

LEVEL	25000	22500	20000	17500	15000	12500	10000	7500	5000	2500	0000
FACE WIDTH	1700	1700	1700	1700	1950	2200	2450	2700	2950	3200	3450
PLATFORM	WP					RP					
LEG JOINT NAME	A		B	C	D		E		F		G
LEG LENGTH	4488		2500	2500	5000		5000		5000		
LEGS SIZE	65x65x5		75x75x5	90x90x6	90x90x8		100x100x10		110x110x10		
PANEL NO	1	2	3	4	5	6	7	8	9	10	
LENGTH(METER)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	
DIAGONALS	50x50x4		50x50x5		50x50x4		50x50x4		50x50x5		
PANEL TOP- HORIZONTALS	50x50x4	50x50x4									
PANEL MID- HORIZONTALS	45x45x04	45x45x04			50x50x4		50x50x4		50x50x4		
PLAN BRACING	45x45x04	45x45x04			50x50x4		50x50x4		50x50x4		
SEC. BRACING											

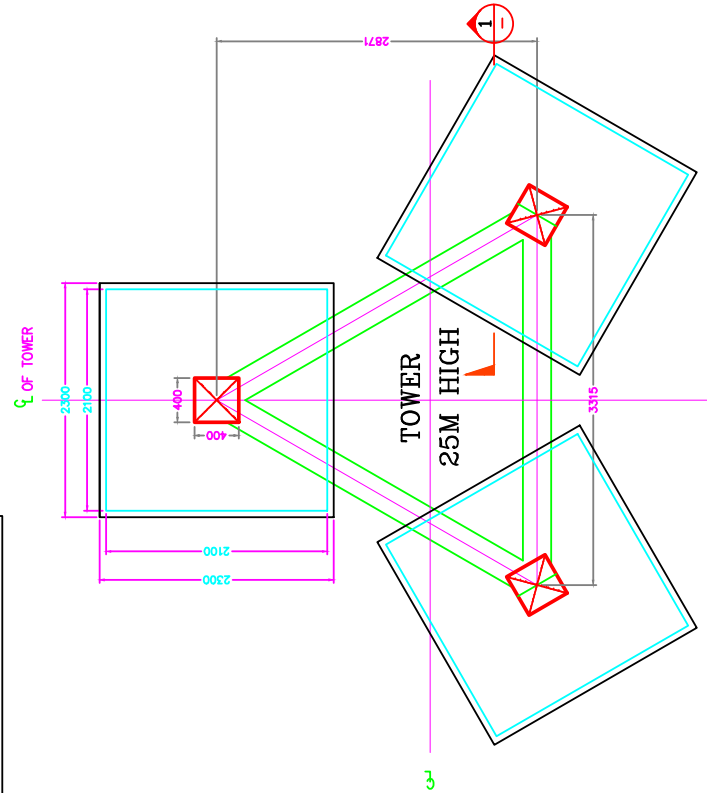
PLAN VIEWS

ICON POWER SOLUTIONS PVT LTD 112 & 113, Sector 5, IMT Manesar, Gurgaon - 122 050	TITLE	25 METER TOWER	Wind Speed	180 KMPH	Design:	TIA/EIA-222 G	
	SUB. TITLE	TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	F.O.S.	1.2 Dead Load & 1.6 Wind Load	
	Drawing No.	AGD-331A	Loading	6 GSM Antenna (Weight 35kgs Each) 2x1.2m Parabolic MW Antenna.	1		
	Client	TASHI INFOCOMM LIMITED, BHUTAN			Drawn By	S.K.Chauhan	Drawn Date 25-01-2022

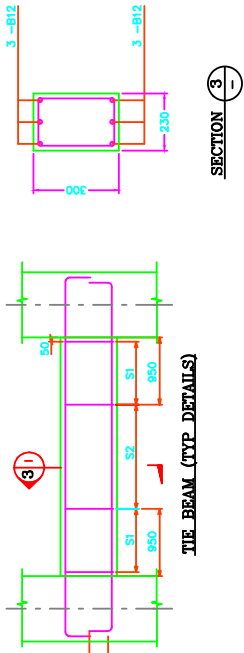
**Technical Specification sheet of
25 mtr. 3 Legged Angular Tower AGD-331A**

25/01/2022

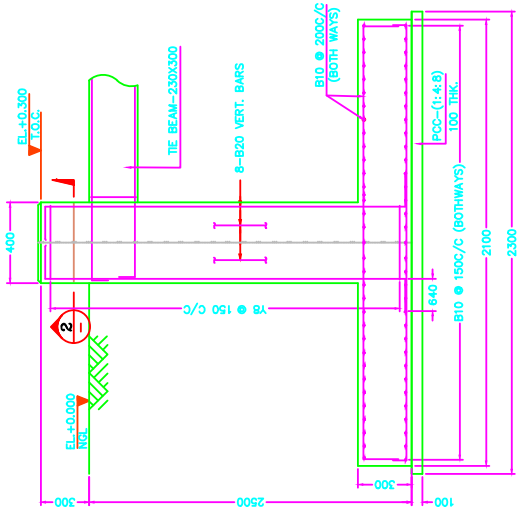
		Designed For:	M/s TASHI INFOCOMM LIMITED BHUTAN	
S.No.			DETAILS	REMARK
1		<u>DESIGN SPECIFICATION</u>	(ANSI/TIA-222G)	
	1.1	Design Wind Velocity		
		Survival	180 KMPH	
		Operational		
	1.2	Twist & Sway	Less than 0.5 degree	
	1.3	Factor of Safety	1.2 For Dead Load	
			1.6 For Wind Load	
	1.4	Antenna Loading		
		GSM Antenna	6 nos. GSM	35 kgs each
		MW Antenna	2nos. 1.2 m MW	100 kgs each
	1.5	Antenna Pole Mount stand	Separate as per requirement	
2		Obstruction Light System		
	2.1	No .Of Obstruction Light Lamp&Watts	1 No. LED Type	
	2.2	Power Cable Type&Length	2.5 Sqmm x 35 mtr. Length	2 core armoured
3		Lighting Protection & Earthing System(Grounding system)		
	3.1	Lightning Arrestor	1.2mtr long	1 nos
4	4.1	Structure Of Tower	Self Suppprtng 3 legged Angular construction with vertical ladder in the center intergrated with cable tray & horizontal cable tray from tower to Building	
	4.2	Main Leg	90 Degree Angle	
	4.3	Bracing	90 Degree Angle	
	4.4	Climbing Ladder	450 mm Rung Width, 300mm Rung space & 700mm Hoop	
	4.5	Cable Tray Verticle	450 mm Width	along the tower Height
	4.6	Cable Tray Horizontal	450 mm Width	6 MTR.
	4.7	Platforms		
		Working	1 Nos	22.5 mtr
		Rest	1 Nos.	12 mtr
5	5.1	Foundation bolt & Template	As Per Tower Design	Included
	5.2	Bolts & Nut with spring &	Hot Dipped Galvanized Property Class 5.6	Extra 5%
		Plane washer	As per Standard ASTM A 153	
	5.3	Size	As per Design Specs.	
6	6.0	Hot Dipped Galvanization	As per Standard ISO 1461	85 Microns
7		<u>Others to be specified</u>		
	7.1	Weight Per Tower	3550 Kgs	(+/-) 5%
	7.2	Drawing No.	AGD-331A	



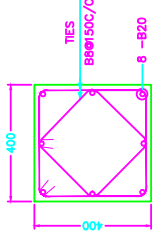
FOUNDATION KEY PLAN



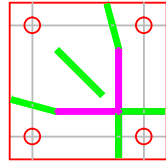
STIRRUP DETAILS
S11-2 LEGGED BB Ø 100 C/C
S2-2 LEGGED BB Ø 200 C/C



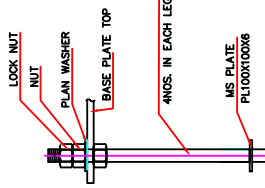
SECTION 1-1



SECTION 2-2
COLUMN 400X400



BASE PLATE



ANCHOR BOLT

NOTES

1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
2. USE M20 GRADE CONCRETE AND F4 500 GRADE FOR STEEL.
3. CLEAR COVER TO MAIN REINFORCEMENT:-
(a) 50MM FOR FOUNDATION (b) 25MM FOR BEAMS
(c) 40MM FOR COLUMNS (d) 50MM AT ENDS
4. PRIOR TO AND DURING CONCRETING ALL BOLTS SHALL BE SECURELY HELD IN POSITION AND NOT ALLOWED TO MOVE.
5. BEFORE COMMENCEMENT OF CONSTRUCTION USING THIS DESIGN, CLIENT/CONTRACTOR SHALL CARRY OUT DETAILED SOIL INVESTIGATION OF THE SITE.
6. THIS FOUNDATION DESIGN SHALL NOT BE USED IN CASE HIGHLY SOIL ARE FOUND AT ANY DEPTH DURING SOIL INVESTIGATION.
7. CONCRETE SHALL BE MECHANICALLY MIXED & VIBRATED.
8. SPLICING OF BARS SHALL NOT BE MORE THAN 50% AT ANY LOCATION.
9. PROPER CURING OF CONCRETE SHALL BE DONE.
10. BENDING OF BARS SHALL BE AS PER IS:2502.
11. ANY DISCREPANCY SHOULD BE BROUGHT TO THE CONSULTANT'S ATTENTION.

GENERAL DETAILS

S.No	DESCRIPTION	DETAILS
1	SOIL BEARING CAPACITY	10.00 T/SQM
2	DRY DENSITY OF SOIL	1.80 T/SQM
3	ANGLE OF REPOSE	30.00 DEGREE

BILL OF MATERIALS

ITEM	UNIT	TOTAL
EXCAVATION	CUM	41.7
POC-(14x8)	CUM	1.59
RCC-M20	CUM	5.77
STEEL-F4500	KG	590
CHAIRS SHALL BE PROVIDED WHEREVER REQUIRED		

BAR BENDING SCHEDULE



REVISION NOTES

REV. NO.	DESCRIPTION	DATE	SIGN.
DRAWN	CHECKED	APPROVED	DATE
S.E.Chakrabarti	MOHIT GUPTA	MOHIT GUPTA	01-02-2022

CLIENTS

TASHI INFOCOMM LIMITED, BHUTAN

ICON POWER SOLUTIONS PVT LTD, GURGAON

PROJECT: GENERIC ISOLATED FOUNDATION DESIGN

BHUTAN

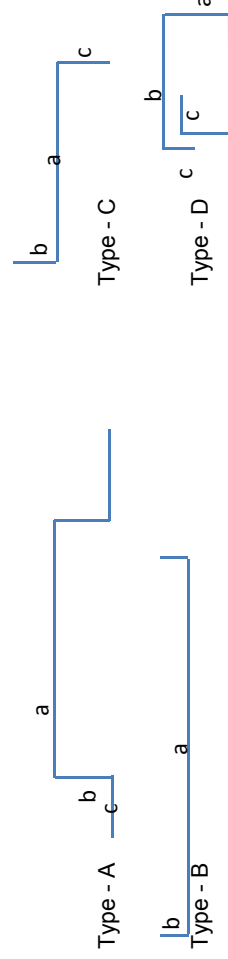
TITLE : FOUNDATION DETAILS FOR 25M HIGH TRIANGULAR TOWER

SEC : 10 T/SQM

DRAWING No. SH. NO. REV.

AGD-331A

Cover -	
Slab	50 mm
Column	40 mm
Beam	25 mm



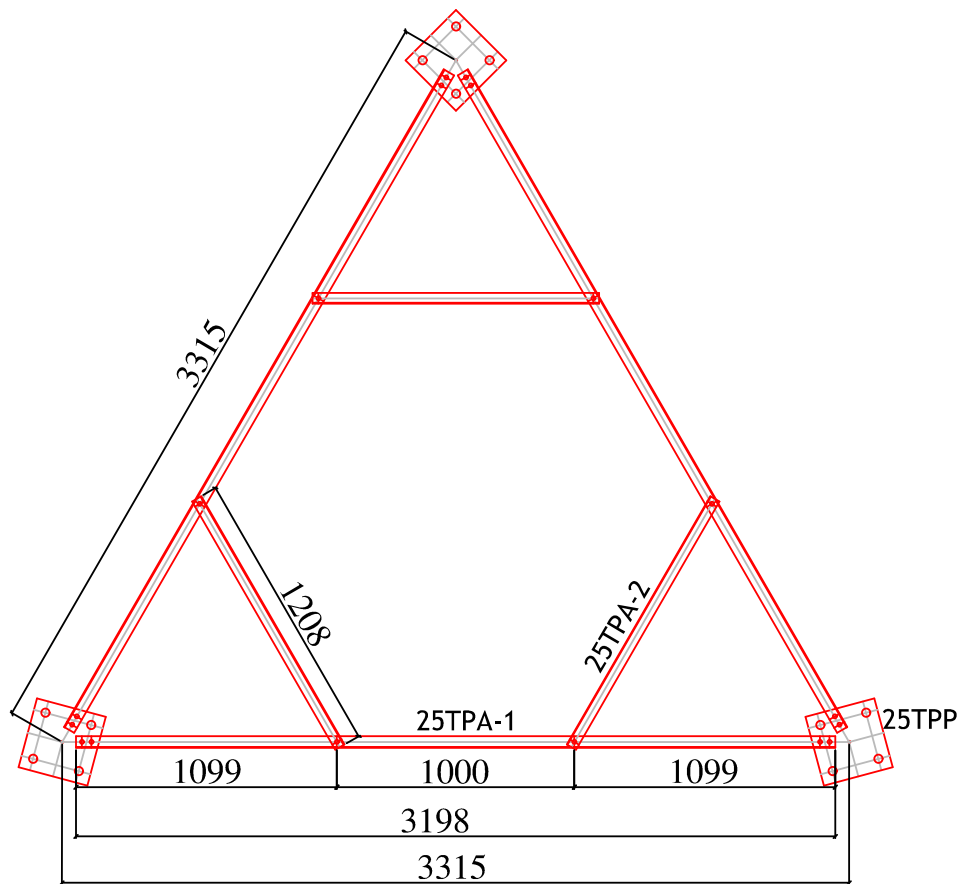
Item	Position	Type	Dia. Of Rebar (mm)	Size	Size	Size	Length	Qty in Nos both ways or total	Unit wt (kg/m)	Total Weight of (kg)
				a (mm)	b (mm)	c (mm)				
Raft Slab	Top	B	B10	2000	150	-	(mm)	66	0.62	94
	Bottom	B	B10	2000	150	-	2300	90	0.62	128
Tie Beams	Top	B	B12	3615	300	-	4215	9	0.89	34
	Bottom	B	B12	3615	300	-	4215	9	0.89	34
	Strips	D	B8	180	250	80	1020	66	0.40	27
	Main	C	B20	2700	280	640	3620	24	2.47	215
Column	Ties	D	B8	292	292	80	1328	57	0.40	30
		D	B8	206	206	80	986	57	0.40	22
							Total			590

* Chairs Shall be Provided whenever required
--

Notes :

1. Dimensions of Bars are along the Center Lines.
3. Splicing of Bars should not be more than 50%. Length of splice as per Standards.

