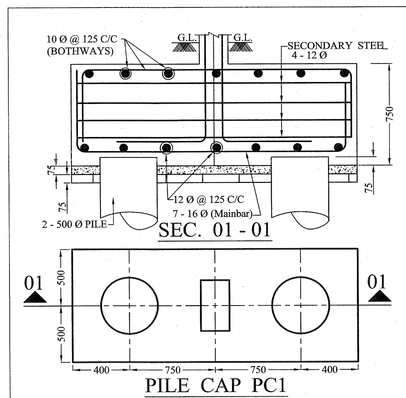
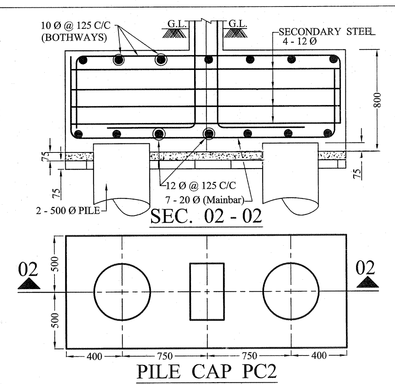
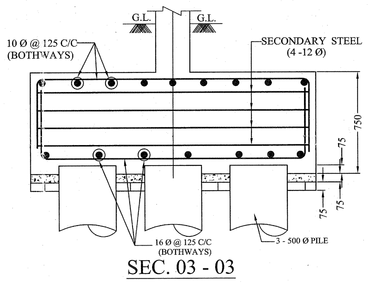


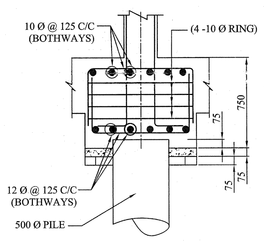
SEC. 01 - 01



SEC. 02 - 02



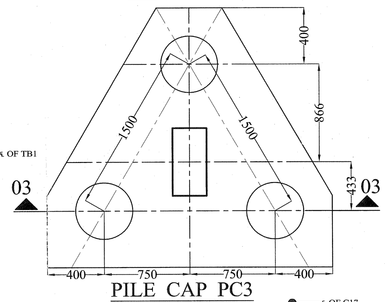
SEC. 03 - 03



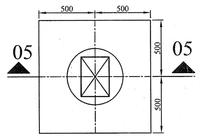
SEC. 08 - 08

PILE CAP PC1
(2 NOS 500Ø PILE)

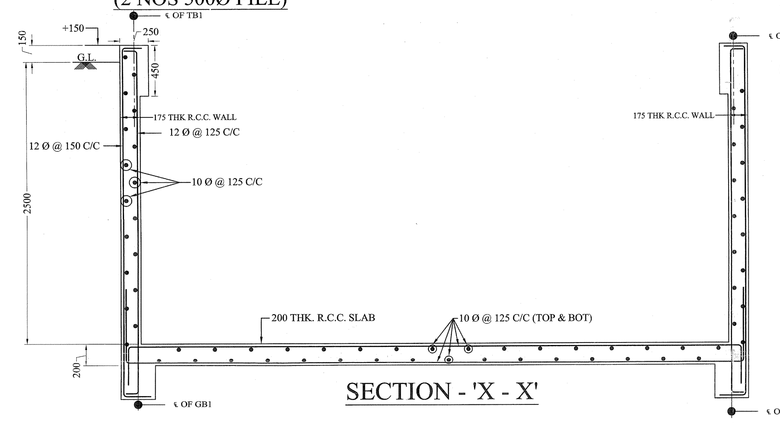
PILE CAP PC2
(2 NOS 500Ø PILE)



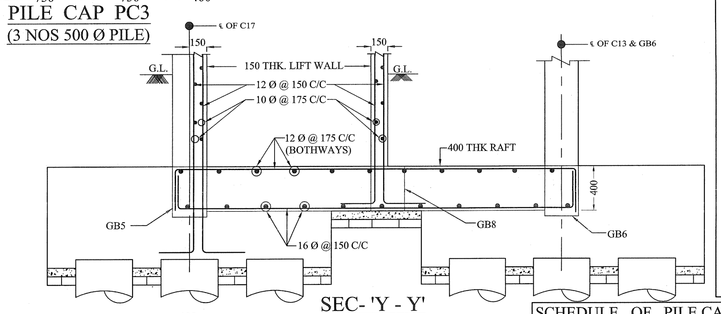
PILE CAP PC3
(3 NOS 500 Ø PILE)



