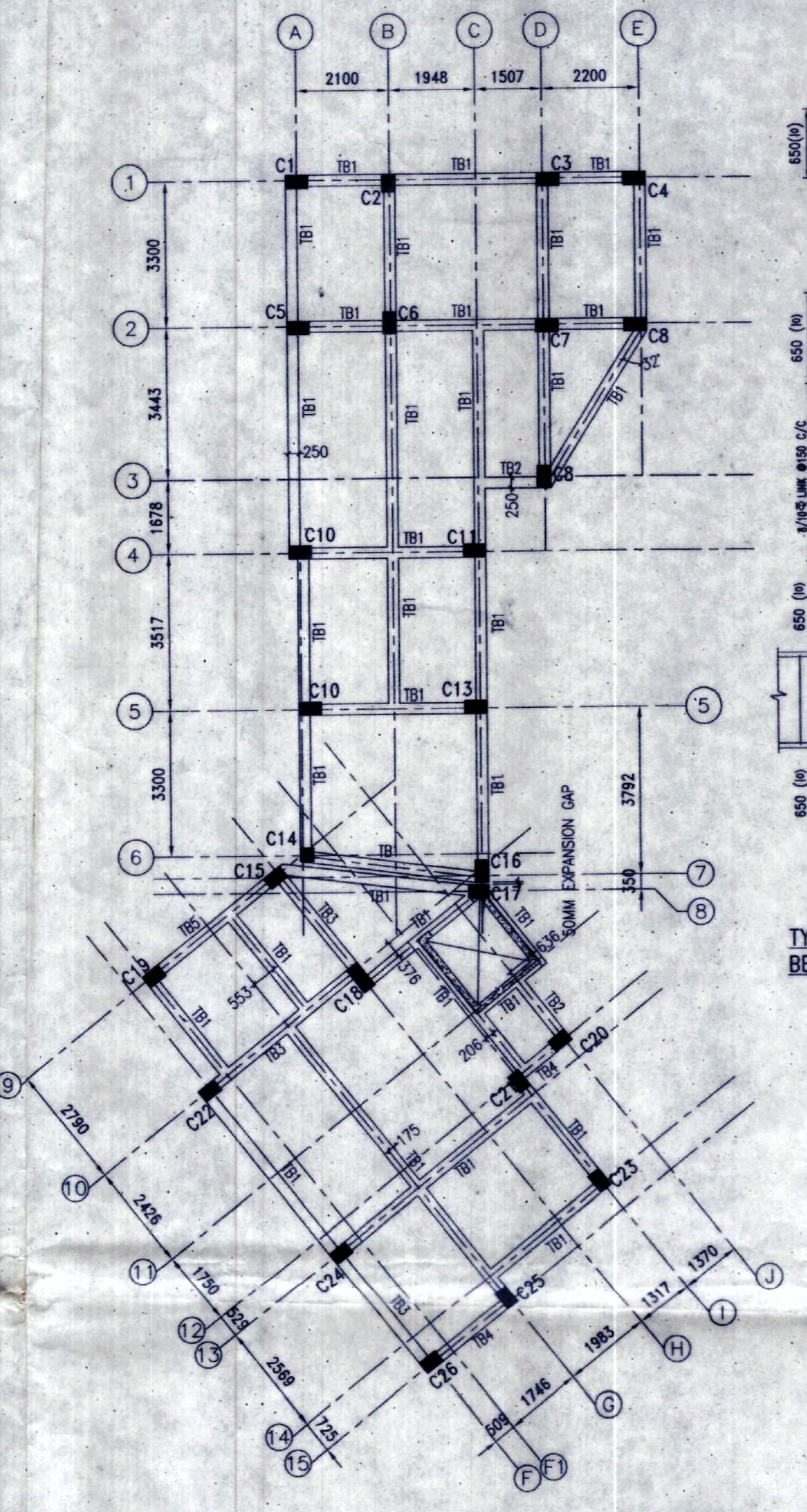
