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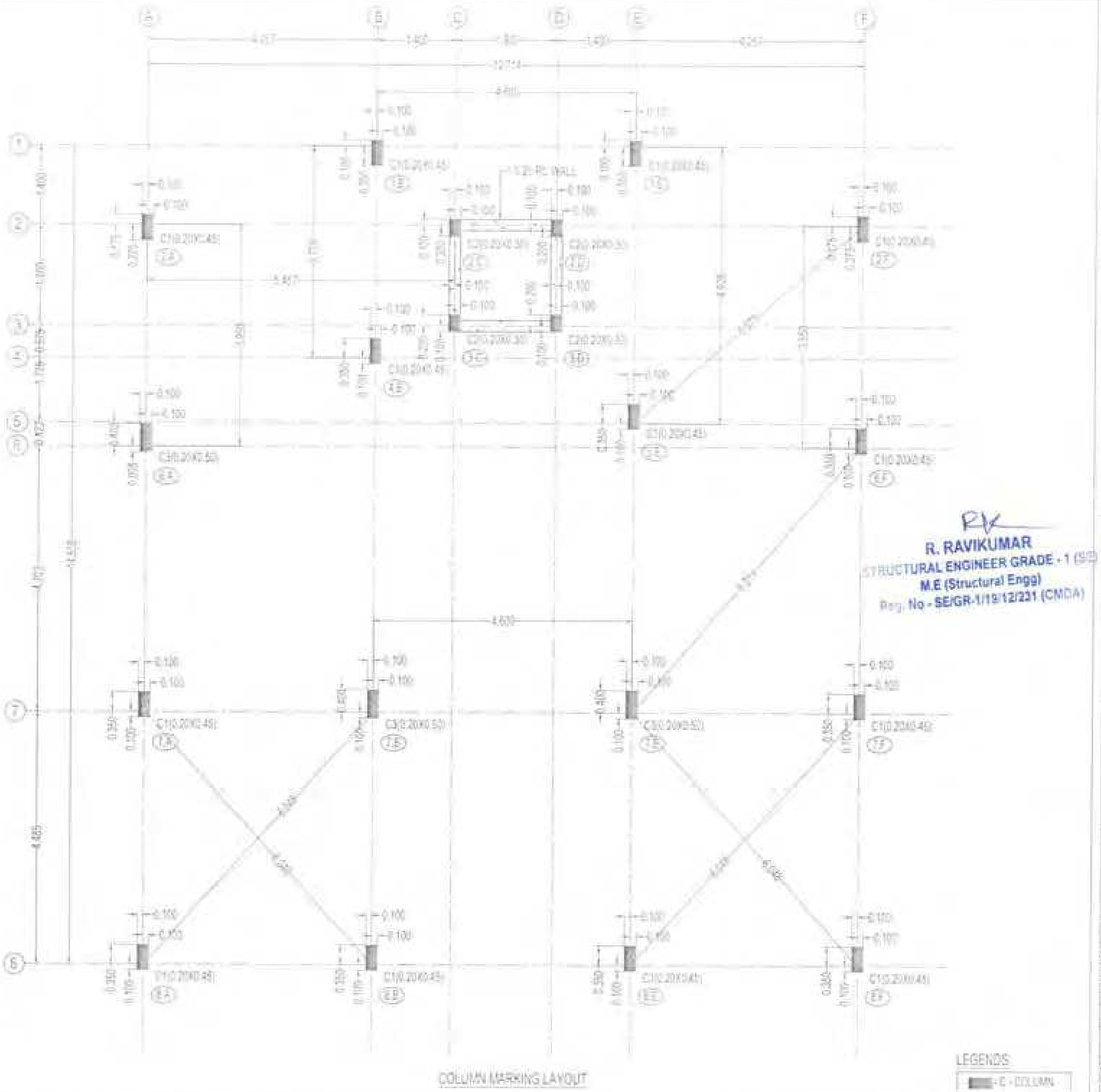
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hello@verified.realestate
+91 9996 12 9996
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DIGITALLY VERIFIED RECORD



TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING
ADITYARAM PALACE CITY (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

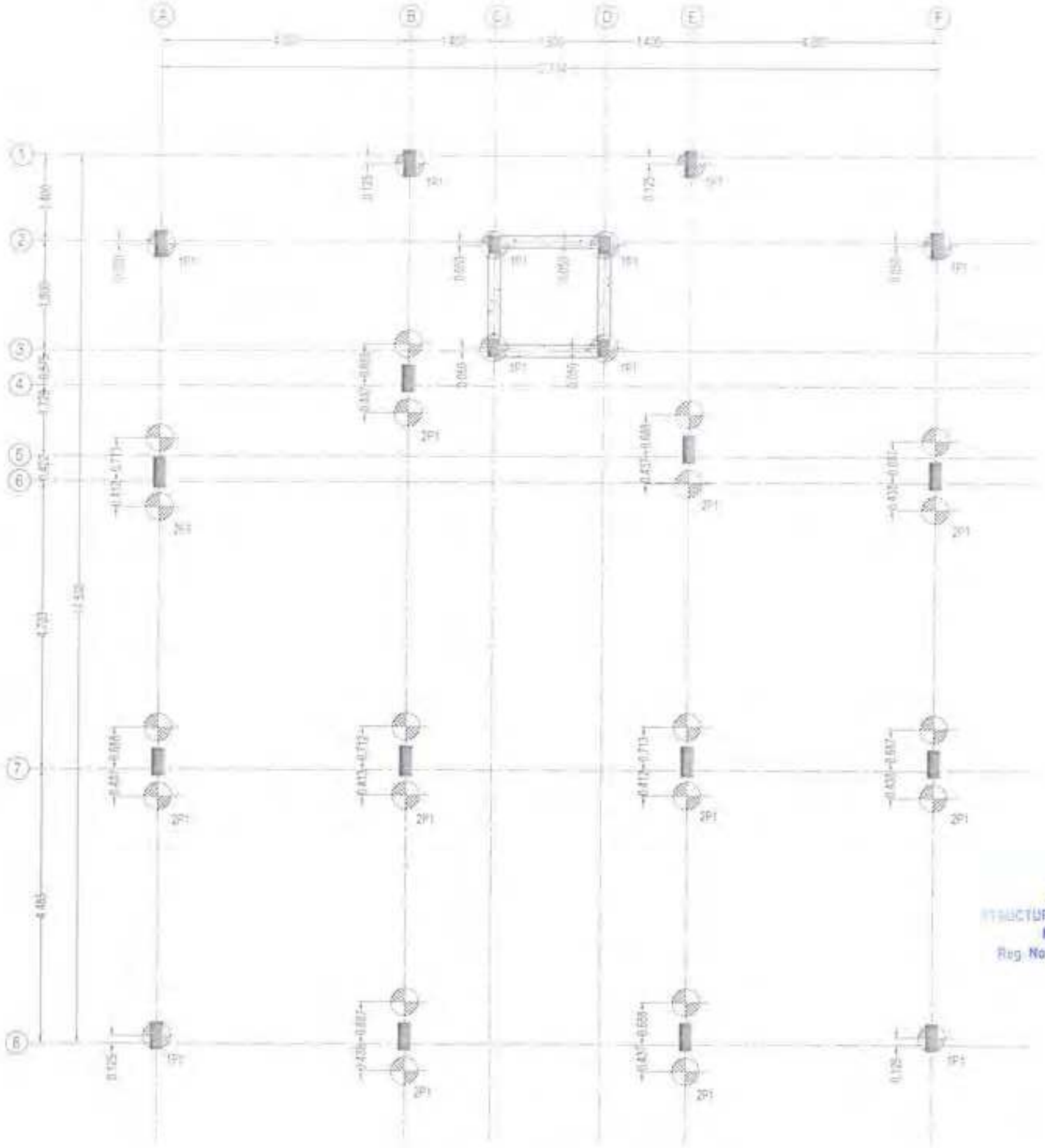
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

COLUMN MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	01



PILE MARKING LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1 (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

LEGENDS

P - PILE (0.450dia)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

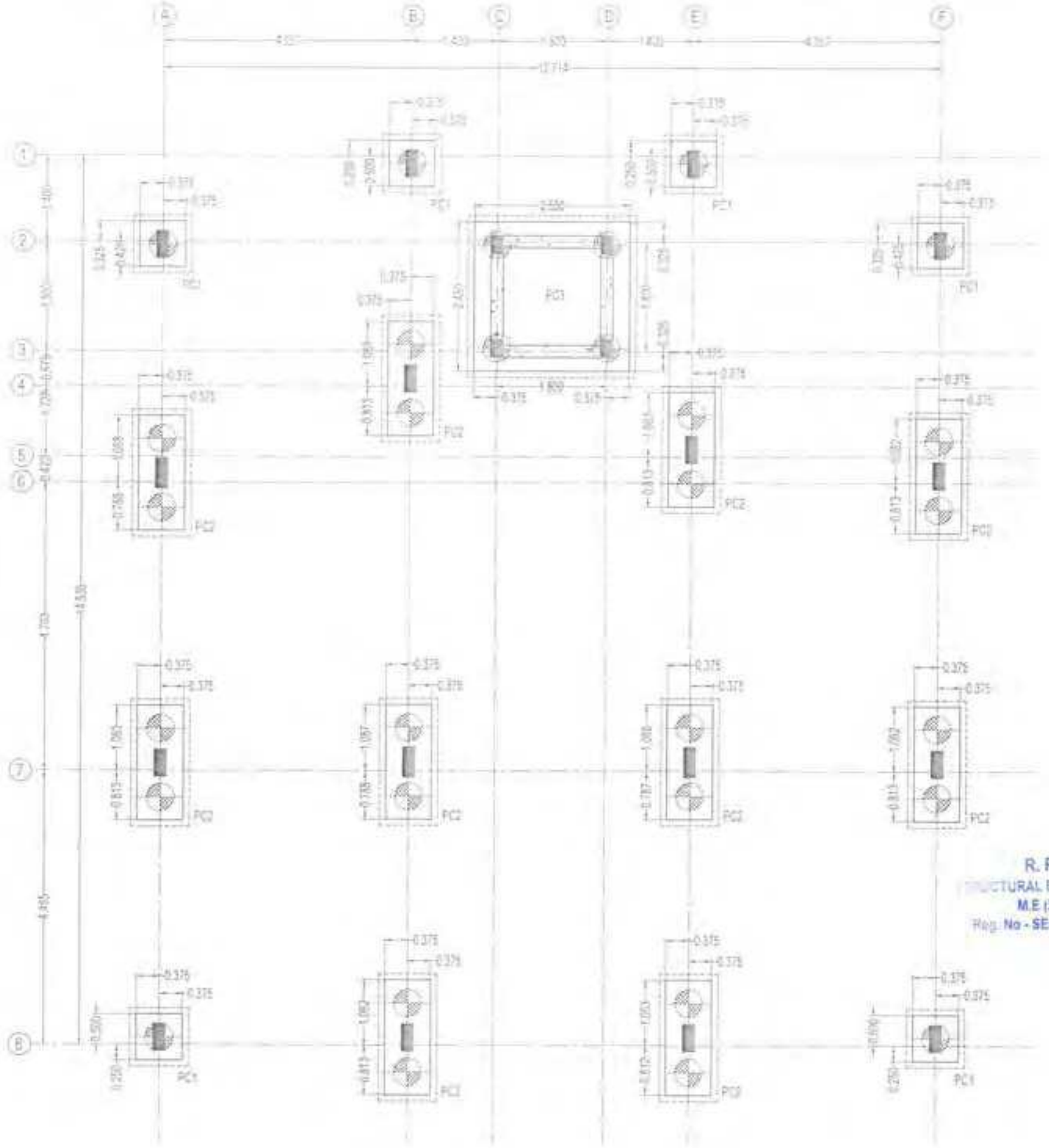
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	02



TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1 (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

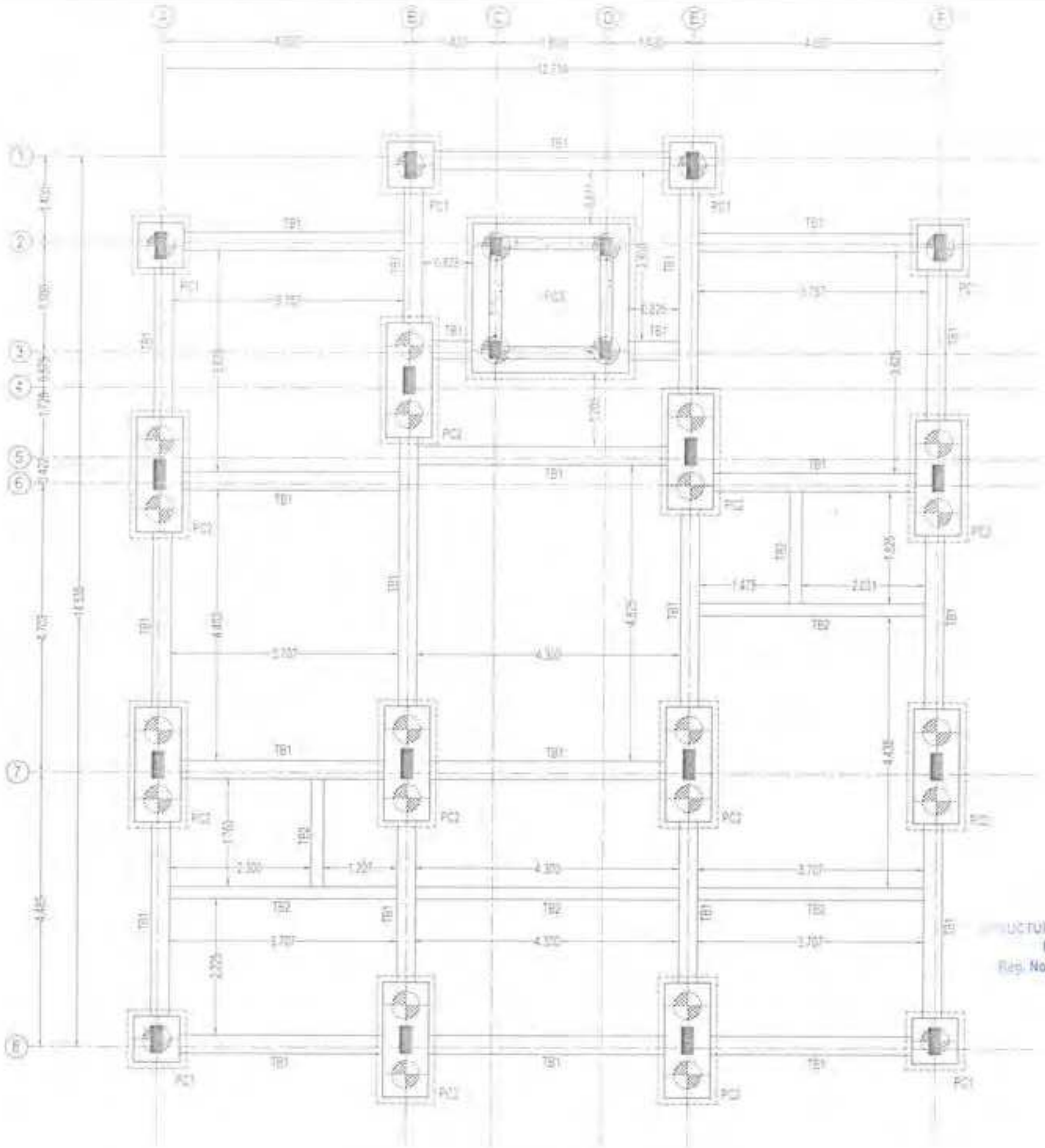
LEGENDS
PC - PILE CAPE

DESIGNED	RK	RELEASED FOR:
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	03



TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

R.SWAMIMAR
STRUCTURAL ENGINEER GRADE - I
M E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

LEGENDS:
TB - TIE BEAM

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) & TIE BEAM(TB) LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	04

COLUMN REINFORCEMENT SCHEDULE

TERRACE LEVEL			
TIES	H=T8@150C/C	H=T8@150C/C	H=T8@150C/C
	H=T8@150C/C	H=T8@150C/C	H=T8@150C/C
FOOTING LAYOUT @ -1.5 @ -1.2	0.450	0.300	0.600
	8-T16	4-T16 + 2-T12	8-T16 + 2-T12
COLUMN MARKES	C1	C2	C3

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1 (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

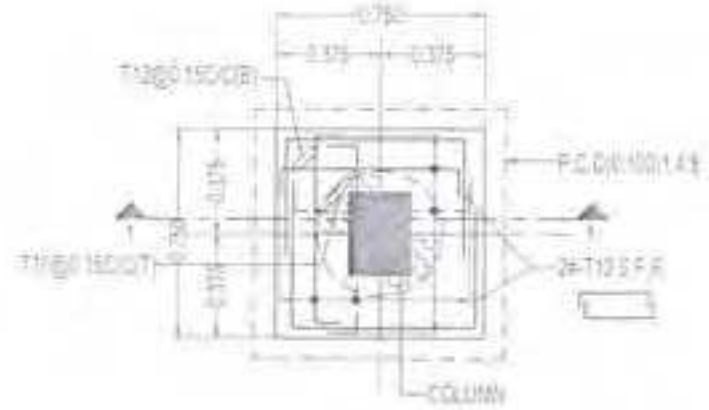


PILE (P1) - PLAN

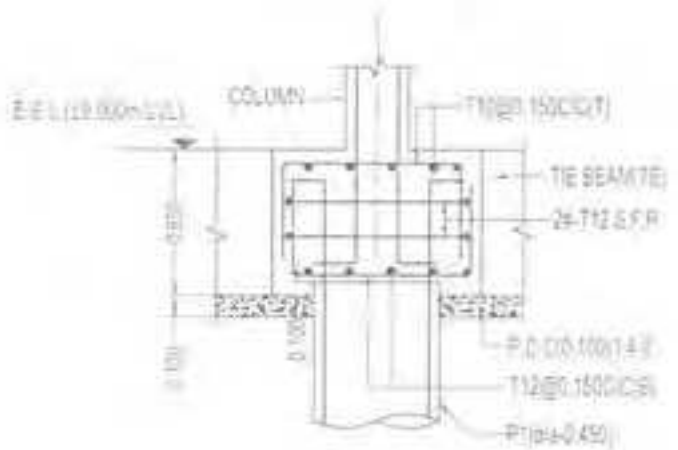
** S.F.R - SIDE FACE REINFORCEMENT

LEGENDS

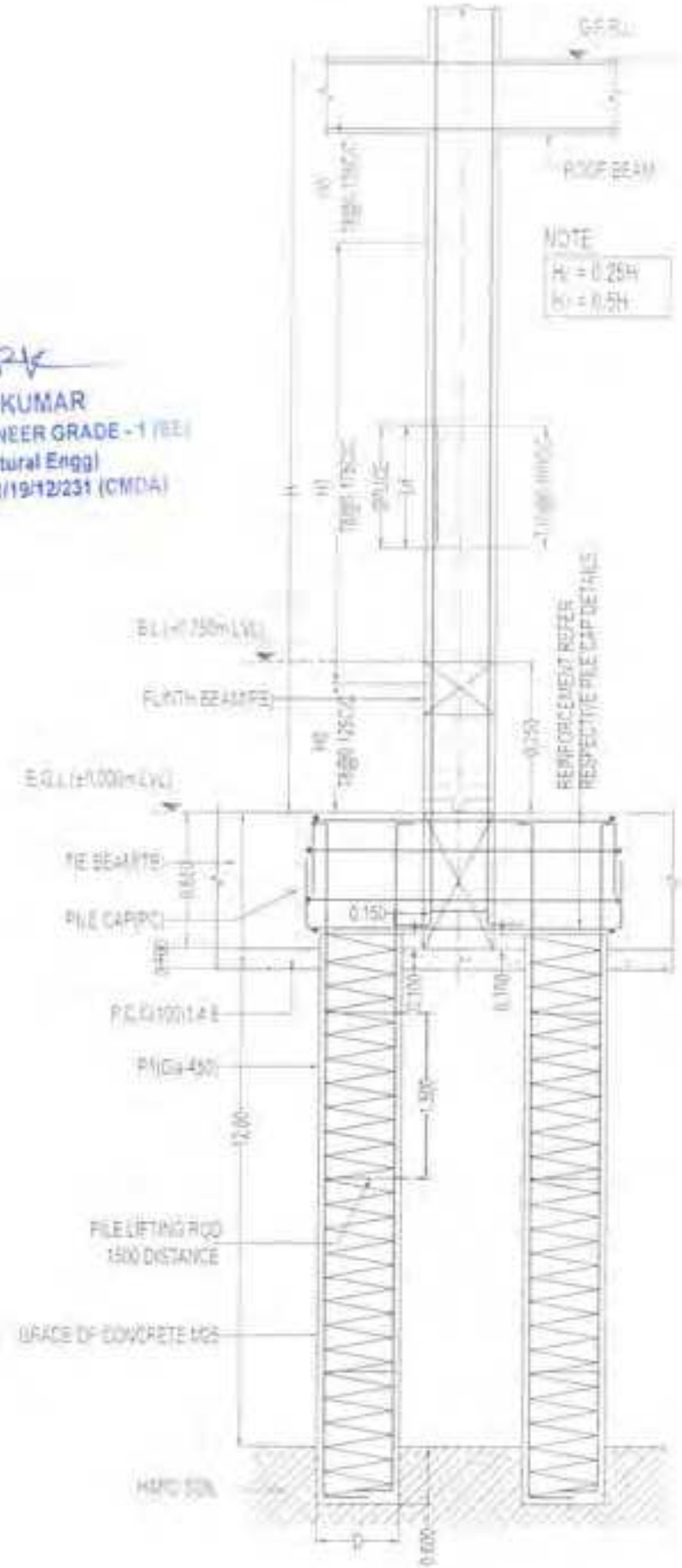
B.L - BASEMENT LEVEL
G.F.R.L - GROUND FLOOR ROOF LEVEL
E.G.L - EXISTING GROUND LEVEL



