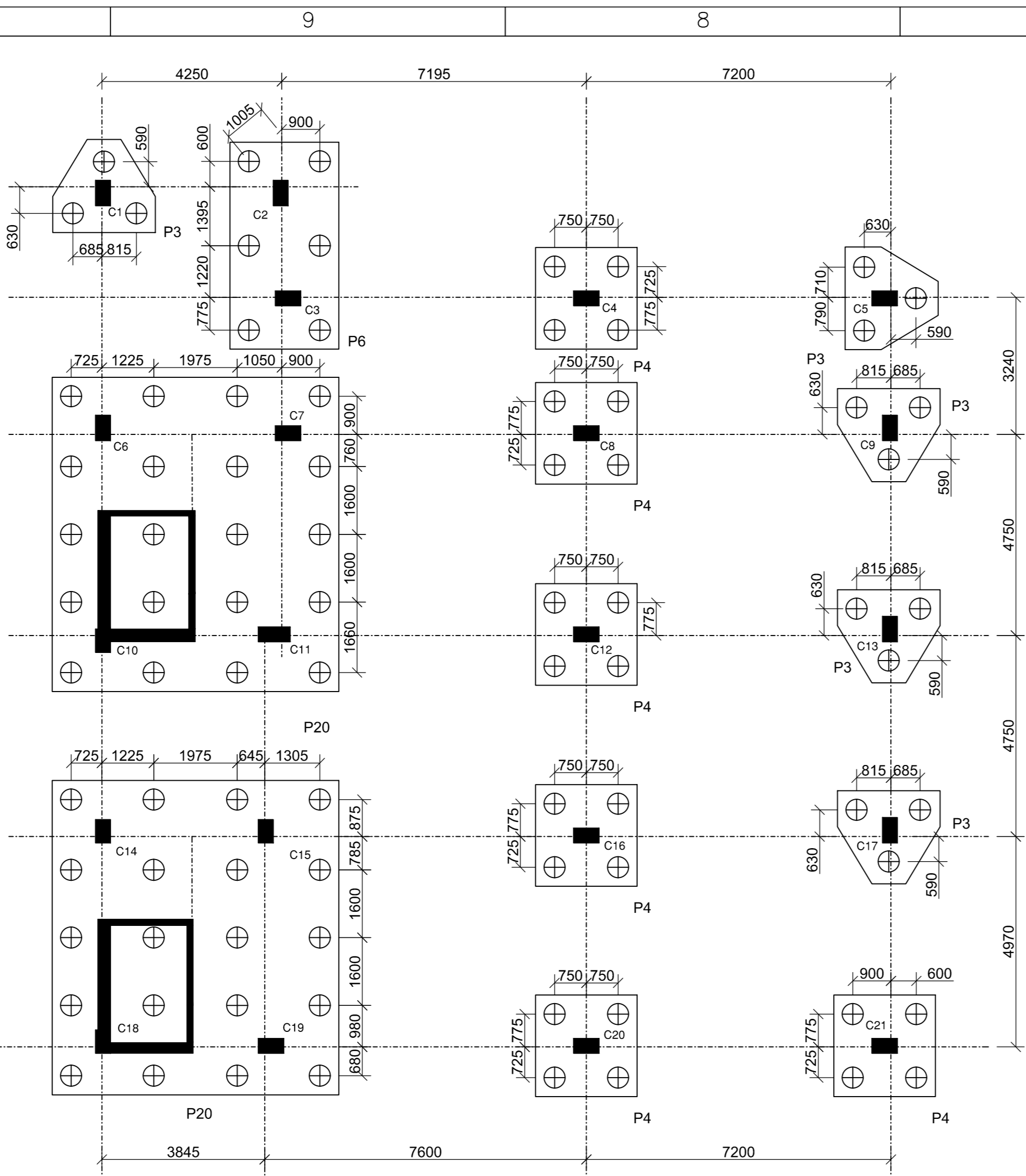
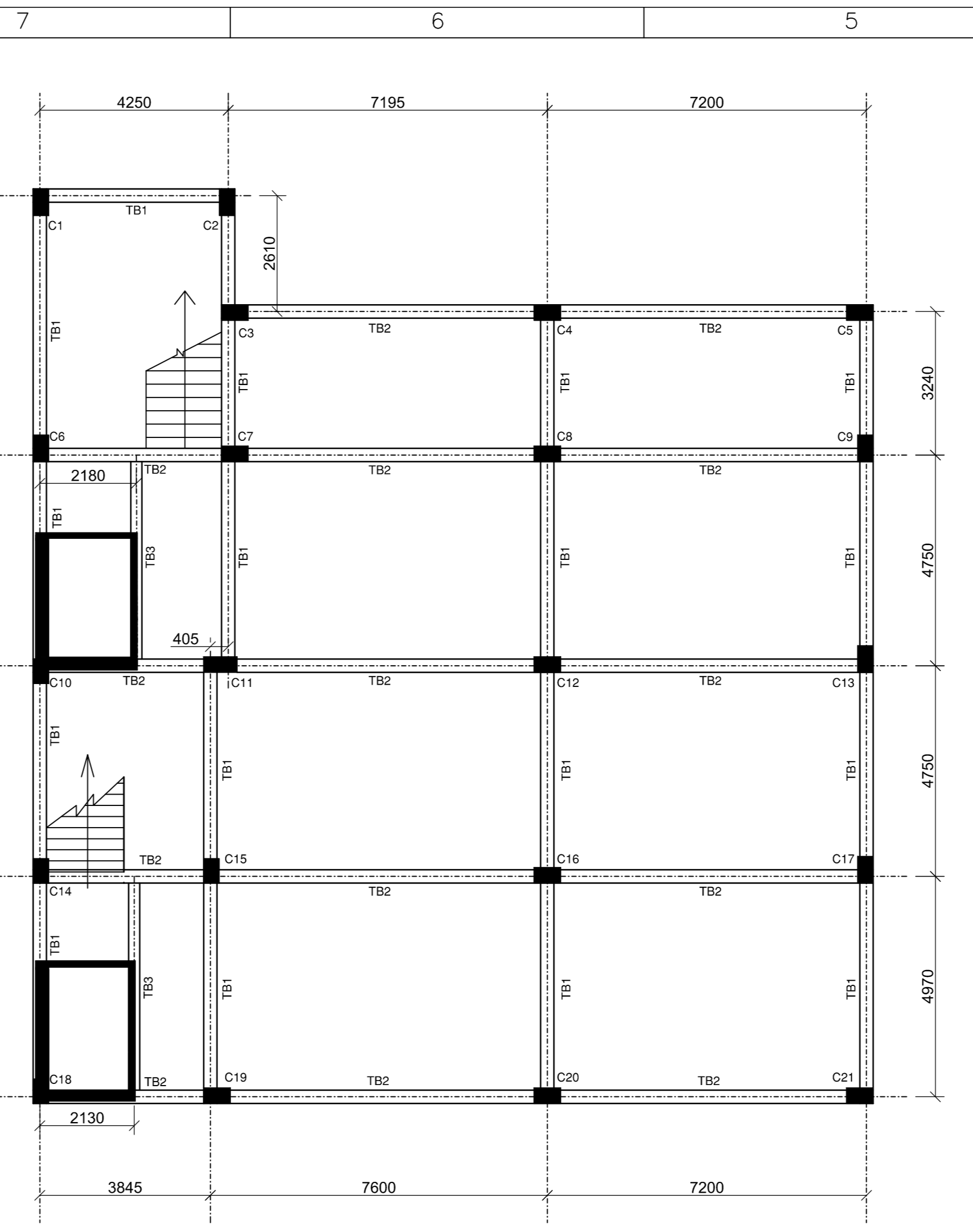


