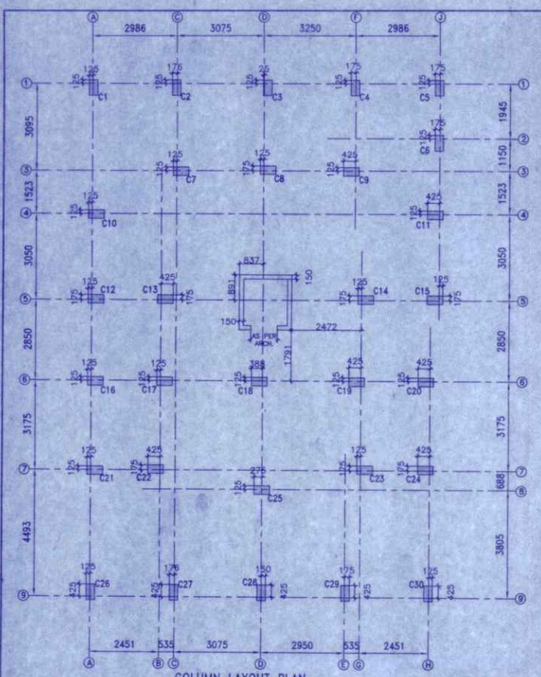
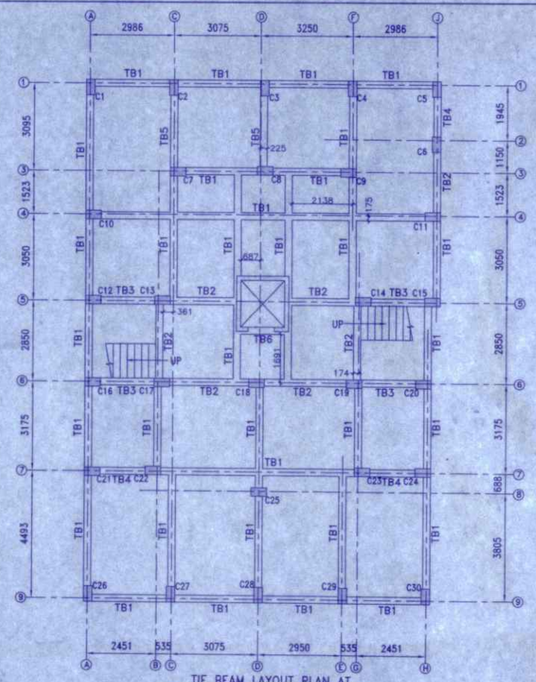


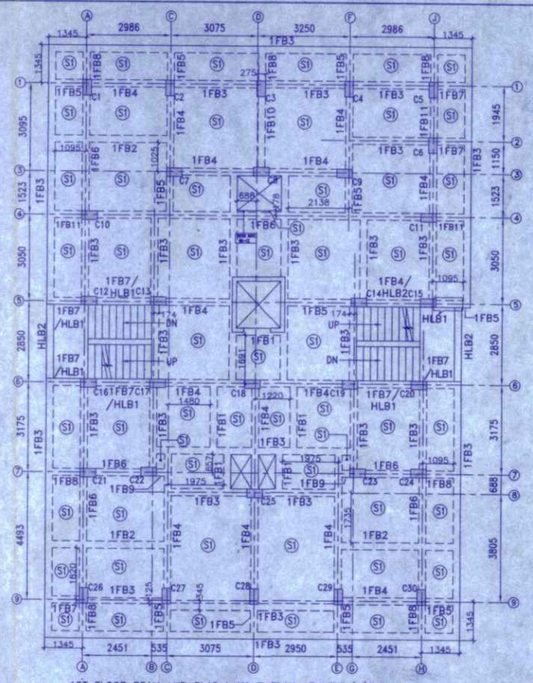
COLUMN LAYOUT PLAN

SCALE 1:100



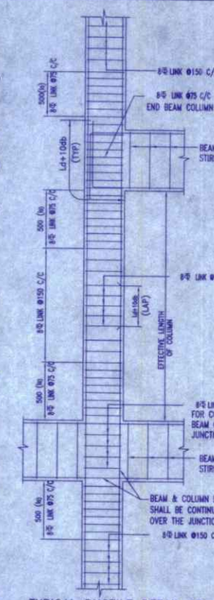
TIE BEAM LAYOUT PLAN AT LEVEL (+)0.150.m.

SCALE 1:100



1ST FLOOR BEAM AND SLAB LAYOUT PLAN AT LEVEL(+)3.05m.
S1 MARKED SLABS ARE 115 mm THICK.
HLB REFERS TO HALF LANDING BEAM.