PC1 - PLAN



SECTION - 1 - 1



TYPICAL COLUMN & PILE CONFINING DETAILS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS :

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 4) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

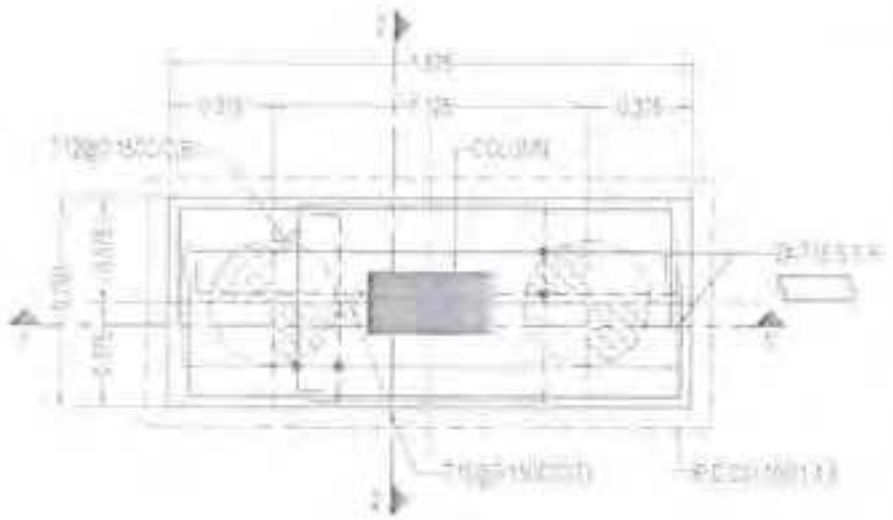
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

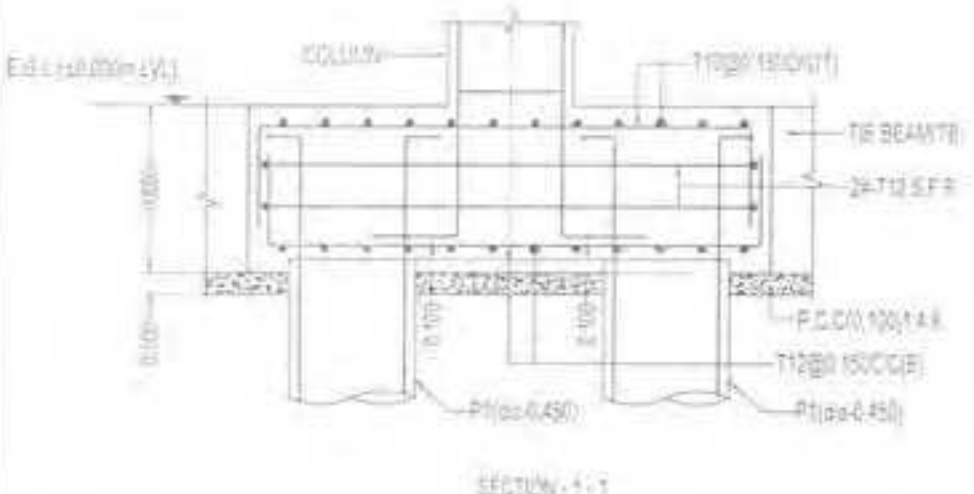
DRAWING NAME

COLUMN, PILE & PILE CAP DETAILS

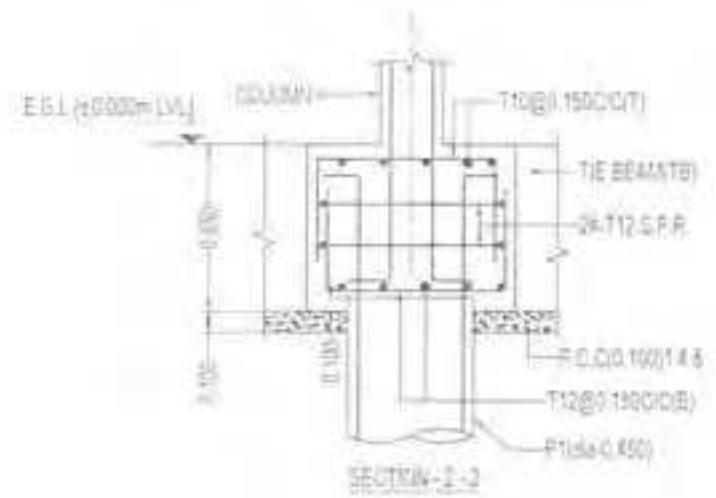
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	05



