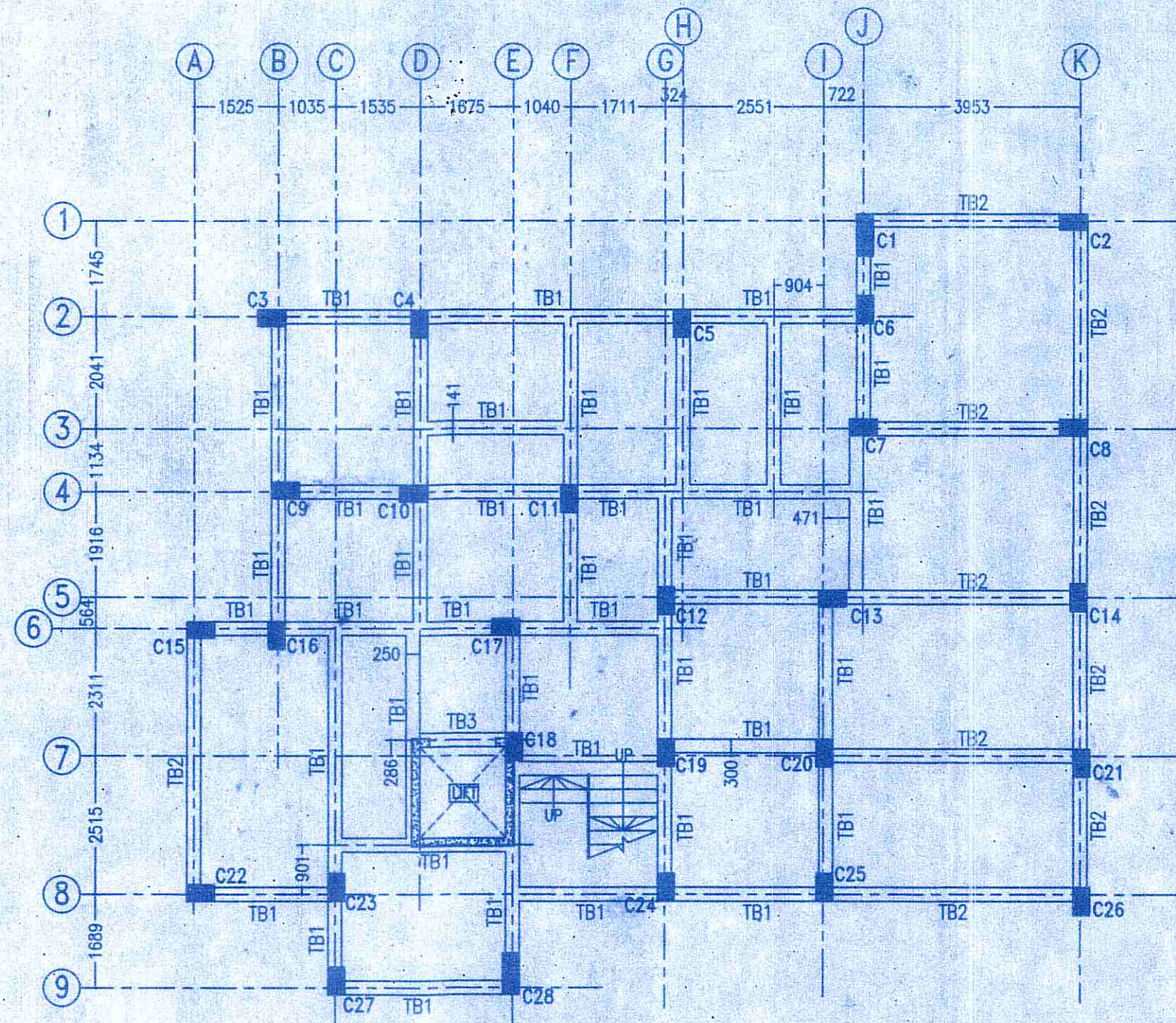
