

COLUMN SCHEDULE (M30-Fe500)

ROOF	M30-Fe500, COVER = 40MM CONFINING ZONE = 900 MM	M30-Fe500, COVER = 40MM CONFINING ZONE = 900 MM	M30-Fe500, COVER = 40MM CONFINING ZONE = 900 MM	M30-Fe500, COVER = 40MM CONFINING ZONE = 585 MM
TO	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150	Z1 MAIN LINK T8 @ 75
4TH FLOOR	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150	Z1 MAIN LINK T8 @ 75
4TH FLOOR	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150	Z1 MAIN LINK T8 @ 75
TO	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150	Z1 MAIN LINK T8 @ 75
FOOTING	Z1 MAIN LINK T8 @ 75	Z1 OTHERS T8 @ 75	Z2 LINKS T8 @ 150	Z1 MAIN LINK T8 @ 75
COLUMN MARKED	C9,C10,C11,C13,C14, C16 TO C20,C22	C24,C25,C32,C36,C37,C38	OTHER	CA

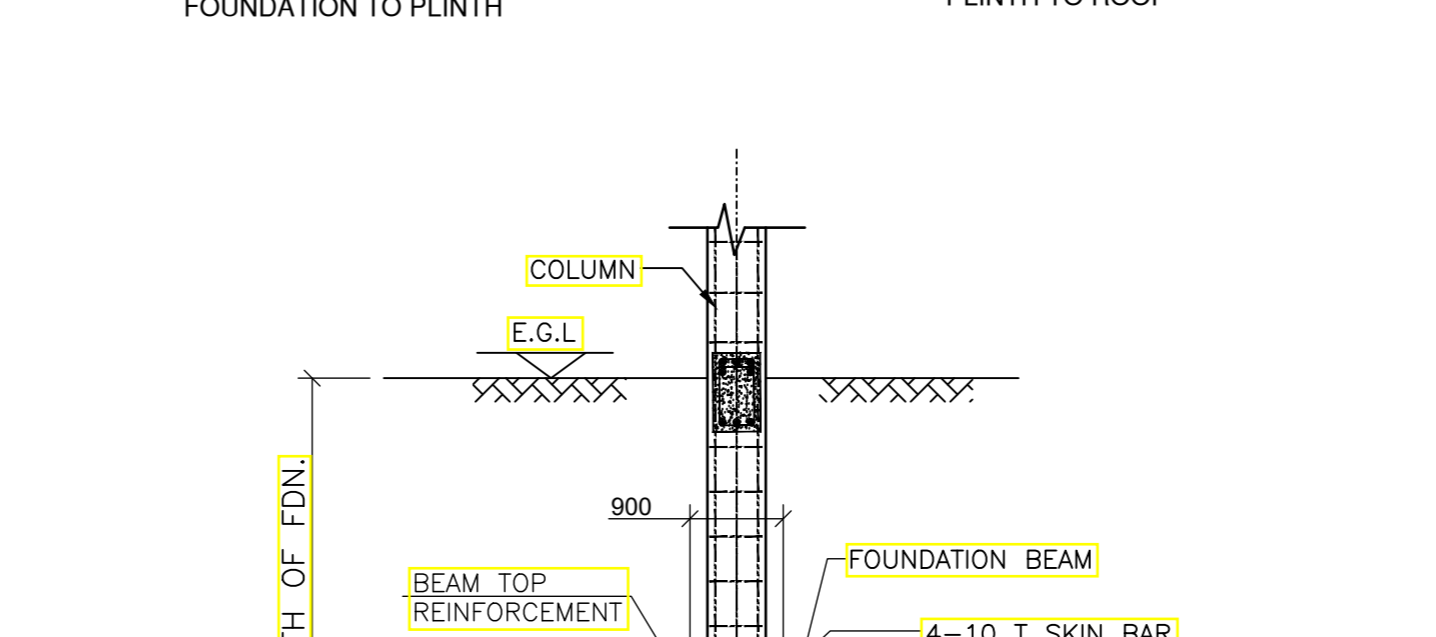
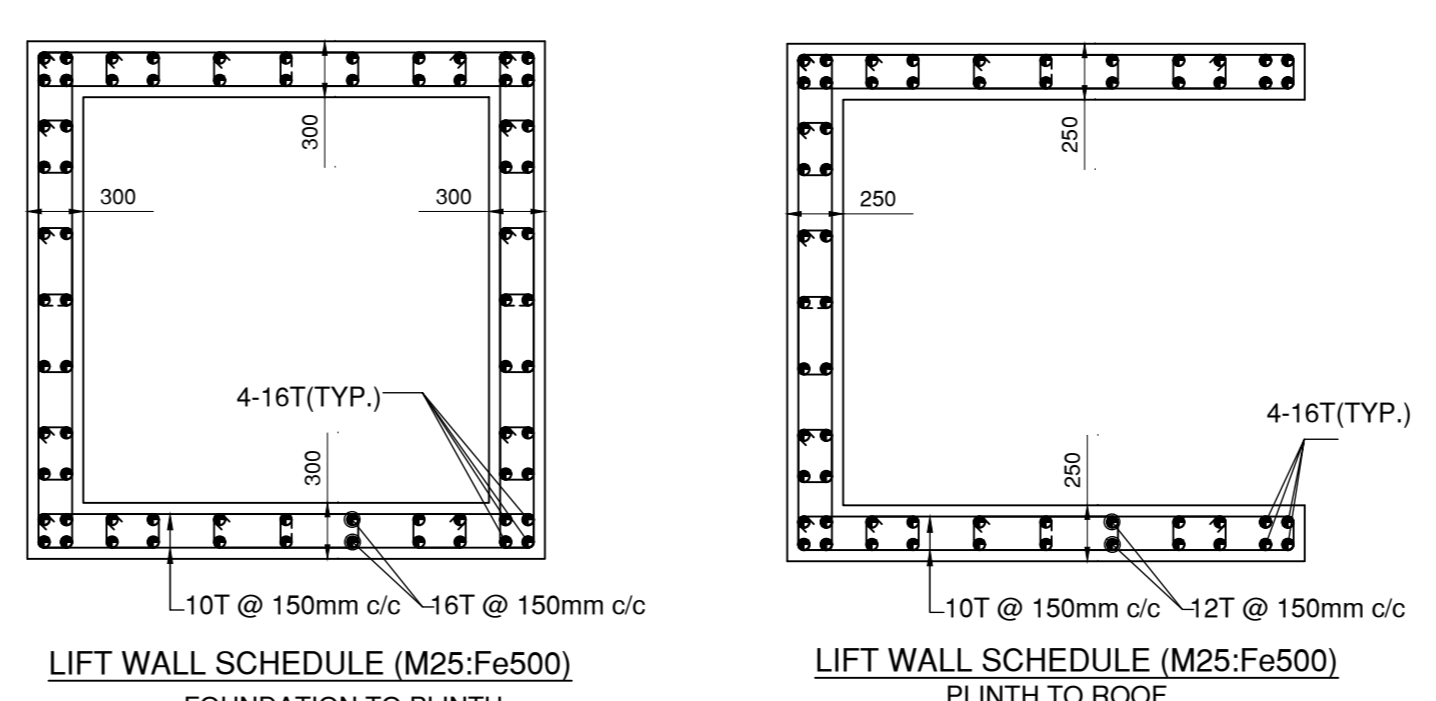
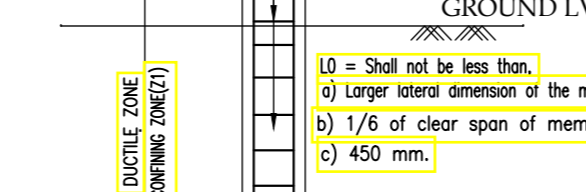
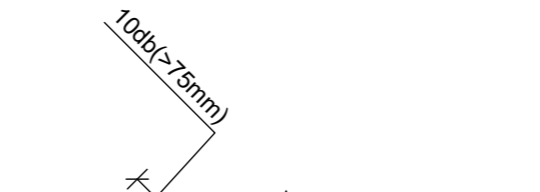
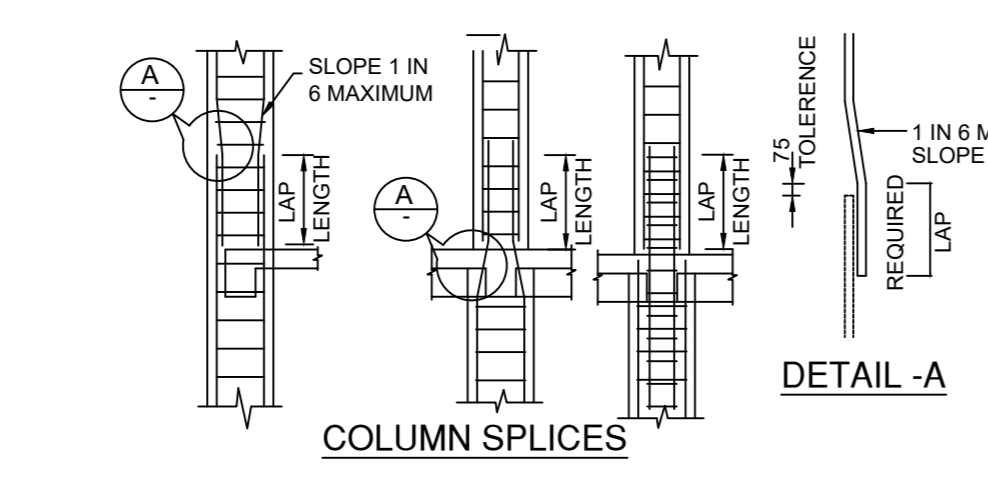
FOUNDATION SLAB SCHEDULE (M30-Fe500)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT		TOP REINFORCEMENT	
		ALONG SHORT SPAN	ALONG LONG SPAN	OVER LONG SUPPORT	OVER SHORT SUPPORT
BS1	700	T20 @ 150 C/C	T20 @ 150 C/C	T16 @ 125C/C	T16 @ 125C/C