SCALE-1:100

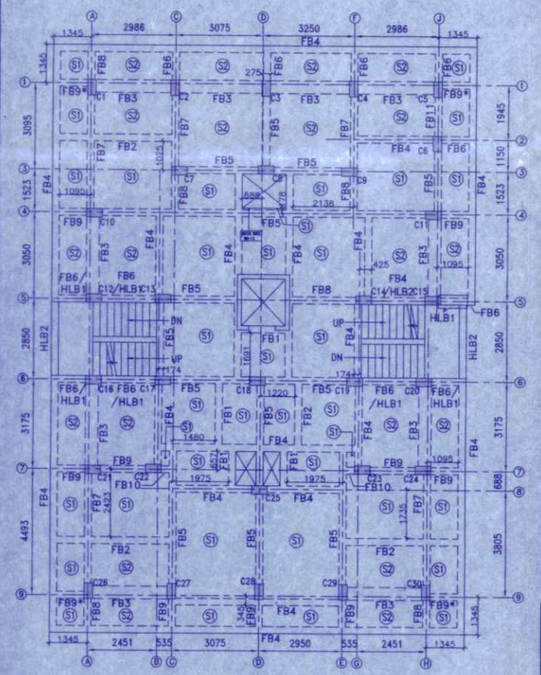


TYPICAL DUCTILE DETAIL OF BEAM COLUMN JUNCTION

L_d = DEVELOPMENT LENGTH IN TENSION
d_b = DIAMETER OF LONGITUDINAL BAR

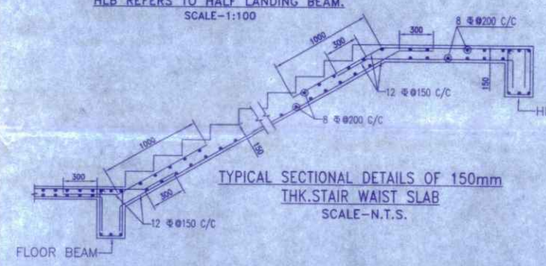
SCALE-N.T.S

DETAIL : A



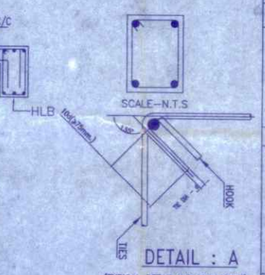
TYPICAL FLOOR BEAM AND SLAB LAYOUT PLAN AT LEVELS(+)6.1m,(+)9.15m,(+)12.25m,(+)18.3m
S1 MARKED SLABS ARE 115 mm THICK.
S2 MARKED SLABS ARE 150 mm THICK.
FOR '*' MARKED BEAM REFER DETAIL-1.
HLB REFERS TO HALF LANDING BEAM.

SCALE-1:100



TYPICAL SECTIONAL DETAILS OF 150mm THK.STAIR WAIST SLAB

SCALE-N.T.S.



DETAIL : A

(TYPICAL DETAIL OF 135° HOOK)

SCALE-N.T.S

SCHEDULE OF TIE BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	BEAM SIZE DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	TOP REINFORCEMENT EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	BOTTOM REINFORCEMENT EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
TB1	250	400	2-16φ +1-12φ	-	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
TB2	250	400	2-16φ +1-12φ	2-12φ	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
TB3	250	400	LARGER 2-16φ +1-12φ; SMALLER 2-16φ +1-12φ	-	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
TB4	250	400	LARGER 2-16φ +1-12φ; SMALLER 2-16φ +1-12φ	-	LARGER 2-16φ +1-12φ; SMALLER 2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
TB5	250	400	LARGER 2-16φ +1-12φ; SMALLER 2-16φ +1-12φ	-	LARGER 2-16φ +1-12φ; SMALLER 2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
TB6	250	400	2-16φ +1-16φ	-	2-16φ +1-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C

SCHEDULE OF FIRST FLOOR BEAMS

BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	BEAM SIZE DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	TOP REINFORCEMENT EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	BOTTOM REINFORCEMENT EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
1FB1	250	400	2-16φ +1-12φ	-	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
1FB2	250	400	2-16φ +1-12φ	-	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
1FB3	250	450	3-16φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
1FB4	250	450	3-16φ	3-12φ	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
1FB5	250	450	3-16φ +3-12φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
1FB6	250	450	3-16φ	3-16φ	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
1FB7	250	450	3-16φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
1FB8	250	450	3-16φ +3-12φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
1FB9	250	450	3-16φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
1FB10	250	450	3-16φ	3-16φ	3-16φ	2-12φ	2L-8φ@100 C/C	2L-8φ@200 C/C
1FB11	250	450	3-16φ +3-12φ	-	3-16φ +2-12φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
HLB1	250	450	3-16φ +3-12φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
HLB2	250	450	3-16φ	3-12φ	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C