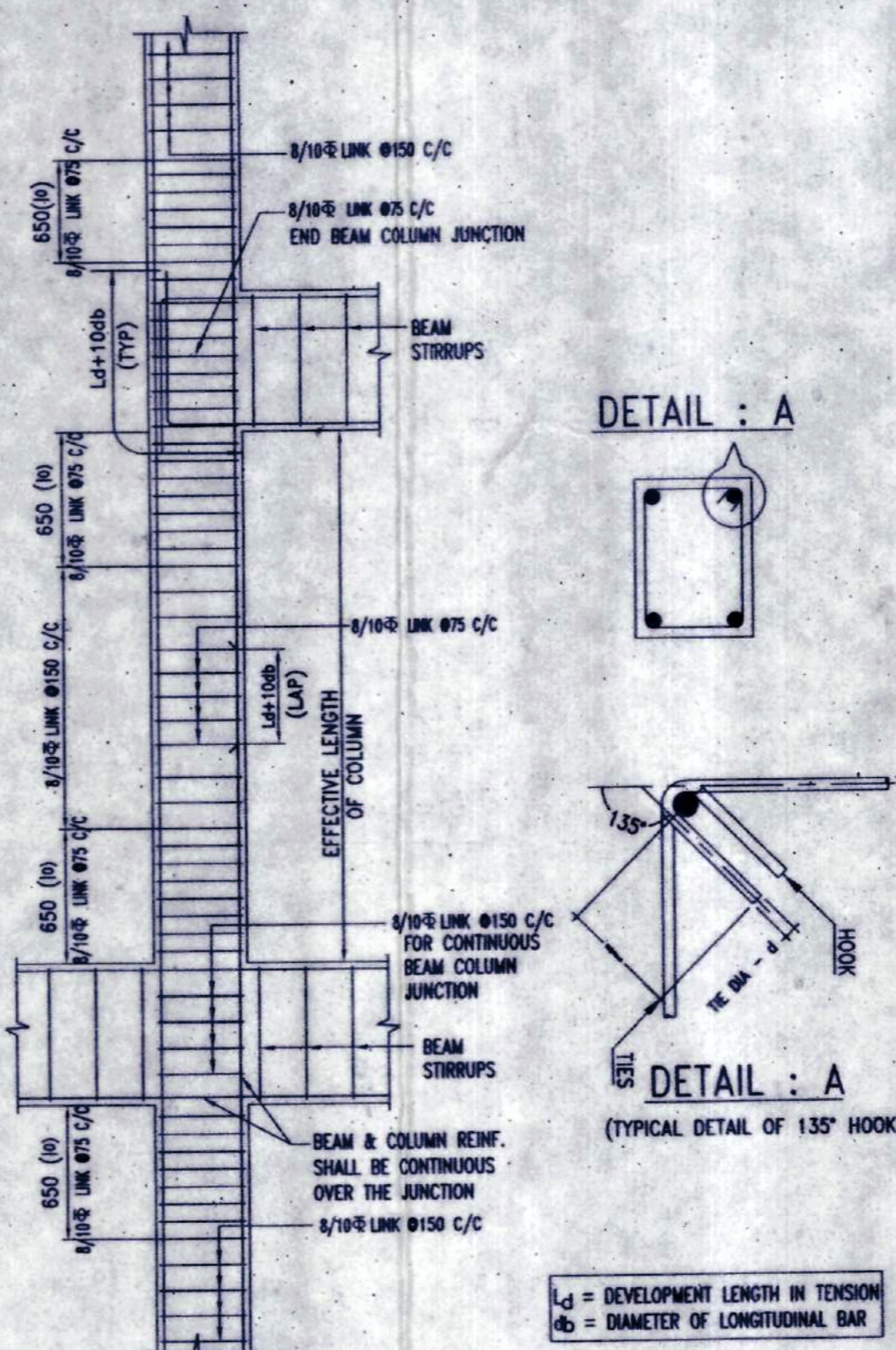


