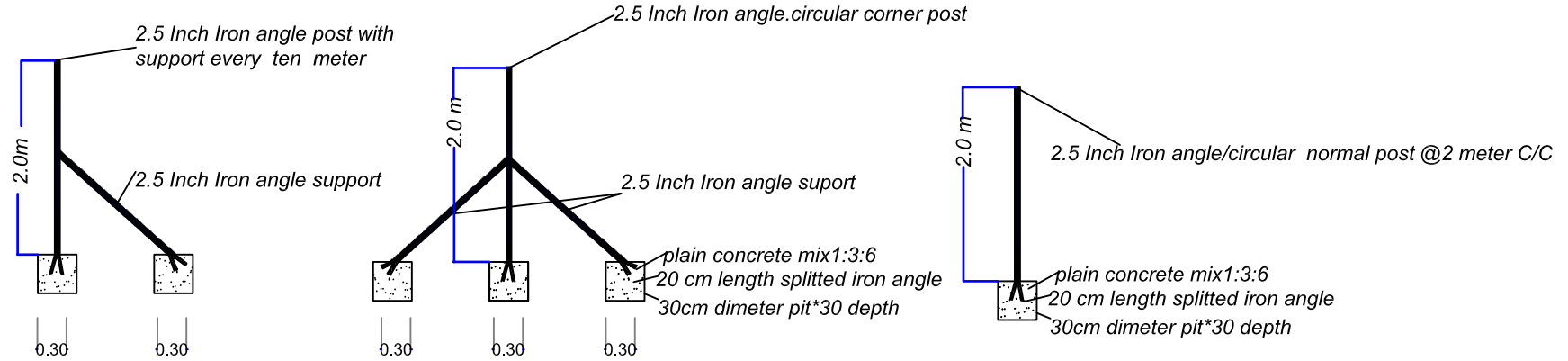


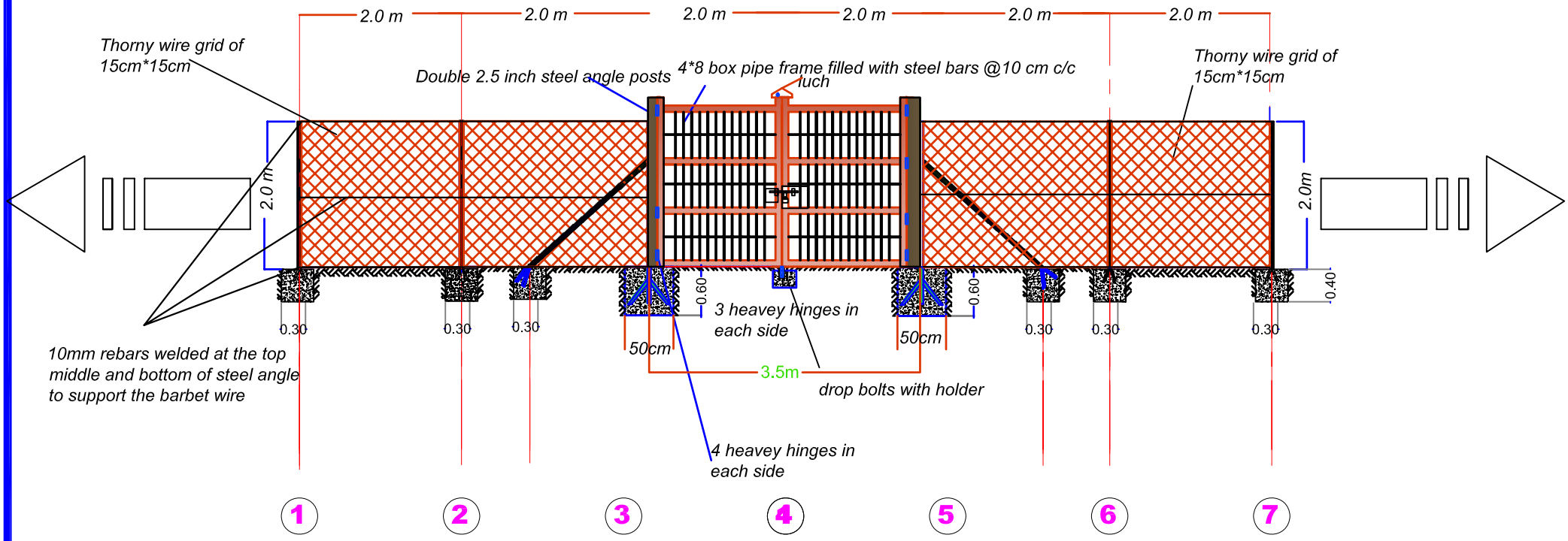


Note:

All steel frames shall be painted with anti-rust paints

Project :	Upgrading Hand Pumps to Mini Water Yards
Content :	Fence Steel frame details
Drawn By: UNDP	July 2020
	9

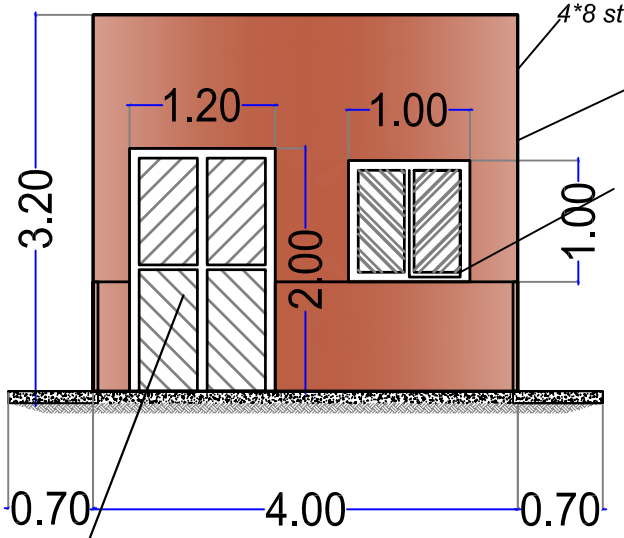




Note:

All steel frames shall be painted with anti-rust paints

Project : Upgrading Hand Pumps to Mini Water Yards	
Content : Fence Steel frame details	
Drawn By: UNDP	July 2020
	10



4*8 steel box pipe frame

USA Zink sheet of 0.24 mm attached 4*8 steel steel box frame by self-tap bolts

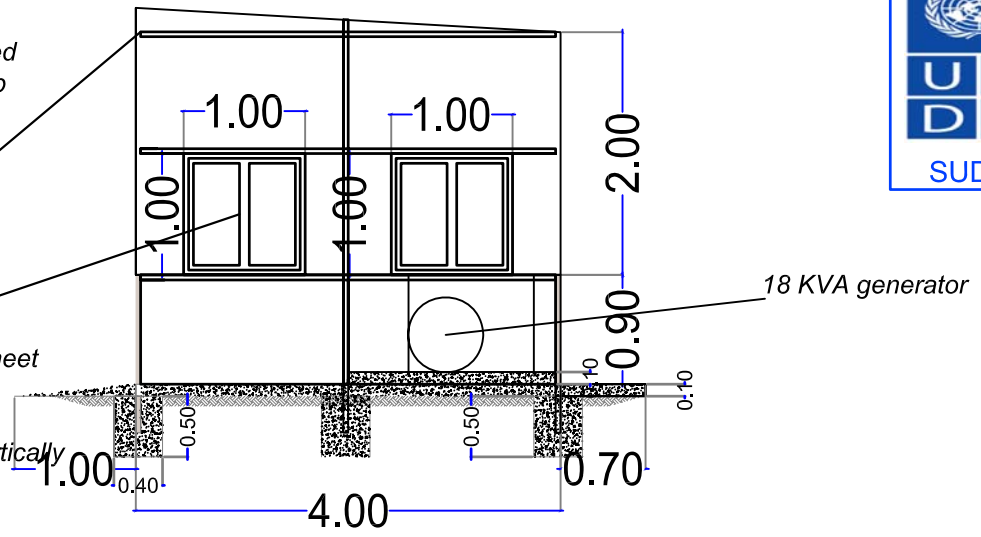
4*8 steel steel box frame of heavy steel

