

DESIGNS AND DRAWINGS.

ALTHAWBANI WATER PROJECT – MOCHA DISTRICT
– TAIZ GOVERNORATE

PROJECT TITLE:

RAINS OF RESILIENCE 2026

DEVELOPED
BY:



FUNDED
BY:



REHABILITATION OF ALTHAWBANI WATER SYSTEM:

SUPPLY AND INSTALL SOLAR PUMPING SYSTEM, CONSTRUCT NEW TOWER TANK,
INSTALL NEW WATER NETWORKS, AND REHABILITATE OPERATION ROOM

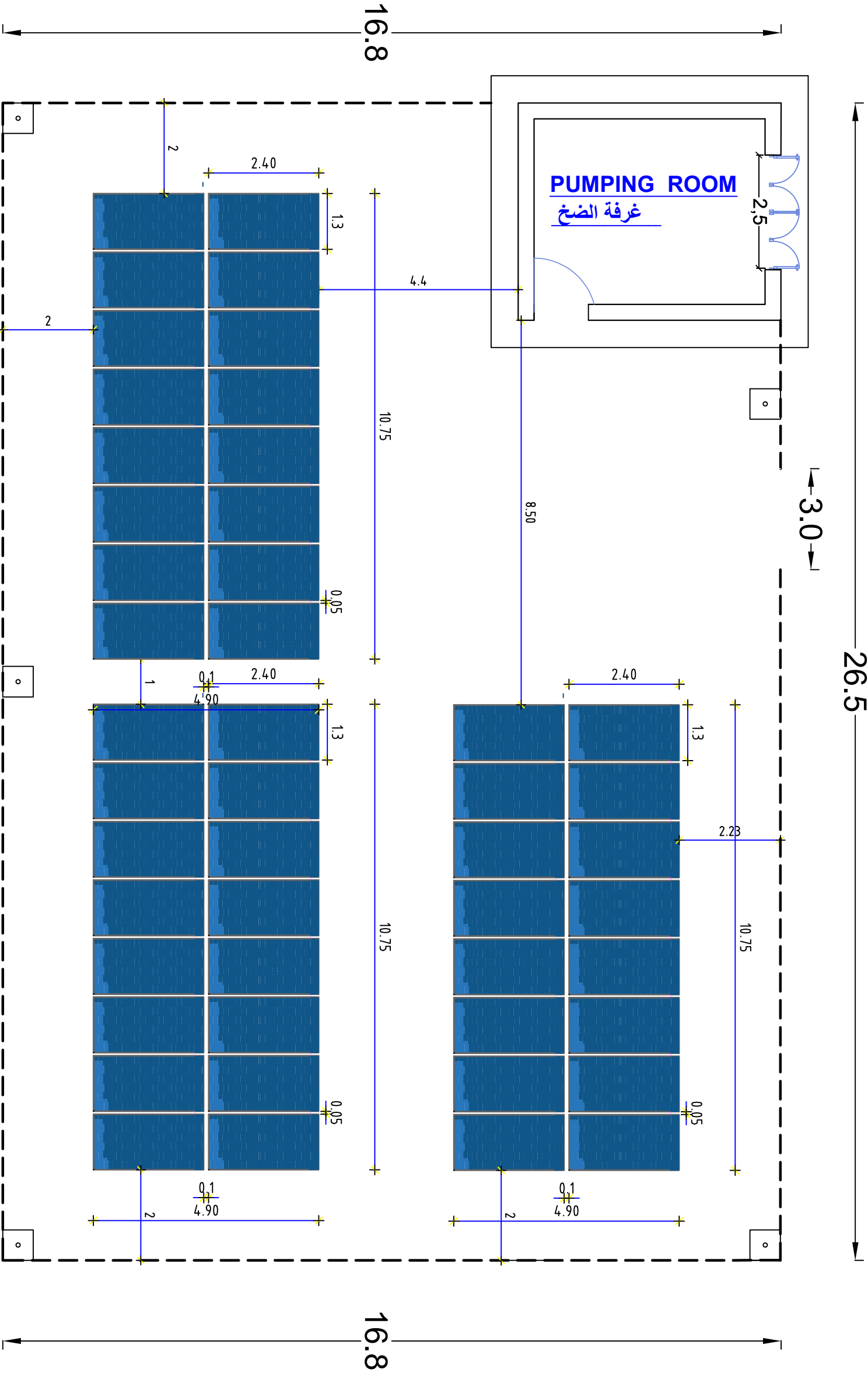
DRAWING LIST:

NO	DRAWING TITLE	NO	DRAWING TITLE	NO	DRAWING TITLE
A1- 01	TABLE OF CONTENTS			A1- 26	WATER NETWORK PLAN with map
A1- 02	GENERAL NOTES	A1- 14	LIGHTNING PROTECTION SYSTEM	A1- 27	PUMPING LINE PLAN AND MAP
A1- 03	SOLAR SITE PLAN	A1- 15	SITE LIGHTING DETAILS	A1- 28	PUMPING LINE PLAN
A1- 04	SOLAR MOUNT 3D MODEL VIEW	A1- 16	PROTECTION FENCE	A1- 29	EXCAVATION, BACKFILL, WATER NETWORK DETAILS
A1- 05	SOLAR MOUNT FRAMING PLAN	A1- 17	PROTECTION FENCE DETAILS	A1- 30	VALVE ROOM DETAILS
A1- 06	SOLAR FOOTING STRUCTURAL DETAILS	A1- 18	MAIN ENTRANCE GATE	A1- 31	METAL SIGN FOR PROJECT COMPLETION
A1- 07	SOLAR MOUNT SIDE ELEVATION DETAILS	A1- 19	GROUND CONCRETE TANK PLAN	A1- 32	PAINTED SIGN FOR PROJECT COMPLETION
A1- 08	SOLAR MOUNT FRAME STRUCTURAL DETAILS	A1- 20	GROUND CONCRETE TANK ELEVATION AND SECTION		
A1- 09	MOUNTING FRAME DETAILS	A1- 21	GROUND CONCRETE TANK FLOOR AND WELLS DETAILS		
A1- 10	SUBMERSIBLE PUMP PLUMBING DETAILS	A1- 22	GROUND CONCRETE TANK BEAM AND WELLS DETAILS		
A1- 11	SUBMERSIBLE PUMP WIRING DIAGRAM	A1- 23	GROUND CONCRETE TANK ROOF DETAILS		
A1- 12	COMBINER BOX AND CABLE TRAY DETAILS	A1- 24	PUMPING ROOM DETAILS		
A1- 13	EARTH PIT DETAILS	A1- 25	WATER NETWORK Map for all villages		

Prepared by: 	Funded by: 	Project Title: REHABILITATIONS OF ALTHAWBANI WATER PROJECT		Drawing Title: Table of contents		Designed and reviewed by: SPRY - WASH Sector		Status: Final Draft		North: 	Drawing No: A1-01
Project Location: MOCHA DISTRACT - TAIZ GOV.		Project Name: RAINS OF RESILIENCE 2026		Approved by: SPRY - WASH Sector		Project No: 17/06/2026		Paper Size: A3		Scale: As Shown	

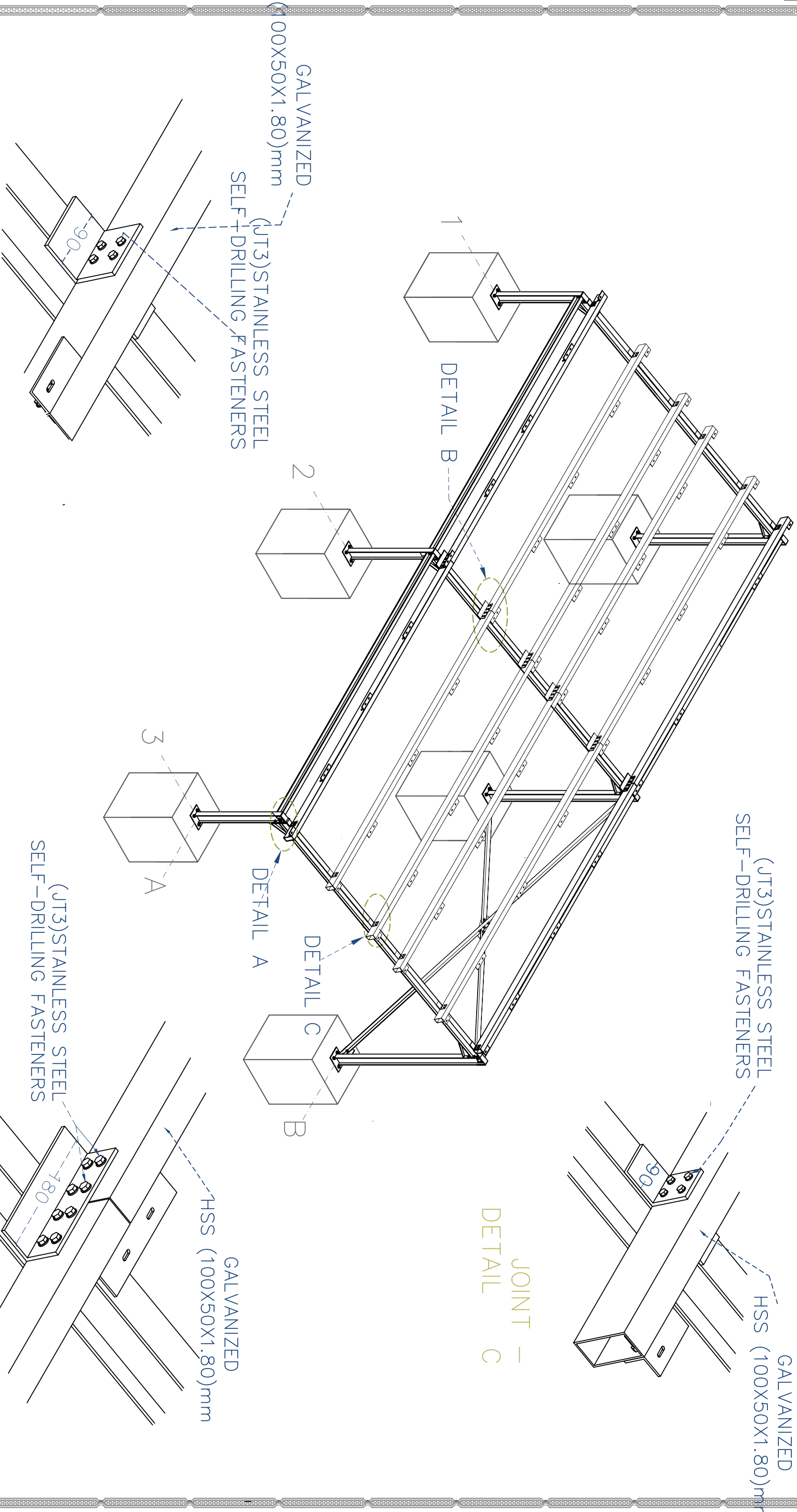
Notes:

- 1. All the dimensions should be checked before execution.
- 2. The main items and details of the drawings have priority to general main items and typical drawings of the structure.
- 3. All the Drawings , BoQs Items should be checked By Contractor Samaritan Purse’s Engineer before execution.
- 4. Unless otherwise mentioned in the drawings and typical detailed drawings, unit of the dimension is meter (m).



26.5

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
				REHABILITATIONS OF ALTHAWBANI WATER PROJECT		SOLAR SITE PLAN		SPRY - WASH Sector		Final Draft				A1-03	
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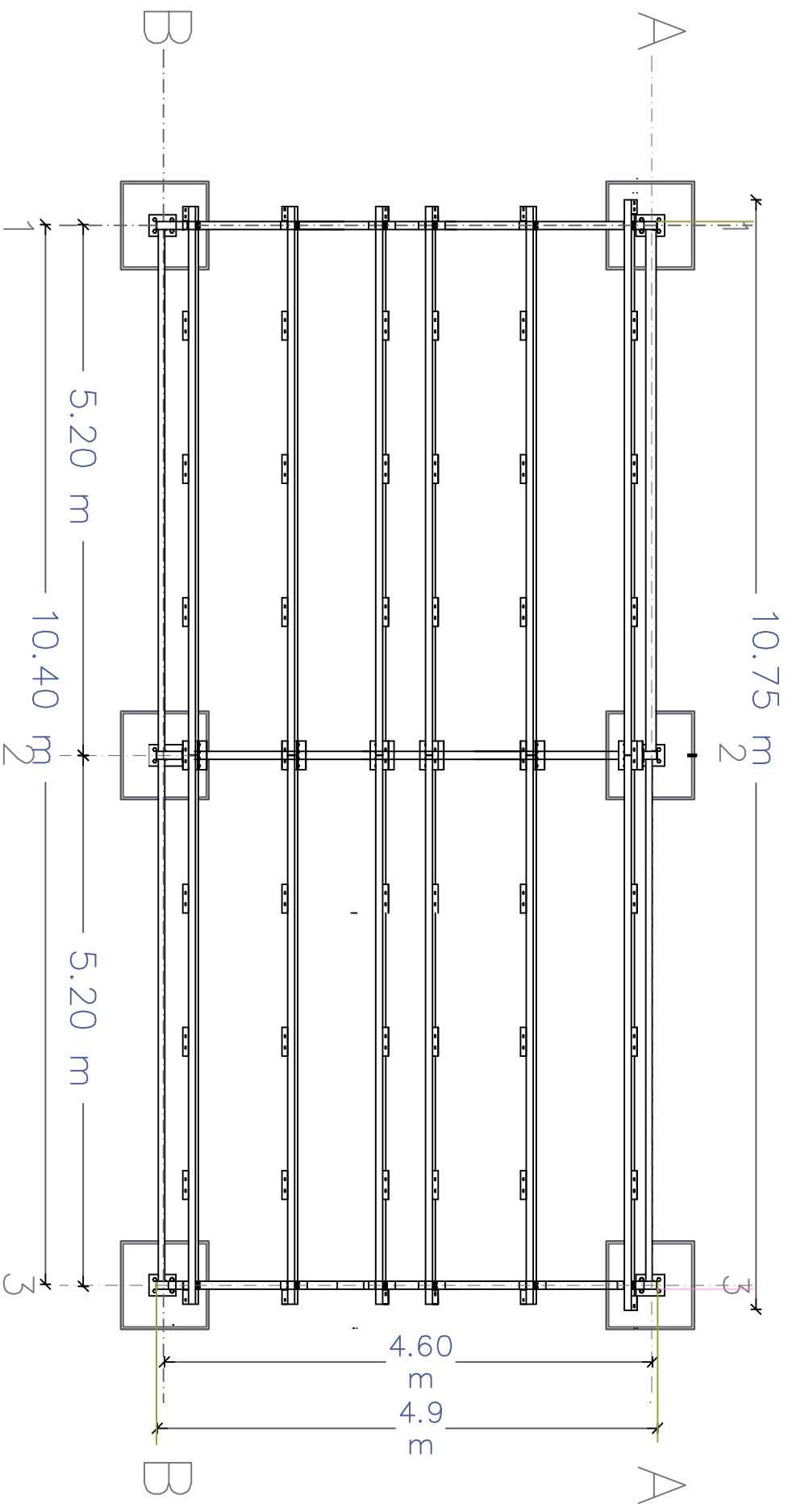


JOINT – DETAIL A

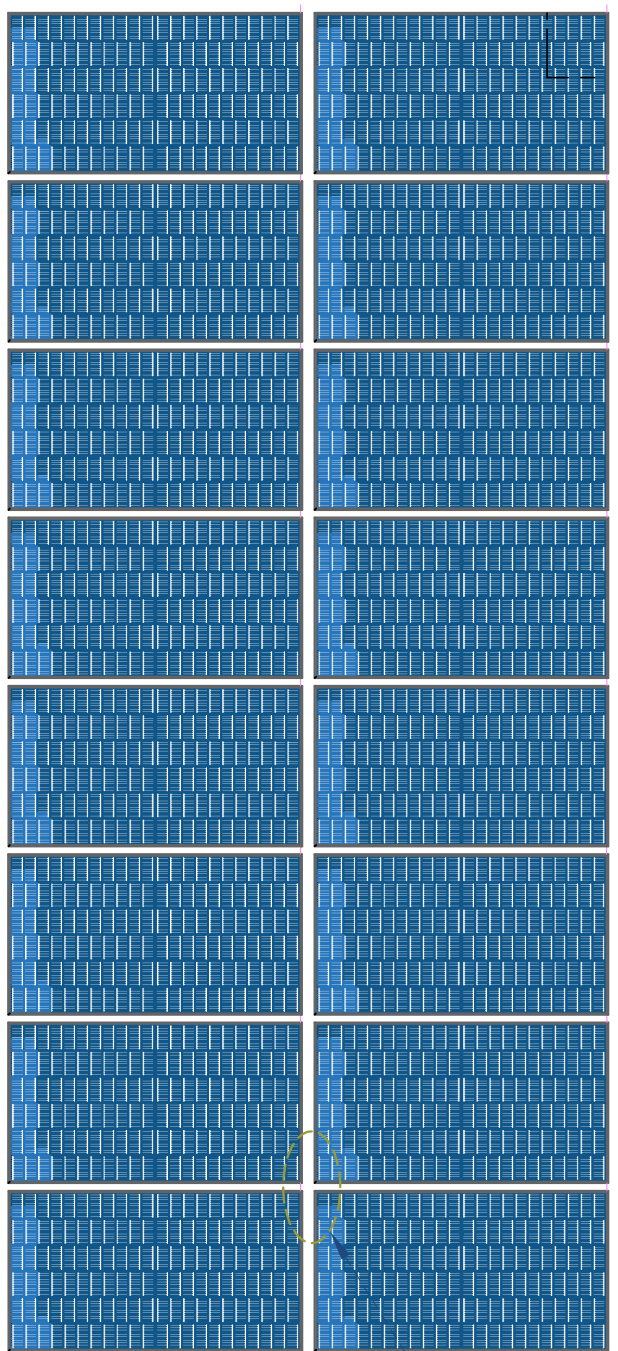
JOINT - DETAIL C

JOINT – DETAIL B

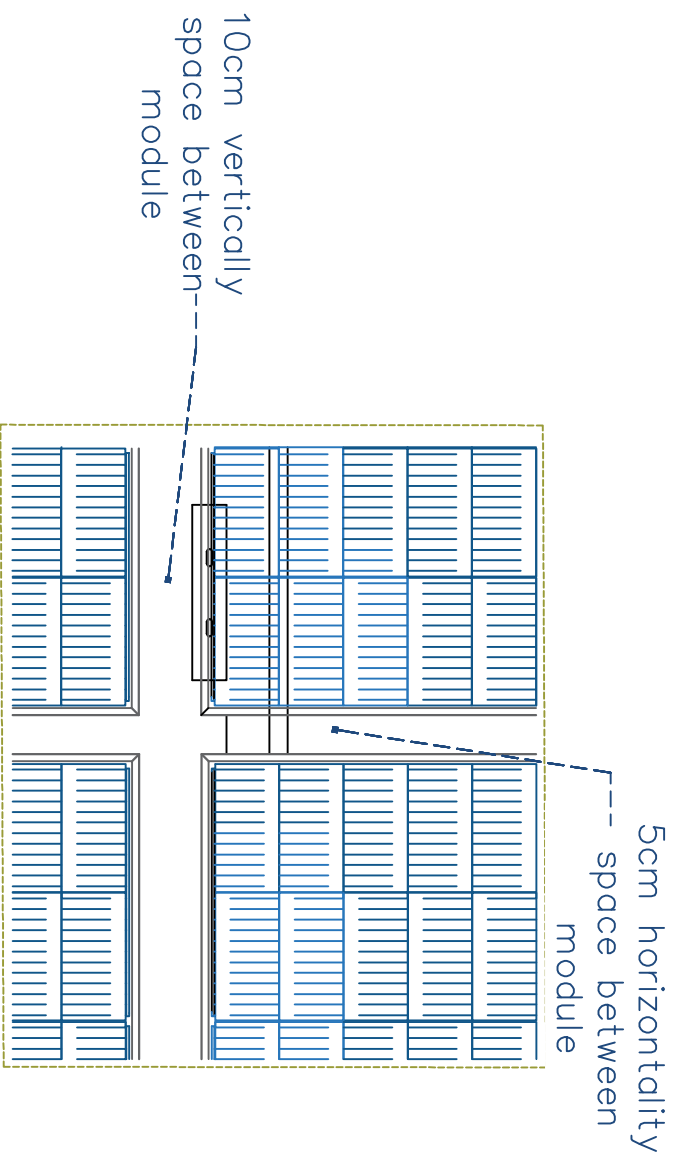
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MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		Date		Paper Size:		A3					
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FRAMING PLAN

