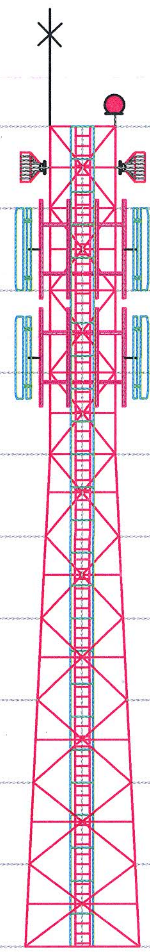
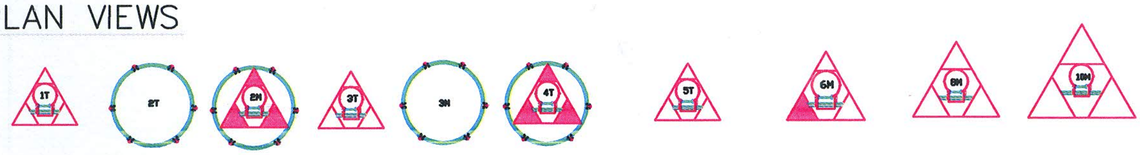
LEVEL	FACE WIDTH	LEG JOINT NAME
25000	2000	A
22500	2000	
20000	2000	B
17500	2000	
15000	2000	C
12500	2250	
10000	2500	D
7500	2750	
5000	3000	E
2500	3250	
0000	3500	F

PANEL NO	LENGTH (METER)	LEG LENGTH	LEGS SIZE	DIAGONALS	PANEL TOP- HORIZONTALS	PANEL MID- HORIZONTALS	PLAN BRACING	SEC. BRACING	PLATFORM
1	2.5	2500	65x65x5	45x45x5	50x50x4	45x45x04	50x50x4		
2	2.5	2500	65x65x5	45x45x5	50x50x4	45x45x04	50x50x4		Working Platform
3	2.5	2500	75X75X5	45x45x5	50x50x4	45x45x04	50x50x4		Working Platform
4	2.5	2500	75X75X5	45x45x5	50x50x4	45x45x04	50x50x4		
5	2.5	2503	90x90x8	50x50x5		50x50x4	50x50x4		
6	2.5	2503	90x90x8	50x50x5		50x50x4	50x50x4		Rest Platform
7	2.5	2503	100x100x8	50x50x5		50x50x4	50x50x4		
8	2.5	2503	100x100x8	50x50x5		50x50x4	50x50x4		
9	2.5	2503	110x110x10	60x60x5		50x50x4	50x50x4		
10	2.5	2503	110x110x10	60x60x5		50x50x4	50x50x4		

