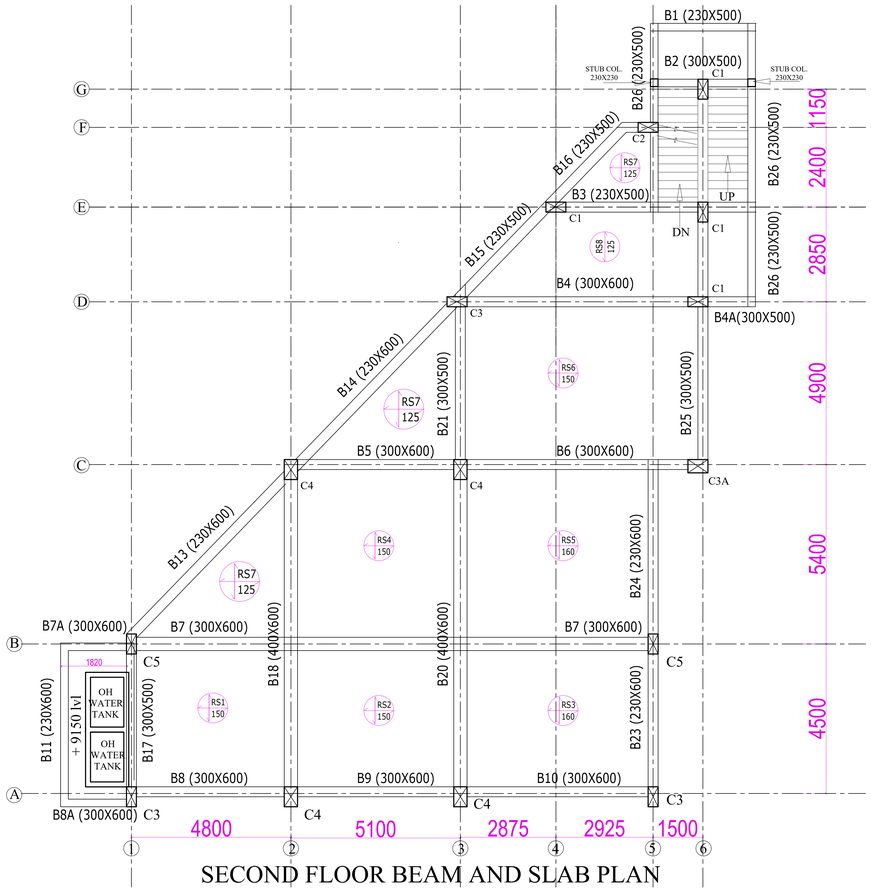
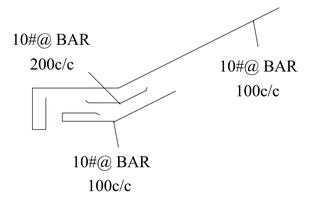


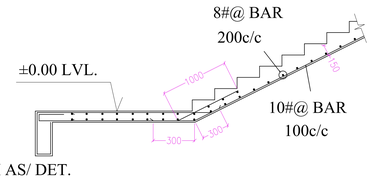
SECOND FLOOR BEAM AND SLAB PLAN

SCHEDULE OF TYPICAL SLAB REINFORCEMENT

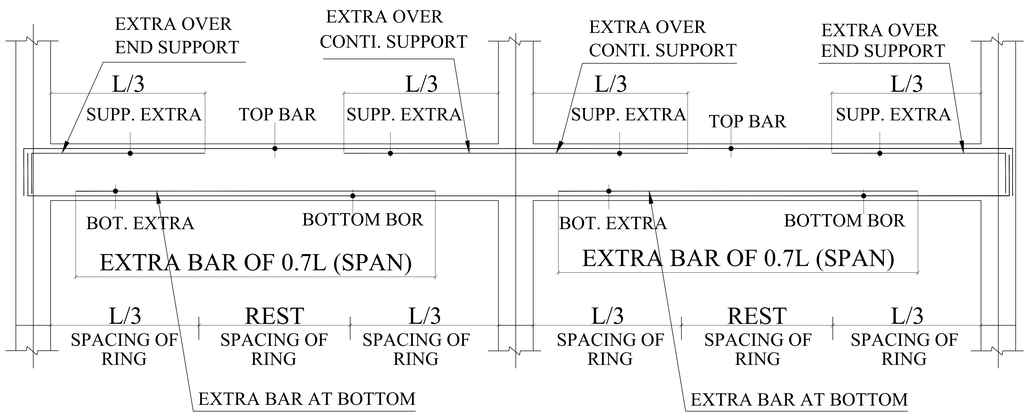
SLAB	THK.	BEHAVIOUR	STEEL ALONG SHORTER SIDE OF SPAN	STEEL ALONG LONGER SIDE OF SPAN	EXTRA OVER END SUPP. L/3 OF LONG SPAN AT TOP.	EXTRA OVER END SUPP. L/3 OF SHORT SPAN AT TOP.	REMARK
S1	150	TWO-WAY	10# BAR @150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S2	150	TWO-WAY	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S3	150	TWO-WAY	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S4	160	TWO-WAY	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S5	160	TWO-WAY	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S6	150	TWO-WAY	10#+12# @150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S7	125	TWO-WAY	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	10# EXT. @ 300 C/C AT OF END SUPPORT	-----
S8	125	ONE-WAY	10# BAR @ 150 C/C ALT. BAR BENT UP AT SUPPORT	8 # BAR @200 C/C DIST. BAR ACROSS MAIN BAR	-----	10# EXT. @ 300 C/C AT OF END SUPPORT	