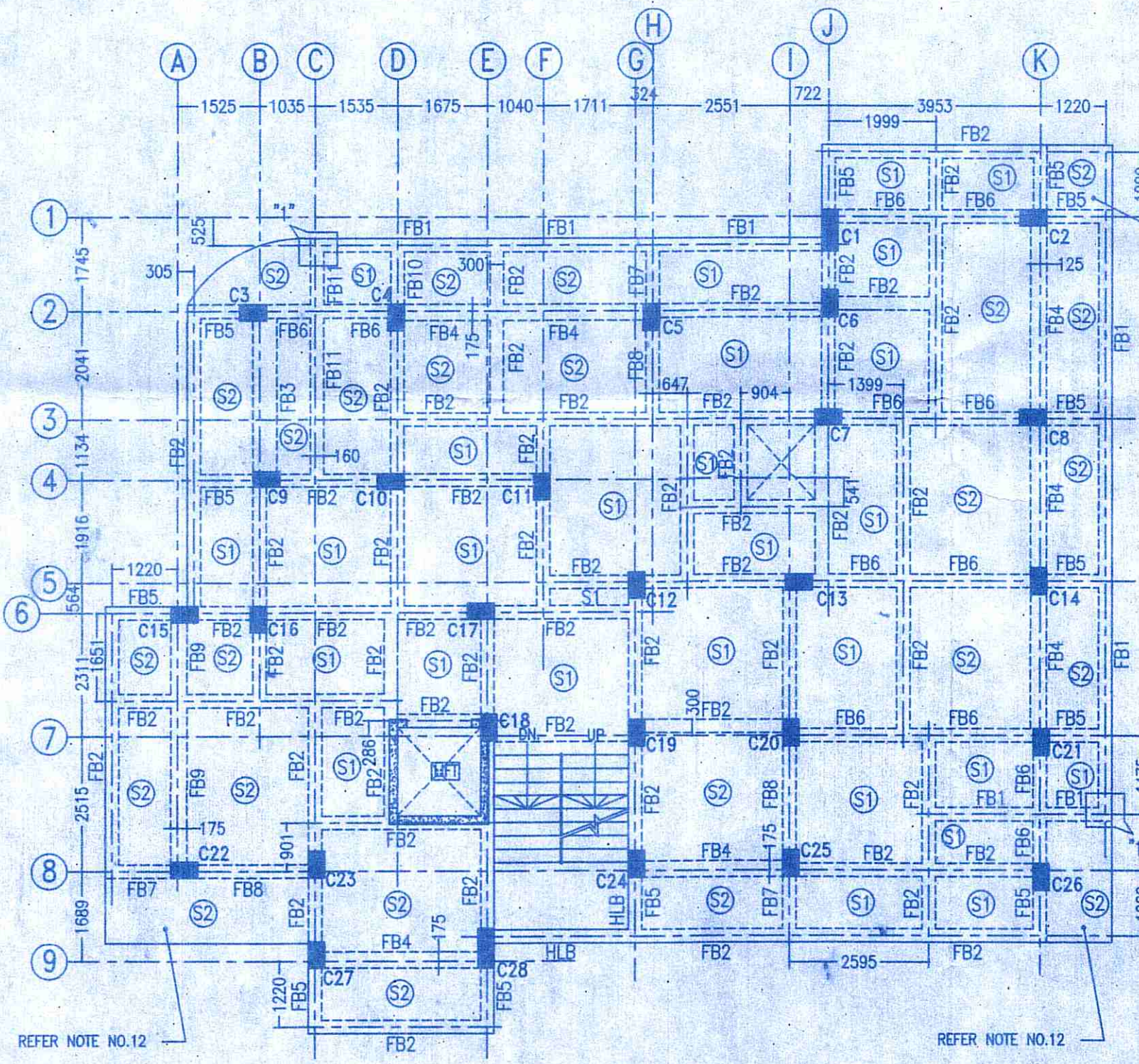


