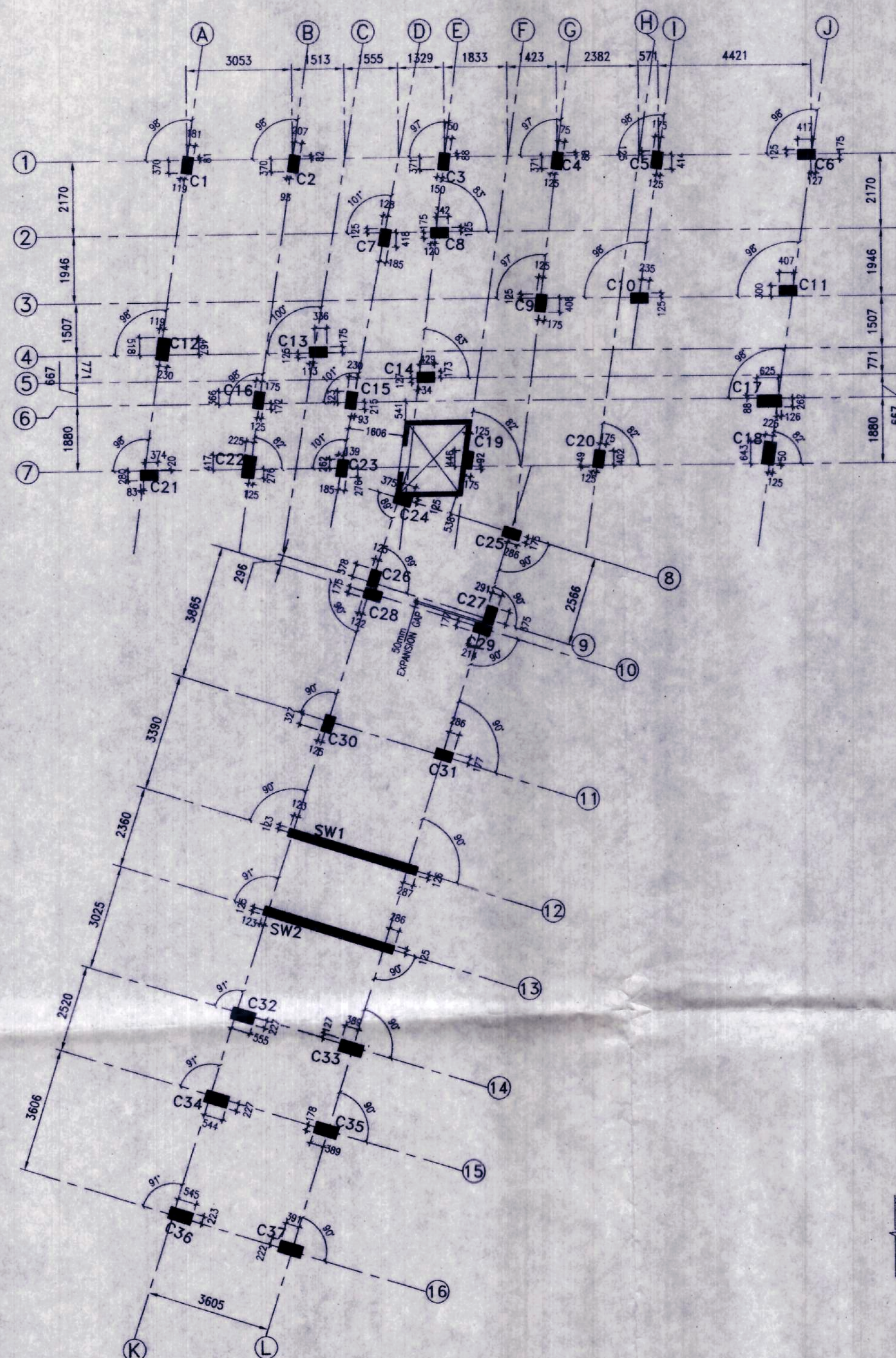
