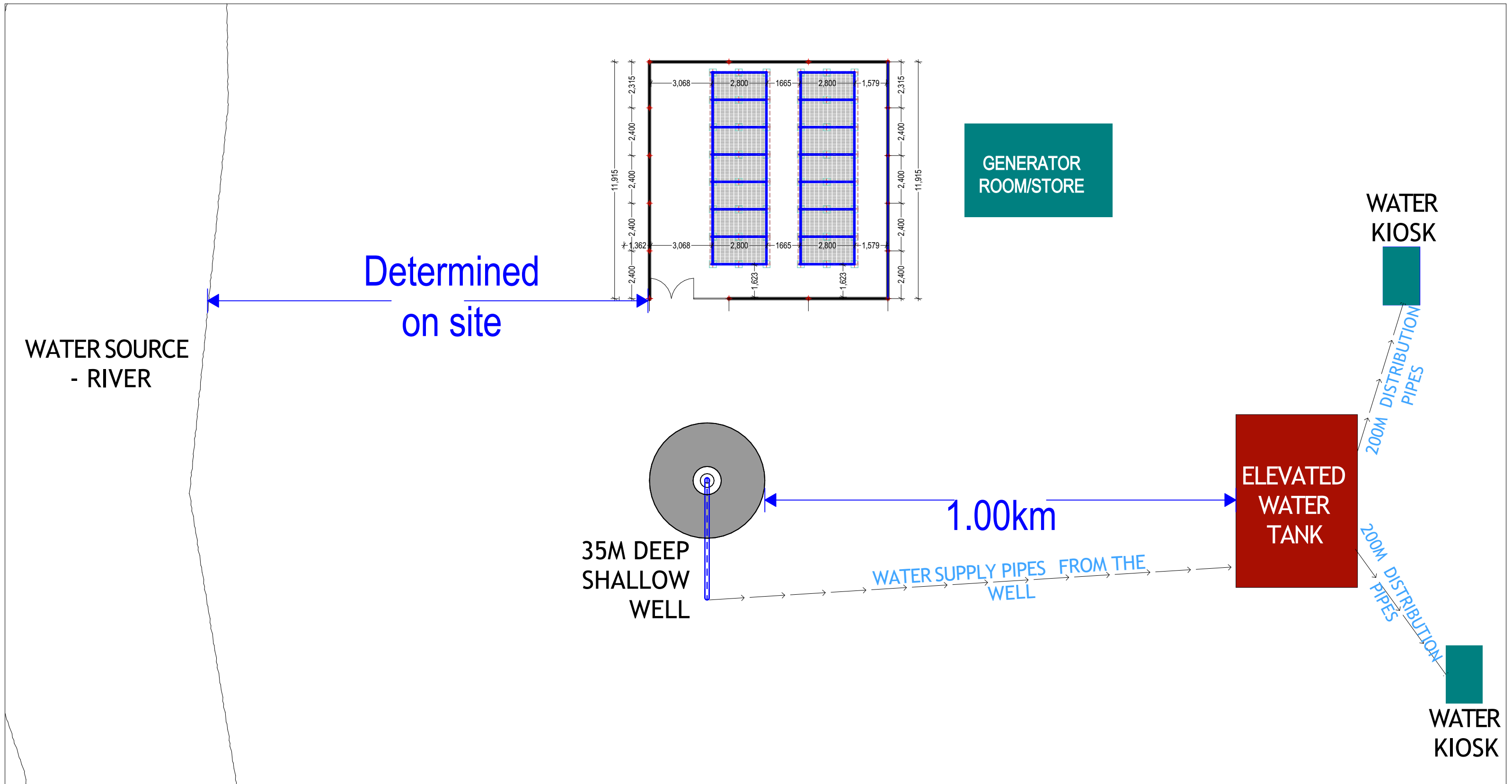


**CONSTRUCTION OF MOTORIZED SHALLOW WELL - BUULA  
MAKIINO VILLAGE -JOWHAR DISTRICT- HIRSHABELLE STATE**



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**PROJECT**

EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
WASH

SCALE	
DATE	NOV 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

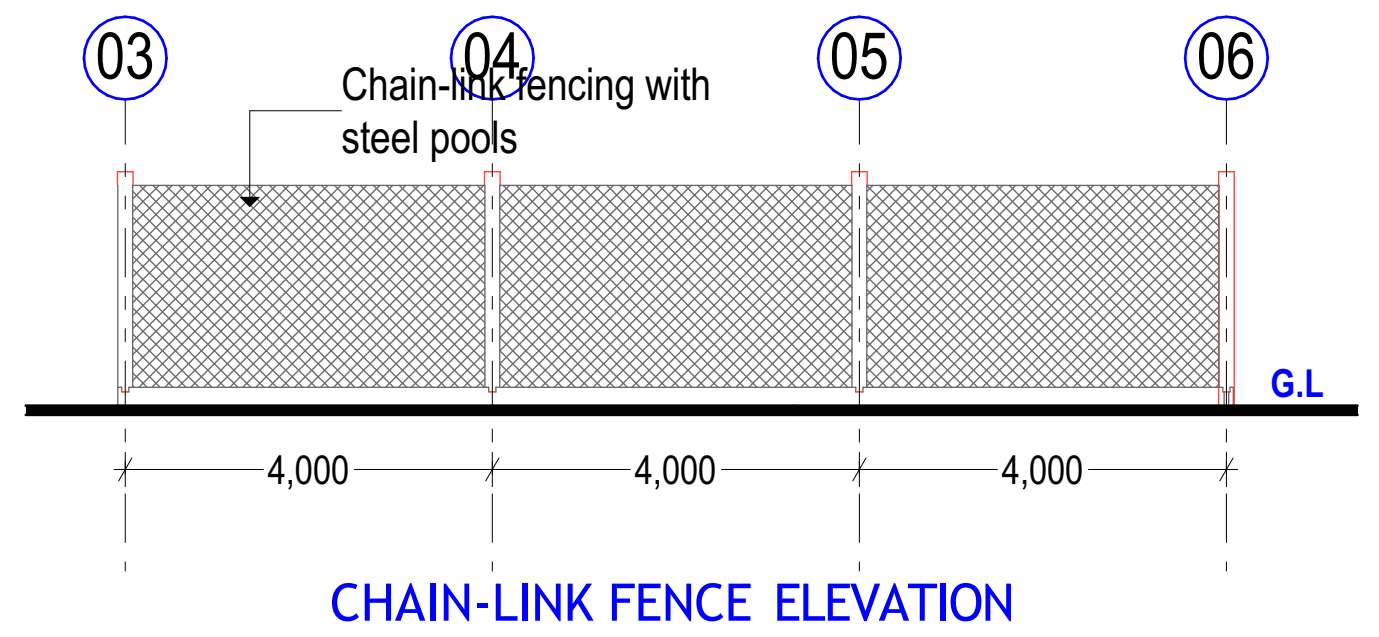
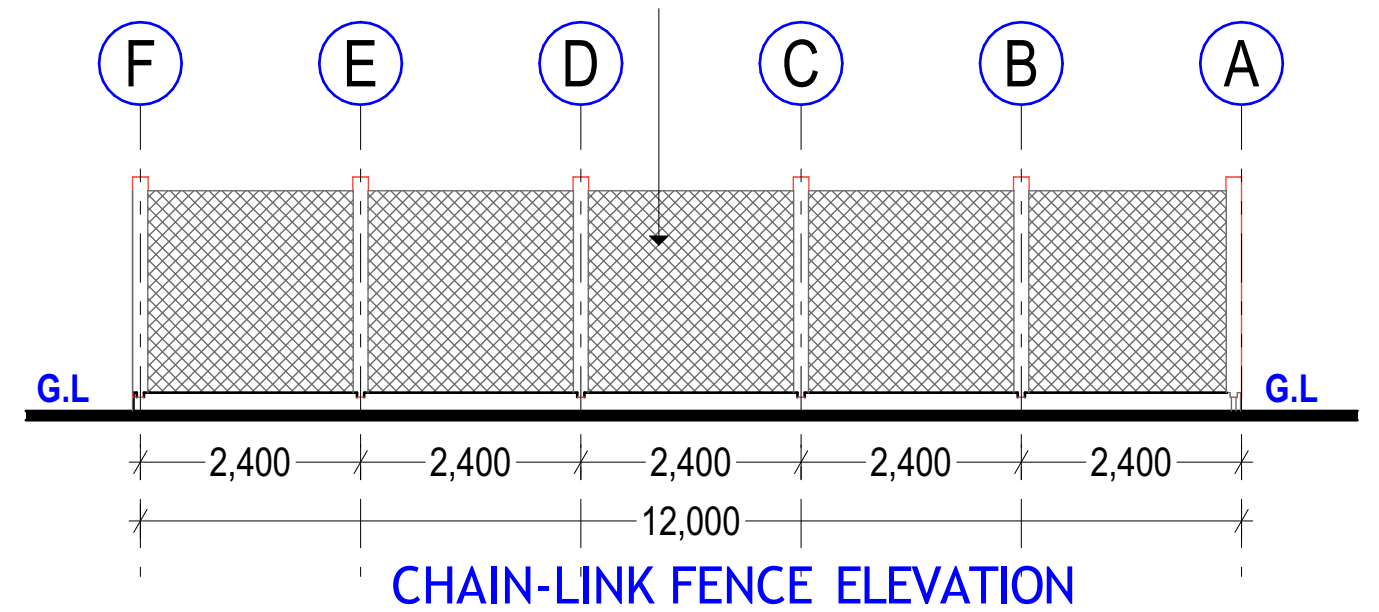
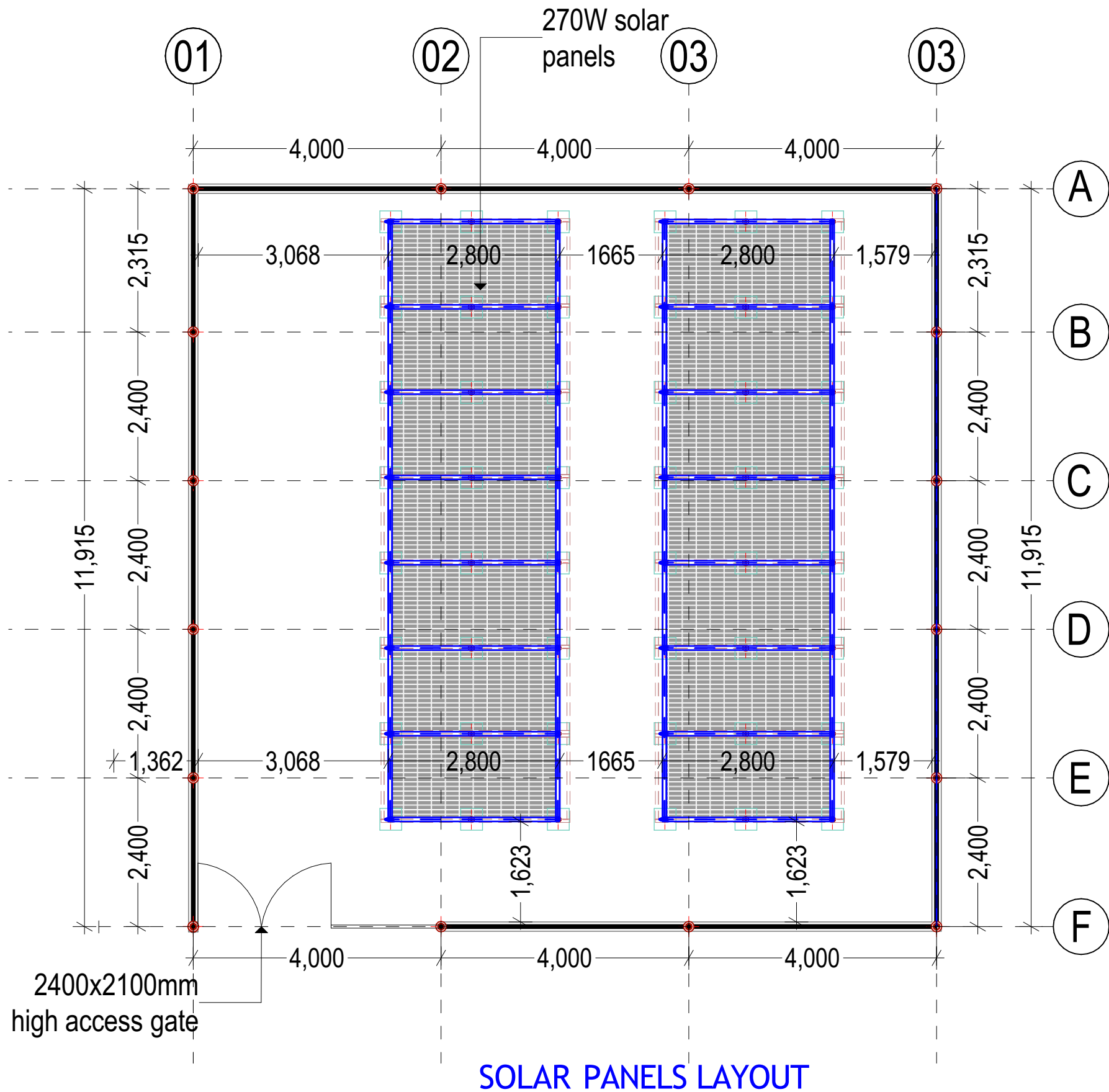
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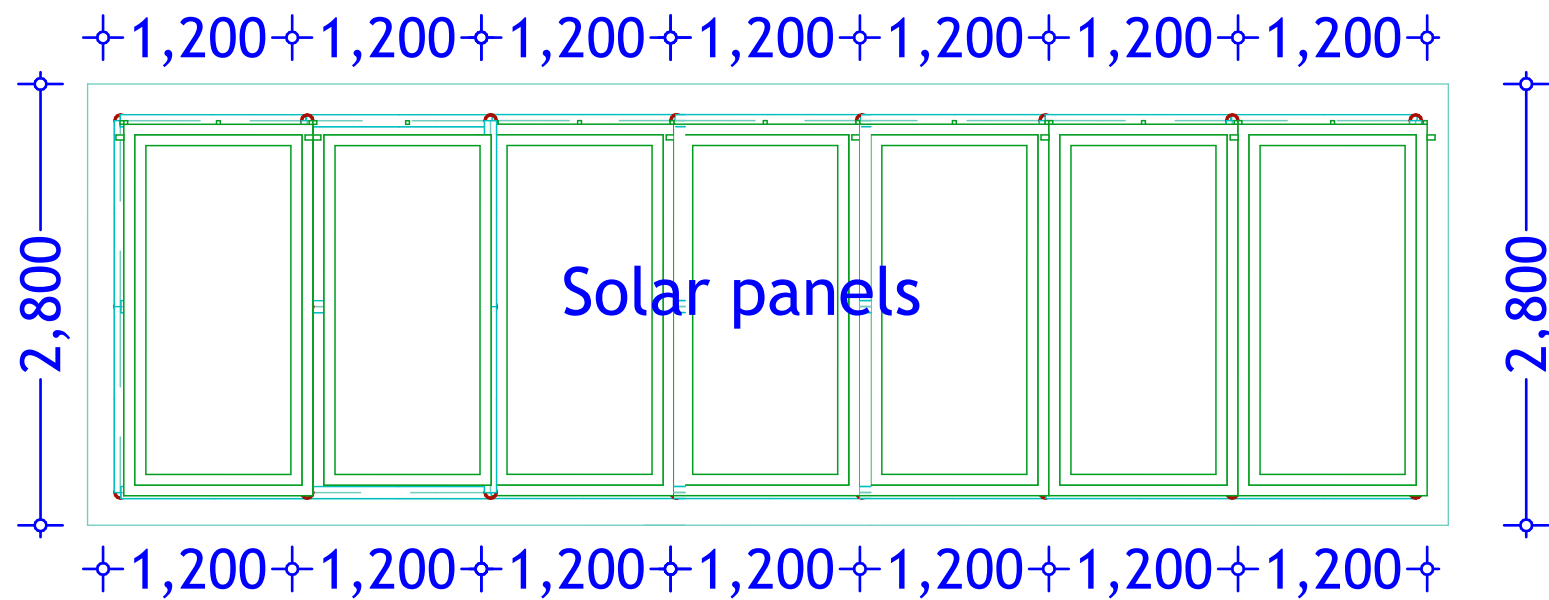
**PROJECT N<sup>o</sup>:**