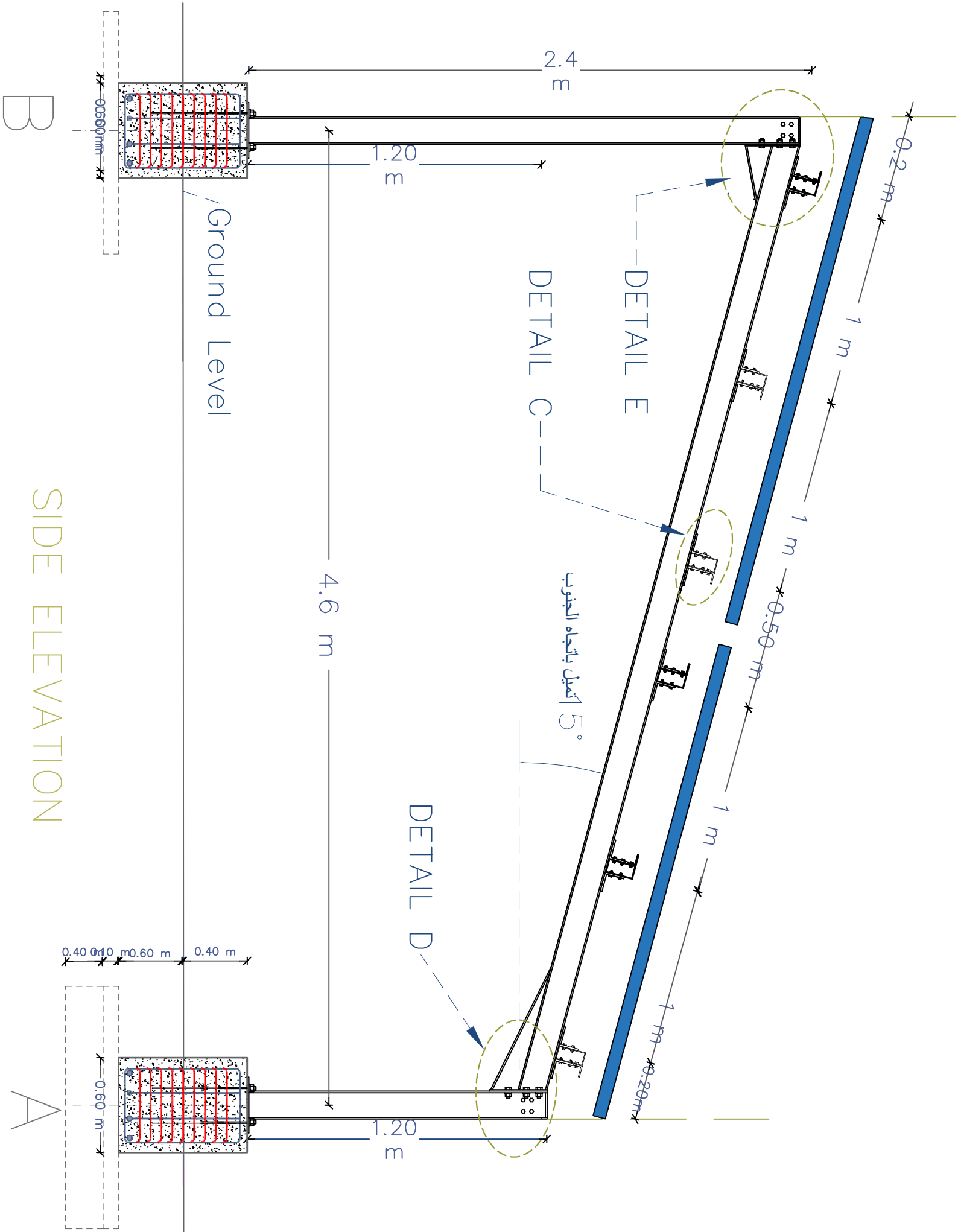


PLAN OF SOLAR PANEL ARRAY



SOLAR PANEL DETAIL A

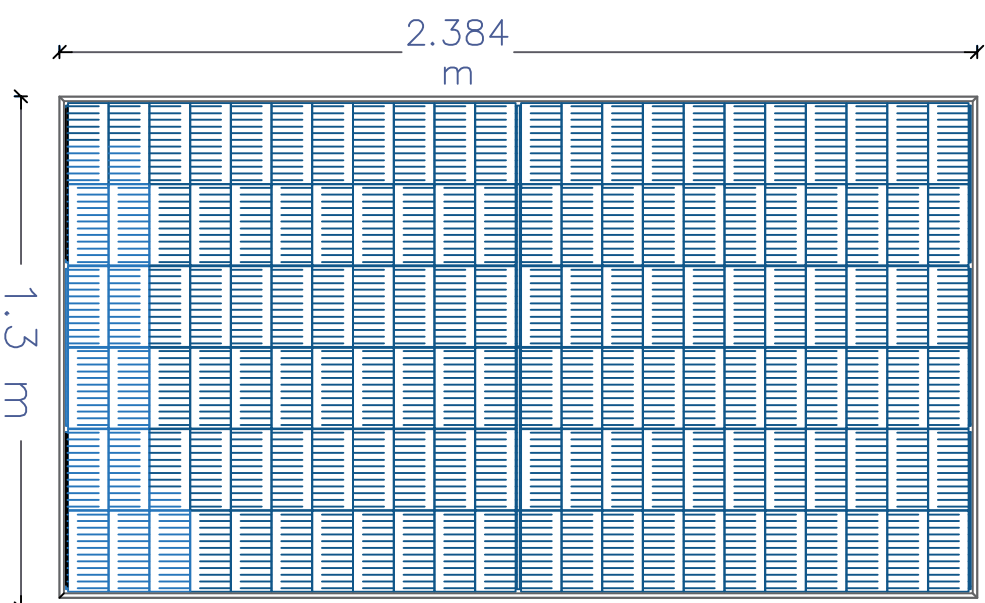
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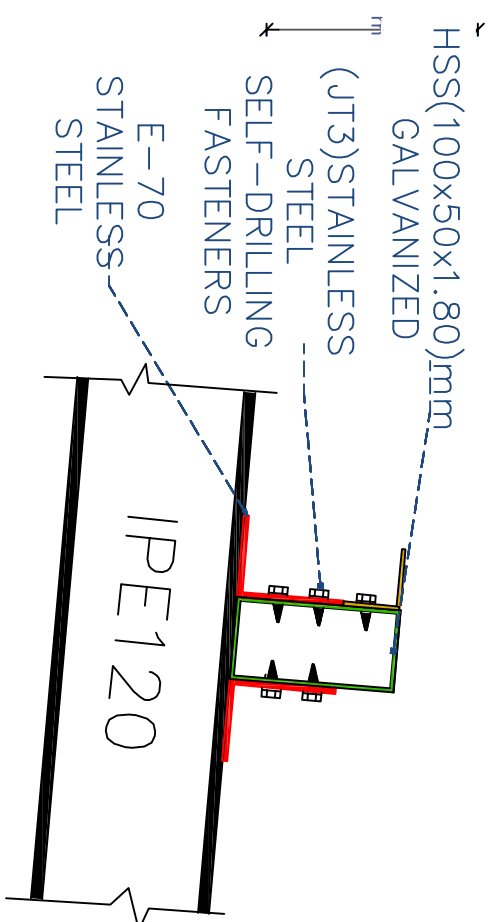
B

A

SIDE ELEVATION

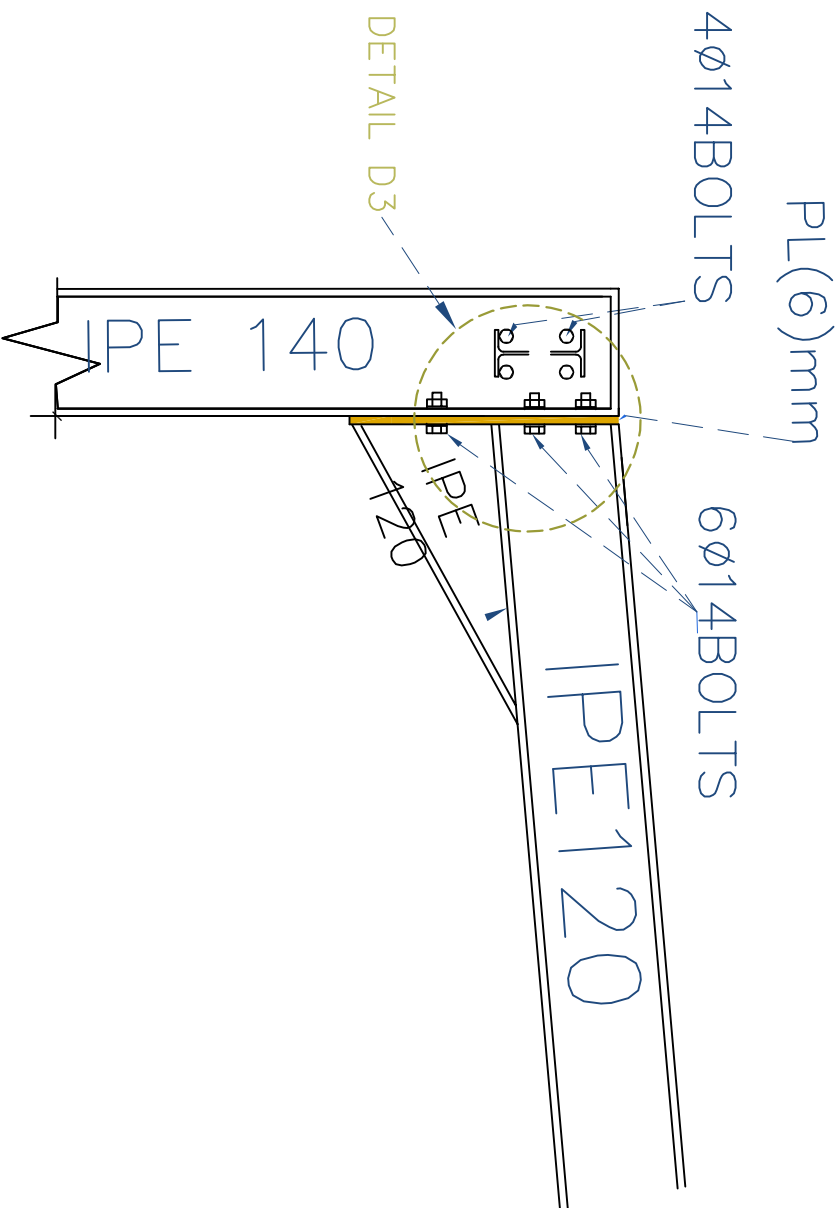
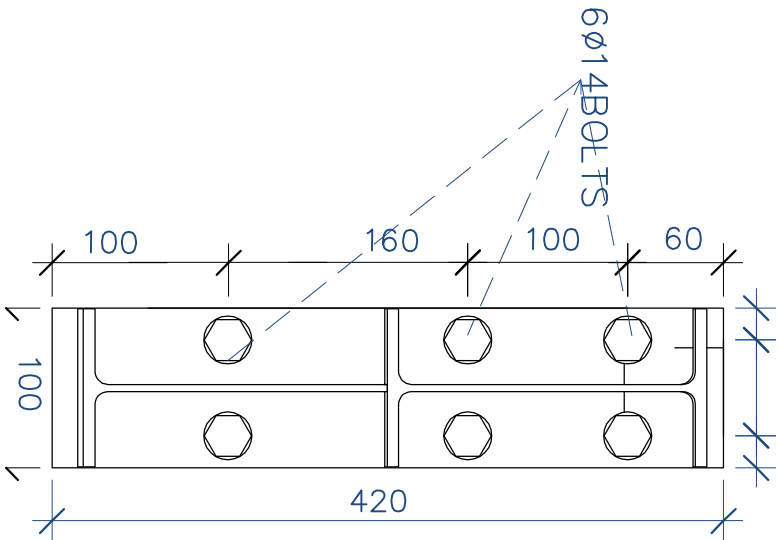
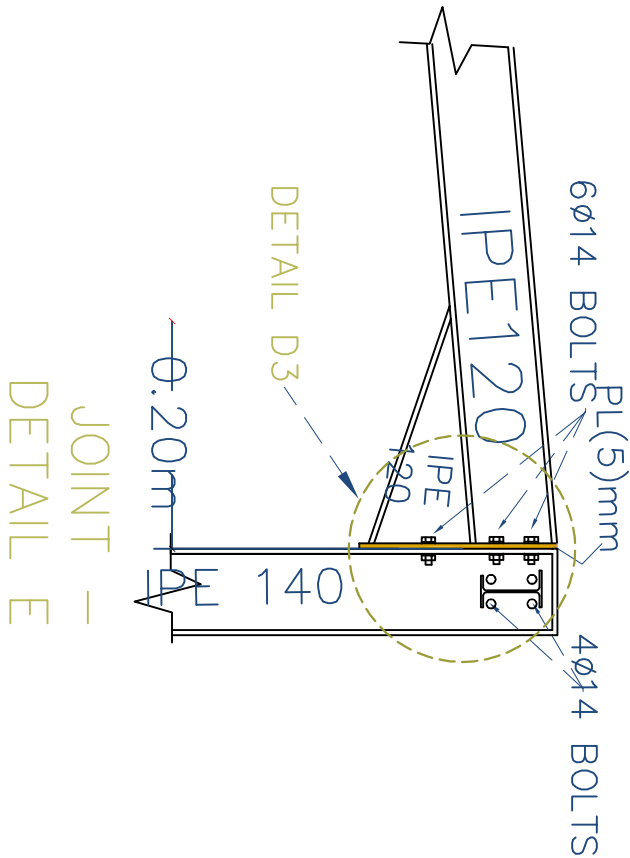


Panel Dimension



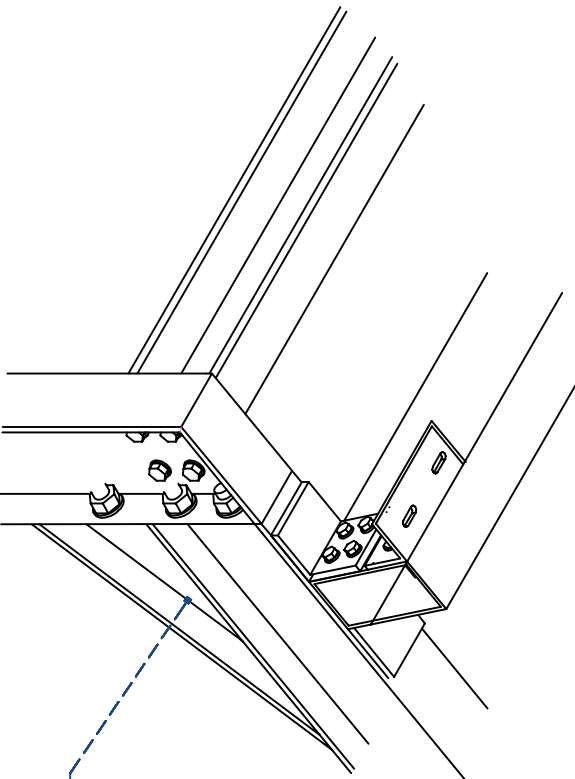
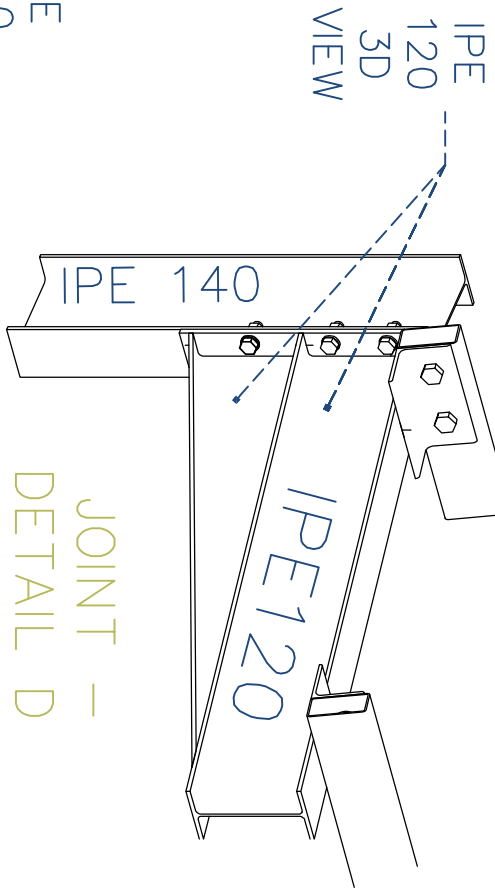
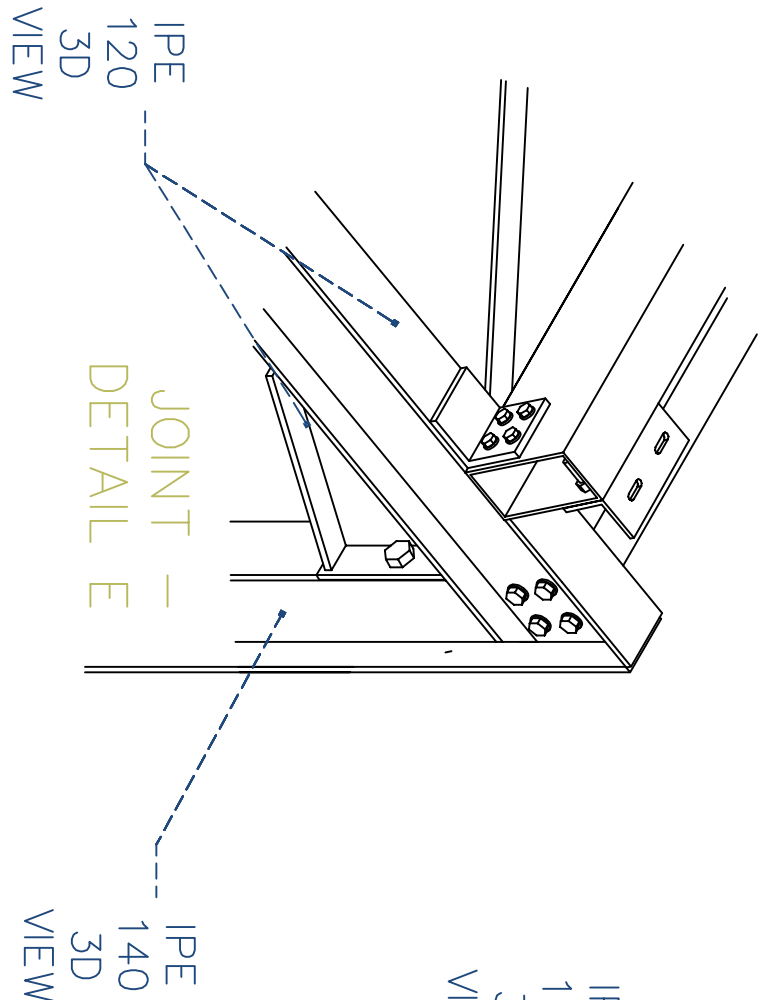
JOINT - DETAIL C

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		MOCHA DISTRACT – TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	Project No:	Paper Size:	
					Date	Scale	
					17/06/2026	As Shown	



Joints -
DETAIL D3

JOINT -
DETAIL D

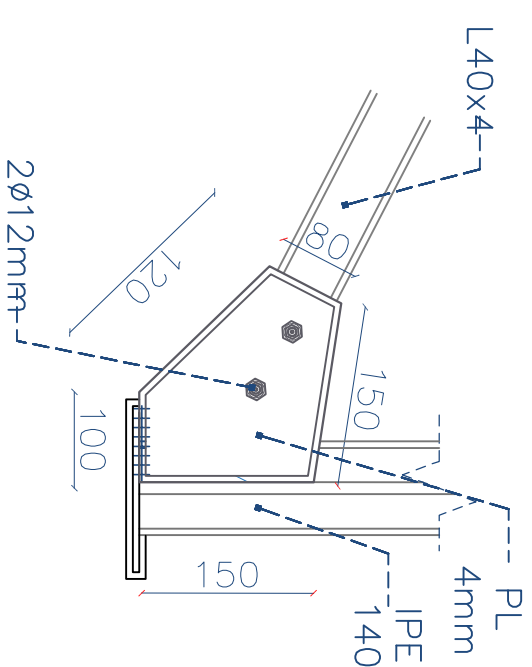
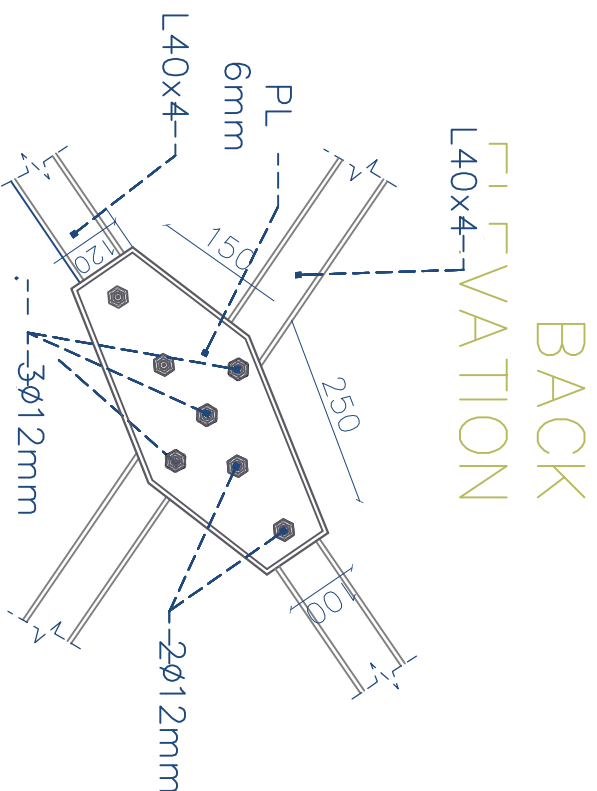
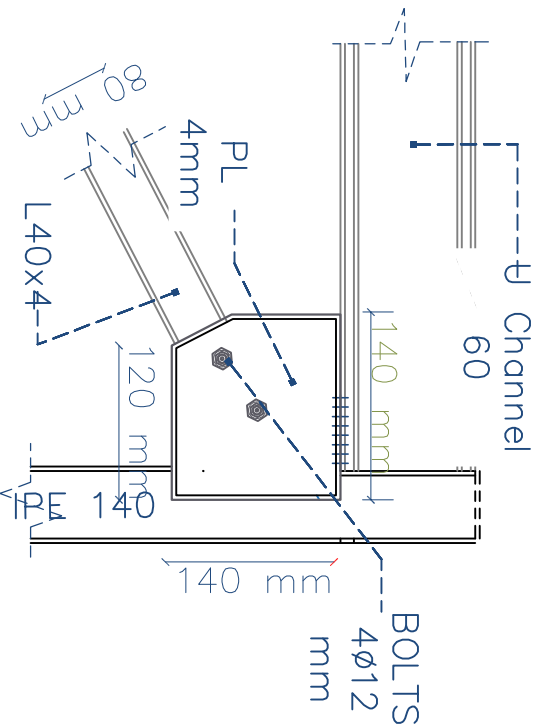
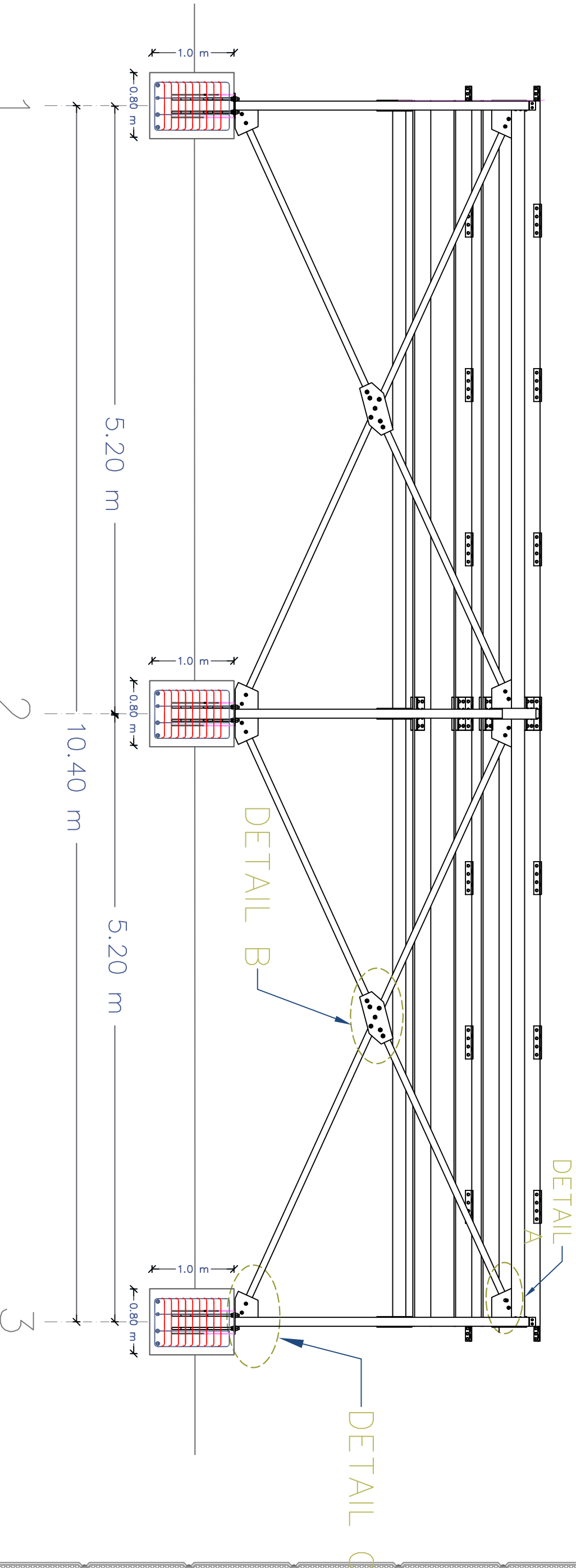


IPE 120
3D
VIEW

JOINT
DETAIL

JOINT -
DETAIL D

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
 Samaritan's Purse® INTERNATIONAL RELIEF		 Samaritan's Purse® INTERNATIONAL RELIEF		REHABILITATIONS OF ALTHAWBANI WATER PROJECT		SOLAR MOUNT FRAME STRUCTURAL DETAILS		SPRY - WASH Sector		Final Draft				A1-08	
Project Location:		Project Name:		Approved by:		Project No:		Paper Size:							
MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		Date		17/06/2026		Scale		As Shown			



JOINT –
DETAIL A

JOINT – DETAIL B

JOINT –
DETAIL C

Prepared by:



Samaritan's Purse
INTERNATIONAL RELIEF

Funded by:



Samaritan's Purse
INTERNATIONAL RELIEF

Project Title:

REHABILITATIONS OF
ALTHAWBANI WATER PROJECT

Project Location:

MOCHA DISTRACT – TAIZ GOV.