BAR ARRANGEMENT



SECTION X-X



TYPICAL DETAIL OF BEAM

SCHEDULE OF BEAM REINFORCEMENT

BEAM	TOP BAR	BOT. BAR	EXT. AT BOT. OF 0.7L	EXT. OVER CONTI. SUPP.	EXT. OVER END SUPP.	RINGS SPACING L/3 ON EITHER SIDE OF SPAN	RINGS SPACING ON REST OF SPAN
B1 (230x500)	2-12#	2-16#	-----	-----	-----	8# @ 150 C/C	8# @ 200C/C
B2 (300x500)	6-20#	3-16#	-----	-----	-----	10# @ 100 C/C	
B3 (300x500)	2-20#	2-20#	-----	4-20#		8# @ 100 C/C	8# @ 150C/C
B3A (300x500)	6-20#	2-20#	-----	-----	-----	10# @ 100 C/C	
B4 (300x600)	2-25#	2-25#	1-25#	2-25#+1-16#	2-25#+1-16#	8# @ 100 C/C	8# @ 150C/C
B4A (300x500)	2-25#	2-16#	-----	-----	1-16#	8# @ 100 C/C	
B5 (300x600)	2-25#	2-25#	2-20#	2-25#	1-20#	8# @ 100 C/C	8# @ 150C/C
B6 (300x600)	2-25#	2-25#	2-20#	2-25#	2-25#	10# @ 100 C/C	10# @ 150C/C
B7A (300x600)	5-20#	2-20#	-----	-----	-----	8# @ 100 C/C	
B7 (300x600)	2-20#	2-20#	2-20#	4-20#	4-20#	8# @ 100 C/C	8# @ 150C/C
B8A (300x600)	6-20#	2-20#	-----	-----	-----	10# @ 100 C/C	
B8 (300x600)	2-20#	2-20#	1-16#	4-20#	4-20#	8# @ 100 C/C	8# @ 150C/C
B9 (300x600)	2-20#	2-20#	2-20#	4-20#	4-20#	8# @ 100 C/C	8# @ 150C/C
B10 (300x600)	2-20#	2-20#	2-20#	4-20#	4-20#	8# @ 100 C/C	8# @ 150C/C
B11 (230x600)	2-16#	2-16#	-----	-----	-----	8# @ 150 C/C	
						8# @ 150 C/C	8# @ 200C/C
B13 (230x600)	2-20#	2-20#	1-20#	2-20#	2-20#	8# @ 100 C/C	8# @ 150C/C
B14 (230x600)	2-20#	2-20#	1-20#	2-20#	2-20#	8# @ 100 C/C	8# @ 150C/C
B15 (230x500)	2-20#	2-20#	1-20#	2-20#	2-20#	8# @ 100 C/C	8# @ 150C/C
B16 (230x500)	2-20#	2-20#	1-20#	2-20#	2-20#	8# @ 100 C/C	8# @ 150C/C
B17 (300x600)	2-20#	2-20#	1-20#	-----	2-20#	8# @ 100 C/C	8# @ 150C/C
B18 (400x600)	3-25#	3-25#	3-25#	-----	4-25#	10# @ 100 C/C	10# @ 150C/C
B20 (400x600)	4-25#	4-25#	4-25#	4-25#	4-25#	10# @ 100 C/C	10# @ 150C/C
B21 (300x600)	2-25#	2-25#	1-16#	4-25#	-----	8# @ 150 C/C	8# @ 200C/C
B23 (230x600)	2-20#	2-20#	1-20#	2-20#	2-20#	8# @ 100 C/C	8# @ 150C/C
B24 (230x600)	2-20#	2-20#	1-20#	2-20#	2-20#	8# @ 100 C/C	8# @ 150C/C
B25 (300x600)	2-16#	2-16#	1-160#	-----	1-16#	8# @ 100 C/C	8# @ 150C/C
B26 (230x500)	2-16#	2-16#	-----	-----	-----	8# @ 150 C/C	

