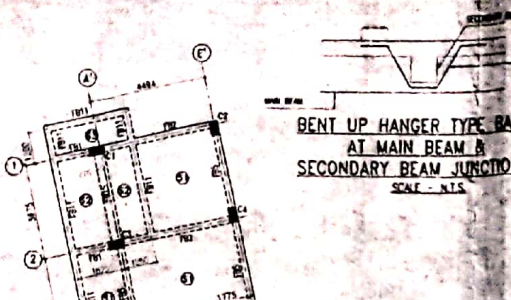
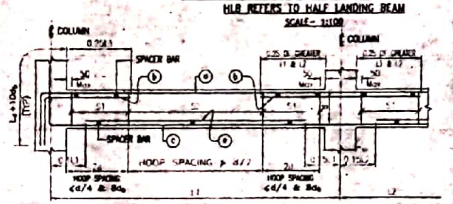
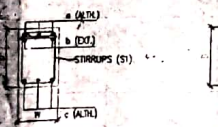


BENT UP HANGER TYPE BARS AT MAIN BEAM & SECONDARY BEAM JUNCTIONS
SCALE - N.T.S.

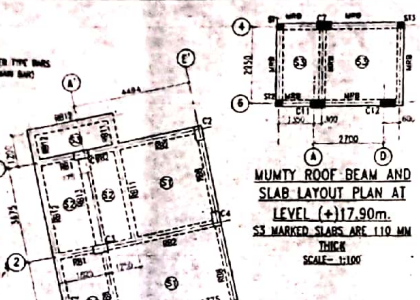
TYPICAL (FIRST TO FOURTH) FLOOR BEAM AND SLAB LAYOUT PLAN AT LEVEL (+)3.3m., (+)6.35m., (+)9.4m., (+)12.45m.,
S1 MARKED SLABS ARE 125 mm THICK
S2 MARKED SLABS ARE 150 mm THICK
ALL OTHER (S3 MARKED) SLABS ARE 110 mm THICK.
HLB REFERS TO HALF LANDING BEAM
SCALE- 1:100



TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAM

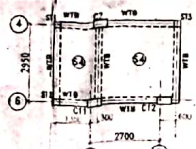


AT SUPPORT AT SPAN
TYPICAL CROSS SECTION OF BEAM



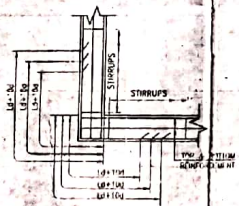
ROOF BEAM AND SLAB LAYOUT PLAN AT LEVEL (+)15.5m.
S1 MARKED SLABS ARE 125 mm THICK
S2 MARKED SLABS ARE 150 mm THICK
ALL OTHER (S3 MARKED) SLABS ARE 110 mm THICK.
HLB REFERS TO HALF LANDING BEAM
SCALE- 1:100

MUMTY ROOF BEAM AND SLAB LAYOUT PLAN AT LEVEL (+)17.90m.
S3 MARKED SLABS ARE 110 MM THICK
SCALE- 1:100



WATER TANK PLATFORM BEAM AND SLAB LAYOUT PLAN AT LEVEL (+)18.25m.
S4 MARKED SLABS ARE 150 MM THICK
SCALE- 1:100

LIFT SHAFT COVER BEAM AND SLAB LAYOUT PLAN AT LEVEL (+)17.02m.
S3 MARKED SLAB IS 110 mm THICK
SCALE- 1:100



DETAIL-"1"
TYPICAL DETAIL OF BOW GIRDER IN CANTILEVER PORTION
SCALE N.T.S.

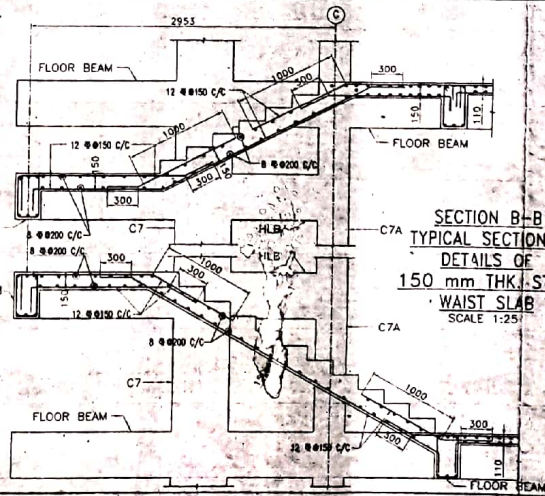
SCHEDULE OF TYPICAL (FIRST TO FOURTH) FLOOR BEAM & HALF LANDING BEAM

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	450	3-16 Φ +3-16 Φ	—	3-16 Φ +2-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@100 C/C
FB2	250	450	3-16 Φ	2-16 Φ	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
FB3	250	450	3-16 Φ	2-12 Φ	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
FB4	250	450	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB5	250	450	3-16 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
FB6	250	450	3-16 Φ	3-16 Φ	3-16 Φ	2-12 Φ	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
FB7	250	450	3-16 Φ +2-16 Φ	—	3-16 Φ +2-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@125 C/C
FB8	250	450	3-16 Φ +2-16 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
FB9	250	450	3-16 Φ +2-12 Φ	—	3-16 Φ +2-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB10	250	450	3-16 Φ	2-16 Φ	3-16 Φ	2-12 Φ	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB11	250	400	3-16 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
FB12	250	400	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@175 C/C
FB13	250	350	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@175 C/C
FB14	250	450	3-16 Φ +3-12 Φ	2-16 Φ	3-16 Φ	2-16 Φ	2L-8 Φ@100 C/C	2L-8 Φ@175 C/C
FB15	400	150	4-16 Φ	—	4-12 Φ	—	4L-8 Φ@100 C/C	4L-8 Φ@175 C/C
HLB	250	450	3-16 Φ +2-12 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@175 C/C

