

20M³ WATER YARD FOR THE BENTIU TVET CENTRE

GENERAL NOTES:



1. All dimensions are in millimeters unless otherwise stated.
2. All dimensions are to be checked and confirmed on site before commencement of any work.
3. Written dimensions override scaled dimensions.
4. Depth of pad foundation 1200mm.
5. Depth of strip foundation 750mm.
6. Any discrepancy or changes is to be reported to Engineer/Project manager before proceeding

Rev:	Date	Description:	Approved
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Program

Client:
GOVERNMENT OF SOUTH SUDAN

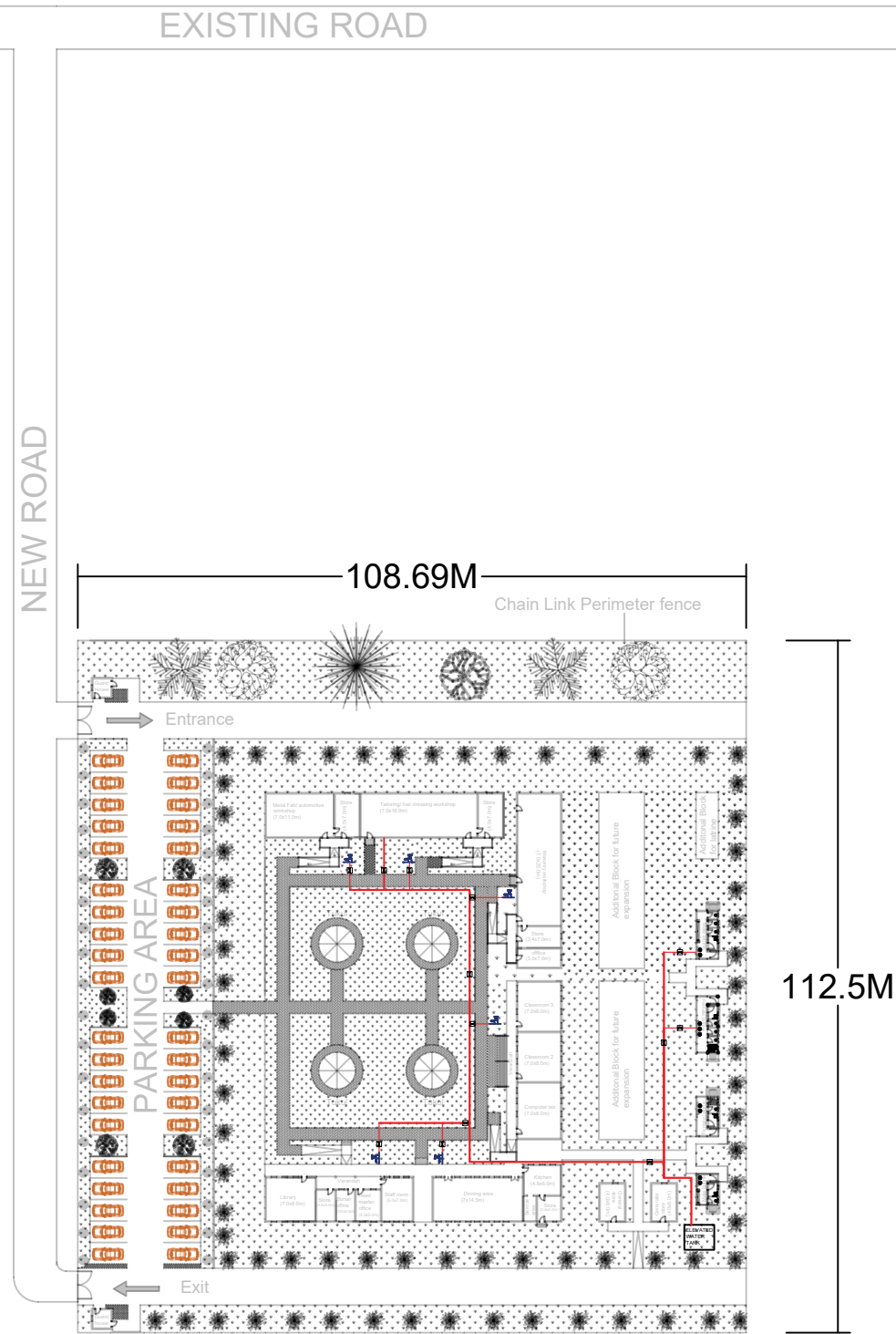
Implemented By:



Project:
PROPOSED WATER YARD
20M3 CAPACITY ELAVATED TANK

Drawing Title
COVER PAGE

Designed By: S.S.D	Drawn by: S.S.D
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Date: 25 October 2024	Rev: 0



Water Supply distribution
N.t.s

LEGEND		
S/N	Symbol	Name
1		Main distribution line Ø50mm
2		Service line Ø32mm
3		Valve chamber

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Program

Client:
GOVERNMENT OF SOUTH SUDAN

Implemented By:

Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

LAYOUT	
Designed By: H.A	Drawn by: H.A
Checked: F.E & G.O	Approved: ----
Sheet #: 2/11	Scale: UNSPECIFIED
Date: 25 Oct 2024	Rev: 2

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Program

Client:
GOVERNMENT OF SOUTH SUDAN

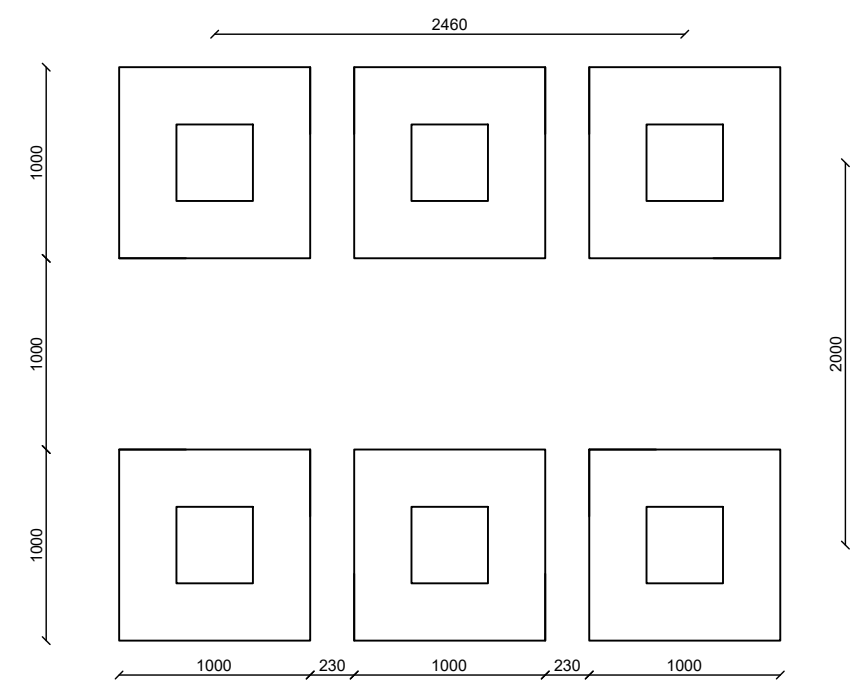
Implemented By:


Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

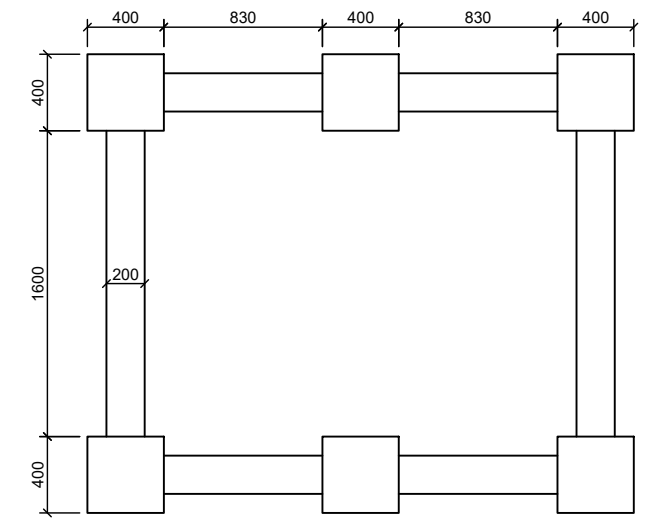
Drawing Title

PLANS AND SECTIONS

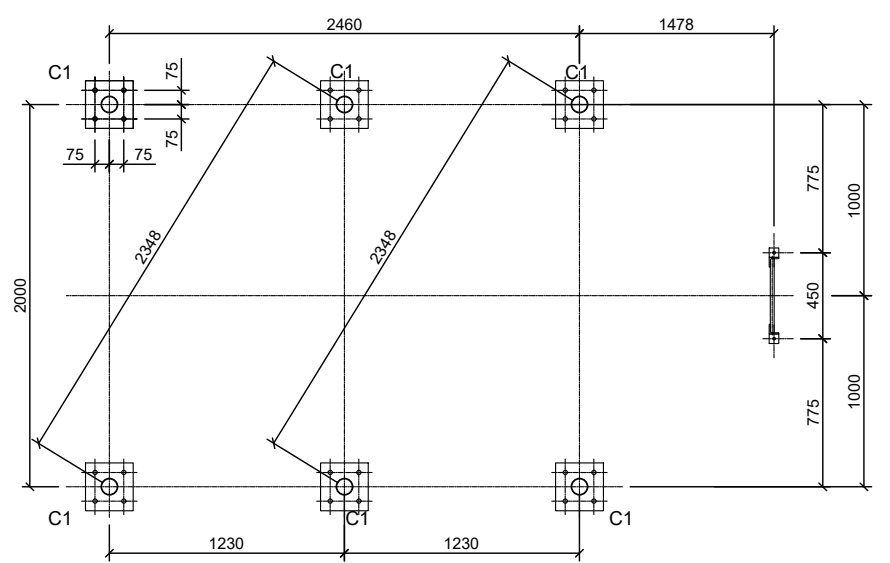
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Date: 25 October 2024	Rev: 2