FOOTING DESIGN DONE WITH THE SBC OF 22.00 T/SQ.M BASED ON PROVIDED SOIL REPORT

FOUNDATION BEAM SCHEDULE (M30-Fe500)

BEAM NUMBERS	SIZE	SUPPORT REINFORCEMENT		SPAN REINFORCEMENT		SHEAR STIRRUPS	
		TOP	BOTTOM	TOP	BOTTOM	SUPPORT(S1)	SPAN(S2)
GB1	900	8-T20	6-T20	8-T20	6-T20	4L-T10@150 C/C	4L-T10@150 C/C



NOTES :-

- A. GENERAL:**
- ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRE.
 - DRAWINGS SHALL NOT BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE FOLLOWED.
 - ALL FOUNDATIONS SHALL BE REST ON VIRGIN SOIL OR ON THEIR EXISTING FOUNDATIONS AS PER SPECIFICATION. WHENEVER THE SOIL CONTAIN THE L.S.S. THE SAME SHALL BE REMOVED AND REFILLED WITH THE P.C.C.
- B. CONCRETE WORK:**
- ALL CONCRETE WORK SHALL BE AS PER IS:456 (LATEST REVISION).
 - ALL STRUCTURAL REINFORCED CONCRETE WORK SHALL BE WITH DESIGN MIX CONCRETE OF GRADE AS FOLLOWS UNLESS NOTED OTHERWISE.
 - THE GRADE CONC. FOR SUB & SUPER STRUCTURES ARE M-30
 - PLAN CONCRETE WORK SHALL BE OF THE FOLLOWING GRADES OF NOMINAL MIX CONCRETE:
 - 1:5:10 PLUM CONCRETE FOR FILLING CONCRETE UNDER FOUNDATION (WITH MAXIMUM AGGREGATE SIZE OF 40 MM.) AND AS, PIT, TRENCHES ETC.
 - M-15 FOR LEAN CONCRETE BELOW FOUNDATIONS & PLINTH PROTECTION
 - THE MINIMUM CLEAR COVER FOR PROTECTION OF MAIN REINFORCEMENT SHALL BE AS FOLLOWS

STRUCTURAL ELEMENT	COVER		SIZES
	TOP	BOTTOM	
a) PLINTH BEAM	25	40	40
b) COLUMNS	50	40	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:**
- ALL REINFORCING STEEL SHALL BE OF TESTED QUALITY.
 - (a) HIGH YIELD STRENGTH DEFORMED BAR REINFORCEMENT (YIELD STRESS $F_y = 500$ N/MM²) SHALL CONFORM TO IS:786 (LATEST REVISION).
 - LAPS AND SPICES OF REINFORCEMENT TO SUIT AVAILABLE LENGTH OF BARS SHALL BE MADE AS SHOWN ON THE DRAWINGS OR APPROVED BY THE ENGINEER AT SITE.
 - ALL HOOKS, BENDS, LAPS AND SPICES SHALL BE AS PER IS:2502.
 - THE LAP/ANCHORAGE LENGTH OF BARS OF DIAMETER 'D' SHALL BE AS FOLLOWS:-
- | GRADE | TENSION | COMPRESSION |
|-------|---------|-------------|
| M-30 | 50D | 40D |
- LAPPING OF BARS SHALL BE SUITABLY STAGGERED AND IN NO CASE MORE THAN 50% BARS SHALL BE LAPPED AT ANY SECTION.
 - LAPPING OF BARS FOR BEAM AND SLAB SHALL BE AVOIDED IN THE MAXIMUM TENSION ZONES.
 - DEVELOPMENT LENGTH (L_d) = 50D OF THE BAR + 10D OF THE BAR.
 - ALL SPACER BARS ARE 250 @ 450 C/C AND TO BE PROVIDED WHEREVER REQUIRED.

LOAD CONSIDERED NOTE:

FLOOR LIVE LOAD = 2.5kN/m² (RESIDENTIAL)
 FLOOR LIVE LOAD = 4kN/m² (COMMERCIAL)
 ACCESS ROOF LIVE LOAD = 1.5kN/m²
 NON ACCESS ROOF LIVE LOAD = 0.75kN/m²
 WATER TANK WITH WATER DEAD LOAD = 4.0kN/m²

IMPORTANT NOTE:

BUILDING LOCATIONS AND LEVELS/DIMENSION TO BE FOLLOW APPROVED ARCHITECTURAL DRAWING.