**SITE PLAN**

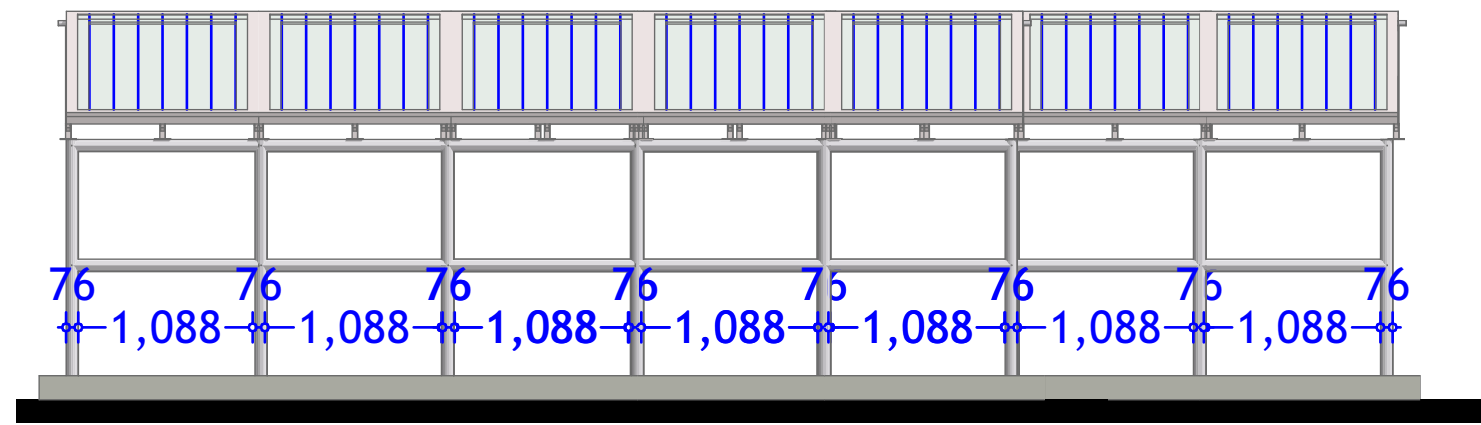
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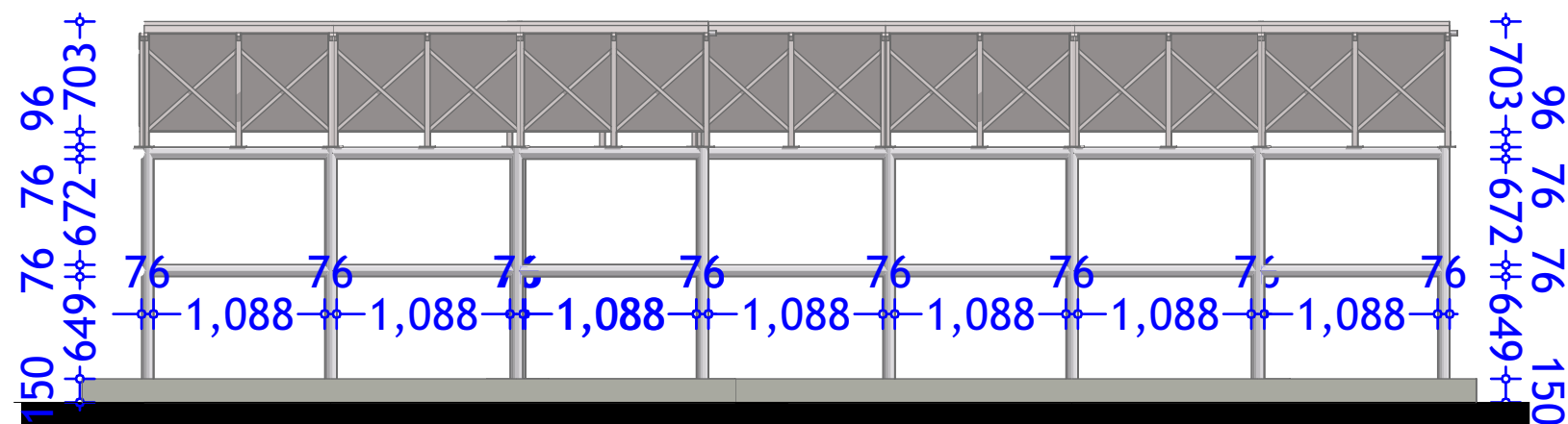
<p><b>GENERAL NOTES</b></p> <ol style="list-style-type: none"> <li>All dimensions are in mm unless stated.</li> <li>All dimensions to be checked and confirmed on site before commencement of any work.</li> <li>Any discrepancy to be reported to the engineer promptly before proceeding.</li> </ol>	<p><b>PROJECT</b></p> <p>EXCAVATION OF SHALLOW WELLS</p>	<p><b>IMPLEMENTING AGENCY</b></p>  <p>International Organization for Migration (IOM) The UN Migration Agency</p>	<p><b>DEPARTMENT</b></p> <p>WATER SANITATION AND HYGIENE WASH</p>	<table border="1"> <tr><td>SCALE</td><td></td></tr> <tr><td>DATE</td><td>JUNE 2020</td></tr> <tr><td>DESIGNED BY:</td><td>ENG. Wanja.D</td></tr> <tr><td>DRAWN BY:</td><td>ENG. Wanja.D</td></tr> <tr><td>REVIEWED BY:</td><td></td></tr> <tr><td>APPROVED BY:</td><td></td></tr> </table>	SCALE		DATE	JUNE 2020	DESIGNED BY:	ENG. Wanja.D	DRAWN BY:	ENG. Wanja.D	REVIEWED BY:		APPROVED BY:		<table border="1"> <tr><td><b>DRAWING TITLE:</b></td><td></td></tr> <tr><td><b>DRAWING N<sup>o</sup>:</b></td><td></td></tr> <tr><td><b>PROJECT N<sup>o</sup>:</b></td><td></td></tr> </table>	<b>DRAWING TITLE:</b>		<b>DRAWING N<sup>o</sup>:</b>		<b>PROJECT N<sup>o</sup>:</b>		<p><b>SOLAR LAYOUT</b></p> <p>SHEET N<sup>o</sup>:</p>
SCALE																								
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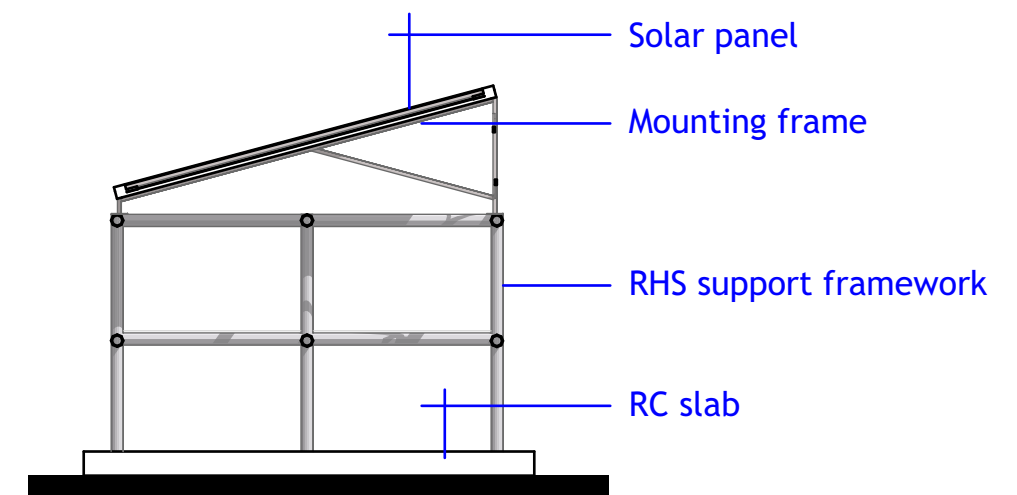
**TYPICAL 7 NO. PANEL LAYOUT**