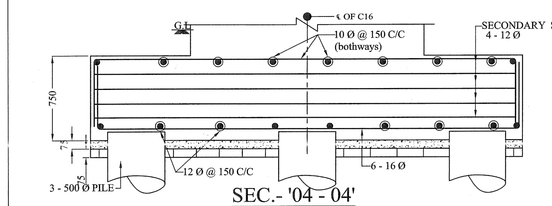
PILE CAP PC5
(1 NO 500Ø PILE)



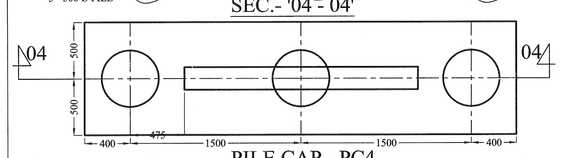
SECTION - 'X - X'



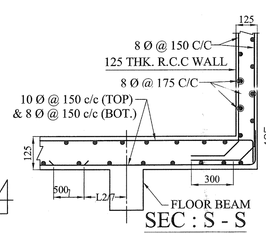
SEC- 'Y - Y'



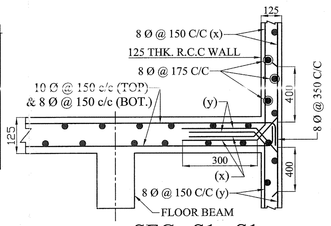
SEC.- '04 - 04'



PILE CAP - PC4
3 NOS 500 Ø PILE



SEC : S - S
SECTION OF C.B. AT
1ST. FLOOR ONLY



SEC : S1 - S1
SECTION OF C.B. AT
2ND TO 4TH FLOOR

FLOOR SLAB SCHEDULE

SLAB THICKNESS- 125 M.M.	
LEGEND	SLAB STEEL
a	8 Ø @ 100 c/c (BOT.)
b	8 Ø @ 200 c/c (BOT.)
c	8 Ø @ 150 Ø (BOT.)
d	8 Ø @ 175 Ø (BOT.)
p	8 Ø @ 300 + 10 Ø 300 c/c (ALT.)(TOP.)
q	8 Ø @ 125 c/c (TOP.)
r	8 Ø @ 150 c/c (TOP)
s	10 Ø @ 150 (TOP) & 8 Ø 150 c/c (BOT.)
	SHOWN AS TOP LAYER STEEL
	SHOWN AS BOTTOM LAYER STEEL