LOADINGS:

LL = 4.0 kN/SQM
 SLL = 2.0 kN/SQM
 TOTAL = 6.0 kN/SQM

IT HAS TO BE ENSURED THAT AT ANY CASE THE TOTAL CONSTRUCTION LOADS DOES NOT EXCEED THE SPECIFIED DESIGN LOADS.

SUFFICIENT SUPPORTS (IF REQUIRED) HAS TO BE MAINTAINED BELOW THIS FLOOR WHILE CONCRETING UPPER SLABS.

PROJECT :

PROPOSED (8+G+7) EIGHT STORIED COMMERCIAL CUM RESIDENTIAL (MIXED-USE) BUILDING OF M/S PRAGATI INFRA TECH PVT. LTD. SITUATED AT DESHBANDHU ROAD, UNDER PURULIA MUNICIPALITY HOLDING NO: 25/1, 35.36 WARD NO.-21, MOUZA- RAGHABPUR, JL NO-66 LR KHATIAN NO. 4100, 4101, 4102, 4103, PLOT NO- 3871, 3859, 3870, P-5 - PURULIA (T), P.O. + DIST. - PURULIA, PIN-723101(WB).

DECLARATION OF STRUCTURAL ENGINEER

Certified that the Structural Analysis & Design of PROPOSED (8+G+7) EIGHT STORIED COMMERCIAL CUM RESIDENTIAL (MIXED-USE) BUILDING OF M/S PRAGATI INFRA TECH PVT. LTD. has been prepared by me in the following land schedule: DESHBANDHU ROAD, UNDER PURULIA MUNICIPALITY HOLDING NO: 25/1, 35.36 WARD NO.-21, MOUZA- RAGHABPUR, JL NO-66 LR KHATIAN NO. 4100, 4101, 4102, 4103, PLOT NO- 3871, 3859, 3870, P-5 - PURULIA (T), P.O. + DIST. - PURULIA, PIN-723101(WB).

It is also certified that the said Structural Analysis has been prepared considering all possible loads including seismic loads and as per latest relevant IS Codes and the proposed structure is safe in all respect.

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 B.C.E., M.E., M.I.C.E., M.I.E., M.I.S.E., M.I.C.S.
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 0197221001 (H.M.C.), OTER/SDCO/09/00014
 03/CL-17/BOB/RM/BB/17/0119
 BM/O.T.B-1/23-24/130
 SIGNATURE OF GEO-TECHNICAL ENGINEER

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 02/RUPSON/ESSE, STEER, MIDCO/09/00033
 ESE-1/45 (H.M.C.), O2/CL-1/ESB/RM
 BM/S.T-1/23-24/131
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 BM/S.T-REVIEWER/23-24/129
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 SIGNATURE OF STRUCTURAL REVIEWER

ARCHITECTURAL CONSULTANT:

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 ARCHITECTS, ENGINEERS, INTERIOR DESIGNERS
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 PURULIA - 723101, PINCODE - 91897053597
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 Website: www.cubixdesign.com