SCHEDULE OF TYPICAL FLOOR BEAMS

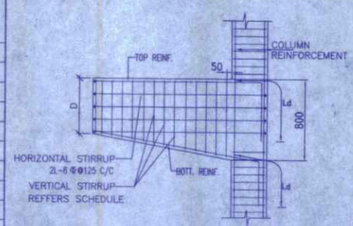
BEAM MARKED	BEAM SIZE WIDTH (W) (mm)	BEAM SIZE DEPTH (D) (mm)	TOP REINFORCEMENT ALTHROUGH (a)	TOP REINFORCEMENT EXTRA AT SUPPORT (b)	BOTTOM REINFORCEMENT ALTHROUGH (c)	BOTTOM REINFORCEMENT EXTRA AT SPAN (e)	STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
FB1	250	400	2-16φ +1-12φ	-	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
FB2	250	400	2-16φ +1-12φ	-	2-16φ +1-12φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
FB3	450	150	4-16φ	-	4-12φ	-	4L-8φ@100 C/C	4L-8φ@150 C/C
FB4	250	450	3-16φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
FB5	250	450	3-16φ	3-12φ	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
FB6	250	450	3-16φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
FB7	250	450	3-16φ	3-16φ	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C
FB8	250	450	3-16φ +3-12φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
FB9	250	450	3-16φ +3-12φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
FB10	250	450	3-16φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
FB11	250	450	3-16φ +3-12φ	-	3-16φ +2-12φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
HLB1	250	450	3-16φ +3-12φ	-	3-16φ	-	2L-8φ@100 C/C	2L-8φ@100 C/C
HLB2	250	450	3-16φ	3-12φ	3-16φ	-	2L-8φ@100 C/C	2L-8φ@200 C/C

SCHEDULE OF COLUMNS

COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	FOUNDATION TO 4TH FLOOR	4TH FLOOR TO ROOF/ ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING: NEAR JUNCTION(lo)	STIRRUP ARRANGEMENT & SPACING: REST PORTION
C7	01	300X550	MAIN RNF.:- 4-20φ +8-16φ	MAIN RNF.:- 4-20φ +8-16φ	8φ@75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)	8φ@150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C1,C2,C3,C4, C5,C6,C8,C9, C10,C11,C12, C13,C14,C15, C16,C17,C18, C19,C20,C21, C22,C23,C24, C25,C26,C27, C28,C29,C30	29	300X550	MAIN RNF.:-12-16φ	MAIN RNF.:-12-16φ	8φ@75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)	8φ@150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)

SCHEDULE OF STOOL COLUMNS

COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	ROOF TO ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING
ST1 (ROOF TO WATER TANK) ST2,ST3,ST4 (ROOF TO MUMTY)	04	250X250	MAIN RNF.:- 4-16φ	8φ@150 C/C (1 NO. CLOSED LINK)
ST5,ST6,ST7,ST8 (ROOF TO LMR ROOF)	04	250X250	MAIN RNF.:- 8-16φ	8φ@150 C/C (2 NOS. CLOSED LINK)



DETAIL 1
TYPICAL DETAIL OF CORBEL BEAM
SCALE-N.T.S.

SPECIAL NOTES:

1. THIS STRUCTURAL DRAWING IS VALID IF THE CONSTRUCTION IS DONE USING AAC BLOCKS FOLLOWING PROPER DIMENSION OF EXTERNAL AND INTERNAL WALLS AS PER ARCHITECTURAL DRAWING.
2. THE STRUCTURE MUST BE CONSTRUCTED IN PRESENCE OF A COMPETENT STRUCTURAL ENGINEER FOR STRICT SUPERVISION.

NOTES :