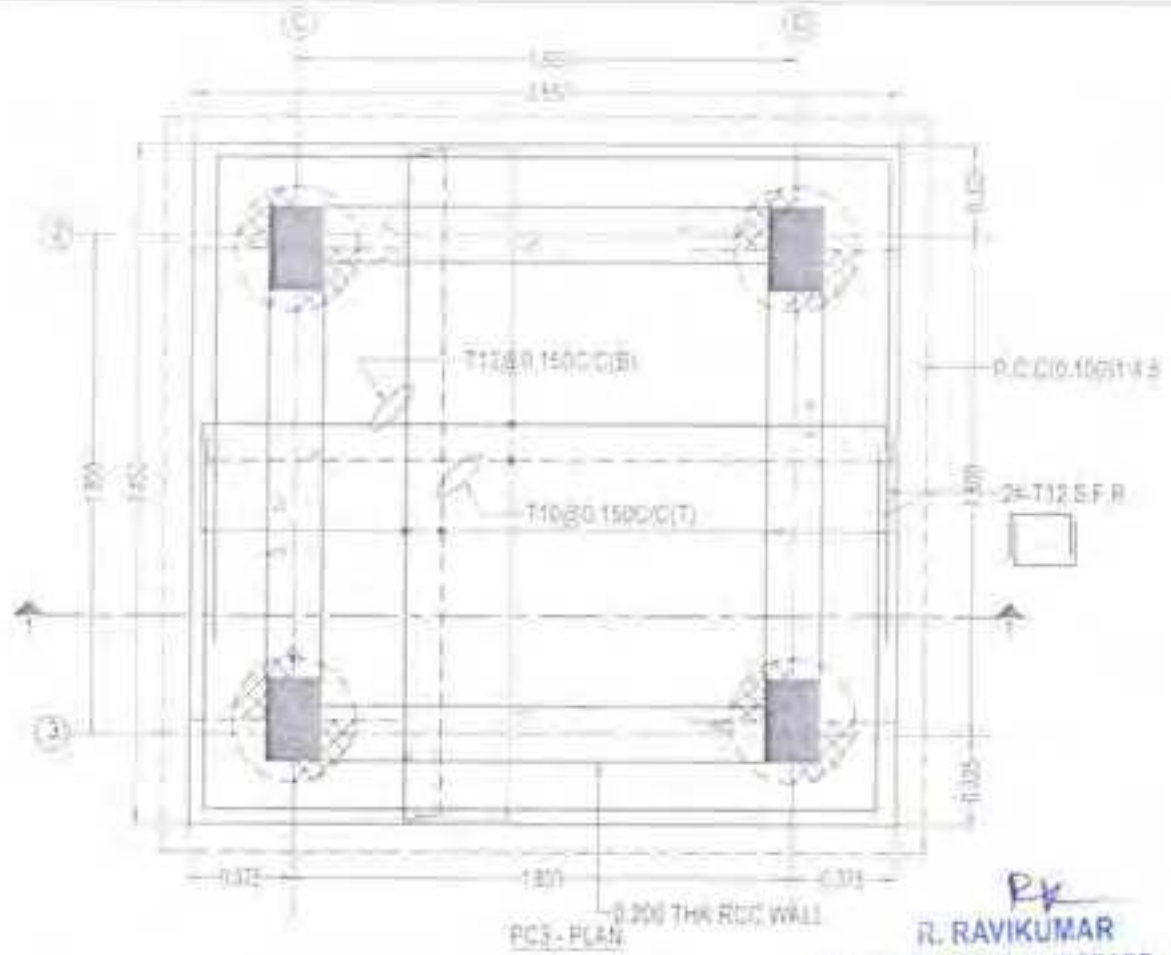
PC2 - PLAN



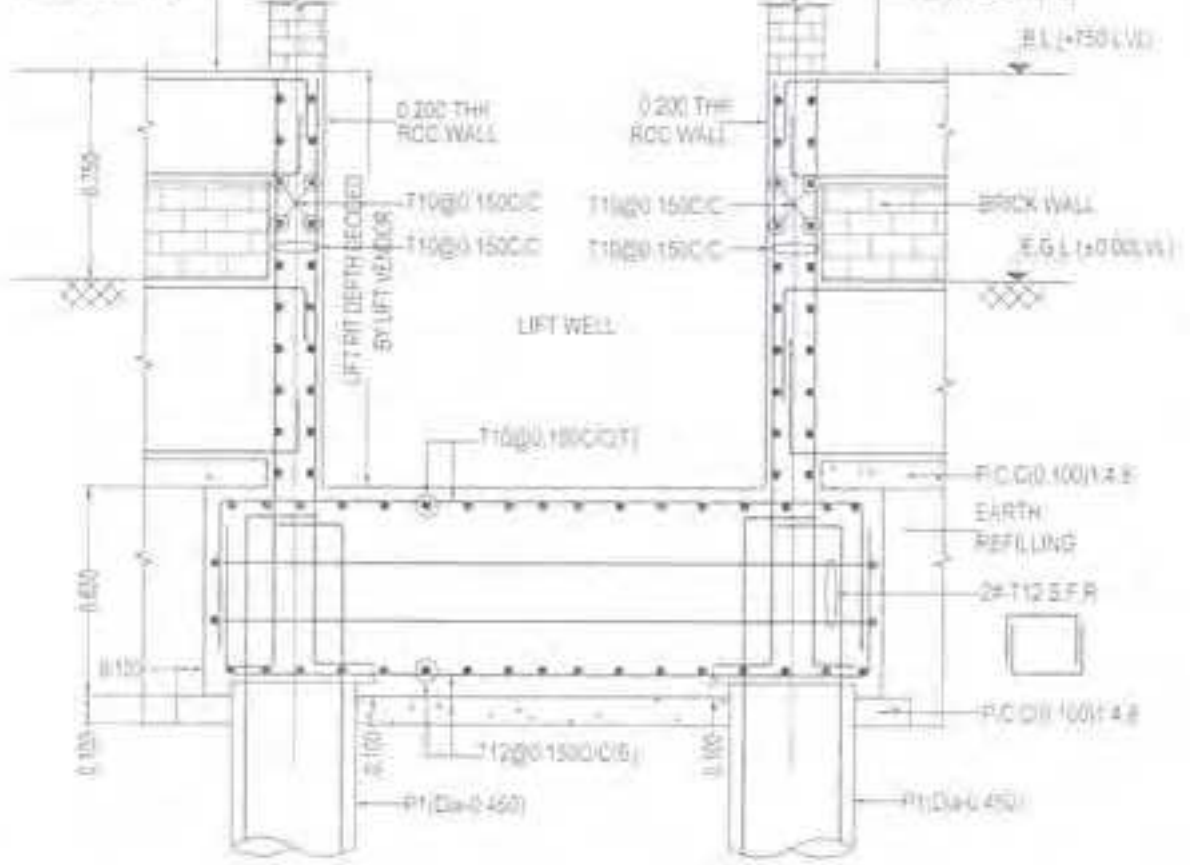
SECTION - 1 - 1



SECTION - 2 - 2



PC3 - PLAN



SECTION - 1 - 1

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS :

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1.100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

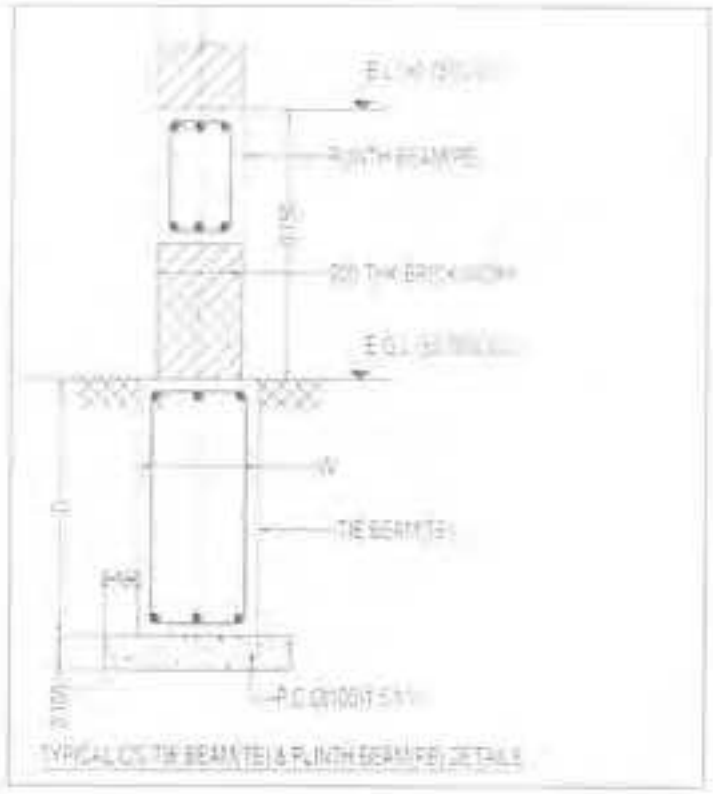
DRAWING NAME

FILE & PILE CAP DETAILS

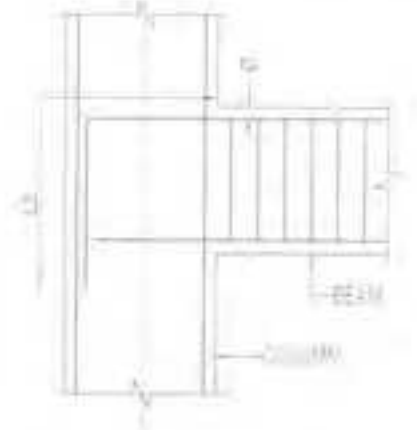
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2020	ST-2020-06-03	06

TIE BEAM (TB) REINFORCEMENT SCHEDULE

BEAM MARK & SIZE	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(230 X 0.600) TB	3-T16(C) T10@150 C/C P.C.C 3-T16(C)	3-T16(C) T10@150 C/C P.C.C 3-T16(C)	3-T16(C) T10@150 C/C P.C.C 3-T16(C)
(230 X 1.000) TB1	2-T16(C) T10@150 C/C P.C.C 2-T16(C)	2-T16(C) T10@150 C/C P.C.C 2-T16(C)	2-T16(C) T10@150 C/C P.C.C 2-T16(C)



TYPICAL C/S TIE BEAM (TB) & PLINTH BEAM (PB) DETAILS

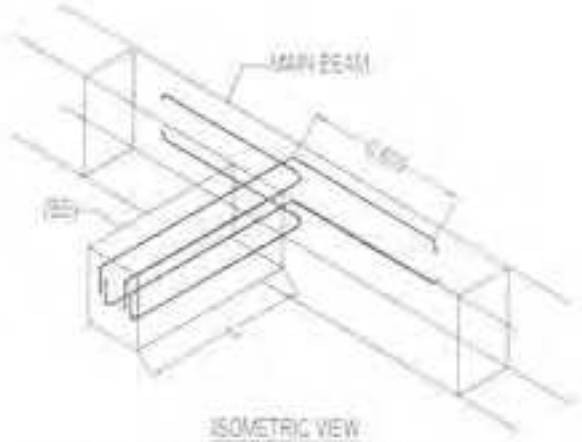


TYPICAL ANCHORAGE OF BEAM BARS IN AN EXTERNAL JOINT
** L/40 TIMES DIA OF BAR

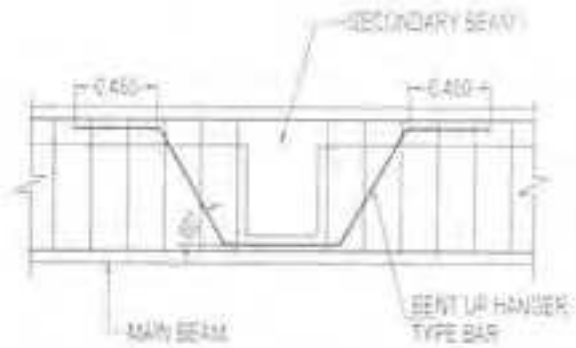
LEGENDS

E.G.L	EXISTING GROUND LEVEL
T.B	TIE BEAM
P.B	PLINTH BEAM
B.L	BASEMENT LEVEL

S.F.R - SIDE FACE REINFORCEMENT
E.F - EACH FACE



OF (TYP) BRACKET BEAM REST ON BEAM DETAIL



WHERE CROSS BEAM SHEAR ROD SHOULD BE PROVIDED AT 2-T16

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M E (Structural Engg)
Regn. No - SE/GR-1/19/12/231 (CHENNAI)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 4) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

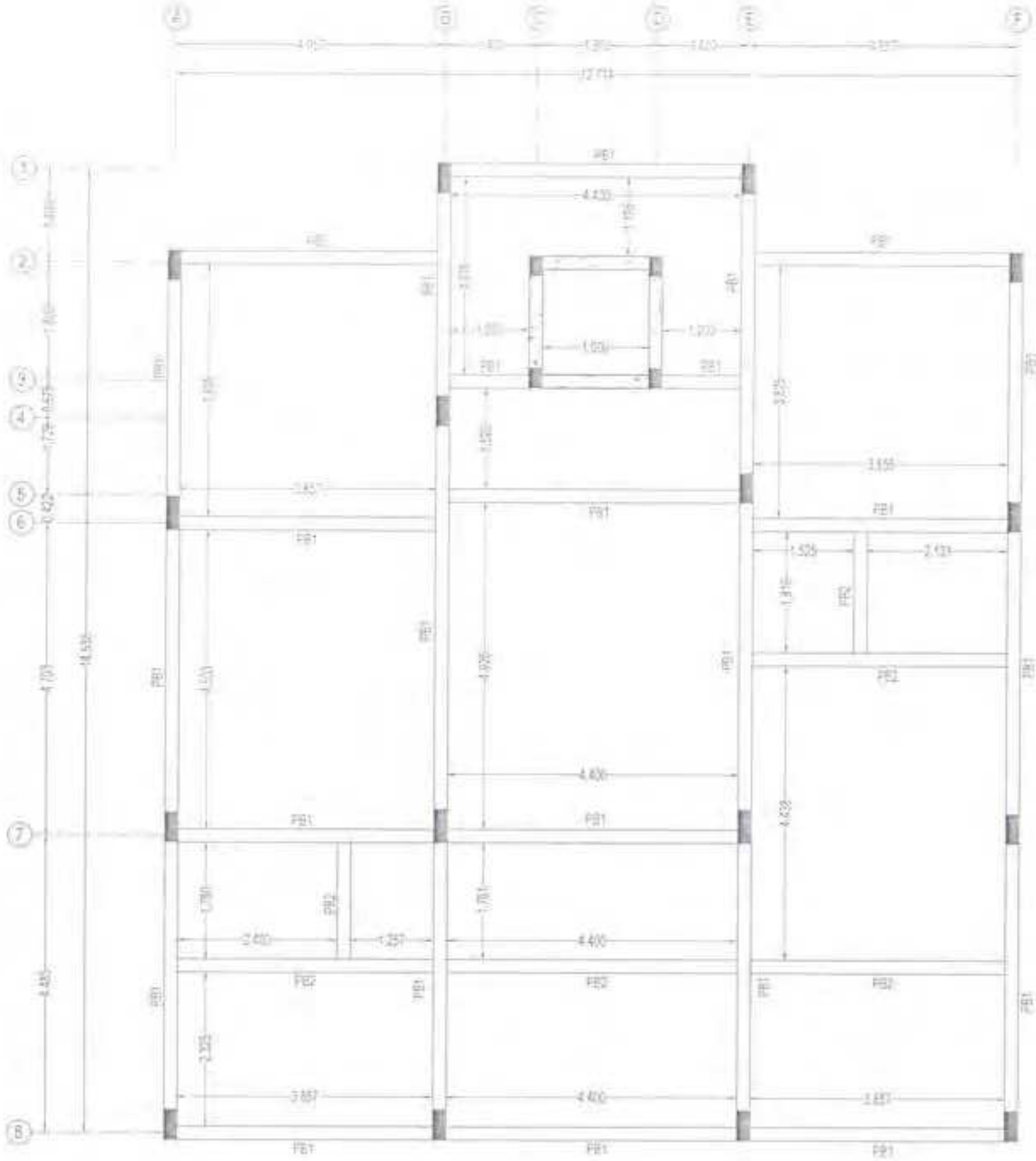
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TIE BEAM (TB) REINFORCEMENT DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/04/2026	ST-2026-06-03	07