**SOLAR STRUCTURE ELEVATION**



**SOLAR STRUCTURE ELEVATION**



**SOLAR STRUCTURE ELEVATION**

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EXCAVATION OF SHALLOW WELLS

**IMPLEMENTING AGENCY**



**DEPARTMENT**

WATER SANITATION AND HYGIENE  
**WASH**

SCALE	
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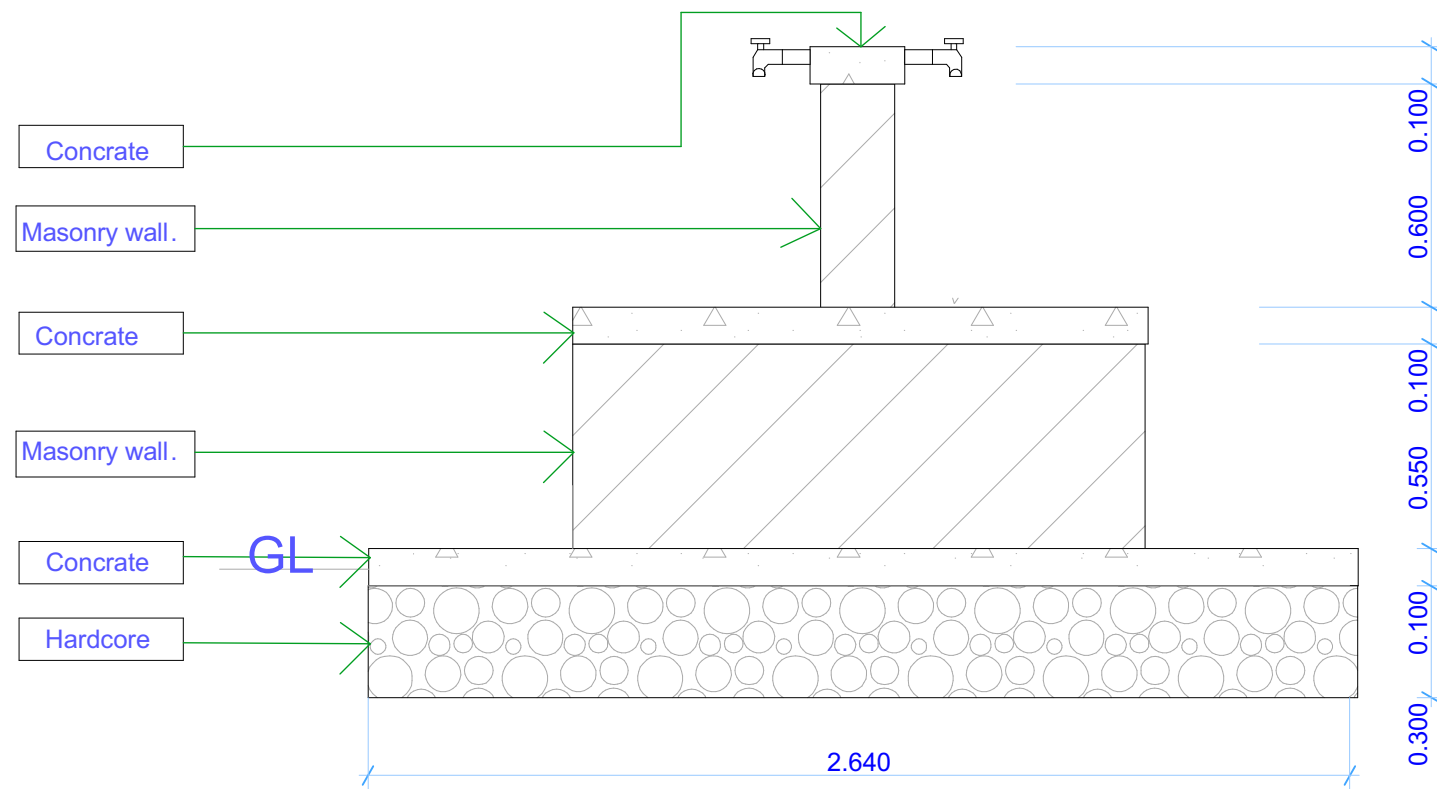
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**DRAWING N<sup>o</sup>:**

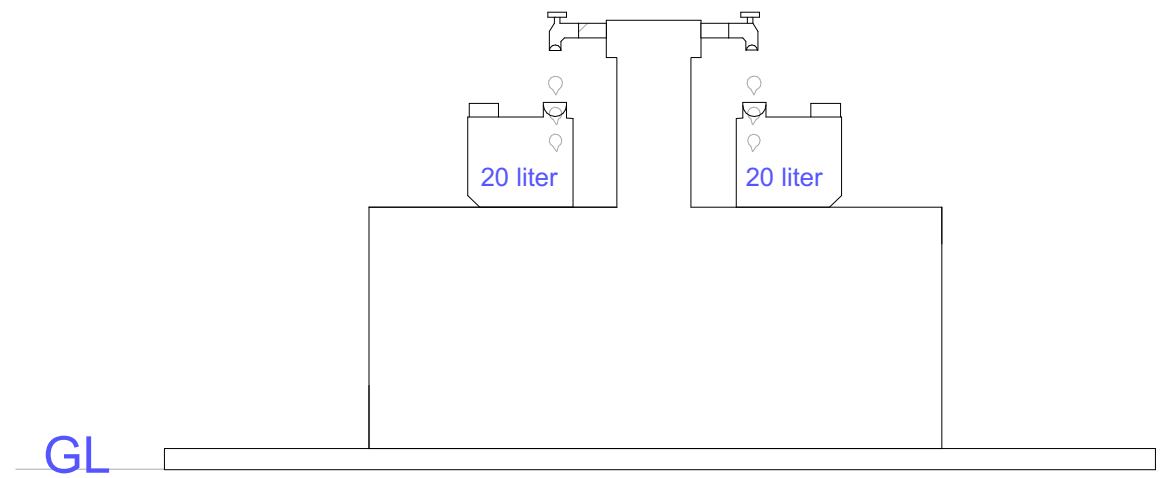
**PROJECT N<sup>o</sup>:**

**S.STRUCTURE  
DETAILS**

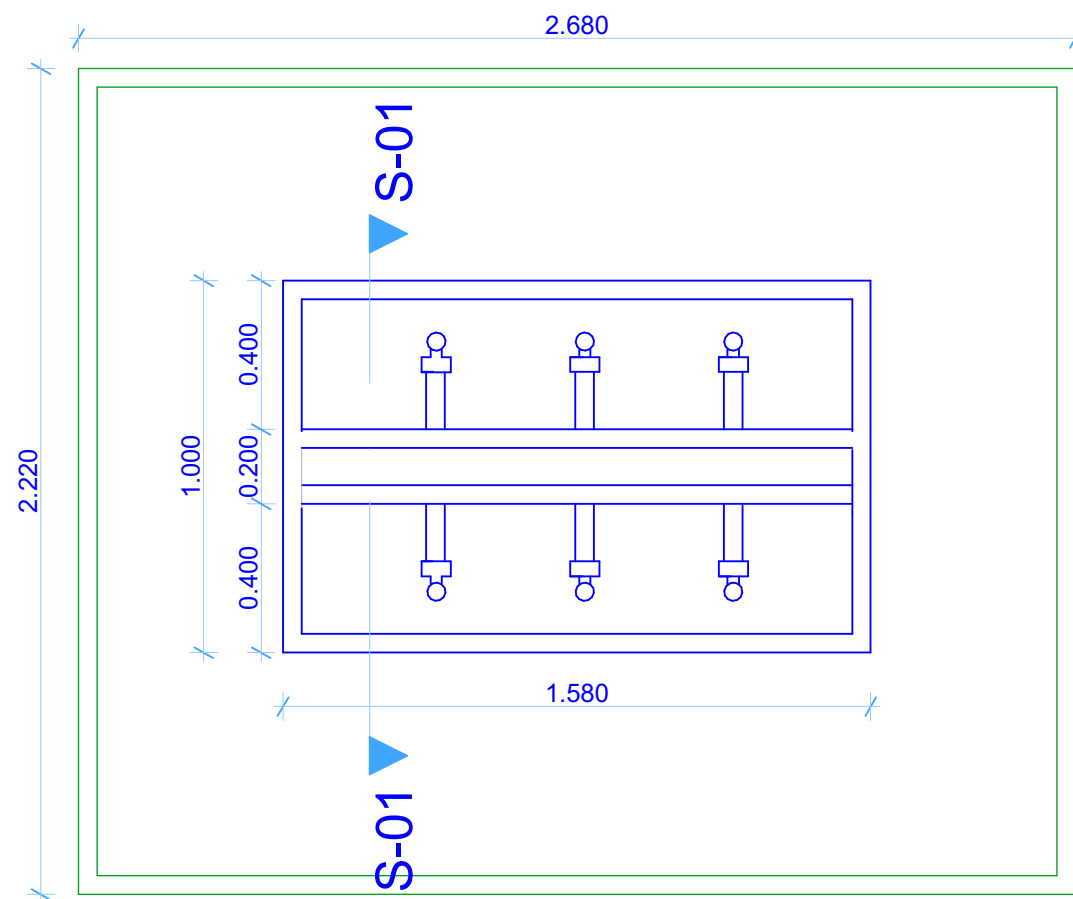
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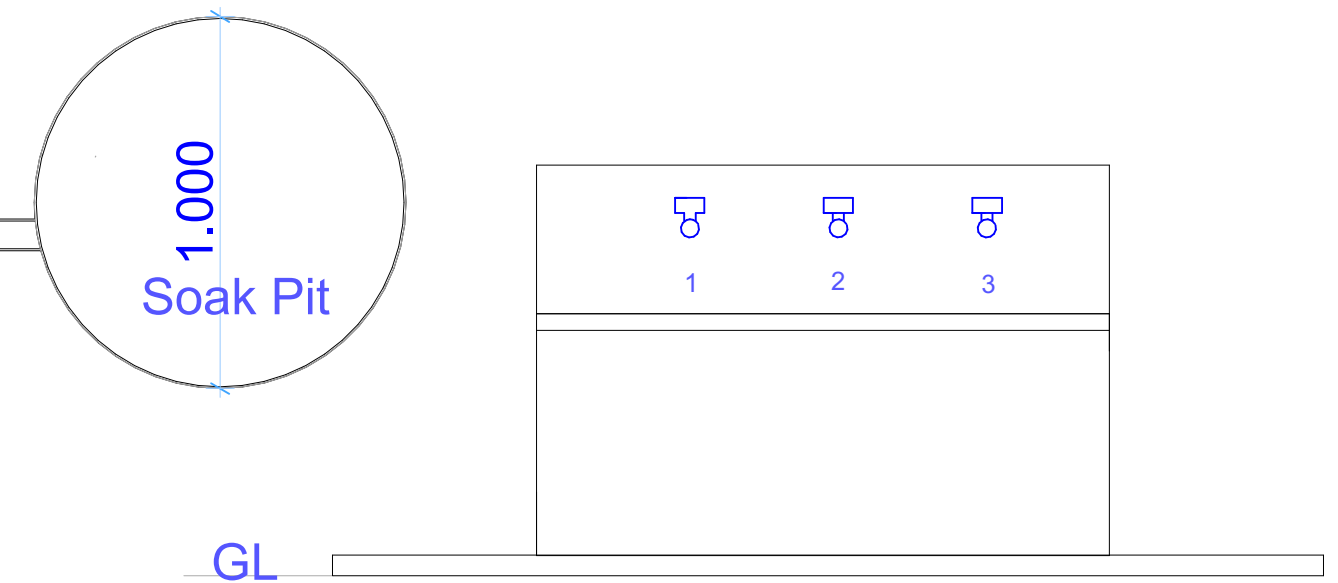
Section S-01



