



World Vision International  
World Vision Afghanistan  
Badghis Zonal Office



WASH Sector  
DAWAM WASH Project

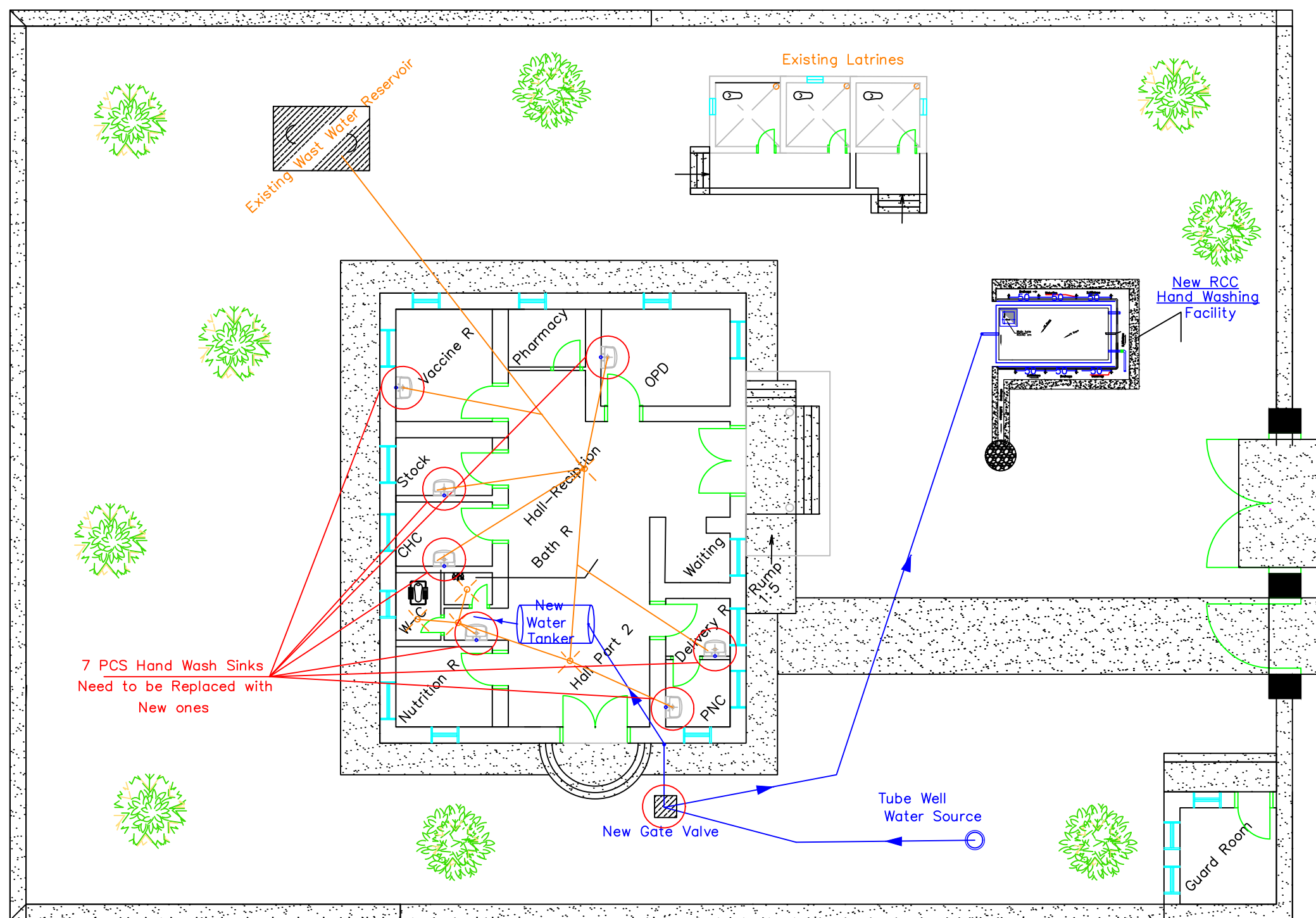
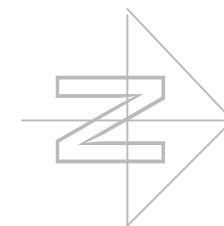
Design and Drawing for Solar Powered Water Supply System

**Project Name: Water Supply System in Healthcare Facility**

**Location and Type: Jar Siah Sub Health Center (SHC)**

Location: Jar Siah SHC  
District: Ghormach  
Province: Badghis  
Number of Users: 110  
Number of Staff : 10