BEAM SCHEDULE

TYPE OF BEAM	S.L. NO	BEAM MKD.	BEAM SECTION	END SUPPORT TOP	END SUPPORT BOTTOM	INTERIOR SUPPORT TOP	INTERIOR SUPPORT BOTTOM	END SPAN TOP	END SPAN BOTTOM	INTERIOR SPAN TOP	INTERIOR SPAN BOTTOM	STIRRUPS
GRADE BEAM	1	GB1	300 X 500	4 - 20 Ø	2 - 20 Ø	4 - 20 Ø +3 - 20 Ø (D.L)	4 - 20 Ø	2 - 20 Ø	4 - 20 Ø +3 - 16 Ø (D.L)	-	-	10 Ø (2L) @ 150 TO 175 C/C 8 Ø (2L) @ 125 C/C
	2	GB2	300 X 500	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	2 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	-	-	8 Ø (2L) @ 125 TO 175 C/C
	3	GB3	300 X 500	3 - 20 Ø +2 - 16 Ø (D.L)	2 - 20 Ø	-	-	2 - 20 Ø	3 - 20 Ø +3 - 20 Ø (D.L)	-	-	10 Ø (4L) @ 125 TO 175 C/C
	4	GB4	300 X 450	3 - 16 Ø	2 - 16 Ø	-	-	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 200 C/C
	5	GB5	300 X 450	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	4 - 16 Ø	8 Ø (2L) @ 150 TO 200 C/C
	6	GB6	300 X 450	3 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 200 C/C
	7	FB7	300 X 450	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø	8 Ø (2L) @ 150 TO 200 C/C
	8	GB8	300 X 400	3 - 12 Ø	3 - 16 Ø	-	-	3 - 12 Ø	3 - 16 Ø	-	-	8 Ø (2L) @ 150 C/C
	9	GB9	300 X 450	2 - 12 Ø + 2 - 16 Ø	2 - 12 Ø	2 - 12 Ø + 2 - 16 Ø	2 - 12 Ø	2 - 12 Ø	2 - 12 Ø + 2 - 16 Ø	-	-	8 Ø (2L) @ 175 C/C
	10	GB10	300 X 450	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø	8 Ø (2L) @ 125 TO 175 C/C
TIE BEAM	11	TB1	250 X 450	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	2 - 16 Ø + 2 - 20 Ø	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø	-	-	8 Ø (2L) @ 125 TO 175 C/C
	12	TB2	250 X 450	3 - 20 Ø	3 - 20 Ø	3 - 20 Ø +3 - 16 Ø (D.L)	3 - 20 Ø +3 - 16 Ø (D.L)	2 - 20 Ø	3 - 20 Ø	-	-	8 Ø (2L) @ 100 TO 150 C/C
	13	TB3	250 X 450	4 - 16 Ø	4 - 16 Ø	4 - 16 Ø	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø	-	-	8 Ø (2L) @ 150 C/C
	14	TB4	250 X 450	3 - 16 Ø	4 - 16 Ø	-	-	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 175 C/C
	15	TB5	250 X 450	4 - 16 Ø	4 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	2 - 16 Ø + 2 - 20 Ø	2 - 16 Ø	2 - 16 Ø	2 - 16 Ø	2 - 16 Ø	8 Ø (2L) @ 150 TO 200 C/C
	16	TB6	250 X 400	3 - 16 Ø	3 - 16 Ø	-	-	2 - 16 Ø	2 - 16 Ø	-	-	8 Ø (2L) @ 175 C/C
FLOOR BEAM	17	B1	300 X 450	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø +2 - 20 Ø (D.L)	2 - 16 Ø + 2 - 20 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø +2 - 20 Ø (D.L)	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø	8 Ø (2L) @ 125 TO 200 C/C
	18	B2	300 X 500	4 - 16 Ø	2 - 20 Ø	-	-	3 - 16 Ø	3 - 20 Ø +3 - 16 Ø (D.L)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	19	B3	300 X 450	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø +3 - 16 Ø (D.L)	2 - 16 Ø + 1 - 20 Ø	2 - 16 Ø	2 - 16 Ø + 1 - 20 Ø +2 - 16 Ø (D.L)	-	-	8 Ø (2L) @ 150 TO 200 C/C
	20	B4	300 X 400	3 - 16 Ø	2 - 16 Ø			2 - 16 Ø	3 - 16 Ø	-	-	8 Ø (2L) @ 150 C/C
	21	B5	300 X 500	3 - 20 Ø	2 - 20 Ø	4 - 20 Ø +2 - 20 Ø (D.L)	2 - 20 Ø	2 - 20 Ø	3 - 20 Ø +2 - 20 Ø (D.L)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	22	B6	300 X 500	4 - 16 Ø	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø +3 - 16 Ø (D.L)	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø +3 - 16 Ø (D.L)	2 - 16 Ø + 2 - 20 Ø +3 - 16 Ø (D.L)	4 - 16 Ø	8 Ø (2L) @ 125 TO 175 C/C
	23	B7	300 X 600	3 - 20 Ø +2 - 16 Ø (D.L)	2 - 20 Ø	3 - 20 Ø +3 - 20 Ø (D.L)	3 - 20 Ø	2 - 20 Ø	3 - 20 Ø +3 - 16 Ø (D.L)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	24	B8	300 X 450	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø +3 - 16 Ø (D.L)	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø +2 - 16 Ø (D.L)	-	-	8 Ø (2L) @ 150 TO 200 C/C
	25	B9	300 X 450	3 - 16 Ø	2 - 16 Ø	-	-	3 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 C/C
	26	B10	300 X 500	4 - 20 Ø +2 - 16 Ø (D.L)	2 - 20 Ø	-	-	2 - 20 Ø	4 - 20 Ø +2 - 16 Ø (D.L)	-	-	8 Ø (2L) @ 125 TO 175 C/C
	27	B11	300 X 450	4 - 16 Ø	2 - 16 Ø	4 - 16 Ø +2 - 16 Ø (D.L)	2 - 16 Ø	2 - 16 Ø	4 - 16 Ø	-	-	8 Ø (2L) @ 150 TO 200 C/C
	28	B12	300 X 450	4 - 16 Ø	2 - 16 Ø	-	-	2 - 16 Ø	2 - 16 Ø + 2 - 20 Ø +3 - 16 Ø (D.L)	-	-	8 Ø (2L) @ 125 TO 175 C/C

