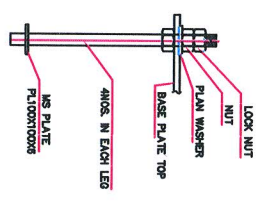
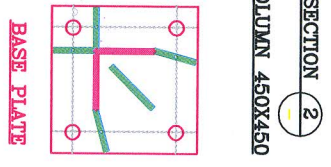
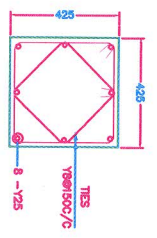
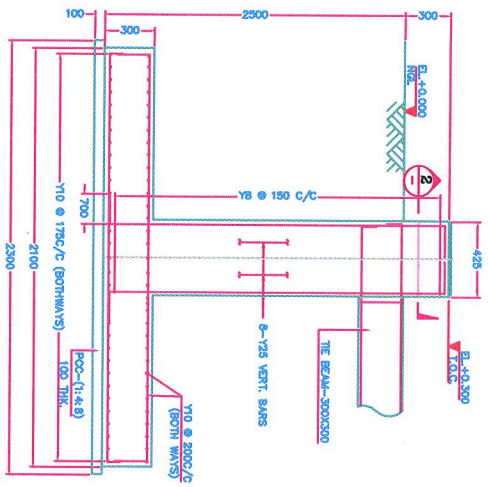


STIRRUP DETAILS
 S1 - 2 LERGED Y8 @ 100 C/C
 S2 - 2 LERGED Y8 @ 200 C/C



- NOTES**
- ALL DIMENSIONS ARE IN MM UNLESS NOTED OTHERWISE.
 - USE M20 GRADE CONCRETE AND F415 GRADE FOR STEEL.
 - CLEAR COVER TO MAIN REINFORCEMENT -
 (a) 25MM FOR BEAMS
 (b) 40MM FOR COLUMNS
 (c) 50MM AT ENDS
 (d) 50MM AT JOINTS
 - PRIOR TO AND DURING CONCRETING ALL BOLTS SHALL BE SECURELY HELD IN POSITION BY USE OF TEMPORARY BRACING.
 - BEFORE COMMENCEMENT OF CONSTRUCTION USING THIS DESIGN, CLIENT/SUPPLIER SHALL CARRY OUT DETAILED SOIL INVESTIGATION OF EACH SITE.
 - THIS FOUNDATION DESIGN SHALL NOT BE USED IN CASE HEAVY SOIL ARE FOUND AT ANY PART OF THE FOUNDATION.
 - CONCRETE SHALL BE MECHANICALLY VIBRED.
 - SPACING OF BARS SHALL NOT BE MORE THAN 500 AT ANY LOCATION.
 - PROPER CURING OF CONCRETE SHALL BE DONE.
 - BENDING OF BARS SHALL BE AS PER IS:2002.
 - ANY DISCREPANCY SHOULD BE BROUGHT TO THE CONSULTANT'S ATTENTION.

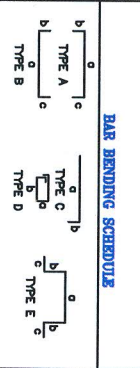
GENERAL DETAILS

S.No	DESCRIPTION	DETAILS
1	SOIL BEARING CAPACITY	10.00 T/SM
2	DPT DENSITY OF SOIL	1.75 T/SM
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-F415	KG	550

CHANGS SHALL BE PROVIDED WHEREVER REQUIRED



REVISION NOTES

REV. NO.	DESCRIPTION	DATE	SIGN.
DRAWN	CHECKED	APPROVED	DATE
SCALE	SCALE	SCALE	SCALE

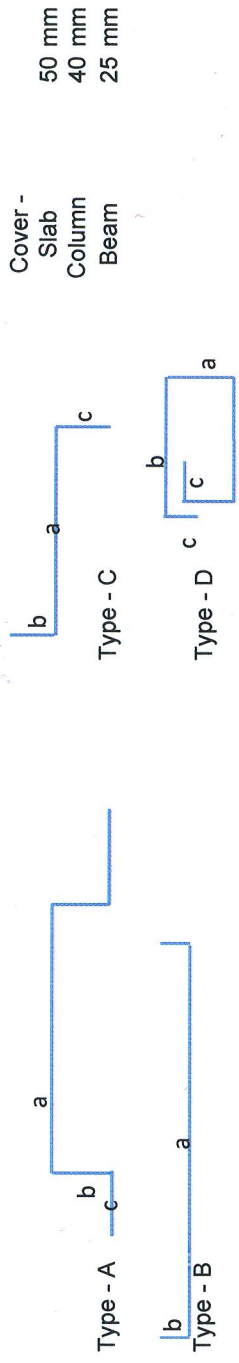
DESIGNED BY
ICON POWER SOLUTIONS PVT. LTD.
 THIMPU, BHUTAN

PROJECT
 GENERIC ISOLATED FOUNDATION DESIGN
 BHUTAN

CLIENT
BHUTAN TELECOM LTD.
 BHUTAN

TITLE : FOUNDATION DETAILS FOR 20M HIGH TRIANGULAR TOWER
 SPEC : 10 T/SM
 DRAWING No. AGD-3198 SH. NO. REV.

