

**STRUCTURAL DESIGNED SHEET FOR THREE STORIED RESIDENTIAL BUILDING PLAN OF MR. RAJIB MANNA; SITUATED AT MOUZA - GOPALPUR; IN R. S. & L. R. DAG NO.- 2842; R. S. KHATIAN NO.- 2982; L. R. KHATIAN NO.- 11270; J. L. NO.- 02; R. S. NO.- 140; TOUZI NO.- 2998; P. S.- NARAYANPUR; DIST.- 24-PARGANAS (N); UNDER WARD NO.- 04 OF BIDHANNAGAR MUNICIPAL CORPORATION; HOLDING NO.- 31-D, BLOCK - B.**

- NOTES :-**
- All Dimensions are in Meters Unless Specified.
  - Scale :- 1:1, 4:1, 5:1.
  - Written Dimensions are to be followed.
  - The Drawing is to be read in conjunction with Architectural Drawing.
  - All Dimensions should be checked at site.
  - Clear cover to reinforcement shall be as follows:-
    - In Columns & Pedestal : 40 mm
    - In Beams : 25 mm
    - In Slab : 20 mm
    - In Footing : 50 mm
    - In Tie Beams : 25 mm
  - Live load in floors considered 200 kg/sqm.
  - Extra top and bottom reinforcement:-
    - Beam (i) Extra top (E.T.) to be provided at 0.25L from support.
    - (ii) Extra bottom (E.B.) to be extended to 0.1L from end support & 0.15L from interior support.
  - So specification of materials & workmanship follow N.B.C. 2005 and IS: 456-2000.
  - Grade of concrete M-25 AS Specified.
  - Grade of steel : H.Y.S.D. : Fe - 500.
  - P.C.C. should be of grade M-15.
  - Basis of Designed are both working stress & limit state method.

**CERTIFICATE OF ENGINEER / L.B.S.:-**

CERTIFIED THAT THE FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING HAVE BEEN SO DESIGNED BY ME/US WILL MAKE SUCH THOSE SAFE IN ALL RESPECT INCLUDING THE CONSIDERATION OF BEARING CAPACITY AND SETTLEMENT OF SOIL, ETC.

I HAVE PERSONALLY VERIFIED THAT THE LAND AND FOUND IT IS NOT A TANK OR FILLEDUP TANK. IT IS SUITABLE FOR BUILDING CONSTRUCTION.

:- SIGNATURE OF STRUCTURAL ENGINEER :-

**CERTIFICATE OF OWNER :-**

CERTIFIED THAT I HAVE GONE THROUGH THE BUILDING RULES FOR BIDHANNAGAR MUNICIPAL CORPORATION AND ALSO UNDERTAKE TO ABIDE THOSE RULES DURING AND AFTER CONSTRUCTION OF THE BUILDING.

:- SIGNATURE OF OWNER :-

**SCHEDULE OF BEAM REINFORCEMENT:-**

BEAM MKD.	BEAM SIZE B X D	REINFORCEMENT				STIRRUPS
		AT SUPPORT		AT MIDSPAN		
		TOP	BOTTOM	TOP	BOTTOM	
B1	0.250 X 0.400	5-16 TOR	3-16 TOR	3-16 TOR	5-16 TOR	8 TOR 2L @ 0.150 C/C.
B2	0.250 X 0.400	4-16 TOR	2-16 TOR	2-16 TOR	4-16 TOR	8 TOR 2L @ 0.150 C/C.
B3	0.250 X 0.350	3-16 TOR	2-16 TOR	2-16 TOR	3-16 TOR	8 TOR 2L @ 0.150 C/C.

**SCHEDULE OF COLUMN REINFORCEMENT:-**

COL. MKD.	COLUMN SIZE	REINFORCEMENT	STIRRUPS
C1	0.250 X 0.450	10-16 TOR	8 TOR 2L @ 0.150 C/C.
C2	0.250 X 0.400	8-16 TOR	8 TOR 2L @ 0.150 C/C.

**SCHEDULE OF SLAB REINFORCEMENT:-**

SLAB MKD.	SLAB DEPTH	REINFORCEMENT	
		SHORTER DIRECTION	LONGER DIRECTION
S1	0.112 THICK.	8 TOR @ 0.125 C/C.	8 TOR @ 0.125 C/C.
S2 (STAIR)	0.125 THICK.	10 TOR @ 0.100 C/C. (MAIN)	8 TOR @ 0.125 C/C. (BINDER)

