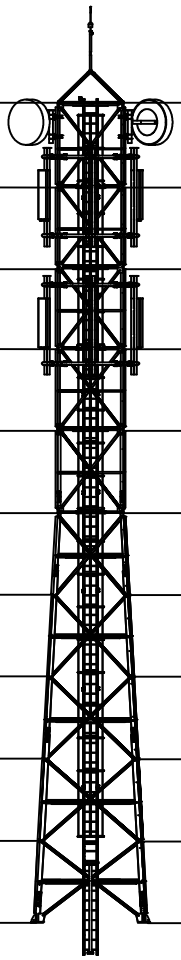
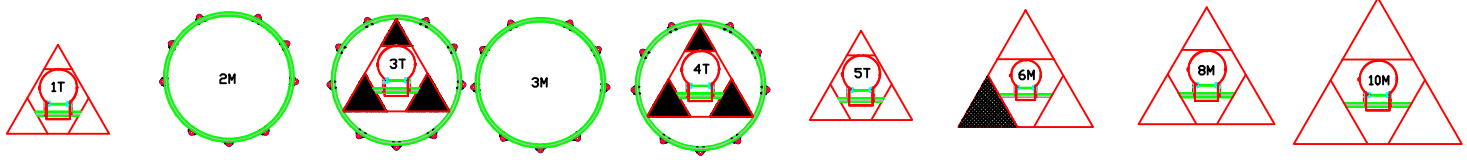
SEC. BRACING	PLAN BRACING	PANEL MID- HORIZONTALS	PANEL TOP- HORIZONTALS	DIAGONALS	LENGTH (METER)	PANEL NO.		LEGS SIZE	LEG LENGTH	LEG JOINT NAME	PLATFORM	FACE WIDTH	LEVEL
				50x50x4	2	1		75x75x6	5000	A		1700	25000
	45x45x4	45x45x4	50x50x4								WORKING PLATFORM	1700	22500
				55x55x4	2.5	2				B		1700	20000
			50x50x4		2.5	3		75x75x6	5000		WORKING PLATFORM	1700	17500
		45x45x4		55x55x5	2.5	4				C		1950	15000
	50x50x4			65x65x5	2.5	5		100x100x8	2500			2200	12500
		50x50x4			2.5	6			2503	D	REST PLATFORM	2450	10000
	50x50x4			60x60x5	2.5	7		110x110x12	5000			2700	7500
					2.5	8				E		2950	5000
		50x50x4		60x60x5	2.5	9		120x120x12	5000			3200	2500
					2.5	10				F	25 Mtr	3450	0000



Loading
1. GSM Antenna - 6 nos
2. RRU- 6 nos
3. MW Antenna- 2 nos

PLAN VIEWS

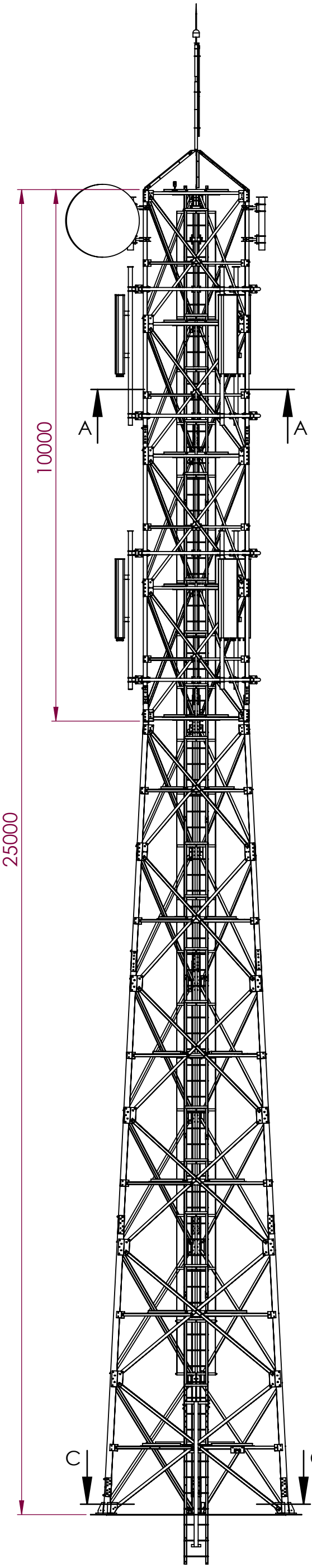


NOTE:-
ALL DIMENSIONS ARE IN MM

Weight per Tower 3980 kgs.