Project Information	
Number of Users/day	110
Number of Personnel	10
Source Discharge Required	4.8 m <sup>3</sup> /day
Water Source	Tube Well
Number of Solar Panels 270 Watt	6 Panels
Work Days	60 days
Water Tanker for building	2 M <sup>3</sup>
Hand Wash Facility	New RCC



Note:

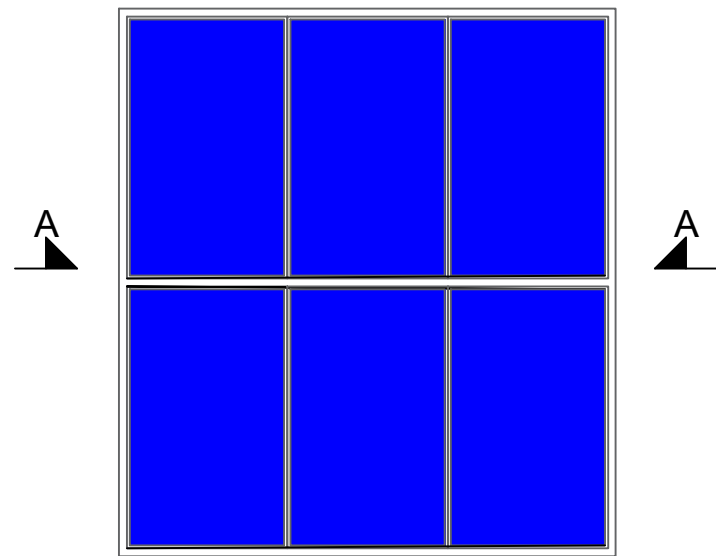
- 1-New hand dug well in is needed as water source.
- 2-Piping system from well to gate valve and connecting to building's new water tanker (2Cub m) and existing hand wash facility.
- 3-New hand washing facility is needed.
- 4-Need to construction of one gate valve for water distribution to building and hand wash facility.
- 5-Seven PCS new hand washing sinks are needed to replace in the building with all its mixing tabs and its all required fittings and connectors.
- 6-Existing waste water reservoir need to remove/clean to be empty.

# JAR SIAH SHC-PLAN

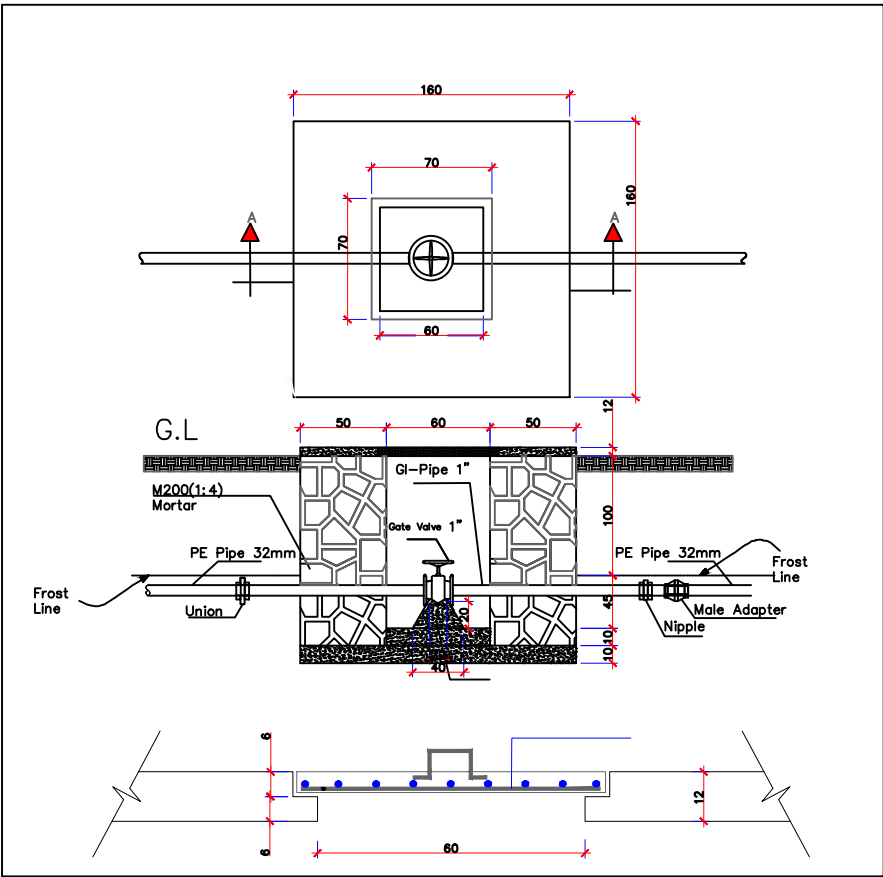
## GHORMACH DISTRICT

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DAWAM WASH PROJECT				Project ID Number: A221873	
Province Badghis	District Ghormach	Village Jar Siah SHC	Designed by:	Reviewed by:	Approved by:
WASH Engineer	WASH Advisor	Operation & Response Director	Map Size:	A3	
Jar Siah Healthcare Facility Site Plan				Plot Date: Jun13, 2024	Plot Scale: NTS