Bar Bending Schedule of 20m high 3legged tower



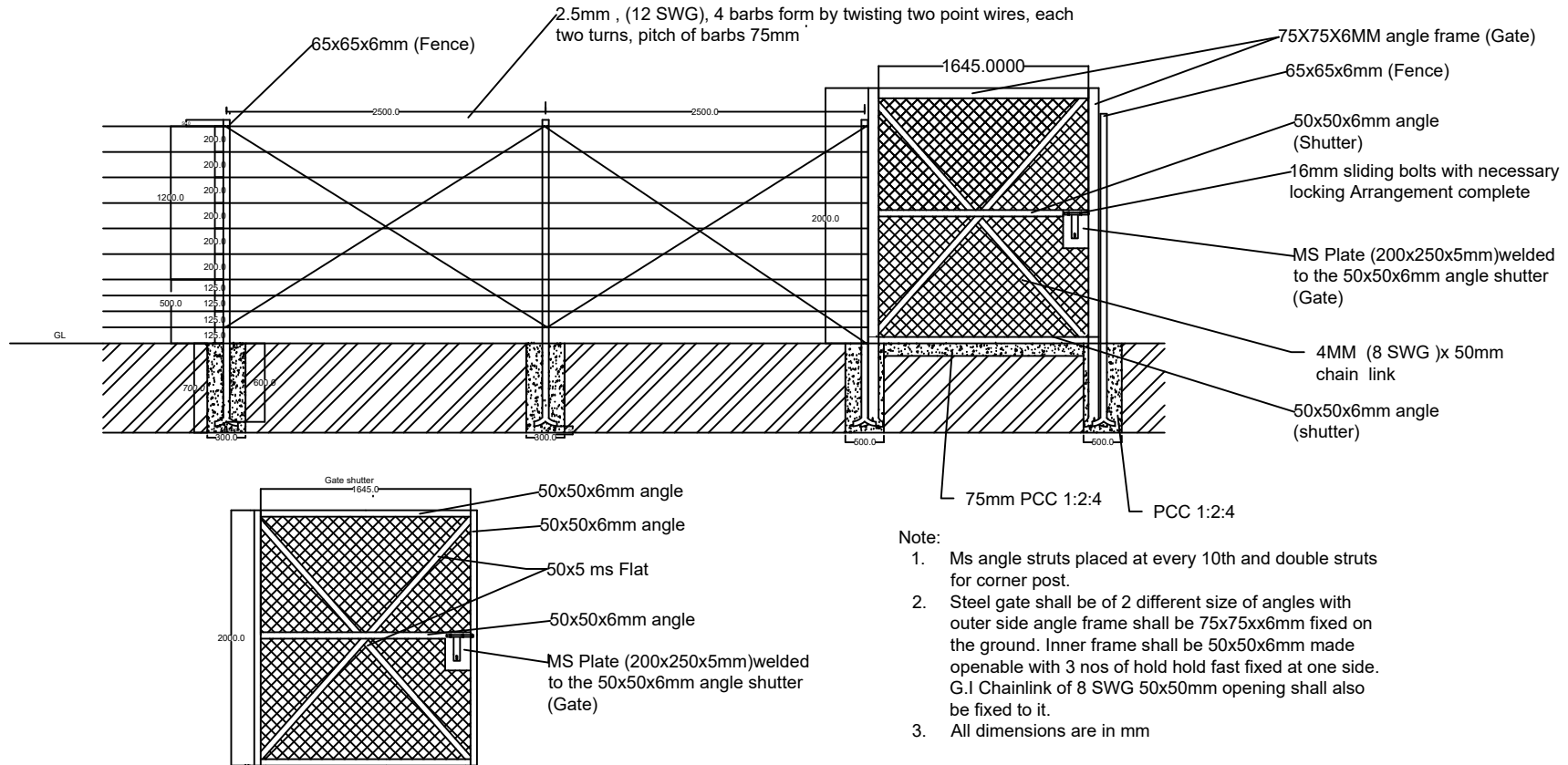
Item	Position	Type	Dia. Of Rebar (mm)	Size	Size	Size	Size	Length (mm)	Qty in Nos both ways or total	Unit wt (kg/m)	Total Weight of (kg)
				(mm)	(mm)	(mm)	(mm)				
Raft Slab	Top	B	B10	2000	150	-	2300	2300	66	0.62	94
	Bottom	B	B10	2000	150	-	2300	2300	78	0.62	111
Tie Beams	Top	B	B16	3153	300	-	3753	3753	6	1.58	36
	Bottom	B	B16	3153	300	-	3753	3753	6	1.58	36
	Strips	D	B8	250	250	80	1160	1160	54	0.40	25
Column	Main	C	B16	2700	309	600	3609	3609	24	1.58	137
	Ties	D	B8	317	317	80	1428	1428	57	0.40	32
		D	B8	224	224	80	1057	1057	57	0.40	24
Total (5% extra considered)											550