	NAME	SIGNATURE	DATE	TOLERANCE:	SCALE:1:1	DRW. NO:		DRW. NAME:
DRAWN BY:	PRAM	PRAM	28-11-2025	ISO 2768-m		IPS-25M-3L-BT-6G2M		25 METER 3 LEG TOWER
DESIGNED BY:	SUJITH	SUJITH	28-11-2025			REV: 0	SHEET NO: 1 OF 1	SIZE: A3
CHECKED BY:	SUJITH	SUJITH	28-11-2025					PROJECT NAME: BHUTAN TELECOM

ICON POWER SOLUTIONS(P) LTD.
112-113,Sector-5,IMT Manesar,
Gurugram,Haryana,INDIA-122050
TEL : +91 124 4120600/01/02

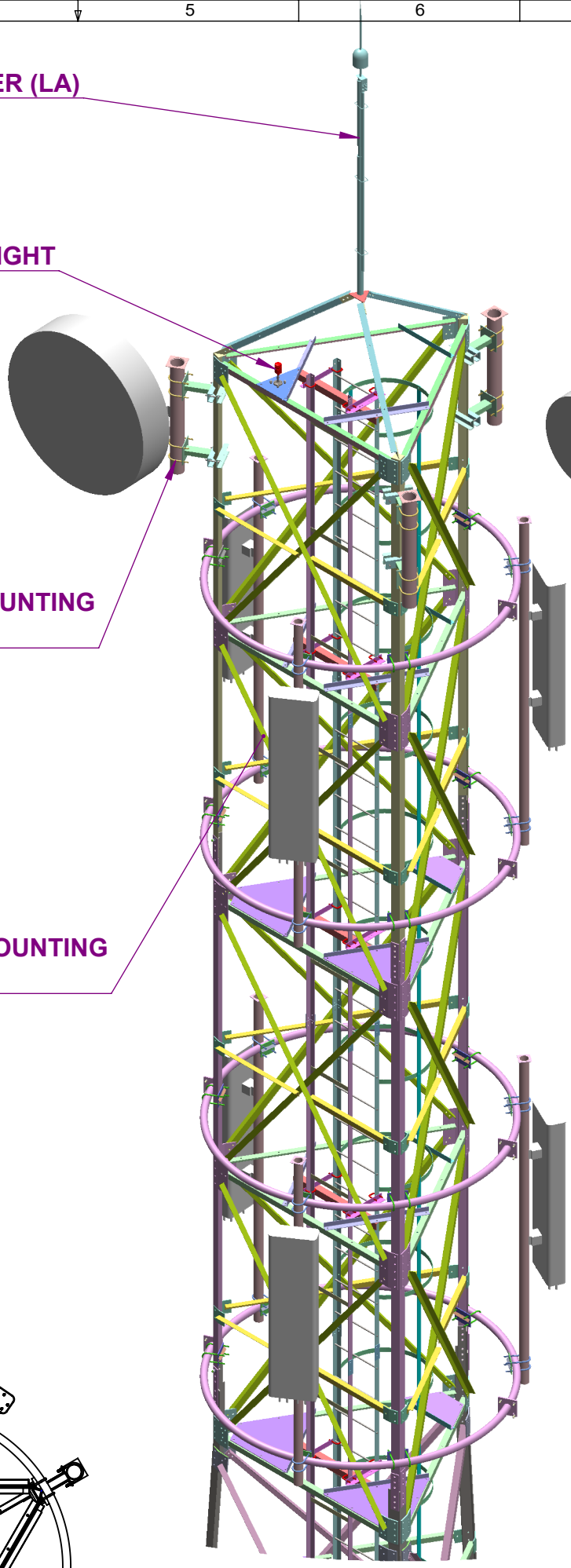


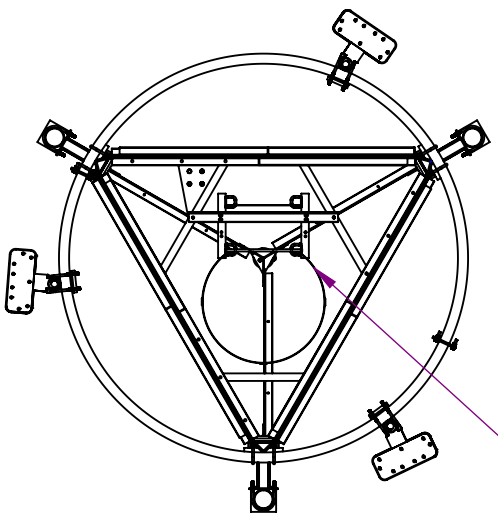
LIGHTENING ARRESTER (LA)