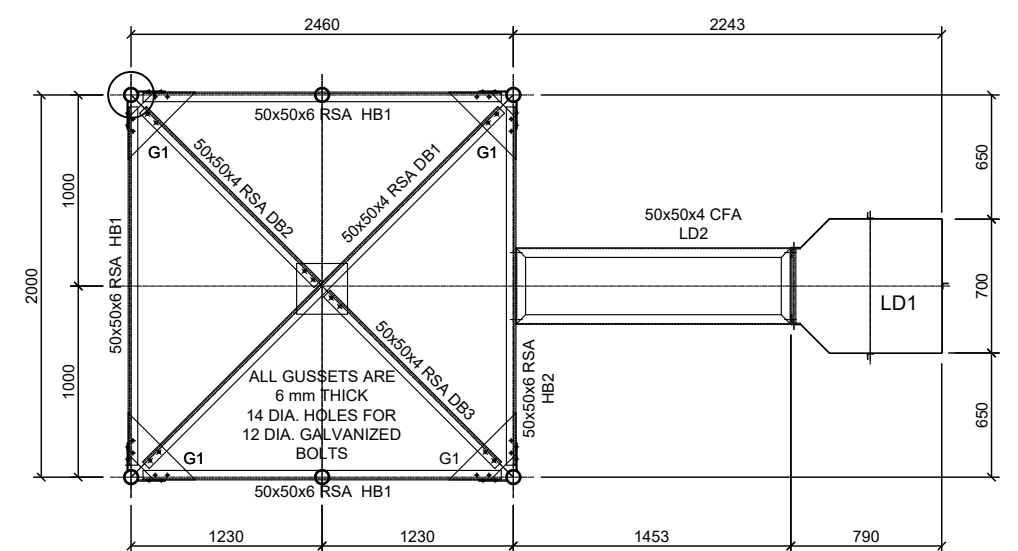
FOUNDATION PLAN
SCALE: 1:20



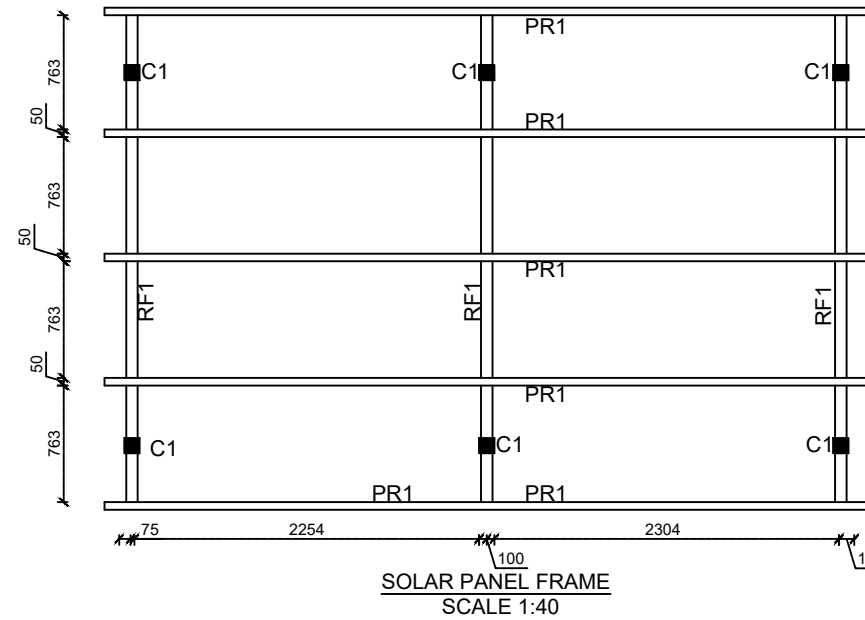
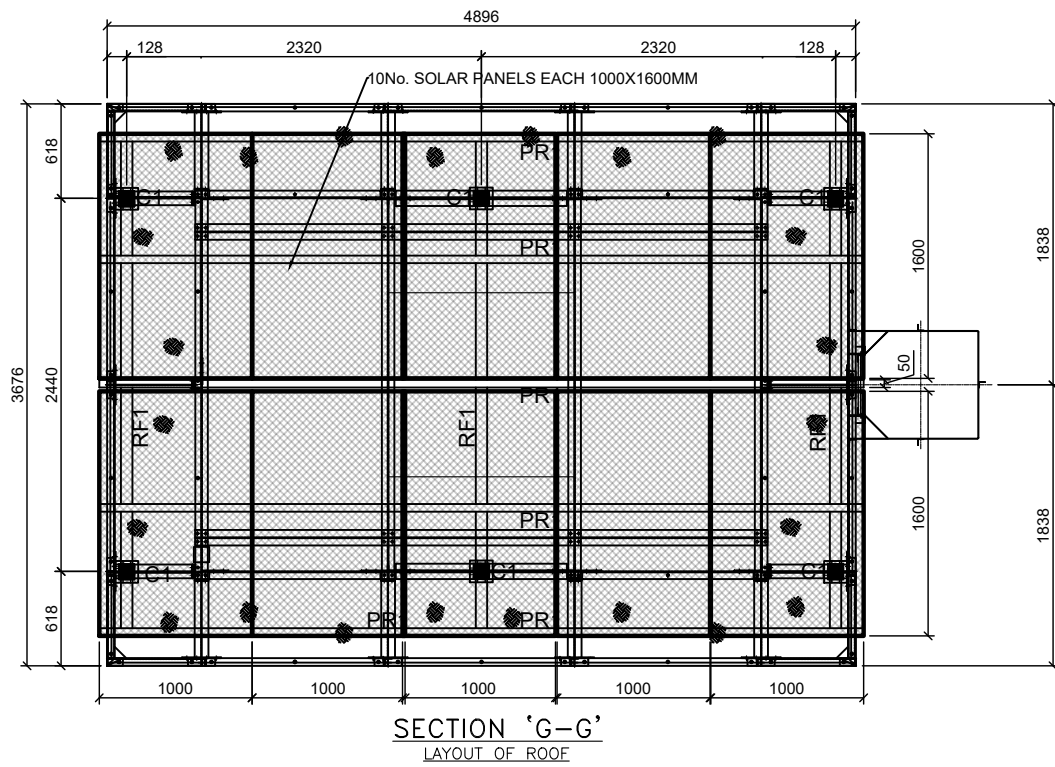
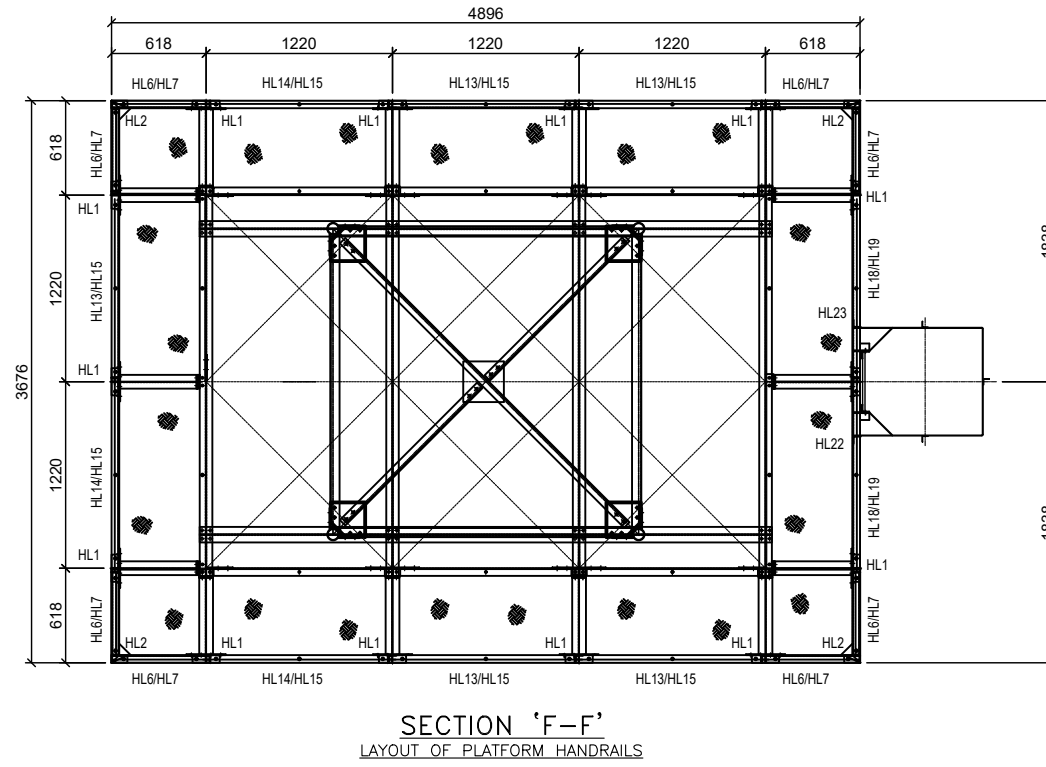
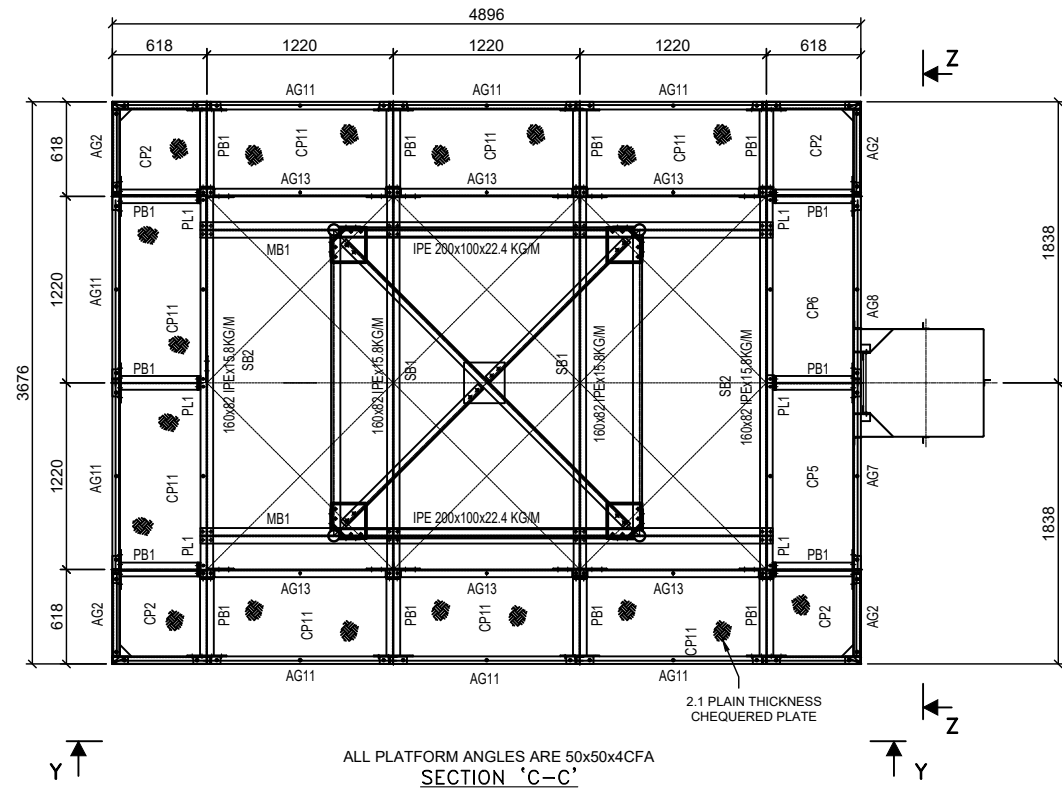
COLUMN / GROUND BEAM LAYOUT
SCALE: 1:20