SCHEDULE OF PILE CAP

SL. NO.	PILE CAP MKD.	DEPTH OF PILE CAP (DP)	TERMINATION DEPTH	NO.OF PILE	DIA OF PILE	C/C DSTANCE OF PILE	PILE CAP RE - INFORCEMENT (BOT.) ALONG X-X DIR.	PILE CAP RE - INFORCEMENT (BOT.) ALONG Y-Y DIR.	PILE CAP RE - INFORCEMENT (TOP) ALONG X-X DIR.	PILE CAP RE - INFORCEMENT (TOP) ALONG Y-Y DIR.	SECONDARY STEEL
1	PC 1	750	16.0 M	2	500	1500	7 - 16 Ø	12 Ø @ 125 CC	10 Ø @ 125 CC	10 Ø @ 125 CC	4 - 12 Ø
2	PC2	800	18.0 M	2	500	1500	7 - 20 Ø	12 Ø @ 125 CC	10 Ø @ 125 CC	10 Ø @ 125 CC	4 - 12 Ø
3	PC3	750	18.0 M	3	500	1500	16 Ø @ 125 CC	16 Ø @ 125 CC	10 Ø @ 125 CC	10 Ø @ 125 CC	4 - 12 Ø
4	PC4	750	16.0 M	3	500	1500	6 - 16 Ø	12 Ø @ 150 CC	10 Ø @ 150 CC	12 Ø @ 150 CC	4 - 12 Ø
5	PC5	750	10.0 M	1	500	-	12 Ø @ 125 CC	12 Ø @ 125 CC	10 Ø @ 125 CC	10 Ø @ 125 CC	4 - 10 Ø

COLUMN SCHEDULE

GROUP MKD.	COLUMN MARKED	COLUMN SECTION	COLUMN REINFORCEMENT GR. FL. TO 3RD. FL. LVL.	COLUMN REINFORCEMENT 3RD. FL. TO ROOF. LVL.	LINKS
1	C5, C10, C24	300 x 500	8 - 16 Ø	4 - 16 Ø + 4 - 12 Ø	8 Ø (4L).(8L) @ 150/200 C/C
2	C2, C19	300 x 500	8 - 20 Ø	4 - 20 Ø + 4 - 16 Ø	
3	C1, C15, C21, C22	300 x 500	4 - 20 Ø + 4 - 16 Ø	8 - 16 Ø	
4	C3, C4, C6, C7, C8, C14, C18	300 x 500	10 - 20 Ø	4 - 20 Ø + 6 - 16 Ø	
5	C11	300 x 550	12 - 20 Ø	4 - 20 Ø + 8 - 16 Ø	
6	C9	300 x 650	12 - 20 Ø	4 - 20 Ø + 8 - 16 Ø	
7A	C20	300 x 475	8 - 25 Ø	4 - 25 Ø + 4 - 20 Ø	
7A	C23	300 x 475	8 - 25 Ø	4 - 25 Ø + 4 - 20 Ø	
8	C12	300 x 1325	8 - 16 Ø + 10 - 12 Ø	4 - 16 Ø + 14 - 12 Ø	
9	C13	300 x 750	4 - 25 Ø + 8 - 20 Ø	8 - 20 Ø + 4 - 16 Ø	
10	C16	200 x 2050	28 - 16 Ø	28 - 12 Ø	
11	C17	300 x 500	10 - 20 Ø	4 - 20 Ø + 6 - 16 Ø	

SPECIFICATIONS:

1.) ALL DIMENSIONS ARE IN M.M. UNLESS OTHERWISE SPECIFIED.
2.) GRADE OF CONCRETE : M - 25
3.) GRADE OF STEEL : Fe 500
4.) COVER TO STEEL: 50 M.M.(PILE & PILE CAP) 40 M.M. (COLUMN), 25 M.M. (FLOOR BEAM) , 20 M.M. (FLOOR SLAB)
5) ALL FOUNDATION ARE LAID OVER 75 THK. P.C.C.(1:3:6) OVER 75 THK. B.F.S.
6.) 25 Ø 750 C/C STEEL ARE USED AS SPACER BAR AT DOUBLE LAYER.
7.) STRENGTH OF CONC. TO BE TESTED BY AVAILABLE DESTRUCTIVE AND NON DESTRUCTIVE TESTS AS PER I.S. SPECIFICATIONS.
8.) ALL CAST - IN - SITU BORED PILES SHOULD BE PROJECTED 75 M.M. IN THE PILE CAP.
9.) TOP LEVEL OF PILE CAP & GRADE BEAM SHOULD BE FLUSHED WITH EACH OTHER.
10.) FOR PILES MINIMUM CEMENT CONTENT = 400 KG./CU.M., SLUMP NOT LESS THAN 125 M.M.
11.) CAST - IN - SITU BORED PILES BY D.M.C METHOD TO BE DONE BY STABILIZING THE SIDES BY USING BENTONITE SLURRY OR BY CASING.AS PER IS:2911(PART 1 /SEC.2).
12.) CONCRETING SHOULD BE DONE BY TREMIE METHOD WITH MINIMUM DIA. OF TREMIE PIPE NOT LESS THAN 200 MM.AS PER IS:2911(PART 1 /SEC.2).
13.) THE SAFE VERTICAL LOAD CARRYING CAPACITY AS MENTIONED IN THE SOIL TEST REPORT IS TO BE CONFIRMED BY ROUTINE LOAD TEST FOR AT LEAST ONE WORKING PILE.

CERTIFICATE OF STRUCTURAL ENGINEER

THE STRUCTURAL DESIGN OF BOTH FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING WILL BE MADE BY ME CONSIDERING ALL POSSIBLE LOADS INCLUDING THE SEISMIC LOAD AS PER N.B.C OF INDIA ON THE BASIS OF SOIL INVESTIGATION REPORT TO BE DONE AFTER DEMOLITION OF EXISTING STRUCTURE BY ALOK ROY G.T.E. (KMC) NO.I/11 M/S. GEO-TEST ENGINEERS PVT. LTD. 6A, MILAN PARK, KOLKATA-700084, CERTIFY THAT IT WILL BE SAFE AND STABLE IN ALL RESPECT. PRESENTLY THE SITE IS ENTIRELY COVERED BY EXISTING STRUCTURE AND SOIL TESTING IS NOT POSSIBLE.

ALOK ROY
Panelled Geotechnical Engineer
Kolkata Municipal Corporation
Class-I, No.- G.T./I/11
6A, Milan Park,
Kolkata-700 084
ALOK ROY(GTE-I/11)
SIG. OF GEOTECNICAL ENGINEER

Sankar Das
B.E. (CAL), M.E. (CAL), M.I.E.
Consulting Structural Engineer
The Kolkata Municipal Corporation
Empanelment No.- E.S.E. /212
SANKAR DAS
E.S.E.-I/12
SIG. OF STRUCTURAL ENGINEER

DECLARATION OF ARCHITECT.

CERTIFIED THAT THE PLAN ITSELF WITH FULL RESPONSIBILITY THAT THE BUILDING PLAN HAS DRAWN UP AS PER PROVISION OF K.M.C. BUILDING RULES 2009, AS AMMENDED FROM TIME TO TIME AND THE SITE CONDITION INCLUDING THE ABUTTING ROAD IS CONFORM WITH THE PLAN. IT IS A BUILDABLE SITE NOT A TANK OR FILLED UP TANK. THERE IS AN EXISTING STRUCTURE TO BE DEMOLISHED BEFORE COMMENCEMENT OF WORK IT IS FULLY OCCUPIED BY THE OWNER. THERE IS NO TENENT.