* Chairs Shall be Provided whenever required

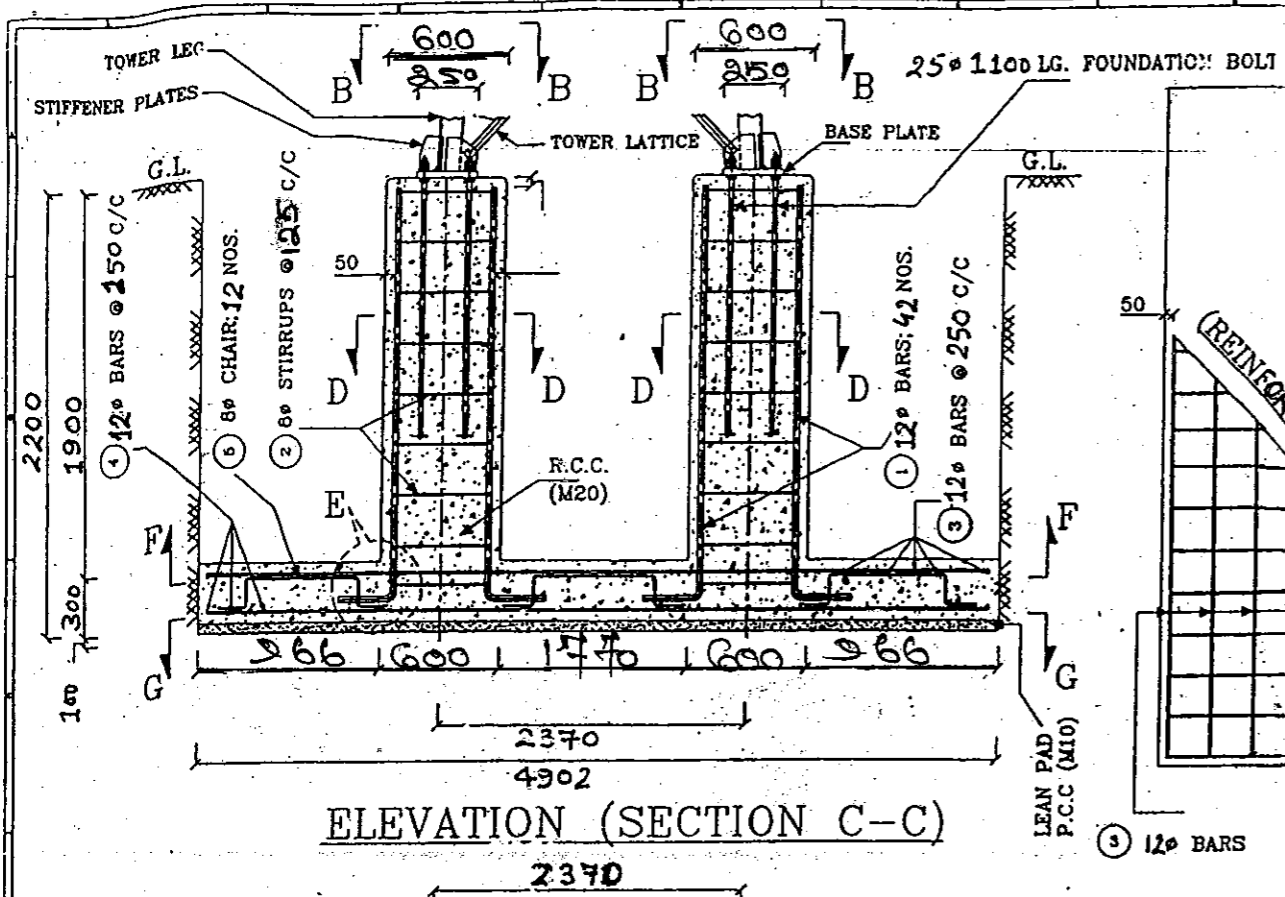
Notes :

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.

