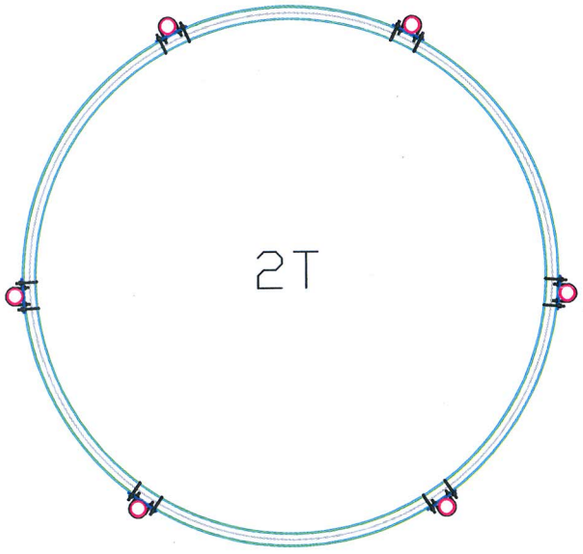
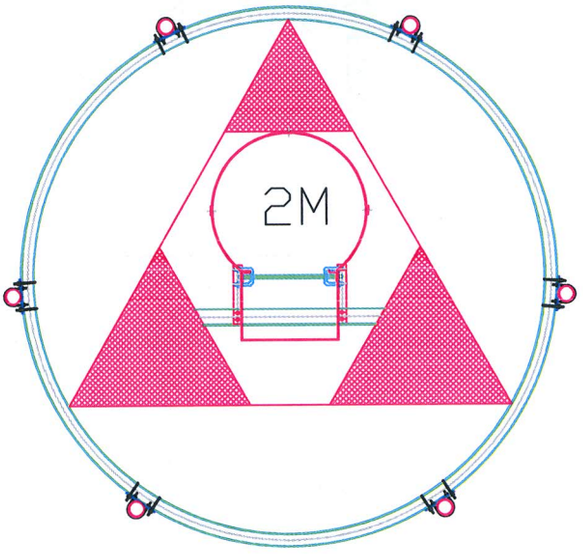
LEVEL	FACE WIDTH	PLATFORM	LEG JOINT NAME	LEG LENGTH	LEGS SIZE	PANEL NO	LENGTH (METER)	DIAGONALS	PANEL TOP- HORIZONTALS	PANEL MID- HORIZONTALS	PLAN BRACING	SEC. BRACING
20000	2000		A									
17500	2000			2500	65x65x5	1	2.5	45x45x5	50x50x4	45x45x04	50x50x4	
15000	2000	Working Platform	B	2500		2	2.5					
12500	2000	Working Platform		2500	75X75X5	3	2.5	45x45x5	50x50x4	45x45x04		
10000	2000		C	2500		4	2.5					
7500	2250			2503	90x90x8	5	2.5	50x50x5		50x50x4	50x50x4	
5000	2500		D	2503		6	2.5					
2500	2750			2503	100x100x8	7	2.5	50x50x5		50x50x4	50x50x4	
0000	3000		E	2503		8	2.5					