AVIATION LIGHT

MW ANTENNA MOUNTING ARRANGEMENT

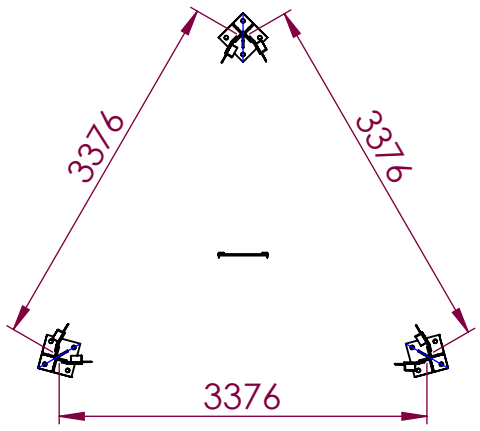
GSM ANTENNA MOUNTING ARRANGEMENT



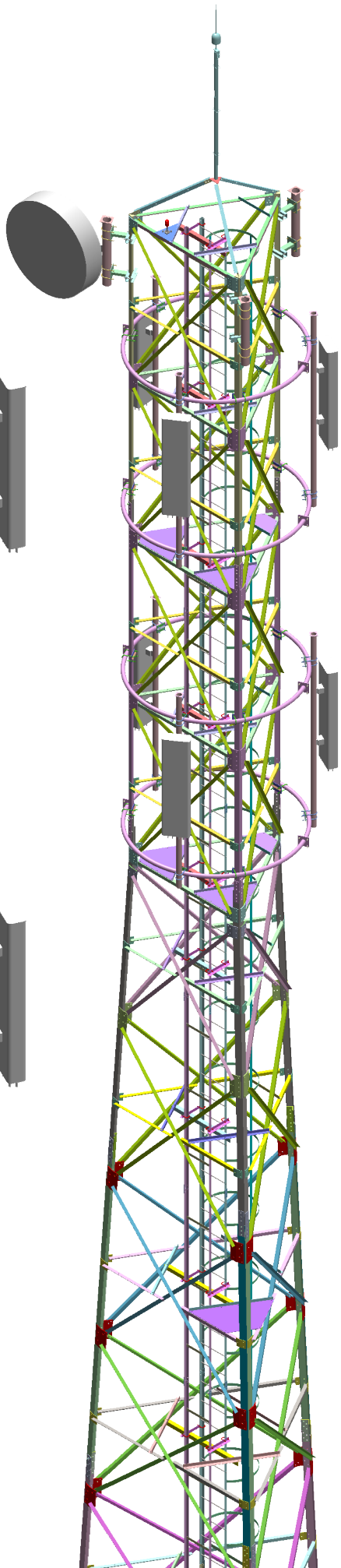


LADDER/CABLE PLAN

SECTION A-A
SCALE 1 : 45



FOUNDATION PLAN
SECTION C-C
SCALE 1 : 70



HORIZONTAL CABLE GANTRY

NOTE:-
ALL DIMENSIONS ARE IN MM

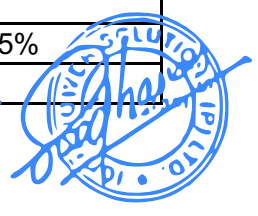
	NAME	SIGNATURE	DATE	TOLERANCE:	SCALE:1:80	DRW. NO: IPS-25M-3L-BT-6G2M			DRW. NAME: 25 METER 3 LEG TOWER	
DRAWN BY:	PRAM	PRAM	29-11-2025	ISO 2768-m		REV 0	SHEET NO: 1 OF 1	SIZE: A3	PROJECT NAME: BHUTAN TELECOM	ICON POWER SOLUTIONS(P) LTD. 112-113,Sector-5,IMT Manesar, Gurugram,Haryana,INDIA-122050 TEL : +91 124 4120600/01/02
DESIGNED BY:	SUJITH	SUJITH	29-11-2025							
CHECKED BY:	SUJITH	SUJITH	29-11-2025							