Side Elevation



Floor Plan



Front Elevation

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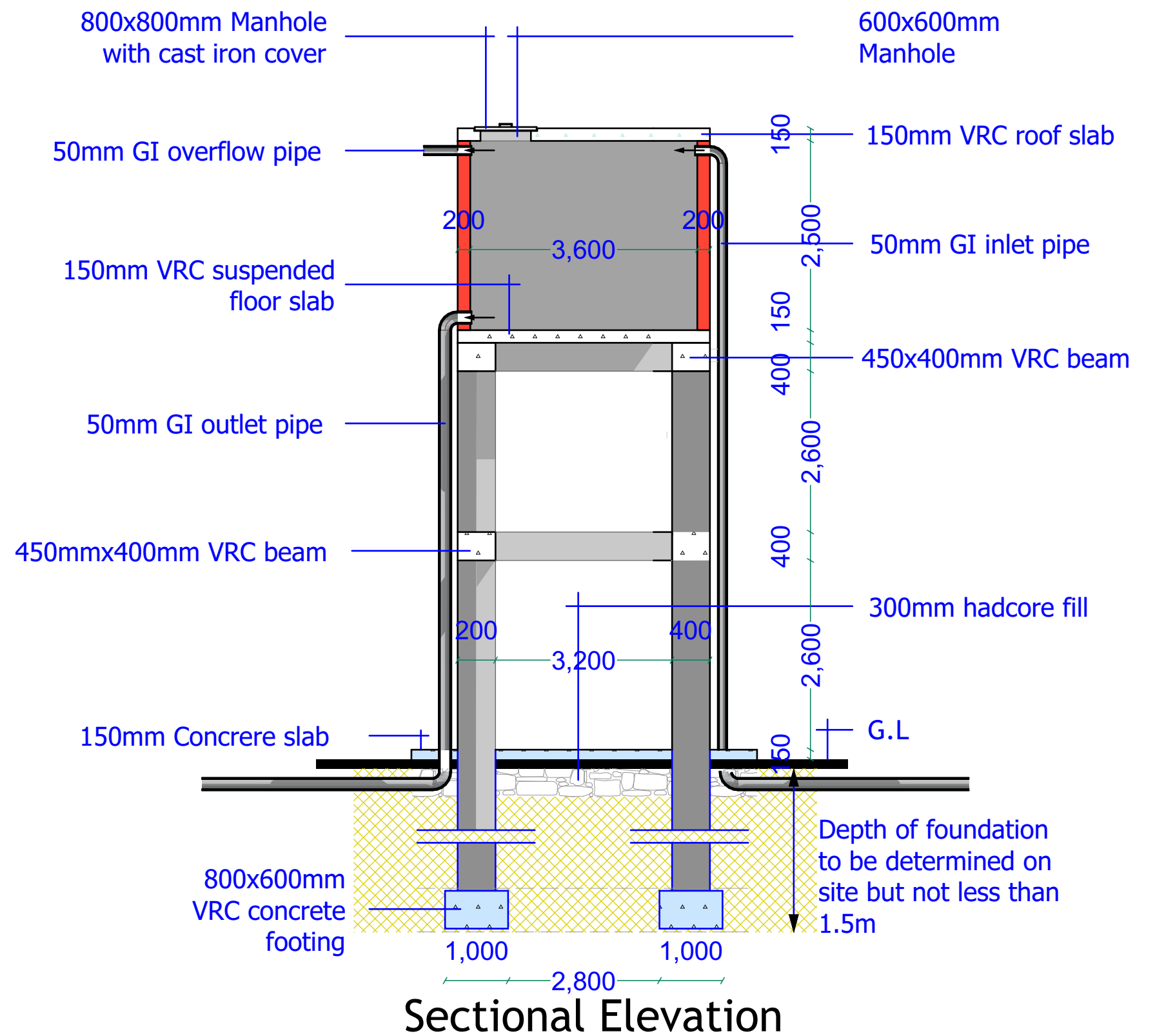
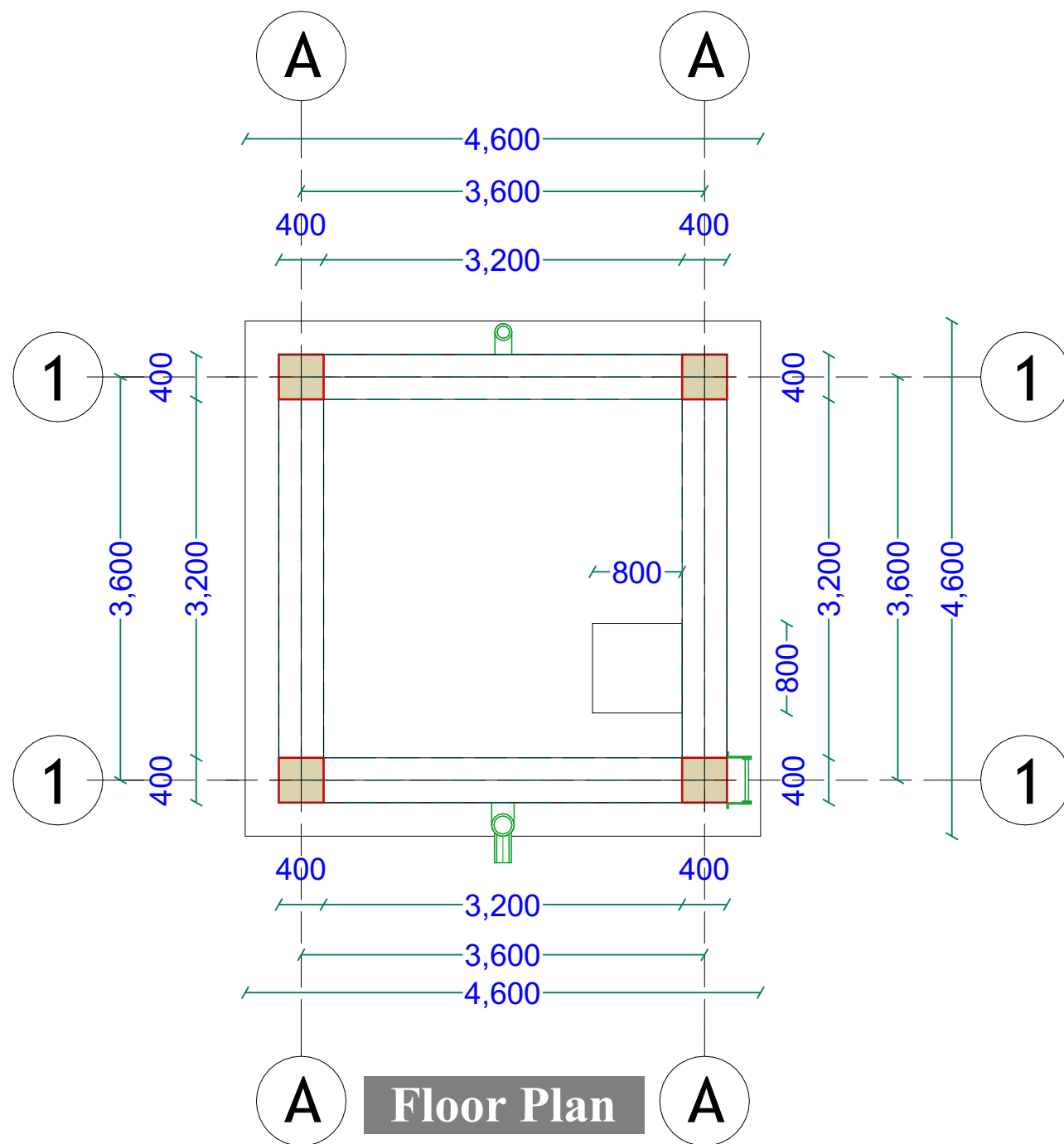
**DRAWING N<sup>o</sup>:**

**PROJECT N<sup>o</sup>:**

**WATER KIOSK**

SHEET N<sup>o</sup>:





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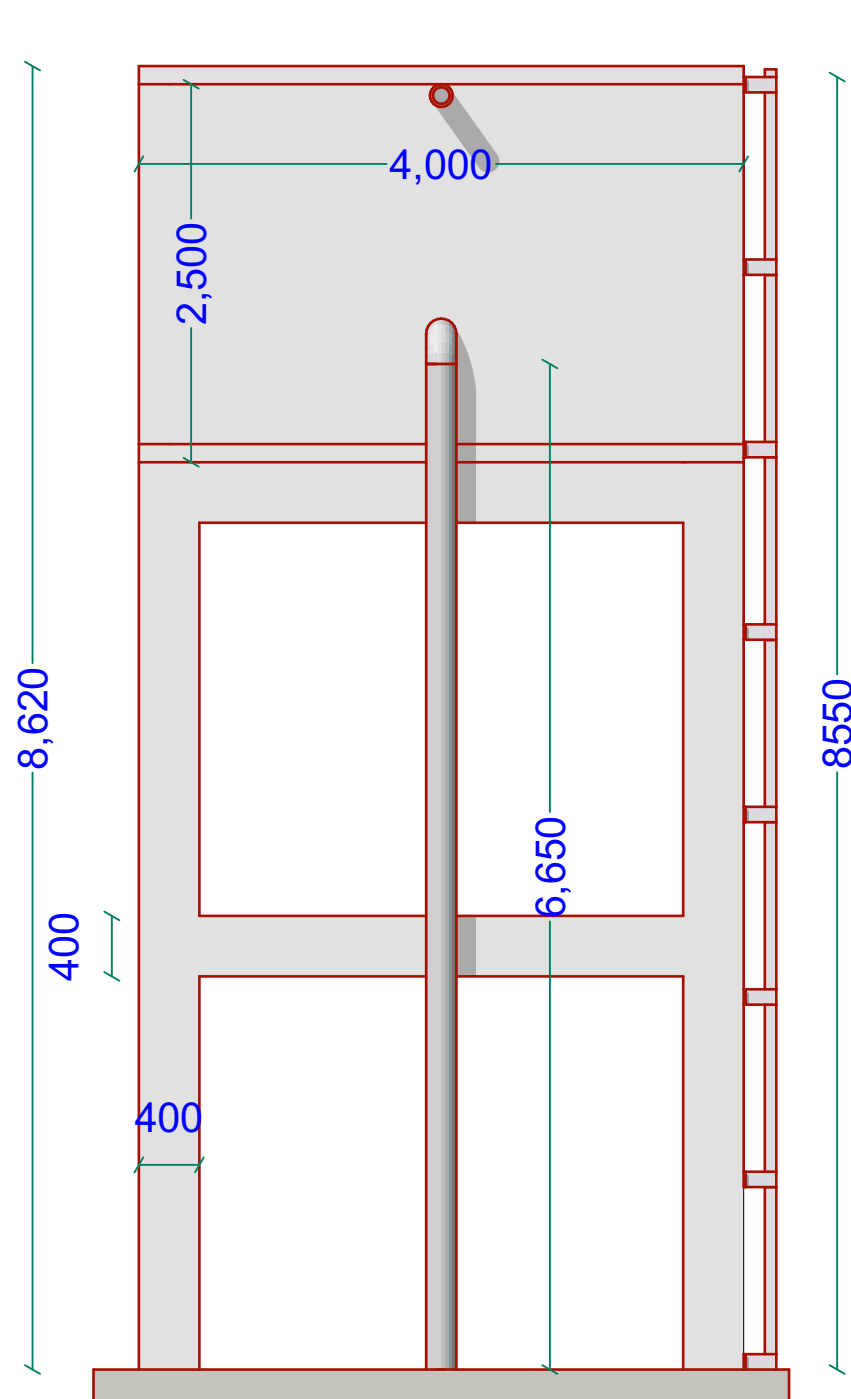
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**DRAWING N<sup>o</sup>:**

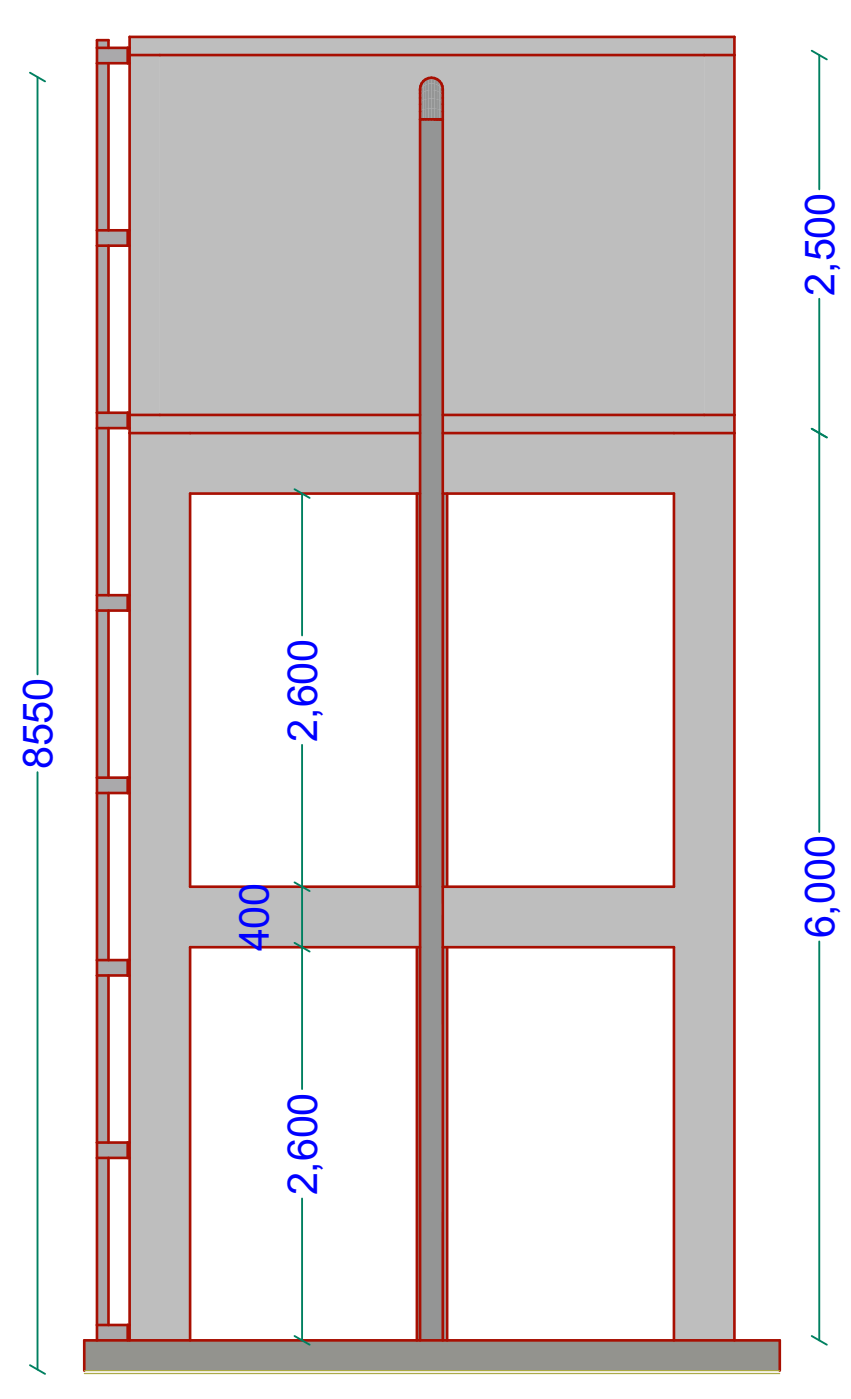
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**ELEVATED TANK**