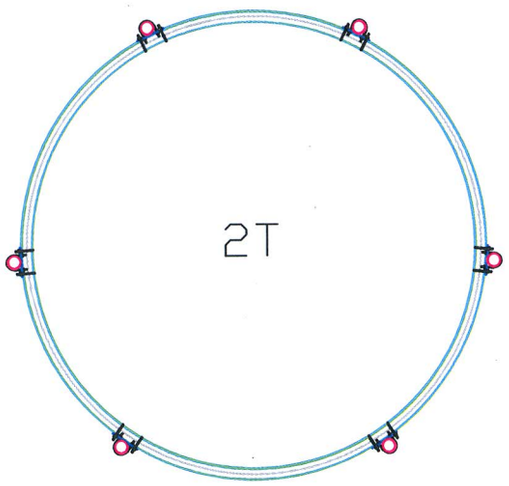


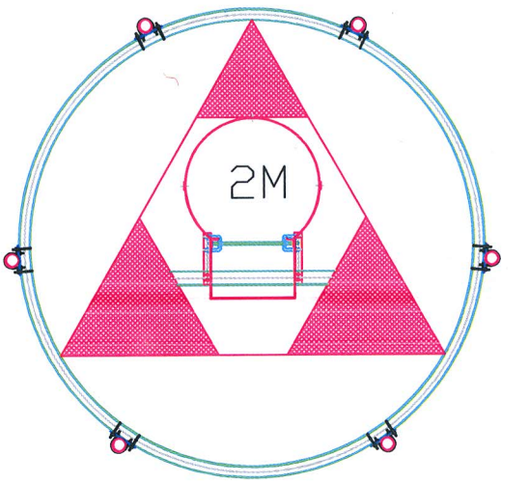
PLAN VIEWS

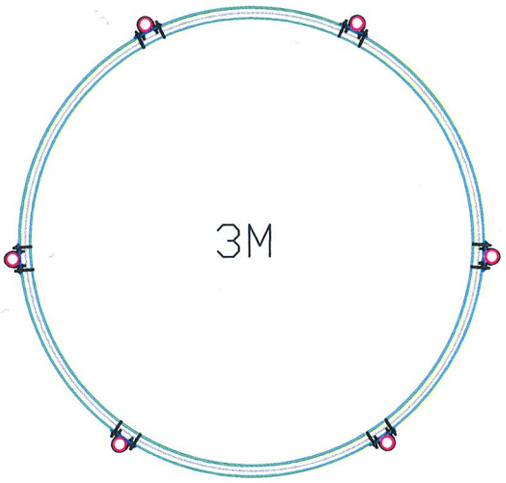


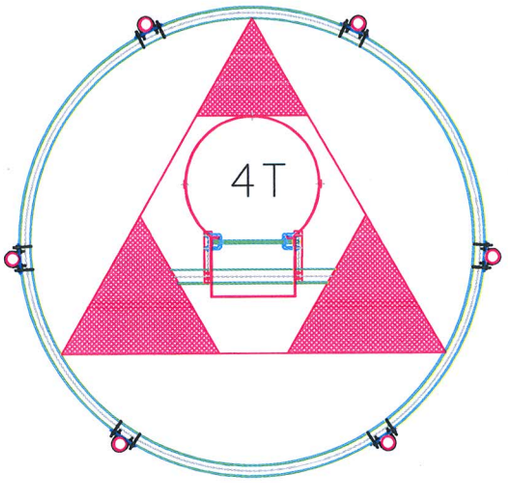
1)Remote Radio Head– 6nos (Total Weight 102kgs.)
2)Sectoral Antennas – 6nos (Total Weight 210kgs.)
3)Microwave Antennas (0.9m)–2nos (Total Weight 50kgs.)

TITLE	25 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–319A	Loading	362 kgs.	Drawn Date	11-01-2021
ICON POWER SOLUTIONS PVT. LTD. GURGAON		Tower Weight 3750 kgs.			



