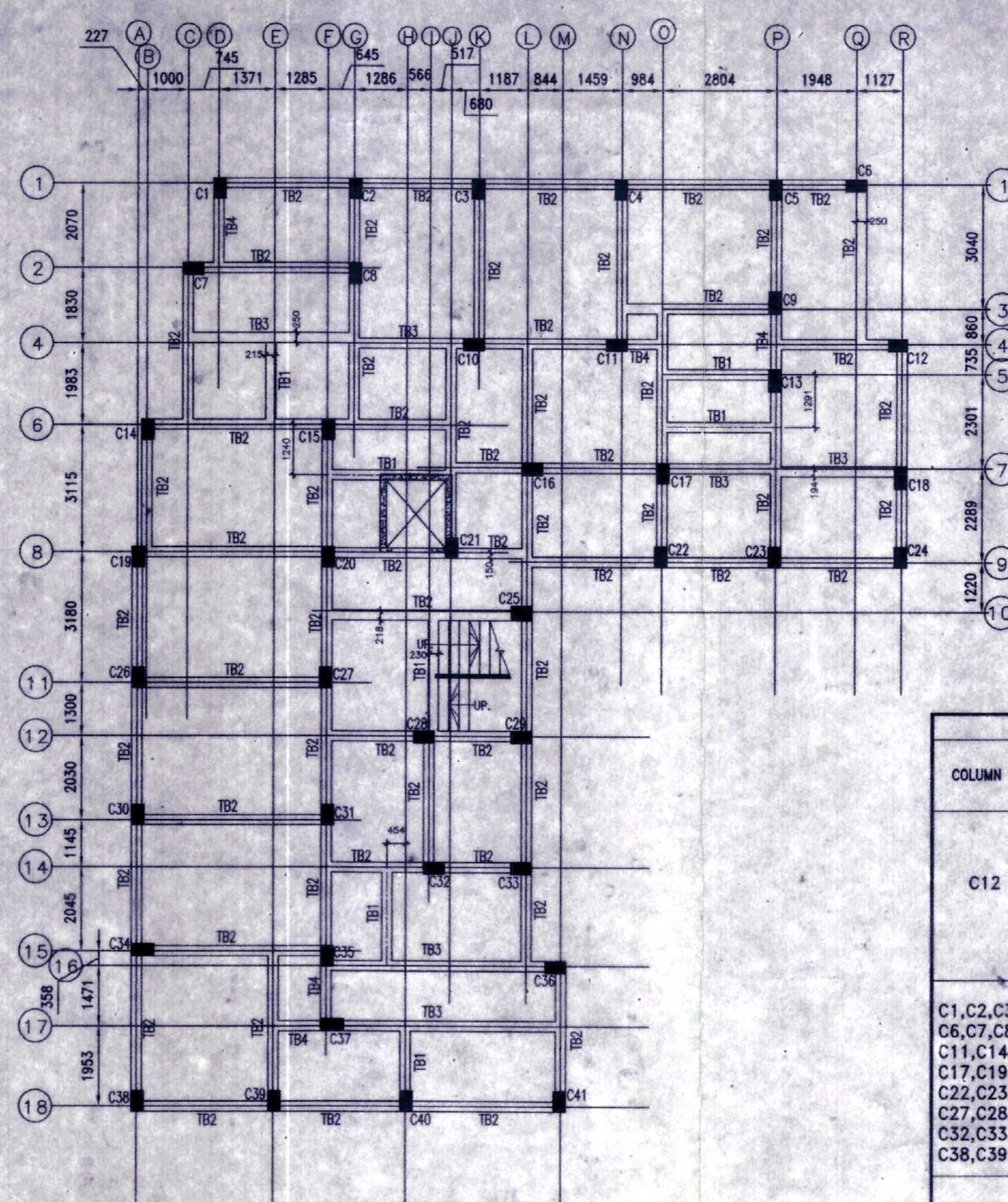