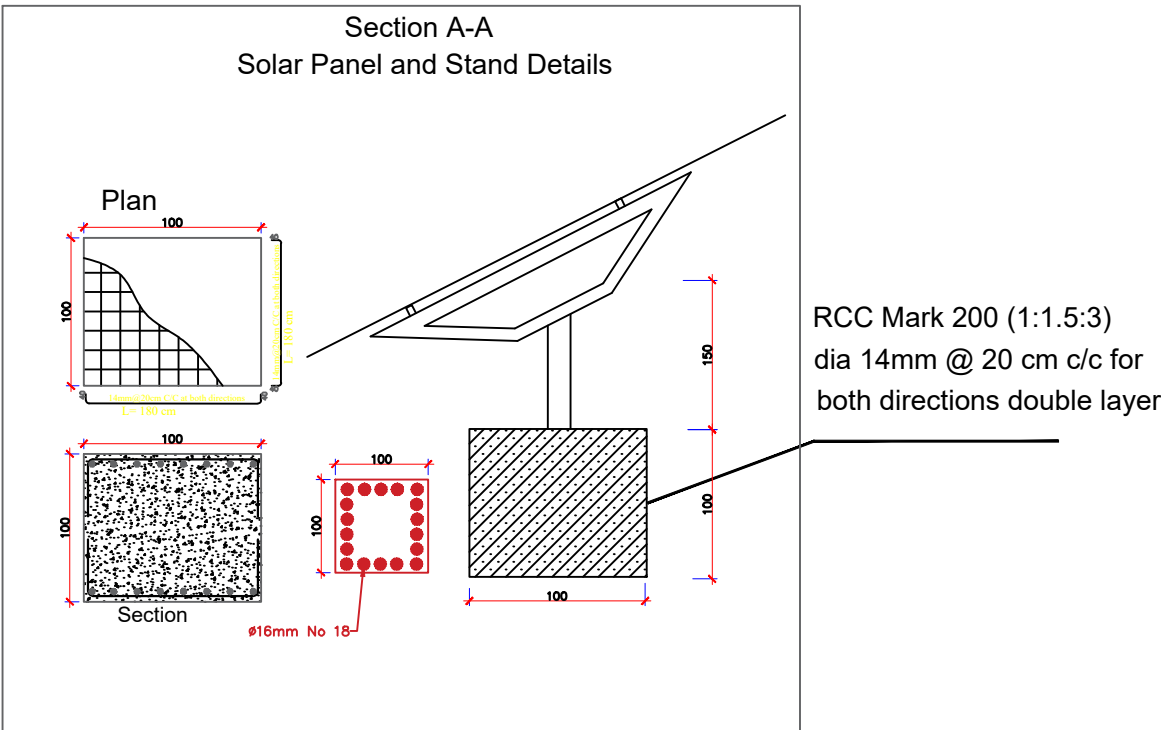
SOLAR PANEL



Gate Valve Box-1 Details

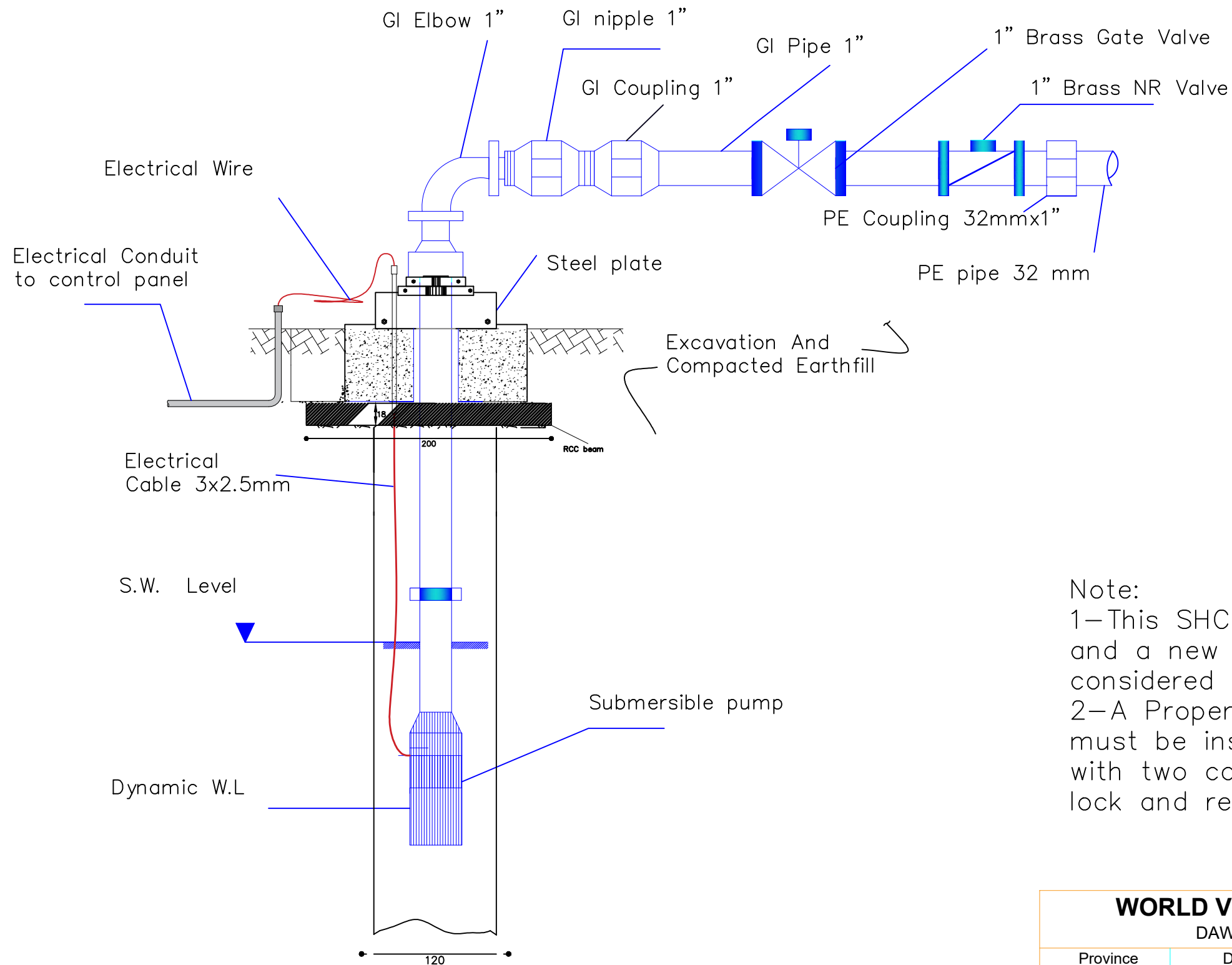


Section A-A  
Solar Panel and Stand Details



Note:  
1-One Valve Box structure with GI-Gate valves and its all required fittings and connectors is needed near to bore well to manage and distribute water to SHC on the building's water tanker and Hand washing facility's water tanker.  
2-The solar panels and solar stand must be installed on the roof of SHC building with stable and proper GI frame and 1 cubic m RCC for its firm and foundation.

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Designed by: WASH Engineer	Reviewed by: WASH Advisor	Approved by: Operation & Response Director	File Name: Drawing.dwg
Solar Tand & Valve Box Details			Map Size: A3
			Plot Date: Jun13, 2024 Plot Scale: NTS



Hand Dug Well Details

Note:  
 1—This SHC needs to one water source and a new hand dug well in 120 cm dia considered for its water supply system.  
 2—A Proper GI Cover Box as well cup must be installed at the top of well with two coat anti rust color and its lock and requirements.