PLINTH BEAM(PB) LAYOUT

TOP OF PLINTH BEAM AT +0.150m LVL



PB1 - 300 X 500
C/S DETAILS



PB2 - 300 X 500
C/S DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CHE-3)

LEGENDS

PB - PLINTH BEAM

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

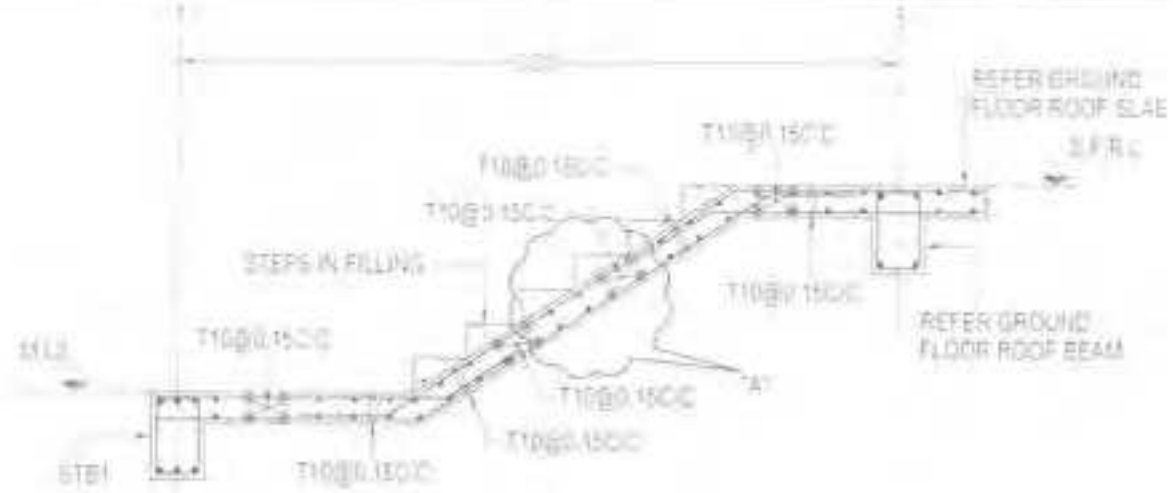
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

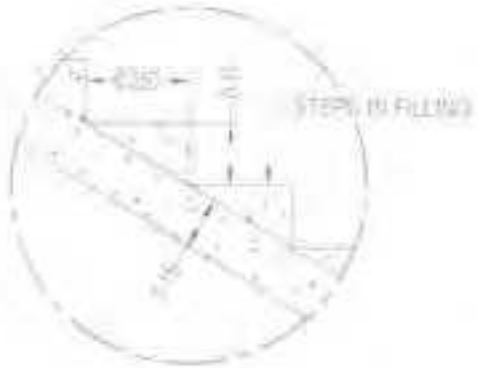
DRAWING NAME

PLINTH BEAM(PB) LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	08



SECTION - 3 - 3

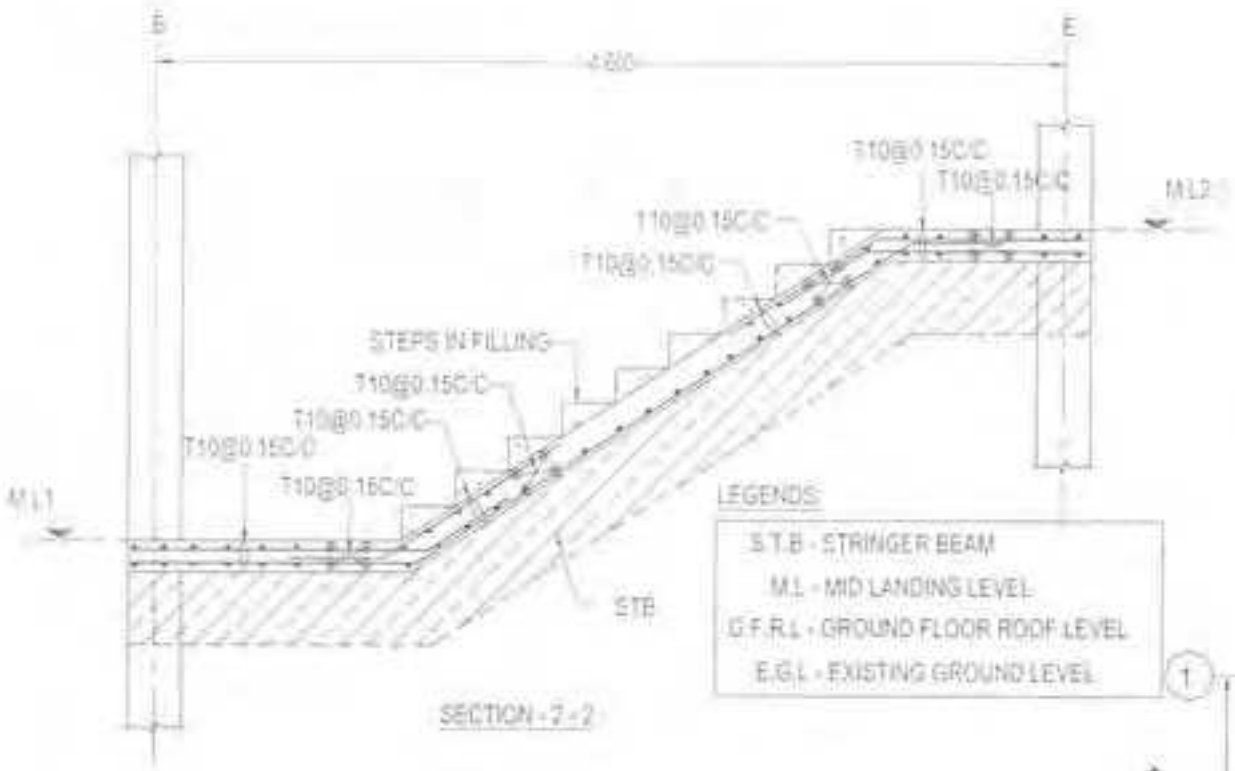


DETAIL 'A'