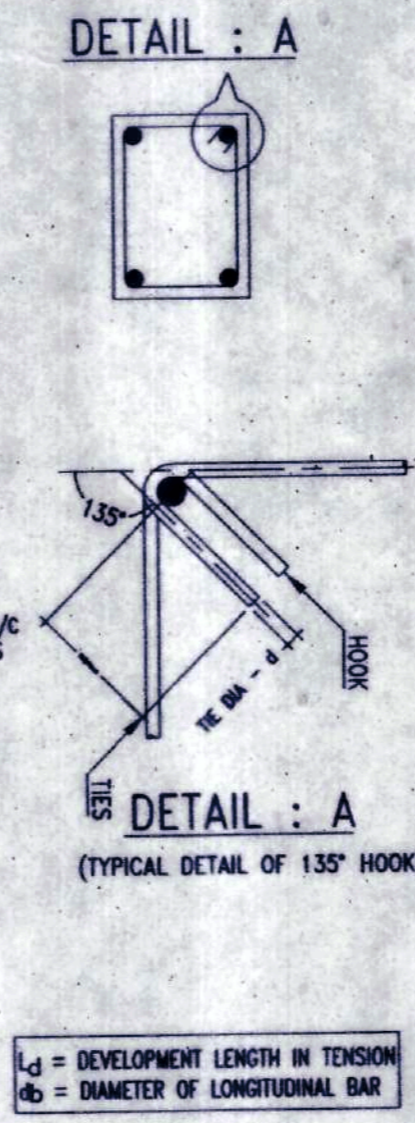
COLUMN LAYOUT PLAN
SCALE 1:100



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



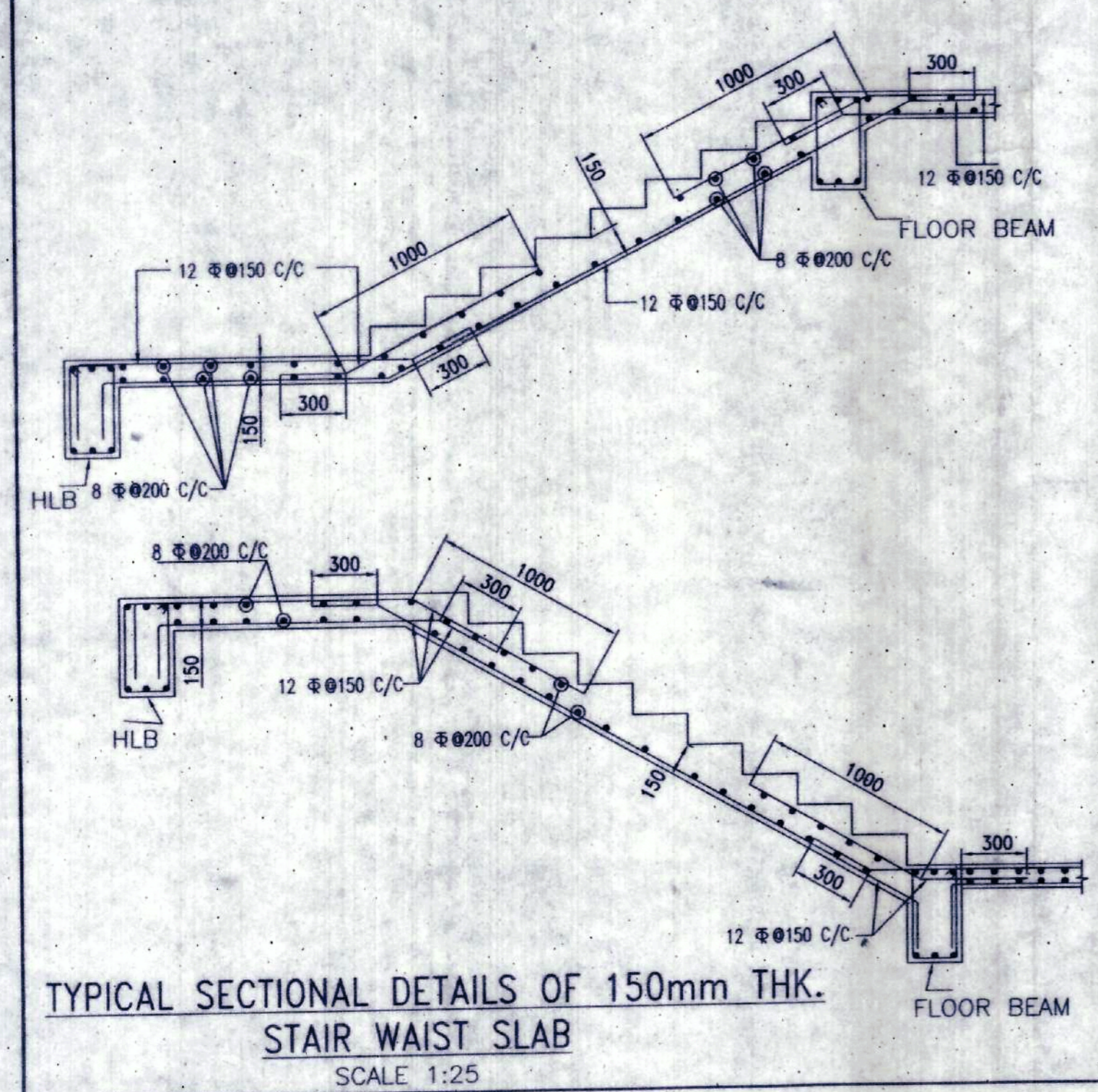
TYPICAL DUCTILE DETAIL OF BEAM COLUMN JUNCTION