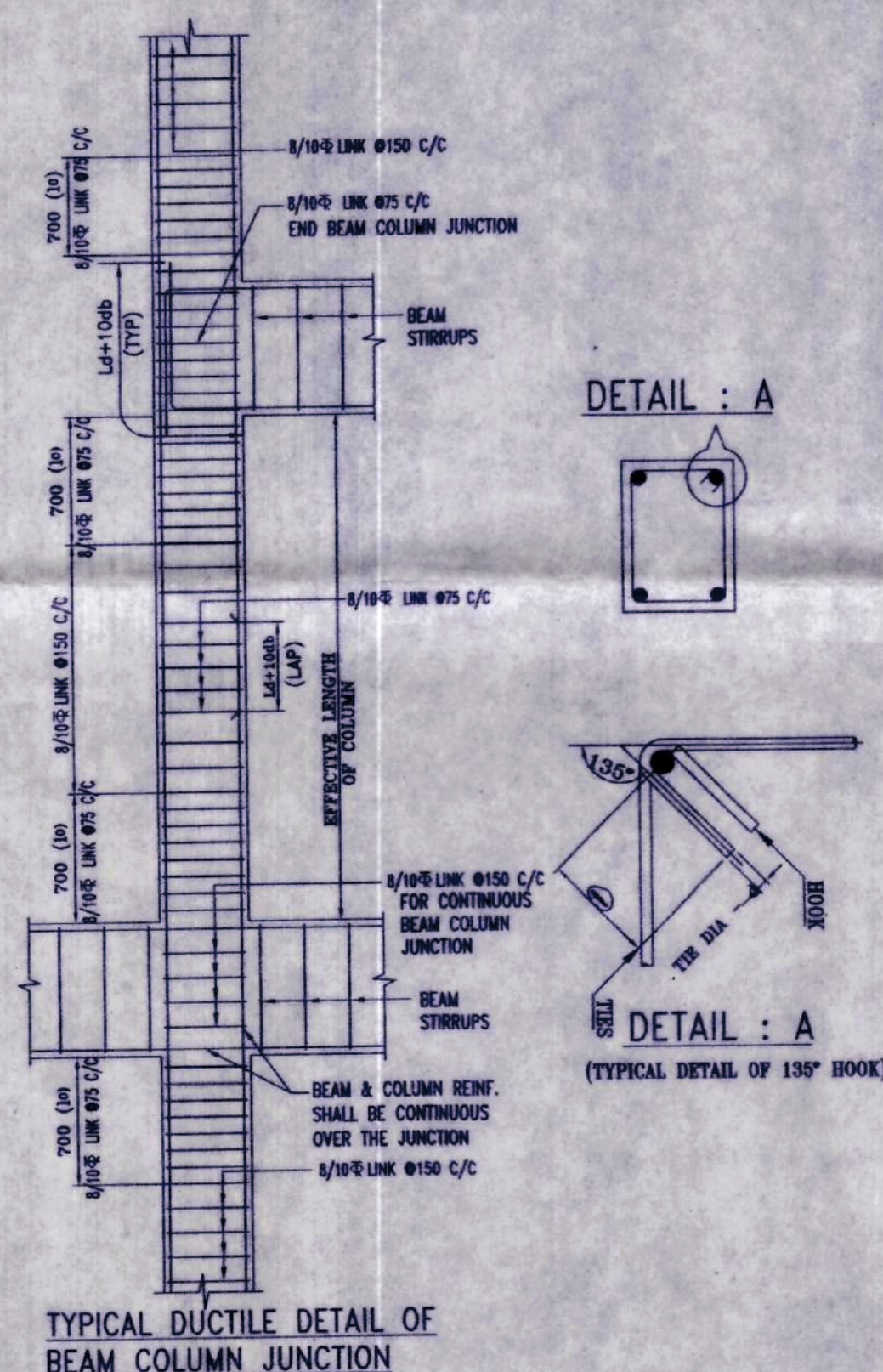