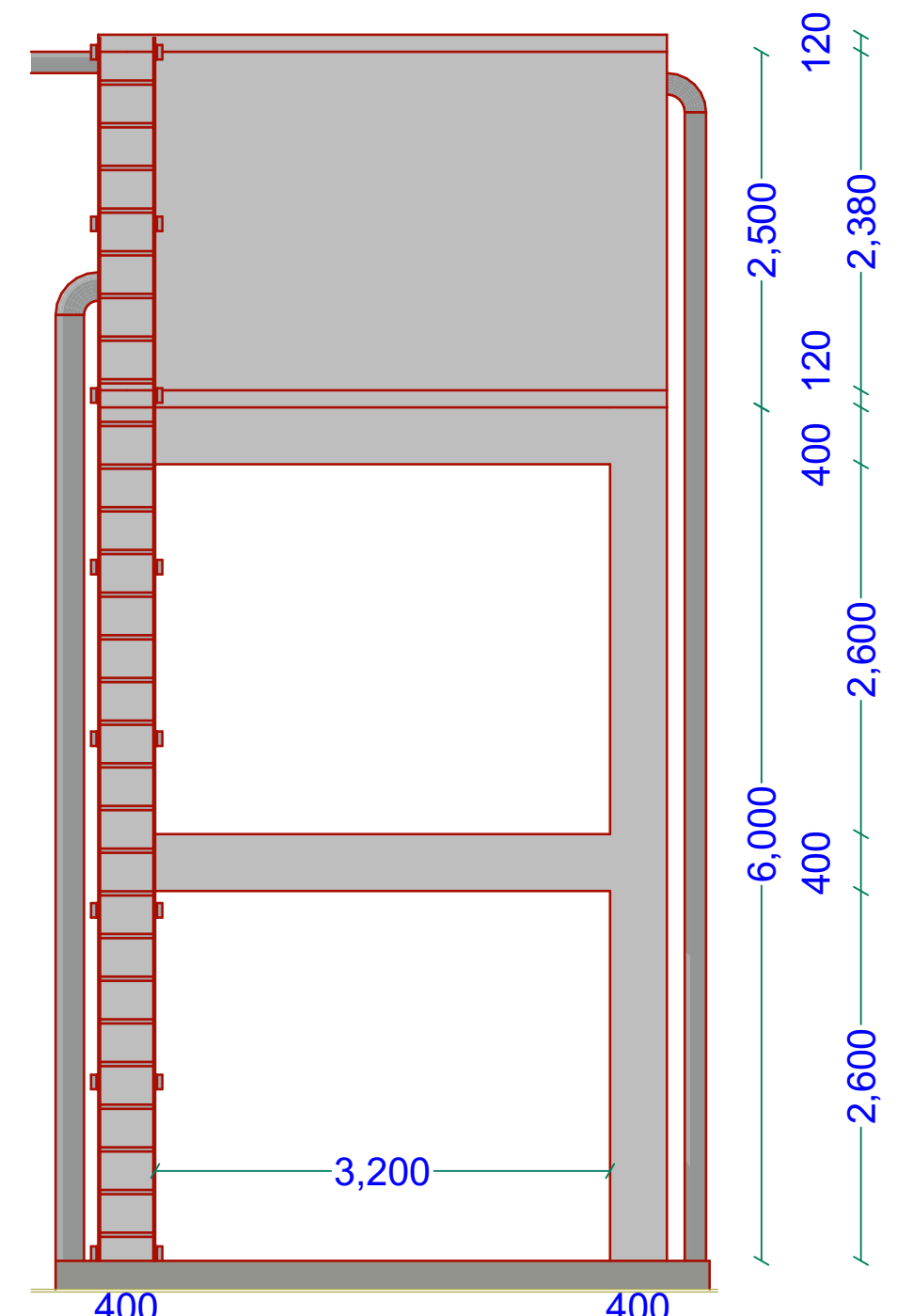
**SHEET N<sup>o</sup>:**



**South Elevation**



**North Elevation**



**East Elevation**

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**DEPARTMENT**

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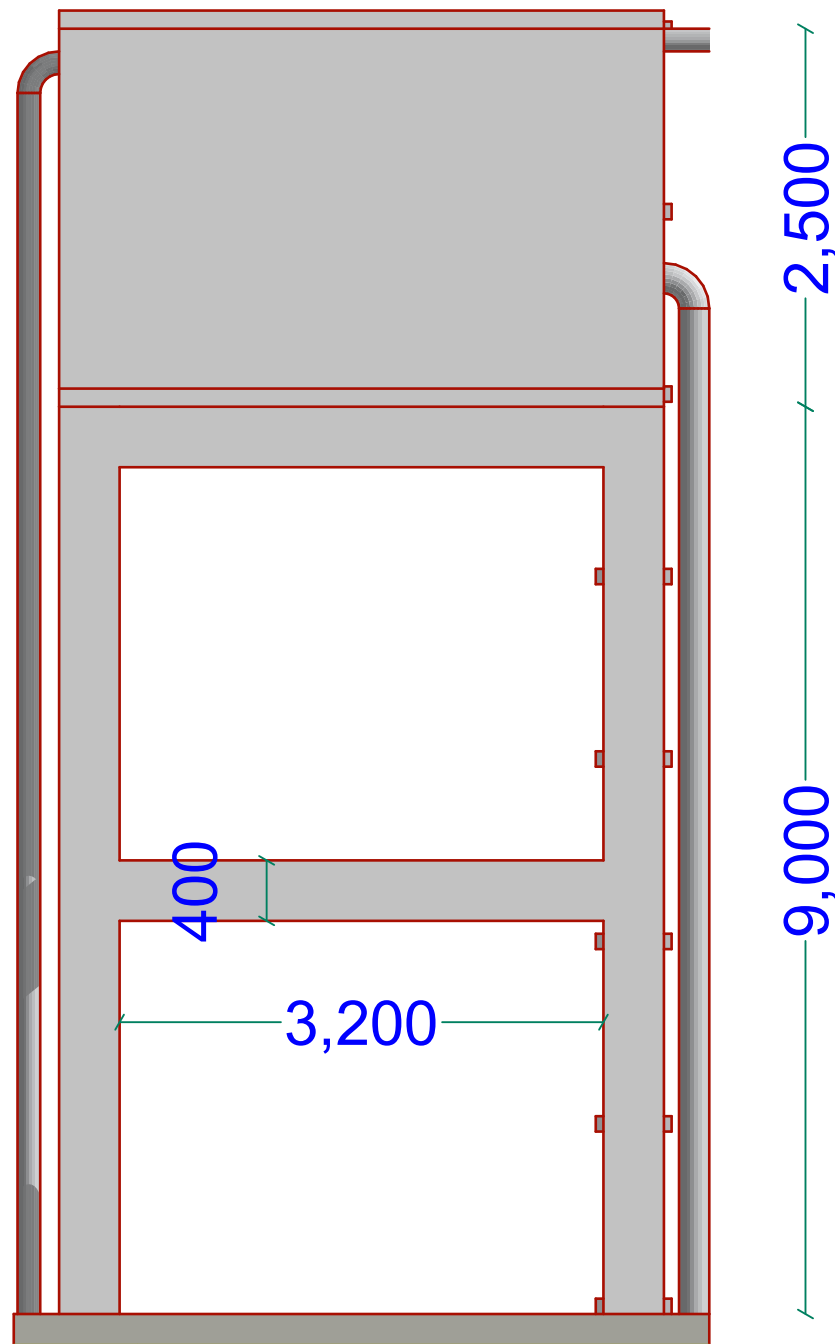
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**DRAWING N°:**

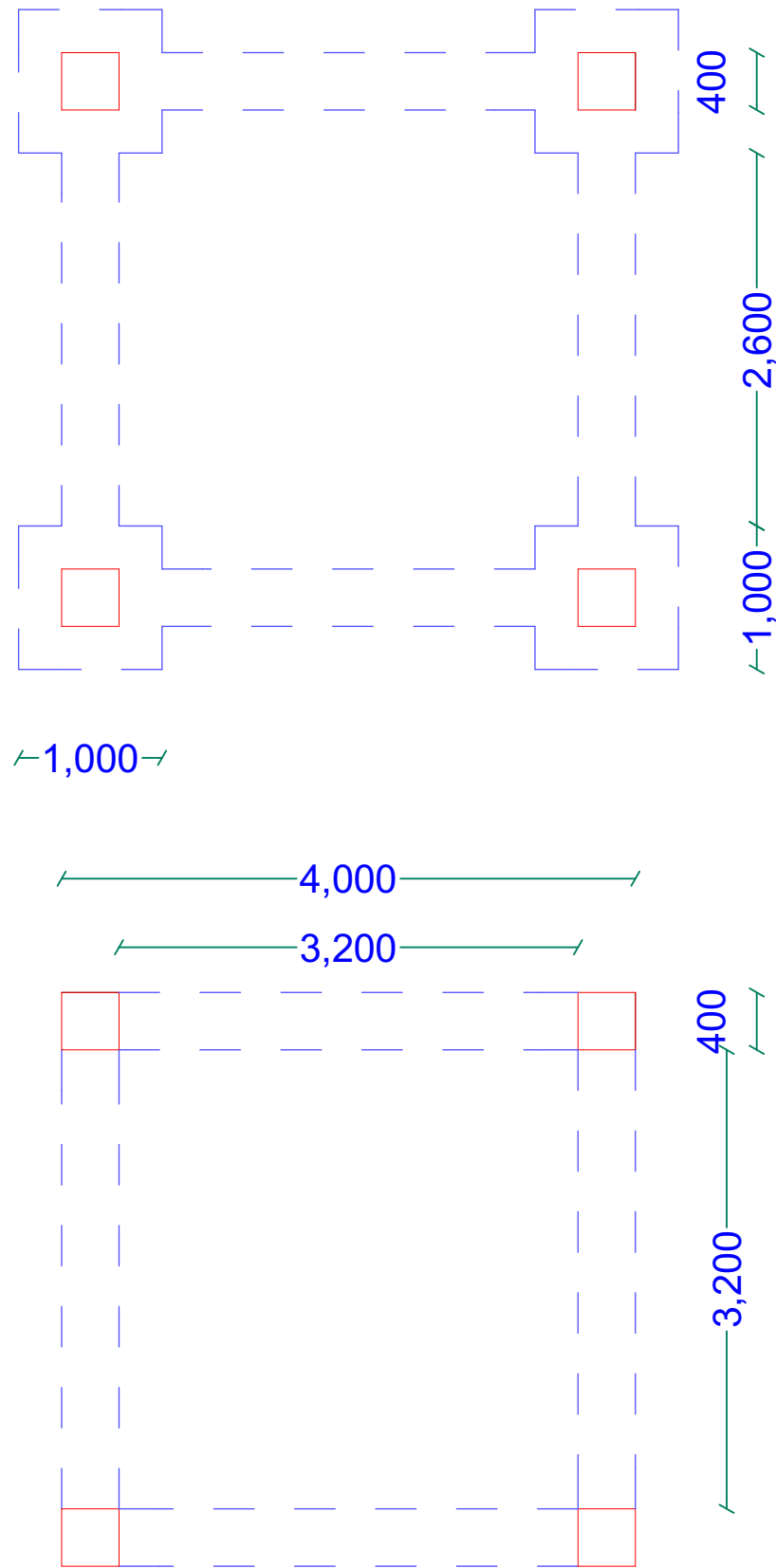
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**ELEVATED TANK**

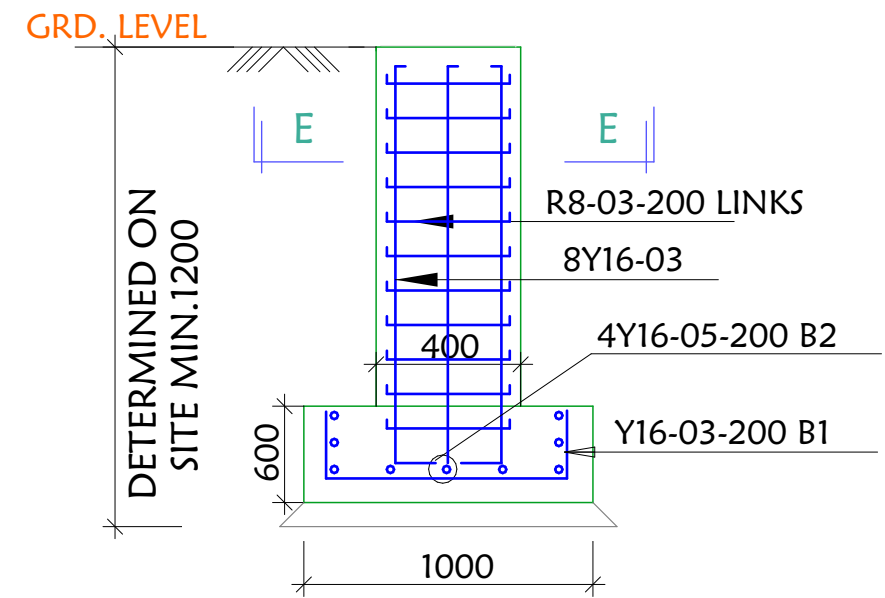
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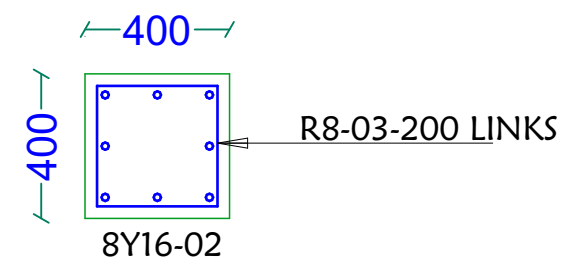
**West Elevation**