SECTION 'A-A'



SECTION 'B-B'



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Program

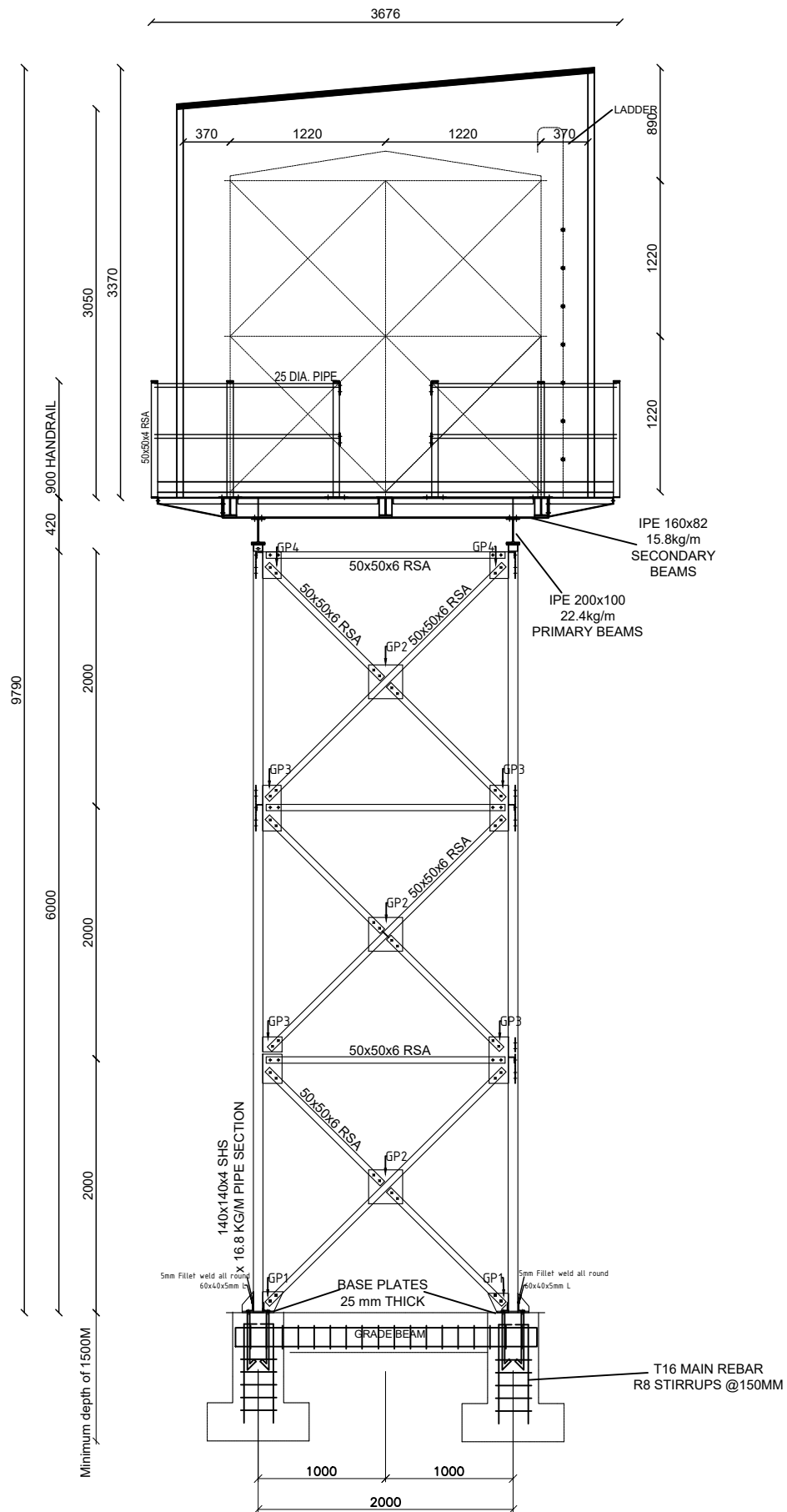
Client:
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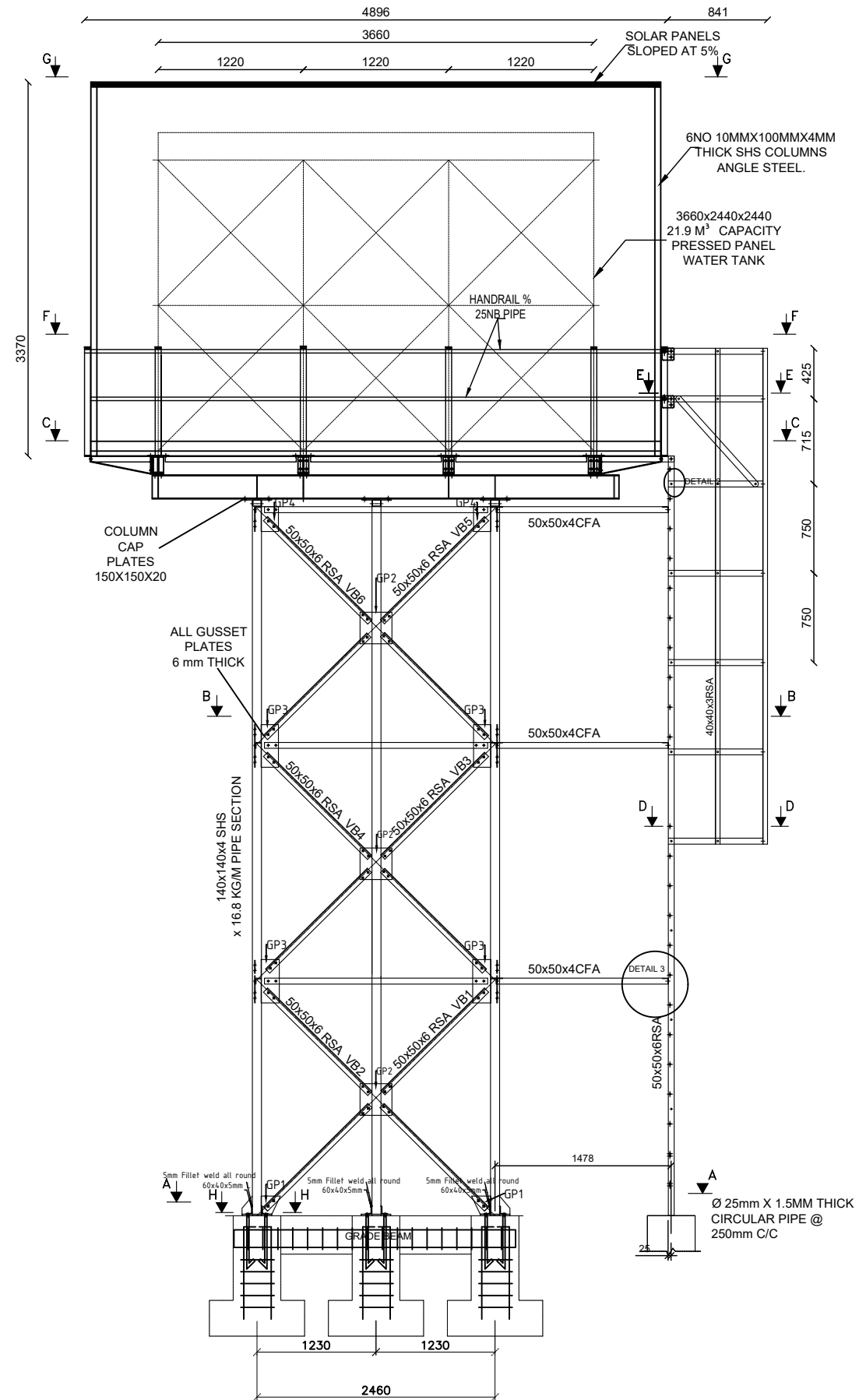
Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK
Drawing Title