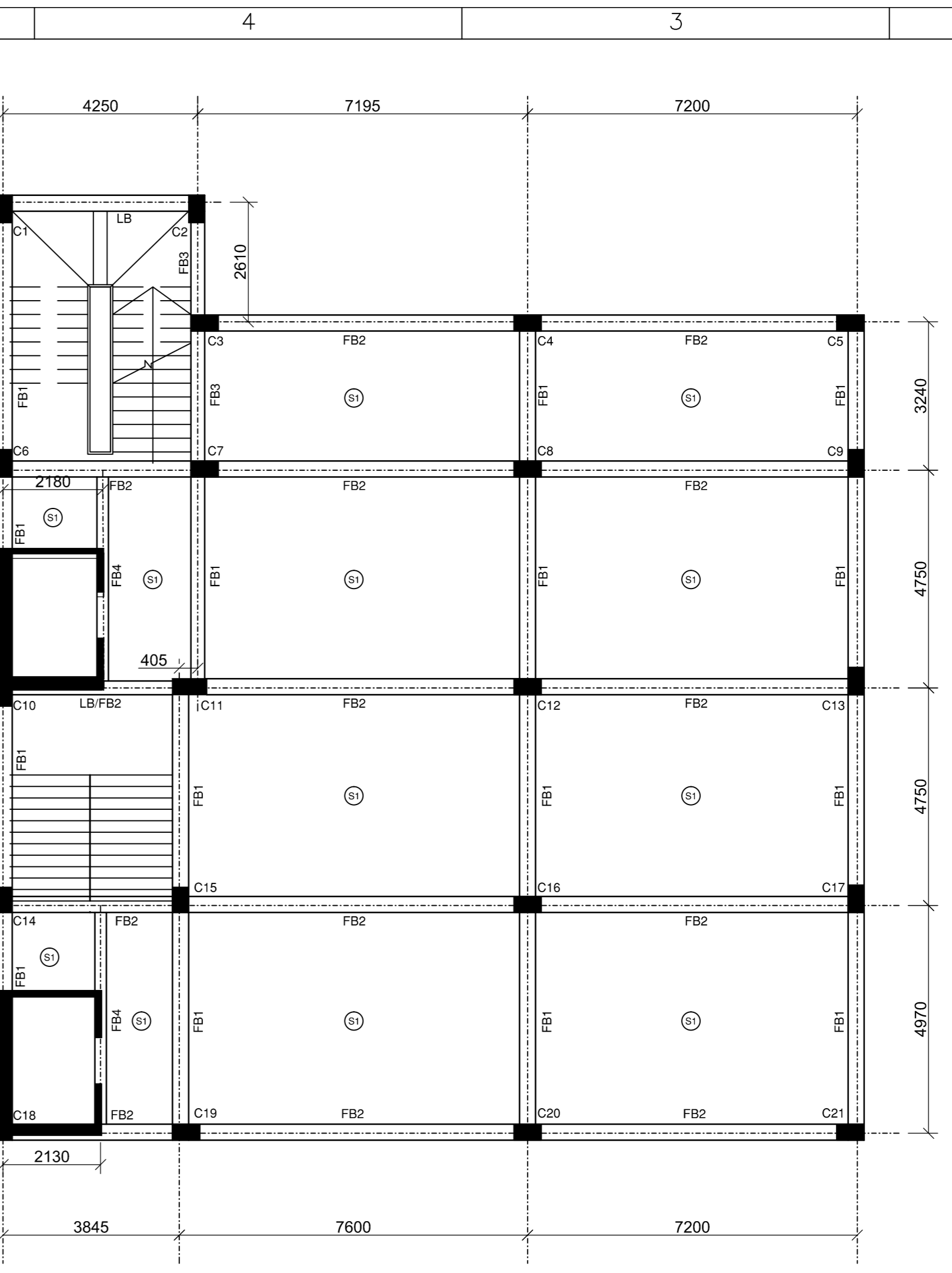
MARKING PLAN OF COLUMN



MARKING PLAN OF PILE AND PILE CAP



MARKING PLAN OF TIE BEAM



MARKING PLAN OF TYPICAL FLOOR & ROOF BEAM

**NOTES :-**  
**A. GENERAL:**  
 1. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN MET.  
 2. DRAWINGS SHALL NOT BE SCALED; ONLY WRITTEN DIMENSIONS.  
 3. ALL FOUNDATIONS SHALL BE REST ON VIRGIN SOIL OR ON THE SOIL AS PER SPECIFICATION, WHENEVER THE SOIL CONTAIN THE SAME SHALL BE REMOVED AND REFILLED WITH THE P.C.C.

**B. CONCRETE WORK:**  
 1. ALL CONCRETE WORK SHALL BE AS PER IS:456 (LATEST REVISION)  
 2. ALL STRUCTURAL REINFORCED CONCRETE WORK SHALL BE WITH DESIGN MIX CONCRETE OF GRADE AS FOLLOWS UNLESS NOTED OTHERWISE.  
 a). THE GRADE CONC. FOR SUB & SUPER STRUCTURES ARE M-25  
 3. PLAIN CONCRETE WORK SHALL BE OF THE FOLLOWING GRADES OF NOMINAL MIX CONCRETE:  
 a). 1:5:10 PLUM CONCRETE FOR FILLING CONCRETE UNDER FOUNDATION (WITH MAXIMUM AGGREGATE SIZE OF 40 MM.) AND AS, PIT, TRENCHES ETC.  
 b). M-15 FOR LEAN CONCRETE BELOW FOUNDATIONS & PLINTH PROTECTION  
 4. THE MINIMUM CLEAR COVER FOR PROTECTION OF MAIN REINFORCEMENT SHALL BE AS FOLLOWS

STRUCTURAL ELEMENT	COVER		
	TOP	BOTTOM	SIDES
a). PLINTH BEAM	25	40	40
b). COLUMNS	50	-	40
c). SLAB ON GRADE	20	25	25
d). FLOOR BEAM	25	25	25
e). SLAB	20	20	20
f). FOUNDATION	50	50	50

**C. REINFORCEMENTS:**  
 1. ALL REINFORCING STEEL SHALL BE OF TESTED QUALITY.  
 2. (a). HIGH YIELD STRENGTH DEFORMED BAR REINFORCEMENT (YIELD STRESS  $F_y = 500 \text{ N/MM}^2$ ) SHALL CONFORM TO IS:1786. (LATEST REVISION)  
 3. LAPS AND SPLICES OF REINFORCEMENT TO SUIT AVAILABLE LENGTH OF BARS SHALL BE MADE AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER AT SITE.  
 4. ALL HOOKS, BENDS, LAPS AND SPLICES SHALL BE AS PER IS:2502.  
 5. THE LAP/ANCHORAGE LENGTH OF BARS OF DIAMETER 'D' SHALL BE AS FOLLOWS:-

CONCRETE GRADE	DEFORMED BARS	
	TENSION	COMPRESSION
M-25	50XD	40XD

6. LAPPING OF BARS SHALL BE SUITABLY STAGGERED AND IN NO CASE MORE THAN 50% BARS SHALL BE LAPPED AT ANY SECTION.  
 7. LAPPING OF BARS FOR BEAM AND SLAB SHALL BE AVOIDED IN THE MAXIMUM TENSION ZONES.  
 8. DEVELOPMENT LENGTH ( $L_d$ ) = 50DIA OF THE BAR + 10DIA OF THE BAR.  
 9. ALL SPACER BARS ARE 25dia @ 450 C/C AND TO BE PROVIDED WHEREVER REQUIRED.  
**NOTE:**  
 THIS BUILDING HAS BEEN DESIGNED FOR G+4.  
 ALL EXTERNAL BRICK WALLS ARE 250MM THICK USED DENSITY 20kN/m<sup>3</sup>  
 ALL INTERNAL BRICK WALLS ARE 125MM THICK USED DENSITY 20kN/m<sup>3</sup>

**COLUMN SCHEDULE (M25-Fe500)**

ROOF	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM
TO	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75
2ND FLOOR	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM
2ND FLOOR	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75
FOOTING	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM	M25-Fe500, COVER = 40MM CONFINING ZONE = 600 MM
TO	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75	Z1 MAIN LINK Z1 OTHERS Z2 LINKS TB @ 75
COLUMN MARKED	C11	C4, C8, C12, C15, C16, C20	C3, C5, C9, C13, C17, C18, C19, C21	C1, C2, C6, C7, C10, C14

**PILE CAP SCHEDULE (M25-Fe500)**

PILE CAP MARK	PILES	DIMENSIONS			REINFORCEMENT				VERTICAL LINK	SFR
		L	B	D	BOTTOM		TOP			
					ALONG L	ALONG B	ALONG L	ALONG B		
P3	3-500 DIA	AS PER DWG	1200	AS PER DWG	AS PER DWG	T12@3000/C	T12@3000/C	T12@3000/C	T12@1250/C	T12@1250/C
P4	4-500 DIA	2400	2400	1200	T20@1500/C	T20@1500/C	T16@1500/C	T16@1500/C	T12@3000/C	T12@1250/C
P20	15-500 DIA	7425	6775	1200	T20@1500/C	T20@1500/C	T16@1500/C	T16@1500/C	T12@3000/C	T12@1250/C