COLUMN LAYOUT PLAN
SCALE-1:100

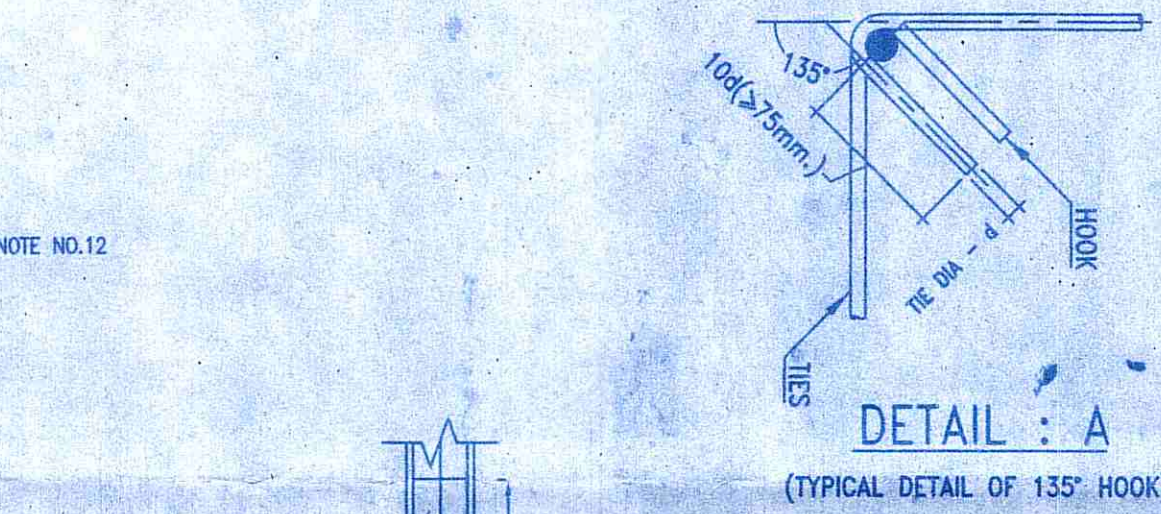


TIE BEAM LAYOUT PLAN AT LEVEL (±) 0.00
SCALE-1:100

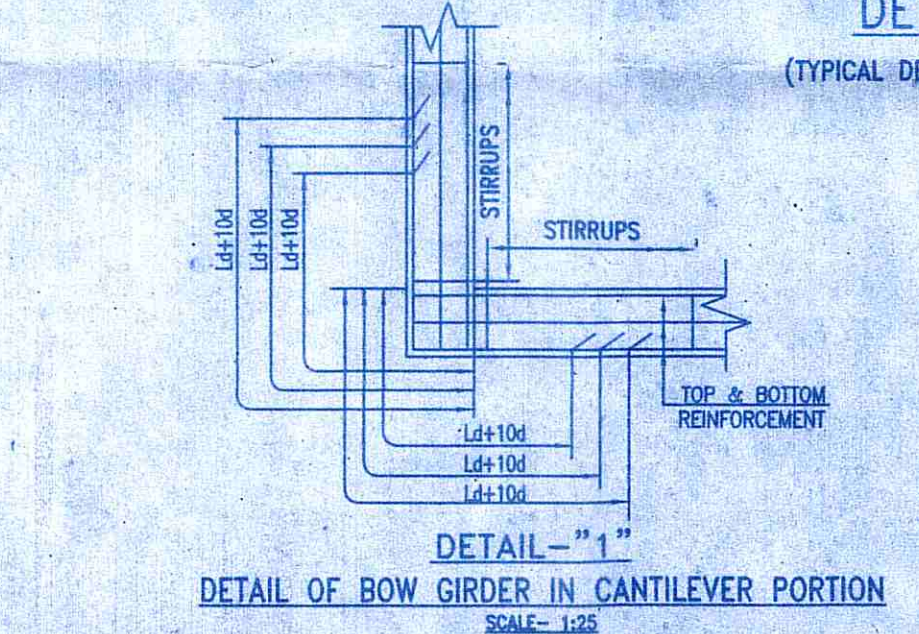


TYPICAL FLOOR BEAM AND SLAB LAYOUT PLAN
AT LEVEL (+)2.9m, (+)5.8m, (+)8.7m, (+)11.6m.
S1 MARKED SLABS ARE 110 mm THICK & S2 MARKED SLABS ARE 150 mm THICK
HLB REFERS TO HALF LANDING BEAM
SCALE-1:100