Description & Values of Symbols			
Cement Concrete Sizes			
Symbol	Description	Value	Units
th_pcc	Thickness of PCC	100	mm
s_pcc	Side of PCC below the slab	2300	mm
d_excavation	Depth of Excavation	2700	mm
d_foundation	Depth of Foundation below ground level	2600	mm
s_slab	Side/Dia of slab	2100	mm
th_slab	Thickness of Slab	300	mm
d_column_bgl	Depth of Column below ground level(d_foundation_bgl)	2200	mm
cc_columns	Center to Center distance of Tower Leg Columns	3315	mm
cc_tower	Tower Base Width, Centre to centre of tower legs	3315	mm
h_foundation	Height of Foundation above Ground Level	300	mm
w_p.beam	Width of Primary Beam	230	mm
d_p.beam	Depth of Primary Beam	300	mm
s_Column	Side of (square)Column, for tower, width or depth	400	mm
d_column_slab	Distance from end of Slab to center of Column	1050	mm
Calculated Values			
Toatl Volume of PCC		1.59	cu.m
Total Volume of RCC		5.77	cu.m
Total PCC + RCC		7.4	cu.m
Excavation, assuming vertical digging		41.7	cu.m



TEMPLATE FOR 25M TRIANGULAR TOWER

ALL DIMENSIONS ARE IN MM

ICON POWER SOLUTIONS PVT LTD
 112 & 113, Sector 5,
 IMT Manesar,
 Gurgaon - 122 050

TITLE

25 METER TRIANGULAR TOWER

Client

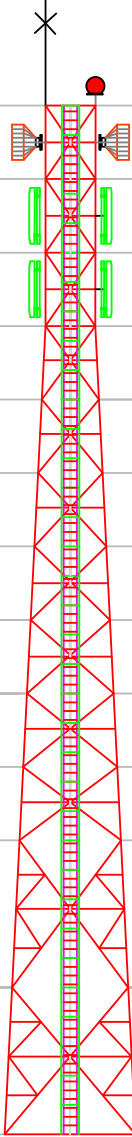
TASHI INFOCOMM LIMITED, BHUTAN

AGD-331A

Design By

Mohit Gupta

LEVEL	35000	32500	30000	27500	25000	22500	20000	17500	15000	12500	10000	5000	0000
FACE WIDTH	1700	1700	1700	1700	1950	2200	2450	2700	2950	3200	3450	3950	4450
PLATFORM		WP							RP				
LEG JOINT NAME	A		B	C	D		F						
LEG LENGTH	4488		2500	2500									
LEGS SIZE	65x65x5		75x75x5	90x90x6		90x90x8		100x100x10		110x110x10		130x130x10	130x130x12
PANEL NO	1	2	3	4	5	6	7	8	9	10	11	12	
LENGTH (METER)	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	2.5	5	5	
DIAGONALS	50x50x4	50x50x4	50x50x5		50x50x4		50x50x4		50x50x5		60x60x5	65x65x5	
PANEL TOP- HORIZONTALS	50x50x4	50x50x4											
PANEL MID- HORIZONTALS	45x45x04	45x45x04	45x45x04		50x50x4		50x50x4		50x50x4		50x50x4	50x50x4	
PLAN BRACING	45x45x04	45x45x04			50x50x4		50x50x4				50x50x4	50x50x4	
SEC. BRACING											45x45x4	45x45x4	



35mtr

PLAN VIEWS



Tower Back to Back -4450mm

Tower Center to Center -4291mm

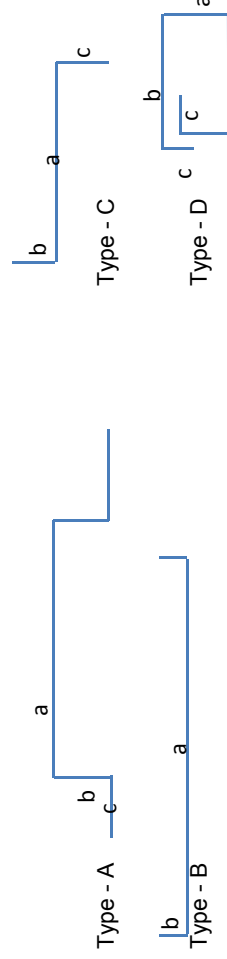
ICON POWER SOLUTIONS PVT LTD 112 & 113, Sector 5, IMT Manesar, Gurgaon - 122 050	TITLE	35 METER TOWER	Wind Speed	180 KMPH	Design:	TIA/EIA-222 G
	SUB. TITLE	TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	F.O.S.	1.2 Dead Load & 1.6 Wind Load
	Drawing No.	AGD-331	Loading	6 GSM Antenna (Weight 35kgs Each)	1	
	Client	TASHI INFOCOMM LIMITED, BHUTAN		2x1.2m Parabolic MW Antenna.	Drawn By	Drawn Date
					S.K.Chauhan	25-01-2022

**Technical Specification sheet of
35 mtr. 3 Legged Angular Tower AGD-331**

25/01/2022

		Designed For:	M/s TASHI INFOCOMM LIMITED BHUTAN	
S.No.			DETAILS	REMARK
1		<u>DESIGN SPECIFICATION</u>	(ANSI/TIA-222G)	
	1.1	Design Wind Velocity		
		Survival	180 KMPH	
		Operational		
	1.2	Twist & Sway	Less than 0.5 degree	
	1.3	Factor of Safety	1.2 For Dead Load	
			1.6 For Wind Load	
	1.4	Antenna Loading		
		GSM Antenna	6 nos. GSM	35 kgs each
		MW Antenna	2nos. 1.2 m MW	100 kgs each
	1.5	Antenna Pole Mount stand	Separate as per requirement	
2		Obstruction Light System		
	2.1	No .Of Obstruction Light Lamp&Watts	1 No. LED Type	
	2.2	Power Cable Type&Length	2.5 Sqmm x 35 mtr. Length	2 core armoured
3		Lighting Protection & Earthing System(Grounding system)		
	3.1	Lightning Arrestor	1.2mtr long	1 nos
4	4.1	Structure Of Tower	Self Suppprtng 3 legged Angular construction with vertical ladder in the center intergrated with cable tray & horizontal cable tray from tower to Building	
	4.2	Main Leg	90 Degree Angle	
	4.3	Bracing	90 Degree Angle	
	4.4	Climbing Ladder	450 mm Rung Width, 300mm Rung space & 700mm Hoop	
	4.5	Cable Tray Verticle	450 mm Width	along the tower Height
	4.6	Cable Tray Horizontal	450 mm Width	6 MTR.
	4.7	Platforms		
		Working	1 Nos	32.5 mtr
		Rest	1 Nos.	15 mtr
5	5.1	Foundation bolt & Template	As Per Tower Design	Included
	5.2	Bolts & Nut with spring &	Hot Dipped Galvanized Property Class 5.6	Extra 5%
		Plane washer	As per Standard ASTM A 153	
	5.3	Size	As per Design Specs.	
6	6.0	Hot Dipped Galvanization	As per Standard ISO 1461	85 Microns
7		<u>Others to be specified</u>		
	7.1	Weight Per Tower	5300 Kgs	(+/-) 5%
	7.2	Drawing No.	AGD-331	

Cover -	50 mm
Slab	40 mm
Column	25 mm
Beam	



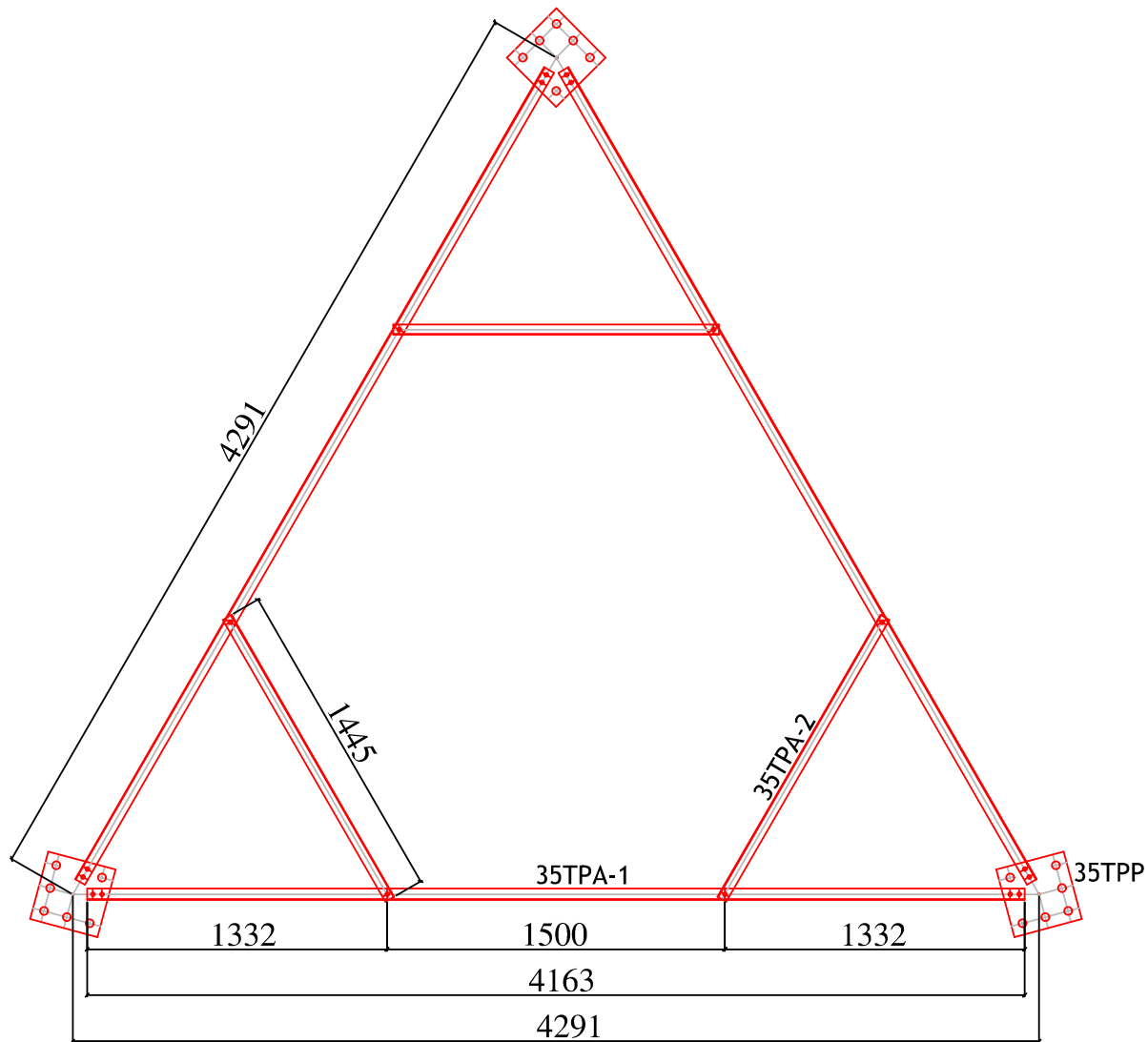
Item	Position	Type	Dia. Of Rebar (mm)	Size		Length	Qty in Nos both ways or total	Unit wt (kg/m)	Total Weight of (kg)
				a (mm)	b (mm)				
Raft Slab	Top	B	B10	2250	150	-	78	0.62	123
	Bottom	B	B10	2250	150	-	96	0.62	151
Tie Beams	Top	B	B12	4641	300	-	9	0.89	42
	Bottom	B	B12	4641	300	-	9	0.89	42
	Strips	D	B8	180	250	80	87	0.40	35
	Main	C	B20	2700	330	590	24	2.47	215
Column	Ties	D	B8	342	342	80	57	0.40	34
		D	B8	242	242	80	57	0.40	25
							Total		670

* Chairs Shall be Provided whenever required
--

Notes :

1. Dimensions of Bars are along the Center Lines.
3. Splicing of Bars should not be more than 50%. Length of splice as per Standards.