Windows fabricated from 3*6 heavy steel box frame and sheeted with good steel sheet the windows shall have steel grills fabricate of 12mm rebar's @ 15cm c/c hrizontally and vertically

Door fabricated from 4*8 outer frame 3*6 inner frame of heavy steel box pipes and sheeted with good steel sheet the windows shall have steel grills fabricate of 12mm rebar's @ 15cm c/c hrizontally and vertically

Main View

Generator Room

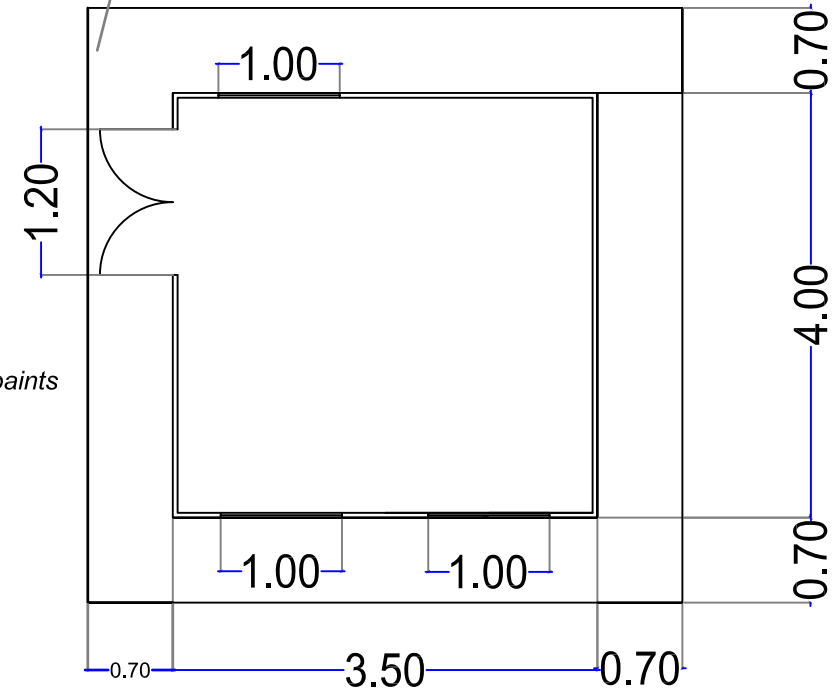


18 KVA generator

Sectional view

Generator room

10 cm depth platform of plain concrete



Note:

All steel frames shall be painted with anti-rust paints

PLAN

Generator Room

SUDAN

Project :
Upgrading Hand Pumps to Mini Water Yards

Content :
Generator Room

drawn By: UNDP

July 2020

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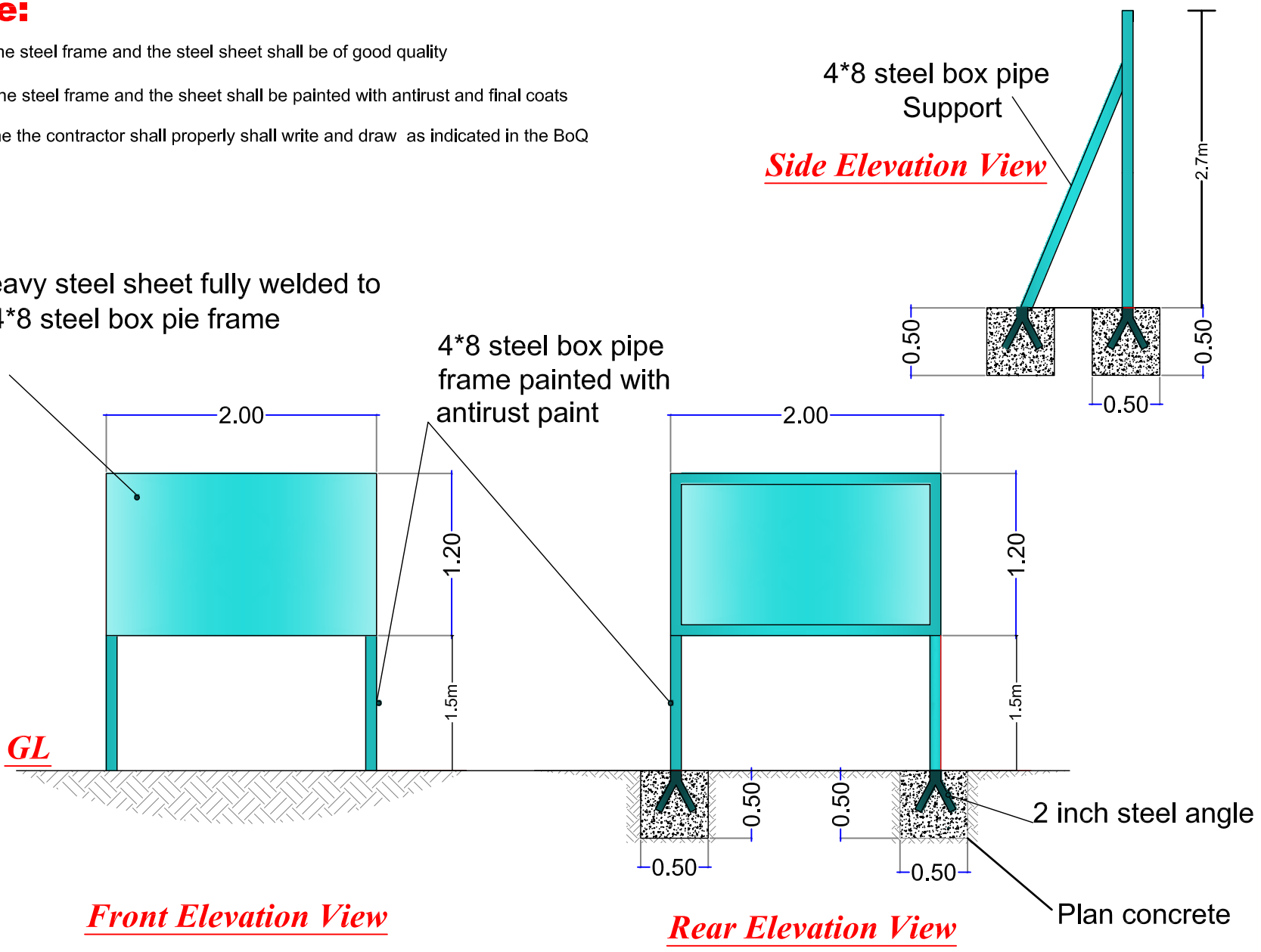
Note:

- The steel frame and the steel sheet shall be of good quality
- The steel frame and the sheet shall be painted with antirust and final coats
- The the contractor shall properly shall write and draw as indicated in the BoQ



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GENERAL:
1- All steel members shall be are of good quality heavy steel (Black type).
2- all steel remembers shall be painted with antirust palnts and final coats
3-the plaln concrete ls of 1:3:6 mlx and shall be treated properly wlth water
4-All dlmenslons are ln meter unless otherwlse statetd

Project Name:
Upgradlng Hand Pumps to MInl Water Yards

Content:
Sign Broad Details

Designed by:
UNDP-C2SP

2020

Drawn By:
UNDP-C2SP

12