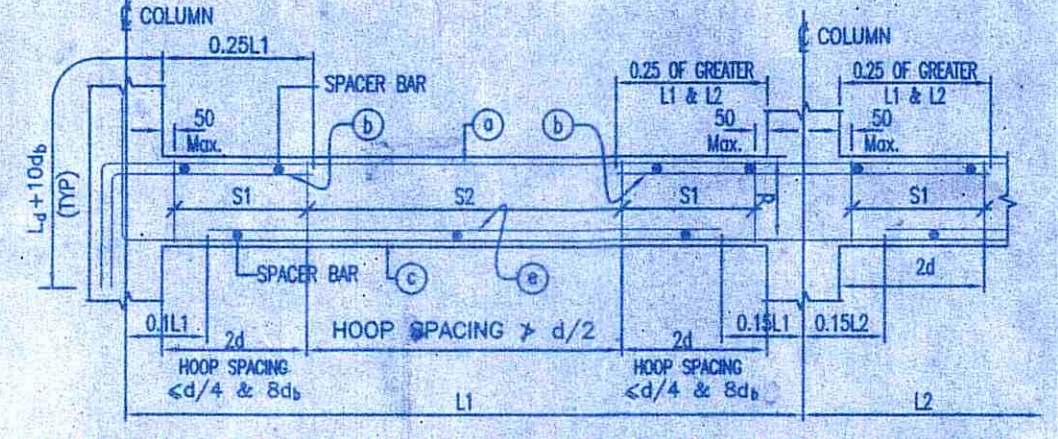
SCHEDULE OF TIE BEAMS							
BEAM MARKED	BEAM SIZE WIDTH (W) DEPTH (D) (mm)	TOP REINFORCEMENT		BOTTOM REINFORCEMENT		STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
		ALTHOUGH	EXTRA AT SUPPORT	ALTHOUGH	EXTRA AT SPAN		
TB1	250 400	3-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C
TB2	250 450	3-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C
TB3	250 350	3-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C



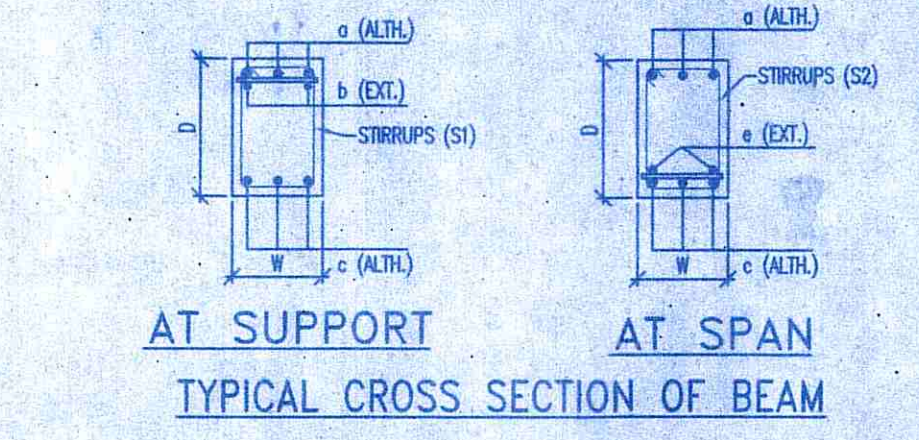
DETAIL : A
(TYPICAL DETAIL OF 135° HOOK)