**SCHEDULE OF PILE**

LEGEND	DIA. OF PILE (mm)	CUT-OFF LEVEL BELOW G.L. (m)	PILE SHAFT LENGTH (L) (m)	PILE CAPACITY		
				SAFE WORKING LOAD IN TONS		
				COMPRESSION	TENSION	LATERAL
⊕	500 ⌀	(-) 2.0	22.00	50.00	20.00	3.00

**TIE BEAM SCHEDULE (M25-Fe500)**

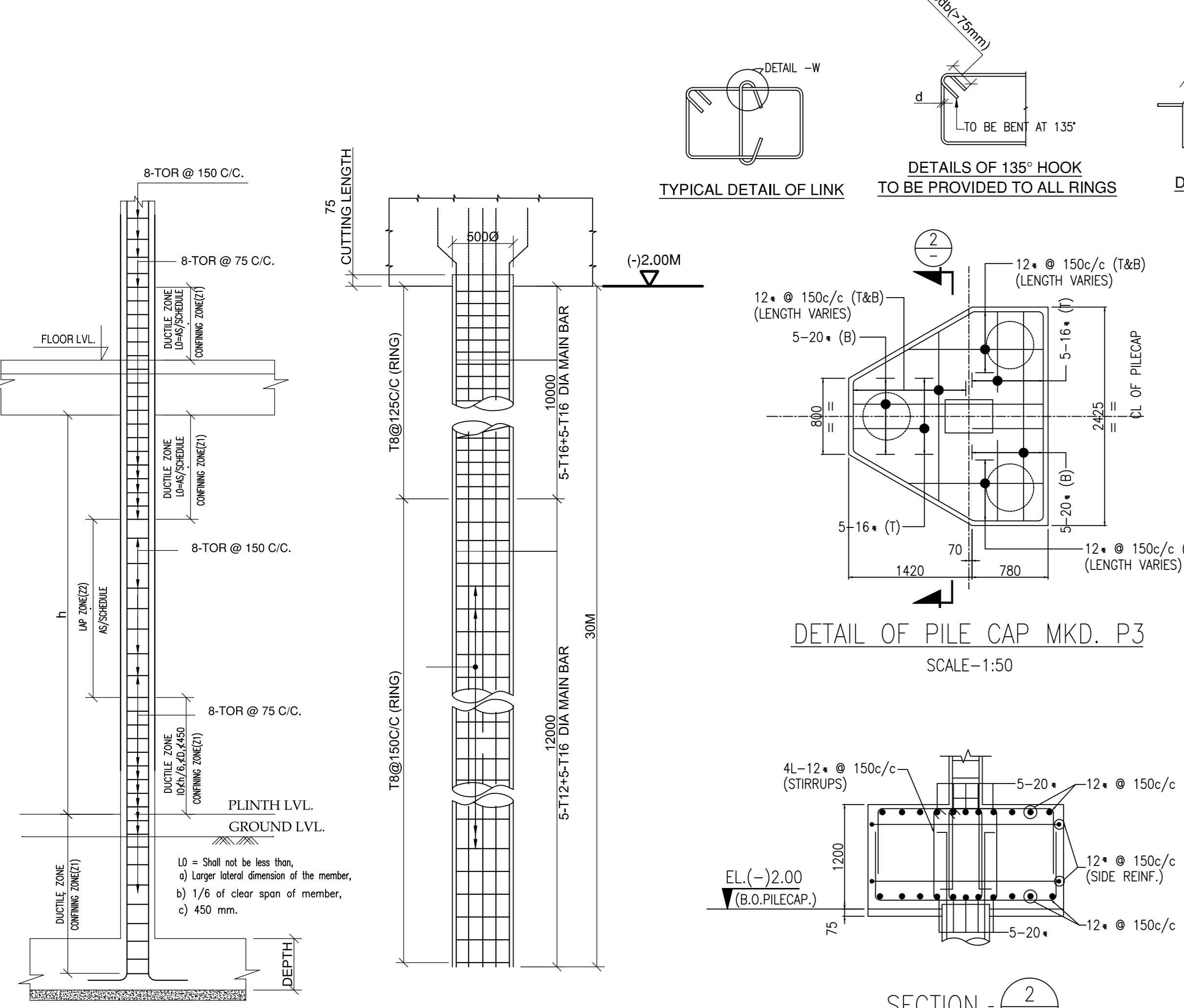
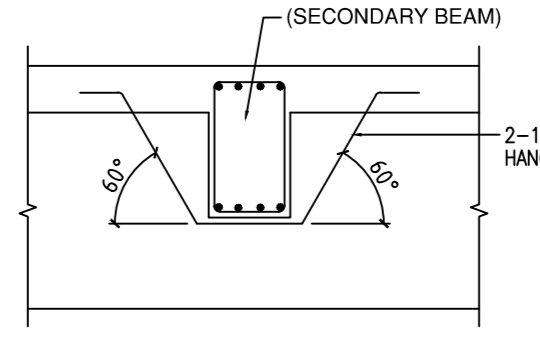
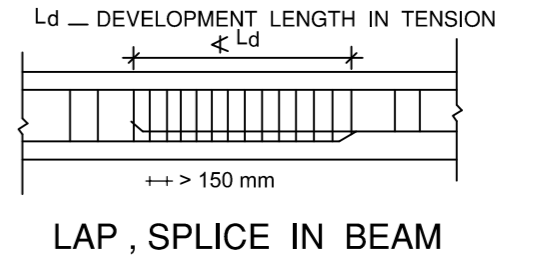
BEAM NUMBERS	SIZE	BOTTOM REINFORCEMENT		TOP REINFORCEMENT		SHEAR STIRRUPS	
		SUPPORT	SPAN	SUPPORT	SPAN	SUPPORT(S1)	SPAN(S2)
TB1	300 x 450	4-T16	4-T16	4-T16 + 4-T16	4-T16	2L-T8@100 C/C	2L-T8@150 C/C
TB2	300 x 450	4-T16	4-T16 + 2-T12	4-T16 + 3-T20	4-T16	2L-T8@100 C/C	2L-T8@150 C/C
TB3	250 x 450	3-T16	3-T16	3-T16	3-T16	2L-T8@150 C/C	2L-T8@150 C/C