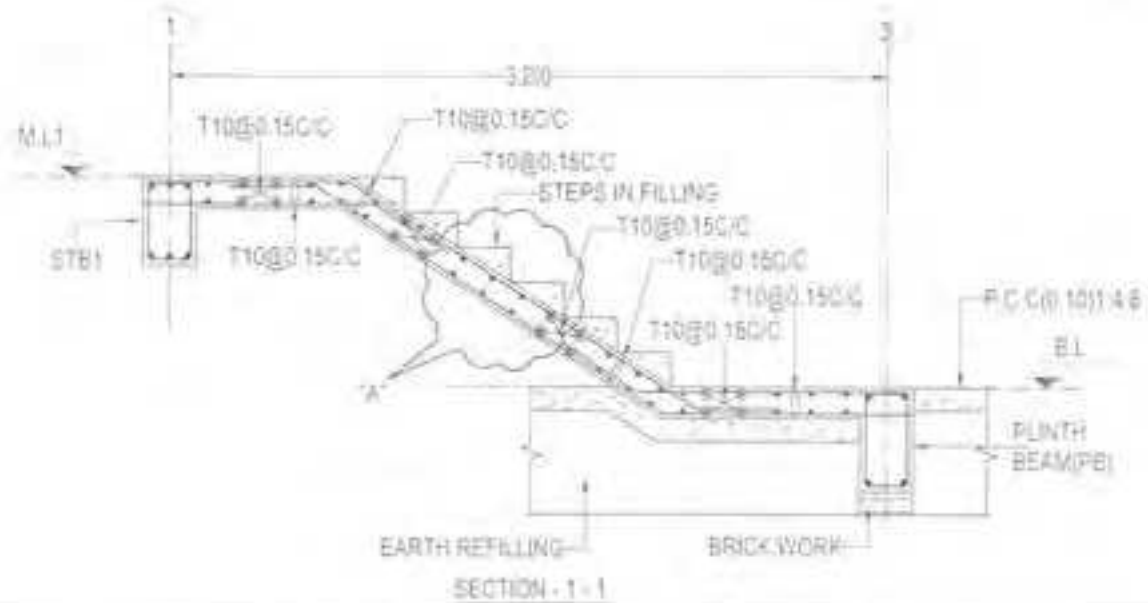


STE - 0.230 X 0.450
C.S DETAILS

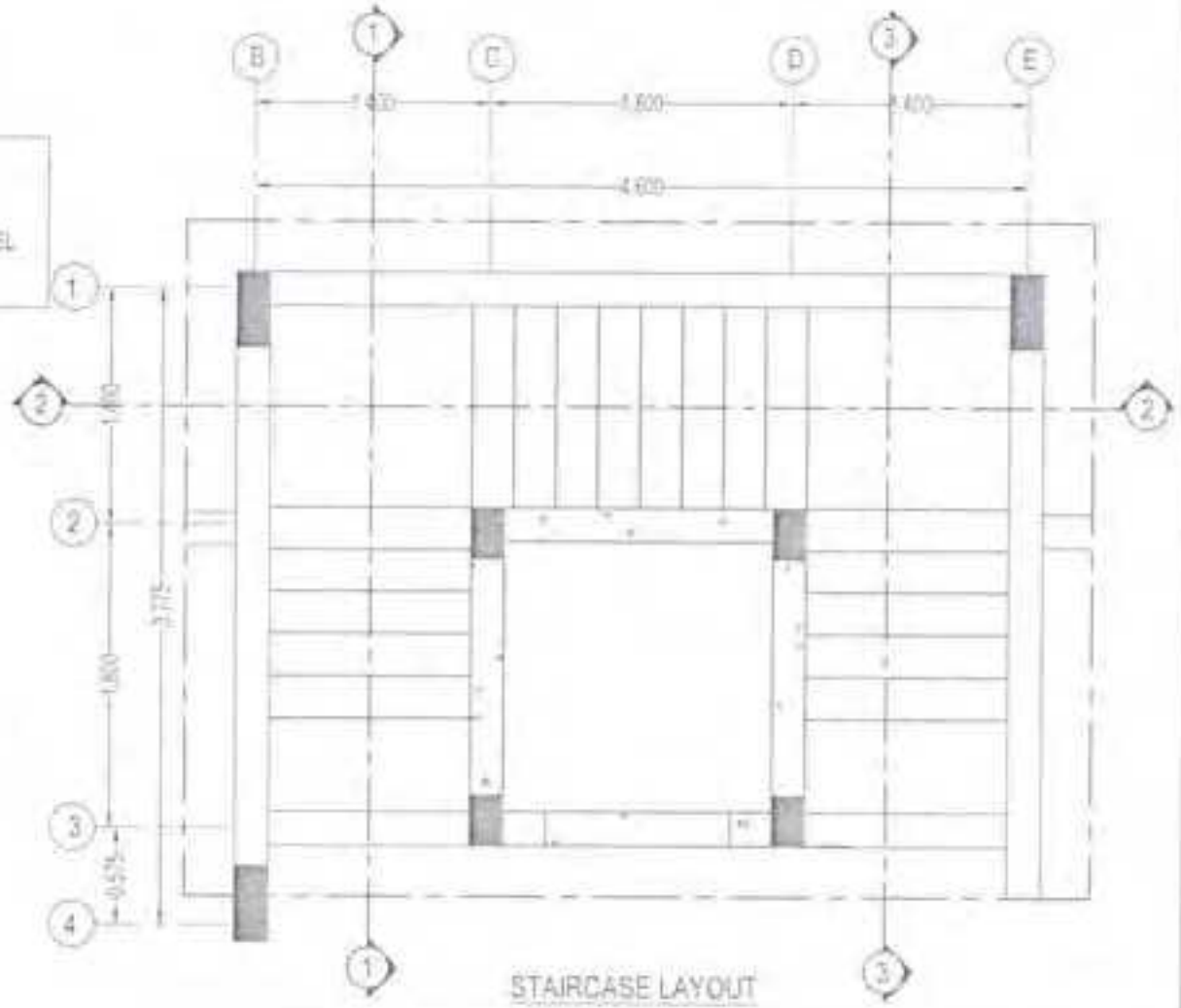
** FOOT STEPS & LEVELS REFER LATEST ARCHITECTURAL DRAWING



SECTION - 2 - 2



SECTION - 1 - 1



STAIRCASE LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19112/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS :

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

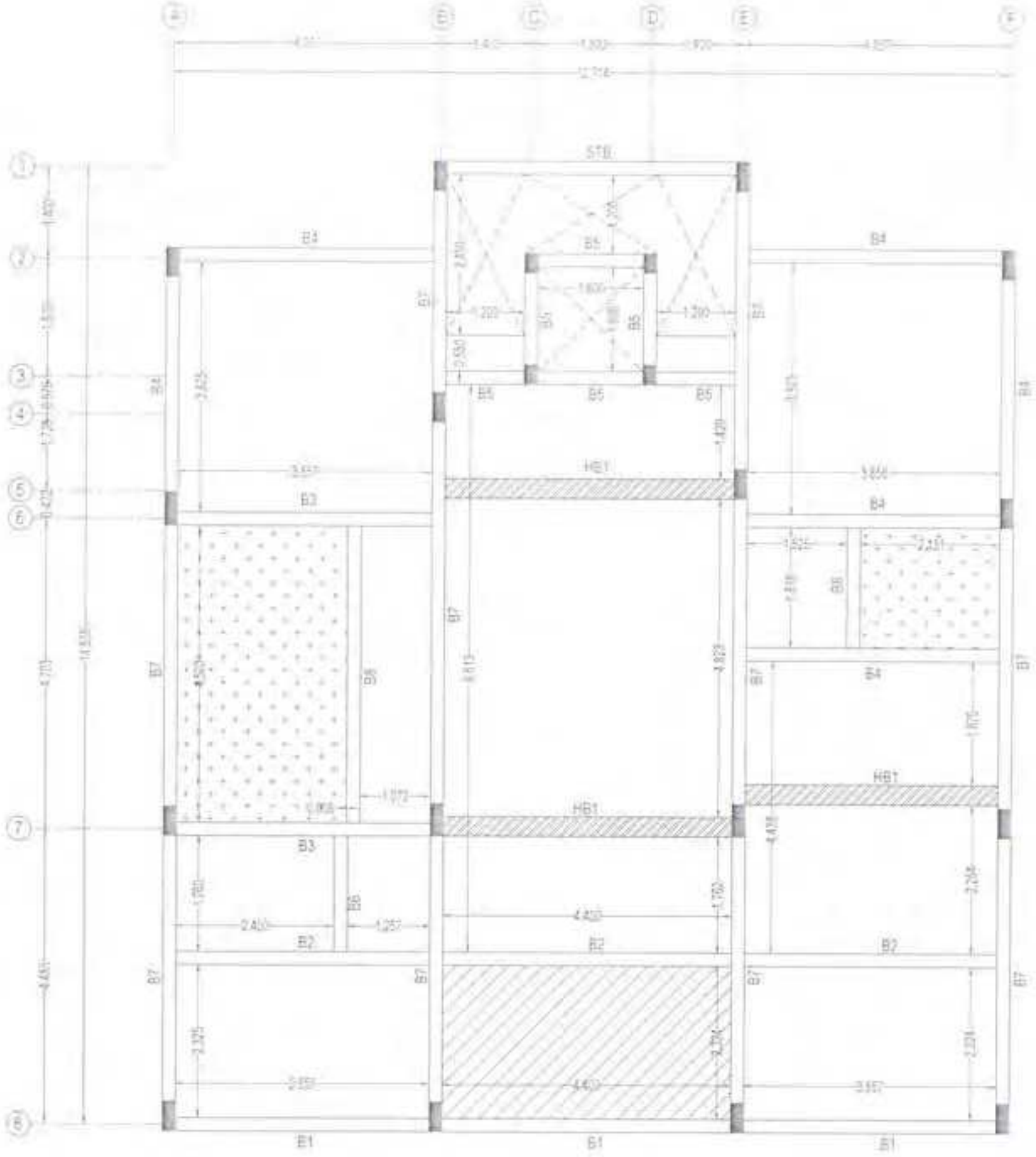
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

STAIRCASE LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	08A



GROUND FLOOR ROOF BEAM LAYOUT

TECHNICAL NOTES

- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- SHALL CONFORM TO IS 456:2000.
- ALL DIMENSIONS SHALL BE VERIFIED AT SITE BEFORE CASTING.
- ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING.
- CONCRETE GRADE FOR VARIOUS ELEMENTS:
  - a. COLUMN : M30
  - b. FOOTING : M30
  - c. SLAB & BEAM : M30
  - d. FOOTING : M30
  - e. SUMP : M30
- THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR
  - (1) THE REQUIRED SAFE CAPACITY OF SOIL GIVEN BY THE CONTRACTOR AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM THE SAFE CAPACITY BY CONDUCTING NECESSARY TESTS.
- LOCAL BUILDING BYE LAWS SHALL BE FOLLOWED FOR ALL PURPOSES.
- THE DEPTH OF BEAM SHALL BE INCLUDING THE SLAB THICKNESS.

LAP JOINTS FOR REINFORCEMENT BARS

- LAP JOINTS SHALL BE ONLY IN THE CENTRE THIRD OF THE SPAN OF THE BARS SHALL BE STAGGERED.
- LAPS IN TENSION SHALL BE PROVIDED AT THE MIDDLE OF FLOOR AND NOT AT SUPPORTS.
- LAPS IN REINFORCEMENT SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Regn. No - SE/GR-1/19/12/231 (CMDA)

LEGENDS:
- [ST] - TOILET SUNKEN
- [HB] - HB - HIDDEN BEAM
- [OP] - OPENING

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY
Safe

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM LAYOUT

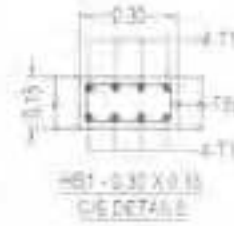
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	09

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE B X D	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	2-T12(C) T8@0.125CC 2-T12(C) 2-T16(C)	2-T12(C) T8@0.125CC 2-T12(C) 2-T16(C)	2-T12(C) T8@0.125CC 2-T12(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C) 2-T16(C) T8@0.125CC 2-T16(E) 2-T16(C)	2-T16(C) 2-T16(C) T8@0.125CC 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T8@0.125CC 2-T16(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C) 2-T12(C) T10@0.110CC 2-T16(C) 2-T16(C)	2-T16(C) 2-T12(C) T10@0.100CC 2-T16(C) 2-T16(C)	2-T16(C) 2-T12(C) T10@0.110CC 2-T16(C) 2-T16(C)	
B4	T8@0.150CC 2-T12(C) 2-T16(C)	T8@0.150CC 2-T12(C) 2-T16(C)	T8@0.150CC 2-T12(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C) T8@0.150CC 2-T16(C)	2-T16(C) T8@0.150CC 2-T16(C)	2-T16(C) T8@0.150CC 2-T16(C)	
B5				
(0.23 X 0.45)	2-T12(C) T8@0.150CC 2-T16(C)	2-T12(C) T8@0.150CC 2-T16(C)	2-T12(C) T8@0.150CC 2-T16(C)	
B6				
(0.20 X 0.50)	2-T16(C) 2-T16(C) T10@0.150CC 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150CC 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150CC 2-T16(C) 2-T16(C)	
B7				