SCHEDULE OF ROOF BEAMS, LIFT SHAFT COVER BEAM, WATER TANK FLOOR BEAMS & MUMTY ROOF 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)
RB1	250	450	3-16 Φ +2-16 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@125 C/C
RB2	250	450	3-16 Φ	2-12 Φ	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB3	250	450	3-16 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB4	250	450	3-16 Φ +2-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@125 C/C
RB5	250	450	3-16 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB6	250	450	3-16 Φ +2-12 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB7	250	450	3-16 Φ +2-12 Φ	—	3-16 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@150 C/C
RB8	250	450	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB9	250	450	3-16 Φ	2-12 Φ	3-16 Φ	2-12 Φ	2L-8 Φ@100 C/C	2L-8 Φ@175 C/C
RB10	250	400	3-12 Φ +2-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB11	250	350	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB12	250	400	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
RB13	400	150	4-12 Φ	—	4-12 Φ	—	4L-8 Φ@100 C/C	6L-8 Φ@175 C/C
MRB	250	400	3-16 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
WTB	250	400	3-16 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C
LMRB	250	350	3-12 Φ	—	3-12 Φ	—	2L-8 Φ@100 C/C	2L-8 Φ@200 C/C

SPECIAL NOTES:
1.0 THIS STRUCTURAL DRAWING IS VALID IF THE ARCHITECTURAL DRAWING IS FOLLOWED WHERE 200 mm THICK AAC BLOCKS IN EXTERNAL WALLS, 75 &125 mm THICK BLOCKS IN INTERNAL WALLS.
2.0 THIS DRAWING SHOWS A NUMBER OF NON RECTANGULAR SLAB PANELS. SLAB REINFORCEMENTS MUST BE LAID UNDER SUPERVISION OF COMPETENT STRUCTURAL ENGINEER BY CLEARLY IDENTIFYING THE SLAB PANEL BOUNDED BY HIDDEN BEAMS OR PLANTS.
3.0 CANTILEVER BEAMS SHOULD BE CAST WITH A PRECAMBER OF 10 mm FOR TYPICAL FLOOR AND ROOF.



SECTION B-B
TYPICAL SECTIONAL DETAILS OF 150 mm THK. STAIR WAIST SLAB
SCALE 1:25

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-500/5000 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
   v) LIFT SHEAR WALL : 20 mm
7. GRADE OF CONCRETE FOR SUPERSTRUCTURE & SUBSTRUCTURE 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 50D 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 SIDES.
12. WHEN TWO SLAB PANELS MEET ALONG A COMMON BEAM THEN THE TOP REINFORCEMENT TO BE PROVIDED FOR BOTH THE PANELS SHOULD BE THE HIGHER ONE AMONG THE TABULATED VALUES FOR THE INDIVIDUAL PANELS.

TITLE

STRUCTURAL DRAWING OF PROPOSED G+IV (~~15.5m~~ 14.9) STORIED RESIDENTIAL BUILDING OF Sri SISIR MANDAL, Smt. PRIYANKA MANDAL, Smt. HASINA BIBI, Md. SAHIDUL ISLAM & SAIFUL ISLAM AT MOUZA - REKJOANI, J.L. NO. 13, R.S./L.R DAG NO - ~~1090~~ 1095, 1096 ~~AND 1637~~ R.S. No - 198, L.R KHATIAN NO. ~~1090, 2292~~ AND 5489, UNDER BISHNUPUR 1no GRAM PANCHAYAT, P.S - RAJARHAT, DIST - 24 PRGS (NORTH).

CERTIFICATE OF ARCHITECT

I HAD PERSONALLY VERIFIED THE SITE AND HAD FOUND IT TO BE BUILDABLE AND IT IS NOT TANK OR FILLED UP TANK.

SIG. OF ARCHITECT

CERTIFICATE OF STRUCTURAL ENGINEER

THE STRUCTURAL DESIGN AND DRAWING OF BOTH FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING HAS BEEN MADE BY ME, CONSIDERING ALL 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.

Sumita Choudhury 29/7/19
SUSMITA CHOUDHURY
B.TECH (CIVIL)
CIVIL ENGINEER, NKDA
LICENCE NO.- CVER/NKDA/10/00175

SIG. OF STRUCTURAL ENGINEER

SIGNATURE OF THE VETTING AUTHORITY

DECLARATION OF OWNER

CERTIFIED THAT I HAVE GONE THROUGH THE BUILDING RULES FOR BISHNUPUR No 1 GRAM PANCHAYAT IN VOGUE AND ALSO UNDERTAKE TO ABIDE BY THOSE RULES DURING AND AFTER CONSTRUCTION OF BUILDING.

I ALSO CERTIFY THAT THE LAND IS NOT A POND OR FILLED UP POND

BHAOAT CONSTRUCTION
Biswanath Rajak
Proprietor

SIGNATURE OF OWNER

DRAWING TITLE
COLUMN LAYOUT PLAN, COLUMN SCHEDULE & TYPICAL DUCTILE DETAIL OF COLUMN BEAM JUNCTION, TIE BEAM LAYOUT PLAN

SCALE-1:100 OR AS SHOWN
DATE- 29.07.2019
SHEET NO. -3 OF 4

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