PLANS AND SECTIONS

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SIDE ELEVATION 'Z-Z'
(CATLADDER OMITTED FOR CLARITY)



ELEVATION 'Y-Y'

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Program

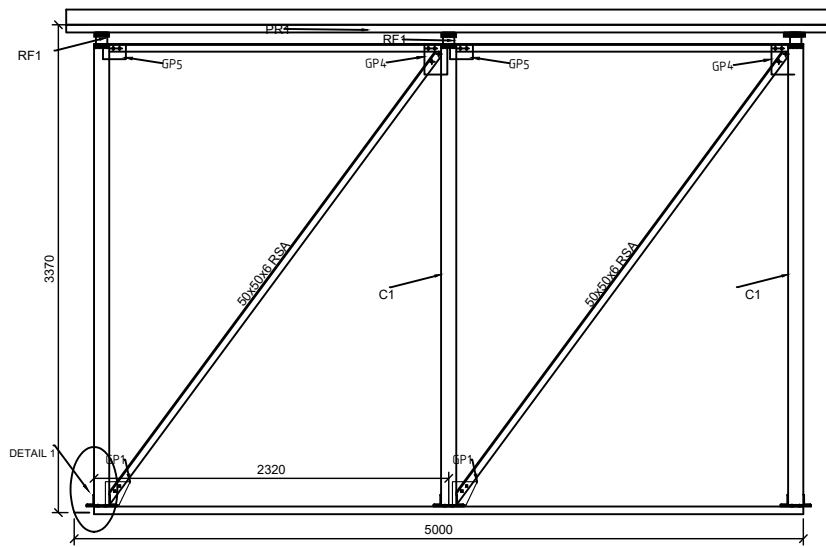
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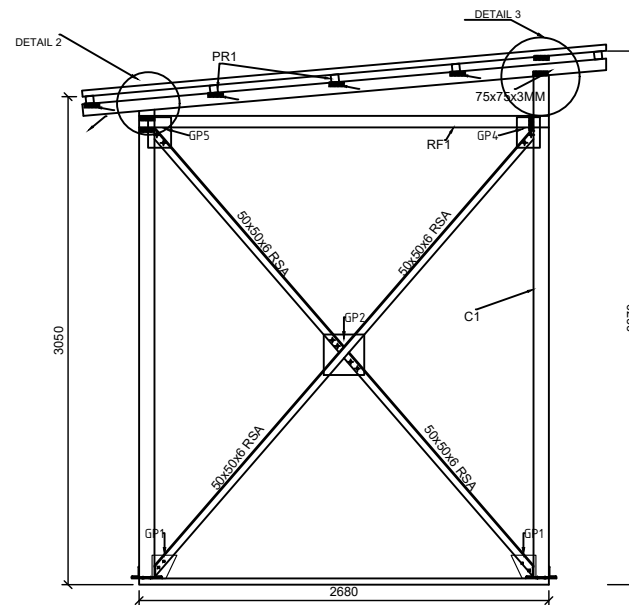
Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

Drawing Title

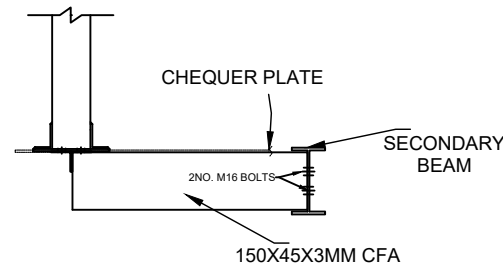
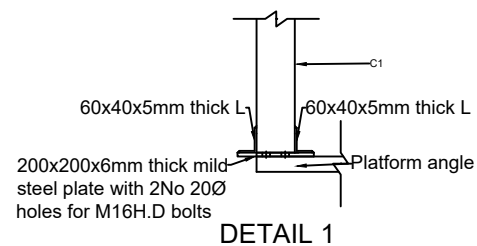
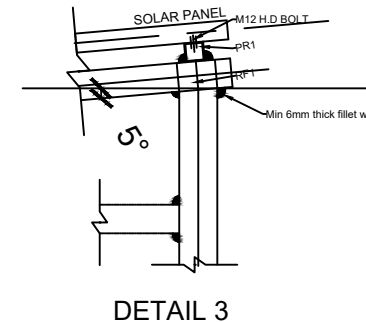
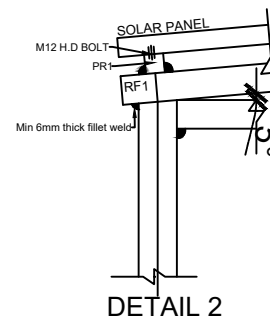
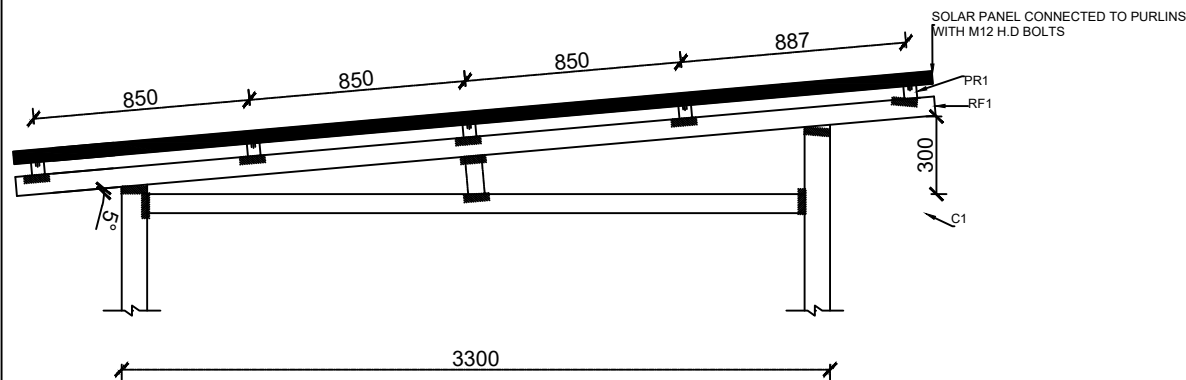
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SOLAR PANEL FRAME FRONT VIEW



SOLAR PANEL FRAME SIDE VIEW



LEGEND SOLAR PANEL FRAME				
SR No	SYMBOL	MATERIAL	MATERIAL AND SIZE	WELD
1	PR1	PURLIN	50X50X3MM THICK MILD STEEL SHS	Min 6mm fillet weld to the rafters
2	RF1	RAFTER	75X75X3MM THICK MILD STEEL SHS	Min 6mm fillet weld to the columns all round
3	C1	COLUMN	100X100X3MM THICK MILD STEEL SHS	Min 10mm fillet well to floor purlin (see detail 1)

LEGEND			
No	SYMBOL	MEMBER	MATERIAL AND SIZE
1	GP1	GUSSET PLATE	250X150X6MM THICK MILD STEEL GUSSET PLATE WITH 2No. Ø14 HOLES
2	GP2	GUSSET PLATE	265X265X6MM THICK MILD STEEL GUSSET PLATE WITH 4No. Ø14 HOLES
3	GP3	GUSSET PLATE	300X150X6MM THICK MILD STEEL GUSSET PLATE WITH 6No. Ø14 HOLES
4	GP4	GUSSET PLATE	208X150X6MM THICK MILD STEEL GUSSET PLATE WITH 4No. Ø14 HOLES
5	GP5	GUSSET PLATE	104X150X6MM THICK MILD STEEL GUSSET PLATE WITH 2No. Ø14 HOLES
6	BASE PLATE	BASE PLATE	250X250X25MM THICK MILD STEEL PLATE WITH 2Ø HOLES FOR 2Ø HD BOLTS
7			ALL WELD CONNECTION TO BE MINIMUM OF 6MM FILLET WELDS

NOTE:
ALL STRUCTURAL STEEL MEMBERS TO BE FINISHED WITH A COAT OF ANTI-OXIDE PAINT AND FOLLOWED BY ADDITIONAL COAT OF GREY/SILVER PAINT.