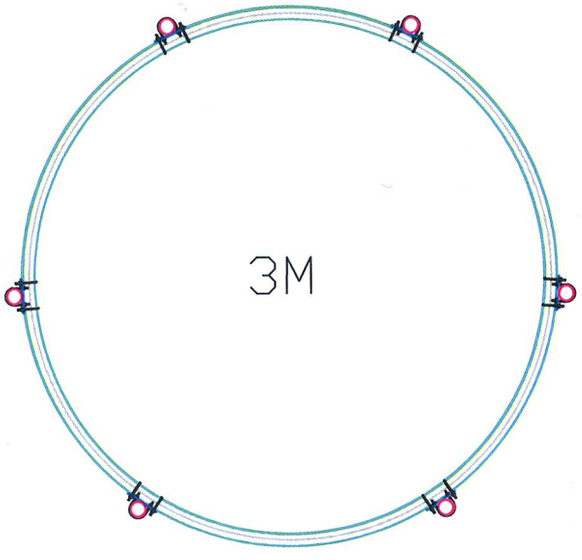
PLAN VIEWS

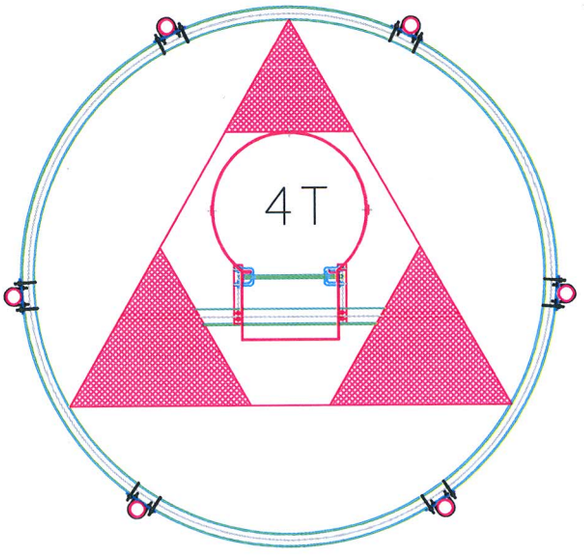
1)Remote Radio Head– 6nos
(Total Weight 102kgs.)
2)Sectoral Antennas – 6nos
(Total Weight 210kgs.)
3)Microwave Antennas (0.6m)–2nos
(Total Weight 40kgs.)

TITLE	20 METER TOWER	Wind Speed	180 KMPH	Design	TIA/EIA–222 G
SUB. TITLE	TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	Rev:	1
Drawing No.	AGD–319B	Loading	352 kgs.	Drawn Date	11–01–2021
ICON POWER SOLUTIONS PVT. LTD. GURGAON		Tower Weight 3000 kgs.			





