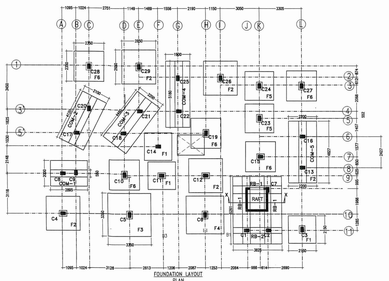
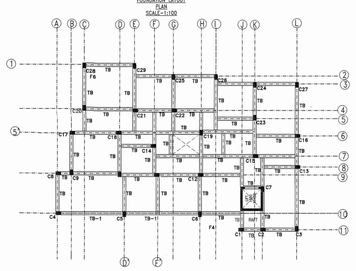


FOUNDATION LAYOUT
SCALE-1:100



TIE BEAM LAYOUT PLAN
SCALE-1:100

SCHEDULE OF FOUNDATION :-

MKD.	UNDER COLS.	SIZE OF FOOTING(MM)	THICKNESS (MM)	SIZE OF PEDESTAL (LXBXH)	REINFORCEMENT ALONG SHRT. DIRC.	REINFORCEMENT ALONG LONG. DIRC.
F1	C3,C11,C14,	2150X2150	400	450X650X700 12 –12 MM BMM, STIRR.@150 C/C	12 MM TOR @150 MM C/C	12 MM TOR @150 MM C/C
F2	C4,C12, C15,C26,C29	2650X2650	400	450X650X700 12 –12 MM BMM, STIRR.@150 C/C	12 MM TOR @125 MM C/C	12 TOR @125MM C/C
F3	C5	3350X3350	450	450X700X750 12 –16 MM BMM, STIRR.@150 C/C	16 MM TOR @125 MM C/C	16 TOR @125 MM C/C
F4	C6	2950X2950	450	450X700X750 12 –12 MM BMM, STIRR.@150 C/C	12 MM TOR @110 MM C/C	12 TOR @110 MM C/C
F5	C23,C24	2250X2250	400	450X650X700 12 –12 MM BMM, STIRR.@150 C/C	12 MM TOR @150 MM C/C	12 TOR @150 MM C/C
F6	C10,C13,C19 C27,C28	2350X2350	400	450X650X700 12 –12 MM BMM, STIRR.@150 C/C	12 MM TOR @135 MM C/C	12 TOR @135 MM C/C

SCHEDULE OF COMBINED FOUNDATION :-
Grade of Concrete used - M25
Grade of Reinforcement used - Fe 550

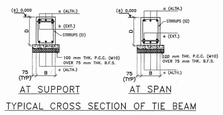
MKD.	UNDER COLS.	SIZE OF FOOTING(MM)	FOOTINGSLAB THICK(MM)	FOOTING BEAMMK.	SIZEOF RIBBEAM (BXH)	MAIN REINFORCEMENTB TOP	BOTTOM	STIRRUPS IN FB	REINFORCEMENT IN FOOTING SLAB ALONG SHRT.DIR.	ALONG LONG.DIR.
COM-1	C8–C9	2895X2000	400	FB1	550X700	6–16 T	6–16 T	4L 8T @ 125 C/C	12 TOR @150MM C/C	12 TOR @150 MM C/C
COM-2	C17–C20	4120X2100	450	FB2	650X750	7–16 T	7–16 T	4L 8T @ 125 C/C	12 TOR @135 MM C/C	12 TOR @135 MM C/C
COM-3	C18–C21	4460X2200	450	FB3	650X750	7–16 T	7–16 T	4L 8T @ 125 C/C	12 TOR @130 MM C/C	12 TOR @130 MM C/C
COM-4	C22–C25	5180X1900	450	FB4	650X750	7–16 T	7–16 T	4L 8T @ 125 C/C	12 TOR @150 MM C/C	12 TOR @150 MM C/C
COM-5	C13–C16	4827X2200	450	FB5	650X750	7–16 T	7–16 T	4L 8T @ 125 C/C	12 TOR @125 MM C/C	12 TOR @125 MM C/C