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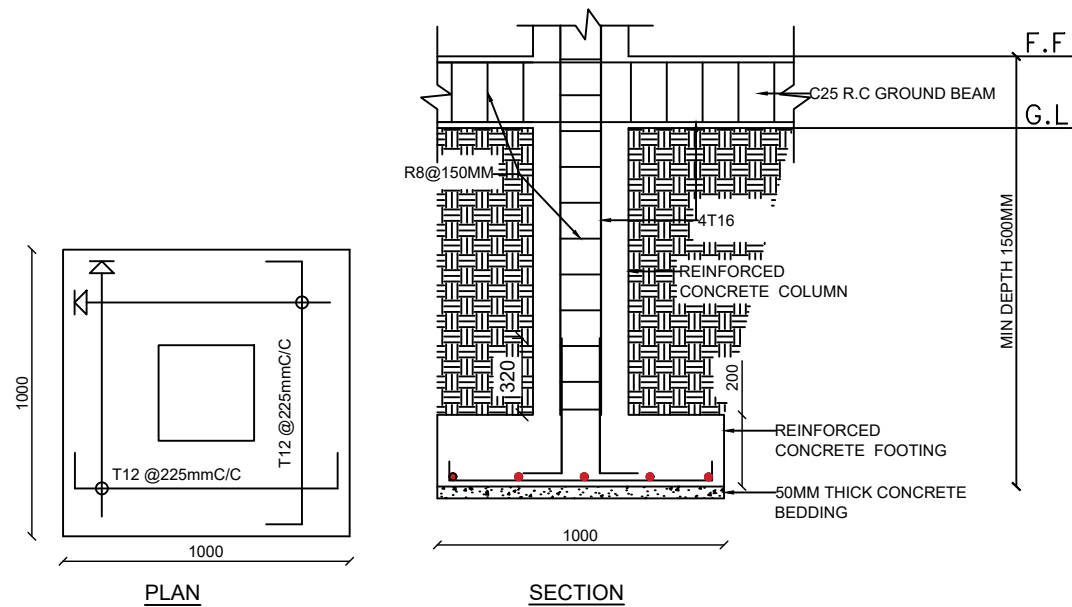
Program

Client:
GOVERNMENT OF SOUTH SUDAN

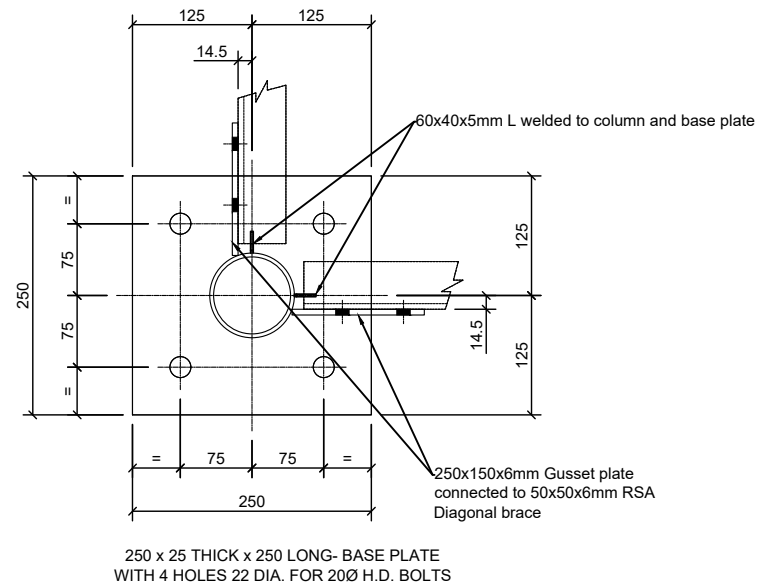
Implemented By:

Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

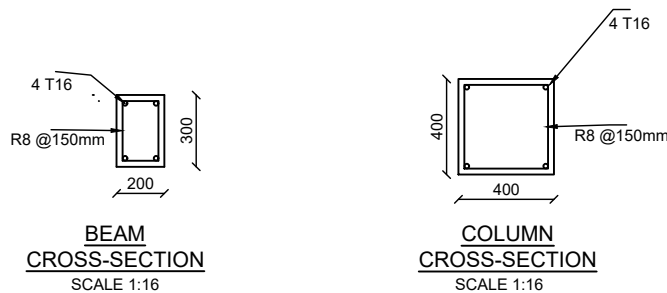
DETAILS	
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SCALE 1:25

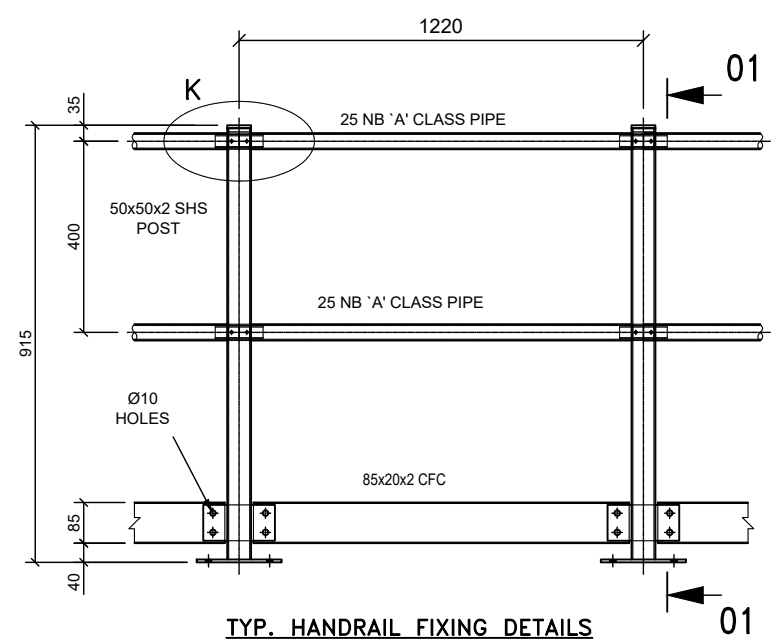


SECTION 'H-H'
(TYPICAL COLUMN BASE PLATE DETAILS)
SCALE 1:16

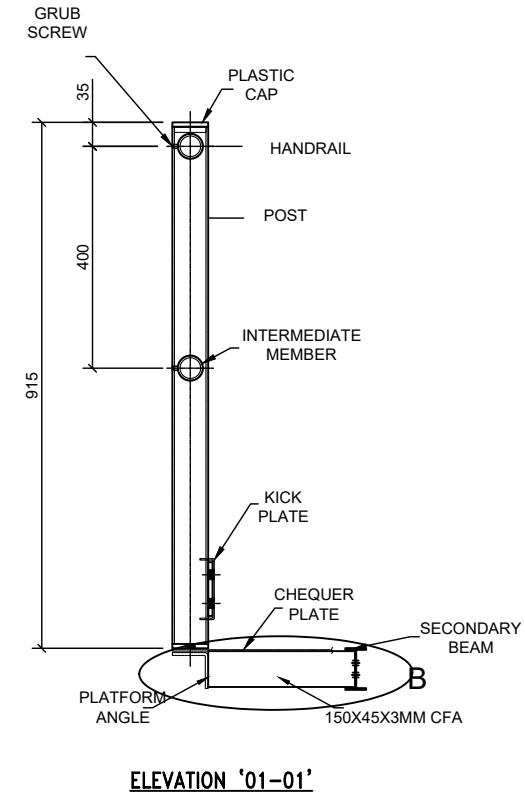


BEAM
CROSS-SECTION
SCALE 1:16

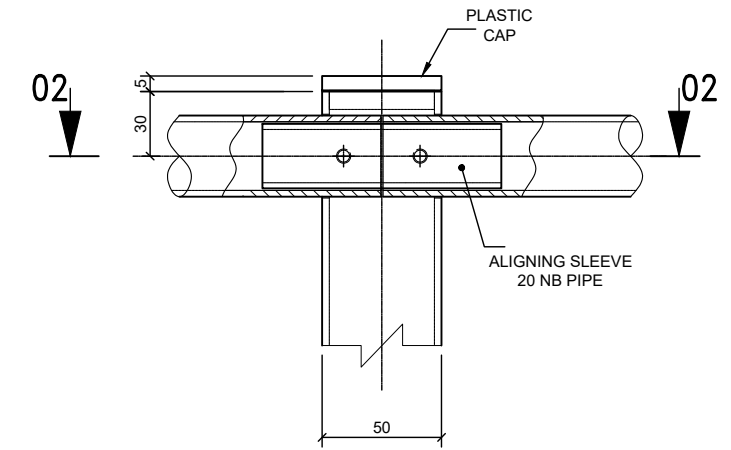
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CROSS-SECTION
SCALE 1:16