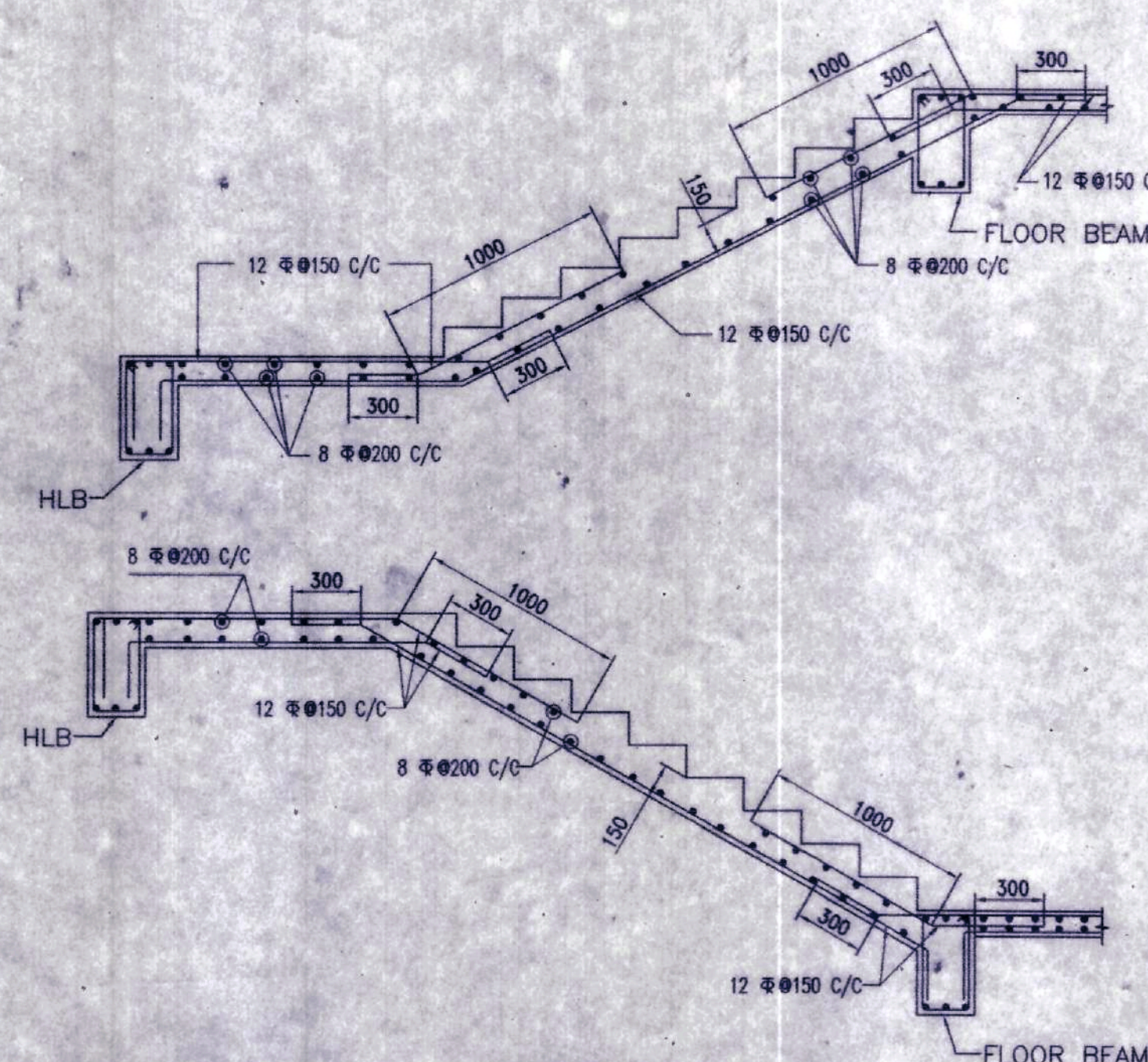