Description & Values of Symbols			
Cement Concrete Sizes			
Symbol	Description	Value	Units
th_pcc	Thickness of PCC	100	mm
s_pcc	Side of PCC below the slab	2550	mm
d_excavation	Depth of Excavation	2700	mm
d_foundation	Depth of Foundation below ground level	2600	mm
s_slab	Side/Dia of slab	2350	mm
th_slab	Thickness of Slab	350	mm
d_column_bgl	Depth of Column below ground level(d_foundation_bgl)	2150	mm
cc_columns	Center to Center distance of Tower Leg Columns	4291	mm
cc_tower	Tower Base Width, Centre to centre of tower legs	4291	mm
h_foundation	Height of Foundation above Ground Level	300	mm
w_p.beam	Width of Primary Beam	230	mm
d_p.beam	Depth of Primary Beam	300	mm
s_Column	Side of (square)Column, for tower, width or depth	450	mm
d_column_slab	Distance from end of Slab to center of Column	1175	mm
Calculated Values			
Toatl Volume of PCC		1.95	cu.m
Total Volume of RCC		8.08	cu.m
Total PCC + RCC		10.0	cu.m
Excavation, assuming vertical digging		51.5	cu.m



TEMPLATE FOR 35M TRIANGULAR TOWER

ALL DIMENSIONS ARE IN MM

ICON POWER SOLUTIONS PVT LTD 112 & 113, Sector 5, IMT Manesar, Gurgaon - 122 050	TITLE 35 METER TRIANGULAR TOWER	AGD-331
	Client TASHI INFOCOMM LIMITED, BHUTAN	Design By Mohit Gupta

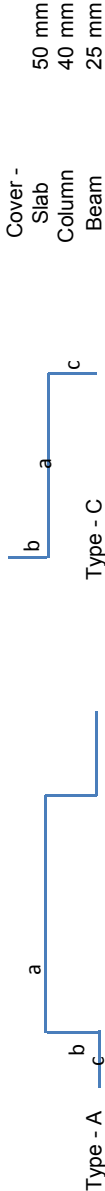
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PLAN VIEWS

<div>ICON POWER SOLUTIONS PVT LTD</div> <div>112 & 113, Sector 5, IMT Manesar Gurgaon-122050, Haryana</div>	TITLE	45 METER TOWER	Wind Speed	180 KMPH	Design:	TIA/EIA-222 G	
	SUB. TITLE	TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	F.O.S.	1.2 Dead Load & 1.8 Wind Load	
	Drawing No.	AGD-384	Loading	6 GSM Antenna (Weight 35kgs Each) 6 RRU Antenna (Weight 17kgs Each) 2x0.6m Parabolic MW Antenna. 2x1.2m Parabolic MW Antenna.	1		
	Client	TASHI INFOCOMM LIMITED, BHUTAN			Drawn By	S.K.Chauhan	Drawn Date

Technical Specification sheet of 45 mtr. 3 Legged Angular Tower AGD-384			
SI		DETAILS	REMARK
1	<u>DESIGN SPECIFICATION</u>	(ANSI/TIA-222G)	
1.1	Design Wind Velocity		
	Survival	180 KMPH	
	Operational		
1.2	Twist & Sway	Less than 1.0 degree	
1.3	Factor of Safety	1.2 For Dead Load	
		1.6 For Wind Load	
1.4	Antenna Loading		
	GSM Antenna	6 nos.	35 kgs each
	RRU Antenna	6 nos.	17 kgs each
	MW Antenna	2nos. 1.2 m	100 kgs each
	MW Antenna	2nos. 0.6 m	50 kgs each
1.5	Antenna Pole Mount stand	Separate as per requirement	
2	Obstruction Light System		
2.1	No .Of Obstruction Light Lamp&Watts	1 No. LED Type	
2.2	Power Cable Type&Length	2.5 Sqmm x 55 mtr. Length	2 core armoured
3	Lighting Protection & Earthing System(Grounding system)		
3.1	Lightning Arrestor	1.2mtr long	1 nos
4	Structure Of Tower	Self Suppprting 3 legged Angular construction with vertical ladder in the center intergrated with cable tray & horizontal cable tray from tower to Building	
4.1	Main Leg	90 Degree Angle	
4.2	Bracing	90 Degree Angle	
4.3	Climbing Ladder	450 mm Rung Width, 300mm Rung space & 700mm Hoop	
4.4	Cable Tray Verticle	450 mm Width	along the tower Height
4.5	Cable Tray Horizontal	450 mm Width	6 MTR.
4.6	Platforms		
	Working	1 Nos	42.5 mtr
	Rest	2 Nos.	15 mtr & 30 mtr
5.1	Foundation bolt & Template	As Per Tower Design	
5.2	Bolts & Nut with spring &	Hot Dipped Galvanized Property Class 5.6	Extra 5%
5.3	Plane washer	As per Standard ASTM A 153	
5.4	Sizes	As per Design Specs.	
6	Hot Dipped Galvanization	As per Standard ISO 1461	85 Microns
7	Weight Per Tower	9000 Kgs	(+/-) 5%
8	Guarantee	50 years	

Bar Bending Schedule of 45m high 3legged tower



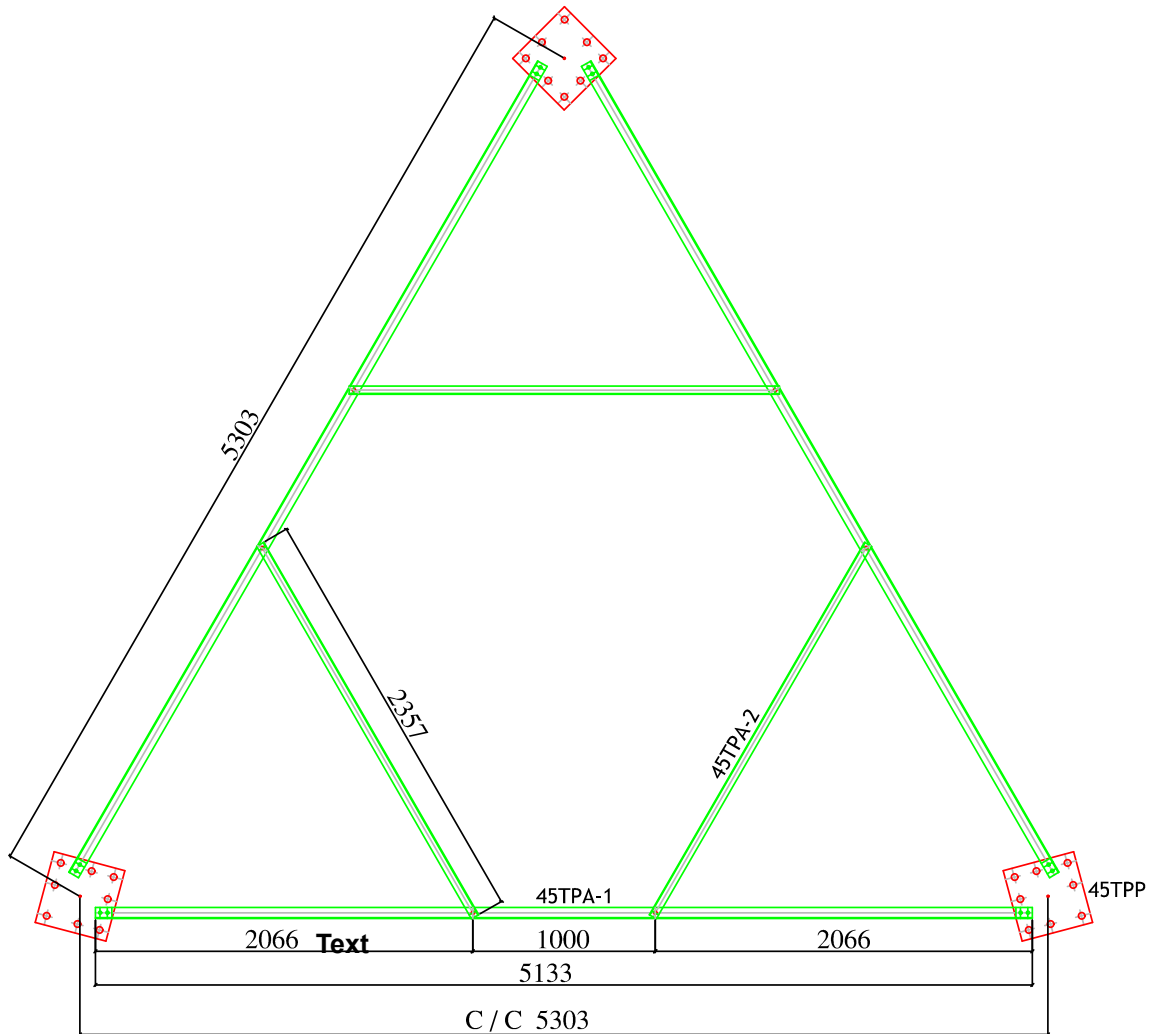
Item	Position	Type	Dia. Of Rebar (mm)	Size (mm)	Size (mm)	Size (mm)	Length (mm)	Qty in Nos both ways or total	Unit wt (kg/m)	Total Weight of (kg)
Raft Slab	Top	B	B10	3000	150	-	3300	174	0.62	354
	Bottom	B	B10	3000	150	-	3300	174	0.62	354
Tie Beams	Top	B	B16	5803	300	-	6403	9	1.58	91
	Bottom	B	B16	5803	300	-	6403	9	1.58	91
	Strips	D	B8	250	400	80	1460	105	0.40	61
Column	Main	C	B20	3100	250	600	4180	36	2.47	372
	Ties	D	B8	492	492	80	2128	66	0.40	55
		D	B8	492	184	80	1512	132	0.40	79
Total (5% extra considered)										1540

* Chairs Shall be Provided whenever required

Notes :

1. Dimensions of Bars are along the Center Lines.
3. Splicing of Bars should not be more than 50%. Length of splice as per Standards.

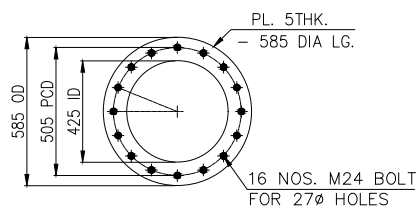
Description & Values of Symbols				
Cement Concrete Sizes				
Symbol	Description	Value	Units	
th_pcc	Thickness of PCC	100	mm	
s_pcc	Side of PCC below the slab	3300	mm	
d_excavation	Depth of Excavation	3000	mm	
d_foundation	Depth of Foundation below ground level	2900	mm	
s_slab	Side/Dia of slab	3100	mm	
th_slab	Thickness of Slab	500	mm	
d_column_bgl	Depth of Column below ground level(d_foundation_bgl)	2400	mm	
cc_columns	Center to Center distance of Tower Leg Columns	5303	mm	
cc_tower	Tower Base Width, Centre to centre of tower legs	5303	mm	
h_foundation	Height of Foundation above Ground Level	300	mm	
w_p.beam	Width of Primary Beam	300	mm	
d_p.beam	Depth of Primary Beam	450	mm	
s_Column	Side of (square)Column, for tower, width or depth	600	mm	
d_column_slab	Distance from end of Slab to center of Column	1550	mm	
Calculated Values				
Toatl Volume of PCC		3.7	cu.m	
Total Volume of RCC		19.2	cu.m	
Total PCC + RCC		23.0	cu.m	
Excavation, assuming vertical digging		99.4	cu.m	




TEMPLATE FOR 45M TRINGULAR TOWER

ALL DIMENSIONS ARE IN MM

TASHI INFOCOMM LIMITED BHUTAN	TITLE	45METER TRINGULAR TOWER	AGD-384 Drawn By S.K.Chauhan
		ICON POWER SOLUTIONS (P) LTD. GURGAON	



DETAIL OF TEMPLATE

					VERIFIED						
					APPROVED	M.K	SCALE - 1:40		SHEET	REV.	SIZE
REV.	DATE	REVISION & DESCRIPTION	DRAWN	APPR.	DATE	02.03.2022	2022-DIS-MONOPOLE-GA-001		1 OF 1	RO	A1

A		B		C		D		E		F	
<div>4</div>											
<div>3</div>											
<div>2</div>											
<div>1</div>											

BAR BENDING SCHEDULE							
SL. NO.	Shape of Ber	Length of Ber (mm)	Dai. Of Ber (mm)	Spacing (mm)	No. of ber	Unit Weight	Total weight per pole
1		2250	12	126.6	32	0.89	64.08
2		2250	12	237.5	18	0.89	36.1
3		2800	20	-	12	2.47	83.0
4		3200	8	150	15	0.39	18.7
5		2250	8	-	44	0.39	38.6
6		2600	8	150	5	0.39	5.1
7		1200	12	750	16	0.89	17.088
Weight of Steel (kg)						262.668	
Wastage and splices (kg)						16.1	
Total steel Quantity (kg)						278.768	