SCHEDULE OF RAFT SLAB & BEAM:-

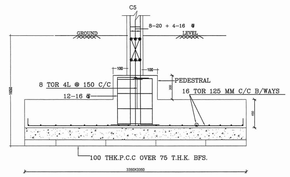
RAFT FDN. MKD.	UNDER COLS.	SIZE (MM X MM) (LXB)	BEAM MKD.	SIZE (MM X MM) (B X D)	RAFT SLAB THICKNESS (MM)	ALTERNATE MAIN REINFORCEMENT AT BOT.	AT TOP	EXTRA REINFORCEMENT AT BOT.AT SUPPORT	AT TOP AT SPAN	STIRRUPS	REINFORCEMENT IN RAFT SLAB
RAFT	C1,C2,C7	39200X3360	RB-1	300X300	500	4 – 16	4a – 16	2 – 16	2 – 16	8 4L @125 C/C	12 TOR @125 MM C/C B/ WAY TOP & BOTTOM
4 LIFT			RB-2	450X300		4 – 16	4a – 16	2 – 12	2 – 12	8 4L @125 C/C	16 TOR CHAIRS @ 900 C/C

SCHEDULE OF TIE BEAMS

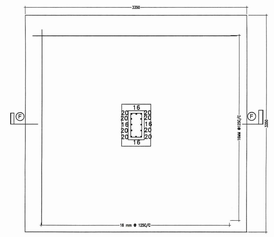
Beam Mkd	Size B	D	All Through Top(a)	Bott.(c)	Ext. of End Supp. Top (b)	Ext. of End Span. Bott (x)	S T I R R U P S Support	Span
TB	250	450	3–16⌀	3–16⌀	2–12 ⌀	2–12 ⌀	3L-⌀8@125C/C	3L-⌀8@150C/C
TB1	250	450	3–20⌀	3–20⌀	2–16 ⌀	2–16 ⌀	3L-⌀8@125C/C	3L-⌀8@150C/C



AT SUPPORT AT SPAN
TYPICAL CROSS SECTION OF TIE BEAM



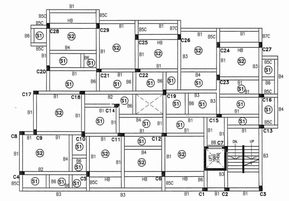
SECTION AT – F–F



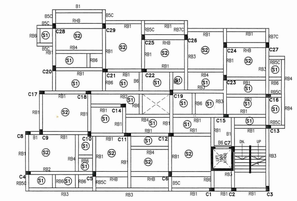
DETAILS OF ISOLATED FOUNDATION(F3)

COLUMN SCHEDULE

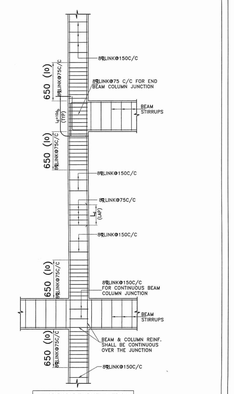
COL GROUP MKD. SIZE	NAME OF COLUMN	FOUNDATION LEV. TO 2ND FL. LEV.	2ND. FL. LEV. TO ROOF LEVEL	STIRRUPS
CG – 1 250 X 400	C1,C5	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	8T @150 C/C, 2 SETS
CG – 2 250 X 450	C2,C3,C7,C4, C13,C17,C18,C20 C22,C23,C24,C26	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	8T @150 C/C, 2 SETS
CG – 3 250 X 450	C6,C7,C8,C11, C12,C13,C16, C19,C21,C25, C27,C28,C29	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	8T @150 C/C, 2 SETS
CG – 4 250 X 500	C9	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	8T @150 C/C, 2 SETS
CG – 4 250 X 500	C15	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	16 T 16 T 16 T 16 T 16 T 16 T 16 T 16 T	8T @150 C/C, 2 SETS