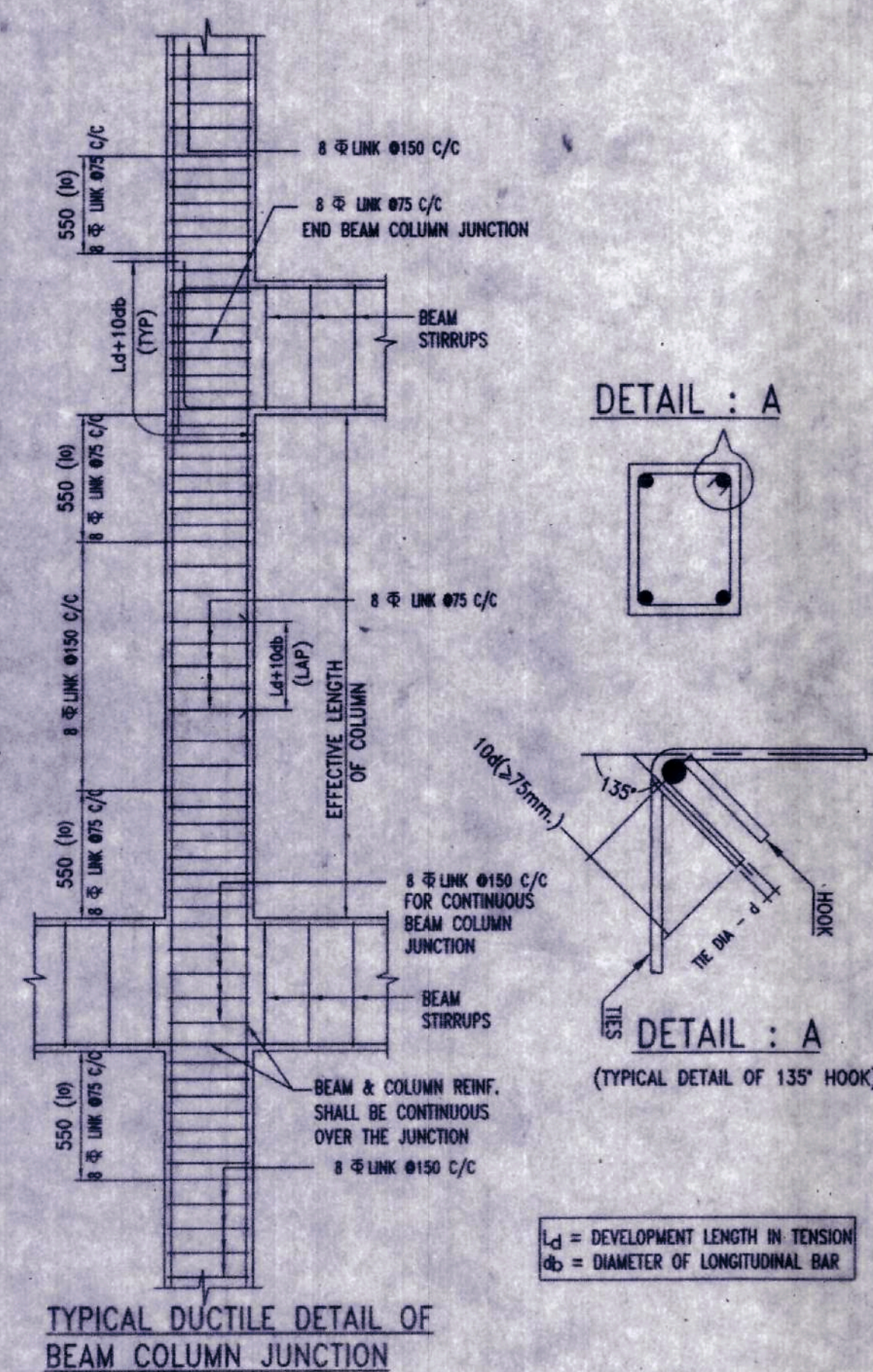