Foundation Quantity						
Items	Pole	Units				
Concrete	3.2	cum				
PCC	0.2	cum				
Steel	278.768	kg				
Shuttering	9.3	sq.m				
Excavation	23.4	cum				

SUBMITTED FOR APPROVAL		INFORMATION	REFERENCE	RECORD	CONSTRUCTION
ICON POWER SOLUTIONS PVT LTD					
112 & 113 SECTOR 5, IMT MANESAR, GURGAON - 122 050, HARYANA					
DRAWN	S.M	PROJECT	TASHI INFOCOMM : 15M_MONOPOLE FOUNDATION		
CHECKED & VERIFIED	K.M	CUSTOMER NAME	TASHI INFOCOMM LIMITED		
APPROVED	K.M	SCALE - 1:40	SHEET REV.SIZE		
DATE	03.03.2022	2021-DIS-MONOPOLE-GA-001		1 OF 1	R0 A1

A	B	C	D	E	F
4	<p>GENERAL NOTES</p> <p>1. GENERAL & MATERIAL</p> <p>1.1 ALL DIMENSION ARE IN 'mm' AND LEVEL ARE 'METER' U.O.S.</p> <p>1.2 DO NOT SCALE DRAWING.</p> <p>1.3 RCC & LEAN CONCRETE SHALL BE OF GRADE M25 & M10 RESPECTIVELY.</p> <p>1.4 FOR AGGRESSIVE SOIL/EXPOSURE CONDITIONS, MINIMUM GRADE OF CONCRETE SHALL BE REFERRED AS PER IS 456 2000, TABLE "3 AND 5".</p> <p>1.5 STEEL GRADE IS FE415 U.O.S AS PER IS 1786 / IS 1159.</p> <p>1.6 IF ANY LEVEL DIFFERENCE IN EXISTING GROUND IS FOUND AT SITE, THEN SOPIL EXCAVATION FOR FOUNDATION SHALL BE STARTED WITH REFERENCE TO THE LOWER LEVEL AND THE SOIL SHALL BE BACK FILLED, COMPACTED UP TO THE TOP MOST LEVEL OF NATURAL GROUND AND TO AVOID SOIL EROSION (SUFFICIENT PROTECTION ARRANGEMENT SHALL BE MADE).</p> <p>1.7 VERIFY THE ADJACENT SITE FEATURES BEFORE EXCAVATION, PROPER CARE SHALL BE TAKEN TO AVOID DAMAGE TO ADJACENT STRUCTURE.</p> <p>1.8 ANY DISCREPANCY IN THE DRAWING & SITE CONDITION SHALL BE BROUGHT TO THE NOTICE OF SITE ENGINEER & CONSULTANT.</p> <p>1.9 THE FOUNDATION SHALL NOT BE USED IN CASE ORGANIC SILT, ORGANIC CLAY OR PEAT LAYERS ARE FOUND AT ANY DEPTH.</p> <p>1.10 THE FOUNDATION DESIGN SHALL NOT BE ADOPTED AT SITES WHERE SOIL IS SUBJECTED TO GROUND IMPROVEMENT/LIQUIFICATION AND IN THIS CASES SPECIAL FOUNDATION SHALL BE DONE.</p> <p>1.11 THE VENDOR/CONTRACTOR SHALL DESIGN THE TEMPORARY WORK SUCH AS SCAFFOLDING AND SHUTTERING TO HAVE ADEQUATE STRENGTH, AND STABILITY TO SUIT THE DRAWING REQUIREMENTS, IF ANY SPECIFIC CASE ARISE AT SITE, A DETAILED DESIGN SHALL BE SUBMITTED FOR CONSULTANT VERIFICATION BEFORE USING AT SITE.</p> <p>1.12 NO FURTHER EXCAVATION/ CONSTRUCTION IS ALLOWED WITHIN ZONE OF FOUNDATION AND IF ANY SHALL BE VALIDATED BY CONSULTANT.</p> <p>1.13 REINFORCEMENT SHALL BE SUITABILITY ADJUSTED AT SITE TO CLEAR POCKETS, BOLTS, OPENINGS, CUTOUT ETC. AS APPROVED BY SITE ENGINEER UNLESS OTHERWISE SHOWN IN DRAWING.</p> <p>1.14 THE CONTRACTOR/CLIENT SHALL VERIFY ALL QUANTITY, DIMENSION AND CONDITION WITH SITE AND NOTIFY THE ENGINEER/CONSULTANT. IF ANY DISCREPANCY IN DRAWING AND/OR SPECIFICATION BEFORE PROCEEDING THE WORK.</p> <p>1.15 THE TOTAL LENGTH OF BARS (CUTTING LENGTH) SHALL BE CALCULATED ON THE BASIS OF THE APPROPRIATE BENDING DIMENSIONS WITH CORRECTIONS FOR BENDS AND ALLOWANCES FOR ANCHORAGE.</p> <p>2. TECHNICAL SPECIFICATION</p> <p>2.1 MINIMUM COVER TO THE MAIN REINFORCEMENT COLUMN 50mm, FOR PAD 50mm.</p> <p>2.2 THE LAP LENGTH/DEVELOPMENT LENGTH OF BARS SHOULD BE 50* AND STAGGERED REFERENCE SHALL BE MADE TO IS: 456.</p> <p>2.3 NO HONEYCOMB/GAP SHALL BE PERMITTED WHILE CONCRETING.</p> <p>2.4 NO CONSTRUCTION JOINT ARE ALLOWED OTHER THAN SPECIFIED.</p> <p>2.5 CONSTRUCTION ARE CARRIED OUT IN ACCORDANCE TO VARIOUS PROVISIONS LAID DOWN IN IS: 456/IS: 800 STANDARDS.</p> <p>2.6 STRIPPING OF FORMWORK AND CURING SHALL BE CARRIED OUT AS PER PROVISION IN IS:456.</p>				
3					
2					
1					


3. EXCAVATION & BACKFILLING


- 3.1 THE SIDE SLOPES FOR EXCAVATION SHALL BE DIVIDED AS PER THE FOLLOWING GUIDELINES.
- a) FOR SANDY SOILS, SLOPE IV: 2H
 - b) FOR CLAYEY SOILS, SLOPE IV: 1H
 - c) FOR HARD STRATA, VERTICAL CUT
- ALTERNATIVELY, SUFFICIENT SHEET PILES/SHORING SHALL BE USED DURING EXCAVATION TO PREVENT SIDE COLLAPSE
- 3.2 SAND BEDDING/ STONE BEDDING SHALL BE PROVIDED IN FOUNDATIONS OF MARSHLY AND WET BLACK COTTON FOUNDATIONS.
- 3.3 IN CASE OF NO GROUND WATER, ALL FOUNDATION PITS SHALL BE SOAKED WITH WATER FOR 24 HOURS AND COMPACT WELL BEFORE.
- 3.4 LOOSE POCKETS OF SOIL FOUND, (IF ANY) IN FOUNDATION PITS SHALL BE COMPLETELY REMOVED AND FILLED WITH LEAN CONCRETE AND COMPACTED WELL BEFORE FOUNDATIONS ARE LAID.
- 3.5 FOUNDATION PIT SHALL BE KEPT DRY (FREE FROM WATER) DURING LAYING OF LEAN CONCRETE, PLACING STEEL AND CONCRETING WORK.
- 3.6 ALL BACK FILLING OF FOUNDATION SHOULD BE DONE WITH WELL COMPACTED SOIL (MOORUM PREFERABLY).
- 3.7 THE BACK FILLING OF FOUNDATION SHOULD BE CLEAN AND FREE FROM ORGAINC (OR) OTHER FOREIGN MATERIALS.
- 3.8 SOIL BACK FILL SHALL BE DONE IN LAYERS OF APPROX 150-200mm, EACH LAYERS SHALL BE DENSELY COMPACTED BY SPRINKLING MINIMUM QUANTITY OF WATER AS NECESSARY FOR PROPER COMPACTION AND MINIMUM BACKFILL SOIL DENSITY SHALL BE 1600kg/m³.
- 3.9 CARE SHALL BE TAKEN THAT THE BACK FILLING IS STARTED FROM THE CENTRE TOWARDS THE OUTER ENDS.
- 3.10 AFTER BACK FILLING 50mm HIGH EARTHEN EMBANKMENT(BUND) TO BE MADE ALONG THE SLIDES OF EXCAVATED PITS AND SUFFICIENT WATER WILL BE POURED OVER THE BACK FILLED EARTH FOR ATLEAST 25HRS.
- 3.11 FINISHED GROUND LEVEL AT COLUMN/ CHIMNEY SHOULD BE SLOPED AWAY, WITH SLOPE OF 1:3 OF PREVENT ACCUMULATION OR PONDING OF WATER.
- 3.12 SURFACE DRAINAGE OF THE PLOT SHOULD BE MADE SO AS TO AVOID WATER LOGGING IN THE PLOT, IN PARTICULAR AROUND THE FOUNDATION.
- 3.13 IN CASE TOP OF PEDESTAL IS FOUND TO BE LOWER THAN THE ROAD LEVEL/ HIGH FLOOD LEVEL, THEN BASE PLATE ENCASEMENT SHALL BE TAKEN UP IN CONSULTATION WITH THE SITE ENGINEER /INCHARGE/ CONSULTANT.
- 3.14 EXCAVATION PLAN & VOLUME SHOWN IN DRAWING IS INDICATIVE ONLY & THIS IS APPLICABLE FOR NORMAL SOIL CONDITIONS. IT MAY VARY, AS PER SITE CONDITION & STRATA ENCOUNTERED.

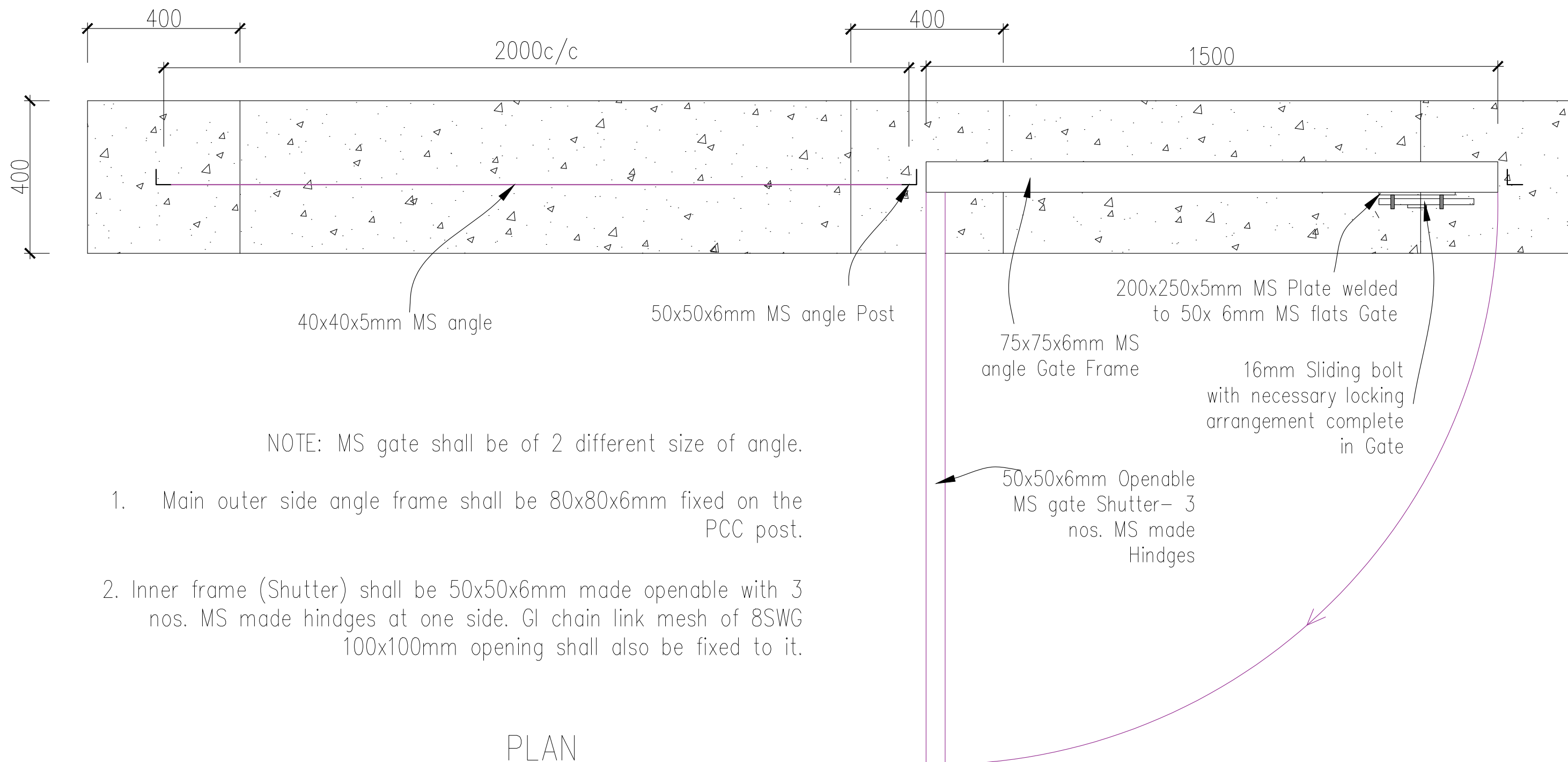
4. TEMPLATE ASSEMBLY/ GROUTING

- 4.1 VERIFY BOLT, NUT SIZE AND LENGTH AS PER TEMPLATE /BASE ASSEMBLY DRAWING.
- 4.2 CHECK THE INTEGRITY OF BOLT AND NUT BEFORE EXECUTION AT SITE, IF ANY PLAY FOUND CONSULT SITE ENGINEER/ CONSULTANT
- 4.3 GROUTING UNDER BASE PLATE HAS TO BE DONE WITH FREE FLOW NON SHRINK GROUT HAVING MINIMUM STRENGTH AS THAT OF COLUMN CONCRETE.