Drawing Title:

MOUNTING FRAME DETAILS

Project Name:

RAINS OF RESILIENCE 2026

Designed and reviewed by:

SPRY - WASH Sector

Approved by:

SPRY - WASH Sector

Status:

Final Draft

Project No:

Date

Paper Size:

A3

Scale

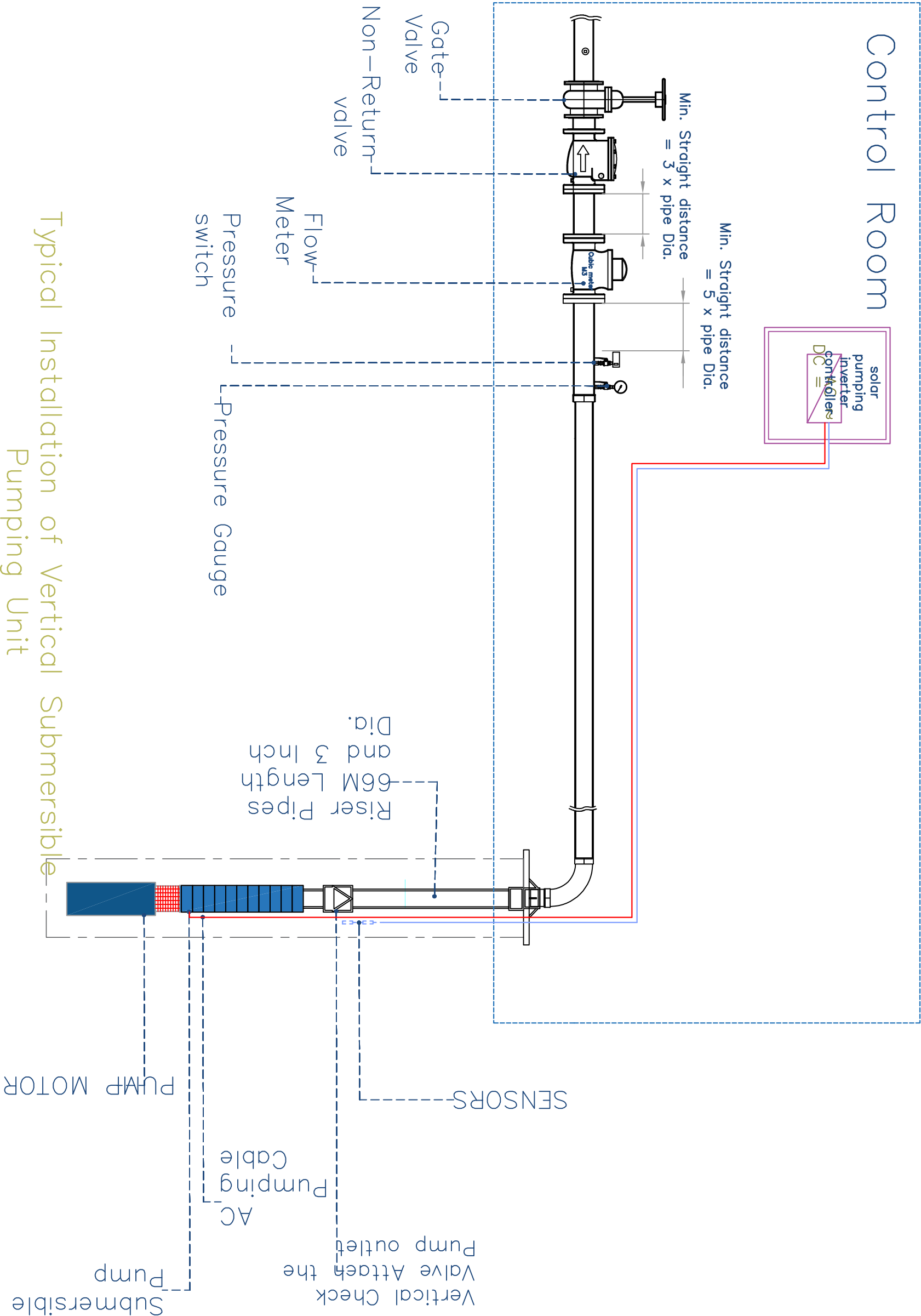
As Shown

North:



Drawing No:

A1-09



Typical Installation of Vertical Submersible Pumping Unit

Prepared by:	Funded by:	Project Title:	Drawing Title:	Designed and reviewed by:	Status:	North:	Drawing No:
		REHABILITATIONS OF ALTHAWBANI WATER PROJECT	SUBMERISBLE PUMP PLUMBING DETAILS	SPRY - WASH Sector	Final Draft		A1-10
		Project Location:	Project Name:	Approved by:			
		MOCHA DISTRACT – TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	Project No:	Paper Size:	
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					17/06/2026	As Shown	

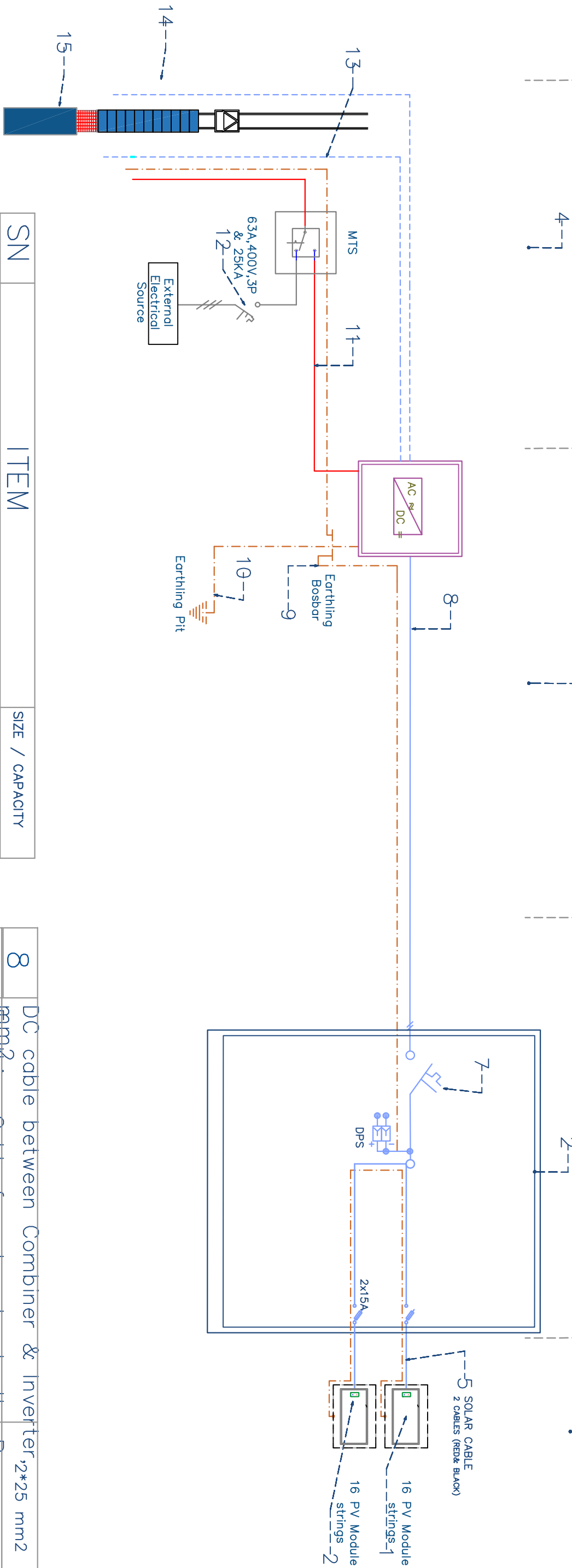
Submersible Pumping Unit

Submersible

Hybrid Pump Inverter

Combiner Box

PV Modules Strings



SN	ITEM	SIZE / CAPACITY
1	# of PV Strings and Total Modules	3 strips >= 31.20 kW
2	Combiner Box	>=100 A
3	Inverter Power, KW	>= 30 kW
4	Submersible Pump Power , KW	>= 15.2 kW
5	DC cable Between Arrays to Combiner Box, mm ²	>=2*10 mm ²
6	Earthing Cable between PV modules, , 10 mm ²	
7	Combiner DC circuit brekker size	As BOQ

8	DC cable between Combiner & Inverter ,2*25 mm2	
9	Earthing Cable from Inverter to the Bus 25 mm2	
10	Earthing Cable from bus bar to earthing pit ,mm	
11	Pump AC Cable , mm2	3*35 mm2
12	12 input AC circuit breaker, A	As BOQ
13	Level Sensor Cable , mm2	>= 1.5 mm2
14	Pressure Switch Cable, mm2	>= 2*1.5 mm2
15	Submersible Motor , KW	>=18.5 kW

Submersible Pump Wiring Diagram

Prepared by:

Samaritan's Purse®
INTERNATIONAL RELIEF

Funded by:

Samaritan's Purse®
INTERNATIONAL RELIEF

Project Title:

REHABILITATIONS OF ALTHAWBANJ WATER PROJECT

Project Location:

MOCHA DISTRACT – TAIZ GOV.

Drawing Title:

SUBMERSIBLE PUMP WIRING DIAGRAM

Project Name:

RAINS OF RESILIENCE 2026

Designed and reviewed by:

SPRY - WASH Sector

Approved by:

SPRY - WASH Sector

Status:

Final Draft

Project No:

17/06/2026

Paper Size:

A3

Scale

As Shown

North:

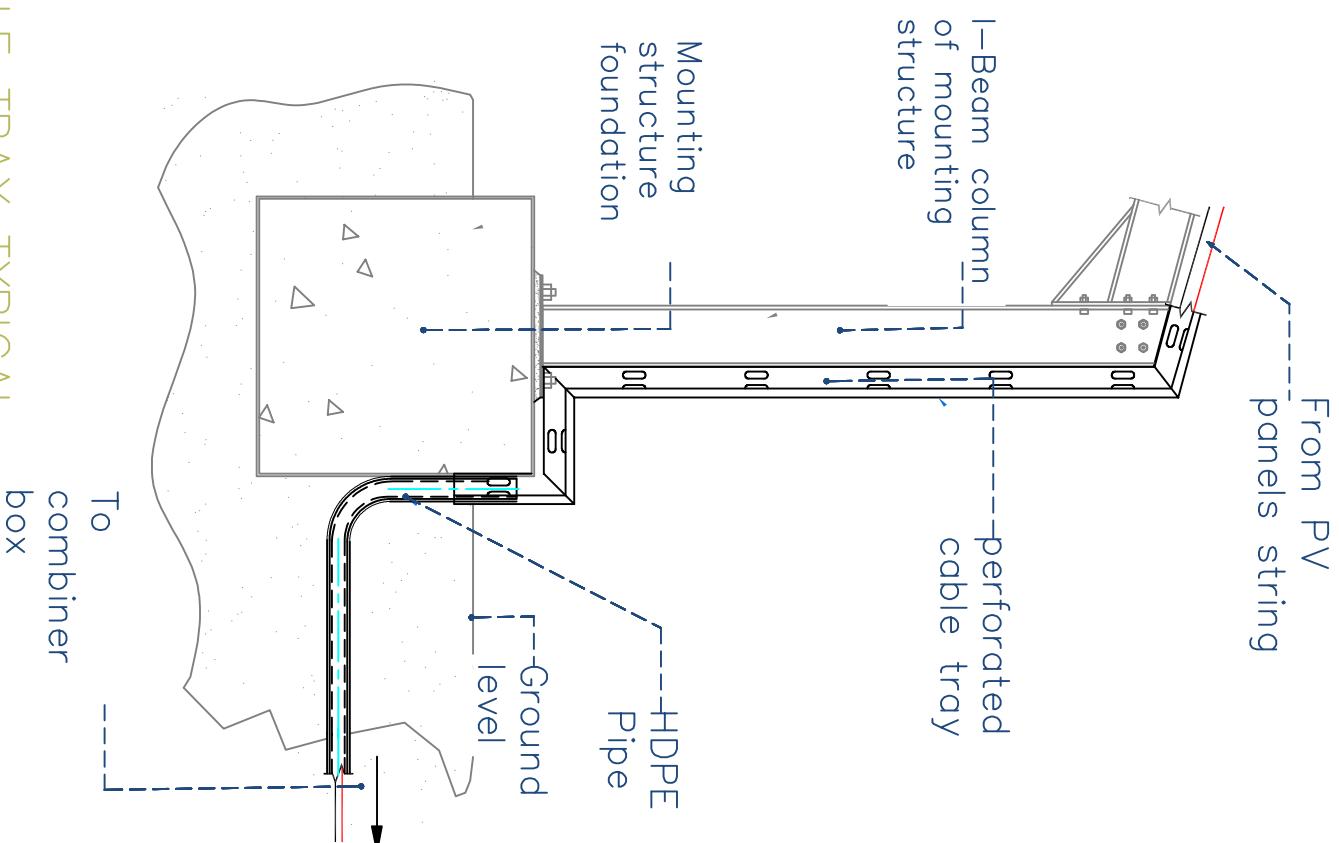


Drawing No:

A1-11

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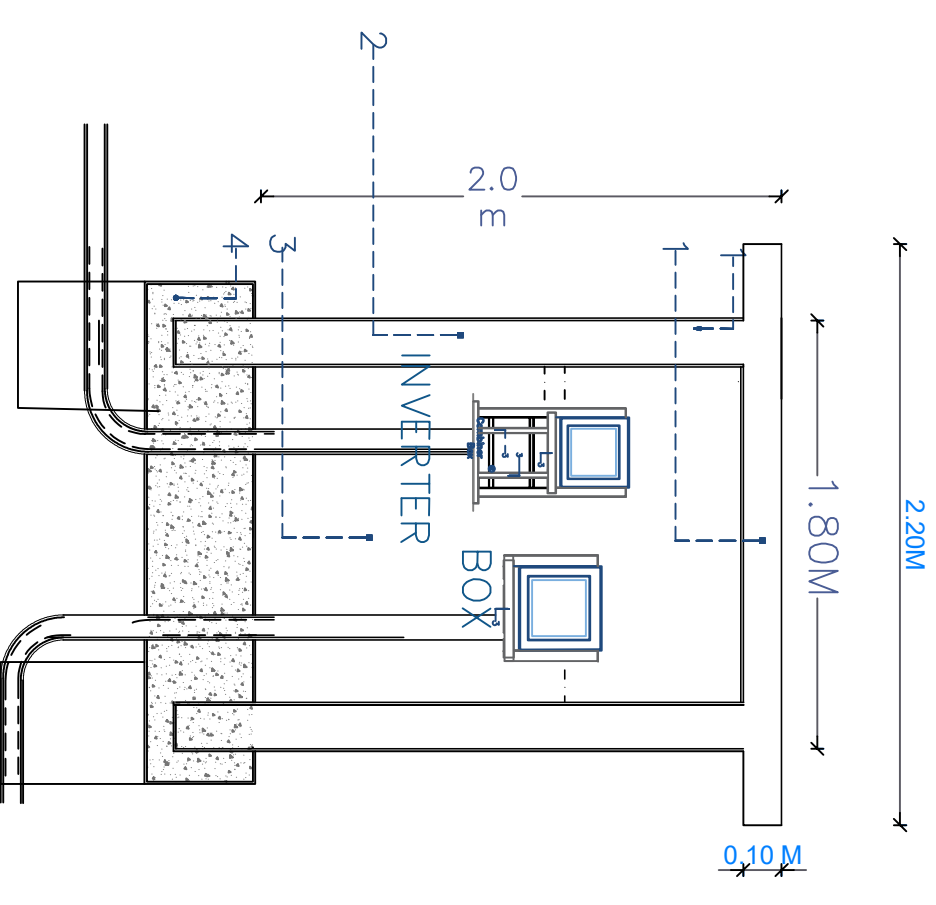
1. C channel 80x40 x 5mm
2. Angle 50x50x4mm
3. Cable Tray size will be according to the number of cables x 1.5 for future, shall be bolted on the frame
4. Concrete foundation 30cm depth x30cm width.
5. The Frame shall be welded properly and according to welding best practice
6. The frame shall painted by at least two layers of anti corrosion and synthetic enamel paint



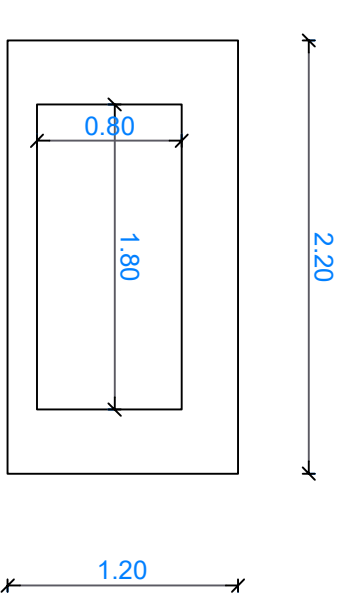
PERFORATED CABLE TRAY TYPICAL INSTALLATION