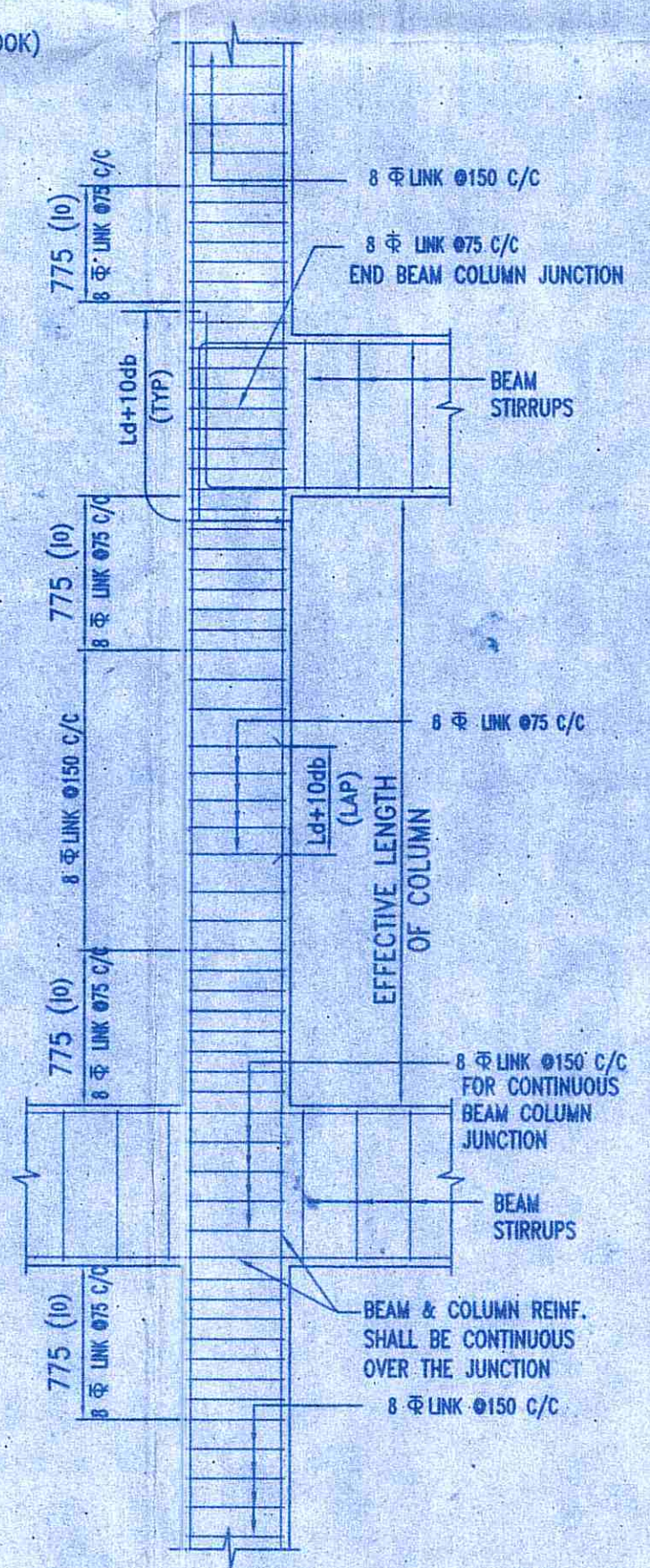
DETAIL - 1
TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAM
SCALE-1:25



TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAM



TYPICAL CROSS SECTION OF BEAM



TYPICAL DUCTILE DETAIL OF BEAM COLUMN JUNCTION
SCALE 1:25

L_d = DEVELOPMENT LENGTH IN TENSION
d_b = DIAMETER OF LONGITUDINAL BAR

SCHEDULE OF COLUMNS				
COLUMN MARKED	COLUMN SIZE (mm x mm)	FOUNDATION TO ROOF & ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING	
			NEAR JUNCTION (IC)	REST PORTION
C1	300X775	300 775 MAIN RNF.:-14-16 #	8 # @ 75 C/C (4 NOS. CLOSED LINK)	8 # @ 150 C/C (4 NOS. CLOSED LINK)
C2, C4, C5, C8, C14, C15, C25, C26	300X500	300 500 MAIN RNF.:-12-16 #	8 # @ 75 C/C (1 NO. OPENED LINK) (3 NOS. CLOSED LINK)	8 # @ 150 C/C (3 NOS. CLOSED LINK)
C3, C6, C7, C9, C10, C11, C12, C13, C16, C17, C18, C19, C20, C21, C22, C23, C24, C27	300X500	300 500 MAIN RNF.:-10-16 #	8 # @ 75 C/C (3 NOS. CLOSED LINK)	8 # @ 150 C/C (3 NOS. CLOSED LINK)
C28	300X750	300 750 MAIN RNF.:-14-16 #	8 # @ 75 C/C (4 NOS. CLOSED LINK)	8 # @ 150 C/C (4 NOS. CLOSED LINK)