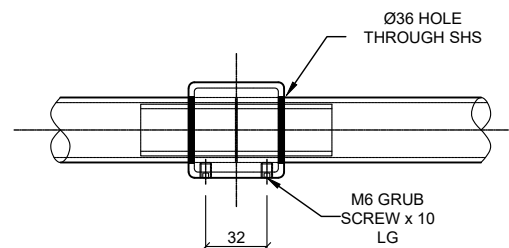
TYP. HANDRAIL FIXING DETAILS



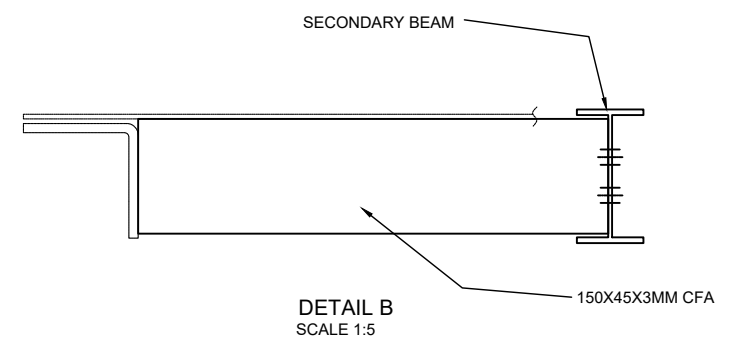
ELEVATION '01-01'



DETAIL AT 'K'



ELEVATION '02-02'



DETAIL B
SCALE 1:5

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Program

Client:

GOVERNMENT OF SOUTH SUDAN

Implemented By:

Project:

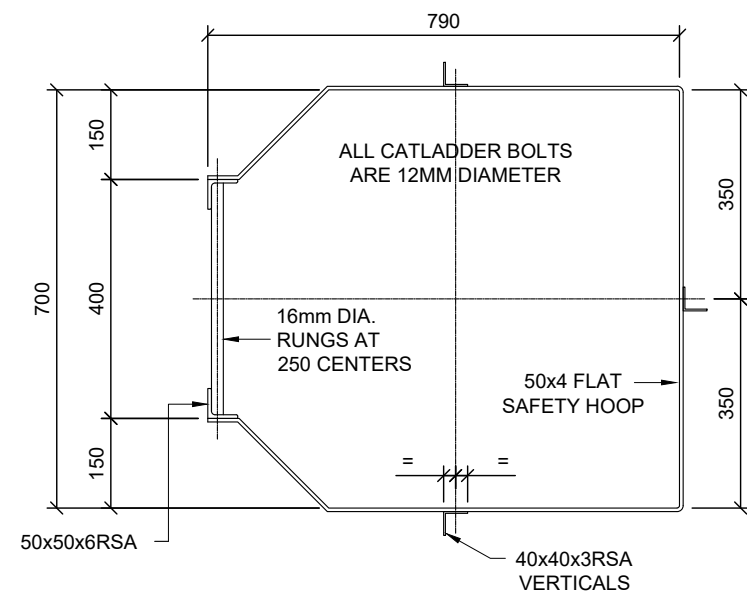
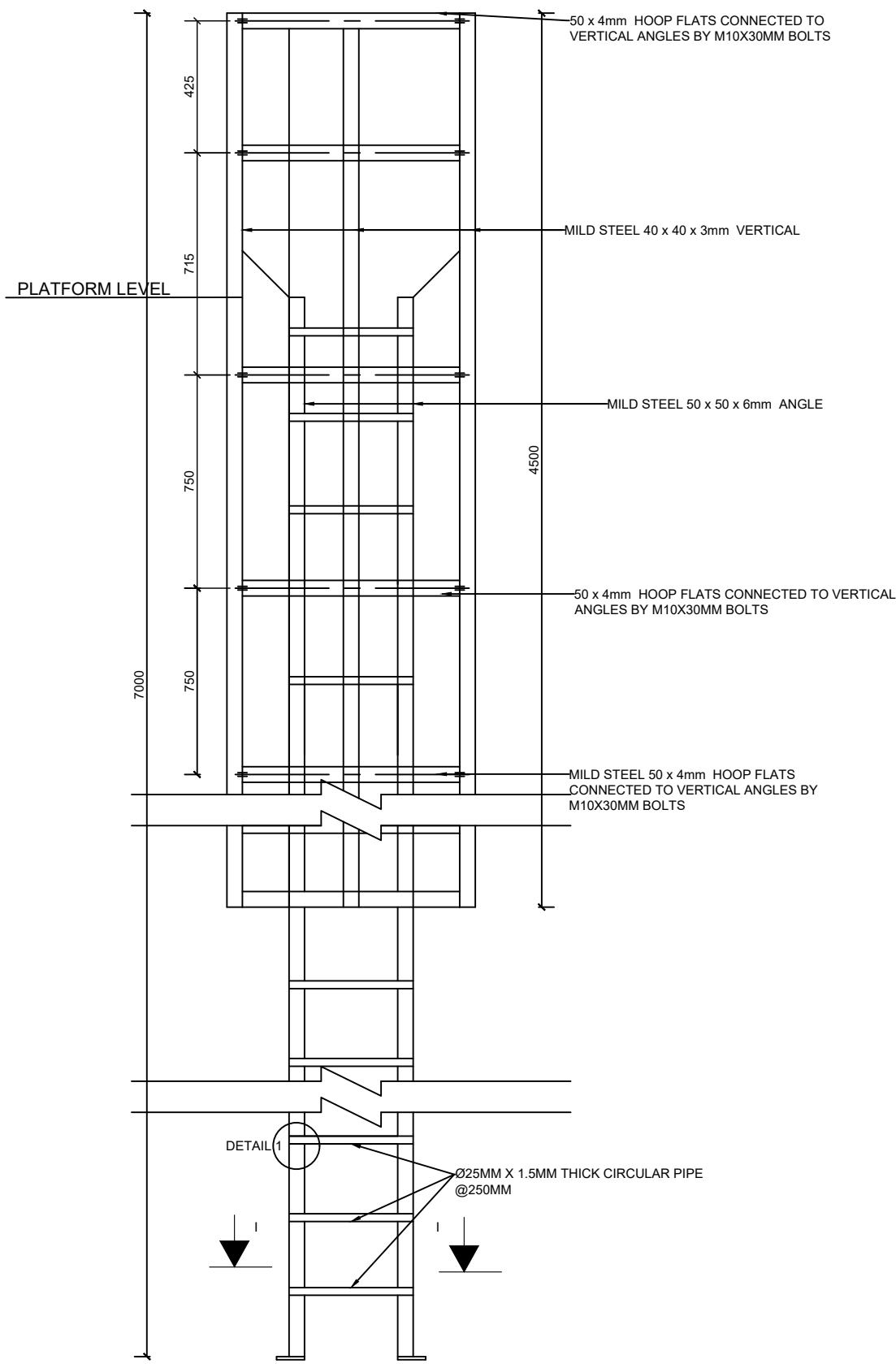
PROPOSED WATER YARD

20M3 CAPACITY ELEVATED TANK

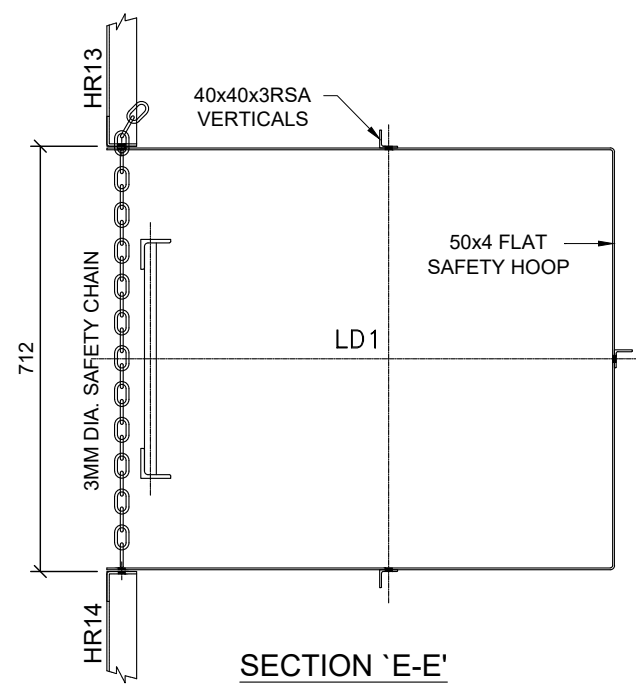
Drawing Title

STRUCTURAL DETAILS

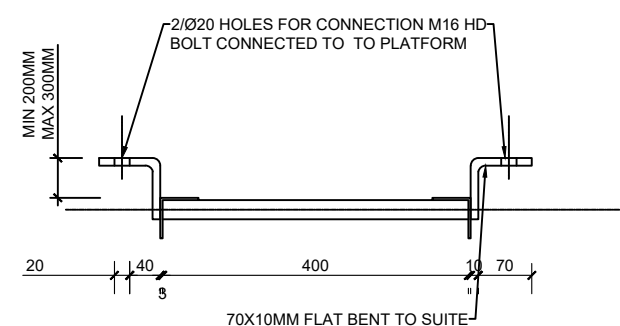
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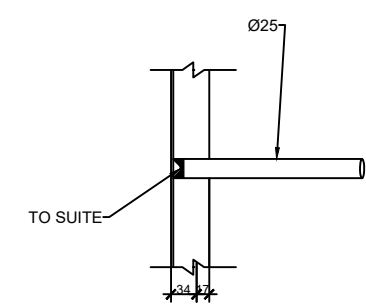
SECTION 'D-D'
TYPICAL SECTION THRU' CATLADDER