**FOUNDATION LAYOUT**



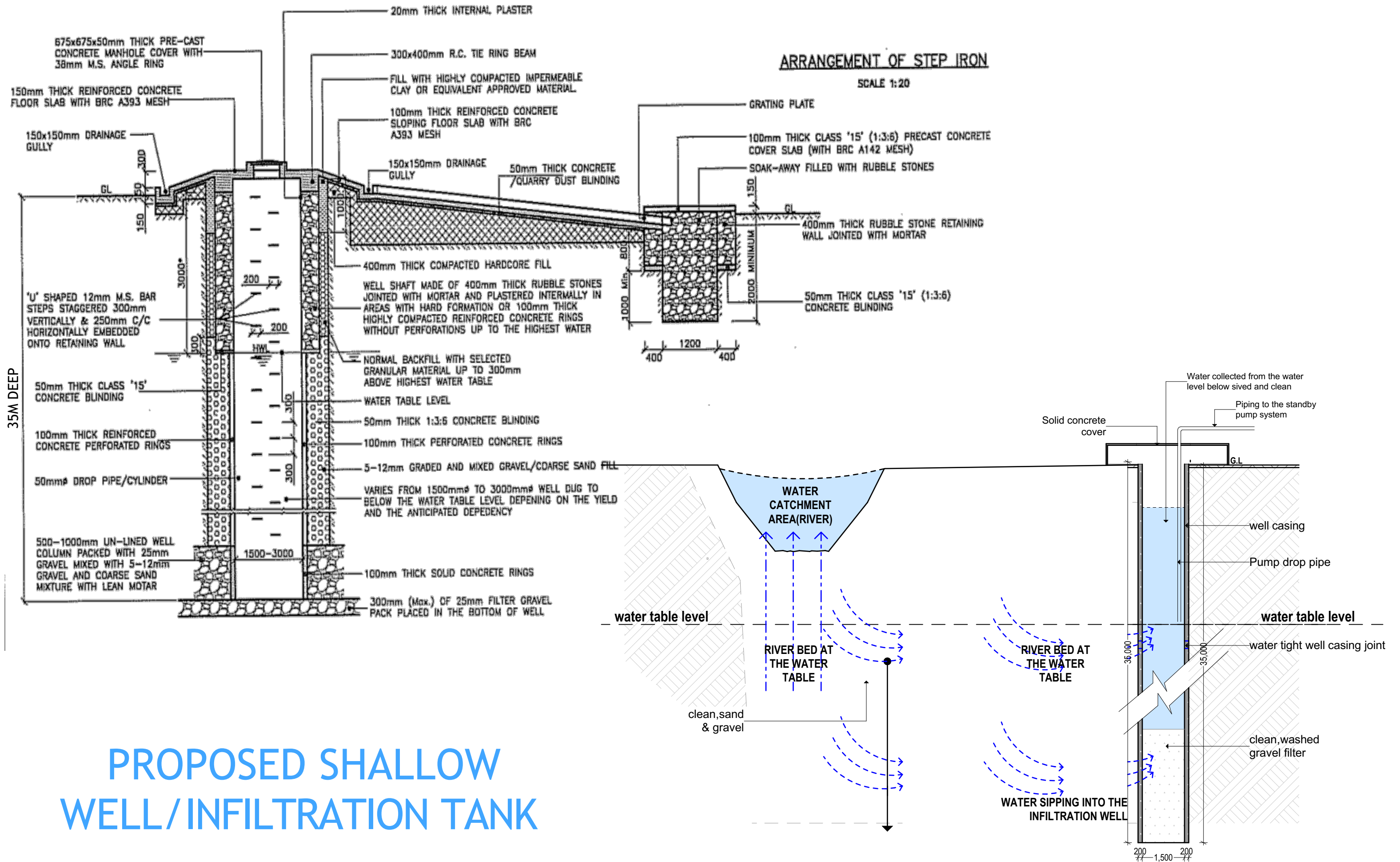
**SECTION D-D**  
SCALE 1:25



**SECTION E-E (Column)**  
SCALE 1:25

<p><b>GENERAL NOTES</b></p> <ol style="list-style-type: none"> <li>All dimensions are in mm unless stated.</li> <li>All dimensions to be checked and confirmed on site before commencement of any work.</li> <li>Any discrepancy to be reported to the engineer promptly before proceeding.</li> </ol>	<p><b>PROJECT</b></p> <p>EXCAVATION OF SHALLOW WELLS</p>	<p><b>IMPLEMENTING AGENCY</b></p>  <p>International Organization for Migration (IOM) The UN Migration Agency</p>	<p><b>DEPARTMENT</b></p> <p>WATER SANITATION AND HYGIENE <b>WASH</b></p>	<table border="1"> <tr><td>SCALE</td><td></td></tr> <tr><td>DATE</td><td>JUNE 2020</td></tr> <tr><td>DESIGNED BY:</td><td>ENG. Wanja.D</td></tr> <tr><td>DRAWN BY:</td><td>ENG. Wanja.D</td></tr> <tr><td>REVIEWED BY:</td><td></td></tr> <tr><td>APPROVED BY:</td><td></td></tr> </table>	SCALE		DATE	JUNE 2020	DESIGNED BY:	ENG. Wanja.D	DRAWN BY:	ENG. Wanja.D	REVIEWED BY:		APPROVED BY:		<p><b>DRAWING TITLE:</b></p> <p><b>DRAWING N<sup>o</sup>:</b></p> <p><b>PROJECT N<sup>o</sup>:</b></p>	<p><b>ELEVATED TANK</b></p> <p><b>SHEET N<sup>o</sup>:</b></p>
SCALE																		
DATE	JUNE 2020																	
DESIGNED BY:	ENG. Wanja.D																	
DRAWN BY:	ENG. Wanja.D																	
REVIEWED BY:																		
APPROVED BY:																		





# PROPOSED SHALLOW WELL/INFILTRATION TANK

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## PROJECT

EXCAVATION OF SHALLOW WELLS

## IMPLEMENTING AGENCY



## DEPARTMENT

WATER SANITATION AND HYGIENE  
WASH

SCALE	
DATE	JUNE 2020
DESIGNED BY:	ENG. Wanja.D
DRAWN BY:	ENG. Wanja.D
REVIEWED BY:	
APPROVED BY:	

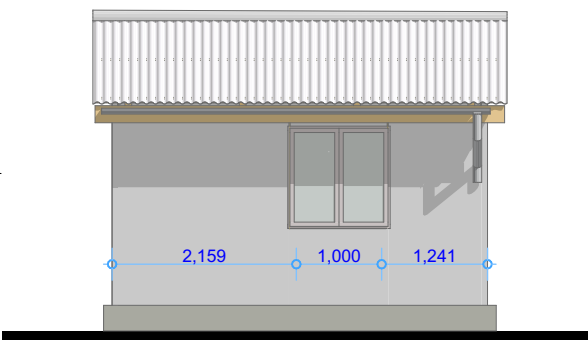
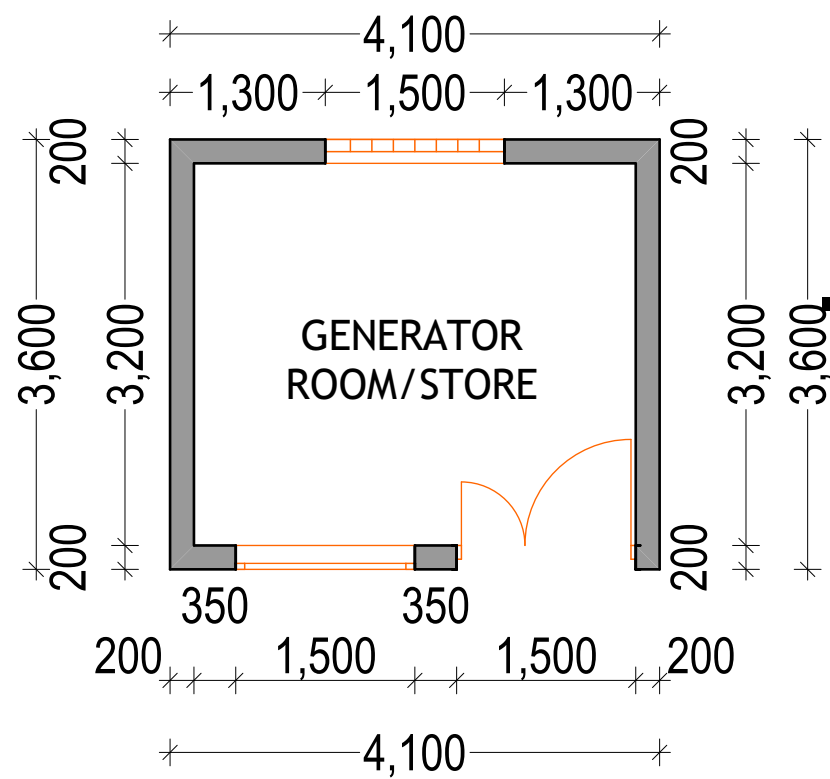
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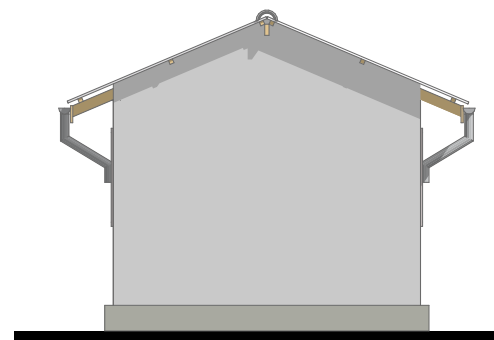
PROJECT N<sup>o</sup>:

SHALLOW WELL

SHEET N<sup>o</sup>:



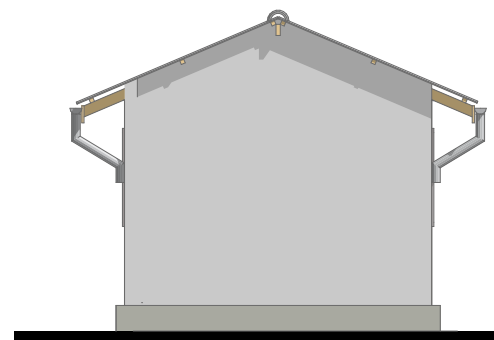
**SOUTH ELEVATION**



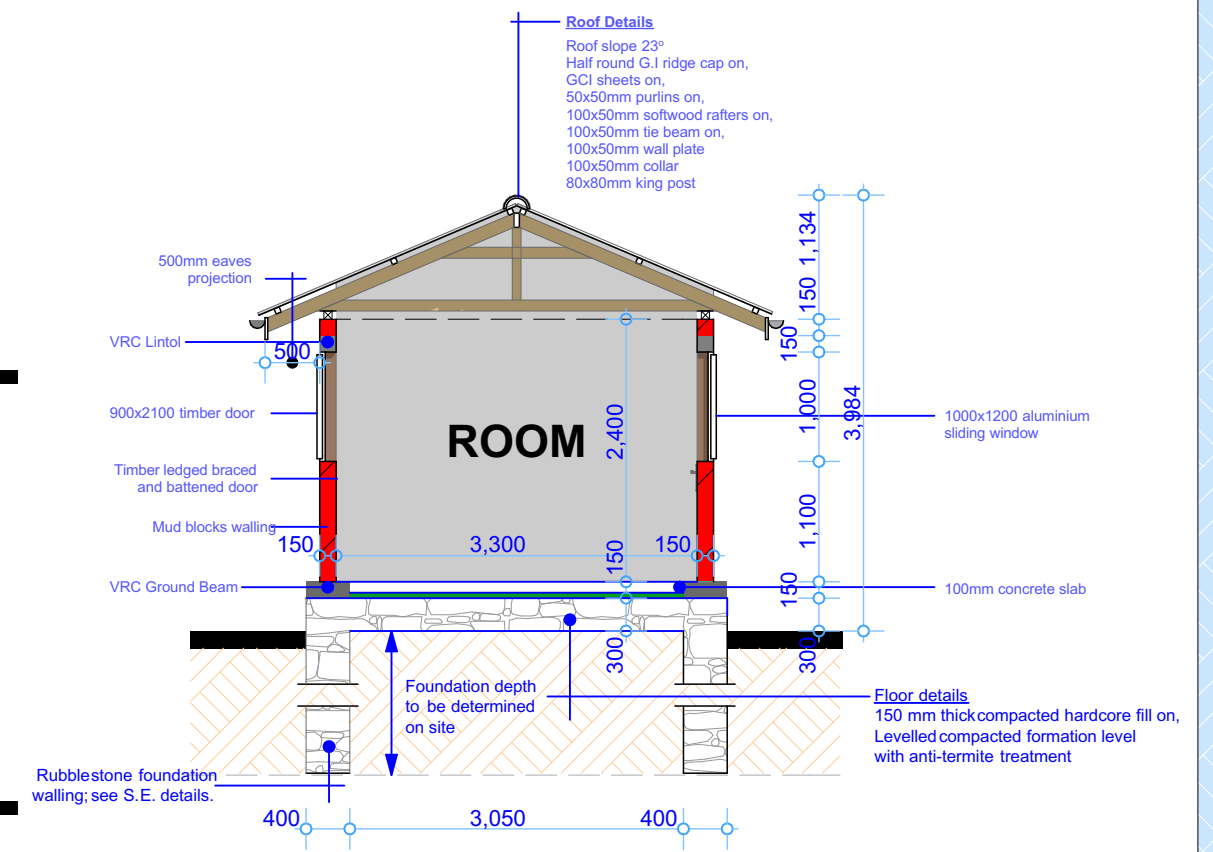
**EAST ELEVATION**



**NORTH ELEVATION**



**WEST ELEVATION**



**SECTIONAL ELEVATION**

**PROJECT**  
 PROPOSED  
 REHABILITATION/CONSTRUCTION WORKS



**LOCATION**  
**WASH** SUPPORTED  
 ACTIVITIES IN SOMALIA

**DESCRIPTION**

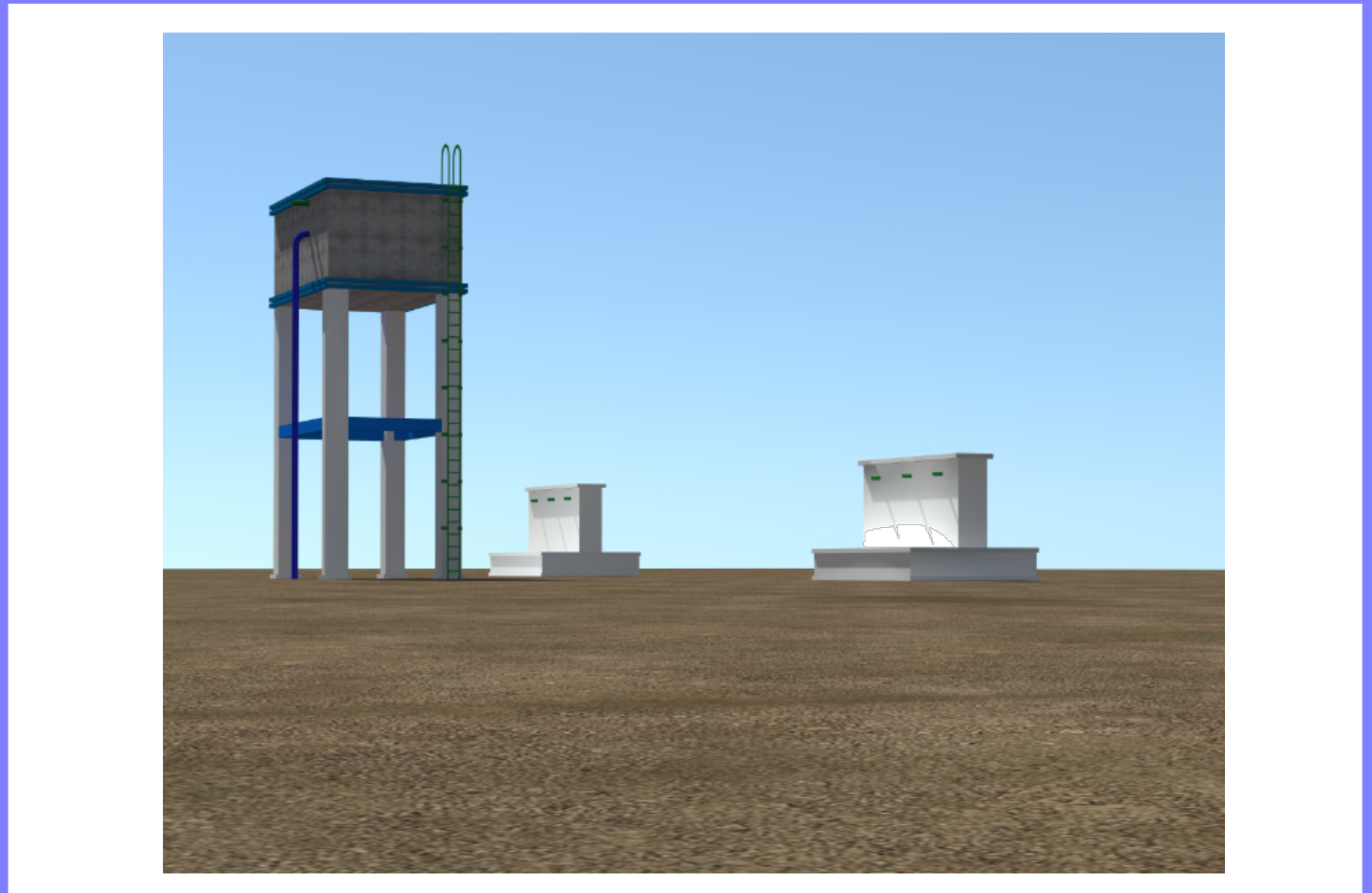
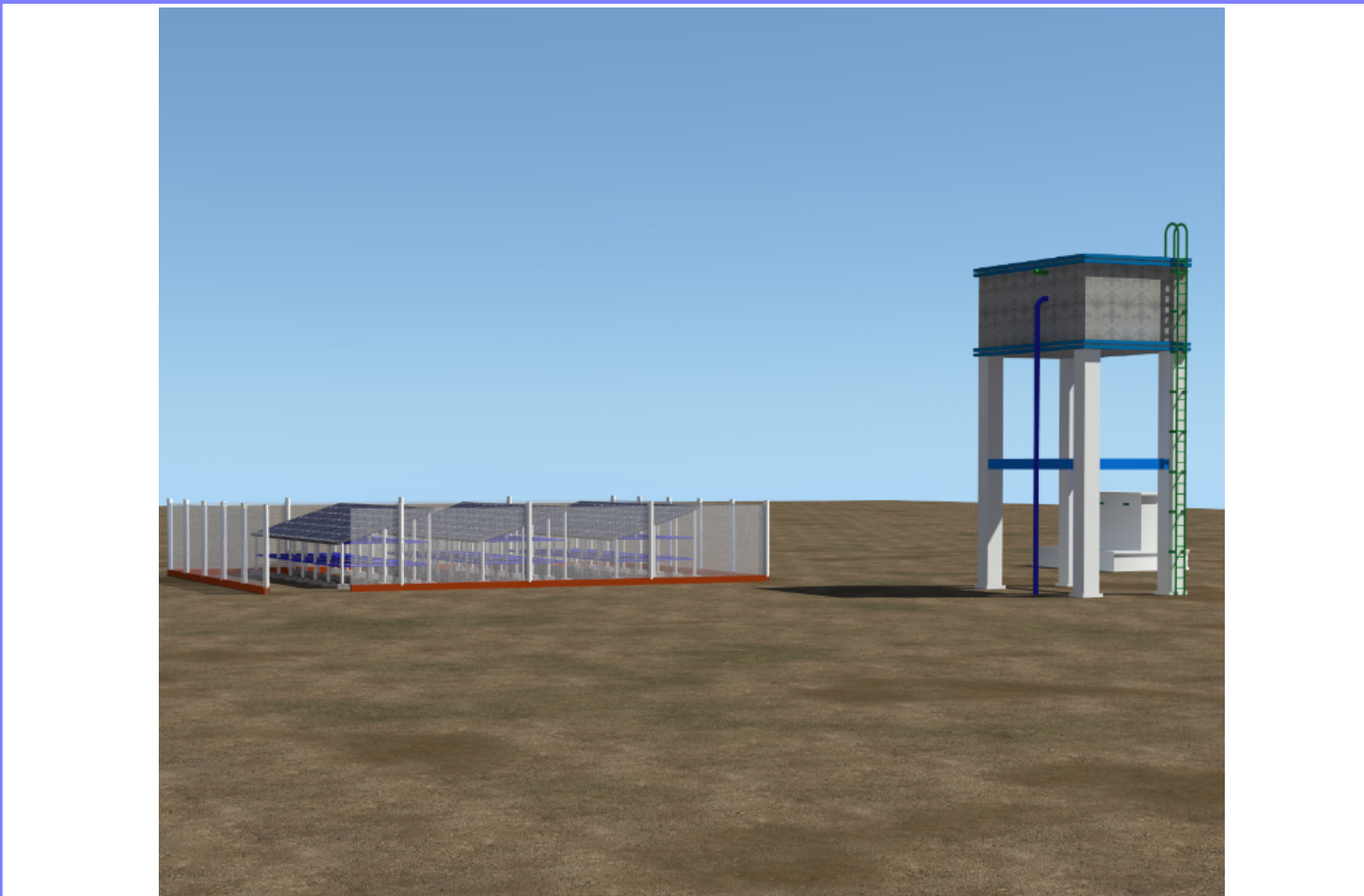
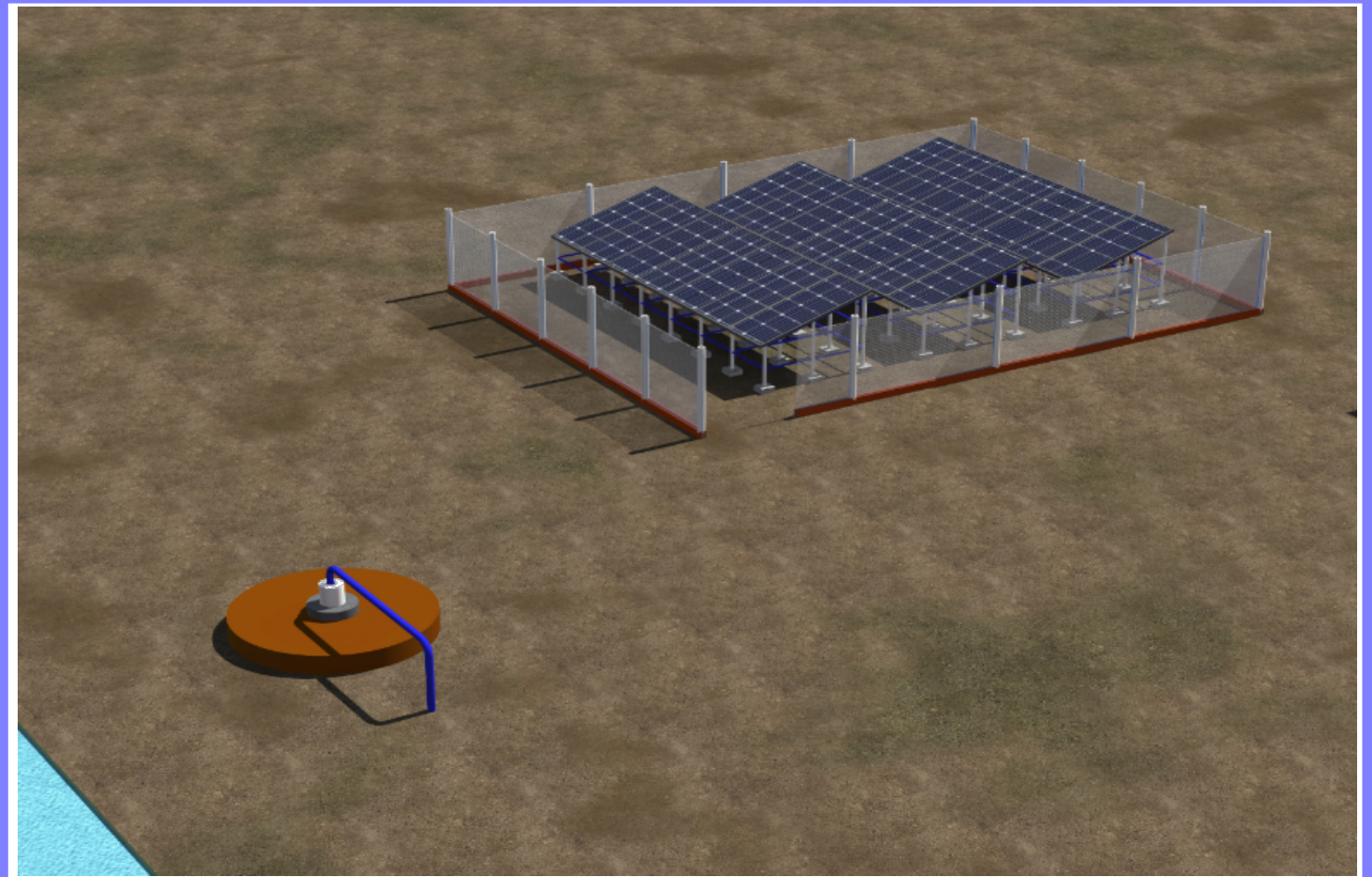
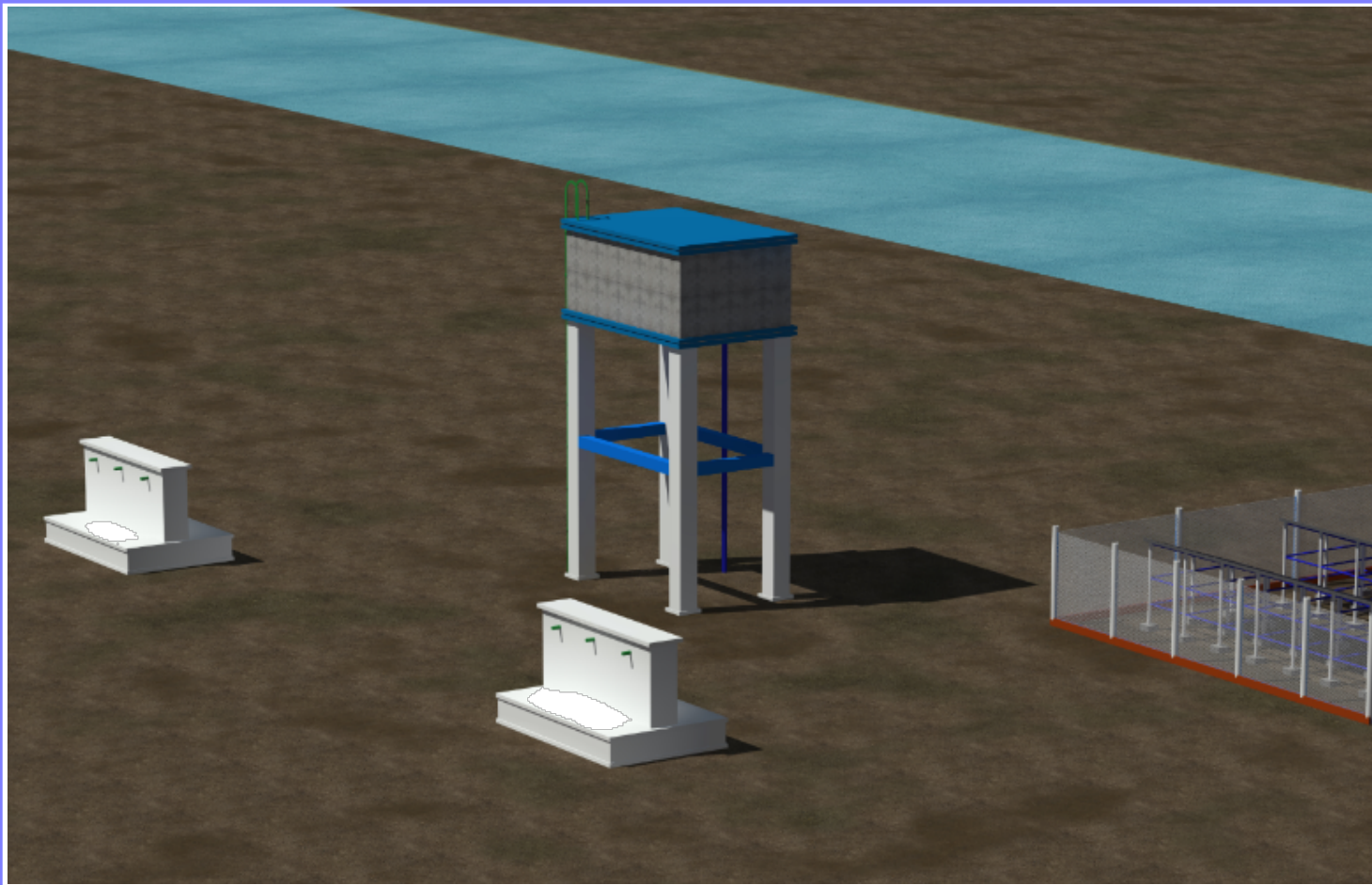
REV.	DESCRIPTION	DATE