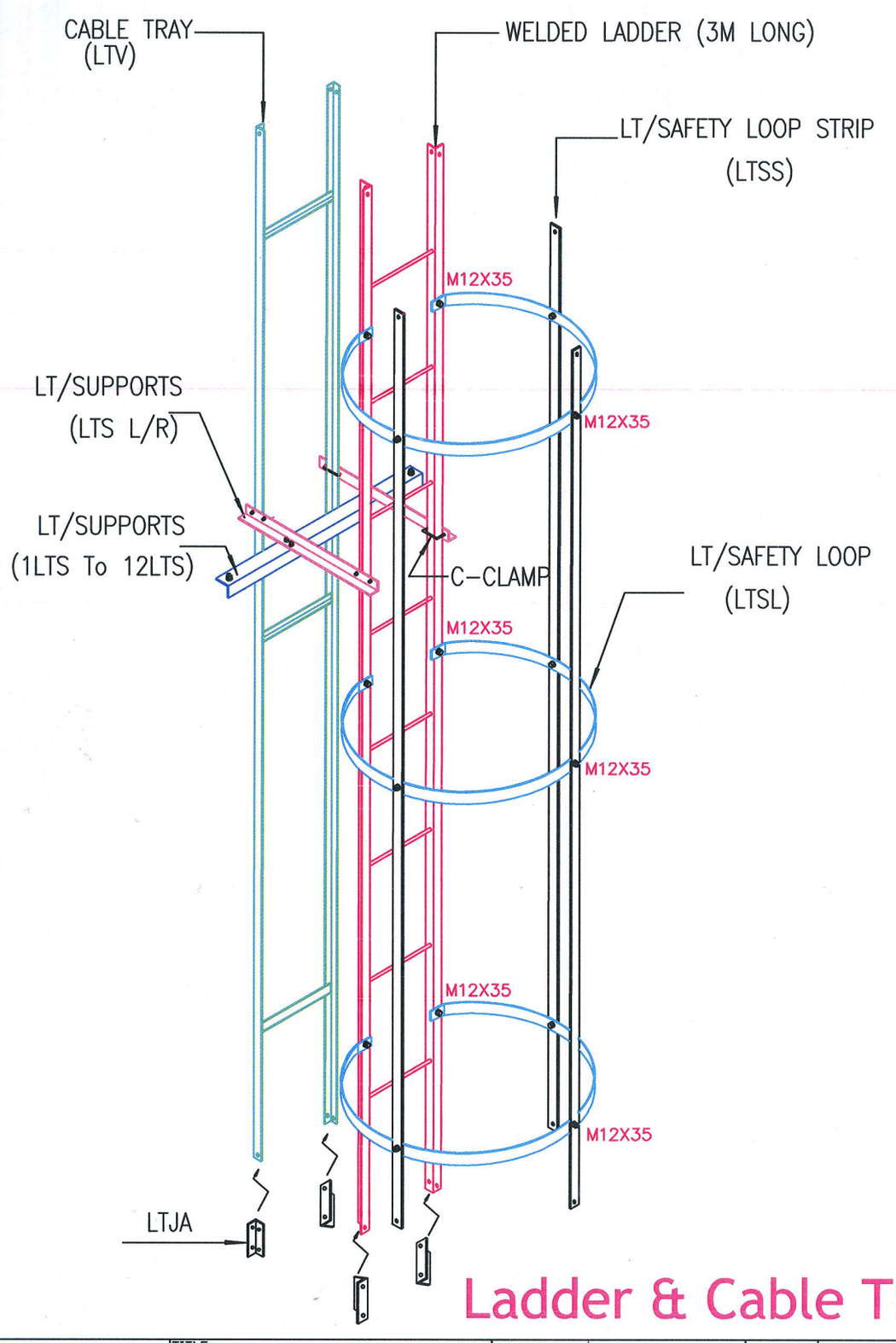






PLAN VIEW

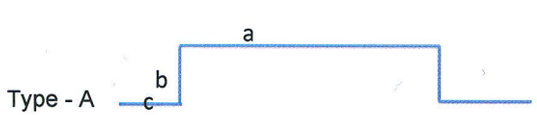
1)Remote Radio Head– 6nos (Total Weight 102kgs.) 2)Sectoral Antennas – 6nos (Total Weight 210kgs.) 3)Microwave Antennas (0.9m)–2nos (Total Weight 50kgs.)	TITLE 25 METER TOWER	Wind Speed	180 KMPH	Design	TIA/EIA–222 G
	SUB. TITLE TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	Rev:	1
	Drawing No. AGD–319A	Loading	362 kgs.	Drawn Date	11–01–2021
	ICON POWER SOLUTIONS PVT. LTD. GURGAON		Tower Weight 3750 kgs.		

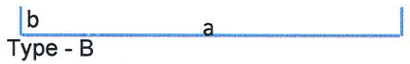


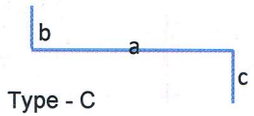
Ladder & Cable Tray

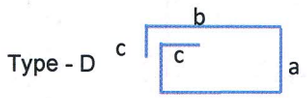
1)Remote Radio Head– 6nos (Total Weight 102kgs.) 2)Sectoral Antennas – 6nos (Total Weight 210kgs.) 3)Microwave Antennas (0.9m)–2nos (Total Weight 50kgs.)	TITLE: 25 METER TOWER	Wind Speed	180 KMPH	Design	TIA/EIA–222 G
	SUB. TITLE: TRIANGULAR ANGULAR TOWER	Deflection	< 1.0 Degree	Rev:	1
	Drawing No.: AGD–319A	Loading	362 kgs.	Drawn Date	11–01–2021
	ICON POWER SOLUTIONS PVT. LTD. GURGAON		Tower Weight 3750 kgs.		

Bar Bending Schedule of 25m 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	3640	300	-	4240	6	1.58	40
	Bottom	B	B16	3640	300	-	4240	6	1.58	40
	Strips	D	B8	250	250	80	1160	63	0.40	29
Column	Main	C	B20	3200	305	800	4305	24	2.47	255
	Ties	D	B8	317	317	80	1428	69	0.40	39
		D	B8	224	224	80	1057	69	0.40	29
							Total (5% extra considered)			700