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
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Project Location:		Project Name:		Approved by:		Project No:		Paper Size:							
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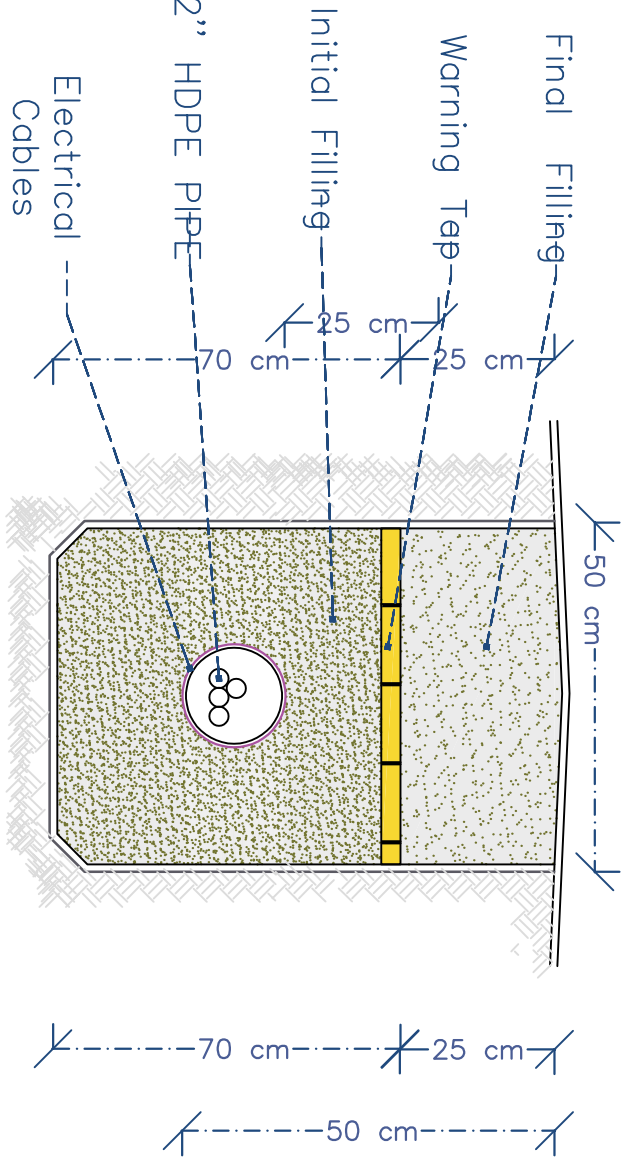
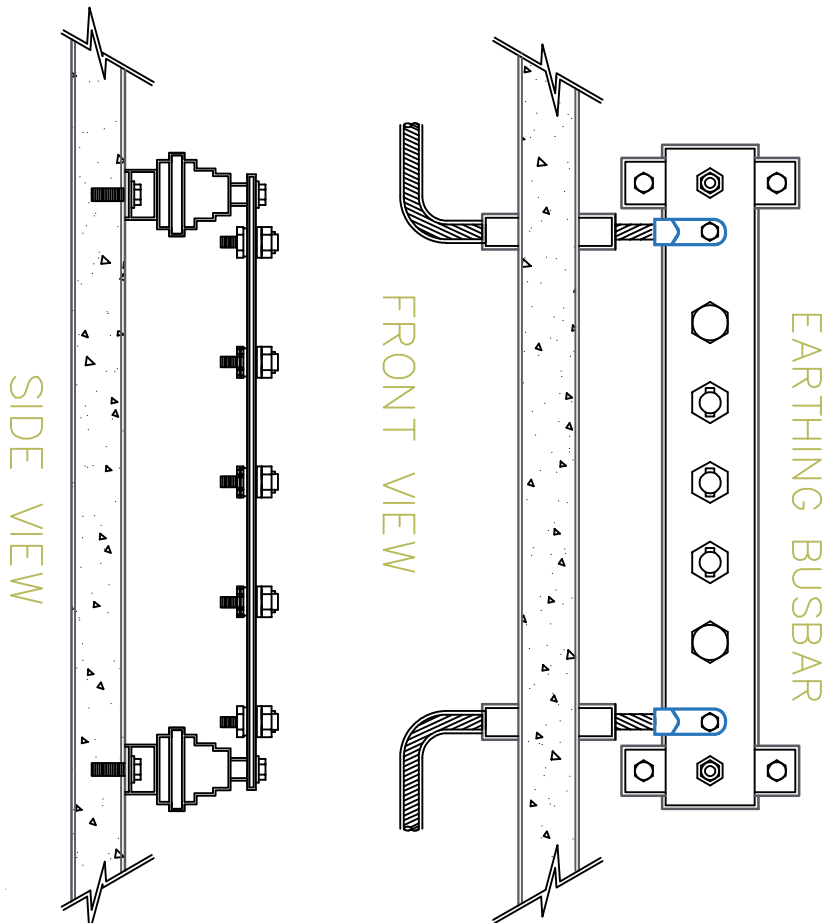
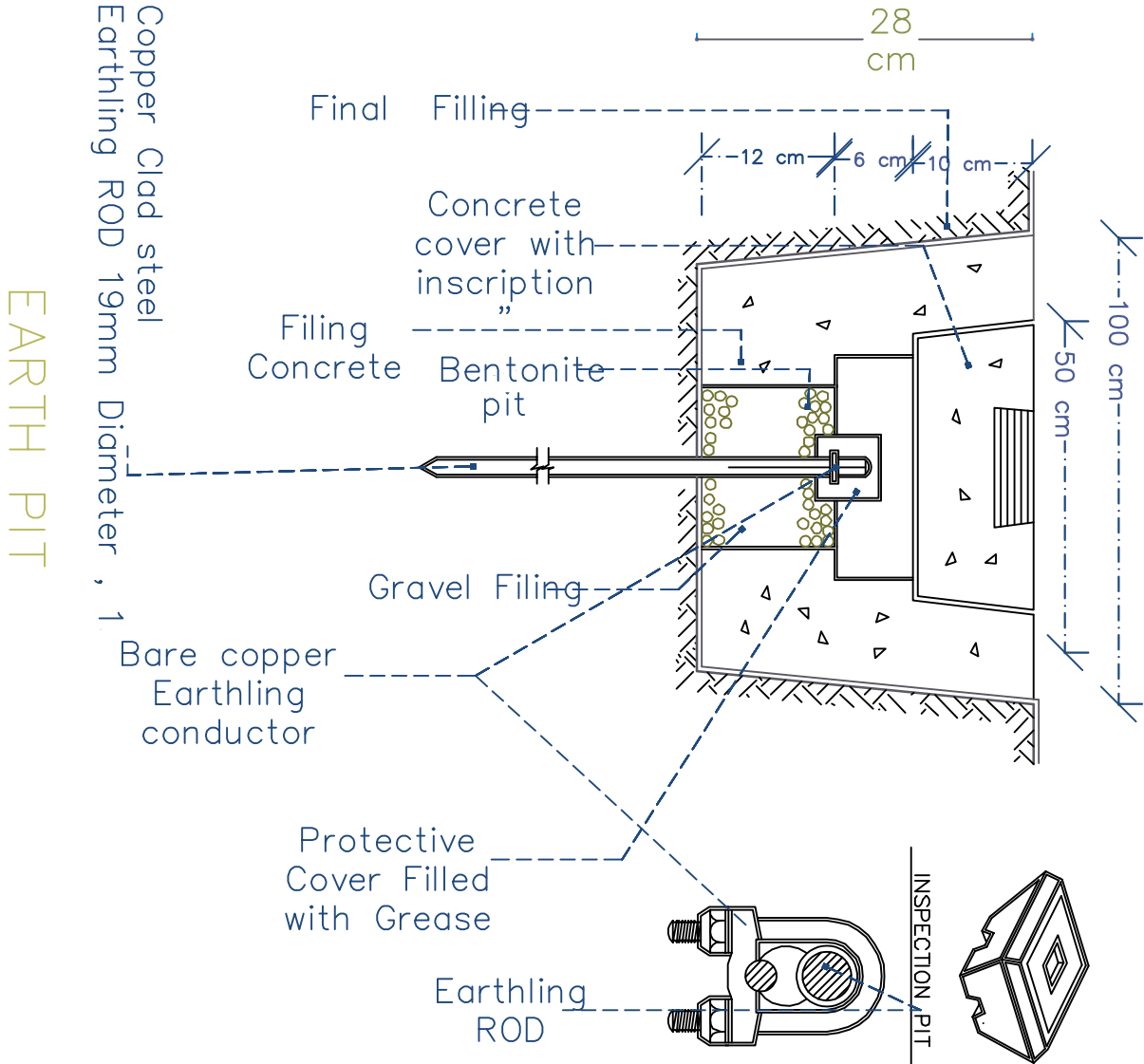
COPNTRLO ROOM FOR INVERTER
AND COMBINER BOX N



SECTION



PLAN



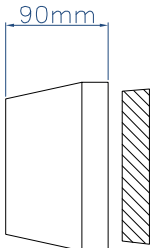
EARTH PIT DETAILS

EARTH PIT DETAILS

Prepared by:	Funded by:	Project Title:	Drawing Title:	Designed and reviewed by:	Status:	North:	Drawing No:
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		MOCHA DISTRICT - TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	Date	Scale	
					17/06/2026	As Shown	
							A1-13

COPPER ROD

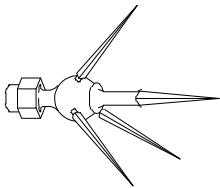
OVERALL
LENGTH
1200 mm.



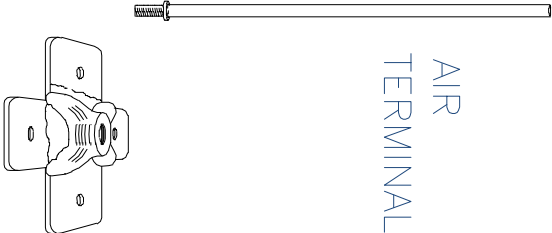
CONCRETE EARTH HOUSING SECTION

GROUND ROD.
AIR TERMINAL TIP

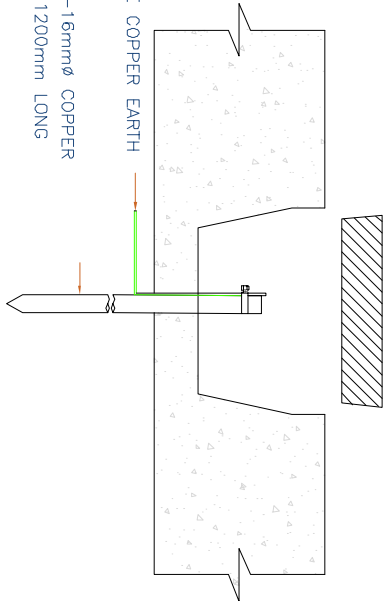
5sq. mm BARE COPPER EARTH
RODS OF 1200mm LONG



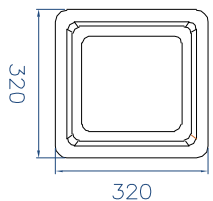
AIR
TERMINAL



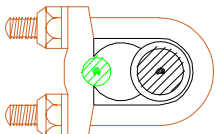
AIR TERMINAL SADDL



ELEVATION

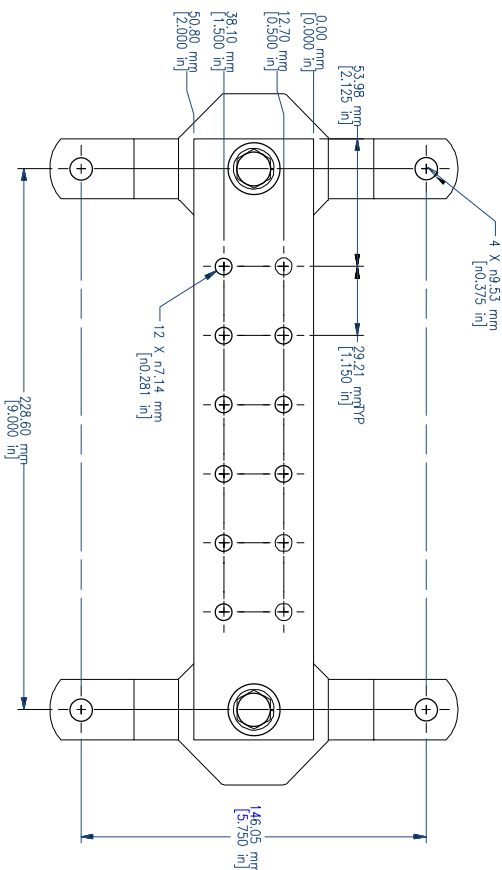
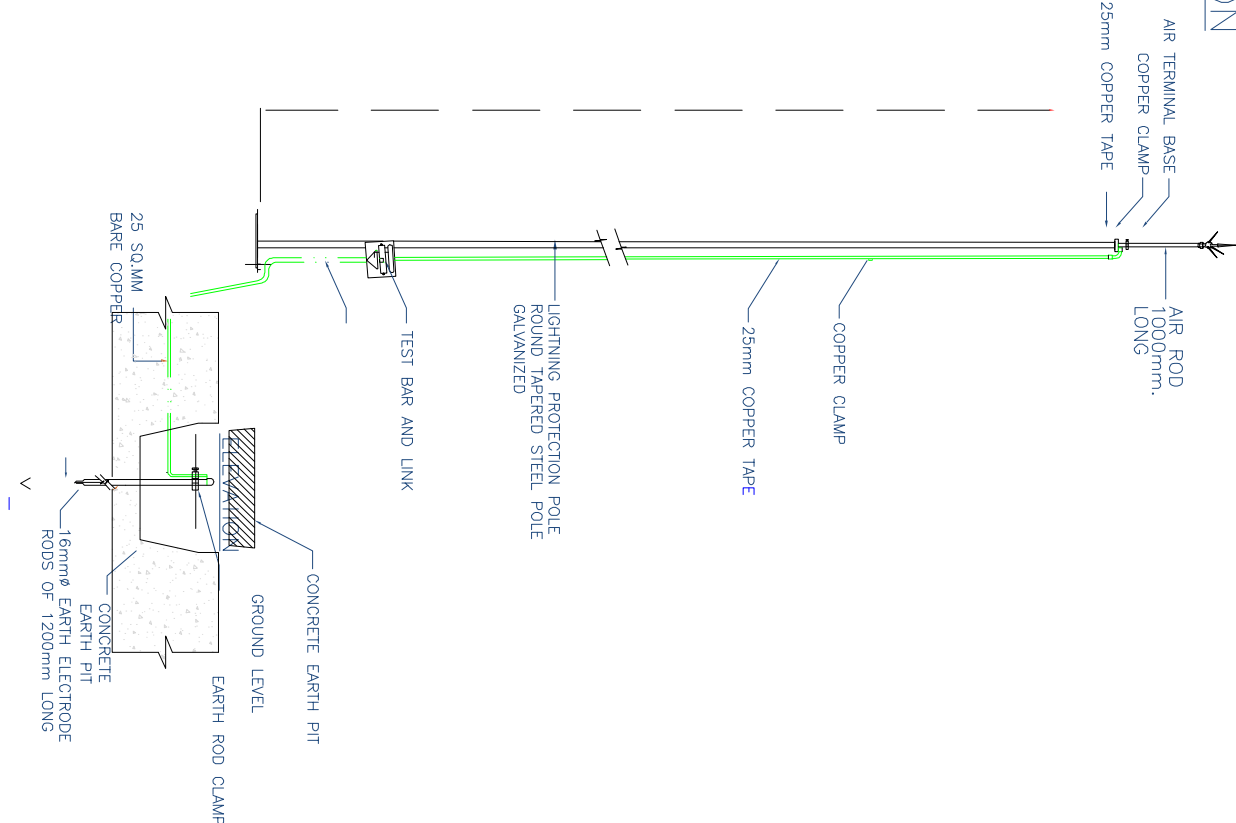


CONCRETE EARTH HOUSING PLAN

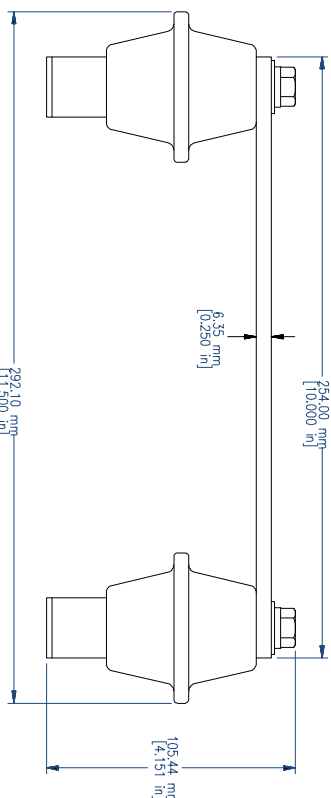


CLAMP

LIGHTNING PROTECTION SYSTEM



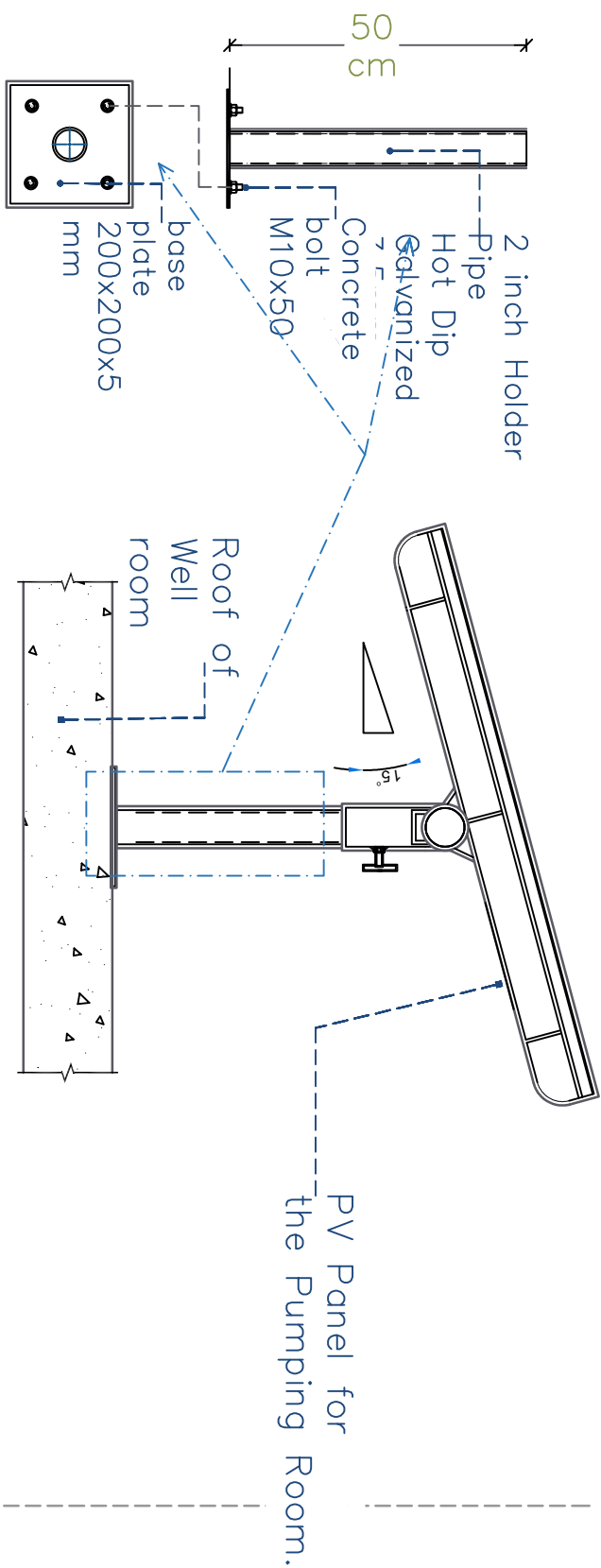
ASSEMBLY - TOP VIEW



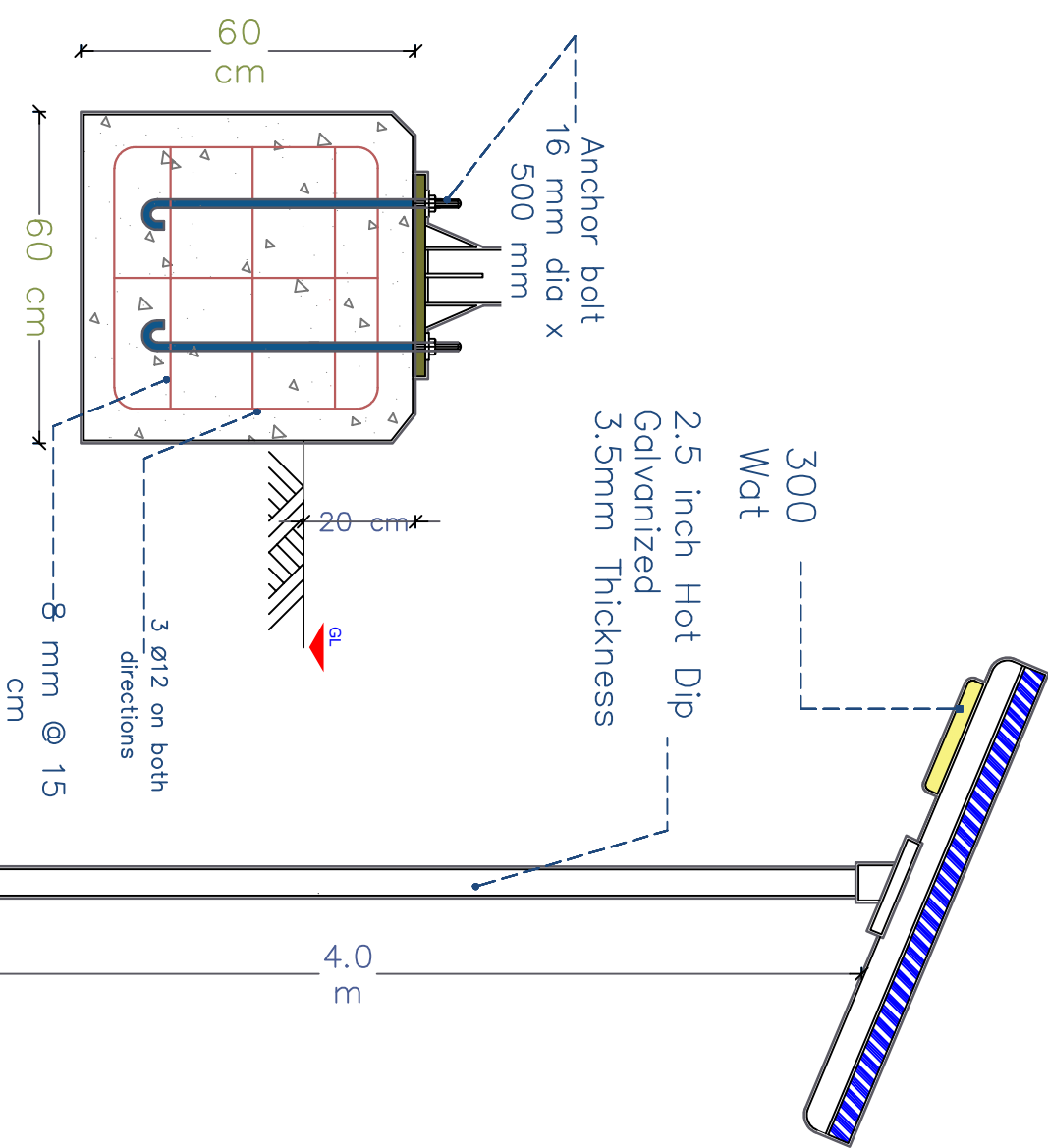
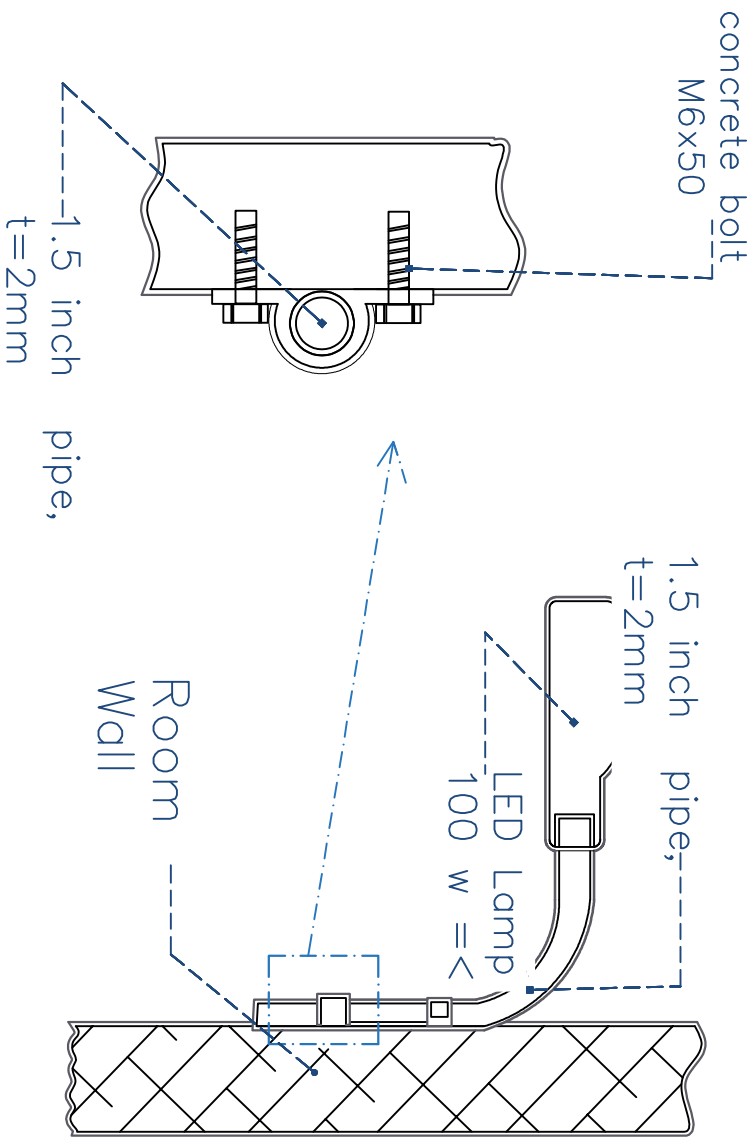
EARTHING BUSBAR