STOOL COLUMN	
ST1, ST2 (ROOF TO WATER TANK FLOOR SLAB), ST3, ST4, ST6, ST7, ST8 (ROOF TO L.W.R. ROOF SLAB), ST5 (ROOF TO MUMTY ROOF SLAB)	250x250 250 250 MAIN RNF.:- 4-16 # +4-12 #

SCHEDULE OF TYPICAL FLOOR BEAMS							
BEAM MARKED	BEAM SIZE WIDTH (W) DEPTH (D) (mm)	TOP REINFORCEMENT		BOTTOM REINFORCEMENT		STIRRUPS (AT SUPPORT) (S1)	STIRRUPS (AT SPAN) (S2)
		ALTHOUGH	EXTRA AT SUPPORT	ALTHOUGH	EXTRA AT SPAN		
FB1	250 450	3-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 100 C/C
FB2	250 450	3-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C
FB3	450 150	4-16 #	-	4-16 #	-	4L-8 # @ 100 C/C	4L-8 # @ 100 C/C
FB4	300 400	3-16 #	2-12 #	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 150 C/C
FB5	250 450	3-16 # +3-16 #	-	3-16 # +3-12 #	-	2L-8 # @ 100 C/C	2L-8 # @ 100 C/C
FB6	250 450	3-16 #	3-16 #	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C
FB7	250 450	3-20 # +2-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 100 C/C
FB8	250 450	3-20 #	2-16 #	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C
FB9	300 400	3-16 #	2-12 #	3-16 #	2-12 #	2L-8 # @ 100 C/C	2L-8 # @ 150 C/C
FB10	250 450	3-20 # +3-20 #	-	3-20 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C
FB11	250 450	3-16 # +3-16 #	-	3-16 # +3-12 #	-	2L-8 # @ 100 C/C	2L-8 # @ 100 C/C
HLB	250 450	3-16 #	-	3-16 #	-	2L-8 # @ 100 C/C	2L-8 # @ 200 C/C

SPECIAL NOTES:
1. THIS STRUCTURAL DRAWING IS VALID IF THE ARCHITECTURAL DRAWING IS FOLLOWED USING 250 mm THICK AAC BLOCKS IN EXTERNAL WALLS & 125 mm THICK AAC BLOCKS IN INTERNAL WALLS.
2. ALL CANTILEVER BEAMS SHOULD BE CAST WITH A PRECAMBER OF 6 mm. AT TOP.