DETAIL : A
(TYPICAL DETAIL OF 135° HOOK)

SCHEDULE OF TIE BEAMS						
BEAM MARKED	BEAM SIZE WIDTH (W) DEPTH (D) (mm)	TOP REINFORCEMENT		BOTTOM REINFORCEMENT		STIRRUPS (AT SPAN) (S2)
		ALTHROUGH (a)	EXTRA AT SUPPORT (b)	ALTHROUGH (c)	EXTRA AT SPAN (d)	
TB1	250 x 400	2-12 Φ	-	2-12 Φ	-	2L-8 Φ 100 C/C
TB2	250 x 400	2-12 Φ	-	2-12 Φ	-	2L-8 Φ 100 C/C
TB3	250 x 400	2-12 Φ	2-12 Φ	2-12 Φ	-	2L-8 Φ 100 C/C
TB4	250 x 400	1-16 Φ	-	1-16 Φ	-	2L-8 Φ 200 C/C
TB5	250 x 400	3-16 Φ	2-16 Φ	3-16 Φ	-	2L-8 Φ 100 C/C

SCHEDULE OF COLUMNS					
COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	FOUNDATION TO ROOF & ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING	
				NEAR JUNCTION (S1)	REST PORTION
C1,C3,C4, C5,C6,C7,C8, C9,C10,C11, C12,C13,C16	13	300x500	300 500 MAIN RNF:- 6-16 Φ +6-12 Φ	8 Φ 75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)	8 Φ 150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C2	01	300x400	300 400 MAIN RNF:- 4-16 Φ +6-12 Φ	8 Φ 150 C/C (2 NOS. CLOSED LINK)	8 Φ 150 C/C (2 NOS. CLOSED LINK)
C14	01	300x300	300 300 MAIN RNF:- 8-16 Φ	8 Φ 150 C/C (2 NOS. CLOSED LINK)	8 Φ 150 C/C (2 NOS. CLOSED LINK)
C15	01	300x450	300 450 MAIN RNF:- 6-20 Φ +4-16 Φ	8 Φ 75 C/C (3 NOS. CLOSED LINK)	8 Φ 150 C/C (3 NOS. CLOSED LINK)
C17,C21,C23	03	300x450	300 450 MAIN RNF:- 6-16 Φ +4-12 Φ	8 Φ 75 C/C (3 NOS. CLOSED LINK)	8 Φ 150 C/C (3 NOS. CLOSED LINK)
C18	01	300x650	300 650 MAIN RNF:- 8-16 Φ +4-12 Φ	8 Φ 150 C/C (4 NOS. CLOSED LINK)	8 Φ 150 C/C (4 NOS. CLOSED LINK)
C19,C20	02	300x450	300 450 MAIN RNF:- 10-20 Φ	8 Φ 75 C/C (3 NOS. CLOSED LINK)	8 Φ 150 C/C (3 NOS. CLOSED LINK)
C22	01	300x450	300 450 MAIN RNF:- 12-16 Φ	8 Φ 75 C/C (1 NO. OPEN LINK) (3 NOS. CLOSED LINK)	8 Φ 150 C/C (1 NO. OPEN LINK) (3 NOS. CLOSED LINK)
C24,C25,C26	03	300x450	300 450 MAIN RNF:- 10-20 Φ	10 Φ 75 C/C (2 NOS. OPEN LINK) (1 NO. CLOSED LINK)	10 Φ 150 C/C (2 NOS. OPEN LINK) (1 NO. CLOSED LINK)
ST1,ST2 (ROOF TO LMR ROOF)	02	250x250	250 250 MAIN RNF:- 4-16 Φ	8 Φ 150 C/C (1 NOS. CLOSED LINK)	