FLOOR BEAM LAYOUT PLAN
SCALE 1:100



ROOF BEAM LAYOUT PLAN
SCALE 1:100



TYPICAL DUCTILE DETAIL OF BEAM COLUMN JUNCTION

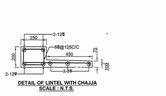
DETAILS OF COLUMN HOOP REINFORCEMENT

SCHEDULE OF FLOOR BEAMS

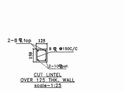
Beam Mkd	Size B	D	All Through Top(a)	Bott.(c)	Ext. of End Supp. Top (b)	Ext. of End Span. Bott (x)	S T I R R U P S Support	Span
B1	250	400	2–10⌀	2–10⌀	2–12 ⌀	2–12 ⌀	3L-⌀8@125C/C	3L-⌀8@150C/C
B2	250	450	3–20⌀	3–20⌀	2–16 ⌀	2–16 ⌀	4L-⌀8@125C/C	4L-⌀8@125C/C
B3	250	400	3–16⌀	3–16⌀	2–16 ⌀	2–16 ⌀	4L-4 ⌀10@C/C	4L-4 ⌀10@C/C
B4	250	400	2–16⌀	2–16⌀	2–12 ⌀	2–12 ⌀	3L-⌀8@125C/C	3L-⌀8@150C/C
B5C	250	400	4–16⌀	2–16⌀			3L-⌀8@125C/C	3L-⌀8@125C/C
B6	250	400	2–16⌀	2–16⌀			3L-⌀8@125C/C	3L-⌀8@125C/C
B7C	250	450	5–16⌀	3–16⌀			3L-⌀8@125C/C	3L-⌀8@125C/C
HB	450	125	5–12 ⌀	5–12⌀			3L-⌀8@125C/C	3L-⌀8@125C/C

SCHEDULE OF ROOF BEAMS

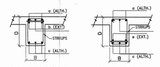
Beam Mkd	Size B	D	All Through Top(a)	Bott.(c)	Ext. of End Supp. Top (b)	Ext. of End Span. Bott (x)	S T I R R U P S Support	Span
RB1	250	400	2–10⌀	2–10⌀	2–12 ⌀	2–12 ⌀	3L-⌀8@125C/C	3L-⌀8@150C/C
RB2	250	450	3–20⌀	3–20⌀	2–12 ⌀	2–12 ⌀	4L-⌀8@125C/C	4L-⌀8@125C/C
RB3	250	400	3–16⌀	3–16⌀	2–12 ⌀	2–12 ⌀	4L-4 ⌀10@C/C	4L-4 ⌀10@C/C
RB4	250	400	2–16⌀	2–16⌀	2–12 ⌀	2–12 ⌀	3L-⌀8@125C/C	3L-⌀8@150C/C
RB5C	250	400	2–10⌀ +2–12⌀	2–10⌀			3L-⌀8@125C/C	3L-⌀8@125C/C
RB6	250	400	2–10⌀	2–10⌀			3L-⌀8@125C/C	3L-⌀8@125C/C
RB7C	250	450	3–10⌀ +2–12⌀	3–10⌀			3L-⌀8@125C/C	3L-⌀8@125C/C
RHB	450	125	4–12	4–12⌀			3L-⌀8@125C/C	3L-⌀8@125C/C



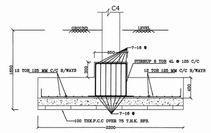
DETAIL OF LINTEL WITH CHAJJA
SCALE : N.T.S.



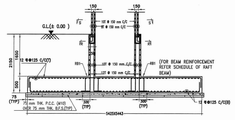
OUT – LINTEL OVER T.H.K. THK. WALL
SCALE–1:25



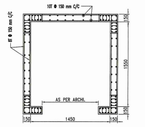
AT SUPPORT AT SPAN
TYPICAL CROSS SECTION OF FLOOR & ROOF BEAMS



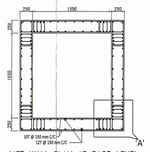
SECTION ON – B–B
SCALE–1:25



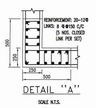
SECTION AT –X–X
DETAIL OF RAFT FOUNDATION (RAFT)



LIFT WALL PLAN AT FLOOR LEVEL
SECTION (S–S)
SCALE 1:25

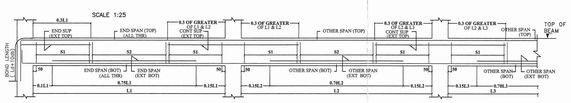


LIFT WALL PLAN AT BASE LEVEL
SECTION (R–R)
SCALE 1:25



DETAIL "A"
SCALE N.T.S.

SCALE 1:25



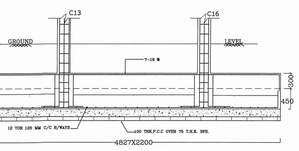
NOTE:
AT ALL CONTINUOUS SUPPORTS COMMON TO BEAMS OF TWO DIFFERENT SPANS, REINFORCEMENT SHALL BE PROVIDED AS PER THE LARGER SPAN FOR THE CONTINUOUS SUPPORTS OF THE TWO DIFFERENTLY MARKED BEAMS.