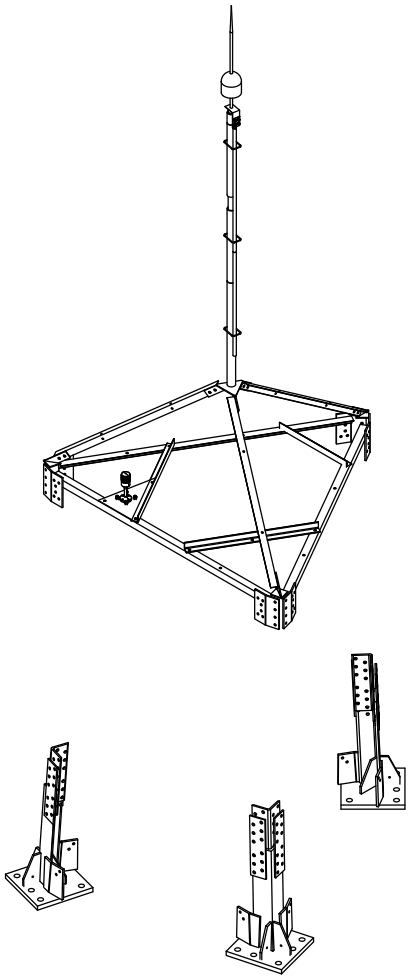
ICON POWER SOLUTIONS PVT LTD

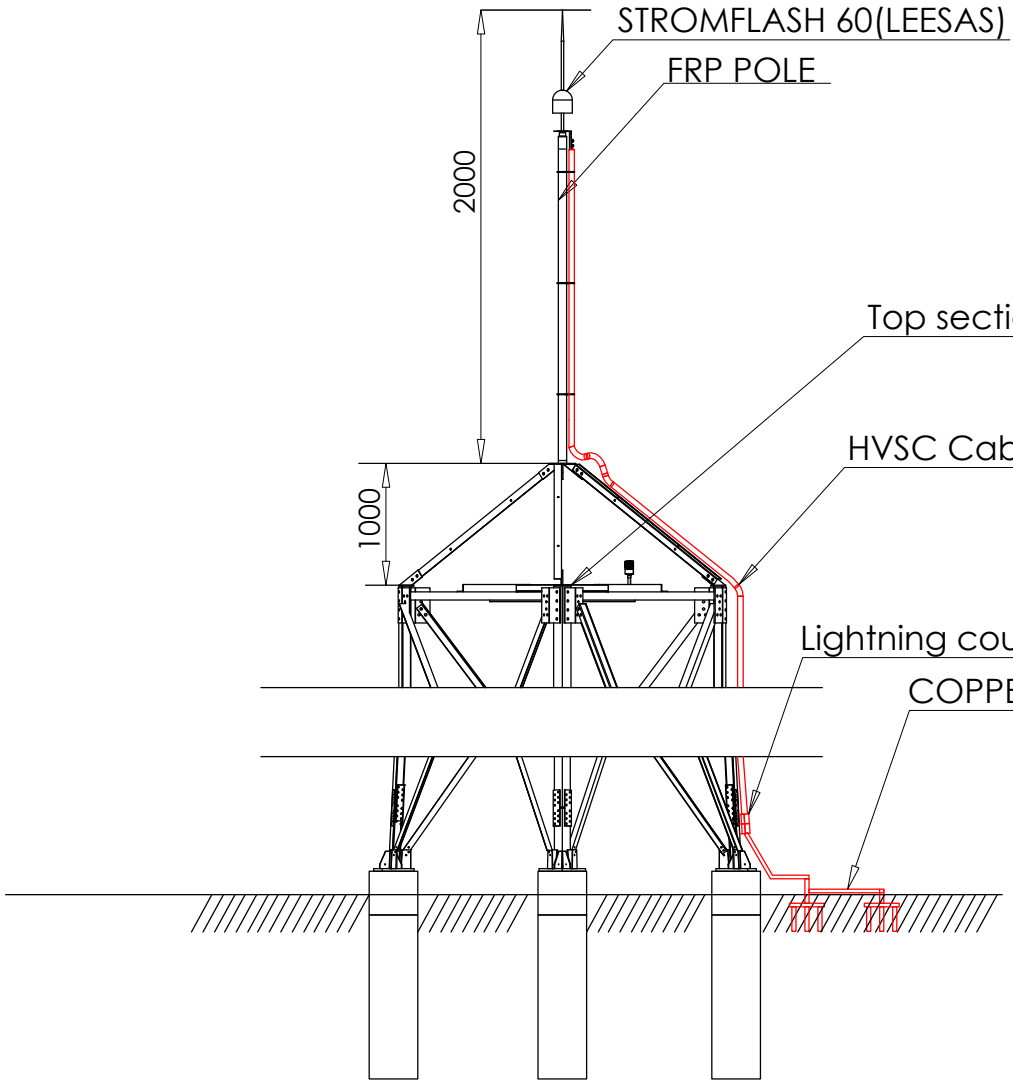
112 113, Sector 5, IMT Manesar, Gurgaon - 122050, Haryana

Technical Specification sheet of 25MTR 3 Legged Triangular Tower

S.No.		DESCRIPTION	DETAILS	REMARK
1		**DESIGN SPECIFICATION**	(ANSI/TIA-222G)	
	1.1	Design Wind Velocity		
		Survival	150 KMPH	
		Operational	105 KMPH	
	1.2	Twist & Sway	Less than <.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.	200 Kg
		RRU	6 nos.	90 Kg
		1.2 Dia MW Antenna	2nos.	100 Kg
	1.5	Antenna Pole Mount stand	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	Lightning Arrester (ESE) STORMFLASH 60 (LEESAS)	1 nos with FRP mast and HVSC cable & Counter
4	4.1	**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	
	4.2	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	Steel Type	Mild Steel - E 250	
	4.8	Platforms		
		Working	2 Nos	17.5 & 21.5 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 2%
		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		Others to be specified		
	7.1	Weight Per Tower	3980 Kg	(+/-) 5%
	7.2	Drawing No.	IPS-25M-3L-BT-6G2M	







	NAME	SIGNATURE	DATE	CHANGES	NAME	SIGNATURE	DATE	NO:
DRAWN BY:	PANKAJ	PANKAJ	03-12-2025					
DESIGNED BY:	SUJITH	SUJITH	03-12-2025					
CHECKED BY:	SUJITH	SUJITH	03-12-2025					