LEGEND

U.O.S - UNLESS OTHERWISE SPECIFIED
F.G.L - FINISHED GROUND LEVEL
E.G.L - EXISTING GROUND LEVEL
B.B.S - BAR BENDING SCHEDULE
T & B - TOP & BOTTOM
 - CHAIRS

SUBMITTED FOR	APPROVAL	INFORMATION	REFERENCE	RECORD	CONSTRUCTION
<div>ICON POWER SOLUTIONS PVT LTD</div> <div>112 & 113 SECTOR 5, IMT MANESAR, GURGAON - 122 050, HARYANA</div>					
DRAWN	S.M	PROJECT	TASHI INFOCOMM : 15M_MONOPOLE FOUNDATION		
CHECKED & VERIFIED	K.M	CUSTOMER NAME	TASHI INFOCOMM LIMITED		
APPROVED	K.M	SCALE	- 1:40		SHEET REV/SIZE
DATE	03.03.2022	2021-DIS-MONOPOLE-GA-001	1 OF 1	RO	A1

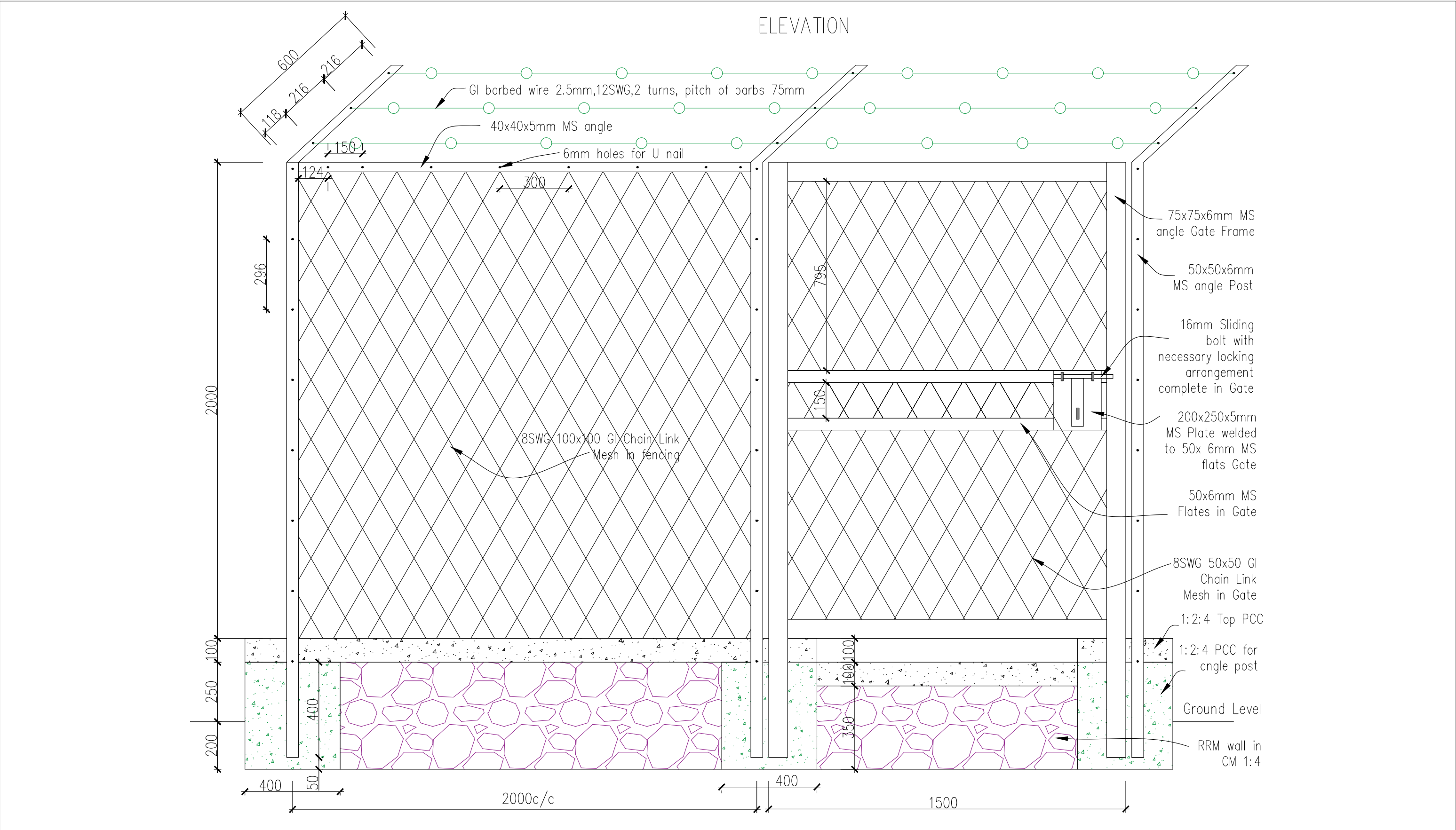


NOTE: MS gate shall be of 2 different size of angle.

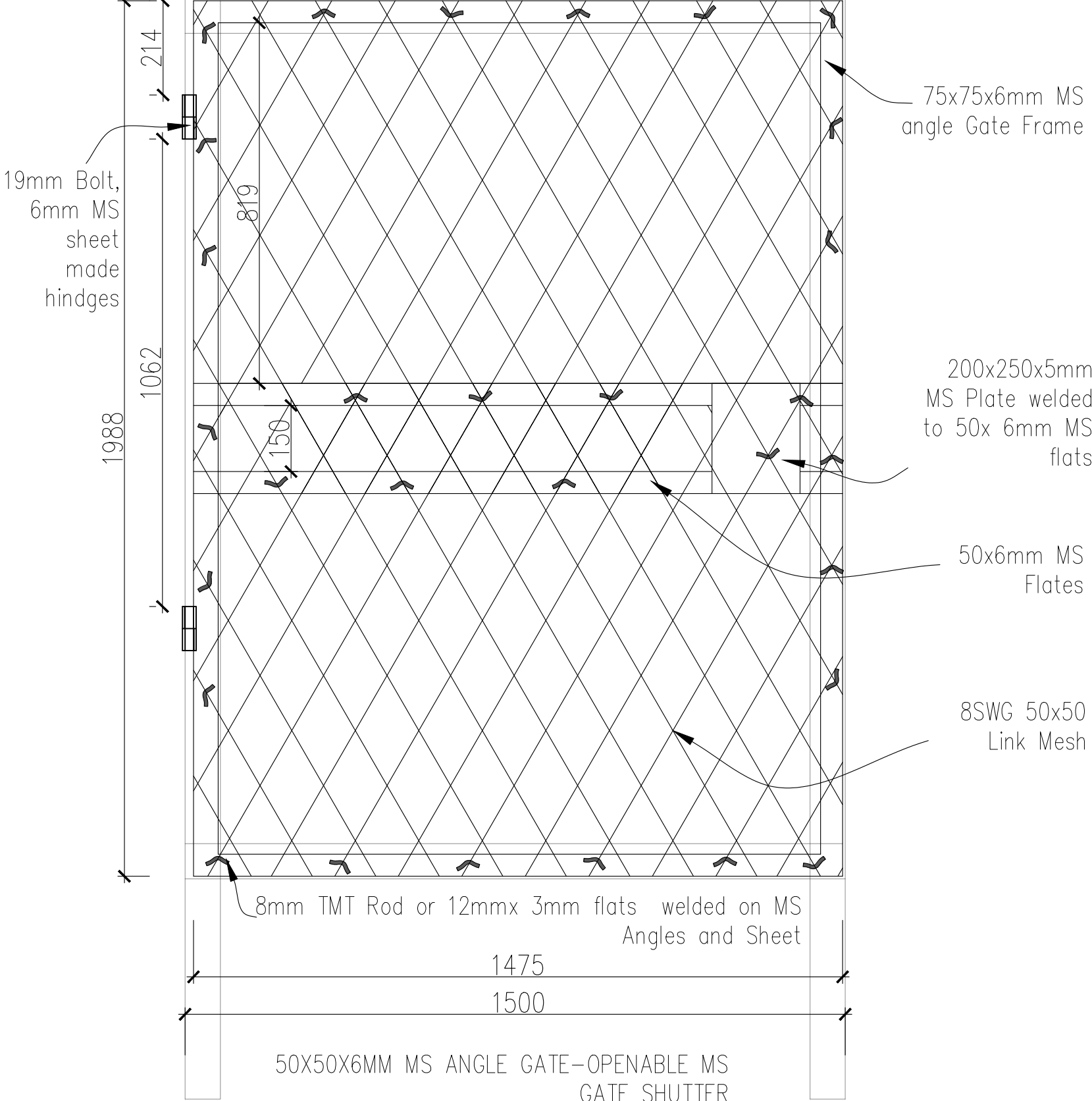
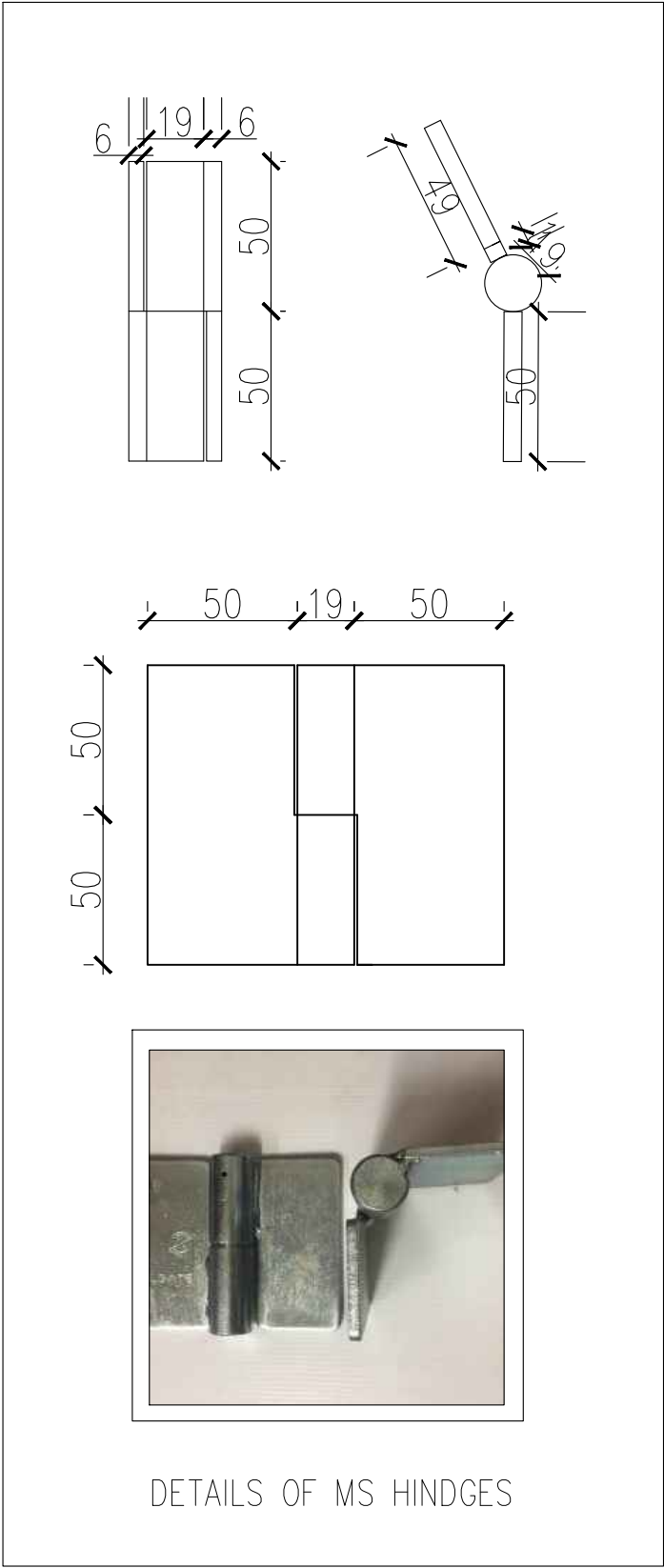
1. Main outer side angle frame shall be 80x80x6mm fixed on the PCC post.
2. Inner frame (Shutter) shall be 50x50x6mm made openable with 3 nos. MS made hindges at one side. GI chain link mesh of 8SWG 100x100mm opening shall also be fixed to it.