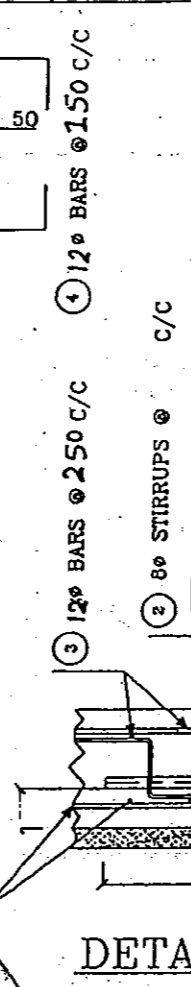
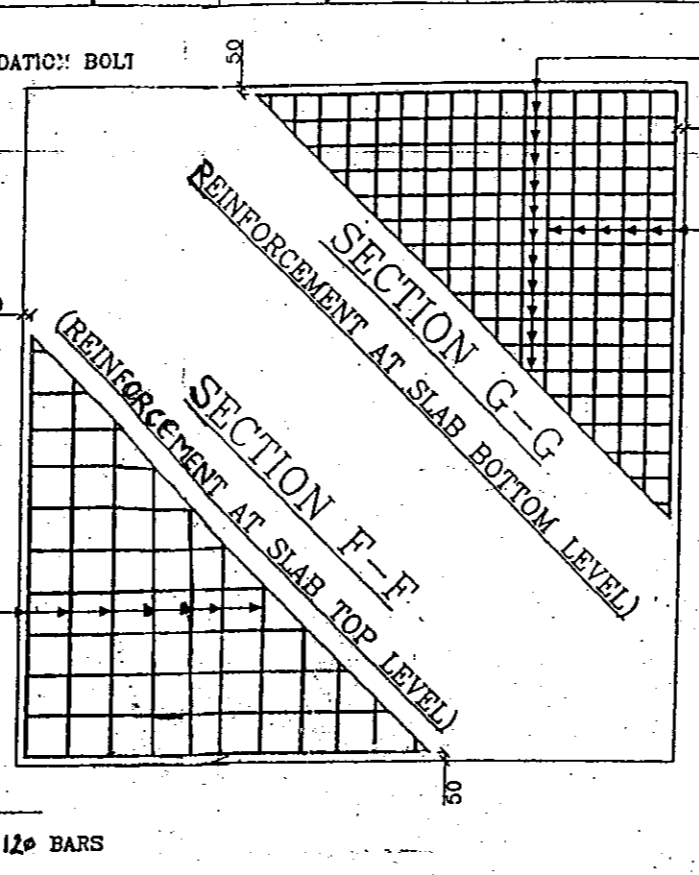
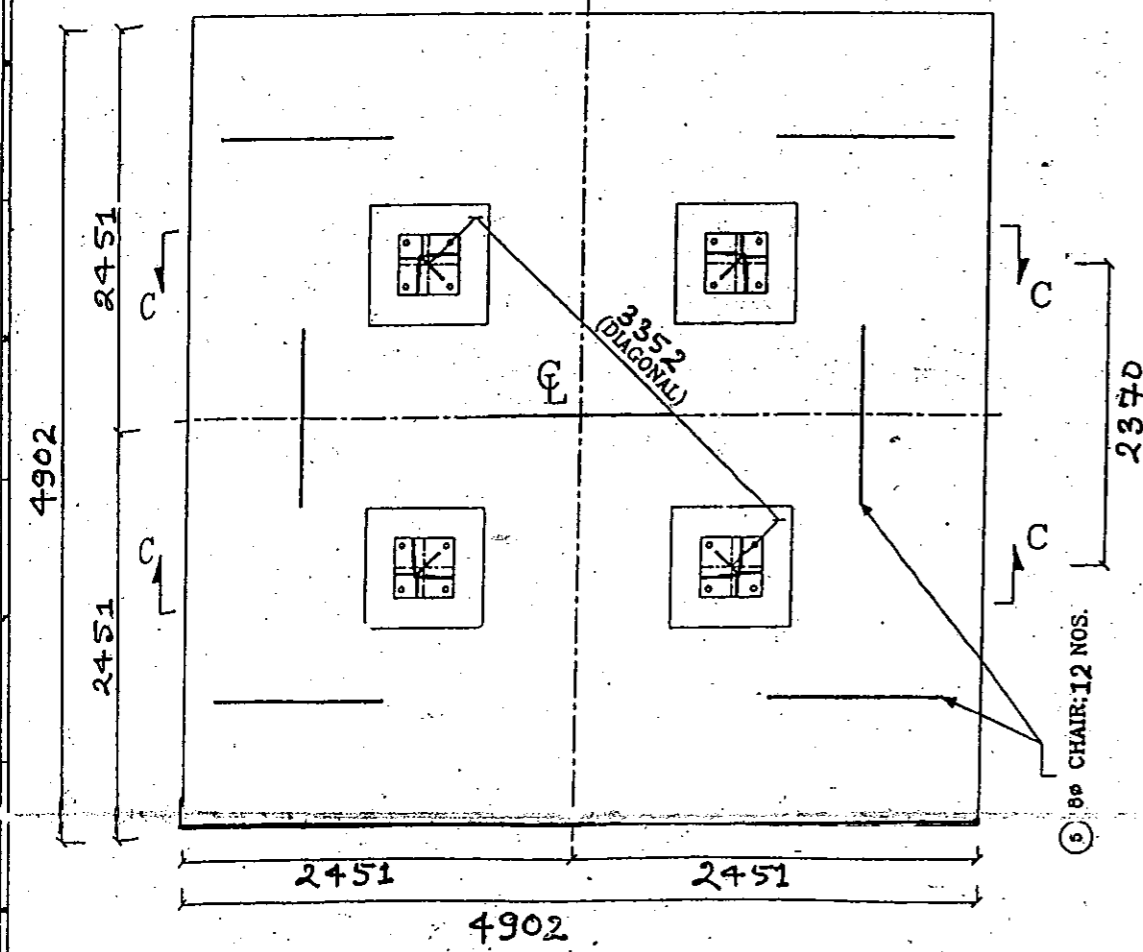
BARBED WIRE FENCING AND GATE DRAWING



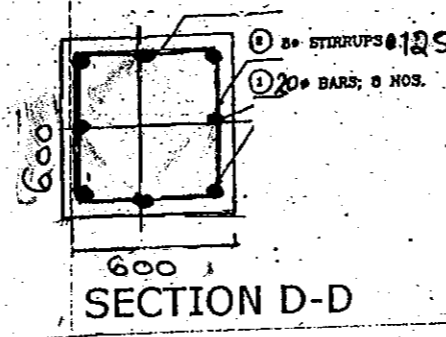
	Title : Barbed wire fencing	BHUTAN TELECOM LIMITED	
	Checked by:	Approved by:	



ELEVATION (SECTION C-C)



DETAIL-E



SECTION D-D

BAR NO.	BENDING DIAGRAM	BAR DIA. (m)	NOS. REQD. TOWER	LENGTH (m)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
①		20	32	2.350	75.2	2.47	185.74
②		8	72	2.150	154.8	0.39	60.67
③		12	42	4.80	201.6	0.89	179.42
④		12	68	4.80	326.4	0.89	290.49
⑤		8	12	1.200	14.4	0.89	5.61
TOTAL WEIGHT :							721.63