1. UNLESS OTHERWISE STATED ALL CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT CONFORMING TO RELEVANT (INDIAN) STANDARD CODES OF PRACTICE.
2. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS ARE IN METER. EXCEPT OTHERWISE MENTIONED ONLY WRITTEN DIMENSIONS SHALL BE FOLLOWED. ALL LEVELS GIVEN IN STRUCTURAL DRAWINGS ARE IN ACCORDANCE WITH ARCHITECTURAL DRAWINGS AND INDICATE STRUCTURAL LEVEL ONLY (WITHOUT FINISH).
3. ANY DISCREPANCY IN THE STRUCTURAL AND ARCHITECTURAL DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF STRUCTURAL CONSULTANT BEFORE EXECUTION OF WORK.
4. UNLESS OTHERWISE SPECIFIED ALL REINFORCEMENT TO BE USED SHALL BE TMT BARS OF GRADE Fe-500/500D CONFORMING TO IS-1786-2008.
5. UNLESS OTHERWISE STATED LAP LENGTH OF BARS SHALL BE EQUAL TO THE DEVELOPMENT LENGTH = 50xBAR DIA.
6. CONCRETE NOMINAL COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:
   - I) COLUMNS : 40 mm
   - II) BEAMS : 30 mm
   - III) SLABS : 20 mm
   - Iv) WAIST SLAB : 20 mm
7. GRADE OF CONCRETE FOR SUPERSTRUCTURE UPTO & INCLUDING 4TH FLOOR WILL BE M30 & ABOVE THAT WILL BE M25 AS PER IS:456:2000.
8. VIBRATOR SHALL BE USED FOR PROPER COMPACTION OF CONCRETE AND CURING SHALL BE DONE PROPERLY.
9. DEVELOPMENT LENGTH 50XD FOR LAP & SPLICES SHOULD BE PROVIDED AS PER THE PROVISIONS LAID DOWN IN SP34:1987
10. WHEREVER A SUPPORTED MEMBER TERMINATES AT A SUPPORTING MEMBER THE BARS OF THE SUPPORTED MEMBER SHOULD HAVE AN ANCHORAGE OF 60D IN THE SUPPORTING MEMBER.
11. WHEN TWO BEAMS MEET AT A COLUMN LOCATION ALONG THE SAME LINE THE HIGHER REINFORCEMENT AT THE TOP SHOULD BE CONTINUED AT BOTH SIDE.
12. ALL CANTILEVER SLAB WITHOUT PERIPHERAL BEAMS THE TOP REINFORCEMENT PARALLEL TO THE CANTILEVER SPAN SHOULD BE CONTINUED UPTO ATLEAST 1.5 TIMES THE CANTILEVER SPAN WITHIN THE ADJACENT SLAB.

TITLE

STRUCTURAL DRAWING OF PROPOSED OF G+6 STORIED RESIDENTIAL CUM COMMERCIAL (APARTMENT) BUILDING OF SRI. PRABAL BARAN CHATTERJEE, SRI SHAIBAL CHATTERJEE & SRI SOUMEN MISHRA OVER R.S PLOT NO. - 43, L.R. PLOT NO- 67, KHATIAN NO.-1699, 1700,1359 MOUZA -TETIKHOLA, J.L. NO- 111, P.S. - NEW TOWNSHIP, DIST- PASCHIM BARDHAMAN.

SIGNATURE OF OWNER

RUDRA CONSTRUCTION
Partner

SIGNATURE OF PANCHAYAT PRADHAN

Approved Plan No. 45 on Meeting No. 06/2022-23 Date 29/08/2022
Valid upto 07/12/2025
Pradhan 05/12/23
Jemua Gram Panchayat

SIGNATURE OF L.B.S./ENGINEER/ARCHITECT

Ar. VIJAYA SINGH MAZUMDER
COA Registered
CA/2021/134276
Ar. VIJAYA SINGH MAZUMDER 9332602167/9476426108
COA REGISTERED
CA/2021/134276

SIGNATURE OF GEO-TECHNICAL ENGINEER

Suvankar Chaudhuri
B.C.E. M.I.G.S. I.C.W.A. M.E.
Licence No: AMC/074/075
Structural Engineer
Chartered Engineer(R-85389)
Registered Valuer(VAL-462)
Geotechnical Consultant

SIGNATURE OF STRUCTURAL ENGINEER

SUSMITA CHOUDHURY
B.TECH (CIVIL) - WBUT
ME (CONSTRUCTION) - JU
EBE-I/R/P&ON/130
EBE-II/KMC/654
SEBI/NKDA/21/000010
CVER/NKDA/10/00175
(M)- 8697517321/7003201735

SIGNATURE OF THE VETTING AUTHORITY

CHECKED & VETTED
DR. DIPANKAR CHAKRAVORTY
STRUCTURAL ENGINEER
PROFESSOR (CIVIL)
CIVIL ENGINEER
KOLKATA
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DRAWING TITLE

1. COLUMN LAYOUT PLAN WITH REINF. DETAILS.
2. TIE BEAM AND LAYOUT PLAN WITH REINF. DETAILS.
3. TYPICAL FLOOR BEAM & SLAB LAYOUT PLAN LAYOUT WITH REINF. DETAILS.
4. DETAILS OF STAIR.

SCALE -1:100 OR AS SHOWN
DATE -06.01.2023
SHEET NO. - 2 OF 3
SHEET SIZE - A1