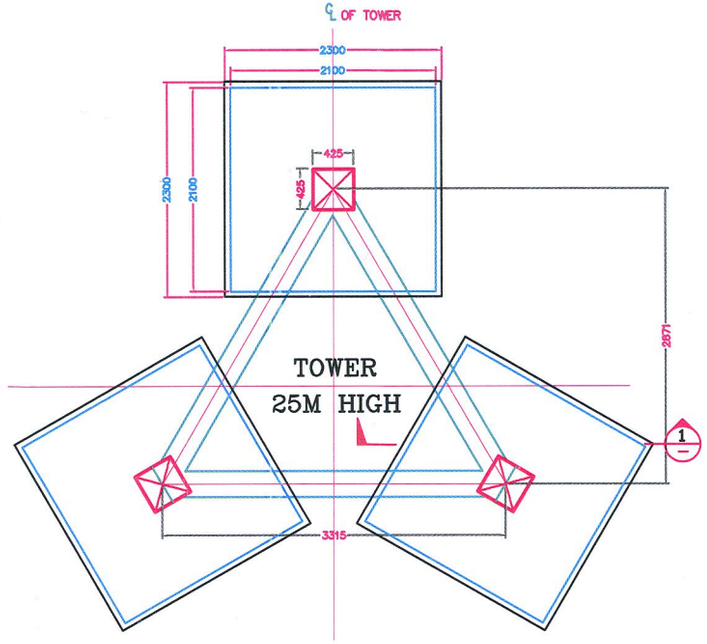
* Chairs Shall be Provided whenever required

Notes :

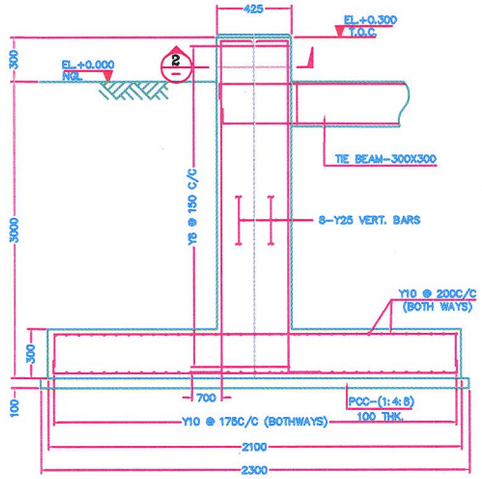
1. Dimensions of Bars are along the Center Lines.

3. Splicing of Bars should not be more than 50%. Length of splice as per Standards.

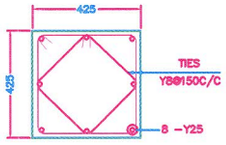
Description & Values of Symbols			
Cement Concrete Sizes			
Symbol	Description	Value	Units
th_pcc	Thickness of PCC	100	mm
s_pcc	Side of PCC below the slab	2300	mm
d_excavation	Depth of Excavation	3200	mm
d_foundation_	Depth of Foundation below ground level	3100	mm
s_slab	Side/Dia of slab	2100	mm
th_slab	Thickness of Slab	300	mm
d_column_bgl	Depth of Column below ground level(d_foundatio_bgl)	2700	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	2	mm
d_p.beam	Depth of Primary Beam	16	mm
s_Column	Side of (square)Column, for tower, width or depth	425	mm
d_column_slal	Distance from end of Slab to center of Column	1050	mm
Calculated Values			
	Toatl Volume of PCC	1.9	cu.m
	Total Volume of RCC	6.4	cu.m
	Total PCC + RCC	8.3	cu.m
	Excavation, assuming vertical digging	49.7	cu.m



FOUNDATION KEY PLAN

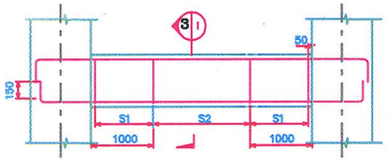


SECTION 1

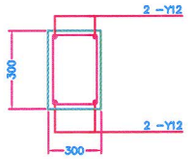


SECTION 2

COLUMN 450X450

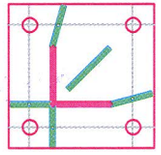


TIE BEAM (TYP DETAILS)

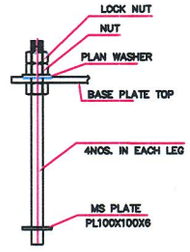


SECTION 3

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

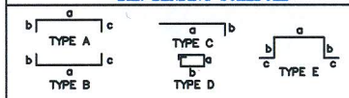
S.No	DESCRIPTION	DETAILS
1	SOIL BEARING CAPACITY	10.00 T/SQM
2	DRY DENSITY OF SOIL	1.75 T/SQM
3	ANGLE OF REPOSE	25.00 DEGREE

BILL OF MATERIALS

ITEM	UNIT	TOTAL
EXCAVATION	CUM	50.7
PCC-(1:4:8)	CUM	1.9
RCC-M20	CUM	6.56
STEEL-Fe415	KG	700

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 25M HIGH TRIANGULAR TOWER SBC : 10 T/SQM

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