S.N.	ITEM	UNIT	TOTAL
1	EXCAVATION	CUM	5286
2	P.C.C.	CUM	2.40
3	RCC	CUM	9.82

NOTES:
 1. ALL DIMENSIONS ARE IN MM.
 2. CONCRETE GRADE TO BE USED IS M20.
 3. ALL REINFORCEMENT BARS SHOULD BE OF STEEL GRADE Fe-415.
 ALL REINFORCEMENT SHOULD HAVE 60MM COVERING UNLESS OTHERWISE TED.
 THIS DRAWING IS BASED ON THE FOUNDATION DESIGN FOR 18M TOWER.
 FOR-TEMPLATE DRAWING REFER DRAWING NO. PEPL/08-09/FND-003

PRAGATI ELECTROCOM (P) LTD

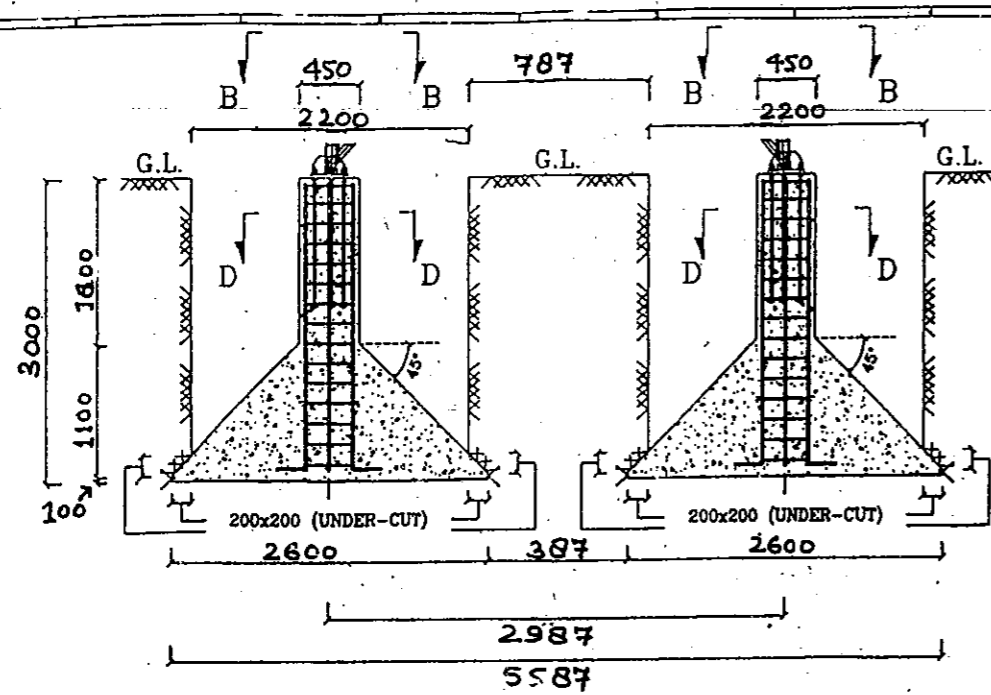
PROJECT: GSM SYSTEM FOR BHUTAN

CLIENT: BHUTAN TELECOM, BHUTAN

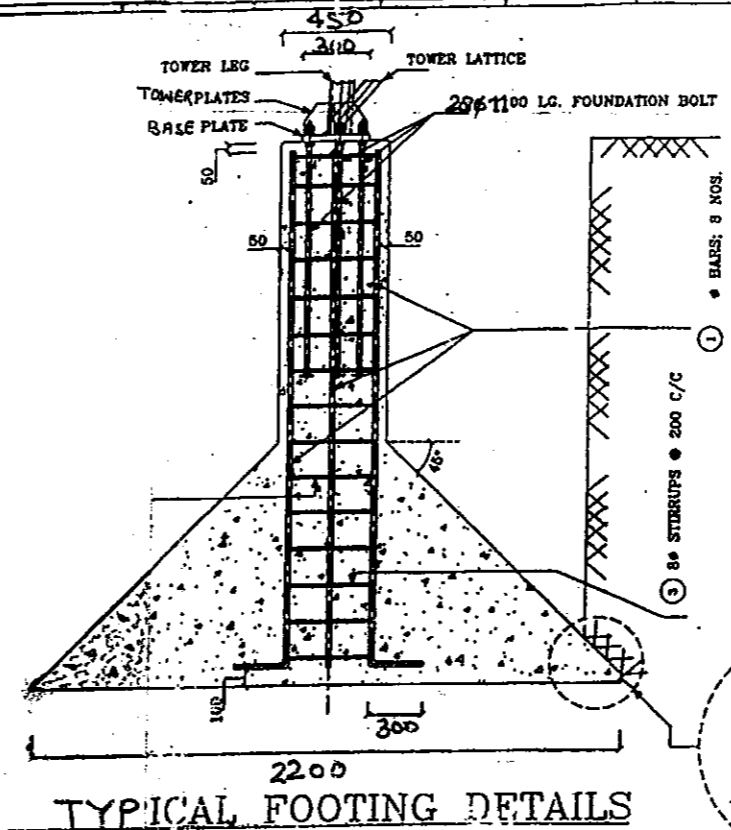