COLUMN LAYOUT PLAN.
SCALE 1:100



TYPICAL DUCTILE DETAIL OF
BEAM COLUMN JUNCTION

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

STOOL COLUMN				
COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	ROOF TO ROOF AND ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING
ST1, ST2, ST3 (ROOF TO L.M.R. ROOF SLAB) ST4 (ROOF TO WATER TANK FLOOR SLAB) ST5, ST6, ST7, ST8 (ROOF TO MUMTY ROOF)	08	250x250	MAIN RNF.:- 4-20ϕ	8 ϕ 150 C/C (1 NO. CLOSED LINK)

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

SCHEDULE OF COLUMNS						
COLUMN MARKED	NOS. OF COLUMNS	COLUMN SIZE (mm x mm)	FOUNDATION TO 3RD FLOOR	3RD FLOOR TO ROOF AND ABOVE ROOF	STIRRUP ARRANGEMENT & SPACING	
					NEAR JUNCTION (10)	REST PORTION
C36, C37	02	350x675	MAIN RNF.:- 4-20ϕ +6-20ϕ +2-16ϕ	MAIN RNF.:- 4-20ϕ +4-20ϕ +2-16ϕ	10 ϕ 75 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)	10 ϕ 150 C/C (3 NOS. CLOSED LINK) (1 NO. OPEN LINK)
C3, C15, C16, C19, C21, C29, C31	07	300x500	MAIN RNF.:- 6-16ϕ +6-12ϕ	MAIN RNF.:- 4-16ϕ +8-12ϕ	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)
C18	01	350x650	MAIN RNF.:- 8-20ϕ +4-16ϕ	MAIN RNF.:- 4-20ϕ +4-16ϕ	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, C5, C6, C7, C20	05	300x500	MAIN RNF.:- 6-20ϕ +6-16ϕ +2-12ϕ	MAIN RNF.:- 4-20ϕ +6-16ϕ +2-12ϕ	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)
C22	01	350x650	MAIN RNF.:- 4-20ϕ +8-16ϕ	MAIN RNF.:- 4-20ϕ +6-16ϕ +2-12ϕ	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)
C32, C33	02	350x675	MAIN RNF.:- 6-20ϕ +6-16ϕ +2-12ϕ	MAIN RNF.:- 4-20ϕ +6-16ϕ +2-12ϕ	8 ϕ 75 C/C (4 NOS. CLOSED LINK)	8 ϕ 150 C/C (4 NOS. CLOSED LINK)
C17	01	300x700	MAIN RNF.:- 4-20ϕ +8-16ϕ	MAIN RNF.:- 4-20ϕ +6-16ϕ +2-12ϕ	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)
C1, C10, C13, C23, C26, C27, C28	07	300x500	MAIN RNF.:- 12-16ϕ	MAIN RNF.:- 8-16ϕ +4-12ϕ	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)
C12	01	350x650	MAIN RNF.:- 4-20ϕ +2-16ϕ +4-12ϕ	MAIN RNF.:- 4-20ϕ +4-16ϕ +6-12ϕ	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)
C4, C8, C9, C11, C14, C24, C25, C30	08	300x500	MAIN RNF.:- 4-20ϕ +8-16ϕ	MAIN RNF.:- 4-20ϕ +4-16ϕ +4-12ϕ	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)
C34, C35	02	350x675	MAIN RNF.:- 12-20ϕ	MAIN RNF.:- 10-20ϕ +2-16ϕ	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)

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 ϕ BAR DIA.
- CONCRETE NOMINAL COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:
 - COLUMNS : 40 mm
 - BEAMS : 30 mm
 - SLABS : 20 mm
 - WALL SLAB : 20 mm
 - SHEAR WALL : 40 mm
- GRADE OF CONCRETE FOR SUPERSTRUCTURE UPTO AND INCLUDING 4TH FLOOR WILL BE M20, ABOVE THAT 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 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 60 ϕ 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 SEVEN (7) STORIED RESIDENTIAL APARTMENT OF THREE BUILDERS.
PLOT DETAILS / ADDRESS : R.S. PLOT NO.-7 & 51, L.R. PLOT NO.-50 & 59, L.R. KHATIAN:- 1884, 1910, 2073, 2074, 2075, & 2076, J.L. NO.-111, MOUZA- TETIKHOLA, P.S.-DURGAPUR, DIST.- PASCHIM BURDWAN

CONSULTANT/ARCHITECT'S SIGNATURE

Ar. Jui Chatterjee
AR. JUI CHATTERJEE, ARCH
Registration No : CA/2021/134352
Ph : 9434649389, 7588893411
41/3, Subhata Commercial Complex,
City Centre, Durgapur - 713216

JUI CHATTERJEE

(LICENSE NO - CA/2021/134352)

SIGNATURE OF GEOTECHNICAL ENGINEER

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

ASIM SARKAR
BCE, ME (SOIL), MGS, MIE
EMPANNELED GEOTECHNICAL ENGINEER
KIND NO. 076/2015/2

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 24/3/21
SUSMITA CHOUDHURY
B.TECH (WBUT), M.E. (IIT)
CIVIL ENGINEER, NKDA
LICENSE NO. OVER/NKDA/10/00175
M-8667517321, 7003201735
KMC/BSE/N/664

SIGNATURE OF THE VETTING AUTHORITY

CHECKED & VETTED

DR. DIPANKAR CHAKRAVARTY
STRUCTURAL ENGINEERING EXPERT
PROFESSOR & HEAD, DEPARTMENT
OF CIVIL ENGINEERING, INDIAN
INSTITUTE OF TECHNOLOGY
Kharagpur, West Bengal
M.TECH (IIT KGP) GOLD MEDALIST
Ph.D. (IIT KGP)
(OPF) 933-2467 2659
(MOB) 98301 68502 & 9839931433
EMAIL: Prof.dipankar@gmail.com

CERTIFICATE OF OWNER

Approved Plan No. 62 on Mo. 3
No. 08/2020-11, Date 04/11/2020
Valid upto 28/11/2021

Mallika Lohar
Prodhan 24/01/23
Jemua Gram Panchayet

DEVELOPER'S SIGNATURE

DRAWING TITLE

COLUMN LAYOUT PLAN & REINFORCEMENT DETAILS.

SCALE-1:100 OR AS SHOWN

DATE- 24.09.2021

SHEET NO. - 2 OF 5