TOLERANCE:
X ±
X.X ±
X.XX ±
X.XXX ±
ANGLES ±

SCALE: 1:50

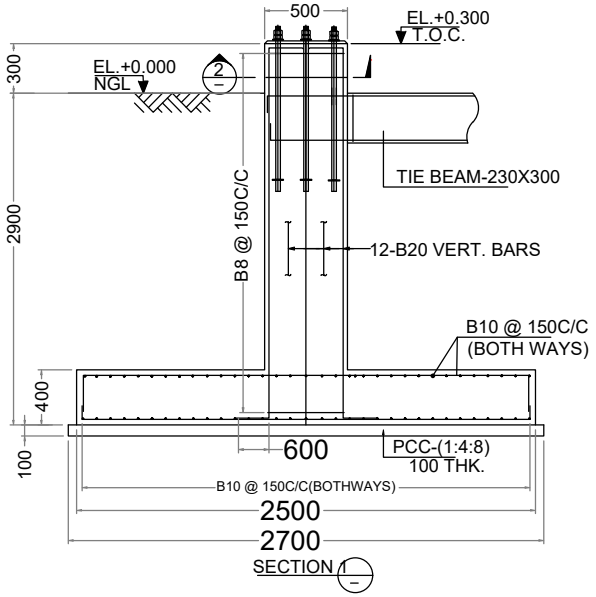
DRW. NO: LA-ASSY-3LEG TOWER

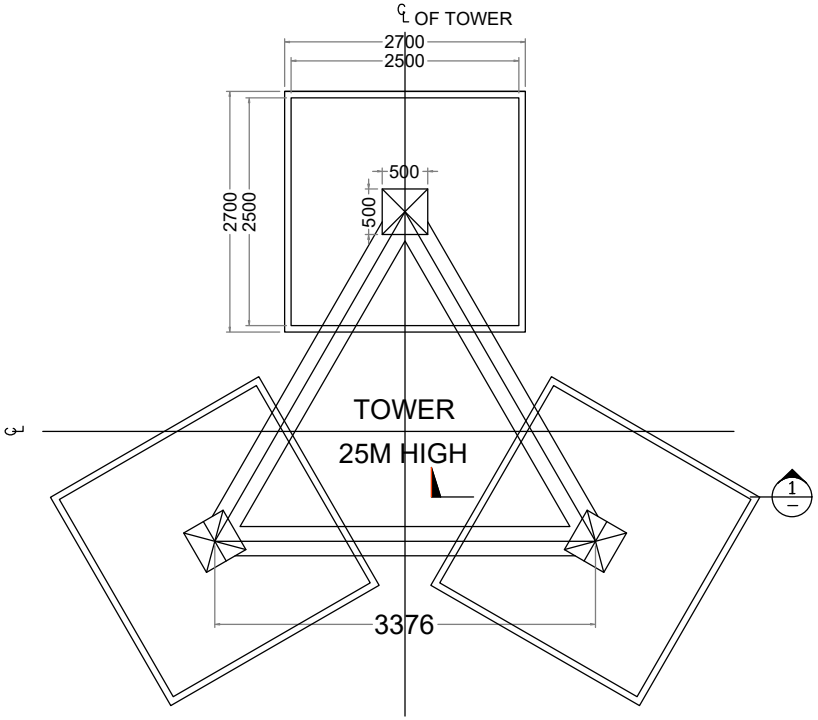
DRW. NAME: LIGHTING ARRESTOR MOUNTING ARRANGEMENT-3LEG

REV: 0 | SHEET NO: | SIZE: A4

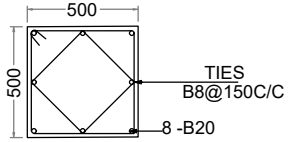
PROJECT NAME: BHUTAN TELECOM LTD 2026

ICON POWER SOLUTIONS(P) LTD.
112-113,Sector-5,IMT Manesar,
Gurugram,Haryana,INDIA-122050
TEL : +91 124 4120600/01/02



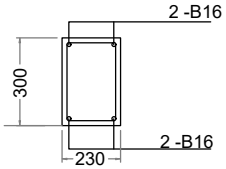


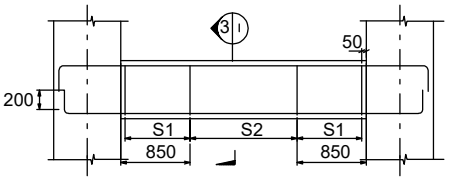
FOUNDATION KEY PLAN



SECTION 2

COLUMN 500X500

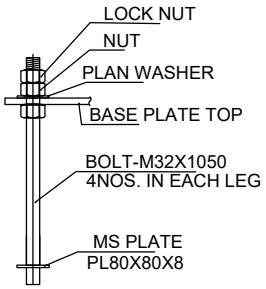




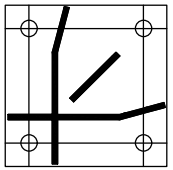
TIE BEAM (TYP DETAILS)