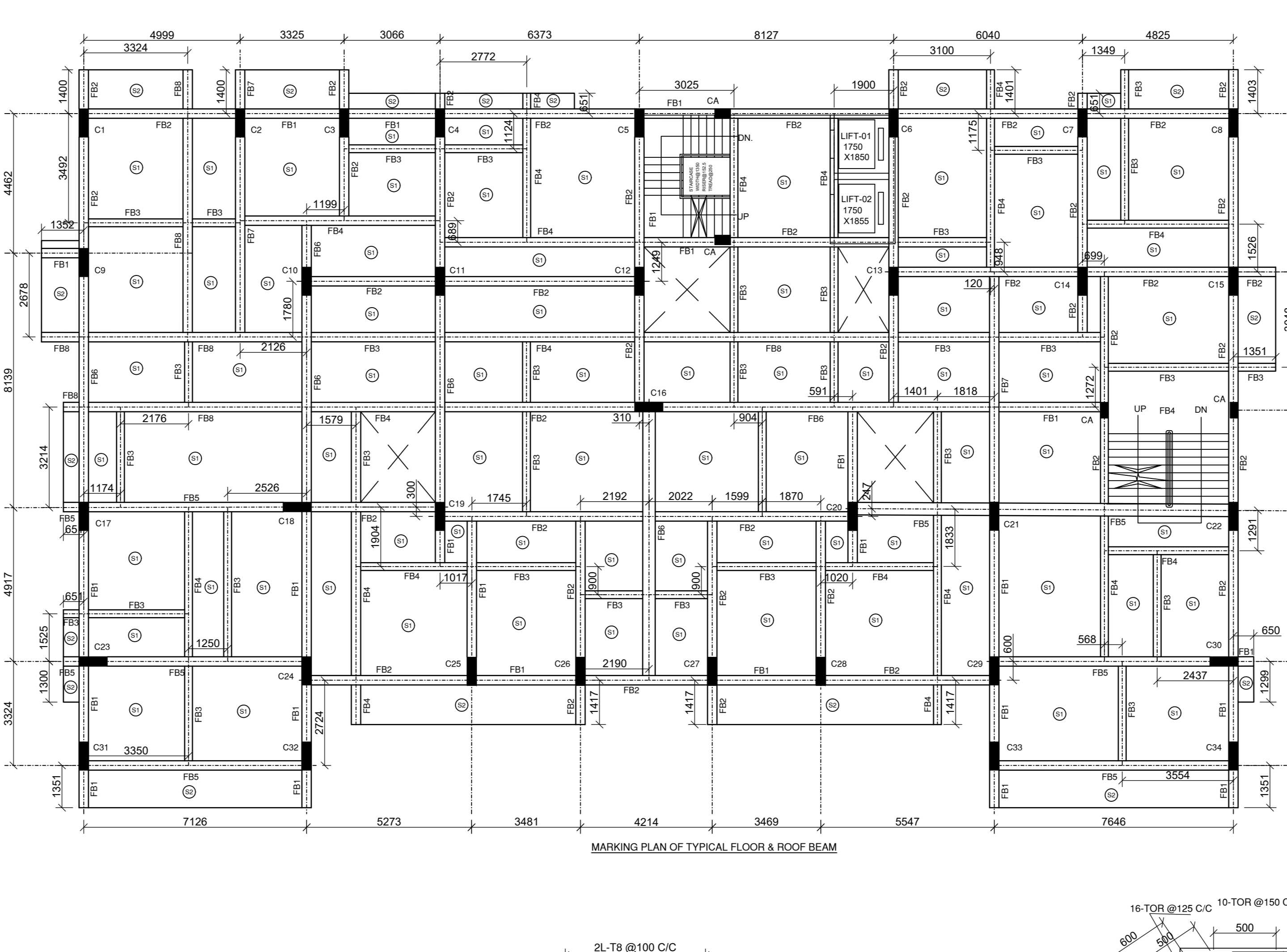
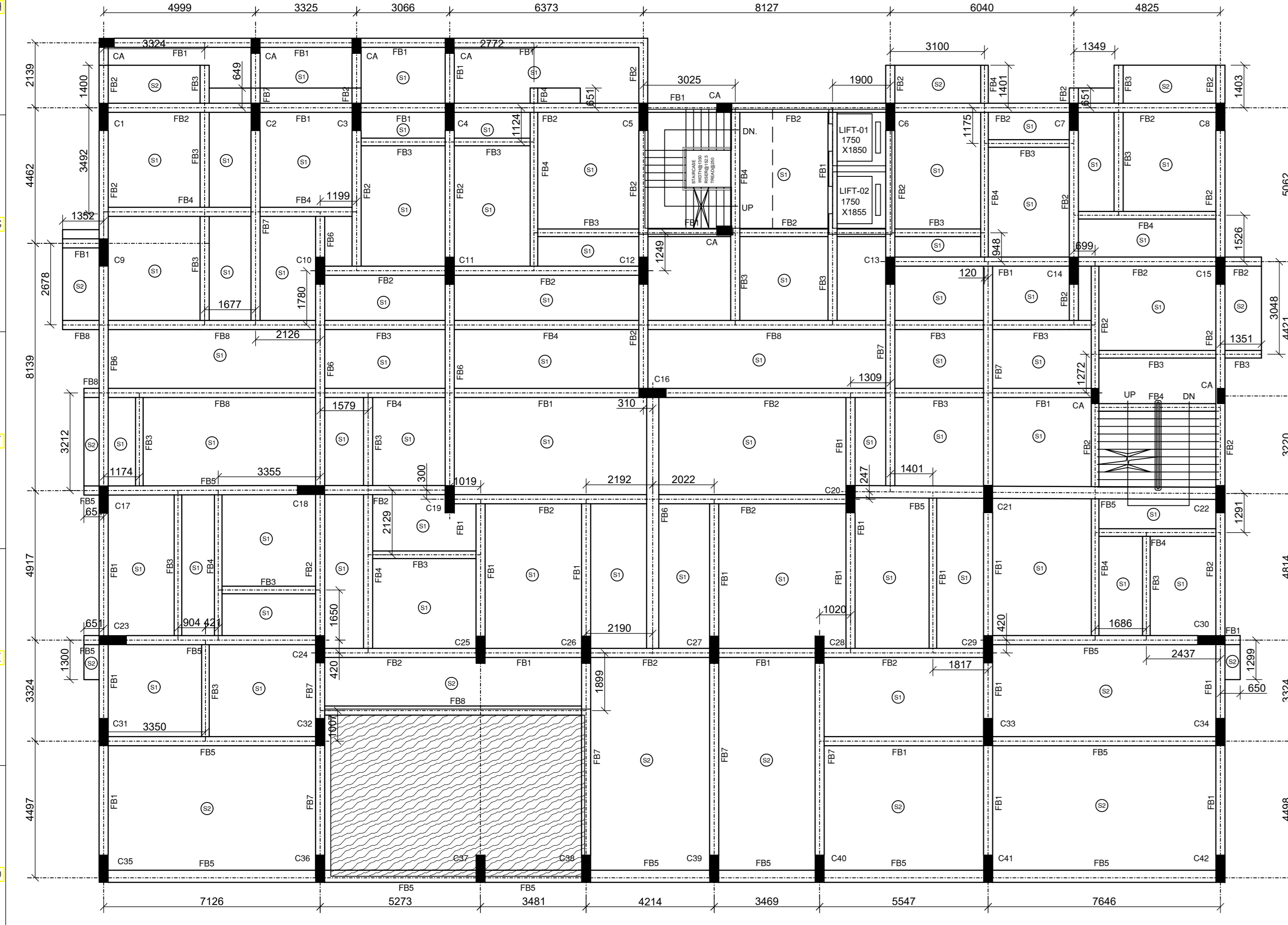
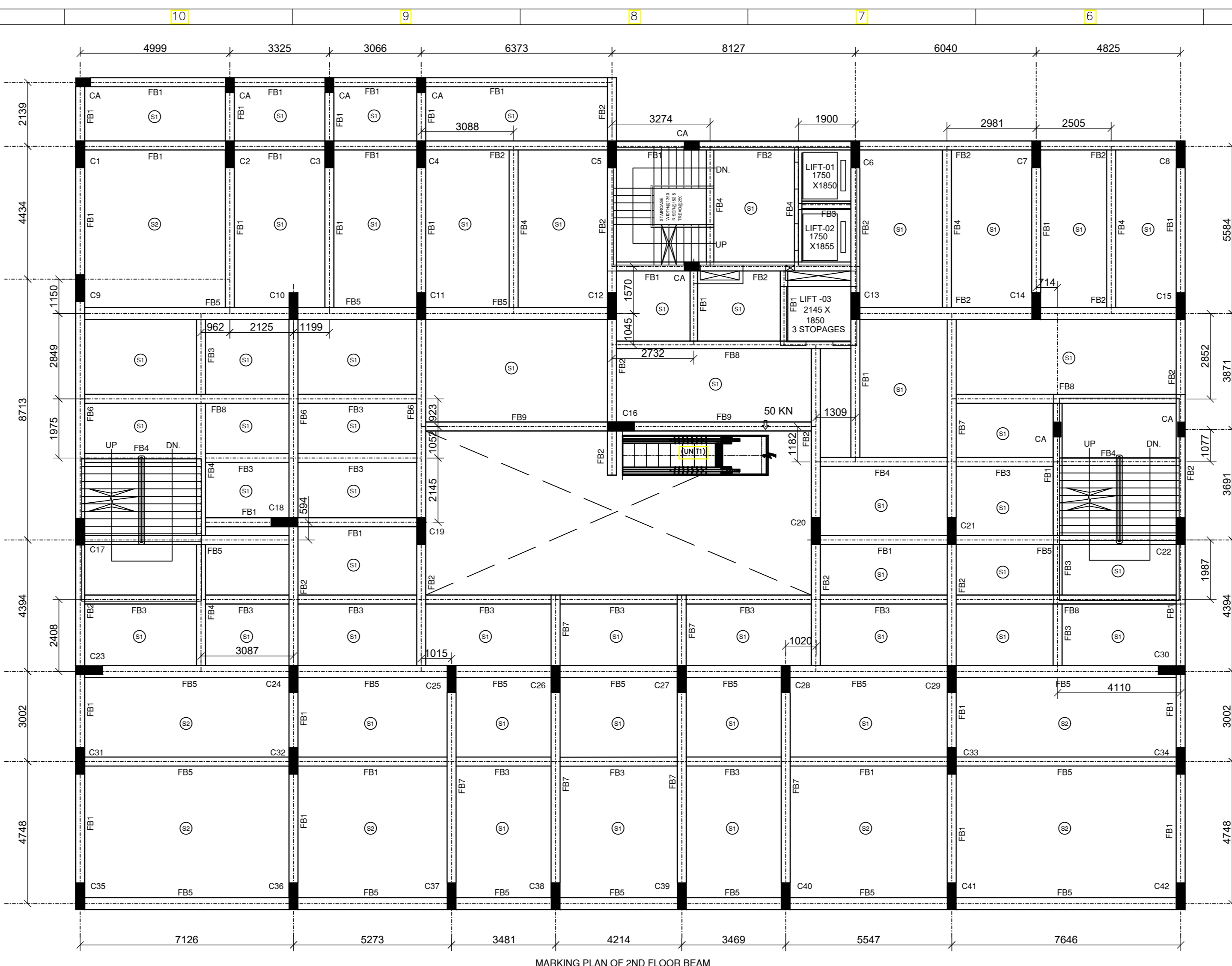
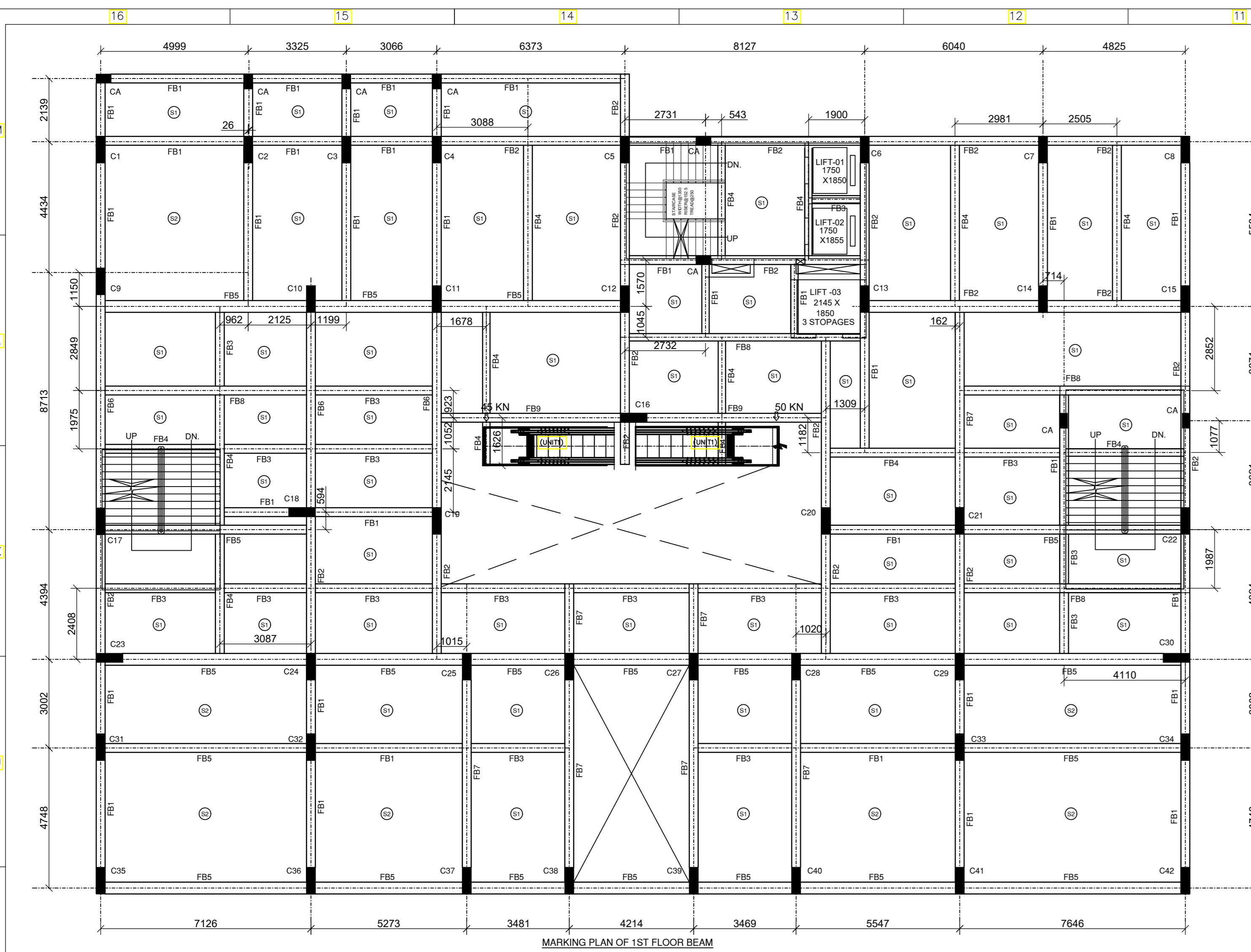
STRUCTURAL CONSULTANT:

RKS TECHNICAL SERVICES
 Civil And Structural Engineering Consultants
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 KOLKATA 700032, INDIA
 Phone: 9873471135, www.rkstechsr.com

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

PROJECT NO:-23_110PH | DRAWING NO:-STR-01 | REV:R0

NO.	DATE	BY	CHKD.	APPVD.
1		VP	VP	SKS
2		VP	VP	SKS
3		VP	VP	SKS
4		VP	VP	SKS
5		VP	VP	SKS
6		VP	VP	SKS
7		VP	VP	SKS
8		VP	VP	SKS
9		VP	VP	SKS
10		VP	VP	SKS
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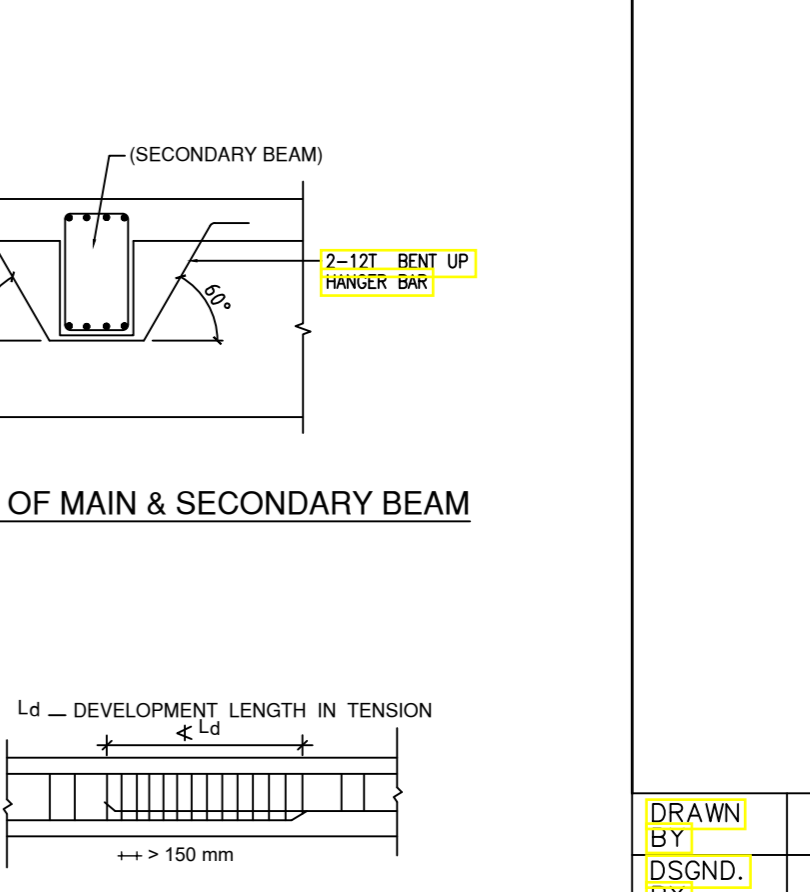
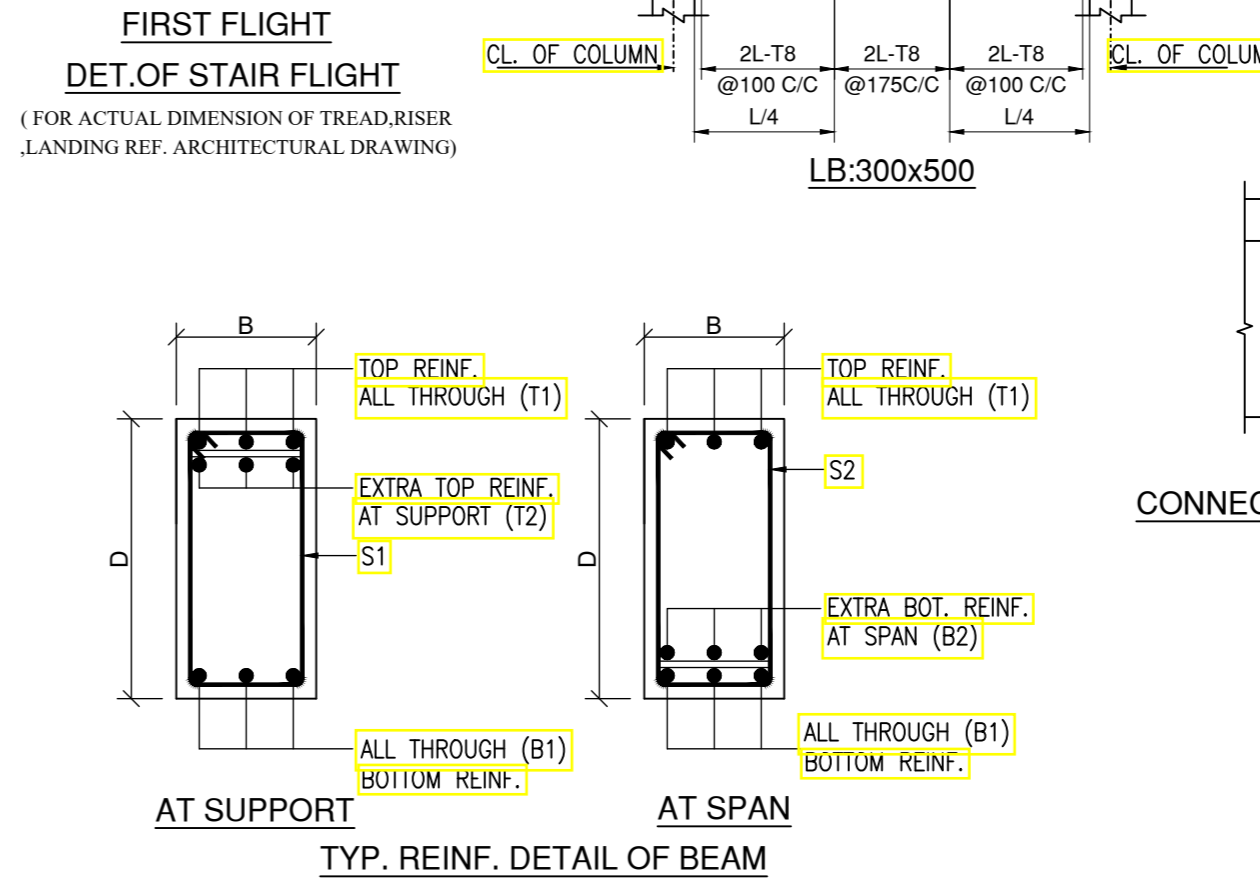
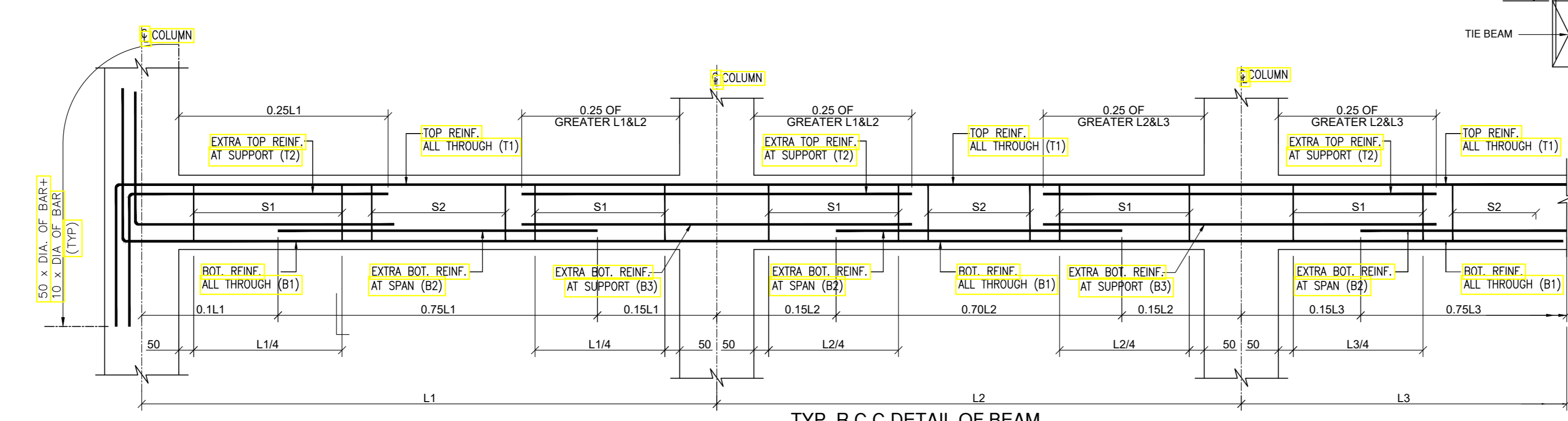
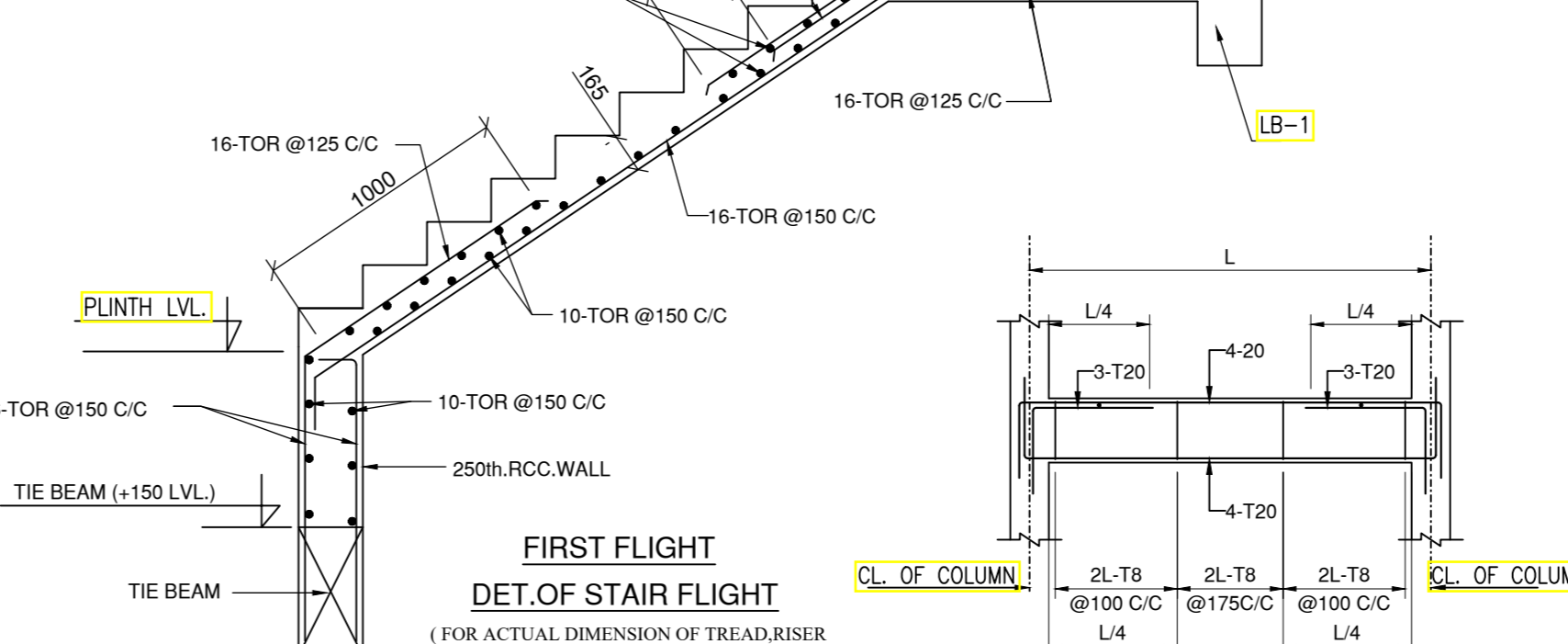
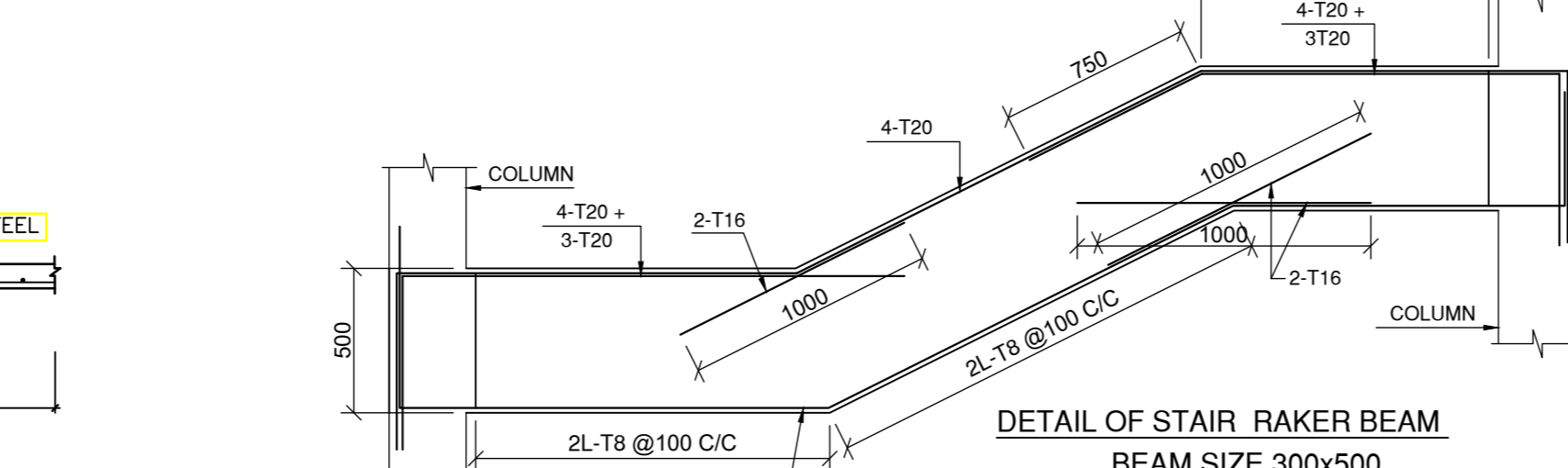
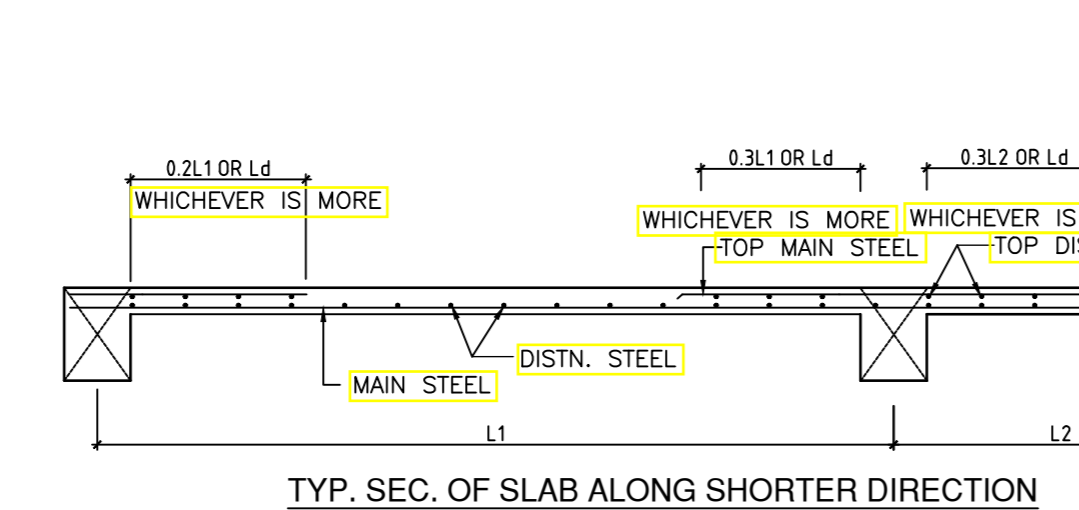