**FLOOR BEAM SCHEDULE (M25-Fe500)**

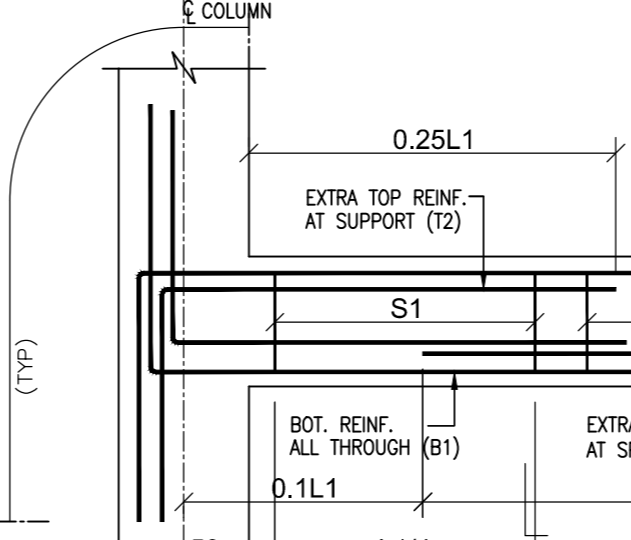
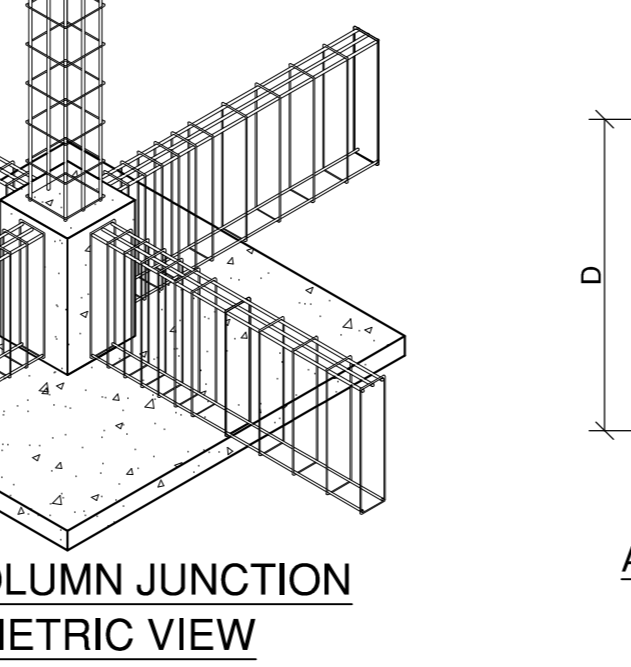
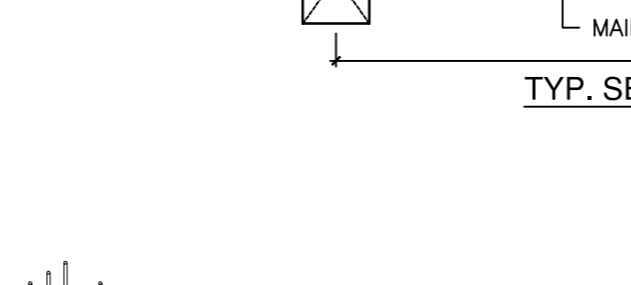
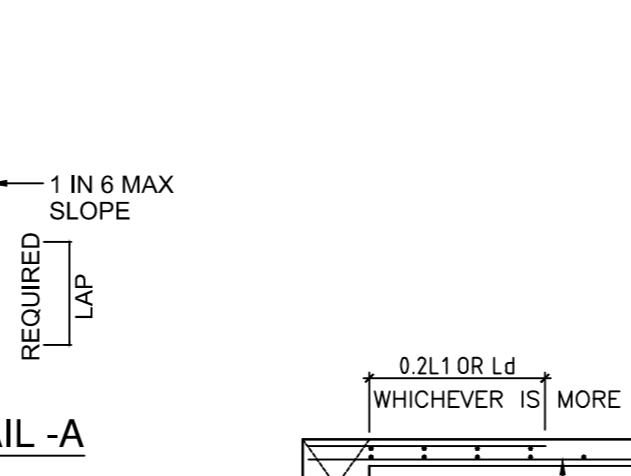
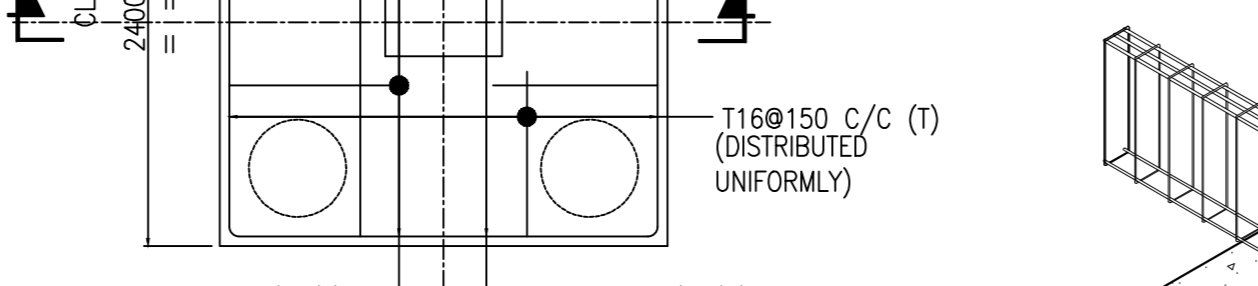
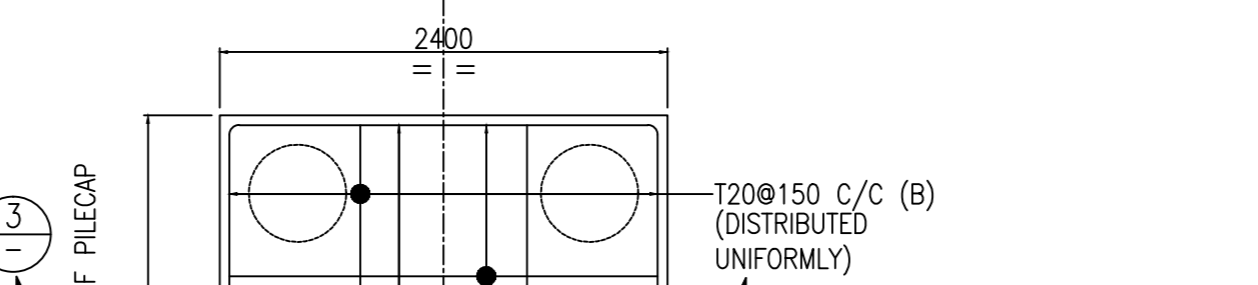
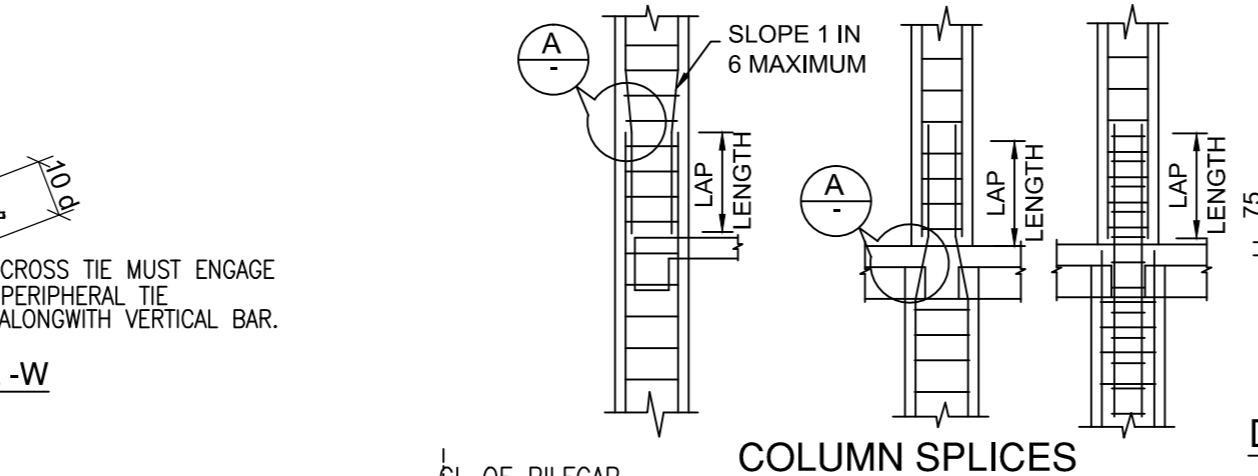
BEAM NUMBERS	SIZE	D	BOTTOM REINFORCEMENT		TOP REINFORCEMENT		SHEAR STIRRUPS	
			SUPPORT	SPAN	SUPPORT	SPAN	SUPPORT(S1)	SPAN(S2)
FB1	350	500	4-T20	4-T20	4-T20 + 3-T20	4-T20	2L-T8@100 C/C	2L-T8@150 C/C
FB2	350	500	4-T20	4-T20 + 2-T16	4-T20 + 3-T20	4-T20	2L-T8@100 C/C	2L-T8@150 C/C
FB3	300	500	4-T20	4-T20	4-T20 + 3-T20	4-T20	2L-T8@100 C/C	2L-T8@150 C/C
FB4	250	450	3-T16	3-T16	3-T16	3-T16	2L-T8@150 C/C	2L-T8@150 C/C