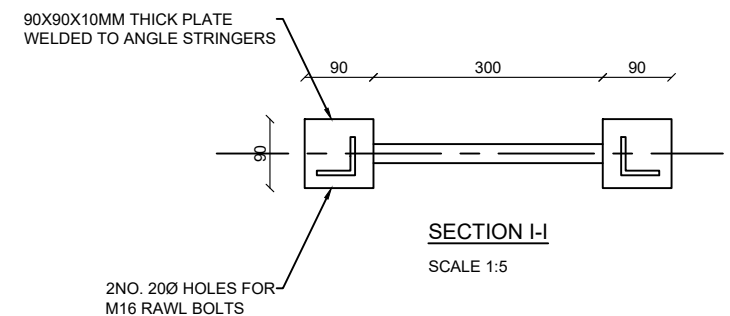
SECTION 'E-E'



DETAIL 2
SCALE 1:5



DETAIL 1
SCALE 1:5



SECTION I-I
SCALE 1:5

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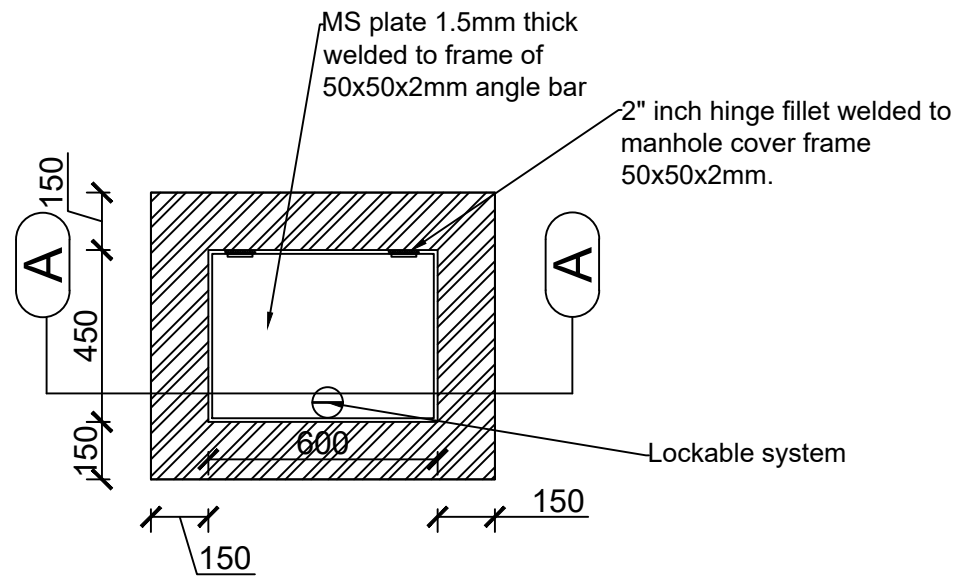
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Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

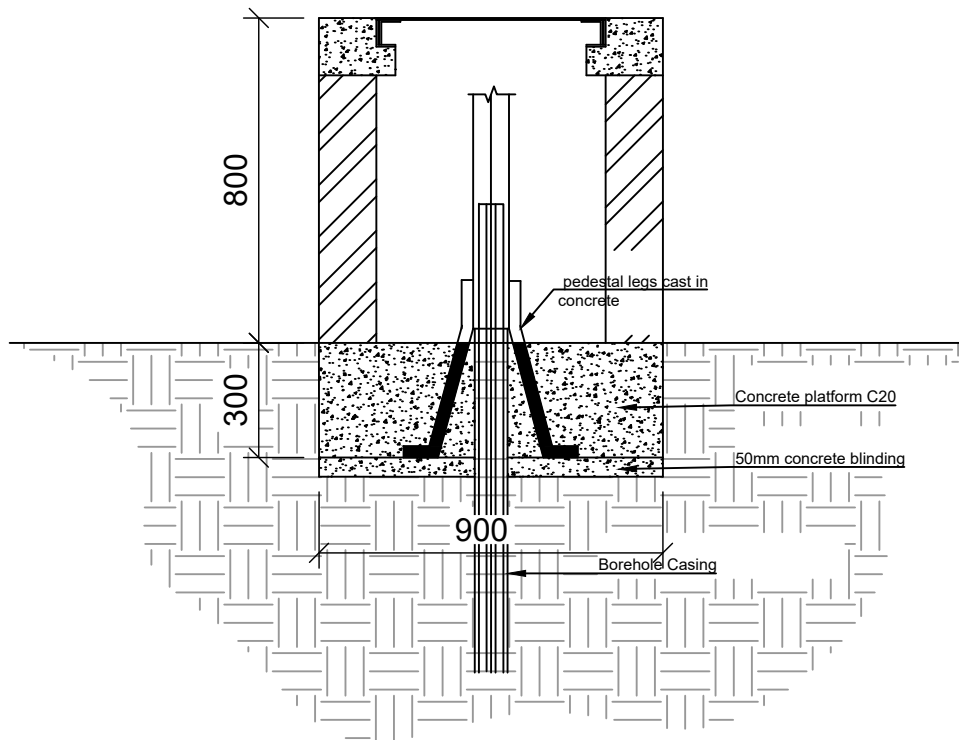
Drawing Title

CAT LADDER DETAILS

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BOREHOLE MANHOLE PLAN
Scale 1:10



SECTION A-A
Scale 1:10

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Program

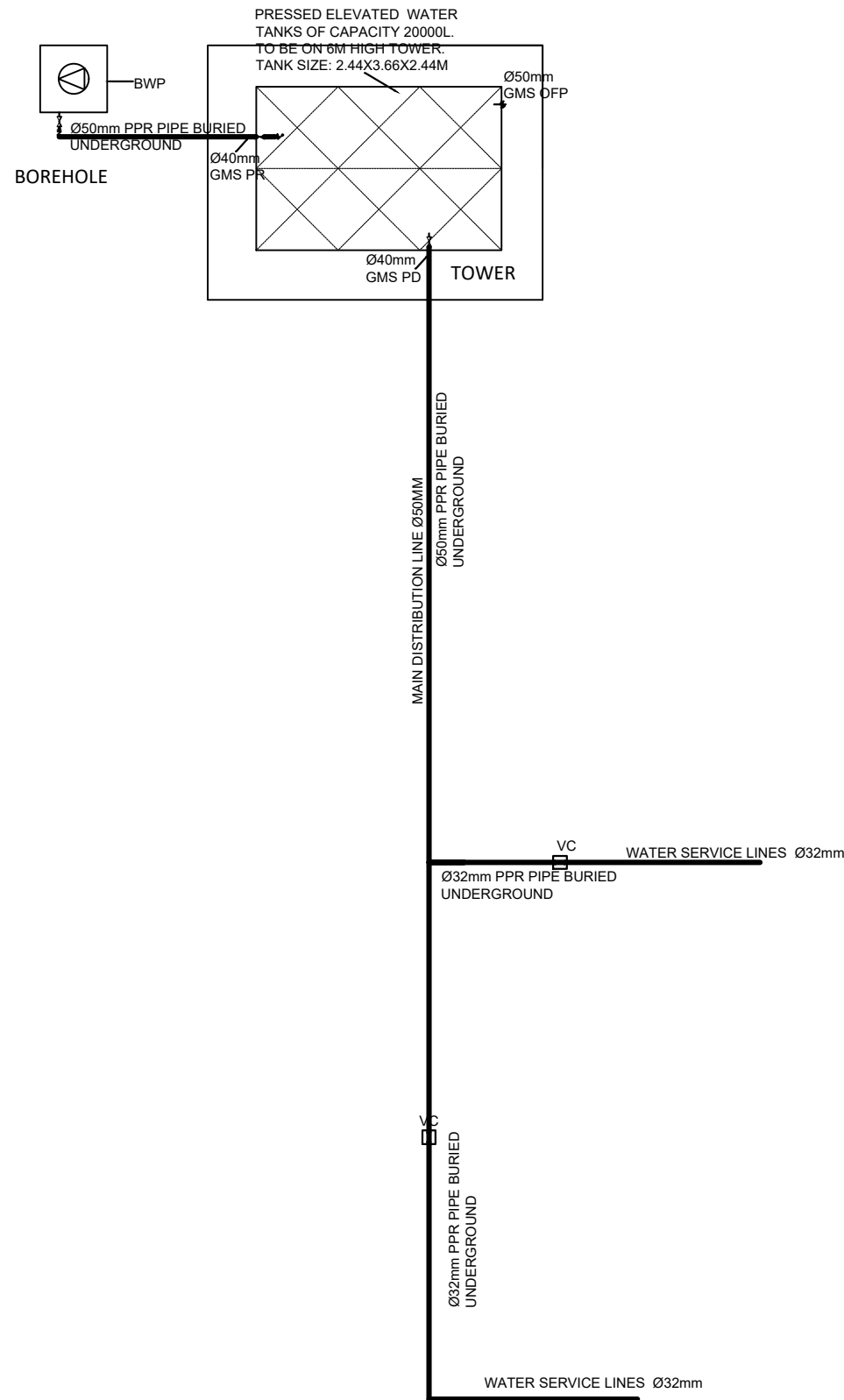
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Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