COLUMN LAYOUT PLAN.  
SCALE 1:100



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



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

SCHEDULE OF TIE BEAMS							
BEAM MARKED	BEAM SIZE		TOP REINFORCEMENT		BOTTOM REINFORCEMENT		STIRRUPS (AT SPAN)
	WIDTH (mm)	DEPTH (mm)	ALTHROUGH	EXTRA AT SUPPORT	ALTHROUGH	EXTRA AT SPAN	
TB1	250	400	3-16	—	3-16	—	2L-8 $\phi$ 100 C/C
TB2	250	450	3-16	—	3-16	—	2L-8 $\phi$ 100 C/C
TB3	250	450	3-16	2-12	3-16	—	2L-8 $\phi$ 100 C/C
TB4	250	450	3-16	—	3-16	—	2L-8 $\phi$ 100 C/C

SCHEDULE OF COLUMNS				
COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	FOUNDATION TO ROOF AND ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING
				NEAR JUNCTION (10) REST PORTION
C12	01	300x450		8 $\phi$ 75 C/C (3 NOS. CLOSED LINK) 8 $\phi$ 150 C/C (3 NOS. CLOSED LINK)
C1, C2, C3, C4, C5, C6, C7, C8, C10, C11, C14, C15, C16, C17, C19, C20, C21, C22, C23, C24, C26, C27, C28, C30, C31, C32, C33, C35, C36, C38, C39, C40, C41	33	300x500		8 $\phi$ 75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK) 8 $\phi$ 150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C25	01	350x500		8 $\phi$ 75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK) 8 $\phi$ 150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C9, C13, C18, C34, C37	05	300x550		8 $\phi$ 75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK) 8 $\phi$ 150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C29	01	300x500		8 $\phi$ 75 C/C (3 NOS. CLOSED LINK) 8 $\phi$ 150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
ST1, ST2, ST3, ST4 (ROOF TO LMR ROOF SLAB)	04	250x250		8 $\phi$ 150 C/C (2 NOS. CLOSED LINK)

STOOL COLUMN

## 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-500/500D CONFORMING TO IS-1786-2008.
- UNLESS OTHERWISE STATED LAP LENGTH OF BARS SHALL BE EQUAL TO THE DEVELOPMENT LENGTH = 50 $\phi$ BAR DIA.
- CONCRETE NOMINAL COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:
  - COLUMNS : 40 mm
  - BEAMS : 30 mm
  - SLABS : 20 mm
  - 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 $\phi$  FOR LAP & SPLICES SHOULD BE PROVIDED AS PER THE PROVISIONS LAID DOWN IN SP:34:1987
- 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.

## 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+5 STORIED RESIDENTIAL (APARTMENT) BUILDING OF SHREE SHYAM BUILDERS AND DEVELOPERS OVER L.R. PLOT NO. - 1657, 1658, L.R. KHATIAN NO.-4082, 323, 5079, 5080, R.S. PLOT NO.- 1567, J.L. NO-91, MOUZA -ARRAH, P.S. KANKSHA, DIST- PASCHIM BARDHAMAN

LAND OWNERS : 1) SRI. MANIK CHAND MAHARAJ  
2) SMT. DEBJANI GORAI  
3) SRI. SUKUMAR MANDAL  
4) SMT. MUKTI MANDAL

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

*Signature*  
Ar. VIJAYA SINGH MAZUMDER  
COA Registered  
CA/2021/134276  
VIJAYA SINGH MAZUMDER  
DMC REGISTERED 9332802166 / 9478426106  
LIC NO. - DMC/BPD/60  
9332802166, 9478426106

SIGNATURE OF GEOTECHNICAL ENGINEER

THIS IS TO CERTIFY THAT THE SOIL TEST HAS BEEN PERFORMED BY ME FOR THIS PROJECT

## 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.

*Signature*  
Ar. VIJAYA SINGH MAZUMDER  
26/4/21

SIGNATURE OF THE VETTING AUTHORITY

CHECKED & VETTED

DR. DIPANKAR MAHAPATRA  
STRUCTURAL ENGINEER  
PROFESSIONAL & TECHNICAL  
CIVIL ENGINEER (P.T.O.)  
JADAVPUR UNIVERSITY  
RESEARCH & DEVELOPMENT  
PH.D. (1997) GOLD MEDALIST  
COPD 533-545, 2nd fl.  
MOB: 9830185502 & 9433093143  
EMAIL: Prof.dipankar@gmail.com

## CERTIFICATE OF PANCHAYET PRADHAN

APPROVED  
Vide Memo No. 475/PB.Bal. dt. 08/02/2021  
DISTRICT ENGINEER OF PASCHIM BARDHAMAN, ZILA PARISHAD  
Add. Executive  
Pradhan 26/04/2021  
Malandighi Gram Panchayat  
Kulidina, Durgapur-713212

## CERTIFICATE OF OWNER

## DRAWING TITLE

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

SCALE-1:100 OR AS SHOWN  
DATE- 20.04.2021

SHEET NO. - 2 OF 4



IMPORTANT NOTE:  
THE STRUCTURE MUST BE CONSTRUCTED IN PRESENCE OF A COMPETENT STRUCTURAL ENGINEER FOR STRICT SUPERVISION.