ASSEMBLY - SIDE VIEW

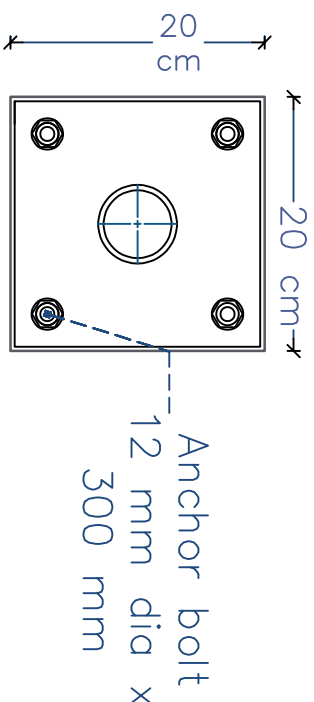
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Project Title: LIGHTNING PROTECTION SYSTEM		Drawing Title: LIGHTNING PROTECTION SYSTEM		Project Name: RAINS OF RESILIENCE 2026		Designed and reviewed by: SPRY - WASH Sector	
Status:		Final Draft		Project No:		Approved by: SPRY - WASH Sector	
North:		Paper Size: A3		Date: 17/06/2026		Scale: As Shown	
Drawing No: A1-14		Scale: As Shown		Date: 17/06/2026		Approved by: SPRY - WASH Sector	



PV PANEL OF ROOM LIGHTING TYPICAL INSTALLATION

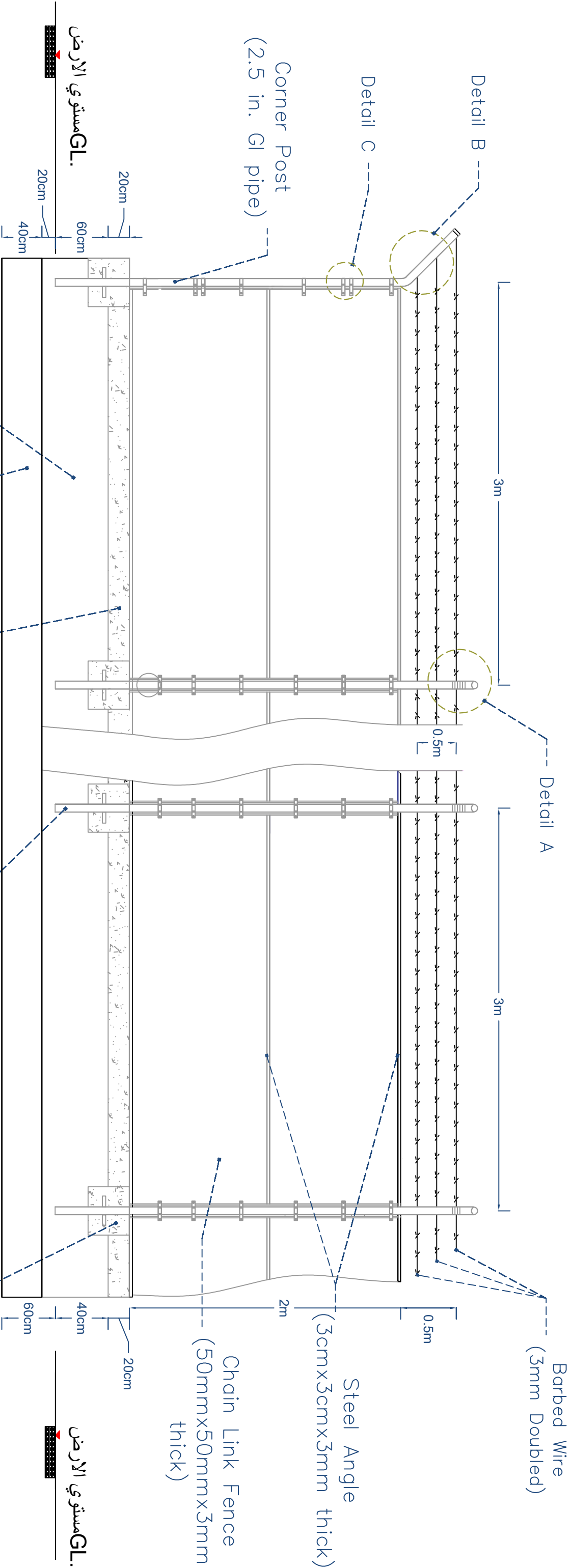


POLE CONCRETE FOUNDATION DETAILS



BASE PLATE DETAIL — B

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		Project Location:	Project Name:	Approved by:	Project No:	Paper Size:	
		MOCHA DISTRACT — TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	Date	Scale	
					17/06/2026	As Shown	



Square Stone Masonry

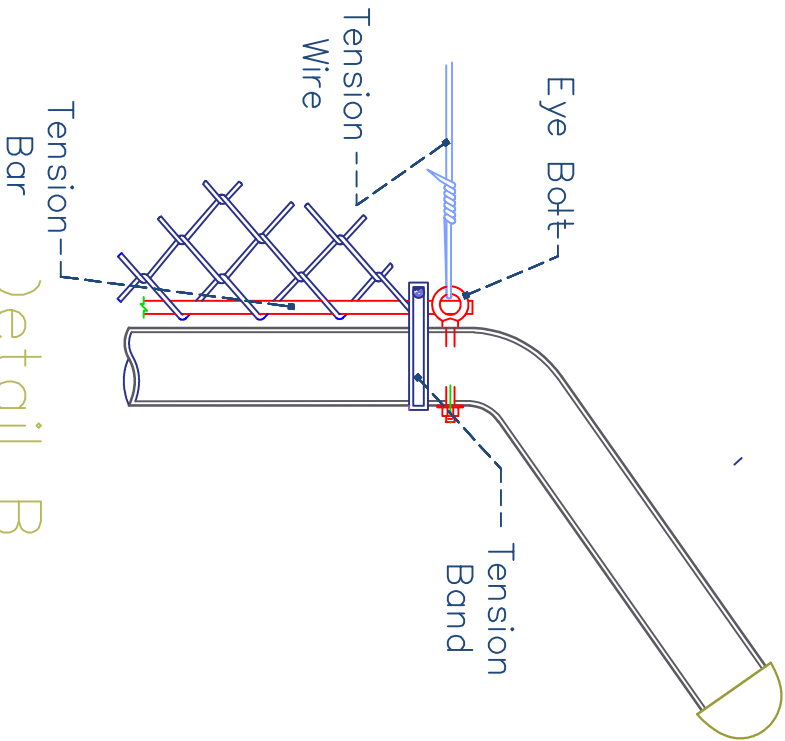
Base Stone Construction

Concrete Beam (20cmx20cm)

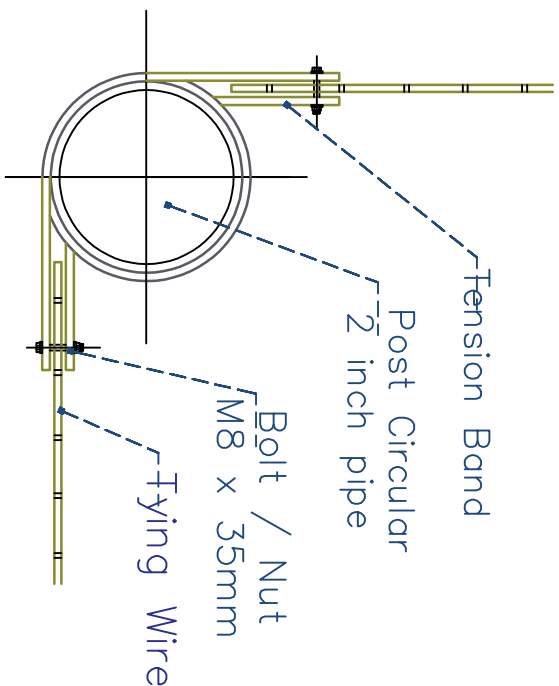
Intermediate Post (2 in. GI pipe)

Concrete Beam (40cmx40cmx50cm)

Prepared by:	Funded by:	Project Title:	Drawing Title:	Designed and reviewed by:	Status:	North:	Drawing No:
 Samaritan's Purse® INTERNATIONAL RELIEF	 Samaritan's Purse® INTERNATIONAL RELIEF	REHABILITATIONS OF ALTHAWBANI WATER PROJECT	PROTECTION FENCE	SPRY - WASH Sector	Final Draft		A1-16
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		MOCHA DISTRACT – TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	17/06/2026	A3 As Shown	

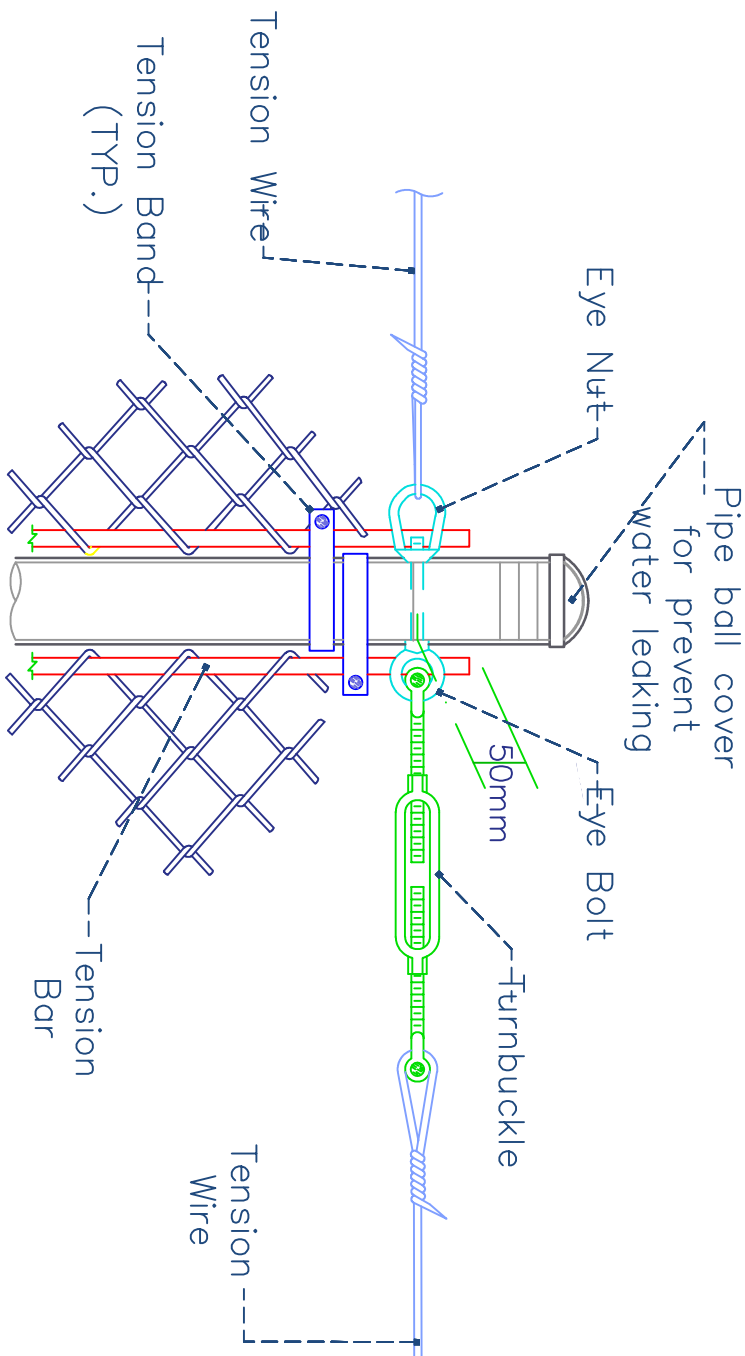


Detail B
Corner Post

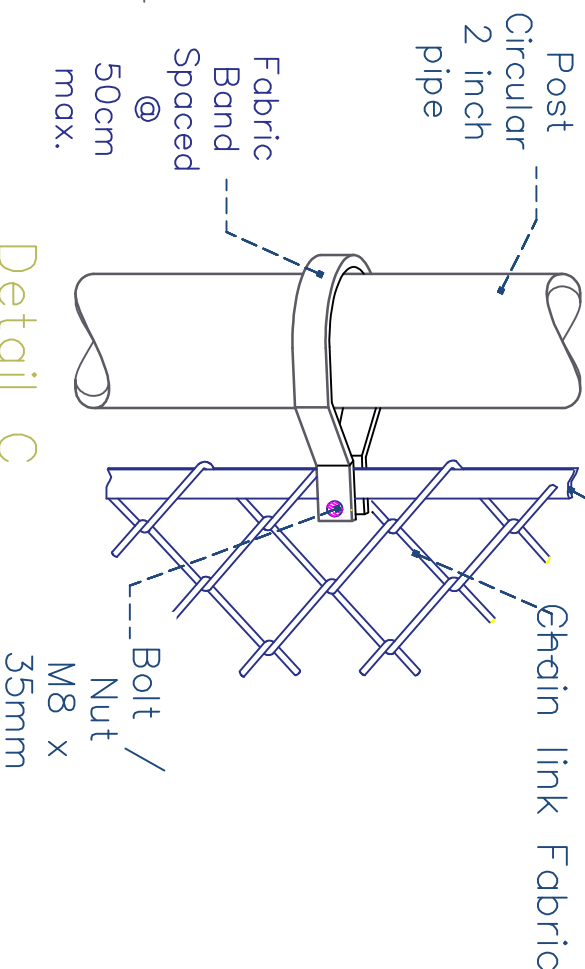


Plan view

Corner Post pip tying

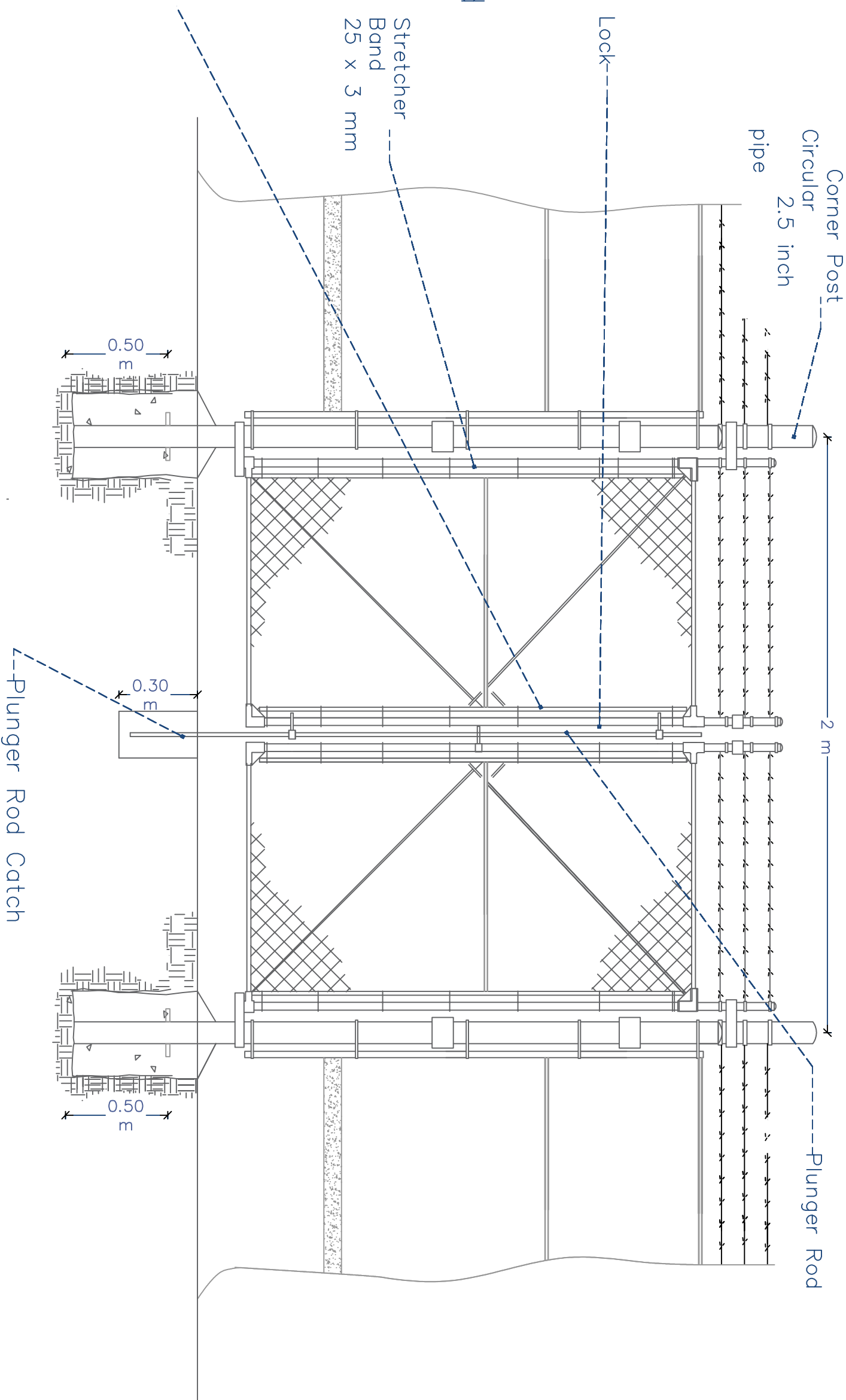
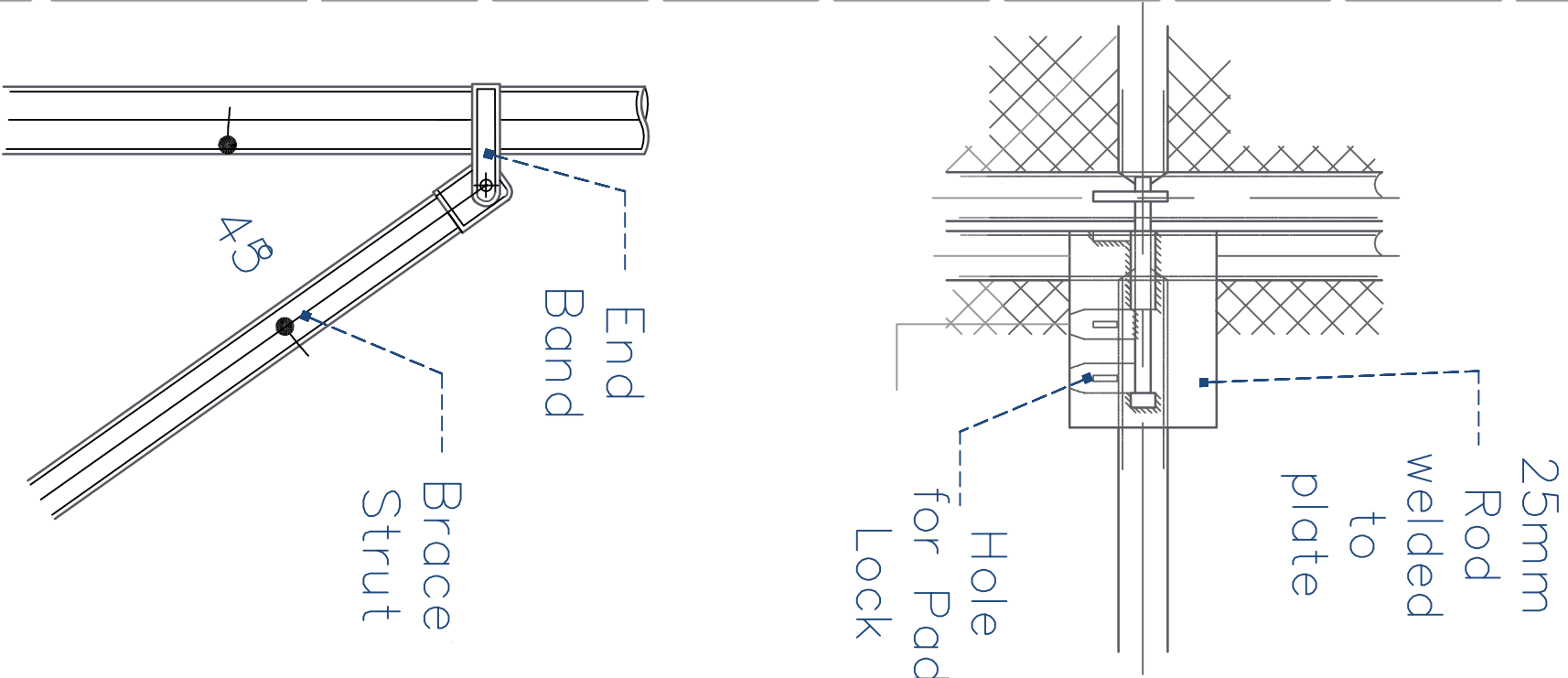


Detail A
Middle Post
Circular



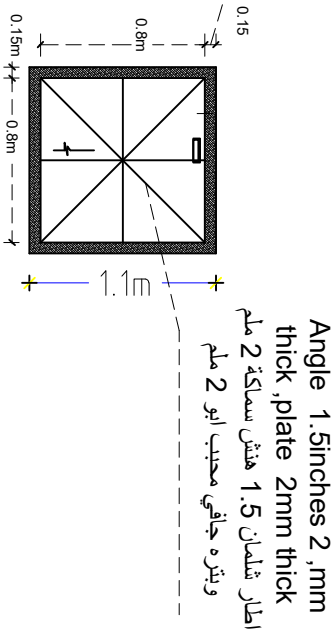
Detail C
Stretcher Bar

Prepared by:	Funded by:	Project Title:	Drawing Title:	Designed and reviewed by:	Status:	North:	Drawing No:
		REHABILITATIONS OF ALTHAWBANI WATER PROJECT	PROTECTION FENCE DETAILS	SPRY - WASH Sector	Final Draft		A1-17
		Project Location:	Project Name:	Approved by:			
		MOCHA DISTRACT – TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	Project No:	Paper Size:	
					Date	Scale	As Shown
					17/06/2026		



Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
 Samaritan's Purse® INTERNATIONAL RELIEF		 Samaritan's Purse® INTERNATIONAL RELIEF		REHABILITATIONS OF ALTHAWBANI WATER PROJECT		MAIN ENTRANCE GATE		SPRY - WASH Sector		Final Draft				A1-18	
Project Location:		Project Name:		Approved by:		Project No:		Paper Size:		A3					
MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		Date		Scale		As Shown					

Angle 1.5inches 2 ,mm thick ,
plate 2mm thick
اطار شلمان 1.5 هنش سماكة 2 ملم ووتره
جافي محبب ابو 2 ملم