ANJAN UKIL
Architect
C.O.A. Regn. No.- CA/ 94 / 16721
L.B.A. A-271

ANJAN UKIL
(CA/94/16721)
SIG. OF ARCHITECT

DECLARATION OF OWNER

I DO HERE BY DECLARE WITH FULL RESPONSIBILITY THAT, I SHALL ENGAGE L.B.A & ESE DURING CONSTRUCTION. I SHALL FOLLOW THE INSTRUCTION OF L.B.A.& E.S.E DURING CONSTRUCTION OF THE BUILDING (AS PER PLAN) K.M.C AUTHORITY WILL NOT BE RESPONSIBLE FOR STRUCTURAL STABILITY OF THE BUILDING & ADJOINING STRUCTURE IF ANY SUBMITTED DOCUMENT ARE FAKE. THE K.M.C AUTHORITY WILL REVOKE THE SANCTION PLAN. THE CONSTURCTION OF U.G.W.R UNDER THE GUIDENCE OF LBA/EBE BEFORE STARTING OF BUILDING FOUNDATION.

For Surmatta Housing Pvt. Ltd.
Director

For, ANIL KUMAR AGARWALA
ARVIND PROMOTERS PVT. LTD.
As Constituted Attorney

VIVEK RUIA. OR SATWIC VIVEK RUIA
C.A. OF ANIL KUMAR AGARWALA &
ARVIND PROMOTERS PVT LTD.
SIGNATURE OF OWNER

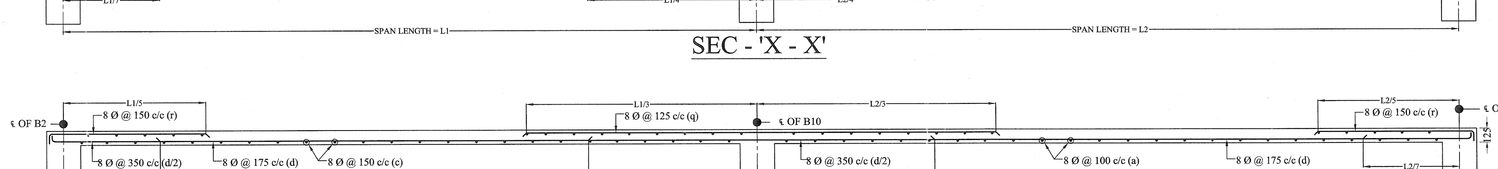
PROJECT.

PROPOSED G+IV STORIED (15.475 MTS.)HT. RESIDENTIAL BUILDING U/S 393A OF KMC ACT 1980, COMPLYING KMC BUILDING RULE 2009 (AMENDED)
AT PREMISES NO. - 84, BALLYGUNGE PLACE, KOLKATA 700 019,
WARD NO.-68, BOROUGH NO.- VIII, P.S - GARIAHAT

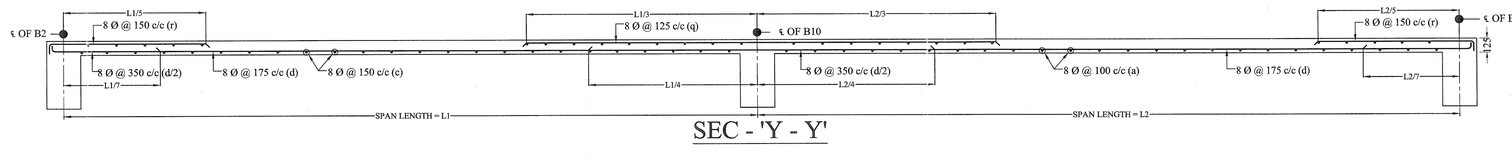
• Anjan Ukil
architect

JOB NO.	C / 1278	DATE - 28.01.2020
DRG. NO. –	CA/01	REV. 0
SCALE: -	1 : 100 (OTHERWISE MENTIONED)	
TITLE	STRUCTURAL DETAILS PLAN	
DRAWN BY.	J.A.M	