PLAN

TASHI INFOCOMM PRIVATE LTD	DATE.	REVISION NOTES.	SIGN.	0- ALL DIMENSIONS ARE N MM UNLESS SPECIFIED 0- WRITTEN DIMENSIONS TO BE READ AND NOT TO BE SCALED. 0- ALL DIMENSIO9NS MEASURE UNFINISHED SURFACE UNLESS OTHERWISE MENTIONED 0- ARR DRGS. TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL DRGS. 0- ANY DISCRIPENCIES IN THE DRAWINGS IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE DESIGNER/SUPERVISION TEAM	<u>OWNER DETAILS</u>		TASHI-CELL	Site Development Work: GI chain link fencing and MS Gate-Plan				DRAWING NO:
								<u>DRAWING TITLE</u> As Stated in the Drawing				AR-01 OF 03
						Name: - Tashi-Infocomm Private Limited Plot No. - Tharm No.- Location -Thim-Throm (Opposite to Hotel Taj)	ENGINEER: Karma Wangchuk Phone: 77376779/civil@tashicell.com	DRAWN BY: Karma Wangchuk (Technical Officer, Civil Section)	CHECKED BY:	DATE: 01/01/2024	SCALE: NTS	REVISION NO:



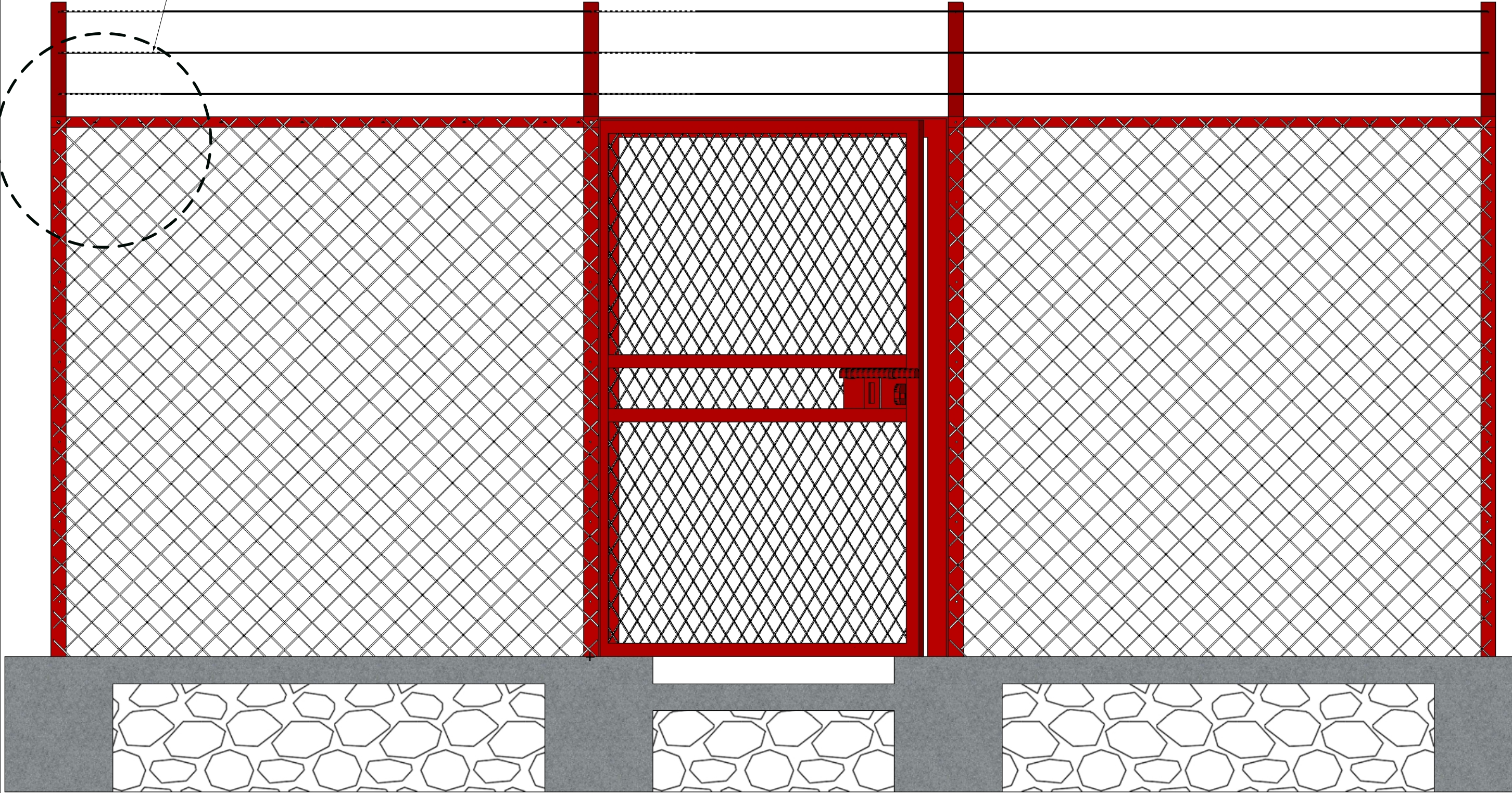
TASHI INFOCOMM PRIVATE LTD	DATE.	REVISION NOTES.	SIGN.	0- ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED 0- WRITTEN DIMENSIONS TO BE READ AND NOT TO BE SCALED. 0- ALL DIMENSIONS MEASURE UNFINISHED SURFACE UNLESS OTHERWISE MENTIONED 0- ARR DRGS. TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL DRGS. 0- ANY DISCREPANCIES IN THE DRAWINGS IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE DESIGNER/SUPERVISION TEAM	OWNER DETAILS		TASHI-CELL	Site Development Work: GI chain link fencing and MS Gate-Elevation				DRAWING NO:	
								DRAWING TITLE As Stated in the Drawing				AR-02 OF 03	
					Name: - Tashi-Infocomm Private Limited Plot No. - Tharm No.- Location -Thim-Throm (Opposite to Hotel Taj)		ENGINEER: Karma Wangchuk Phone: 77376779/civil@tashicell.com	DRAWN BY: Karma Wangchuk (Technical Officer, Civil Section)	CHECKED BY:	DATE: 01/01/2024	SCALE: NTS	REVISION NO:	



TASHI INFOCOMM PRIVATE LTD	DATE.	REVISION NOTES.	SIGN.	0- ALL DIMENSIONS ARE N MM UNLESS SPECIFIED 0- WRITTEN DIMENSIONS TO BE READ AND NOT TO BE SCALED. 0- ALL DIMENSIO9NS MEASURE UNFNISHED SURFACE UNLESS OTHERWISE MENTIONED 0- ARR DRGS. TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL DRGS. 0- ANY DISCRIPENCIES IN THE DRAWINGS IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE DESIGNER/SUPERVISION TEAM	OWNER DETAILS		TASHI-CELL	GATE DETAILS				DRAWING NO:
									DRAWING TITLE As Stated in the Drawing			
					Name: - Tashi-Infocomm Private Limited Plot No. - Tharm No.- Location -Thim-Throm (Opposite to Hotel Taj)	ENGINEER: Karma Wangchuk Phone: 77376779/civil@tashicell.com	DRAWN BY:	CHECKED BY:		DATE:	SCALE:	REVISION NO:
						Karma Wangchuk (Technical Officer, Civil Section)				01/01/2024	NTS	

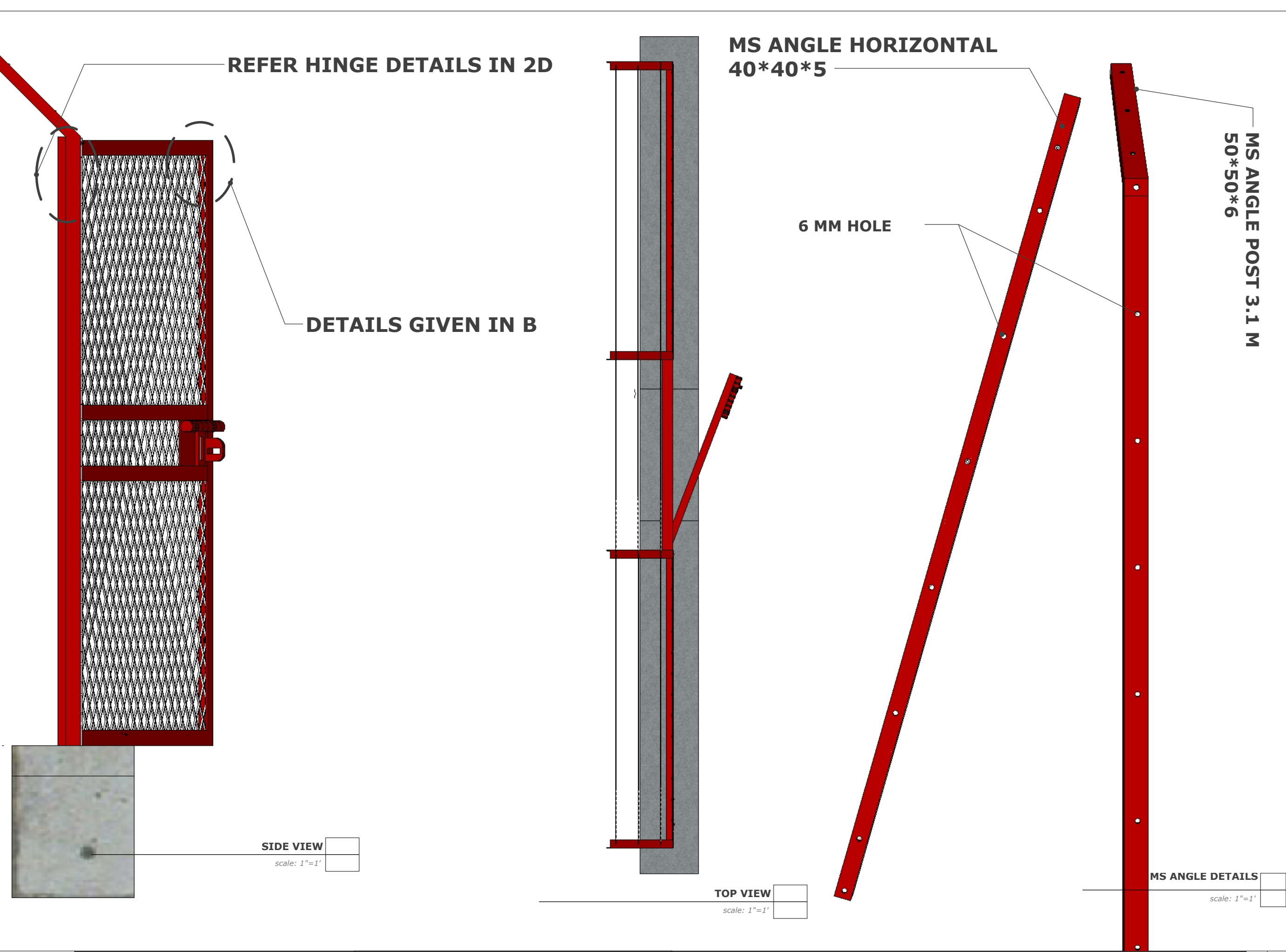
3 D ARCHITECTURAL DRWAING OF FENCING CUM GATE