FLOOR BEAM SCHEDULE (M30-Fe500)

BEAM NUMBERS	SIZE	BOTTOM REINFORCEMENT	TOP REINFORCEMENT	SHEAR STIRRUPS
FB1	300 500	4-T20 @ 150 C/C	4-T20 @ 150 C/C	2L-T8@150 C/C
FB2	300 500	4-T20 @ 150 C/C	4-T20 @ 150 C/C	2L-T8@150 C/C
FB3	250 500	3-T16 @ 150 C/C	3-T16 @ 150 C/C	2L-T8@150 C/C
FB4	250 500	3-T20 @ 150 C/C	3-T20 @ 150 C/C	2L-T8@150 C/C
FB5	400 500	5-T20 @ 150 C/C	5-T20 @ 150 C/C	2L-T8@150 C/C
FB6	400 500	5-T20 @ 150 C/C	5-T20 @ 150 C/C	2L-T8@150 C/C
FB7	300 600	4-T20 @ 150 C/C	4-T20 @ 150 C/C	2L-T8@150 C/C
FB8	300 500	4-T16 @ 150 C/C	4-T16 @ 150 C/C	2L-T8@150 C/C
FB9	400 600	5-T20 @ 150 C/C	5-T20 @ 150 C/C	2L-T8@150 C/C

FLOOR SLAB SCHEDULE (M30 - FE500)

SLAB MARKED	SLAB THICKNESS	BOTTOM REINFORCEMENT	TOP REINFORCEMENT
S1	125	T10 @ 150 C/C	T10 @ 100 C/C
S2	150	T10 @ 150 C/C	T10 @ 100 C/C



NOTES :-

A. GENERAL:

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- DRAWINGS SHALL NOT BE SCALED. ONLY WRITTEN DIMENSIONS ARE TO BE CONSIDERED.
- ALL FOUNDATIONS SHALL BE REST ON VIRGIN SOIL OR ON THOSE WHICH ARE FOUND TO BE OF THE SAME CLASS AS PER SPECIFICATION. WHENEVER THE SOIL CONTAINS THE SAME SHALL BE REMOVED AND REFILLED WITH THE P.C.C.