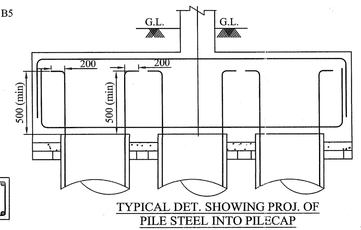
STRUCTURAL CONSULTANT
TETRAGON ENGINEERING CONSULTANCY PVT.LTD.
27 CORNFIELD ROAD,
KOLKATA - 700019.
PHONE NO. 033 4072 8600
E-mail : tecpl.kolkata@gmail.com



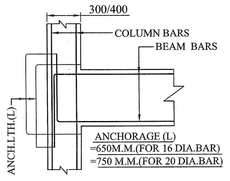
SEC - 'X - X'



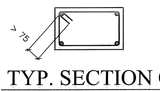
SEC - 'Y - Y'



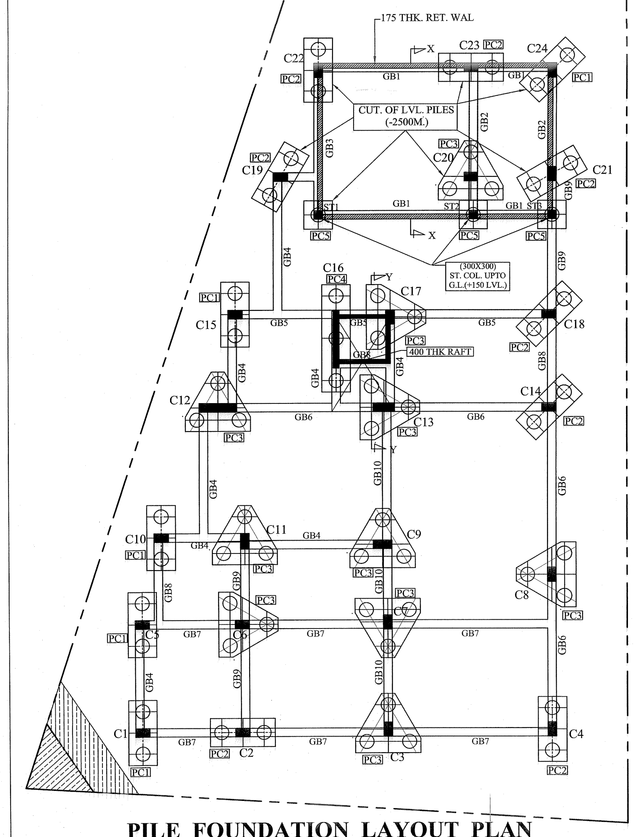
TYPICAL DET. SHOWING PROJ. OF PILE STEEL INTO PILECAP



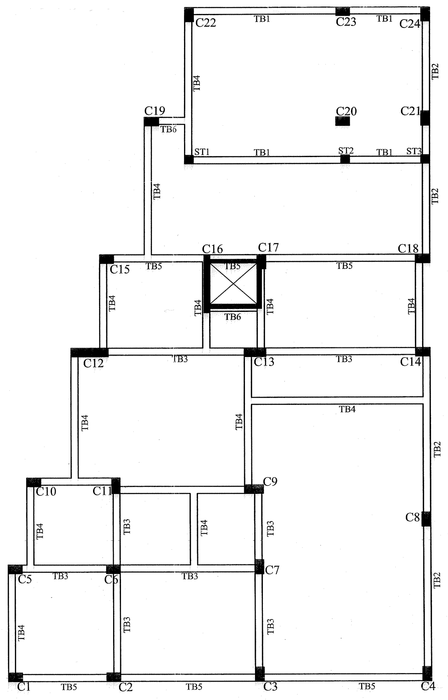
ANCHORAGE OF BEAM BARS IN EXTERIOR JOINTS