STATUS	NEW CONSTRUCTION
DATE	APRIL 2020
DESIGNED BY:	ENG. WANJA D.
DRAWN BY :	ENG. WANJA D.
REVIEWED BY:	
APPROVED BY:	DR. O. KHYARE

**DRAWING TITLE:**  
 Details  
**DRAWING N°:**  
**PROJECT N°:**

SHEET N°:





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REVIEWED BY:	
APPROVED BY:	

<b>DRAWING TITLE:</b>
<b>DRAWING N<sup>o</sup>:</b>
<b>PROJECT N<sup>o</sup>:</b>

<b>VIEWS</b>
SHEET N <sup>o</sup> :



# PS2-1800 C-SJ8-7

## Solar Submersible Pump System for 4" wells

### System Overview

Head	max. 40 m
Flow rate	max. 13 m <sup>3</sup> /h

### Technical Data

#### Controller PS2-1800

- Controlling and monitoring
- Control inputs for dry running protection, remote control etc.
- Protected against reverse polarity, overload and overtemperature
- Integrated MPPT (Maximum Power Point Tracking)
- Battery operation: Integrated low voltage disconnect
- Integrated Sun Sensor

Power	max. 1,8 kW
Input voltage	max. 200 V
Optimum Vmp**	> 102 V
Motor current	max. 14 A
Efficiency	max. 98 %
Ambient temp.	-40...50 °C
Enclosure class	IP68

#### Motor ECDRIVE 1200-C / ECDRIVE 1800-C

- Maintenance-free brushless DC motor
- Water filled
- Premium materials, stainless steel: AISI 304/316
- No electronics in the motor

Rated power	1,7 kW
Efficiency	max. 92 %
Motor speed	900...3 300 rpm
Insulation class	F
Enclosure class	IP68
Submersion	max. 150 m

#### Pump End PE C-SJ8-7

- Non-return valve
- Premium materials, stainless steel: AISI 304
- Optional: dry running protection
- Centrifugal pump

#### Pump Unit PU1800 C-SJ8-7 (Motor, Pump End)

Borehole diameter	min. 4,0 in
Water temperature	max. 50 °C

### Standards



2006/42/EC, 2004/108/EC, 2006/95/EC

IEC/EN 61702:1995

The logos shown reflect the approvals that have been granted for this product family. Products are ordered and supplied with the approvals specific to the market requirements.

\*\*Vmp: MPP-voltage under Standard Test Conditions (STC): 1000 W/m<sup>2</sup> solar irradiance, 25 °C cell temperature

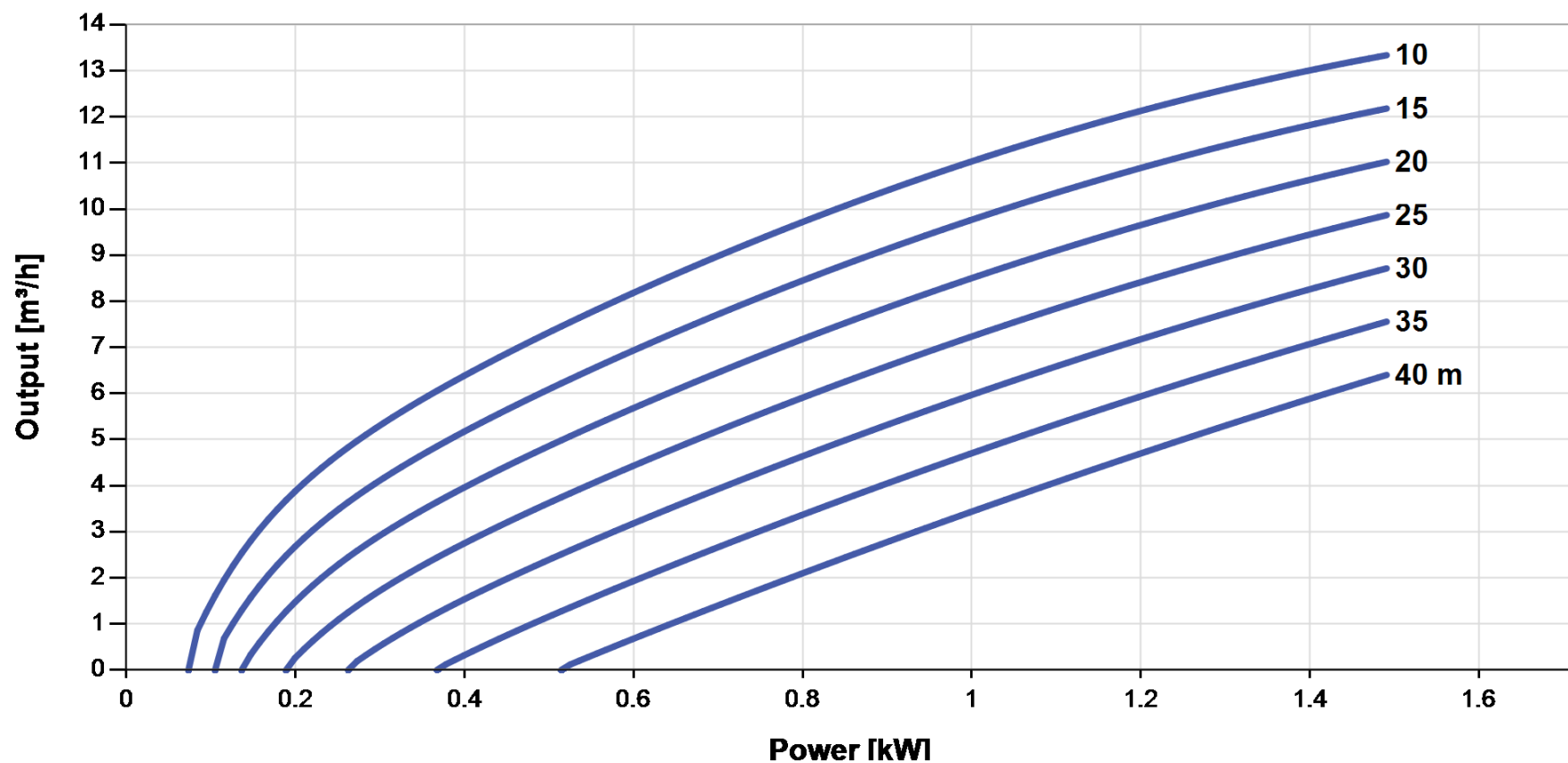


## PS2-1800 C-SJ8-7

Solar Submersible Pump System for 4" wells

### Pump Chart

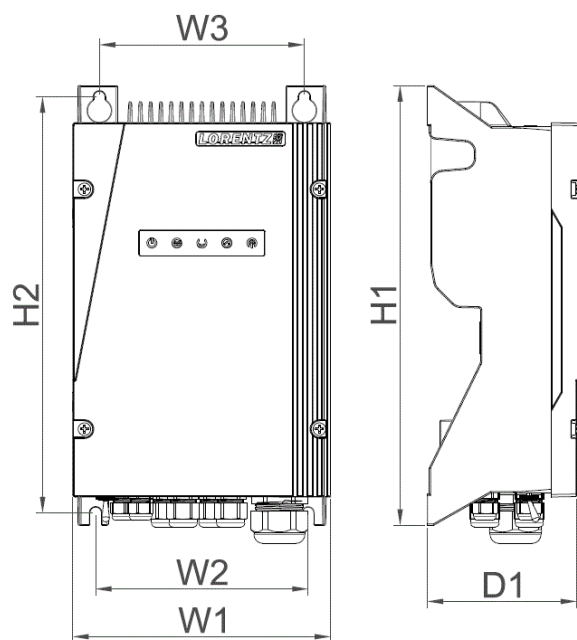
Vmp\* > 102 V



### Dimensions and Weights

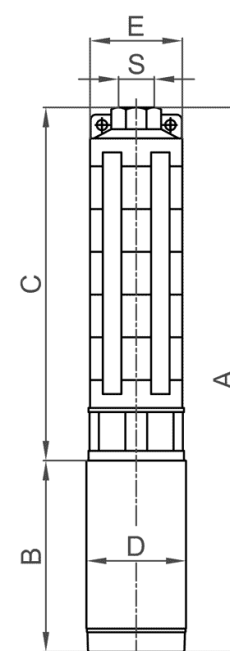
#### Controller

H1 = 352 mm  
 H2 = 333 mm  
 W1 = 207 mm  
 W2 = 170 mm  
 W3 = 164 mm  
 D1 = 124 mm



#### Pump Unit

A = 684 mm  
 B = 185 mm  
 C = 499 mm  
 D = 96 mm  
 E = 98 mm  
 S = 2 in



	Net weight
Controller	6,0 kg
Pump Unit	14 kg
Motor	7,0 kg
Pump End	6,5 kg

\*Vmp: MPP-voltage under Standard Test Conditions (STC): 1000 W/m² solar irradiance, 25 °C cell temperature