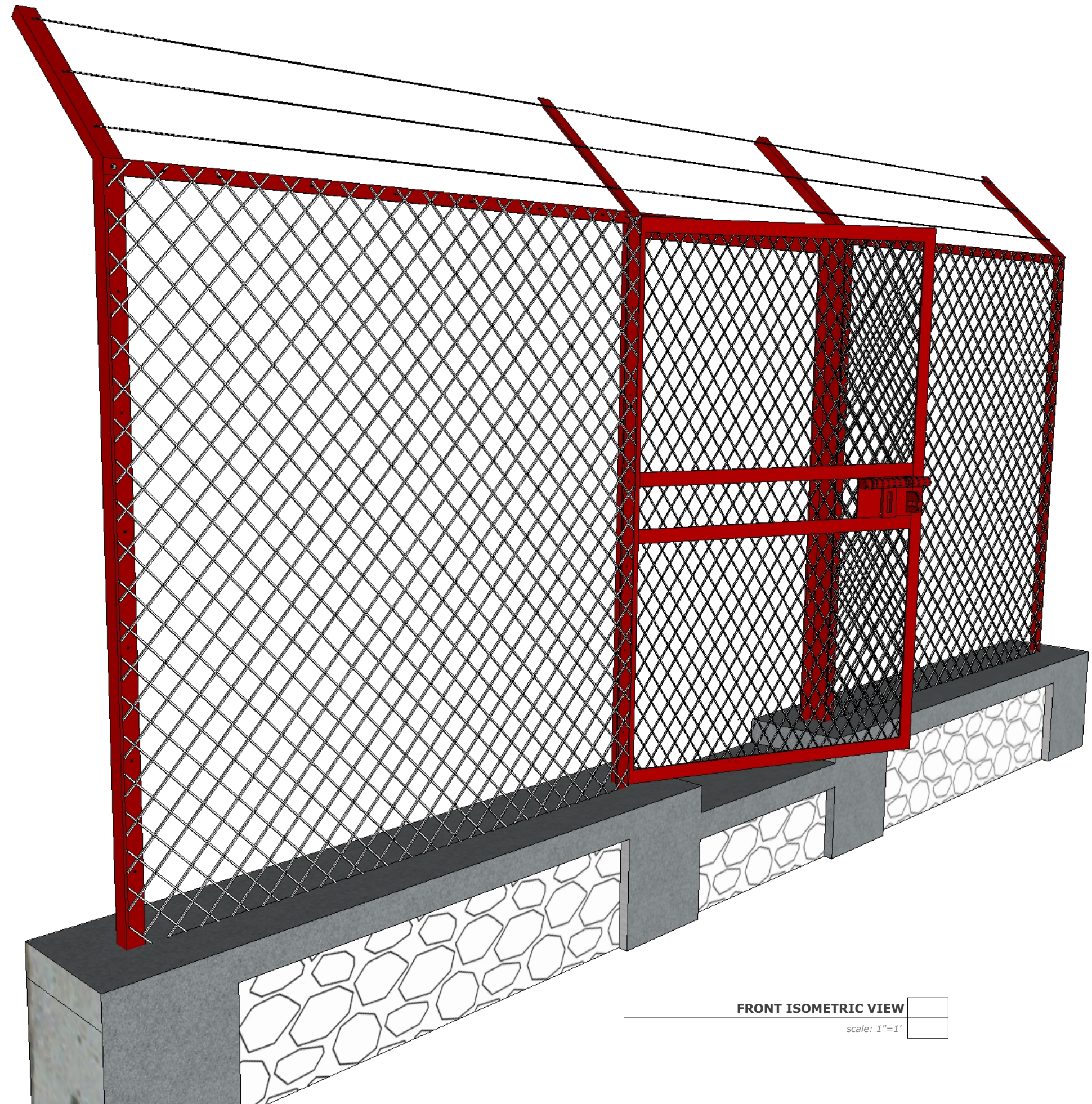
DETAILS GIVEN IN A



FRONT VIEW

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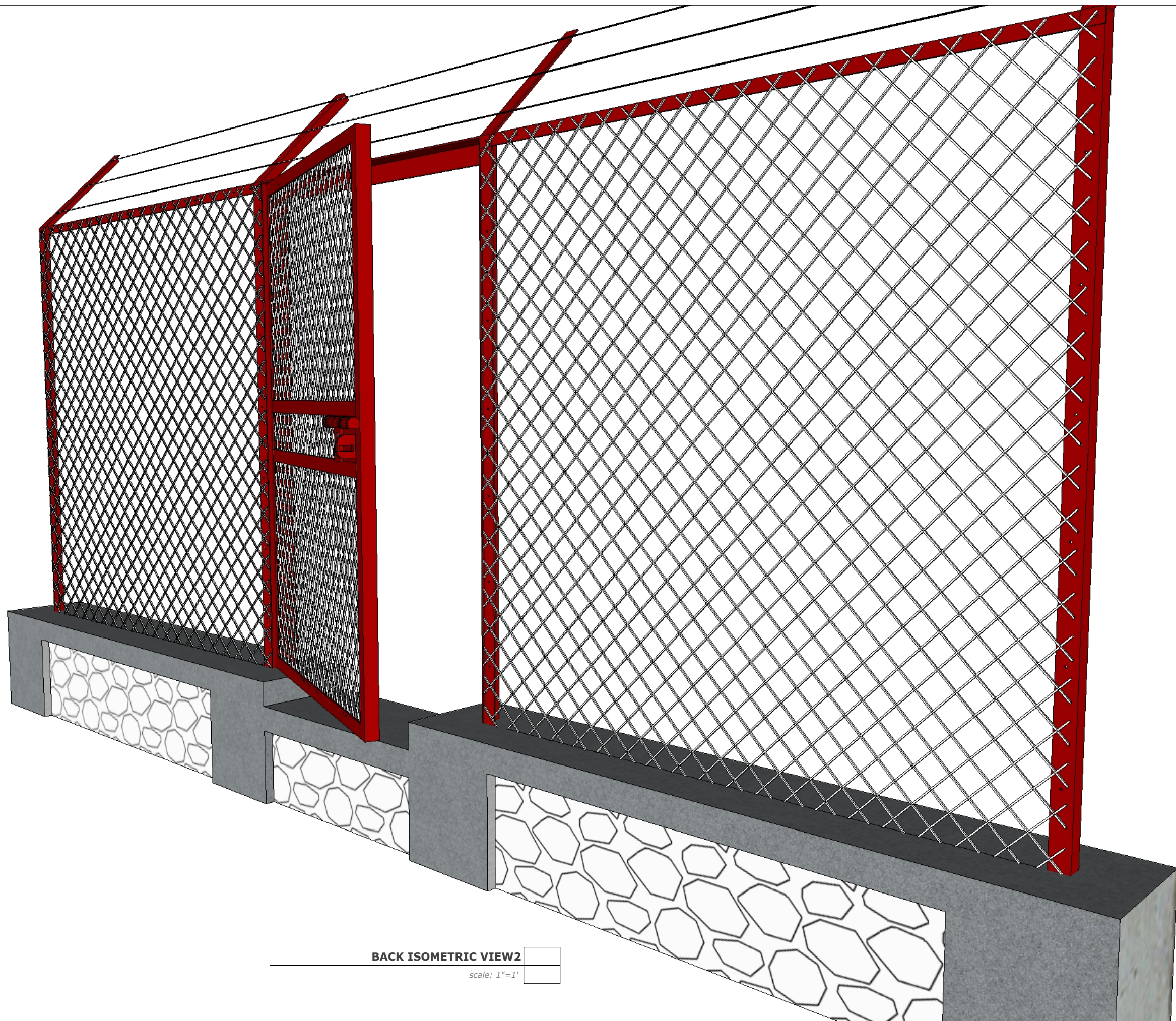




FRONT ISOMETRIC VIEW

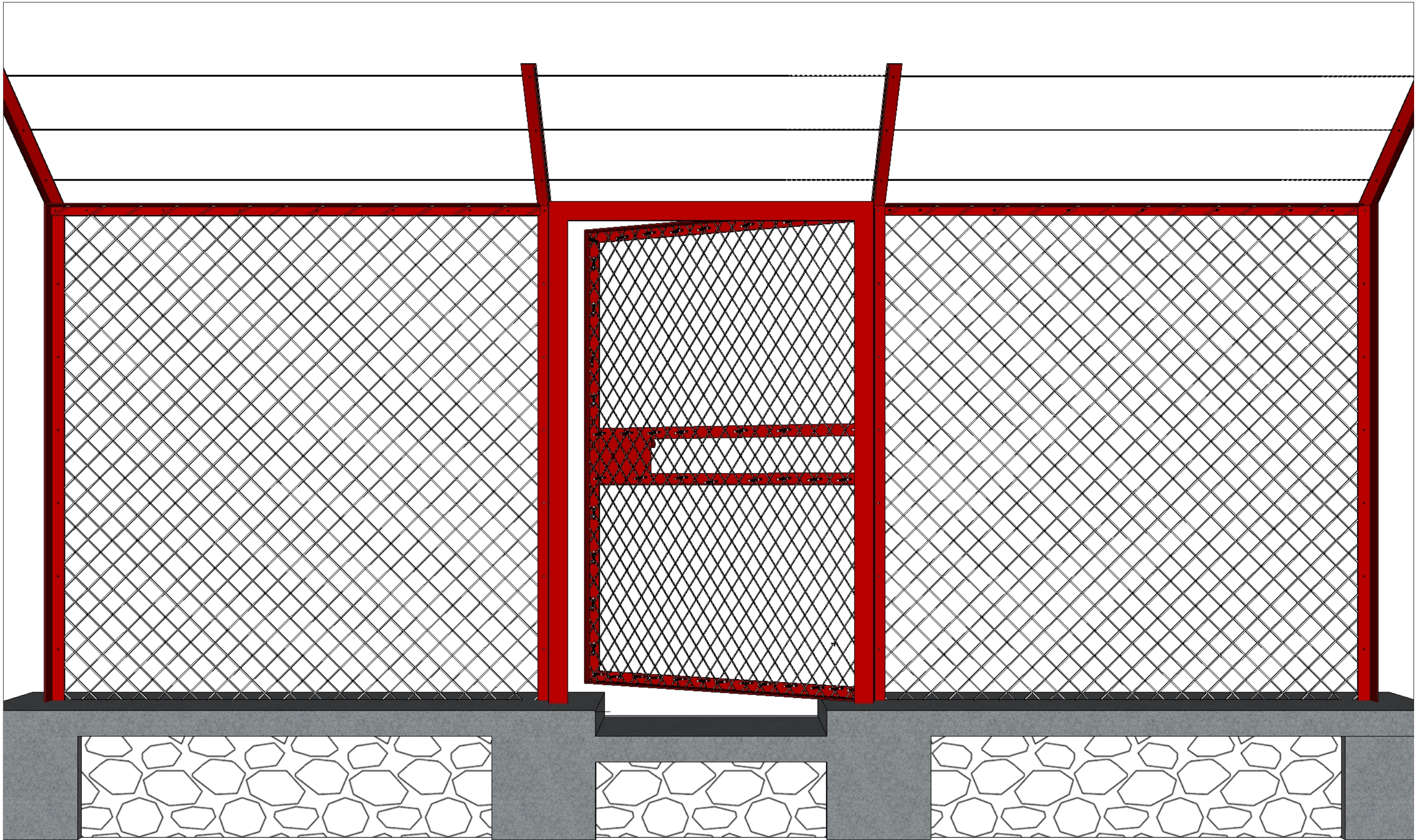
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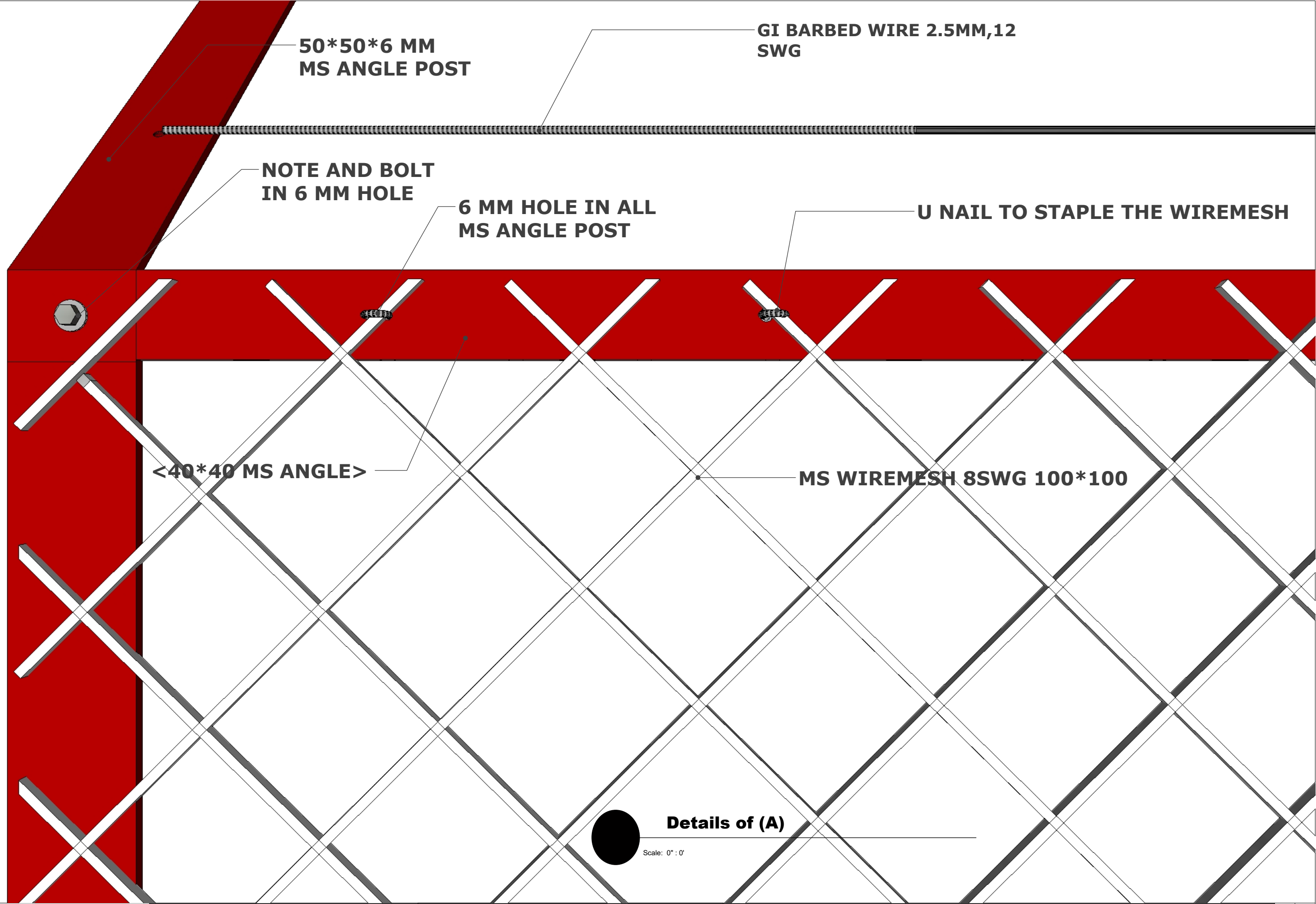
BACK ISOMETRIC VIEW2