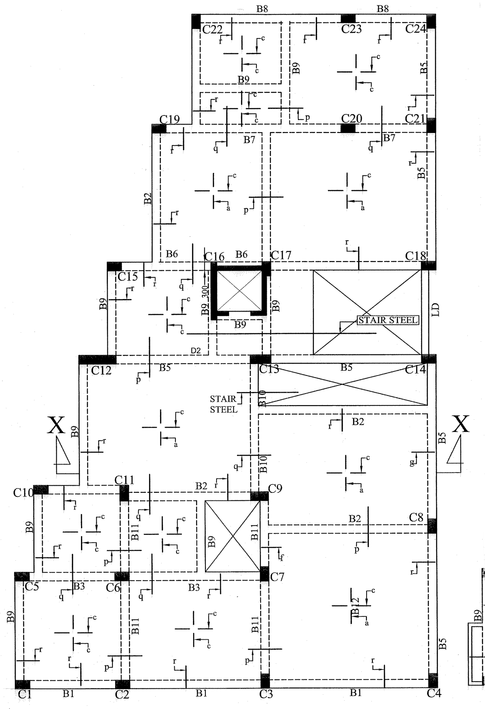
TYP. SECTION OF LEGGED STIRRUP



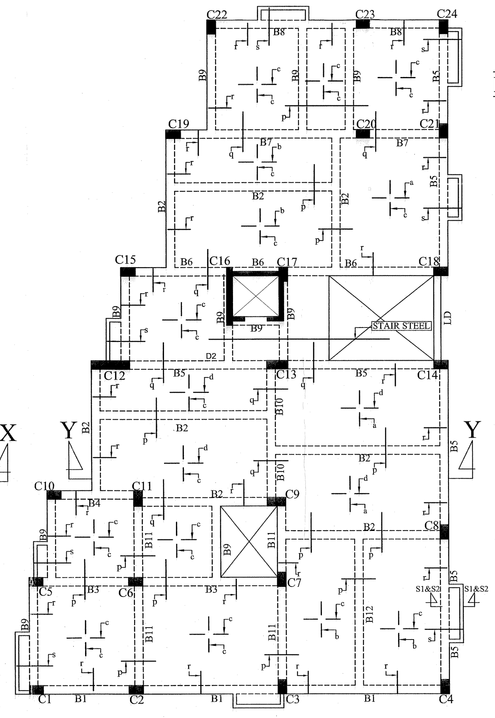
PILE FOUNDATION LAYOUT PLAN
TIE BEAM (TB) AT +150 LVL.



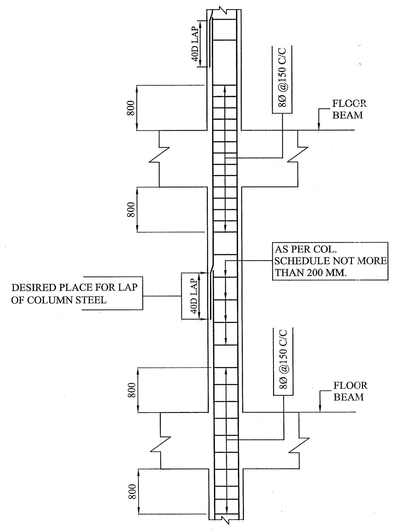
TIE BEAM LAYOUT PLAN
AT +150 LVL.



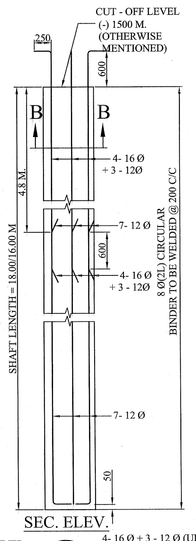
1ST FLOOR BEAM LAYOUT PLAN



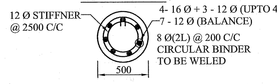
TYPICAL(2ND TO ROOF) FLOOR PLAN



TYPICAL DETAIL SHOWING PLACING OF VERTICAL BARS AND CLOSED TIES IN COLUMNS-COLUMN ENDS AND LAP LENGTH. (TO BE PROTECTED WITH CLOSELY SPACED TIES).



SEC. ELEV.



SEC. ELEV.(B-B)
DETAILS OF PILE

PARTY'S COPY

Structural plans and details ... ...ission as submitted by the
Architectural Engineer / ... Beam Test with B.P.
No. 26.200 B.E.E./3 Date 24/9/58 Name
of the Roorkee Municipal Corporation method specification No.
deviation from the submitted incremental plans should be made
at the time of erection without submitting their structural plans
along with design calculation and suitably complying to the
prescribed form. Necessary steps should be taken for the
safety of the adjoining premises public and private properties
and safety of human life during construction.
Yours
EXECUTIVE ENGINEER/ASSISTANT ENGINEER
ROORKEE NO. VIII