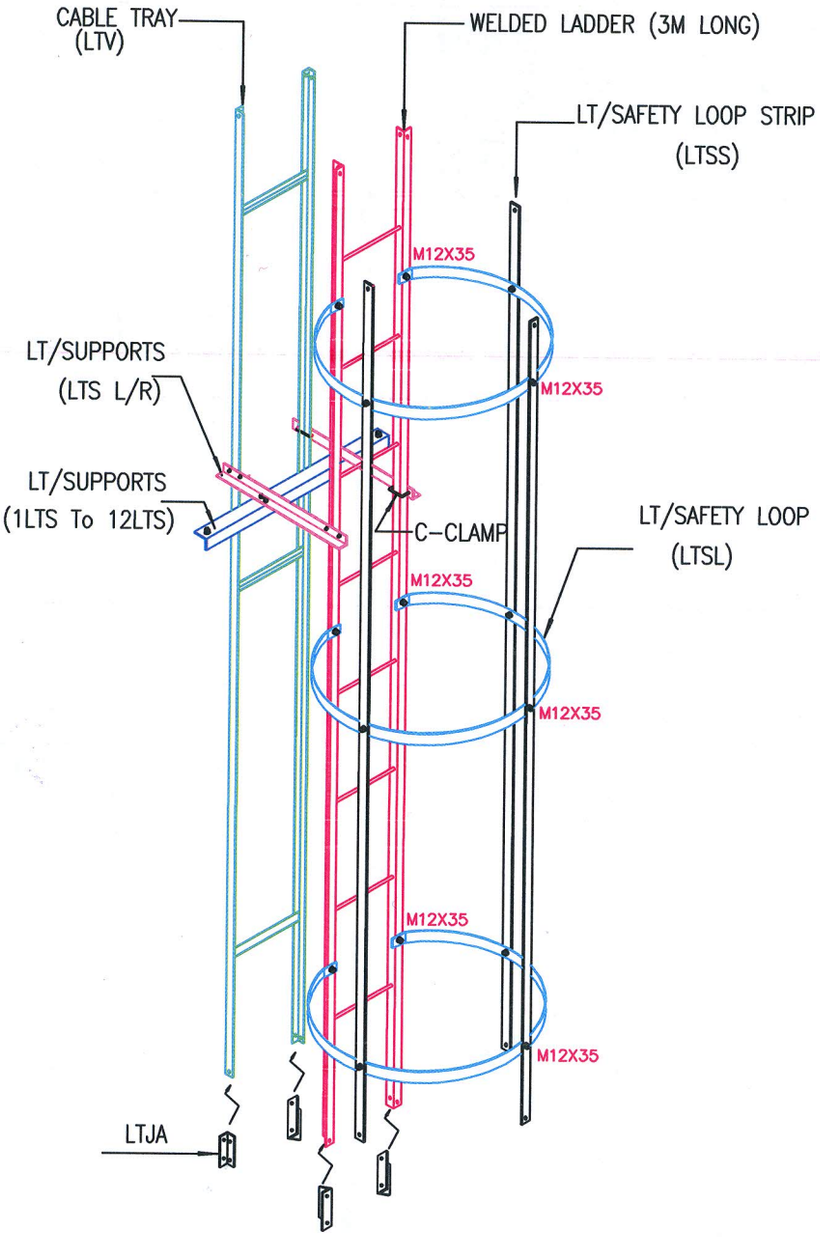




PLAN VIEW

1)Remote Radio Head– 6nos
(Total Weight 102kgs.)
2)Sectoral Antennas – 6nos
(Total Weight 210kgs.)
3)Microwave Antennas (0.6m)–2nos
(Total Weight 40kgs.)

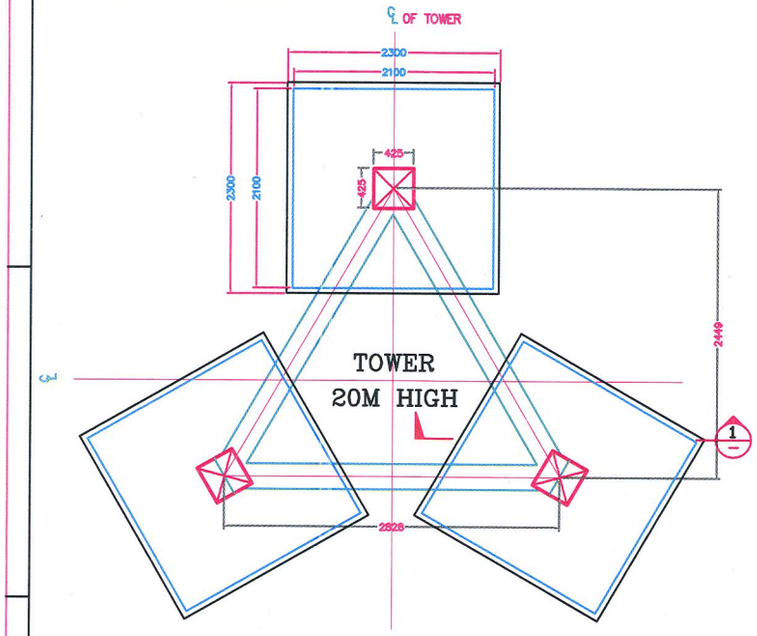
TITLE	20 METER TOWER	Wind Speed	180 KMPH	Design	TIA/EIA–222 G
SUB. TITLE	TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	Rev:	1
Drawing No.	AGD–319B	Loading	352 kgs.	Drawn Date	11–01–2021
ICON POWER SOLUTIONS PVT. LTD. GURGAON		Tower Weight 3000 kgs.			



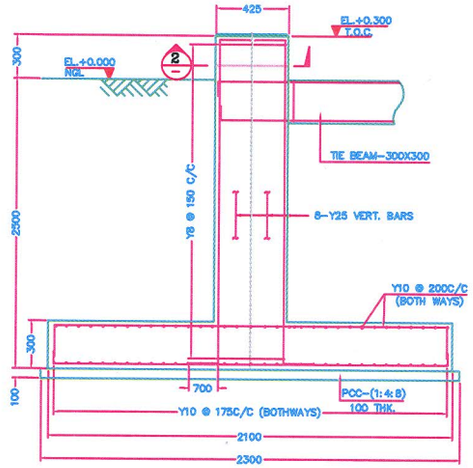
Ladder & Cable Tray

1)Remote Radio Head– 6nos
(Total Weight 102kgs.)
2)Sectoral Antennas – 6nos
(Total Weight 210kgs.)
3)Microwave Antennas (0.6m)–2nos
(Total Weight 40kgs.)