TYP. CURTAILMENT DETAILS FOR BEAMS(MULTIPLE SPAN BEAM)
SCALE 1:25

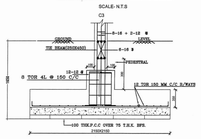
SCHEDULE OF R.C.C. SLAB(M25)

SLAB MKD.	THICKNESS IN MM.	REINFORCEMENT ALONG SHORTER DIRECTION AL-TERNGAN	REINFORCEMENT ALONG LONGER DIRECTION AL-TERNGAN	REIN-FORCEMENT AT SUPPORT ALONG SHORTER DIRN.	REIN-FORCEMENT AT SUPPORT ALONG LONGER DIRN.
S1	125	8mm & @ 150 C/C	8mm & @ 150 C/C	8mm & @ 150 C/C	8mm & @ 150 C/C
S2	125	8mm & @ 150 C/C	8mm & @ 150 C/C	8mm & @ 150 C/C	8mm & @ 150 C/C

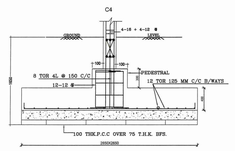
TYPICAL REINFORCEMENT DETAILS OF REST FLIGHT
SCALE–1:25



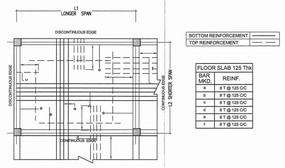
SECTION ON – A–A
SCALE–1:25



SECTION AT – E–E



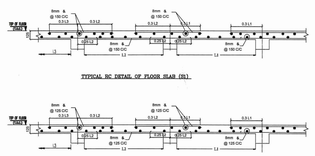
SECTION AT – F–F



TYPICAL DETAILS OF SLAB REINFORCEMENT (SLAB MKD S2)

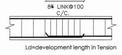
SCALE – N.T.S.

FLOOR SLAB 125 THK	
BAR MKD.	REINF.
a	8 T @ 125 C/C
b	8 T @ 125 C/C
c	8 T @ 125 C/C
d	8 T @ 125 C/C
e	8 T @ 125 C/C
f	8 T @ 125 C/C

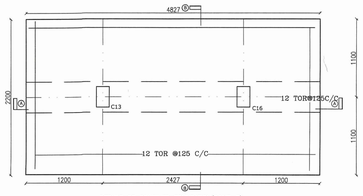


TYPICAL RC DETAIL OF FLOOR SLAB (S1)

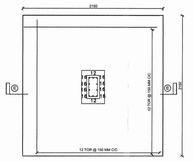
TYPICAL RC DETAIL OF FLOOR SLAB (S2)



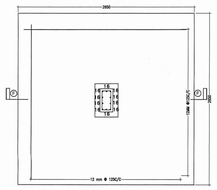
LAP SPLICE IN BEAM



DETAILS OF COMBINED FOUNDATION(COMB–5)
SCALE – 1:25



DETAILS OF ISOLATED FOUNDATION(F1)



DETAILS OF ISOLATED FOUNDATION(F2)

PROJECT NAME:–

STRUCTURAL DRAWING OF PROPOSED G+IV STORIED RESIDENTIAL (APARTMENT) BUILDING OF MRS RINA GHOSH & MRS ITU BHATTACHARJEE, OVER R.S. PLOT NO. - 1203, L.R. PLOT NO. - 4850, L.R KHATIAN NO.- 2891 & 2849 , MOUZA - FULJHORE, J.L. NO- 82, P.S. - NEWTOWNSHIP, DIST- PASCHIM BARDHAMAN.
* HOLDING NO. - 2/N
* I D NO. - 330940182849 7
* CIRCLE/WARD NO. - 26
* ADDRESS. SANTIMOYEE PARK , DGP-06