NOTES:-

1. ALL DIM. ARE IN MILIMETER UNLESS NOTED OTHERWISE
2. NOT MORE THEN HALF THE COLUMN BARS SHALL BE LAPED AT A SECTION
3. GRADE OF CONCRETE MIX SHALL BE M-30 CONFIRMING TO IS:456 - 2000.
4. STEEL RENFORCEMENT SHALL BE GRADE Fe:500-D N/SQ. mm AS PER IS:1786-2007.
5. CLEAR COVER TO THE R/F SHALL BE AS FOLLOWS.
   I COLUMN - 40mm ALROUND
   II FOOTING - 60 mm
   III BEAM - 25 mm ALROUND
   IV SLAB - 20 mm TOP/BOT.
6. DEVELOPMENT LENGTH & LAP LENGHT SHALL BE 50 TIMES DIA OF BAR
7. TOP & BOTTAM BARS SHOULD BE BEND AT THE ENDS AT LEAST FOR BEAM DEPTH IN CASE OF DEVELOPMENT LENGTH SATISFIED.
8. TOP BARS OF BEAM SHALL BE LAPPED AT THE CENTRE OF THE SPAN AND BOTTAM BARS SHALL BE LAPPED AT TWICE THE DEPTH AWAY FROM SUPPORT OR AT SUPPORT WITH LAP LENGTH FOR BOTH THE BARS
9. COLUMN FOOTING HAS BEEN DESIGN FOR GROUND FLOOR, FIRST AND SECOND
10. THE COLUMN BARS SHALL BE LAPPED AT THE MIDDLE OF THE STOREY HEIGHT AND STAGGRED BY 1.3 TIMES DEVELOPMENT LENGTH-Ld
11. THE SAFE BEARING CAPACITY OF SOIL IS 500 KN/ SQ. M.
12. AS FAR AS POSSIBLE THE BOTTOM LEVEL OF FOOTING SHOULD BE SAME OTHERWISE WELL WITHIN THE DISPERSION ANGLE OF LOAD TO ADJACENT FOOTING TO AVOID OVER STRESSING OF SOIL OF LOWER LEVEL FOOTING WHICH IS LIKELY TO COME IN LOAD DISPERSION RANGE.
13. THE STRUCTURE HAS BEEN DESIGNED AS PER IS:1893 WITH AN IMPORTANCE FACTOR-1.50.
14. THE DETAILING OF REINFORCEMENT SHALL BE DONE AS PER IS:13920 & REFER DET. DRG. WHICH WILL PROVIDE SEPARETLY.
15. ALL THE FLOOR IMPOSED LOADING HAS BEEN TAKEN AS PER IS:875 PART-2.

CONCRETE MIX DESIGN OF GRADE M30

ORDINARY PORTLAND CEMENT-50 Kg.
FINE AGGREGATE (SAND)-84 Kg
COARCE AGGREGATE - 150 Kg
AGGREGATE 12 MM & DOWN - 60 Kg. &
AGGREGATE 20 MM & DOWN - 90 Kg.
POTABLE WATER - 22.50 LITRES/BAG

CONCRETE MIX DESIGN PER CUM. OF GRADE M30

ORDINARY PORTLAND CEMENT-400 Kg.
FINE AGGREGATE (SAND)-640 Kg
COARCE AGGREGATE - 1200 Kg
AGGREGATE 12 MM & DOWN - 560 Kg.
AGGREGATE 20 MM & DOWN - 640 Kg.
WATER CEMENT RATIO - 0.45
POTABLE WATER - 180 LITRES/BAG

ISSUED TO	DATE	NO. OF PRINTS

REV	DATE	DISCRIPTION

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JOB TITLE

PROPOSED MORTUARY AND ELECRICAL SUB STATATION BUILDING FOR MAHATMA GANDHI MISSION TRUST AT MUMBAI.

SHEET TITLE

STRUCTURAL DETAILS OF SECOND FLOOR BEAMS AND SLAB

DEALT BY.		DRG.NO
CHECKED BY.		
DATE	05.02.2024	S - 04
SCALE		