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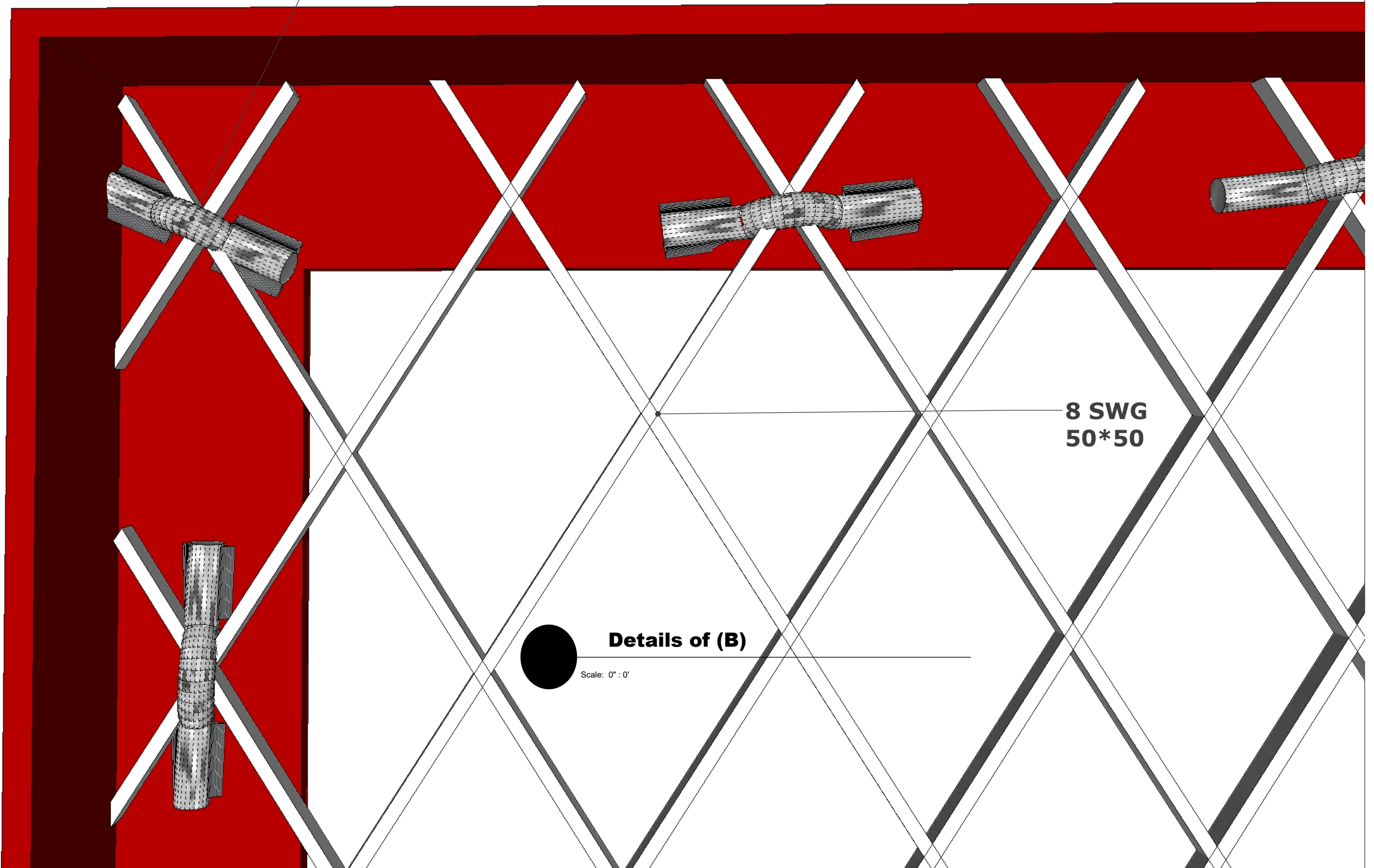


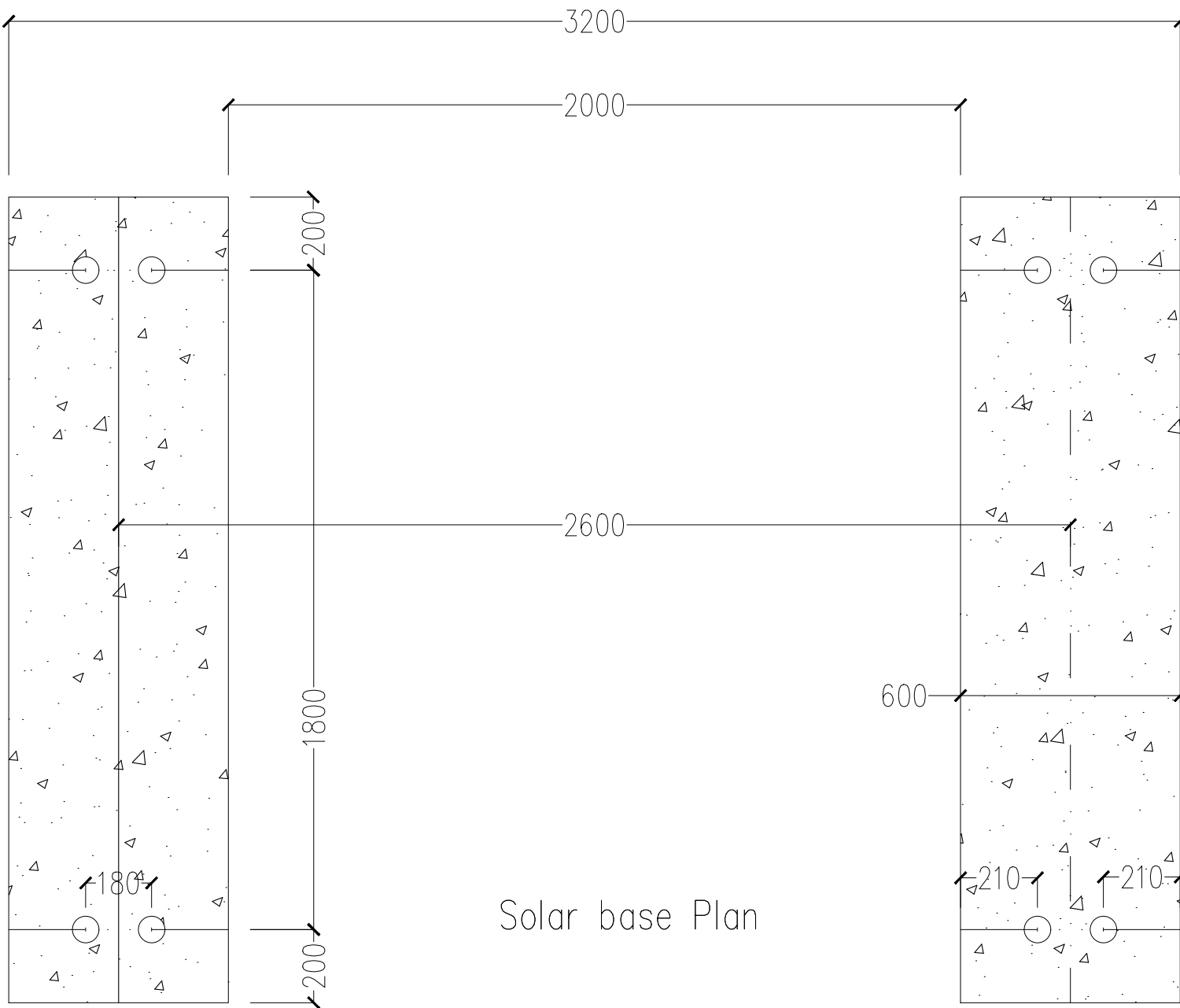
BACK VIWE

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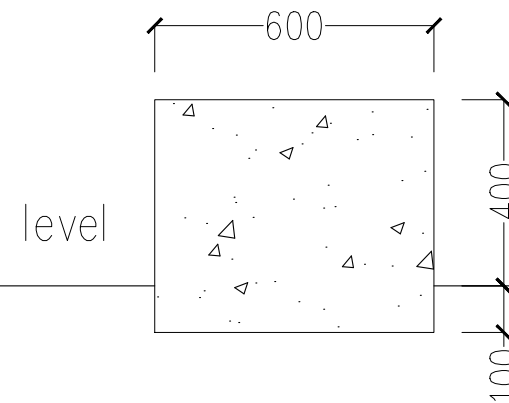
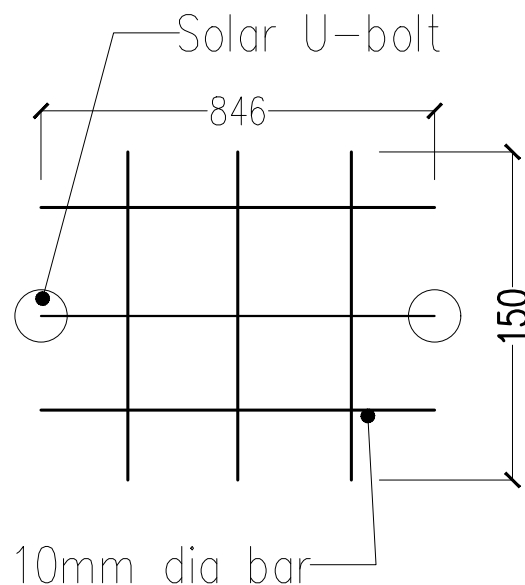


6/8 MM ROD WELDED ALTERNATELY WITH GI WIREMESH IN GATE

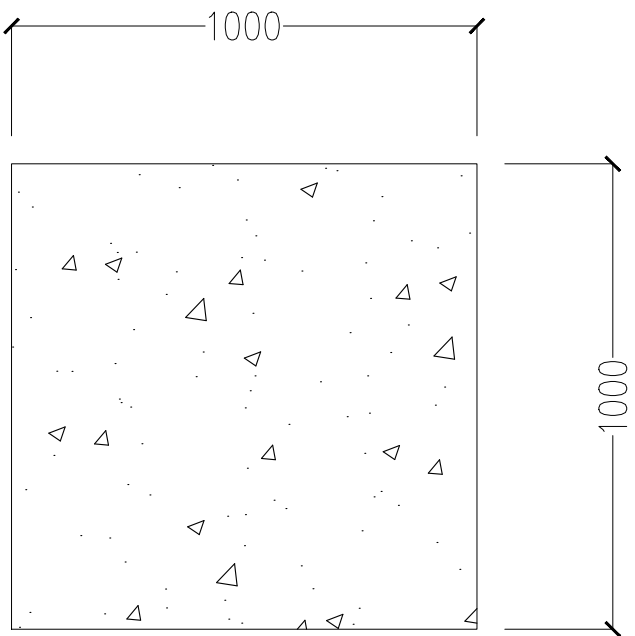




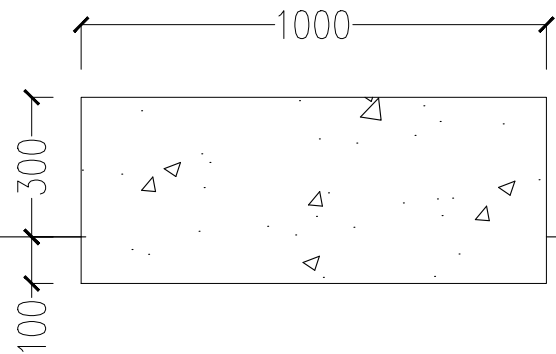
Solar base Plan



Solar base Sectional View



APM Plinth Plan



APM Plinth Sectional View

TASHI INFOCOMM PRIVATE LTD	DATE.	REVISION NOTES.	SIGN.	0- ALL DIMENSIONS ARE IN MM UNLESS SPECIFIED 0- WRITTEN DIMENSIONS TO BE READ AND NOT TO BE SCALED. 0- ALL DIMENSIO9NS MEASURE UNFINISHED SURFACE UNLESS OTHERWISE MENTIONED 0- ARR DRGS. TO BE READ IN CONJUNCTION WITH RELEVANT STRUCTURAL DRGS. 0- ANY DISCRIPENCIES IN THE DRAWINGS IS TO BE BROUGHT TO THE IMMEDIATE NOTICE OF THE DESIGNER/SUPERVISION TEAM	OWNER DETAILS		TASHI-CELL	APM Plinth And Solar Base				DRAWING NO:
								DRAWING TITLE As Stated in the Drawing				AR-01 OF 01
					Name: - Tashi-Infocomm Private Limited Plot No. - Tharm No.- Location -Thim-Throm (Opposite to Hotel Taj)		ENGINEER: Karma Wangchuk Phone: 77376779/civil@tashicell.com	DRAWN BY: Karma Wangchuk (Technical Officer, Civil Section	CHECKED BY:	DATE: 01/01/2024	SCALE: NTS	REVISION NO:



Concrete Cover Bloack Sample

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								DRAWING TITLE As Stated in the Drawing				AR-01 OF 01
					Name: - Tashi-Infocomm Private Limited Plot No. - Tharm No.- Location -Thim-Throm (Opposite to Hotel Taj)		ENGINEER: Karma Wangchuk Phone: 77376779/civil@tashicell.com	DRAWN BY:	CHECKED BY:	DATE:	SCALE:	REVISION NO:
							Karma Wangchuk (Technical Officer, Civil Section)			01/01/2024	NTS	