TYPICAL SECTIONAL DETAILS OF 150mm THK. STAIR WAIST SLAB
SCALE 1:25

- 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 = 50 Φ 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 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 50 Φ D 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.
 - ALL CANTILEVER SLAB WITHOUT PERIPHERAL BEAMS THE TOP REINFORCEMENT PARALLEL TO THE CANTILEVER SPAN SHOULD BE CONTINUED UP TO ATLEAST 1.5 TIMES THE CANTILEVER SPAN WITHIN THE ADJACENT SLAB.

SPECIAL NOTE:-
THIS STRUCTURAL DRAWING IS VALID IF THE CONSTRUCTION IS DONE USING AAC BLOCKS FOLLOWING PROPER DIMENSION OF EXTERNAL AND INTERNAL WALLS AS PER ARCHITECTURAL DRAWING.

TITLE
STRUCTURAL DRAWING OF PROPOSED G+4 STORIED RESIDENTIAL (APARTMENT) BUILDING OF SRI TARK GUHA S/O LATE BIPLAB KUMAR GUHA OVER L.R. PLOT NO. - 2155, R.S. PLOT NO - 689(P),690, KHATIAN NO.- 2129, MOUZA - BENACHITY, J.L. NO - 117, P.S. - DURGAPUR, DIST- PASCHIM BARDHAMAN.
* HOLDING NO. - 96
* I D NO. - 3309401075486
* CIRCLE/WARD NO. - 19
* ADDRESS.- ROAD-28 SUBHAS PALLY, BENACHITY -13.

CERTIFICATE OF OWNER
Tarak Guha

CERTIFICATE OF ARCHITECT/ENGINEER
Vijaya Singh
Ar. VIJAYA SINGH MAZUMDER
COA Registered
CA/2021/134276
9332802166 / 9476426106

SIGNATURE OF GEOTECHNICAL ENGINEER
Asim Sarkar
ASIM SARKAR
BCE, ME (SOIL), MGS
REGISTERED GEOTECHNICAL ENGINEER
K.M.C. No. : CLASS -12

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 RESPECT.
S. Choudhury
SUSMITA CHOUDHURY
B.TECH (WBUT), M.E. (IU)
CIVIL ENGINEER, NDA
LICENCE NO. - CH/INDIA/10/00175
M-6687517321, 7003201735

SIGNATURE OF THE VETTING AUTHORITY
Dr. Dipankar Chakrabarty
DR. DIPANKAR CHAKRABARTY
PROFESSOR & HEAD, DIVISION OF
STRUCTURAL & CIVIL ENGINEERING
CIVIL ENGINEERING DIVISION
JALPAIGURI UNIVERSITY
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M. E. (CIVIL) GOLD MEDALIST
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ICCP/033-249/2-2003
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EMAIL: Prof.dipankar@gmail.com

DRAWING TITLE
COLUMN & TIE BEAM LAYOUT PLAN & REINFORCEMENT DETAILS & DETAILS OF STAIR.

SCALE-1:100 OR AS SHOWN
DATE-16.08.2021
SHEET NO. - 2 OF 4