SECTION 3

STIRRUP DETAILS
S1:-2 LEGGED Y8 @ 100 C/C
S2:-2 LEGGED Y8 @ 200 C/C



ANCHOR BOLT



BASE PLATE

NOTES

1. ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
2. USE M20 GRADE CONCRETE AND Fe 415 GRADE FOR STEEL.
3. CLEAR COVER TO MAIN REINFORCEMENT:-
   (a) 50MM FOR FOUNDATION (b) 25MM FOR BEAMS
   (c) 40MM FOR COLUMNS
4. PRIOR TO AND DURING CONCRETING ALL BOLTS SHALL BE SECURELY HELD IN POSITION BY USE OF TEMPLATE.
5. BEFORE COMMENCEMENT OF CONSTRUCTION USING THIS DESIGN, CLIENT/CONTRACTOR SHALL CARRY OUT DETAILED SOIL INVESTIGATION OF EVERY 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	1.8 T/SQM
3	ANGLE OF REPOSE	30.00 DEGREE

BILL OF MATERIALS

ITEM	UNIT	TOTAL
EXCAVATION	CUM	68.06
PCC-(1:4:8)	CUM	2.18
RCC-M20	CUM	10.30
STEEL-Fe415	KG	778.49

CHAIRS SHALL BE PROVIDED WHEREEVER REQUIRED

REVISION NOTES

REV. NO.	DESCRIPTION		DATE	SIGN.

DRAWN	CHECKED	APPROVED	DATE	SCALE
HEMANT	SUJITH	SUJITH	01-12-2025	NTS

CLIENT: BHUTAN TELECOM

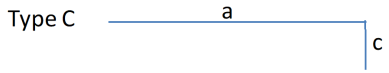
DESIGN BY: ICON POWER SOLUTIONS PVT. LTD. GURGAON

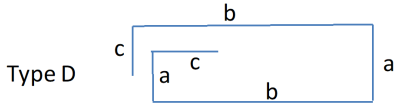
PROJECT: NETWORK EXPANSION 2025

TITLE : FOUNDATION DETAILS FOR 25M HIGH TRIANGULAR TOWER
SBC : 10 T/SQM

DRAWING No.	SH. NO.	REV.
IPS-25M-3L-BT-6G2M	1 OF 2	01

IPS-25M-3L-BT-6G2M Tower Bar Bending Schedule





Cover Slab 50 mm

Column 40 mm

Beam 25 mm

Item	Position	Type	Dia. Of Rebar	Size a	Size b	Size c	Length	Qty in Nos both ways or total	Unit wt	Total Weight of
			(mm)	(mm)	(mm)	(mm)	(mm)		(kg/m)	(kg)
Raft Slab	Top	B	B10	2400	250	250	2900	96	0.62	172.61
	Bottom	B	B10	2400	250	250	2900	96	0.62	172.61
Tie Beams	Top	B	B16	3376	200	200	3776	6	1.58	35.80
	Bottom	B	B16	3376	200	200	3776	6	1.58	35.80
	Strips	D	B8	180	250	80	1020	66	0.40	26.93
Column	Main	C	B20	3100	0	600	3700	24	2.47	219.34
	Ties	D	B8	412	412	80	1808	63	0.40	45.56
		D	B8	320	320	80	1440	63	0.40	36.29
		Total								778.49

* 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.

REVISION NOTES				
REV. NO.	DESCRIPTION		DATE	SIGN.
DRAWN	CHECKED	APPROVED	DATE	SCALE
HEMANT	SUJITH	SUJITH	01-12-2025	NTS

CLIENT: BHUTAN TELECOM

DESIGN BY: ICON POWER SOLUTIONS PVT. LTD. GURGAON

PROJECT: NETWORK EXPANSION 2025

TITLE : FOUNDATION DETAILS FOR 25M HIGH TRIANGULAR TOWER
SBC : 10 T/SQM

DRAWING No.	SH. NO.	REV.
IPS-25M-3L-BT-6G2M	2 OF 2	01