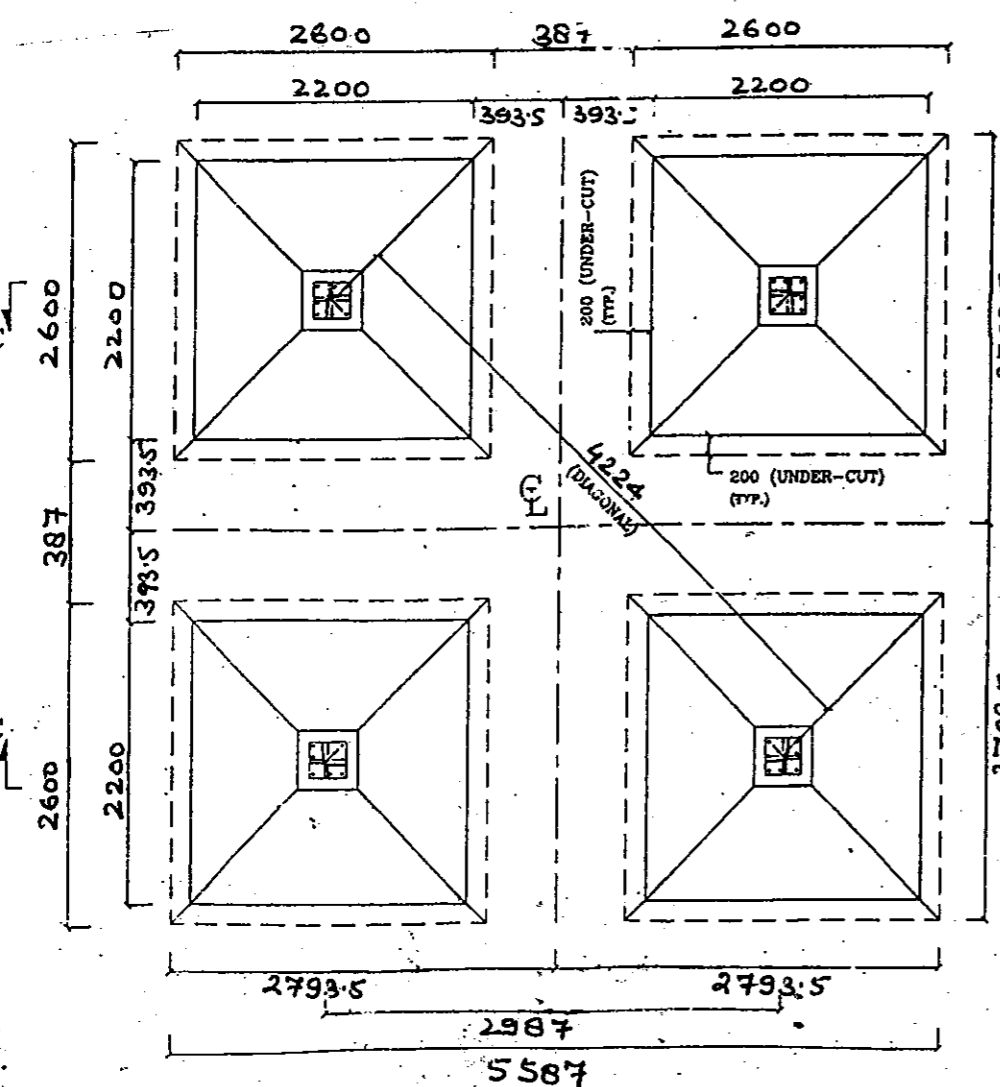
TITLE: FOUNDATION DETAILS FOR 18 M MICROWAVE TOWER

REVISION - 01

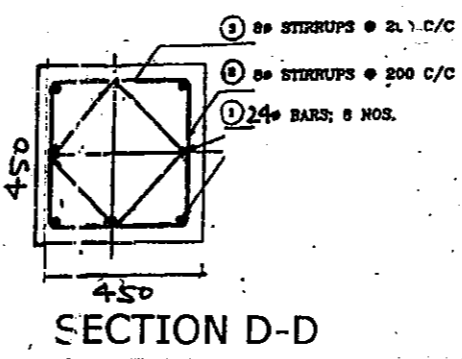
PREPARED BY: CHECKED BY:



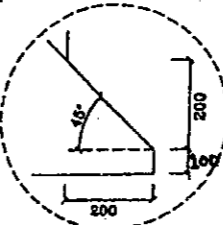
ELEVATION (SECTION C-C)



TYPICAL FOOTING DETAILS



SECTION D-D



UNDERCUT

BAR BENDING SCHEDULE							
BAR NO.	BENDING DIAGRAM	BAR DIA. (m)	NOS. REQD. TOWER	LENGTH (m)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
1		24	32	3.100	99.20	3.55	352.16
2		8	60	1.55	93	.39	36.27
3		8	60	1.35	81	.39	31.59
TOTAL WEIGHT :							420.02