**FLOOR SLAB SCHEDULE (M25-Fe500)**

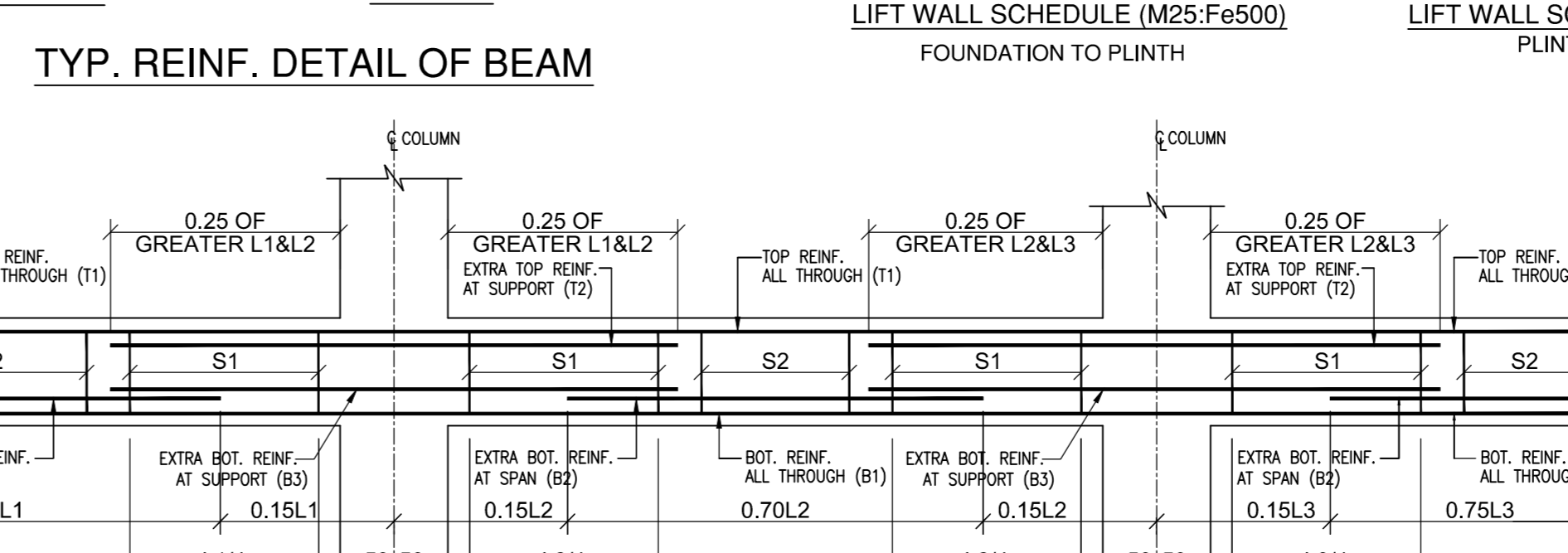
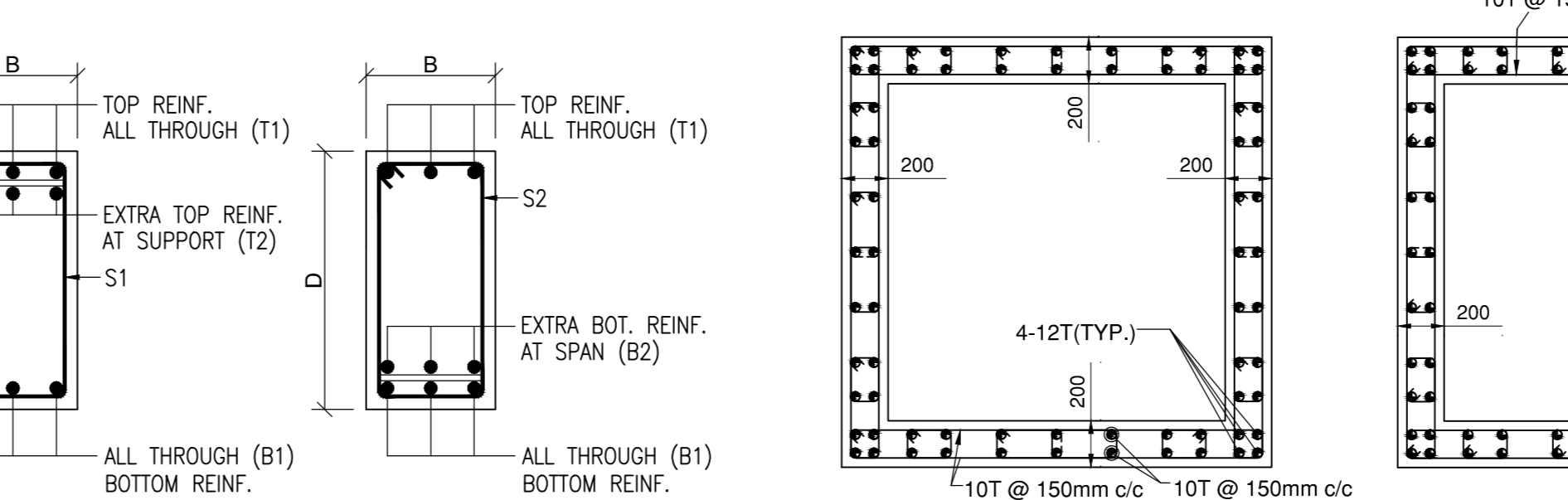
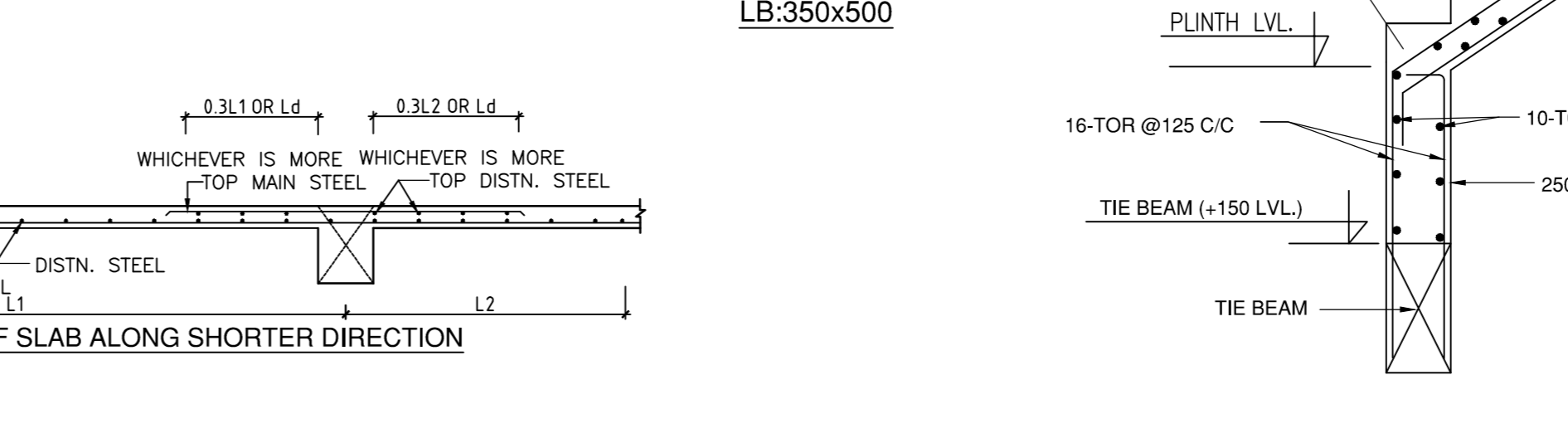
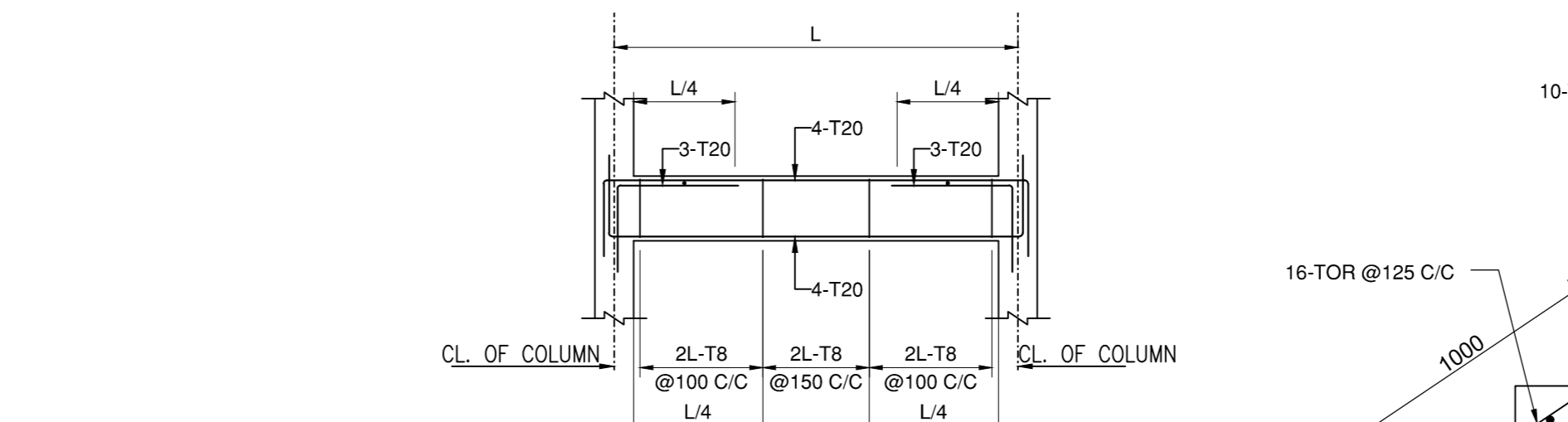
SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT		TOP REINFORCEMENT	
		ALONG SHORT SPAN	ALONG LONG SPAN	OVER LONG SUPPORT	OVER SHORT SUPPORT
S1	150	T8 @ 150 C/C	T8 @ 150 C/C	T8 @ 100 C/C	T8 @ 100 C/C