- NOTES :
- UNLESS OTHERWISE STATED ALL CONSTRUCTION ACTIVITIES SHALL BE CARRIED OUT CONFORMING TO RELEVANT (INDIAN) STANDARD CODES OF PRACTICE.
 - 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).
 - ANY DISCREPANCY IN THE STRUCTURAL AND ARCHITECTURAL DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF STRUCTURAL CONSULTANT BEFORE EXECUTION OF WORK.
 - UNLESS OTHERWISE SPECIFIED ALL REINFORCEMENT TO BE USED SHALL BE TMT BARS OF GRADE Fe-500/5000 CONFORMING TO IS-1786-2008.
 - UNLESS OTHERWISE STATED LAP LENGTH OF BARS SHALL BE EQUAL TO THE DEVELOPMENT LENGTH = 50x BAR DIA.
 - 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
 - GRADE OF CONCRETE FOR SUPERSTRUCTURE & SUBSTRUCTURE WILL BE M25 AS PER IS:456:2000.
 - VIBRATOR SHALL BE USED FOR PROPER COMPACTION OF CONCRETE AND CURING SHALL BE DONE PROPERLY.
 - DEVELOPMENT LENGTH 50xD FOR LAP & SPLICES SHOULD BE PROVIDED AS PER THE PROVISIONS LAID DOWN IN SP34:1987
 - WHEREVER A SUPPORTED MEMBER TERMINATES AT A SUPPORTING MEMBER THE BARS OF THE SUPPORTED MEMBER SHOULD HAVE AN ANCHORAGE OF 60D IN THE SUPPORTING MEMBER.
 - WHEN TWO BEAMS MEET AT A COLUMN LOCATION ALONG THE SAME LINE THE HIGHER REINFORCEMENT AT THE TOP SHOULD BE CONTINUED AT BOTH SIDE.
 - IN ALL CANTILEVER SLAB WITHOUT PERIPHERAL BEAMS THE TOP REINFORCEMENT PARALLEL TO THE CANTILEVER SPAN SHOULD BE CONTINUED UPTO ATLEAST 1.5 TIMES THE CANTILEVER SPAN WITHIN THE ADJACENT SLAB.

TITLE
PROPOSED PLAN OF G+4 STORIED RESIDENTIAL CUM COMMERCIAL BUILDING OF S.B. PROPERTIES OVER R.S. PLOT NO. - 12 , L.R. PLOT NO. - 30 , KHATIAN NO.- 2583 , MOUZA - SANKARPUR , J.L. NO- 109 , P.S. - NEW TOWNSHIP , DIST- PASCHIM BURDWAN.

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 RESPECTS.
Dona Chatterjee 6.2.2020
DONA CHATTERJEE
Structural Consultant
B.E.-Civil (First class. Hons.) J U
M.E.-Structures (First class) J U
ESE-II (K.M.C). Licence No. ESE/10618
S. Choudhury 23/2/20
SUSMITA CHOUDHURY
B.TECH (INDU. ME. (M))
CHIEF ENGINEER
LICENSE NO.-DIP
M-889751-221, 1000201735

SIGNATURE OF L.B.S./ENGINEER/ARCHITECT

VIJAYA SINGH
DMC REGISTERED
LIC NO. - DMC/BPD/60
VIJAYA SINGH HAZUMDER
Consulting Architect
DMC Registered (DMC/BPD/60)
9332802166, 9478428106

SIGNATURE OF THE VETTING AUTHORITY

CHECKED & VERIFIED BY
DR. DIPANKAR CHATTERJEE
STRUCTURAL ENGINEER (DIVISION)
INDIAN INSTITUTE OF TECHNOLOGY
Kharagpur UNIVERSITY
B.TECH (INDU. ME. (M))
M.TECH (ITRGP) GOLD MEDALIST
PHD (IIT KGP)
1009 939-2457-2609
(M) 9836189622 & 9439993143
EMAIL: prof.dipankar@gmail.com

SIGNATURE OF GEOTECHNICAL ENGINEER

THIS IS TO CERTIFY THAT THE SOIL TEST HAS BEEN PERFORMED BY ME FOR THIS PROJECT
Approved Plan No. 95
No. 1619-2020 Meeting Date: 05/02/2020
Valid upto: 04/02/2022
ASIM SARKAR
BCE, ME (SOIL), MIGS
EMPOWERED GEOTECHNICAL ENGINEER
K.M.C. No. : CLASS-1/2
Malika Lohar
Pradhan
Jemua Gram Panchayat
Memo No. JAP-674/2019-20

CERTIFICATE OF OWNER

S.B. PROPERTIES
Sripati M. Ghosh
Proprietor

DRAWING TITLE
COLUMN LAYOUT PLAN & REINFORCEMENT DETAILS, TIE, TYP FLOOR BEAM AND SLAB LAYOUT PLAN & REINFORCEMENT DETAILS.

SCALE-1:100 OR AS SHOWN
DATE- 03.02.2020
SHEET NO. - 2 OF 3