NOTES :–

1. ALL CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT CONFORMING TO RELEVANT INDIAN STANDARD CODES OF PRACTICE.
2. ALL DIMENSIONS ARE IN MILLIMETER & LEVELS ARE IN METER. DIMENSIONS OF STRUCTURAL MEMBERS ARE TO BE TAKEN FROM THE FOLLOWING LEVELS GIVEN IN STRUCTURAL DRAWINGS NOT IN ARCHITECTURAL DRAWINGS. DIMENSIONS AND LEVELS GIVEN IN STRUCTURAL DRAWINGS ONLY SHOULD BE FOLLOWED.
3. ANY DISCREPANCY IN THE STRUCTURAL AND ARCHITECTURAL DRAWINGS SHOULD BE BROUGHT TO THE NOTICE OF STRUCTURAL CONSULTANT BEFORE EXECUTION OF WORK.
4. UNLESS OTHERWISE SPECIFIED ALL REINFORCEMENT TO BE USED SHALL BE THE GRADE OF FE550 Fe-550/TMT REINFORCEMENT TO IS-1786-2008.
5. UNLESS OTHERWISE STATED LAP LENGTH OF BARS SHALL BE 50dia. TO 60dia. DEPENDING ON GRADE OF CONCRETE.
6. CONCRETE MINIMUM COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS :-
   1) FOUNDATION - 40 mm
   2) COLUMN - 40 mm
   3) BEAM - 25 mm
   4) SLAB - 15 mm
   5) RETAINING WALL - 15 mm
7. GRADE OF CONCRETE FOR SUPERSTRUCTURE WILL BE OF M25 AS PER IS456:2000.
8. ADDITIONAL BARS OR LEGS FOR PROPER COMPACTION OF CONCRETE AND CORNER BARS, ETC SHALL BE PROVIDED.
9. DEVELOPMENT LENGTH BARS FOR LAP & SPLICES SHOULD BE PROVIDED AS PER IS456:2000 UNLESS OTHERWISE SPECIFIED.
10. REINFORCE & SUPPORTED BARBER TEMPLATES OF A SUFFICIENT NUMBER THE SIZES OF THE SUPPORTED MEMBER SHOULD HAVE BEEN ADDED TO THE SIZES GIVEN IN THE DRAWINGS.
11. WHEN TWO BEAMS MEET AT A COLUMN LOCATED ALONG THE SAME LINE, THE HIGHER REINFORCEMENT AT THE TOP SHALL BE CONTINUED THROUGH THE COLUMN.
12. IN ALL SUPERSTRUCTURE WITHOUT OVERHEAD TANK THE TOP COMPRESSION REINFORCEMENT SHALL BE PROVIDED FOR A MINIMUM STRESS OF 0.85 N/MM2 TO TAKE THE CONTRACTED STRIP WHICH THE ACTUALLY SHALL
13. MINIMUM CAPACITY OF ALL OVERHEAD OR PER ALL TEST REPORT.
14. THE DRILLS TO BE MADE WITH RELEVANT ARCHITECTURAL DWG.
15. ANY CLARIFICATION SHOULD BE BROUGHT TO THE NOTICE OF CONSULTANT BEFORE EXECUTION.

SIGNATURE OF OWNER

Rina Ghosh

Itu Bhattacharjee

SIGNATURE OF ENGINEER:–

The Structural Design and Drawing of Both Foundation and Super Structure of the Building has been Made by Me. Considering the Possible Loads Including the Seismic Load as per The National Building Code of India and Certified that It is Safe and Stable in all Respect.

SUSANTA SAHA
B.E. (CIVIL)/ME (Structural Engg.)
ESE – Class – I, No. 70, KMC
MIE Regs. No.- M1229707
GTE – 8/10, KMC
Chartered Engineer
Mobile : 9777264575, 9830005080

TITLE:–

STRUCTURAL RCC DETAILING & LAYOUT PLAN OF FOUNDATION , TIE BEAM , COLUMN , BEAMS , SLAB , STAIR CASE , LIFT WALL. SCHEDULE OF COLUMN , FOUNDATION, BEAM , SLAB ALONG WITH SECTIONAL DETAILS.

SIGNATURE OF ARCHITECT / ENGINEER

Ar. VIJAYA SINGH MAZUMDER
COA Registered
CA/2021/134276
9332821169 / 9476426105

Ar. VIJAYA SINGH MAZUMDER
CA/2021/134276
DARJEELING

SCALE – 1:100 OR AS SHOWN

DATE–27.06.2022.

SHEET NO–SSA/VSM/27–06–22/RGH05/01