تفاصيل غطاء سقف الخزان
Details Tank roof cover

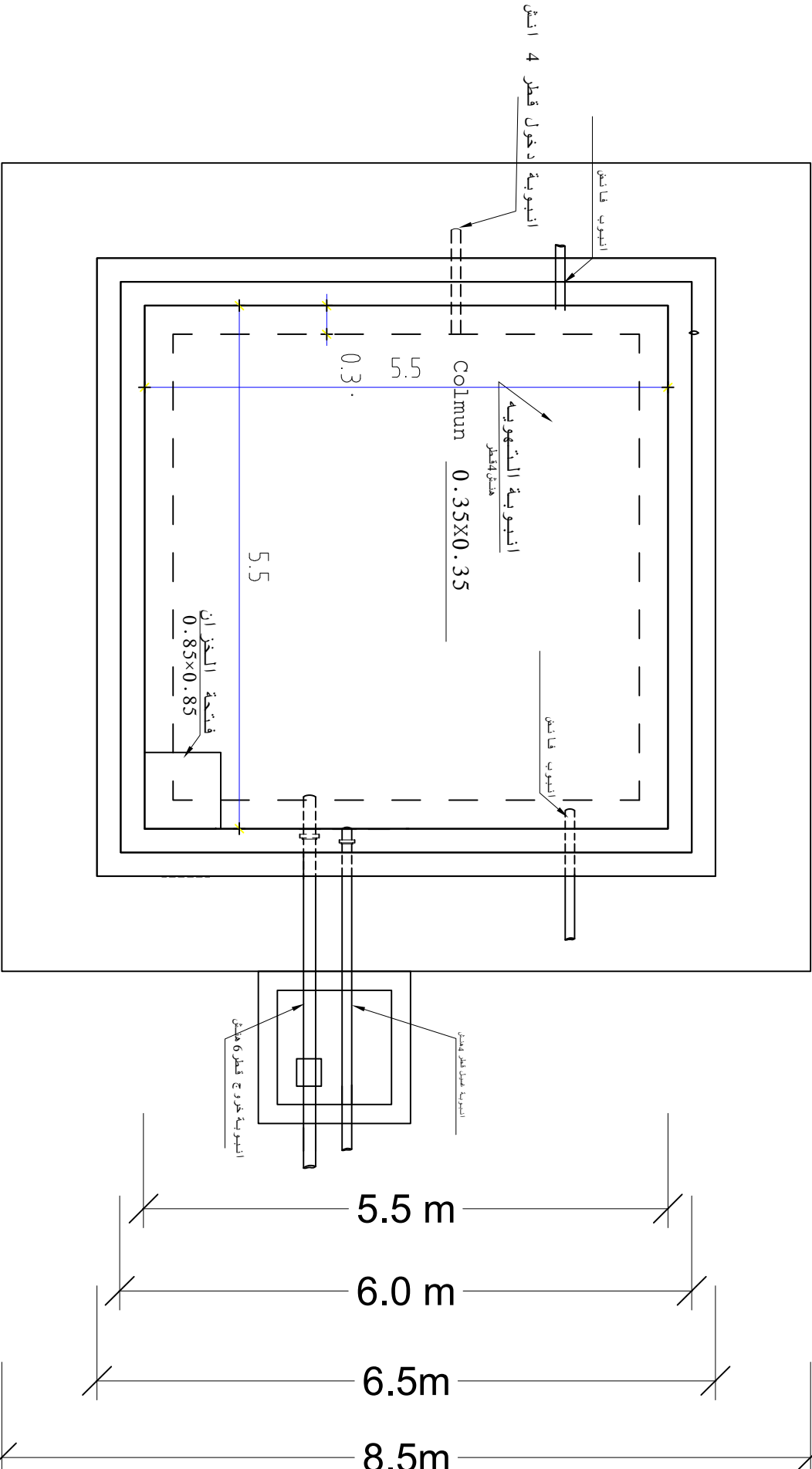
خط توزيع رئيسي جديد 4 انش

خط توزيع رئيسي قديم 3 انش

تفصيل عمل ربط مشترك بين مواسير التوزيع
الرئيسيه الخارجيه من الخزان الجديد 4 هنش

والخزان القديم 3 هنش ويتم الربط
بمواسير 1.5 هنش و 2 هنش لخلاط المياه لتعديل
نسبة الاملاح

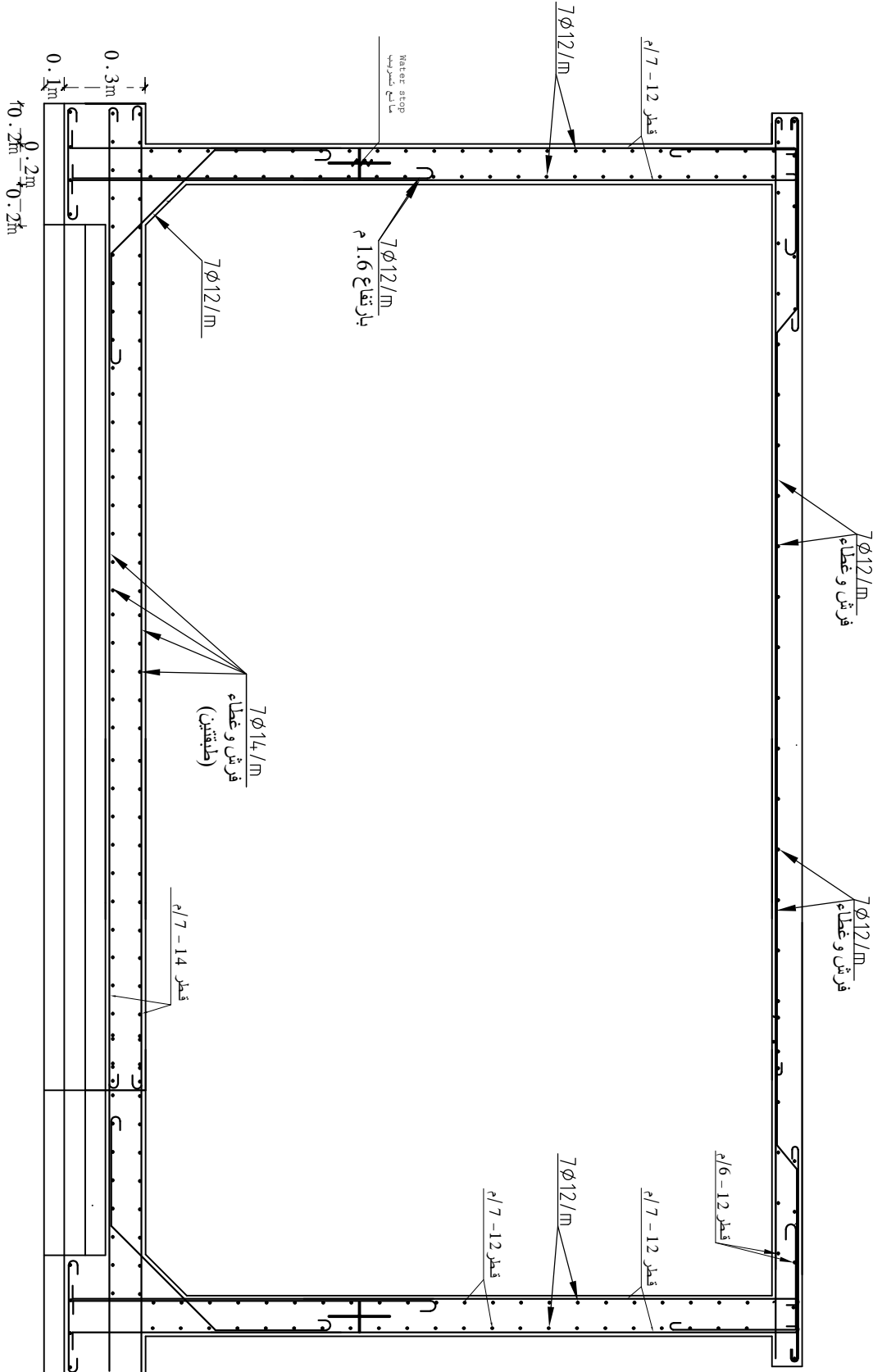
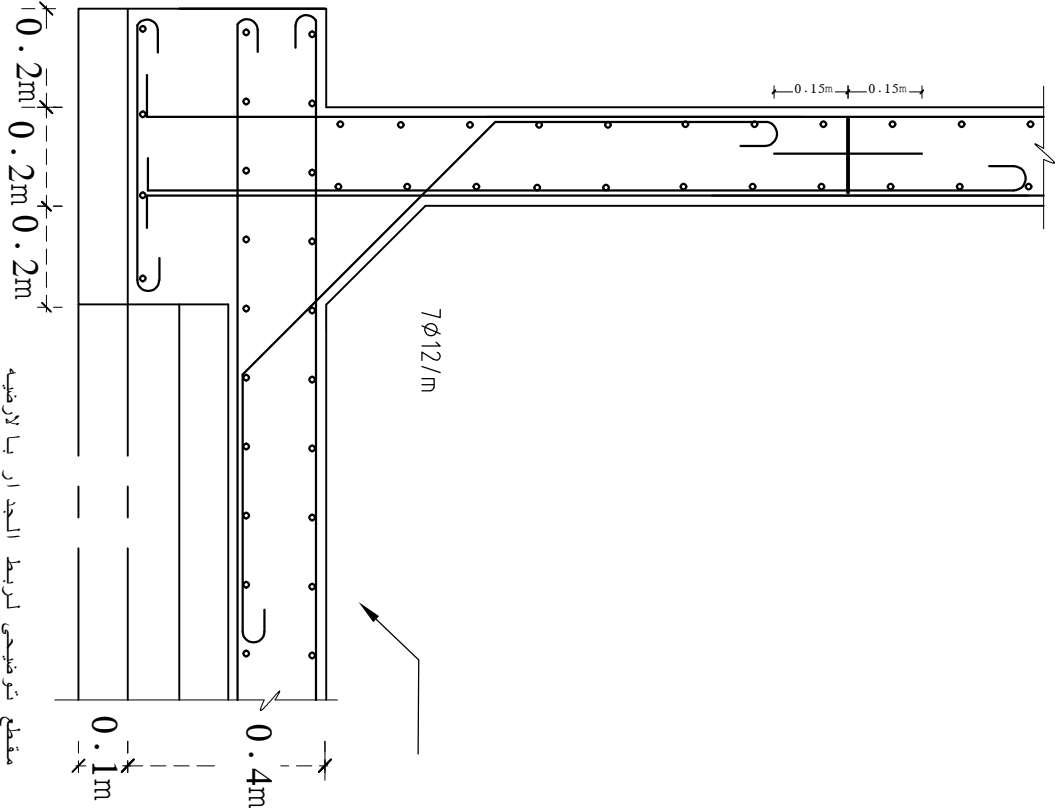
8.5m



Plan Concrete tank 100 m3 Scale 1:100

للخزان الارضي الخرسانتي سعة 100 م3

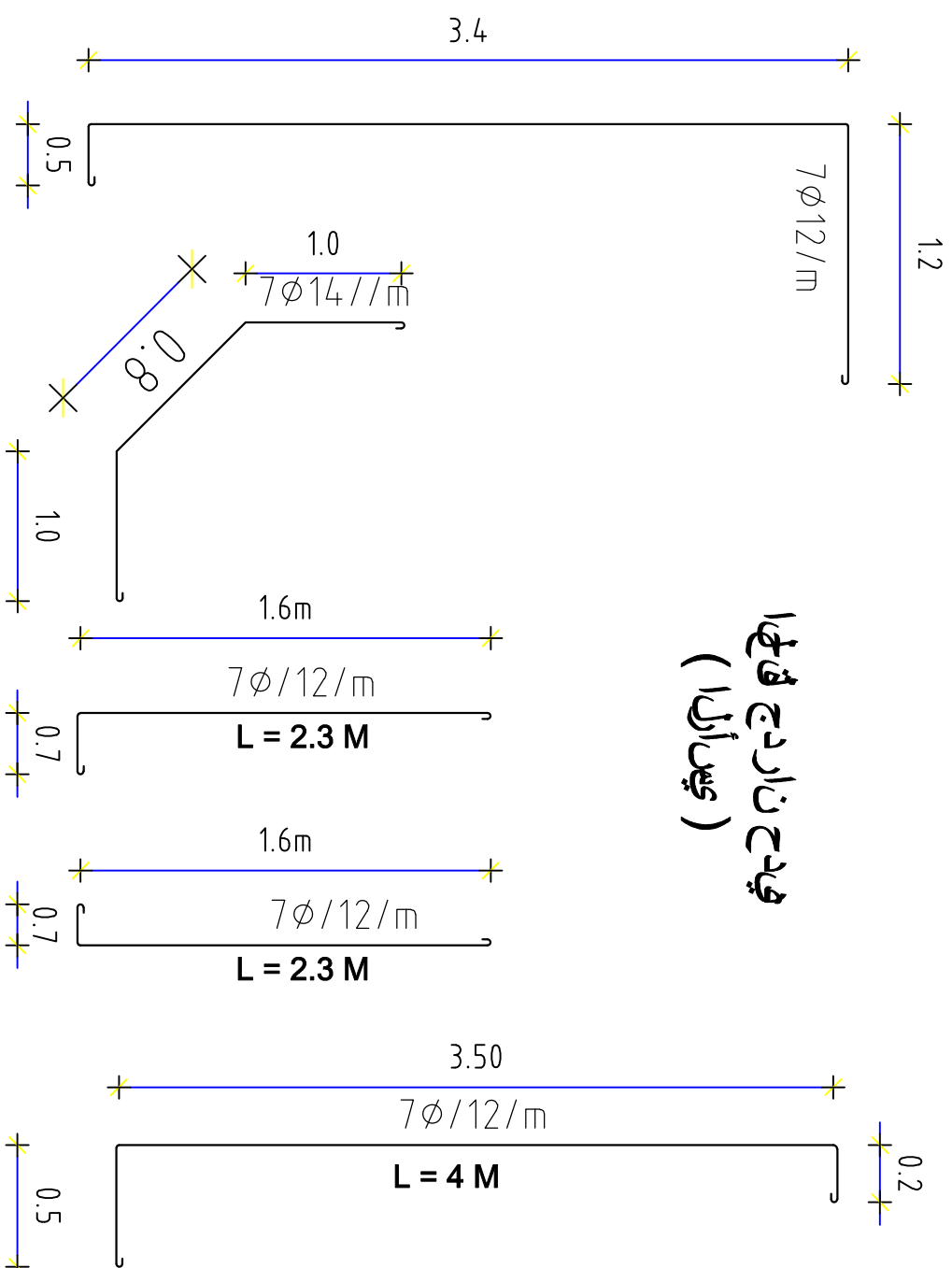
Prepared by:		Funded by:		Project Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
				REHABILITATIONS OF ALTHAWBANI WATER PROJECT		SPRY - WASH Sector		Final Draft				A1-19	
Project Location:		Project Name:		Approved by:		Project No:		Paper Size:		Date		Scale	
MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		17/06/2026		As Shown					



Side section for Tank. scale 1:200

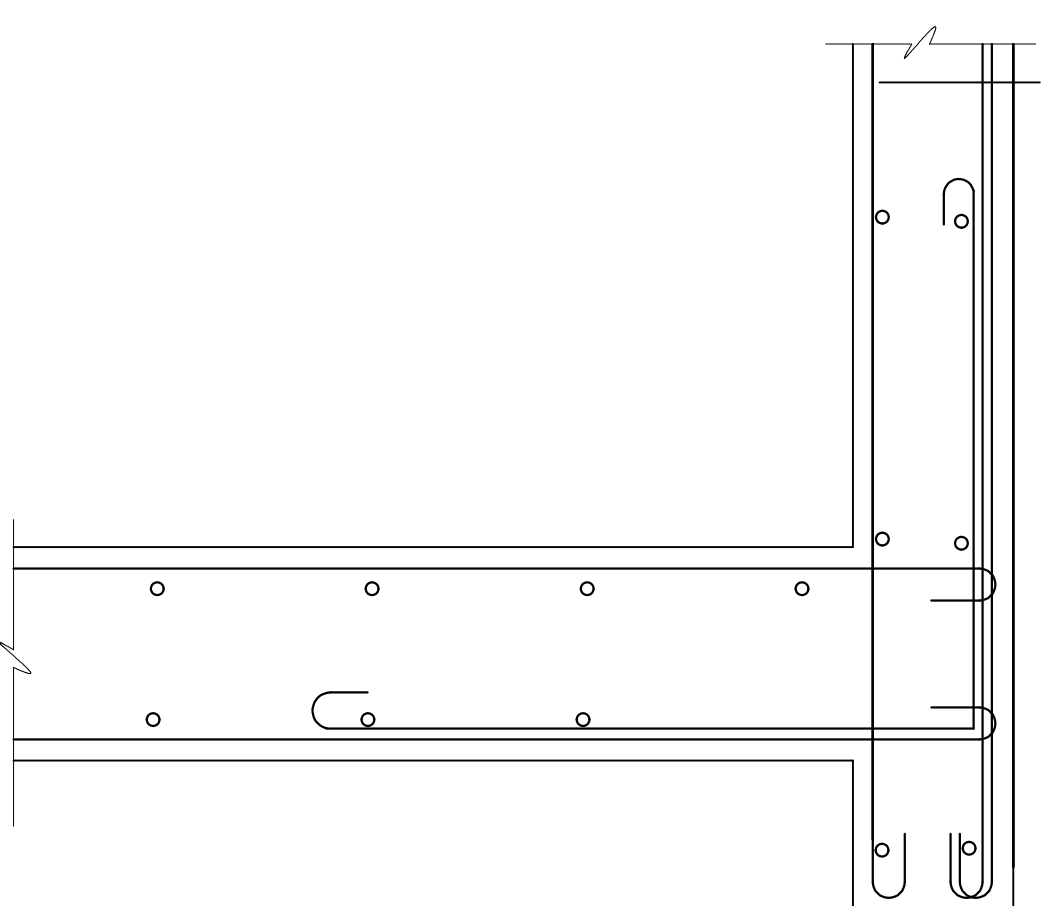
مقطع جانبي للخران 1:200مقياس

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
Samaritan's Purse INTERNATIONAL RELIEF		Samaritan's Purse INTERNATIONAL RELIEF		REHABILITATIONS OF ALTHAWBANANI WATER PROJECT		GROUND CONCRETE TANK FLOOR AND WELLS DETAILS		SPRY - WASH Sector		Final Draft		N W E S		A1-21	
Project Location:		Project Name:		Approved by:		Project No:		Paper Size:		Date		Scale		As Shown	
MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		17/06/2026		A3		Scale		As Shown		As Shown	



Details of the vertical reinforcement for the tank walls

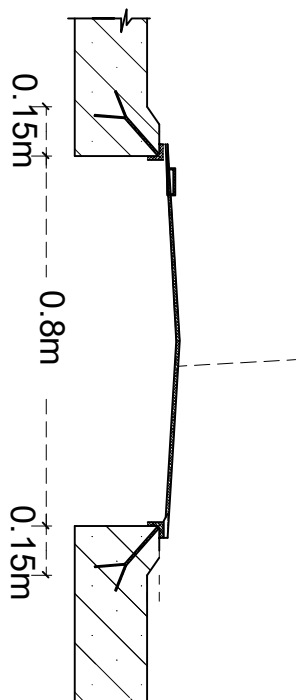
لیجھفت یی دغا جیس الی ان اردغا ن ازغا



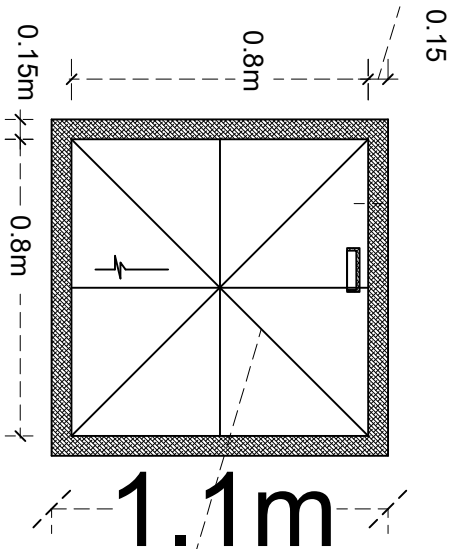
مقطع توضیحي للربط الجدار

Prepared by:		Funded by:	
 Samaritan's Purse® INTERNATIONAL RELIEF		 Samaritan's Purse® INTERNATIONAL RELIEF	
Project Title:		Drawing Title:	
REHABILITATIONS OF ALTHAWBANI WATER PROJECT		GROUND CONCRETE TANK BEAM AND WELLS DETAILS	
Project Location:		Project Name:	
MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026	
Designed and reviewed by:		Status:	
SPRY - WASH Sector		Final Draft	
Approved by:		Project No:	
SPRY - WASH Sector		Date	
		Paper Size:	
		A3	
		Scale	
		As Shown	
North:		Drawing No:	
		A1-22	