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE B X D	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B8	T8@0.150CC 2-T16(C) 2-T16(C)	T8@0.150CC 2-T16(C) 2-T16(C)	T8@0.150CC 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C) T8@0.150CC 2-T16(C)	2-T16(C) T8@0.150CC 2-T16(C)	2-T16(C) T8@0.150CC 2-T16(C)	
STR				



HB1 - 0.30 X 0.15
C/E DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (CHOLA)



TYPICAL TOILET SUNKEN SLAB DETAILS

LEGEND:
HB- HIDDEN BEAM
C - CONTINUOUS ROD
E - EXTRA ROD

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. READ WITH ALL RELEVANT ARCHITECTURAL DRAWINGS.
3. ALL CONCRETE WORKS SHALL CONFORM TO IS 456:2000.
4. CONCRETE GRADE:
   - FOOTING : M30
   - COLUMN : M30
   - GRADE BEAM : M30
   - FLOOR BEAM : M30
   - FLOOR SLAB : M30
5. ALL REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO GRADE Fe 500 OF IS 1786:2008.
6. CONCRETE MIX DESIGN SHALL BE APPROVED BEFORE CASTING THE WORKS.
7. ALL DIMENSIONS SHALL BE VERIFIED AT SITE BEFORE CASTING THE CONCRETE.

LAP JOINTS FOR REINFORCEMENT BARS

a) LAP LENGTH SHALL NOT BE LESS THAN 40 TIMES THE DIAMETER OF THE BARS.

b) NOT MORE THAN 50% OF THE REINFORCEMENT BARS SHALL BE LAPPED AT ANY ONE SECTION.

c) LAPS SHALL BE STAGGERED AND SHALL BE AVOIDED AT THE POINT OF MAXIMUM STRESS.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 4) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

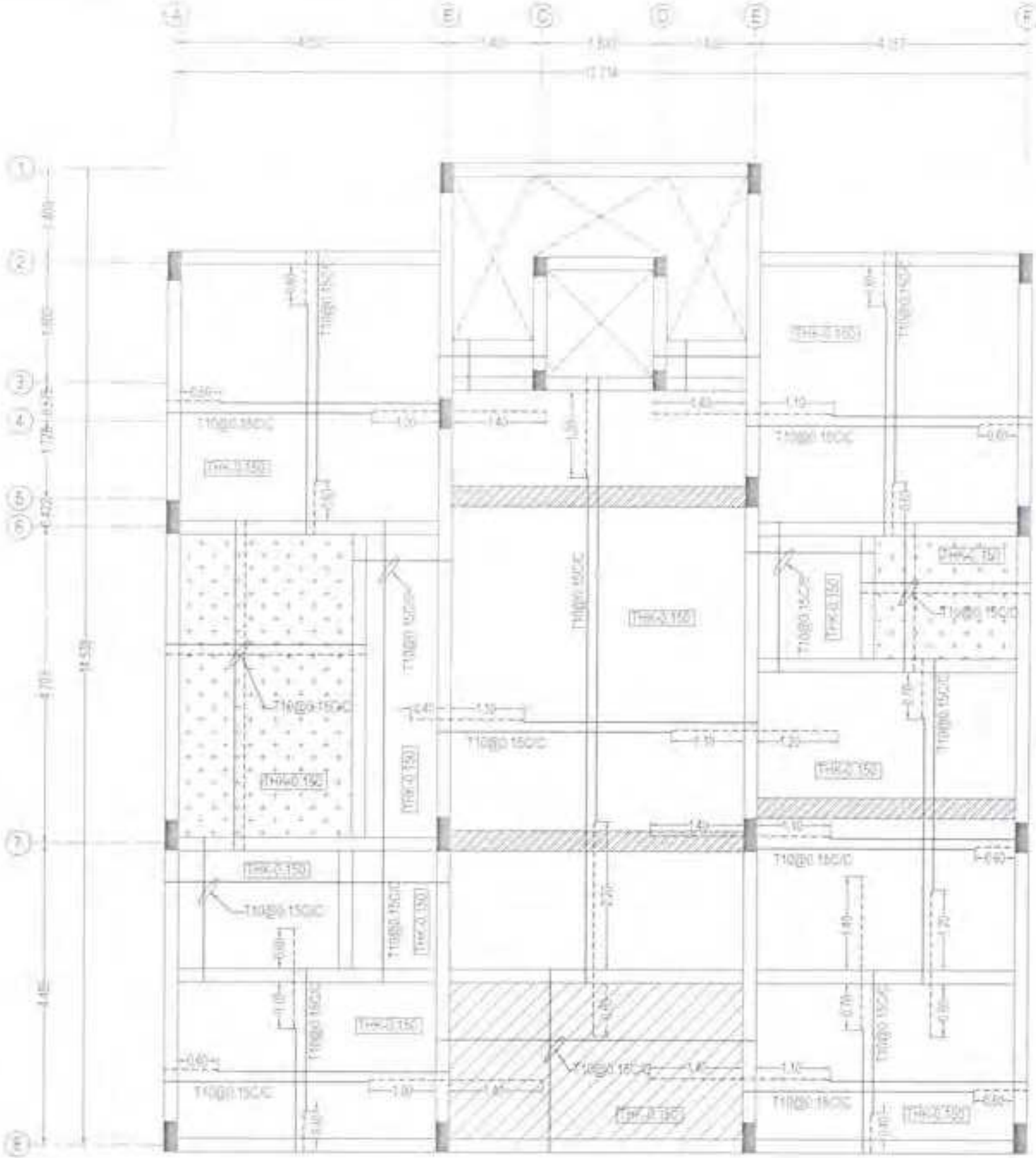
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-08-03	10



GROUND FLOOR ROOF SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231

LEGEND:
- - - - - TOP ROD
——— BOTTOM ROD
THK-THICKNESS

TECHNICAL NOTES

1. LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

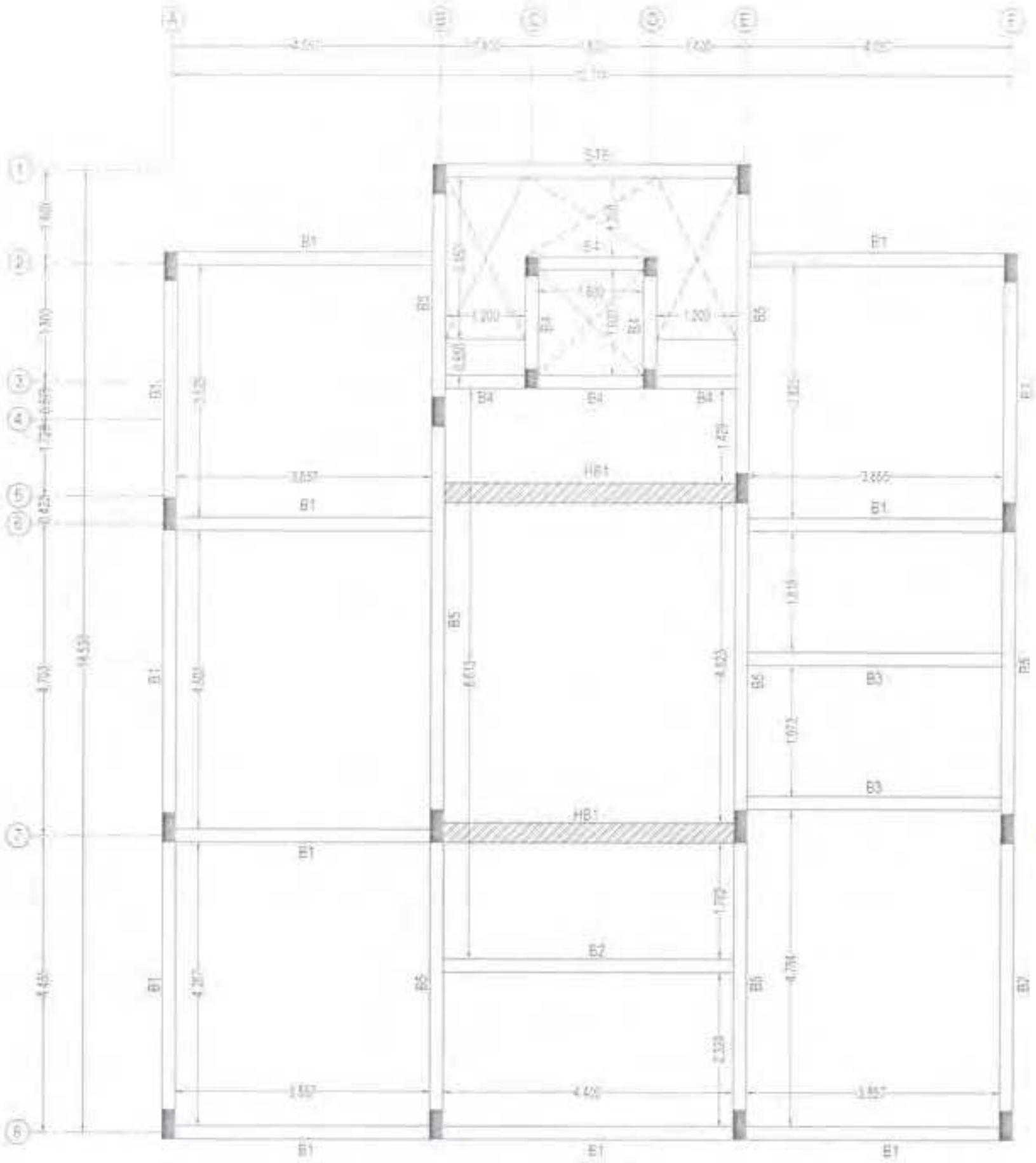
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

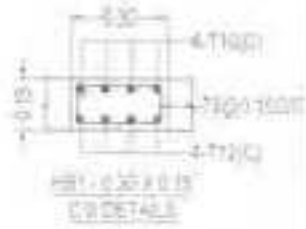
GROUND FLOOR ROOF SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-08-03	11