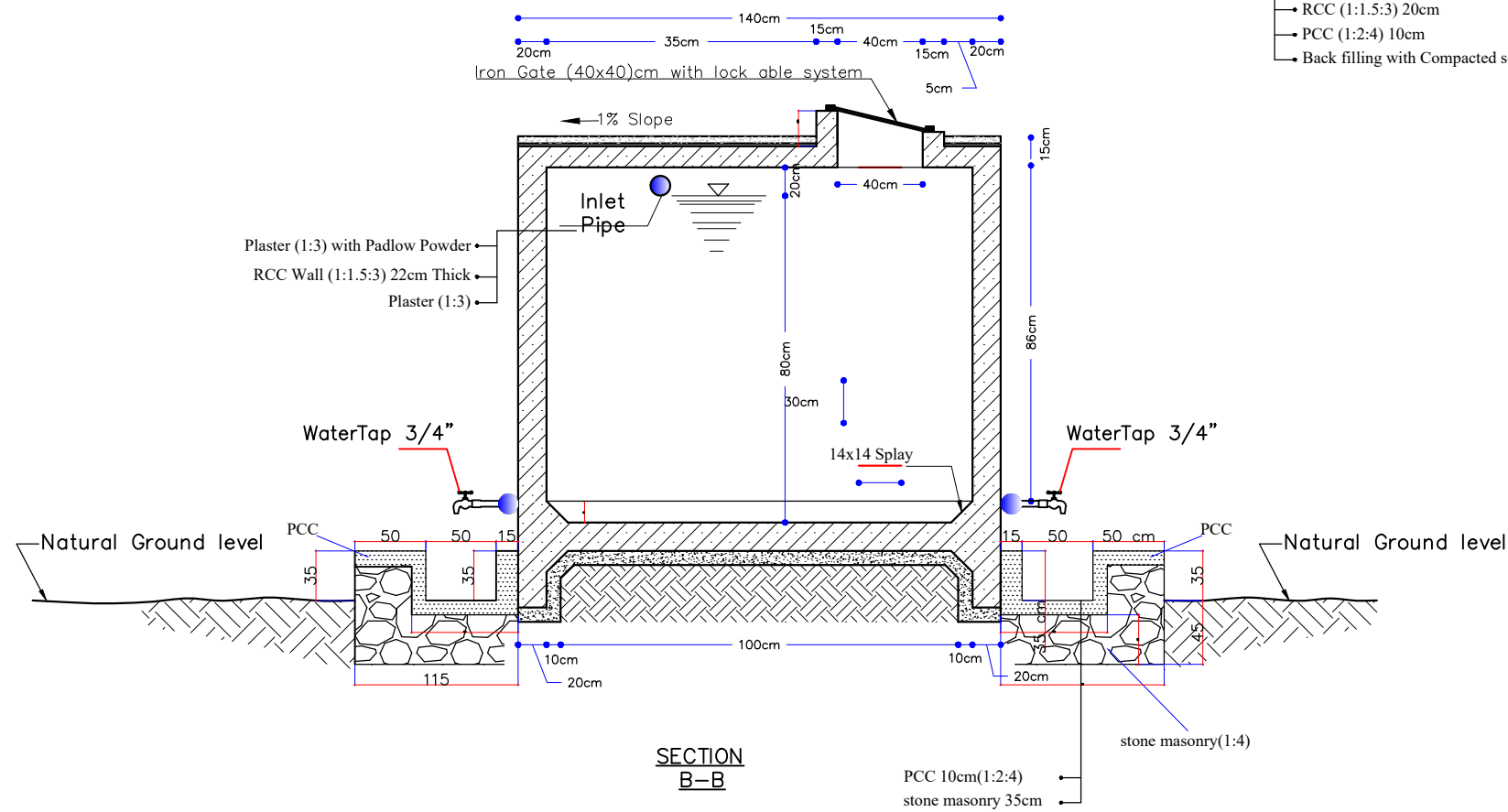
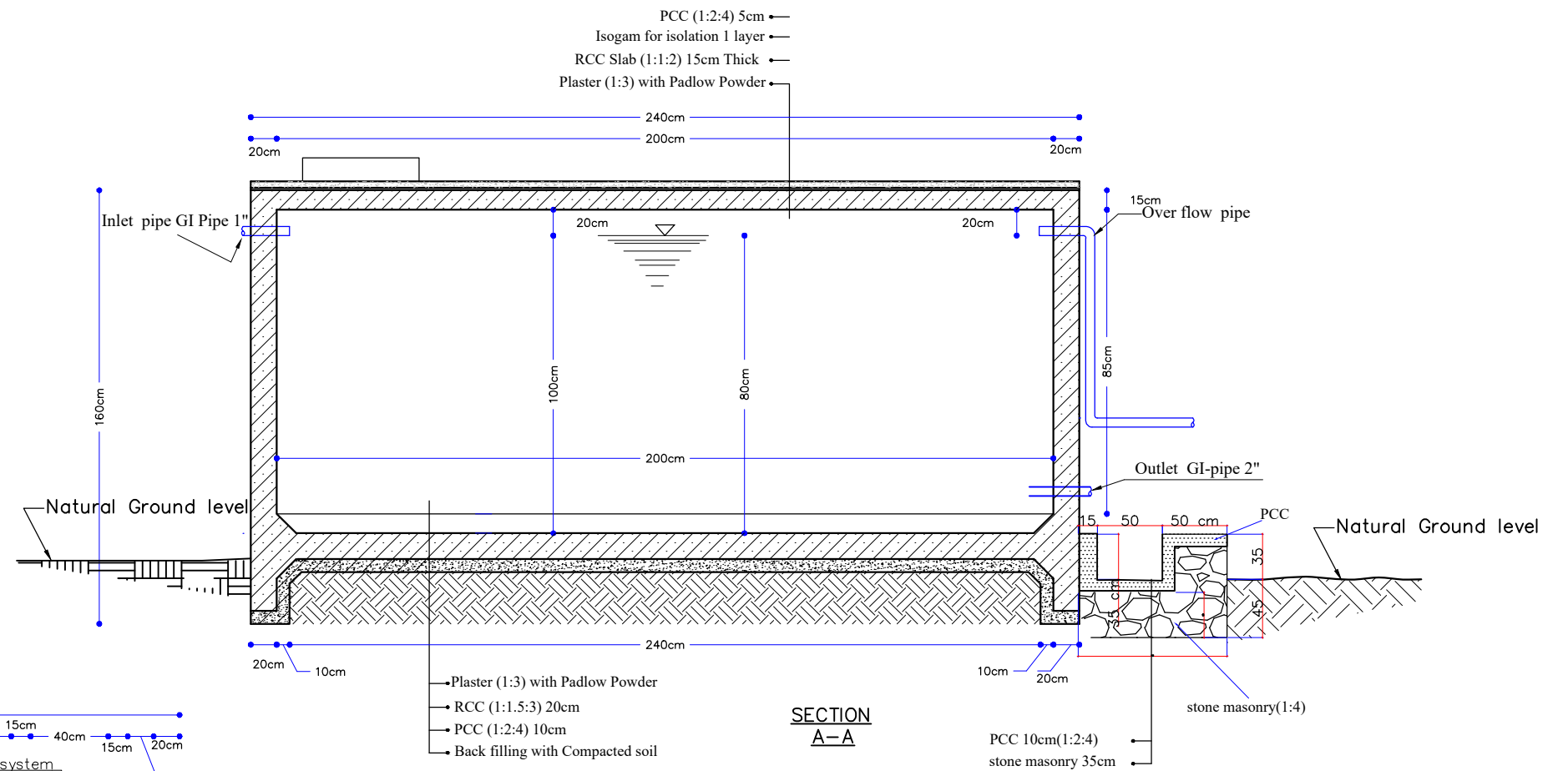
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Hand Dug Well Details			Map Size: A3
			Plot Date: Jun13, 2024 Plot Scale: NTS