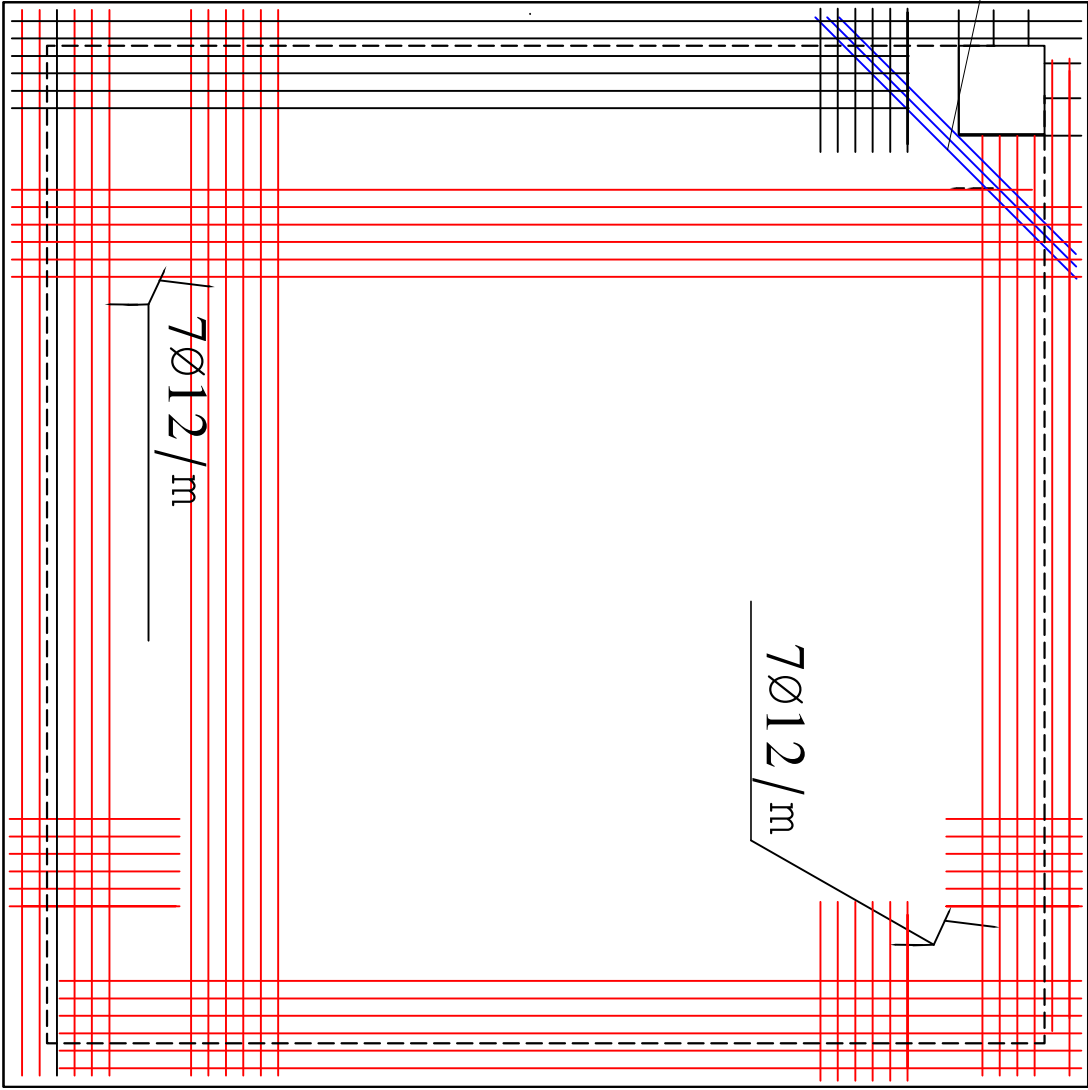
Angle 1.5inches 2 ,mm thick ,
plate 2mm thick
اطار شلمان 1.5 هتش سماكة 2 ملم وبتره
جافي محبب ابو 2 ملم



Angle 1.5inches 2 ,mm
thick ,plate 2mm thick
اطار شلمان 1.5 هتش سماكة 2 ملم
وبتره جافي محبب ابو 2 ملم



3Ø14mm



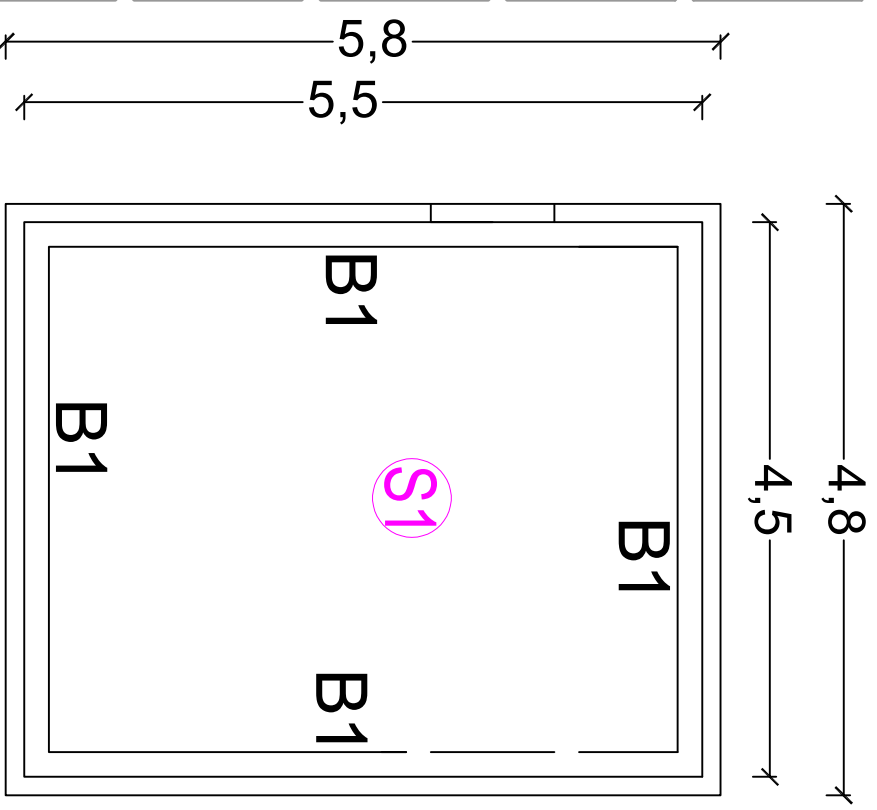
تفاصيل غطاء سقف الخزان

Details Tank roof cover

Reinforcement of roof

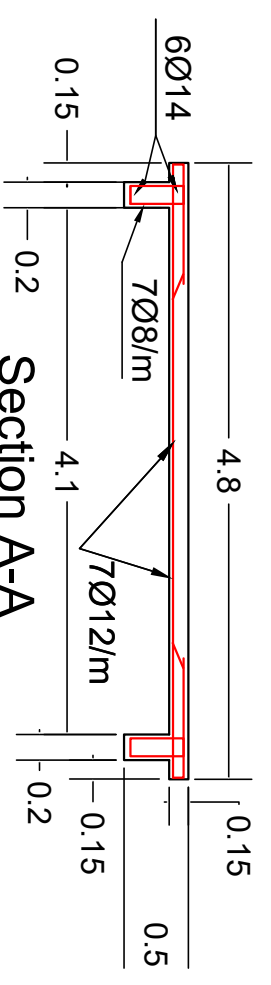
تفاصيل تسليح حديد سقف الخزان

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:			
 Samaritan's Purse® INTERNATIONAL RELIEF		 Samaritan's Purse® INTERNATIONAL RELIEF		REHABILITATIONS OF ALTHAWBANI WATER PROJECT		GROUND CONCRETE TANK ROOF DETAILS		SPRY - WASH Sector		Final Draft				A1-23			
				Project Location: MOCHA DISTRACT – TAIZ GOV.		Project Name: RAINS OF RESILIENCE 2026		Approved by: SPRY - WASH Sector									
				Project No:		Paper Size:		A3		Date		17/06/2026		Scale		As Shown	



4,8

Plan Beam&Slab for Roof



Section A-A
SCALE 1:100

Reinforcement		NO.
Upper	Lower	15
7φ12/m	7φ12/m	

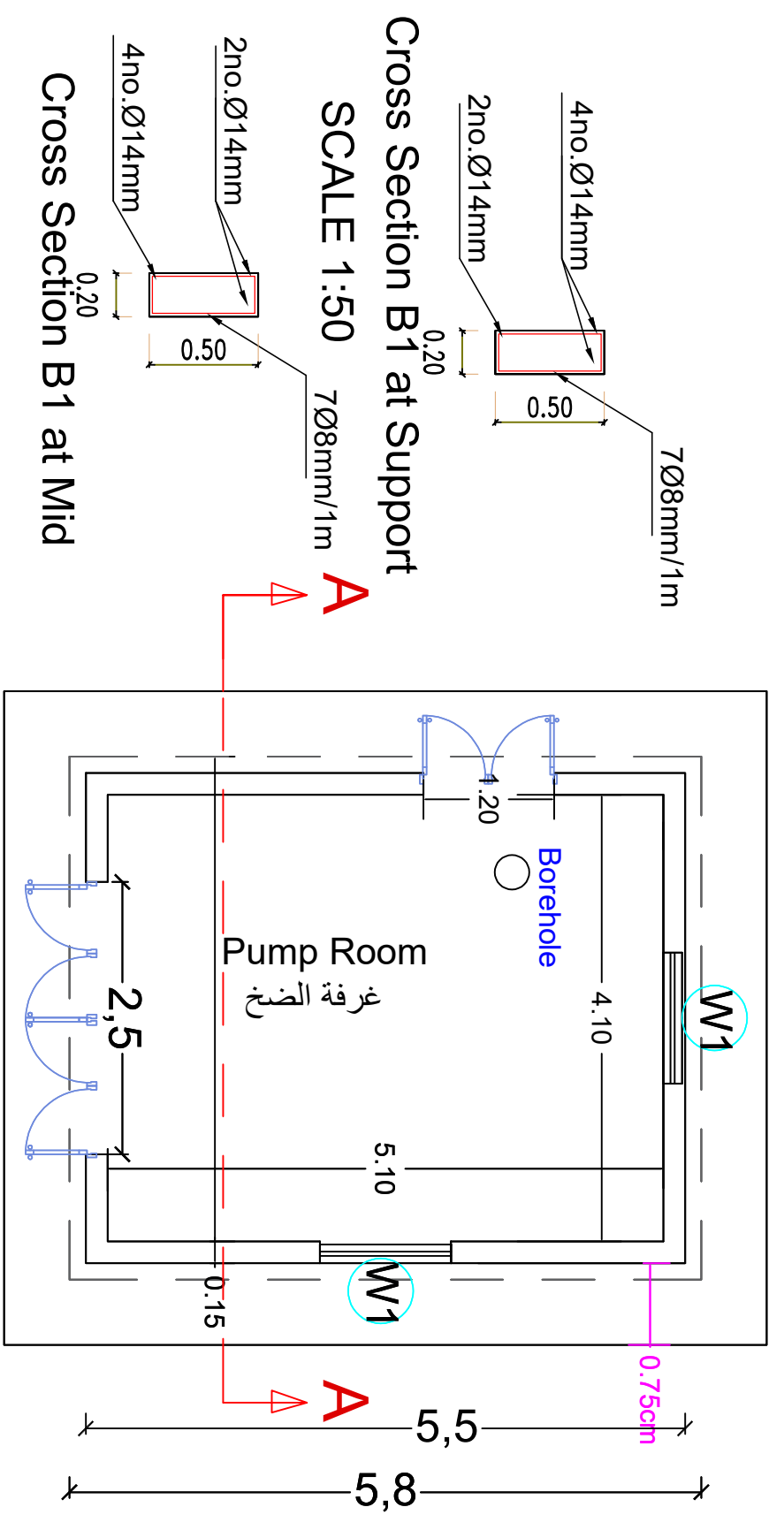
Slab reinforcement table for Roof

Prepared by:  Samaritan's Purse INTERNATIONAL RELIEF

Funded by:  Samaritan's Purse INTERNATIONAL RELIEF

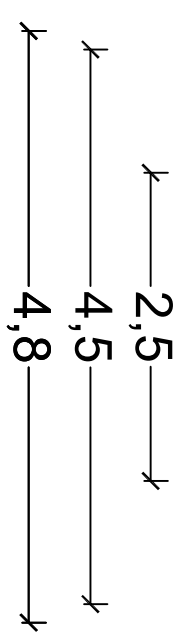
Project Title: REHABILITATIONS OF ALTHAWBAN WATER PROJECT

Project Location: MOCHA DISTRACT – TAIZ GOV.



Cross Section B1 at Support
SCALE 1:50

Cross Section B1 at Mid



Plan SCALE 1:100

Beam reinforcement table for Roof

links		upper reinforcement	lower reinforcement		Section		NO.
in middle	in support	continuous	addation	continuous	width cm	depth cm	
6 Ø 8 / m	7 Ø 8 / m	2 Ø 14	2 Ø 14	2Ø 14	20 X 50	B1	

PUMPING ROOM DETAILS تفاصيل غرفة الضخ

Drawing Title: PUMPING ROOM DETAILS

Designed and reviewed by: SPRY - WASH Sector

Status: Final Draft

North: 

Project Name: RAINS OF RESILIENCE 2026

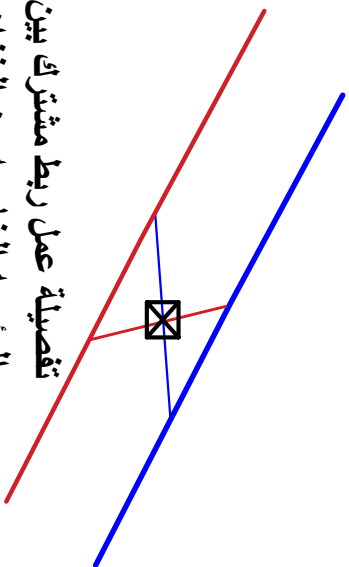
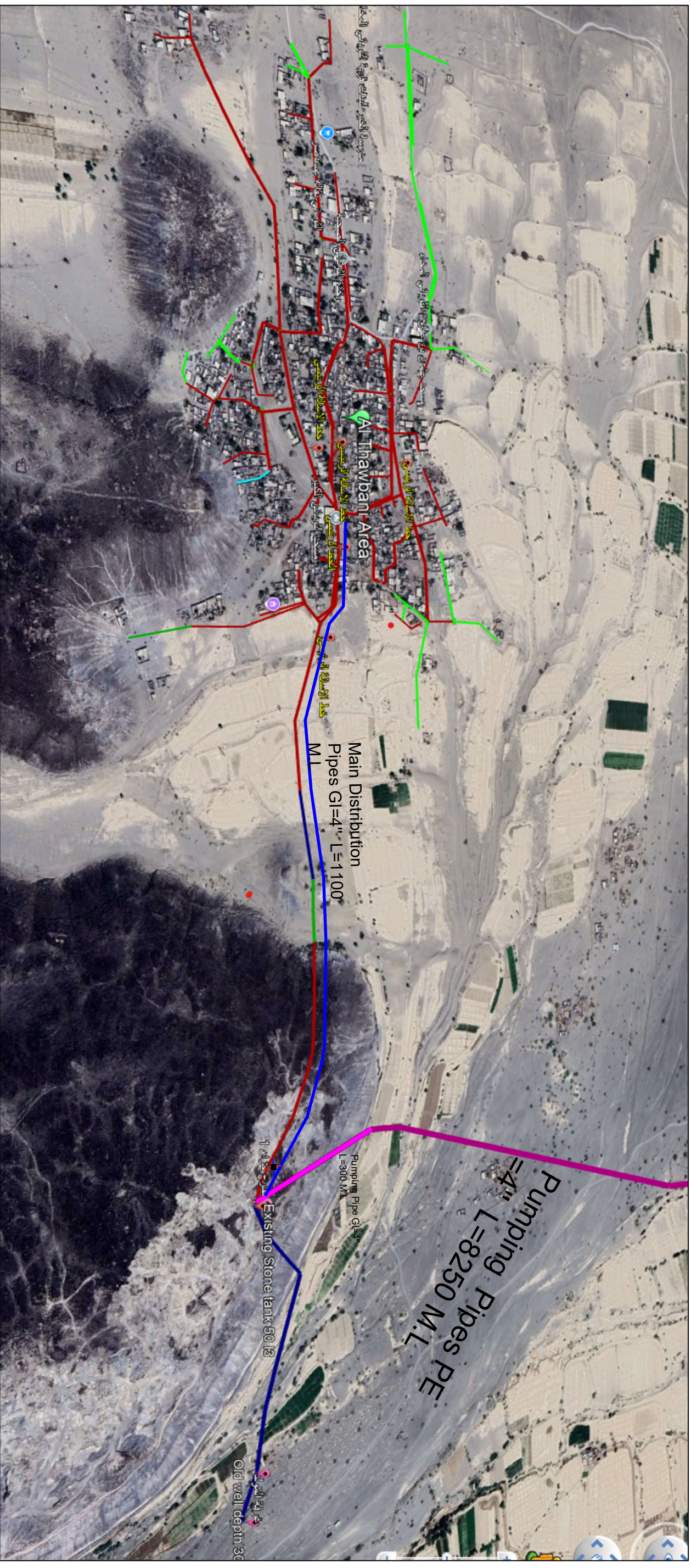
Approved by: SPRY - WASH Sector

Project No: 17/06/2026

Paper Size: A3

Scale: As Shown

Drawing No: A1-24



**تفصيلية عمل ربط مشترك بين مواسير التوزيع
الرئيسية الخارجة من الخزان الجديد 4 هـش
والخزان القديم 3 هـش ويتم الربط
بمواسير 1.5 هـش و 2 هـش لخاط المياه لتعديل
نسبة الاملاح**

انابيب جديده		New Main Distrubation Pipes 4inch
انابيب موجوده		Existing Pipes with variable D
انابيب جديده		New Pipes with variable D
خط الضخ السابق		New Pipes with variable D

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
 Samaritan's Purse® INTERNATIONAL RELIEF		 Samaritan's Purse® INTERNATIONAL RELIEF		REHABILITATIONS OF ALTAHWABANI WATER PROJECT		WATER NETWORK Map for all villages		SPRY - WASH Sector		Final Draft				A1-25	
Project Location:		Project Name:		Approved by:		Project No:		Paper Size:		A3					
MOCHA DISTRACT – TAZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		Date		17/06/2026		Scale		As Shown			



انابيب موجوده	Existing Pipes with variable D
انابيب جديده	New Pipes with variable D

Prepared by:	Funded by:	Project Title:		Drawing Title:		Designed and reviewed by:		Status:			North:	Drawing No:	
		REHABILITATIONS OF ALTHAWBANI WATER PROJECT		WATER NETWORK PLAN with map		SPRY - WASH Sector		Final Draft					
		Project Location:		Project Name:		Approved by:		Project No:	Paper Size:	A3			
		MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		Date	17/06/2026	Scale			As Shown
		Samaritan's Purse® INTERNATIONAL RELIEF		Samaritan's Purse® INTERNATIONAL RELIEF									



Prepared by:

Funded by:

Project Title:

Drawing Title:

Designed and reviewed by:

Status:

North:

Drawing No:

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INTERNATIONAL RELIEF

Samaritan's Purse®
INTERNATIONAL RELIEF

REHABILITATIONS OF
ALTHAWBANI WATER PROJECT

Project Location:

PUMPING LINE PLAN AND MAP

Project Name:

RAINS OF RESILIENCE 2026

SPRY - WASH Sector

Approved by:

SPRY - WASH Sector

Final Draft

 $\ddot{\text{O}}\text{N}$

17/06/2026

Paper Size:

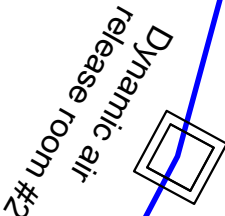
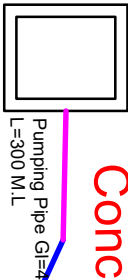
A3

As Shown

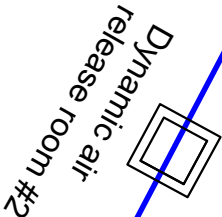


A1-27

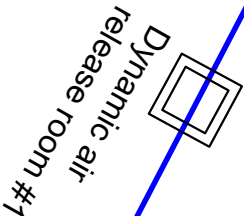
Propose
Concrete Tank



Pumping Pipes PE
=4" L=8250 M.L.



Pumping Pipes PE
=4" L=8250 M.L.



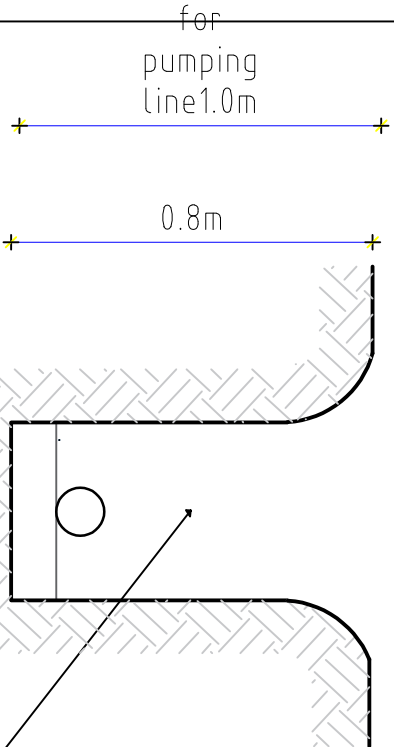
Propose Well



4 هنش خط ضخ 16 بار	<u>PE-110mm</u>	New Pumping lines Pipes PE (110mm) 4 Inch dia. 16 bar
4 هنش خط ضخ حديد	<u>GI- 4"</u>	New Pumping line Pipes GI (110mm) 4 Inch dia.

Prepared by:  Samaritan's Purse® INTERNATIONAL RELIEF	Funded by:  Samaritan's Purse® INTERNATIONAL RELIEF	Project Title: REHABILITATIONS OF ALTHAWBANI WATER PROJECT		Drawing Title: PUMPING LINE PLAN		Designed and reviewed by: SPRY - WASH Sector		Status: Final Draft			North: 		Drawing No: A1-28
		Project Location: MOCHA DISTRACT – TAIZ GOV.		Project Name: RAINS OF RESILIENCE 2026		Approved by: SPRY - WASH Sector		Project No:		Paper Size: A3			
								Date 17/06/2026		Scale As Shown			

Step 01

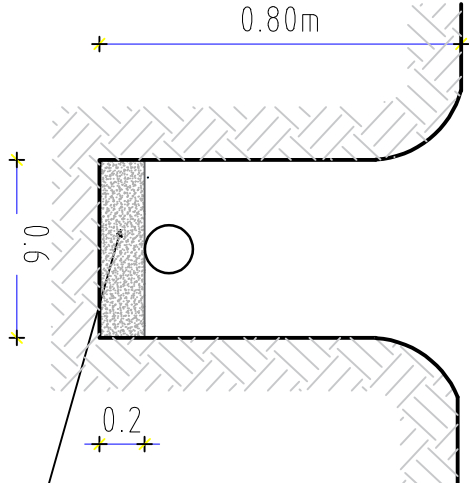


Drilling is carried out according to the specified dimensions ,with a depth of no less than 1.2m and a width suitable for installing pipes of no less than 50cm. يتم الحفر بحسب الأبعاد المحدد عمق لا يقل عن ١,٢ م والعرض المناسب لتركيب المواسير لا يقل عن 60 سم.

Excavation details

تفاصيل الحفر

Step 02

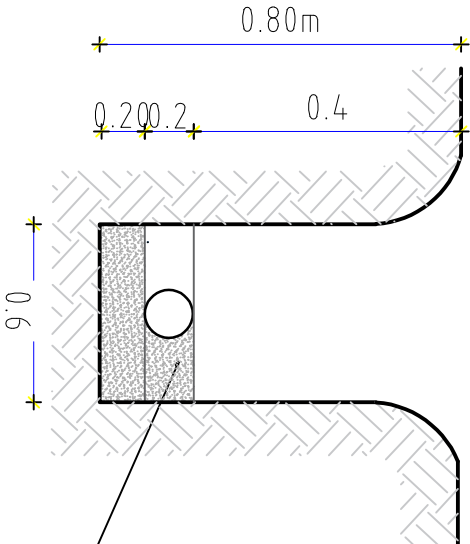


Sand or soft soil is placed under the pipe with a thickness of no less than 15 cm, up to the middle of the pipe, and compact it with your foot. يتم وضع الرمل او التراب الناعم تحت الانبوب بسماكة لا تقل عن ١٥ سم حتي منتصف الانبوب وذلك عليه بالقدم.