B. CONCRETE WORK:

- ALL CONCRETE WORK SHALL BE AS PER IS456 (LATEST REVISION).
- ALL STRUCTURAL REINFORCED CONCRETE WORK SHALL BE WITH DESIGN MIX CONCRETE OF GRADE AS FOLLOWS UNLESS NOTED OTHERWISE.
- THE GRADE CONC. FOR SUB & SUPER STRUCTURES ARE M-30
- PLAN CONCRETE WORK SHALL BE OF THE FOLLOWING GRADES OF NOMINAL MIX CONCRETE:
 - 1:5:10 PLUM CONCRETE FOR FILLING CONCRETE UNDER FOUNDATION (WITH MAXIMUM AGGREGATE SIZE OF 40 MM.) AND AS, PIT, TRENCHES ETC.
 - M-15 FOR LEAN CONCRETE BELOW FOUNDATIONS & PLINTH PROTECTION
 - THE MINIMUM CLEAR COVER FOR PROTECTION OF MAIN REINFORCEMENT SHALL BE AS FOLLOWS

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

C. REINFORCEMENTS:

- ALL REINFORCING STEEL SHALL BE OF TESTED QUALITY.
- (a) HIGH YIELD STRENGTH DEFORMED BAR REINFORCEMENT (YIELD STRESS $F_y = 500$ N/MM²) SHALL CONFORM TO IS786 (LATEST REVISION)
- 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.
- ALL HOOKS, BENDS, LAPS AND SPLICES SHALL BE AS PER IS2502.
- THE LAP/ANCHORAGE LENGTH OF BARS OF DIAMETER 'D' SHALL BE AS FOLLOWS:-

CONCRETE GRADE	TENSION	COMPRESSION
M-30	50D	40D

- LAPPING OF BARS SHALL BE SUITABLY STAGGERED AND IN NO CASE MORE THAN 50% BARS SHALL BE LAPPED AT ANY SECTION.
- LAPPING OF BARS FOR BEAM AND SLAB SHALL BE AVOIDED IN THE MAXIMUM TENSION ZONES.
- DEVELOPMENT LENGTH (L_d) = 50D OF THE BAR + 10D OF THE BAR.
- ALL SPACER BARS ARE 250g @ 450 C/C AND TO BE PROVIDED WHEREVER REQUIRED.

NOTE:

THIS BUILDING HAS BEEN DESIGNED FOR B+G+7.

ALL EXTERNAL BRICK WALLS ARE 250MM THICK USED DENSITY 20kN/m³

ALL INTERNAL BRICK WALLS ARE 125MM THICK USED DENSITY 20kN/m³

LOAD CONSIDERED NOTE:

FLOOR LIVE LOAD = 2.5kN/m² (RESIDENTIAL)

FLOOR LIVE LOAD = 4kN/m² (COMMERCIAL)

ACCESS ROOF LIVE LOAD = 1.5kN/m²

NON ACCESS ROOF LIVE LOAD = 0.75kN/m²

WATER TANK WITH WATER DEAD LOAD = 4.0kN/m²

IMPORTANT NOTE:

BUILDING LOCATIONS AND LEVELS/DIMENSION TO BE FOLLOW APPROVED ARCHITECTURAL DRAWING.

LOADINGS:

LL = 4.0 kN/SM

SLL = 2.0 kN/SM

TOTAL = 6.0 kN/SM

IT HAS TO BE ENSURED THAT AT ANY CASE THE TOTAL CONSTRUCTION LOADS DOES NOT EXCEED THE SPECIFIED DESIGN LOADS.

SUFFICIENT SUPPORTS (IF REQUIRED) HAS TO BE MAINTAINED BELOW THIS FLOOR WHILE CONCRETING UPPER SLABS.

PROJECT:

PROPOSED (B+G+7) EIGHT STORED COMMERCIAL CUM RESIDENTIAL (MIXED-USE) BUILDING OF M/S PRAGATI INFRA TECH PVT. LTD. SITUATED AT DESHBANDHU ROAD, UNDER PURULIA MUNICIPALITY HOLDING NO: 25/1, 35.36 WARD NO- 21, MOUZA- RAGHABPUR, JL NO- 66 LR KHATHAN NO: 4100, 4101, 4102, 4103, PLOT NO- 3871, 3859, 3870, P.S - PURULIA (T), P.O. + DIST. - PURULIA, PIN-723101(WB).

DECLARATION OF STRUCTURAL ENGINEER

Certified that the Structural Analysis & Design of PROPOSED (B+G+7) EIGHT STORED COMMERCIAL CUM RESIDENTIAL (MIXED-USE) BUILDING OF M/S PRAGATI INFRA TECH PVT. LTD. HAS BEEN PREPARED BY ME IN THE FOLLOWING LAND SCHEDULE: DESHBANDHU ROAD, UNDER PURULIA MUNICIPALITY HOLDING NO: 25/1, 35.36 WARD NO- 21, MOUZA- RAGHABPUR, JL NO- 66 LR KHATHAN NO: 4100, 4101, 4102, 4103, PLOT NO- 3871, 3859, 3870, P.S - PURULIA (T), P.O. + DIST. - PURULIA, PIN-723101(WB).

It is also certified that the said Structural Analysis has been prepared considering all possible loads including seismic loads and as per latest relevant IS Codes and the proposed structure is safe in all respect.

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 B.C.E., M.E., M.I.C.E., M.I.S., M.T.E.,
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 019/27 808/01/2014-15, OTEB-HDCO/09/00014
 CS/CSE-I/ECOS/RM/BBM/01/119
 BM/O.T.E-I/23-24/130
 SIGNATURE OF GEO-TECHNICAL ENGINEER

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 92/R/06/09/SEB, STR. HINDCO/09/00037
 BSE-1/145 (H.C.C.), O2/CL-I/BSE/RM
 BM/B.T-1/23-24/131
 SIGNATURE OF STRUCTURAL ENGINEER

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 M-9830149593
 SIGNATURE OF STRUCTURAL REVIEWER

ARCHITECTURAL CONSULTANT:

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DESIGN BY: TP
CHECK BY: SKS
APPV. BY: RK

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

PROJECT NO:-23_110PH | DRAWING NO:-STR-02 | REV/0