- 1- Isolation material is glass wool.
- 2- All RCC works should be with 1:1:2 mortar.
- 3- Curing must be continued up to 28 days.
- 4- All dimensions are in cm unless otherwise stated.
- 5- Clear and Clean water must be used every where.
- 6- All PCC works should be with 1:2:4 mortar unless otherwise stated.
- 7- During RCC work vibrator must be used to avoid water leakage from reservoir.
- 8- The inlet, outlet, overflow and washing pipes should be adjusted according to site condition.



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Designed by: WASH Engineer	Reviewed by: WASH Advisor	Approved by: Operation & Response Director	File Name:	Drawing.dwg
Hand Washing Facility			Map Size:	A3
			Plot Date: Jun13, 2024	Plot Scale: NTS

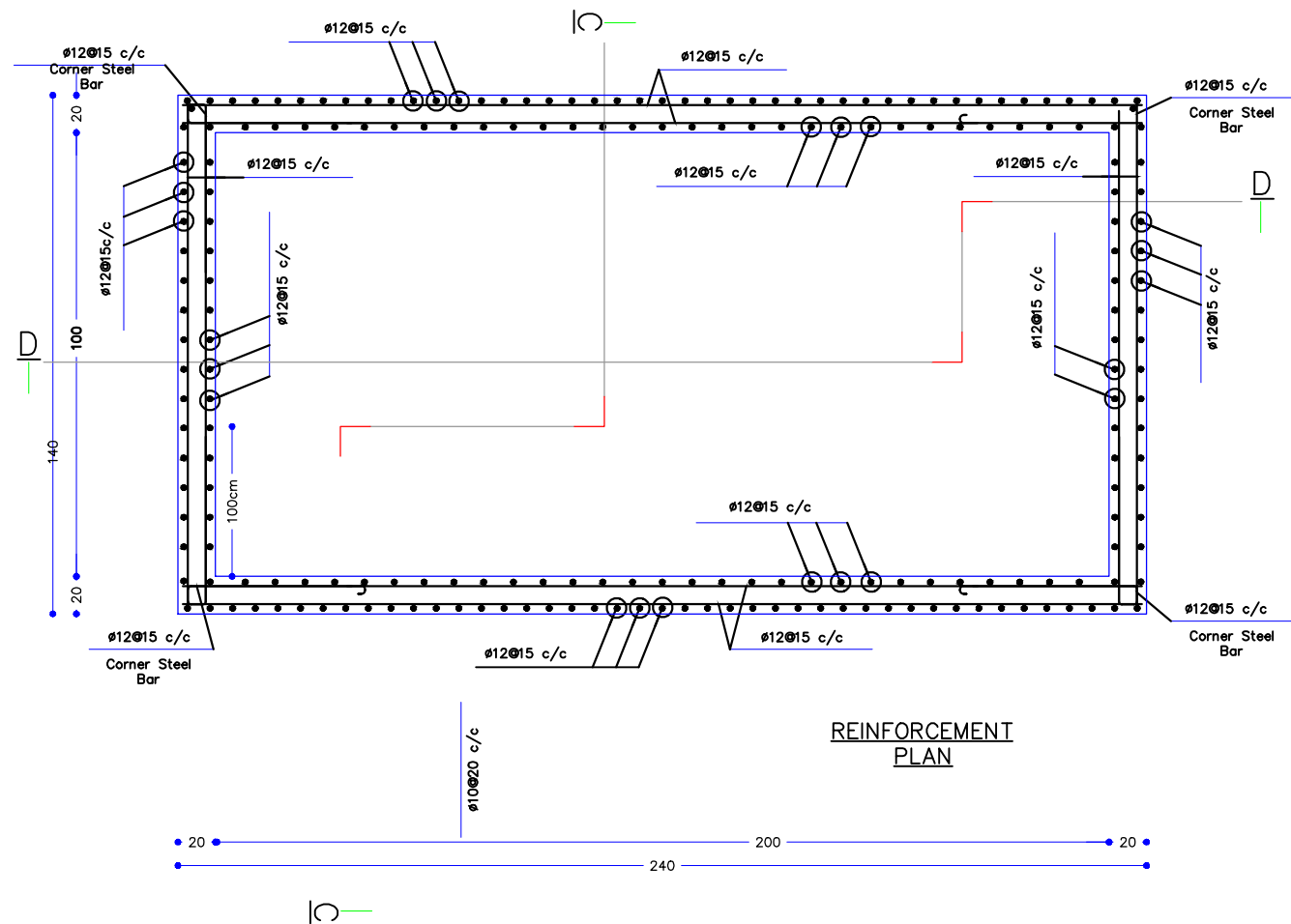
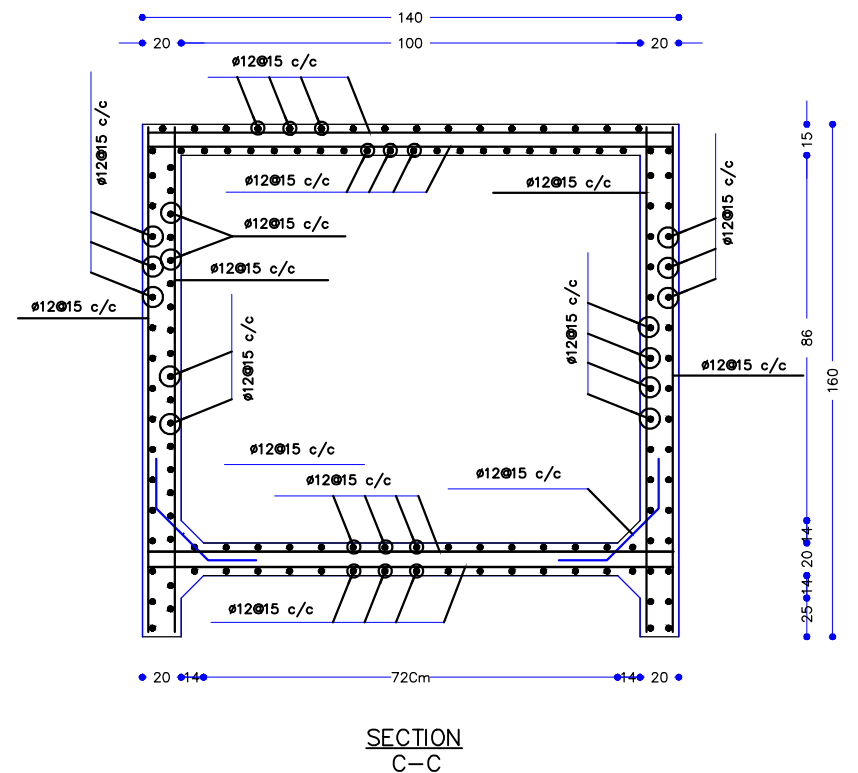
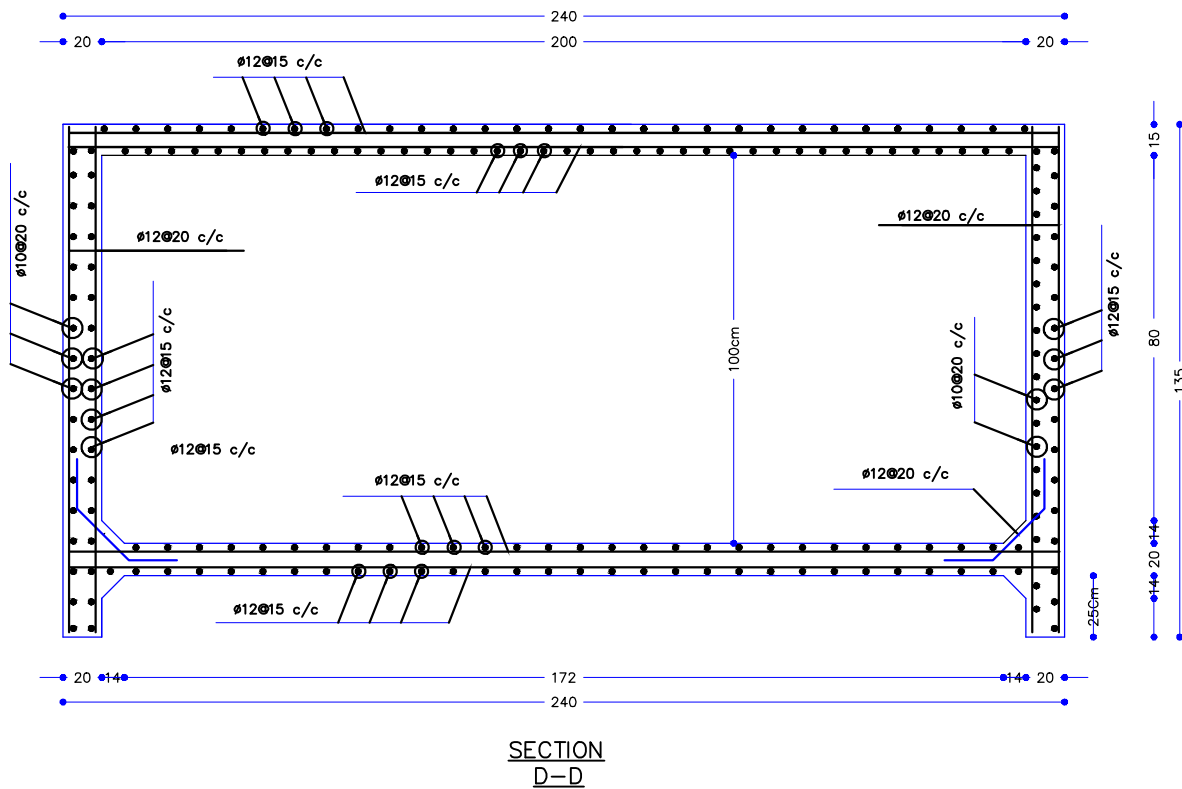


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STEEL BAR SCHEDULE FOR 2 CUBIC METER RCC WATER RESERVOIR

Shape of bar	Bar No	Bar Dia (mm)	Number of Bar	Total Number	Length (m)	Total Leng (m)	Weight (kg/m)	Total weight (kg)	Total weight +5% (kg)
	1	12	4x17	68	1.35	91.8	0.888	81.52	85.59
	2	12	4x11	44	1.35	59.4	0.888	52.75	55.38
	3	12	4x17	68	1.40	95.2	0.888	84.53	88.76
	4	12	4x11	44	2.40	105.6	0.888	93.77	98.46
	5	12	2x10	20	8	160	0.888	142.08	149.18
	6	12	2x10	20	7.20	144	0.888	127.87	134.26
	7	12	2x18	36	1.1	39.6	0.888	35.16	36.92
Total Weight of Steel Bar +5% (Kg)									648.55 kg

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