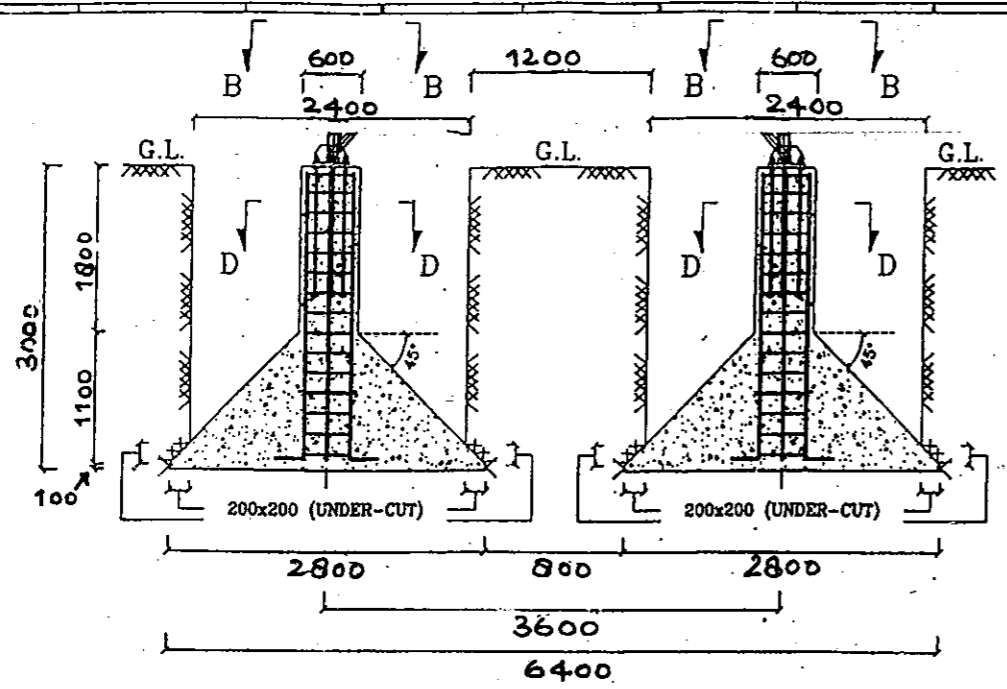
SNO	ITEM	UNIT	TOTAL
1	EXCAVATION	CUM	58.08
2	PCC	CUM	2.704
3	RCC	CUM	15.978

NOTES:
 1. ALL DIMENSIONS ARE IN MM.
 2. CONCRETE GRADE TO BE USED IS M20.
 3. ALL REINFORCEMENT BARS SHOULD BE OF STEEL GRADE Fe-415.
 ALL REINFORCEMENT SHOULD HAVE 60MM COVERING UNLESS OTHERWISE TED.
 THIS DRAWING IS BASED ON THE FOUNDATION DESIGN FOR 24M TOWER.
 # FOR TEMPLATE DRAWING REFER DRAWING NO. PEPL/08-09/CW1002

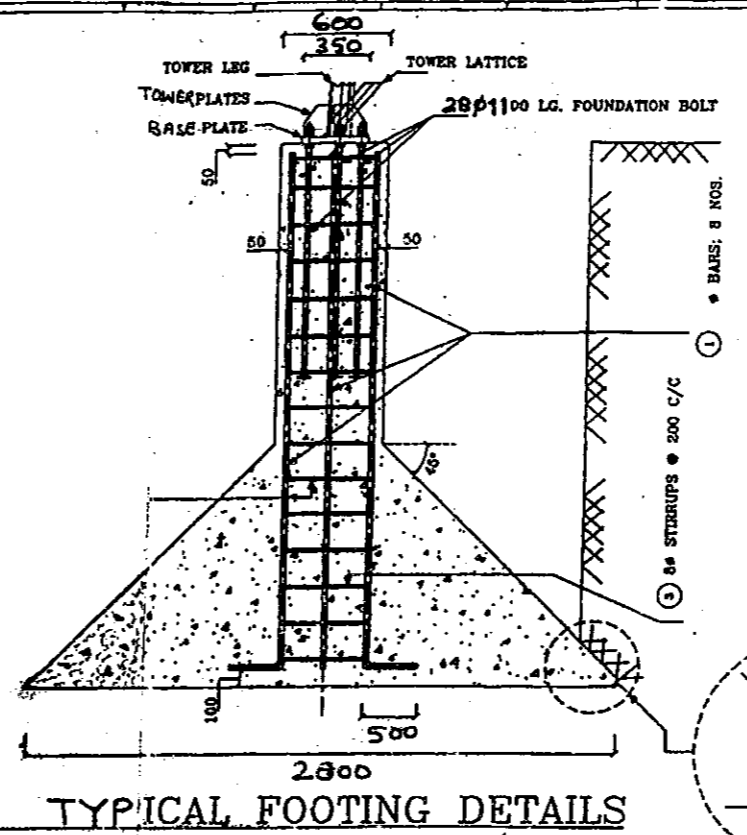
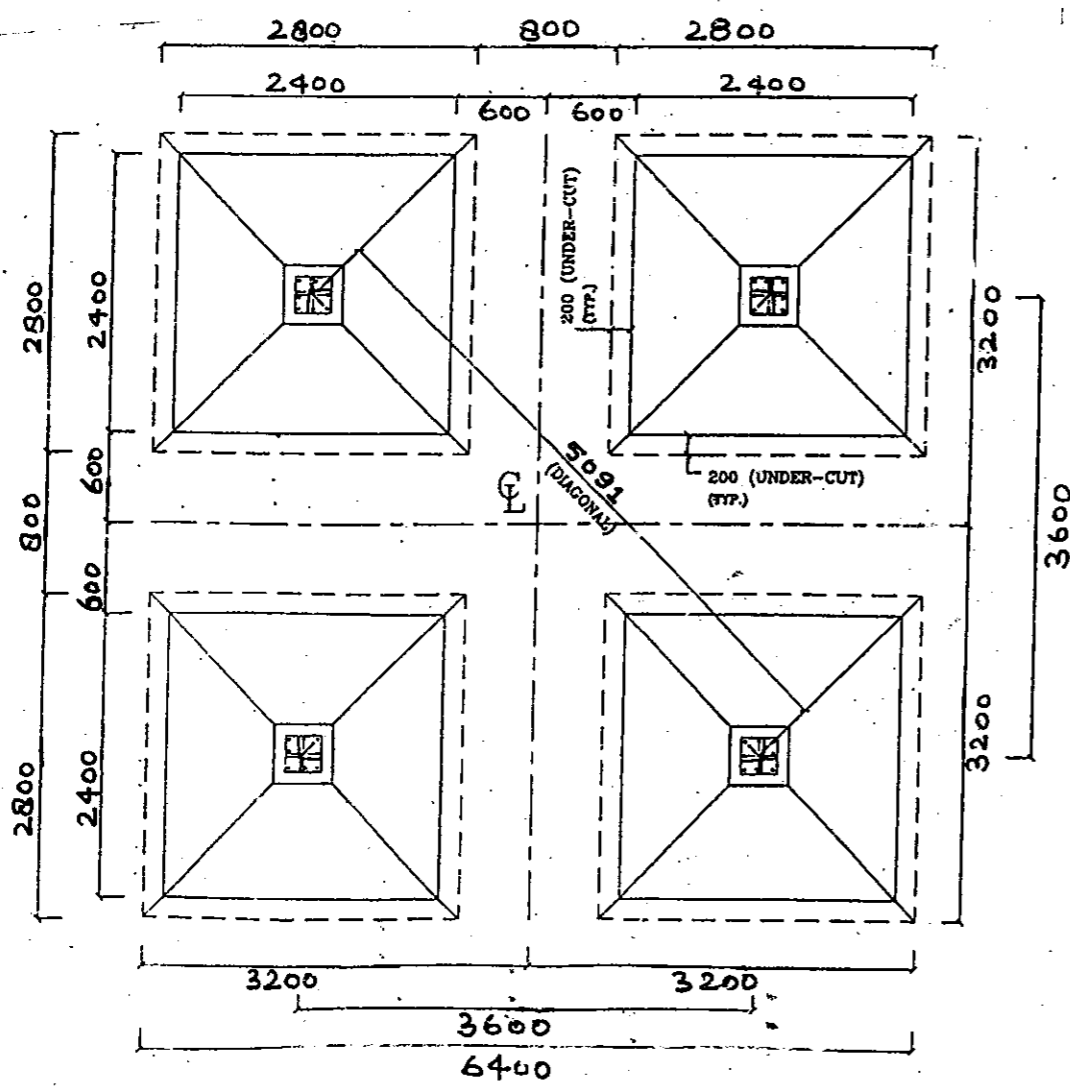
PRAGATI ELECTROCOM (P) LTD