Drawing Title
ELEVATED BOREHOLE PLATFORM, KIOSK STAIR

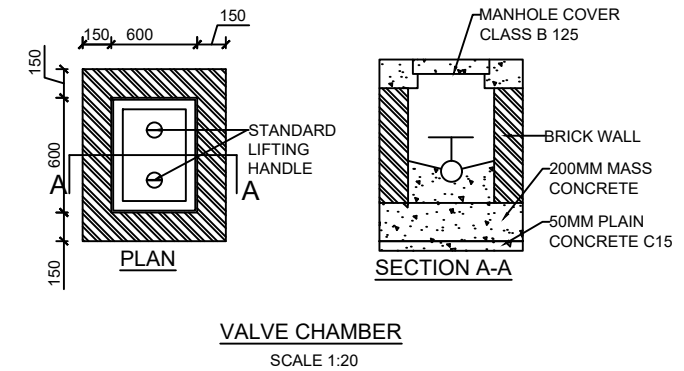
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LEGEND		
1	PD	PIPE DROP
2	PR	PIPE RISE
3	H/L	HIGH LEVEL
4	VC	VALVE CHAMBER
5	PPR	POLYPROPYLENE PIPE
6	BWP	BOREHOLE WATER PUMP
7	WM	WATER METER
8		PUMP
9	OFF	OVER FLOW PIPE
10	F/A	FROM ABOVE
11	T/A	TO ABOVE
12	F/B	FROM BELOW
13	T/B	TO BELOW
14		BFV - BALL FLOAT VALVE
15		ISOLATED VALVE
16		NON-RETURN VALVE

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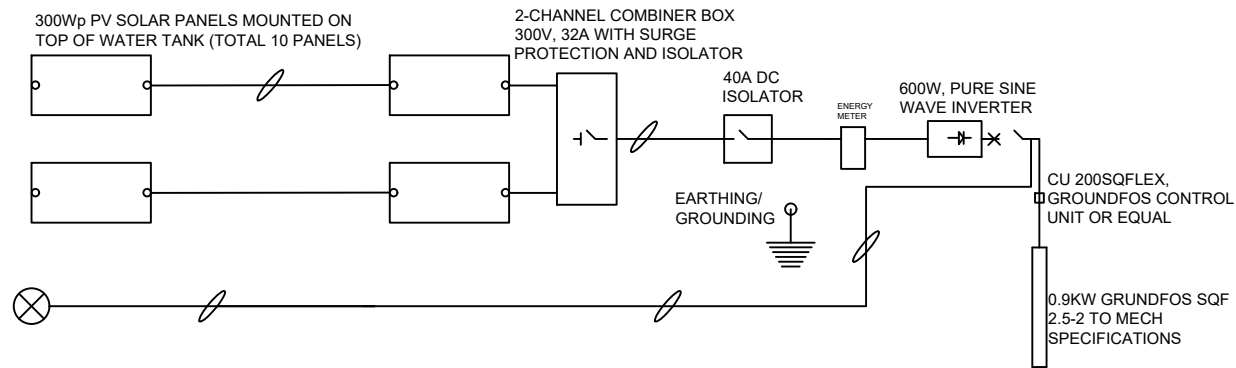
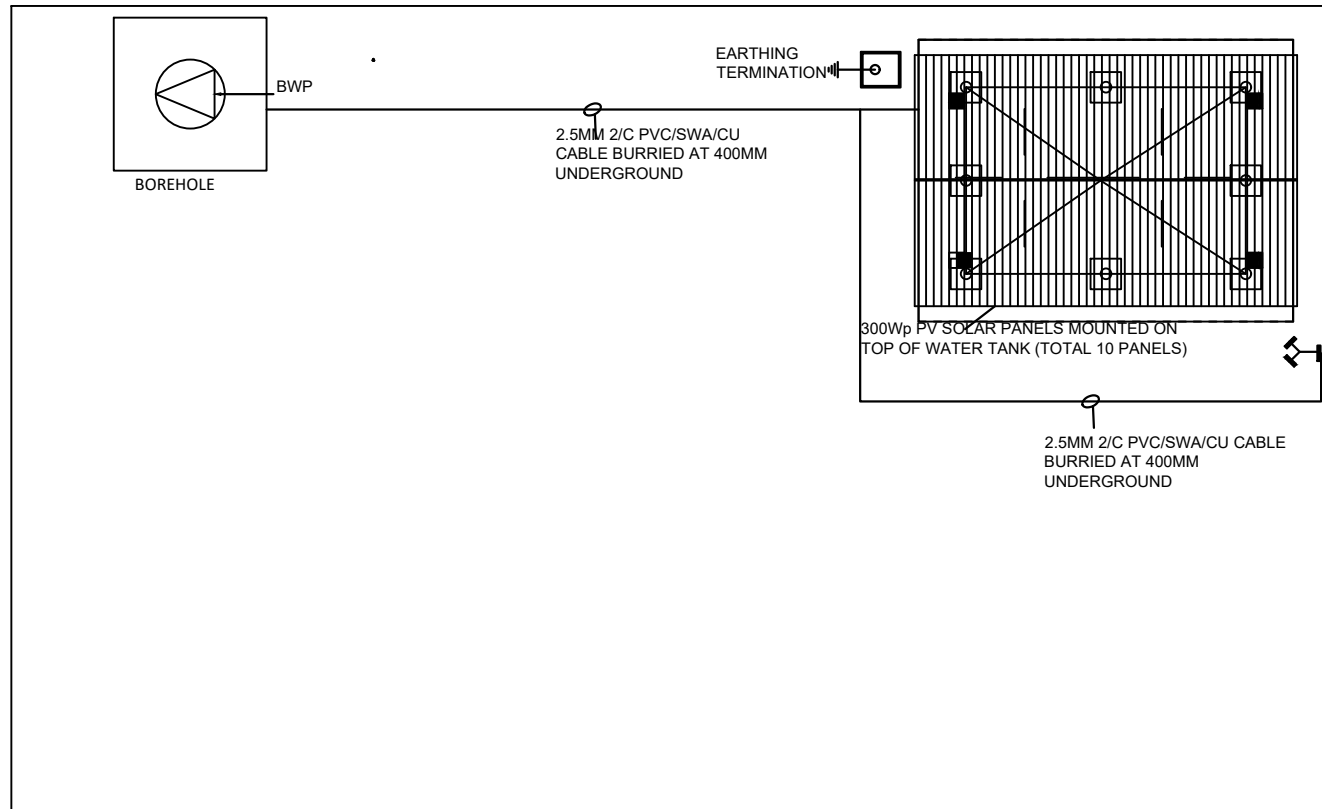
Project:
PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

Drawing Title

MECHANICAL

Designed By: S.S.D	Drawn by: S.S.D
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Sheet #: 10/11	Scale: AS SPECIFIED
Date: 25 October 2024	Rev: 2

PUMP SCHEDULE								
ITEM	REF	DESCRIPTION	LOCATION	CAPACITY (M ³ /HR)	WORKING PRESSURE (BAR)	POWER REQUIRED (KW)	PROPOSED MODEL (OR EQUIV AND APPROVED)	REMARKS
1	BWP1	BOREHOLE WATER PUMP	BOREHOLE (40M DEEP)	2	5	0.5	GRUNDFOS 2.5 - 2, 50HZ	MAXIMUM INSTALLATION DEPTH 40M
2	BWP1	BOREHOLE WATER PUMP	BOREHOLE 80M DEEP)	2	9	0.9	GRUNDFOS 2.5 - 2, 50HZ	MAXIMUM INSTALLATION DEPTH 80M
3	BWP1	BOREHOLE WATER PUMP	BOREHOLE (110M DEEP)	2	12	1.3	GRUNDFOS 2.5 - 2, 50HZ	MAXIMUM INSTALLATION DEPTH 120M



CABLES

1. 4SQ.MM SC XLPE/SWA/XLPE/SWA COPPER CABLE
2. 6SQ.MM SC XLPE/SWA/XLPE/SWA COPPER CABLE
3. 6SQ.MM 2C XLPE/SWA/XLPE/SWA COPPER CABLE

SPACE REQUIREMENT

1. EACH 300WP SOLAR PANEL - 1640MM X 980MM

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Implemented By:

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PROPOSED WATER YARD
20M3 CAPACITY ELEVATED TANK

Drawing Title
ELECTRICAL

Designed By: S.S.D	Drawn by: S.S.D
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