TYPICAL DETAIL OF COLUMN REINFORCEMENT



TYP. REINF. DETAIL OF BEAM



TYP. R.C.C DETAIL OF BEAM

**LOAD CONSIDERED NOTE:**  
 FLOOR LIVE LOAD = 4kN/m<sup>2</sup> (COMMERCIAL)  
 ACCESS ROOF LIVE LOAD = 1.5kN/m<sup>2</sup>  
 NON ACCESS ROOF LIVE LOAD = 0.75kN/m<sup>2</sup>  
 WATER TANK WITH WATER DEAD LOAD = 9.2kN/m<sup>2</sup>

**PROJECT TITLE:**  
 PROPOSED G+4 STORIED (COMMERCIAL) BUILDING IN THE NAME & STYLE " ITHEMBA DEVELOPMENTS LTD. " DIST - HOOGHLY, MOUZA & P.S. - CHANDERNAGORE, J.L. NO.- 1, C.S. & R.S.DAG NO.- 462, R.S.KHATIAN NO.- 289, L.R. DAG NO.- 786, L.R. KHATIAN NO-3235,3236,3231,3232,3233,3234 SHEET NO.- 11 AT CHANDERNAGORE STATION ROAD, WARD NO.- 10, UNDER CHANDERNAGORE MUNICIPAL CORPORATION.

**DEMOLISHING ORDER NO.-**  
 BD-6 / 2023 / 04 / 50  
**DATE :- 04.01.2024**

**DECLARATION OF STRUCTURAL ENGINEER**  
 Certified that the Structural Analysis & Design of PROPOSED G+4 STORIED (COMMERCIAL) BUILDING IN THE NAME & STYLE " ITHEMBA DEVELOPMENTS LTD. " has been prepared by me in the following land schedule: DIST - HOOGHLY, MOUZA & P.S. - CHANDERNAGORE, J.L. NO.- 1, C.S. & R.S.DAG NO.- 462, R.S.KHATIAN NO.- 289, L.R. DAG NO.- 786, L.R. KHATIAN NO-3235,3236,3231,3232,3233,3234 SHEET NO.- 11 AT CHANDERNAGORE STATION ROAD, WARD NO.- 10, UNDER CHANDERNAGORE MUNICIPAL CORPORATION.  
 It is also certified that the said Structural Analysis has been prepared considering all possible loads including seismic loads and as per latest relevant it Codes and the proposed structure is safe in all respect.

**SIGNATURE OF STRUCTURAL ENGINEER**

**DRAWING TITLE:-**  
 MARKING AND DETAILS OF COLUMN, FOOTING, STAIR, BEAM & SLAB

PROJECT NO.-23_90NM	DRAWING NO.- STR-01	REV-R0
DRAWN BY: TP	CHKD. BY: RK	APPRV. BY: RK
DESIGN. BY: RK	BY: SKS	