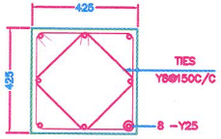
TITLE	20 METER TOWER	Wind Speed	180 KMPH	Design	TIA/EIA–222 G
SUB. TITLE	TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	Rev.	1
Drawing No.	AGD–319B	Loading	352 kgs.	Drawn Date	11–01–2021
ICON POWER SOLUTIONS PVT. LTD. GURGAON		Tower Weight 3000 kgs.			



FOUNDATION KEY PLAN

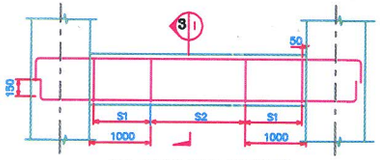


SECTION 1

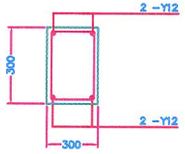


SECTION 2

COLUMN 450X450

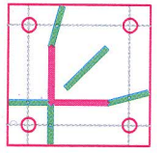


TIE BEAM (TYP DETAILS)

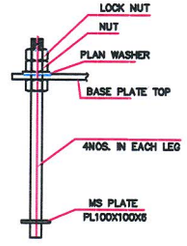


SECTION 3

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



BASE PLATE



ANCHOR BOLT

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 (d) 50MM AT ENDS
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

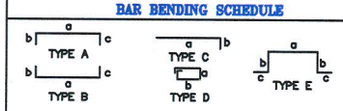
S.No	DESCRIPTION	DETAILS
1	SOIL BEARING CAPACITY	10.00 T/SQM
2	DRY DENSITY OF SOIL	1.75 T/SQM
3	ANGLE OF REPOSE	25.00 DEGREE

BILL OF MATERIALS

ITEM	UNIT	TOTAL
EXCAVATION	CUM	50.7
PCC-(1:4:8)	CUM	1.9
RCC-M20	CUM	5.56
STEEL-Fe415	KG	550

CHAIRS SHALL BE PROVIDED WHEREEVER REQUIRED

BAR BENDING SCHEDULE



REVISION NOTES

REV. NO.	DESCRIPTION		DATE	SIGN.
DRAWN	CHECKED	APPROVED	DATE	SCALE
S.K.Chauhan	MOHIT GUPTA	MOHIT GUPTA	11-01-2021	NTS

CLIENT: BHUTAN TELECOM LTD. BHUTAN

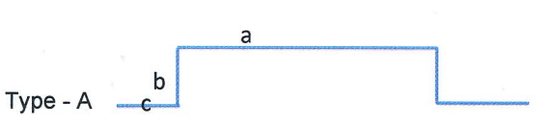
DESIGN BY: ICON POWER SOLUTIONS PVT. LTD. THIMPU, BHUTAN

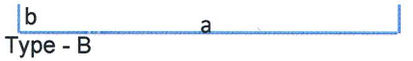
PROJECT: GENERIC ISOLATED FOUNDATION DESIGN BHUTAN

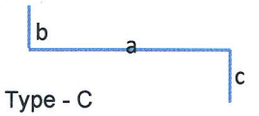
TITLE : FOUNDATION DETAILS FOR 20M HIGH TRIANGULAR TOWER SBC : 10 T/SQM

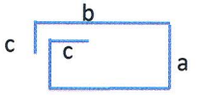
DRAWING No.	SH. NO.	REV.
AGD-319B		

Bar Bending Schedule of 20m high 3legged tower









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	2000	150	-	2300	66	0.62	94
	Bottom	B	B10	2000	150	-	2300	78	0.62	111
Tie Beams	Top	B	B16	3153	300	-	3753	6	1.58	36
	Bottom	B	B16	3153	300	-	3753	6	1.58	36
	Strips	D	B8	250	250	80	1160	54	0.40	25
Column	Main	C	B16	2700	309	600	3609	24	1.58	137
	Ties	D	B8	317	317	80	1428	57	0.40	32
		D	B8	224	224	80	1057	57	0.40	24
							Total (5% extra considered)			550

* 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.