PROJECT: GSM SYSTEM FOR BHUTAN
 CLIENT: BHUTAN TELECOM, BHUTAN
 TITLE: FOUNDATION DETAILS FOR 24M MICROWAVE TOWER
 PREPARED BY: *[Signature]*
 CHECKED BY: *[Signature]*

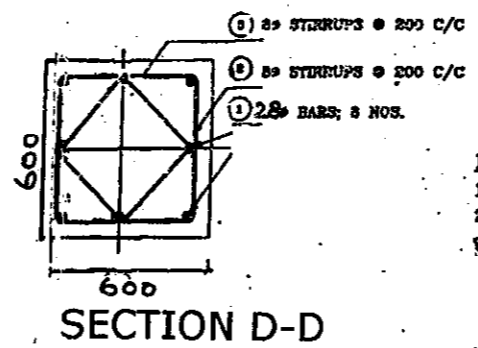
Perfect Foundation Services
[Signature]



ELEVATION (SECTION C-C)



TYPICAL FOOTING DETAILS



SECTION D-D



UNDERCUT

BAR NO.	BENDING DIAGRAM	BAR DIA. (mm)	NOS. REQD. TOWER	LENGTH (m)	TOTAL LENGTH (m)	UNIT WEIGHT (kg/m)	TOTAL WEIGHT (kg)
①		28	32	3.300	105.60	4.83	510.04
②		8	60	2.192	131.52	.39	51.29
③		8	60	1.608	96.48	.39	37.62
TOTAL WEIGHT :							598.96

S.No	ITEM	UNIT	TOTAL
1.	EXCAVATION	CUM	69.12
2.	PCC	CUM	3.136
3.	RCC	CUM	19.812

NOTES:
 1. ALL DIMENSIONS ARE IN MM.
 2. CONCRETE GRADE TO BE USED IS M20.
 3. ALL REINFORCEMENT BARS SHOULD BE OF STEEL GRADE Fe-415.
 ALL REINFORCEMENT SHOULD HAVE 50MM COVERING UNLESS OTHERWISE TED.
 THIS DRAWING IS BASED ON THE FOUNDATION DESIGN FOR 30M TOWER.
 FOR TEMPLATE DRAWING REFER DRAWING NO. PEPL/08-09/CW1001

PRAGATI ELECTROCOM (P) LTD	
PROJECT:	GSM SYSTEM FOR BHUTAN
CLIENT:	BHUTAN TELECOM, BHUTAN
TITLE:	FOUNDATION DETAILS FOR 30M MICROWAVE TOWER
PREPARED BY:	<i>[Signature]</i>
CHECKED BY:	<i>[Signature]</i>

For Pragati Foundation &...