Details for start Installation

تفاصيل بداية التركيب

Step 03



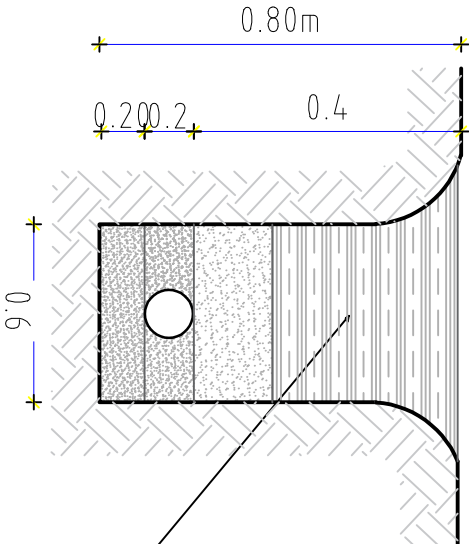
The pipes are placed after connecting them, testing the pumping into them, and checking that no water is leaking from them. Then backfilling with sand or soft soil is completed around and over the pipe with a thickness of no less than 20 cm.

يتم وضع الانابيب بعد توصيلها وتجربة الضخ فيها وفحص عدم تسريب مياه منها ومن ثم يتم اكمال الردم بالرمل او التربة الناعم حول و فوق الانبوب بسماكة لا تقل عن 20 سم.

Details Backfilling Around the Pipe

تفاصيل الردم حول الانبوب

Step 04



Backfilling with soft soil over the pipes 30 cm with tamping, and then the resulting excavation is backfilled in layers with tamping every 25 cm to prevent the backfill from collapsing in the future.

يتم الردم بترية ناعمة فوق الانابيب ب 30 سم مع الدك ويعدھا يتم الردم من ناتج الحفر علا طبقات مع الدك كل 25 سم لمنع هبوط الردم في مستقبل

Details of completing the backfill with tamping

تفاصيل اكمال الردم مع الدك

Details of excavation, backfilling, water network and pumping line installation

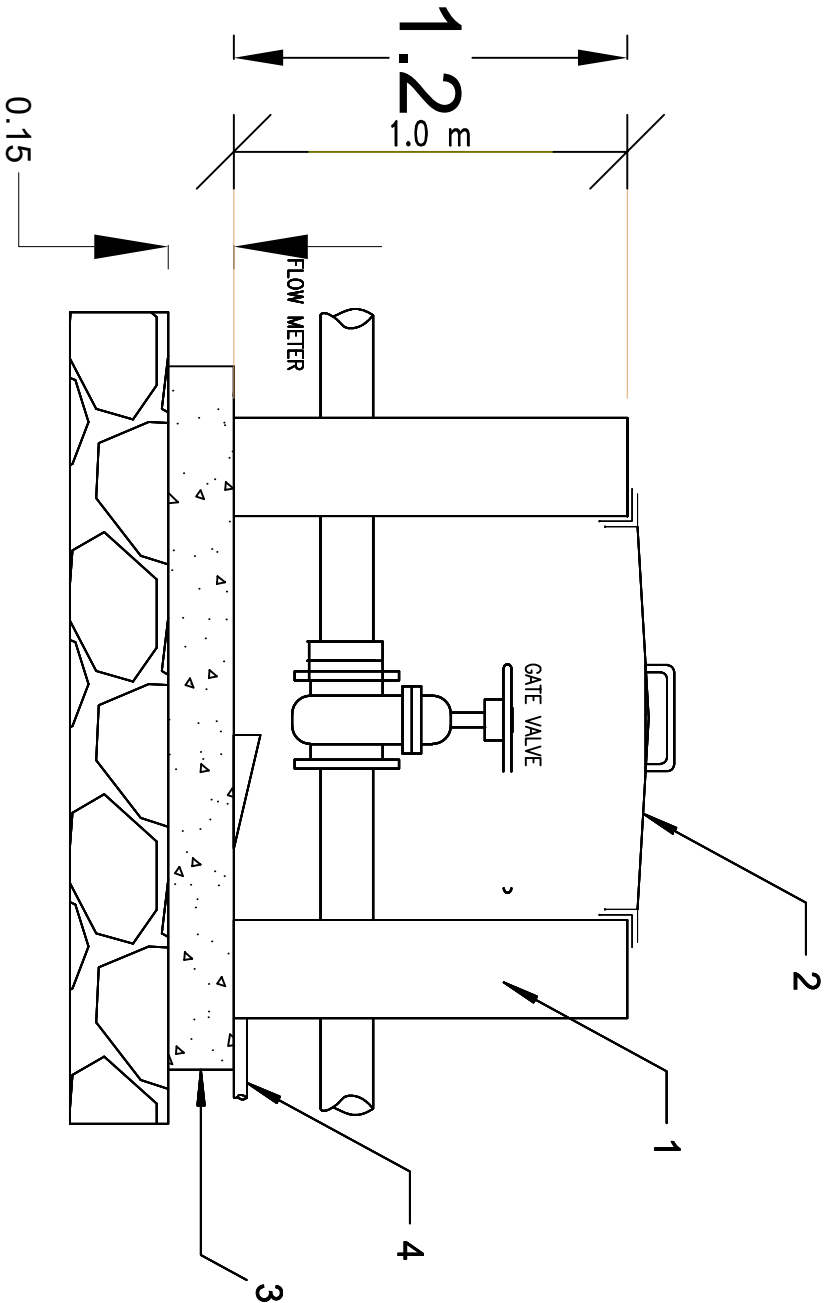
تفاصيل الحفر والردم وتركيب شبكة التوزيع وخط الضخ

Prepared by:	Funded by:	Project Title:	Drawing Title:	Designed and reviewed by:	Status:	North:	Drawing No:
Samaritan's Purse® INTERNATIONAL RELIEF	Samaritan's Purse® INTERNATIONAL RELIEF	REHABILITATIONS OF ALTHAWBANI WATER PROJECT	EXCAVATION, BACKFILL, WATER NETWORK DETAILS	SPRY - WASH Sector	Final Draft		A1-29
		Project Location:	Project Name:	Approved by:	Project No:	Paper Size:	
		MOCHA DISTRACT – TAIZ GOV.	RAINS OF RESILIENCE 2026	SPRY - WASH Sector	Date	Scale	As Shown

Notes :

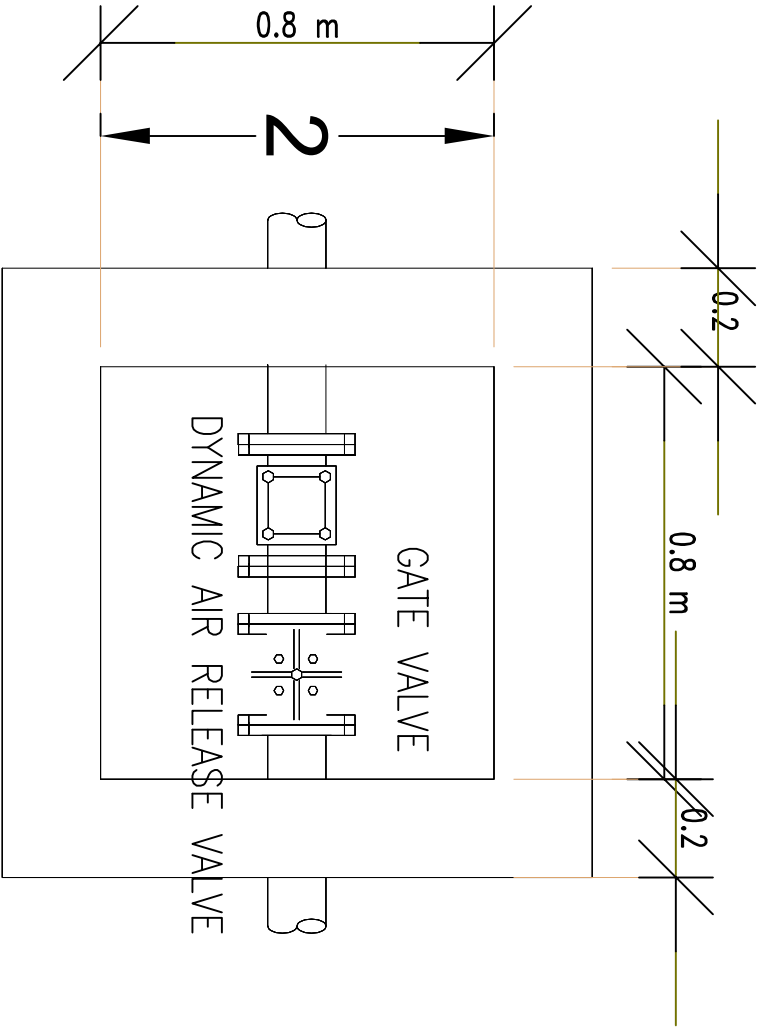
Length of the chamber will be adjusted according to the dimensions of the valves , connections and fitting so the valve shall be positioned with enough space for removing and reinstallation during maintenance .

All dimensions in meter .



Elevation View Scale 1:50

مسقط عرضي



Plan View Scale 1:50

مسقط أفقي

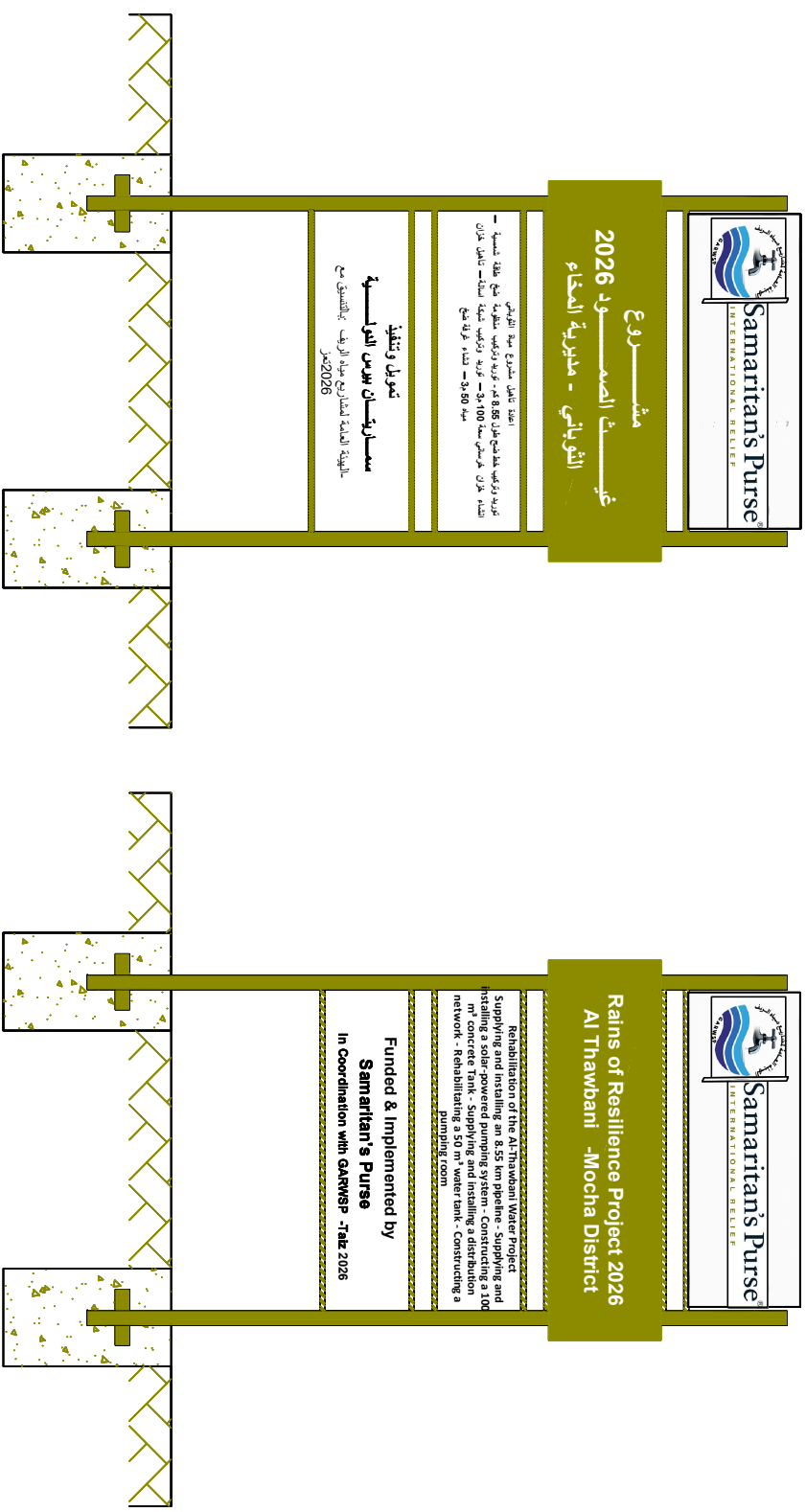
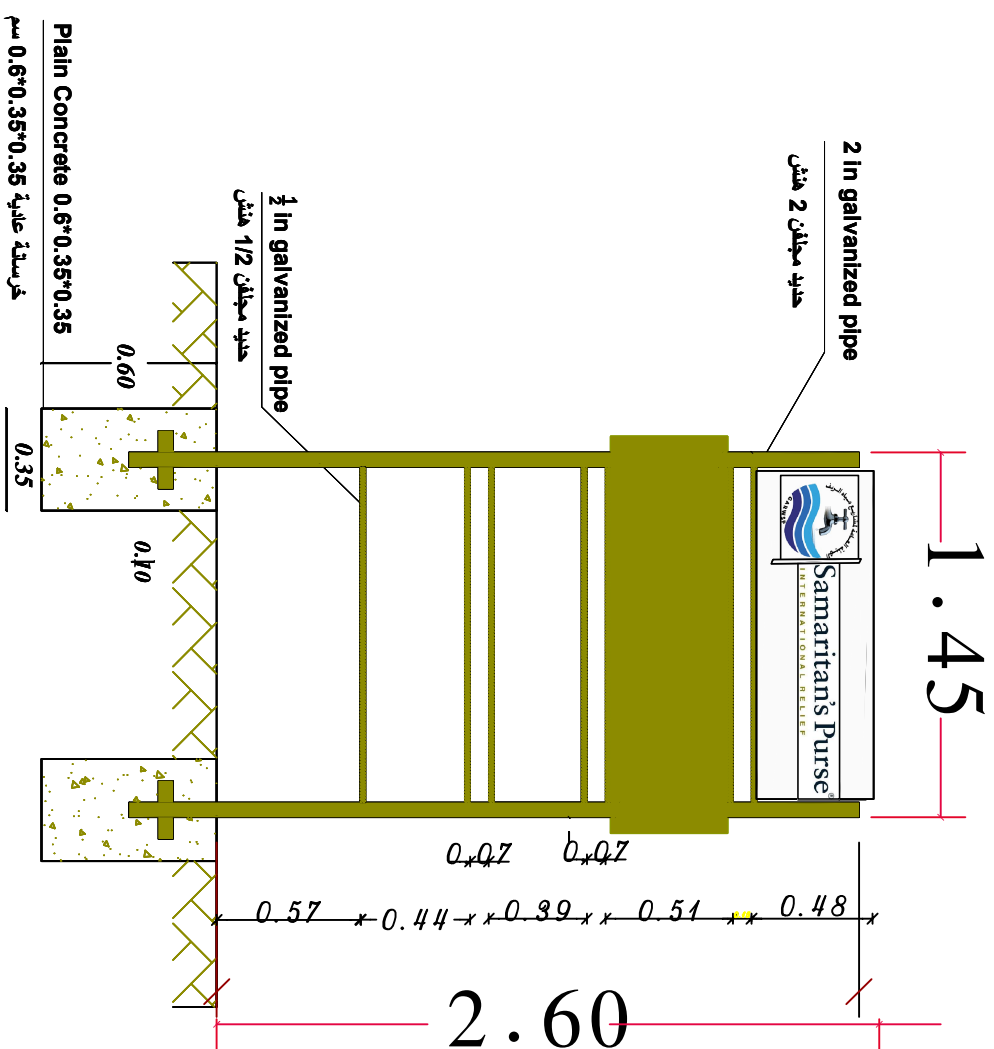
1.8

Clarification :

- 1- Buildings of solid cement blocks ,size (20 * 20 * 40)cm.
- 2 -Cover made of granulated and reinforced iron with all mounting accessories from Schellmann tires 1.5 Hinch, 2 mm thick .
- 3 -Ordinary concrete with a mixing ratio of (1:3:5 cement: sand: curry) with a thickness of 15 cm .
- 4 -Water drain pipe 1.5 inch .

Valve Room Details

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:	
Samaritan's Purse® INTERNATIONAL RELIEF		Samaritan's Purse® INTERNATIONAL RELIEF		REHABILITATIONS OF ALTHAWBANANI WATER PROJECT		VALVE ROOM DETAILS		SPRY - WASH Sector		Final Draft		N W E S		A1-30	
Project Location:		Project Name:		Approved by:		Project No:		Paper Size:		Date		Scale		As Shown	
MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector		17/06/2026		A3							



Dimensions Details

تَبَا صَيْلُ الْاَبْحَاذِ

Plate Front side Elevation

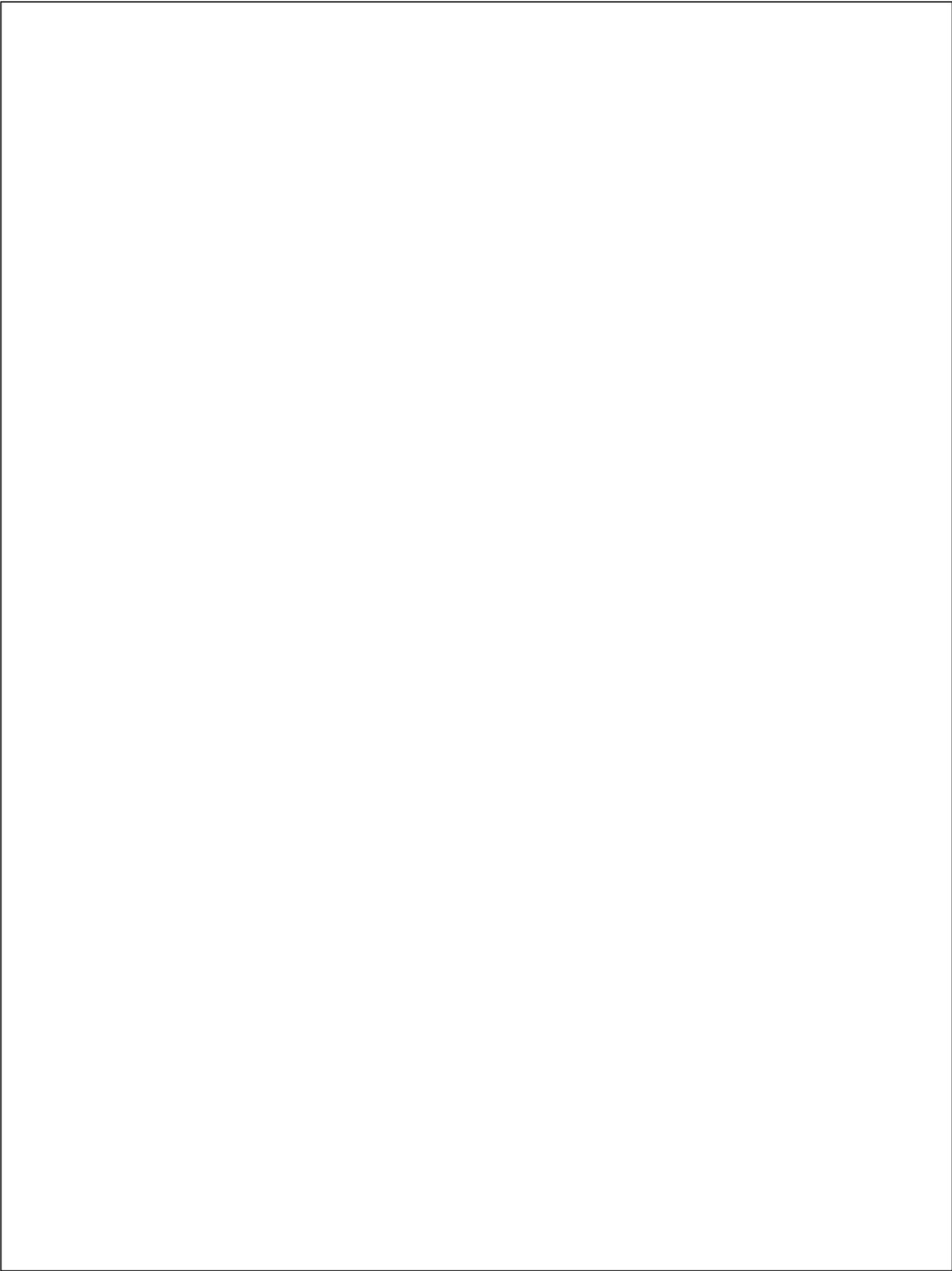
وَابْجِئِ الْوَحْدَةَ الْأَمَلِيَّةَ

Backside Elevation

وَأَجَلَةُ الْوَحْدَةِ الْخَالِفِيَّةِ

Prepared by:		Funded by:		Project Title:		Drawing Title:		Designed and reviewed by:		Status:		North:		Drawing No:					
 Samaritan's Purse® INTERNATIONAL RELIEF		 Samaritan's Purse® INTERNATIONAL RELIEF		REHABILITATIONS OF ALTHAWBANI WATER PROJECT		METAL SIGN FOR PROJECT COMPLETION		SPRY - WASH Sector		Final Draft Project No:		N W E S 		A1-31					
				Project Location:		Project Name:		Approved by:								Project No:		Paper Size:	
				MOCHA DISTRACT – TAIZ GOV.		RAINS OF RESILIENCE 2026		SPRY - WASH Sector								Date		Scale	

1.0 m



0.6 m

DETAILS MARBLE PAINTING

تفاصيل اللوحة الرخامية

Prepared by: 		Funded by: 	
Project Title: REHABILITATIONS OF ALTHAWBANI WATER PROJECT		Drawing Title: PAINTED SIGN FOR PROJECT COMPLETION	
Project Location: MOCHA DISTRACT – TAIZ GOV.		Project Name: RAINS OF RESILIENCE 2026	
Designed and reviewed by: SPRY - WASH Sector		Approved by: SPRY - WASH Sector	
Status:		North:	
Project No: Final Draft		Project Size: A3	
Date: 17/06/2026		Paper Size: A3	
Scale: As Shown		Drawing No: A1-32	