TERRACE BEAM LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (WS)
M.E (Structural Engg)
Reg. No - SE/GR-I/13/12/231 (CMDA)



LEGENDS
HB - HIDDEN BEAM
OPENING

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

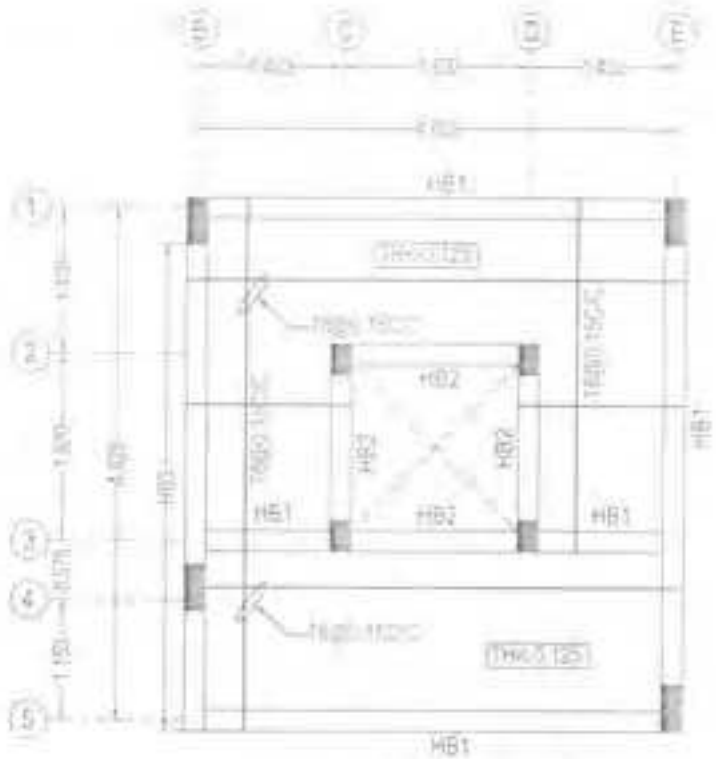
DRAWING NAME

TERRACE BEAM LAYOUT

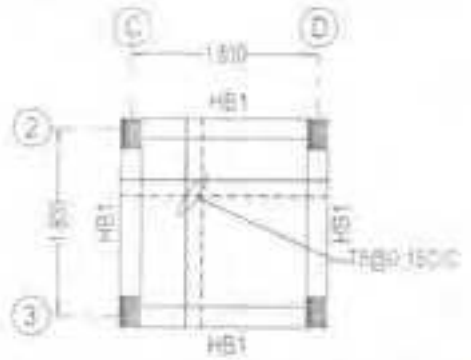
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	12

TERRACE BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	2-T12(C) T8@0.150C/C 2-T12(C) 2-T16(C)	2-T12(C) T8@0.150C/C 2-T12(C) 2-T16(C)	2-T12(C) T8@0.150C/C 2-T12(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B2	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B3	T8@0.150C/C 2-T12(C) 2-T16(C)	T8@0.150C/C 2-T12(C) 2-T16(C)	T8@0.150C/C 2-T12(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B4	T8@0.150C/C 2-T12(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	
(0.20 X 0.50)	2-T16(C)	2-T16(C)	2-T16(C)	
B5	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	

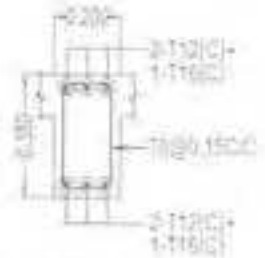


STAIRCASE HEADROOM LAYOUT & DETAILS

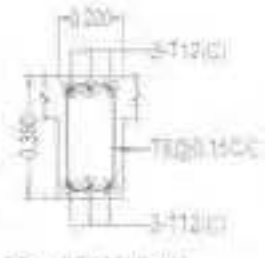


LIFT MACHINE ROOM LAYOUT & DETAILS

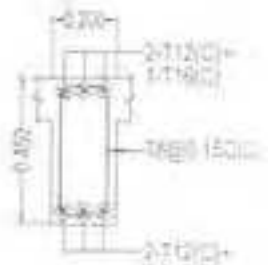
R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)



HB1 - 0.200 X 0.350
C/S DETAILS



HB2 - 0.200 X 0.350
C/S DETAILS



HB3 - 0.200 X 0.450
C/S DETAILS

LEGEND

HB - HIDDEN BEAM
C - CONTINUOUS ROD
E - EXTRA ROD

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

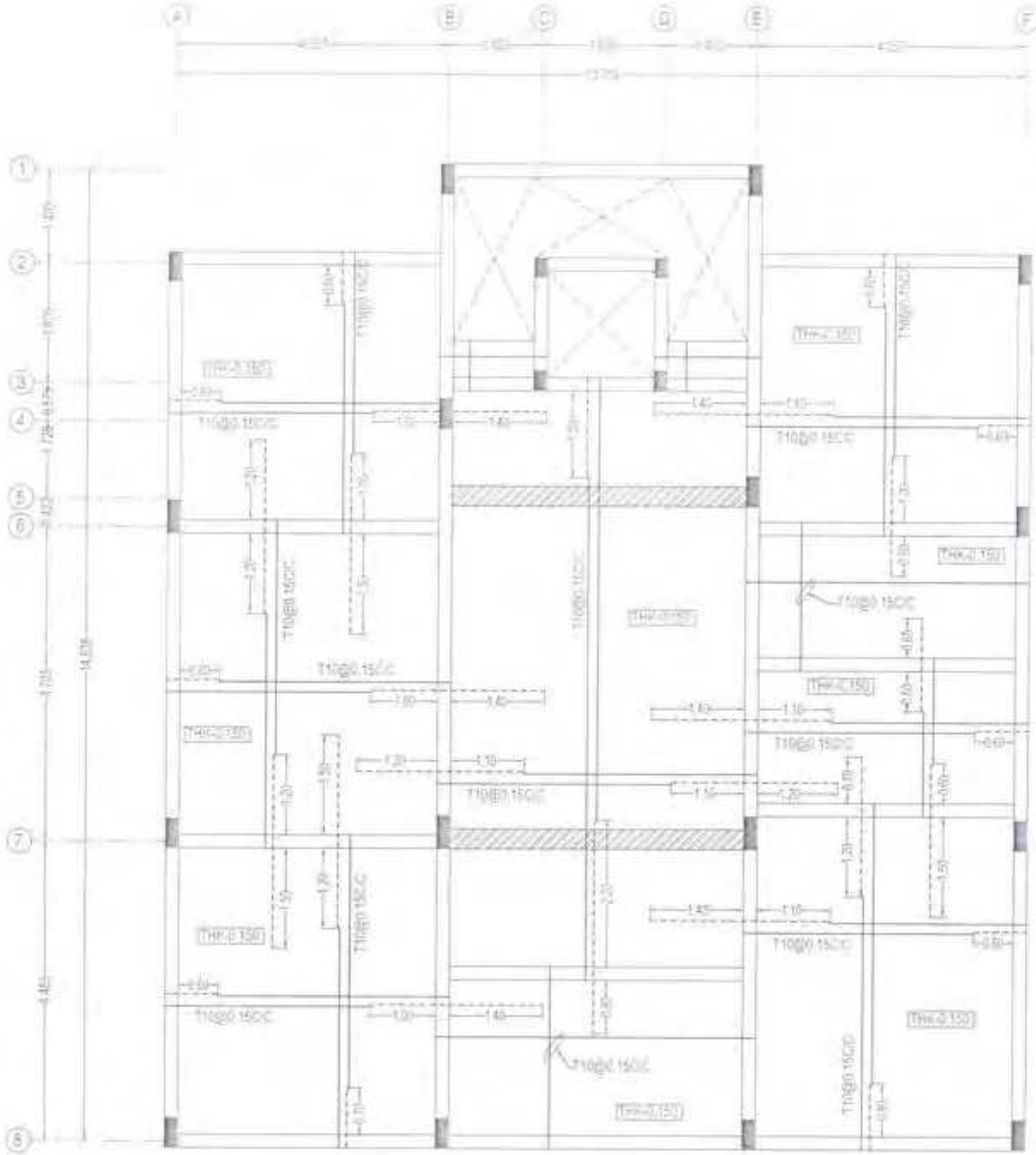
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/04/2026	ST-2026-06-03	13



TERRACE SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE -
M.E (Structural Engg)
Reg. No - SE\GR-1\19/12/231 (CIVIL)

LEGENDS:
TOP ROD
BOTTOM ROD
THK-THICKNESS

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE SPECIFIED.
2. READ WITH ALL RELEVANT ARCHITECTURAL AND STRUCTURAL DRAWINGS.
3. ALL CONCRETE WORKS SHALL BE CARRIED OUT AS PER IS 456:2000.
4. CONCRETE GRADE: M25 FOR ALL RCC ELEMENTS.
5. REINFORCEMENT: FE 500 GRADE TMT BARS CONFORMING TO IS 1786.
6. CLEAR COVER TO REINFORCEMENT:
   - SLABS: 20 mm
   - FOOTINGS: 50 mm
   - COLUMNS: 40 mm
   - BEAMS: 25 mm
   - RAFT: 75 mm
   - SUNKEN SLAB: 50 mm
7. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR SAFE BEARING CAPACITY OF SOIL AS PER THE RECOMMENDATIONS OF SOIL INVESTIGATION REPORT. THE CONTRACTOR IS RESPONSIBLE FOR LIFTING THE FOUNDATION DEPTH IN CONSULTATION WITH THE ENGINEER IF THE SAFE BEARING CAPACITY OF SOIL IS NOT ENCOUNTERED AT THE DESIGNED DEPTH.
8. CONCRETE SHALL BE PLACED CONTINUOUSLY WITHOUT CONSTRUCTION JOINTS.
9. THE BOTTOM OF BEAMS SHALL BE PLACED AT THE SAME LEVEL THROUGHOUT.

LAP JOINTS FOR REINFORCEMENT BARS:

1. AT ANY ONE SECTION OF THE FOUNDATION MORE THAN 50% OF THE BARS SHALL BE LAPPED.
2. LAPS IN COLUMNS SHALL BE PROVIDED AT BEAM LEVEL OF FLOOR AND NOT AT FLOOR LEVEL.
3. LAPS IN SLABS AND PLATE BASES AT PROJECTIONS ARE PROHIBITED.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 4)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

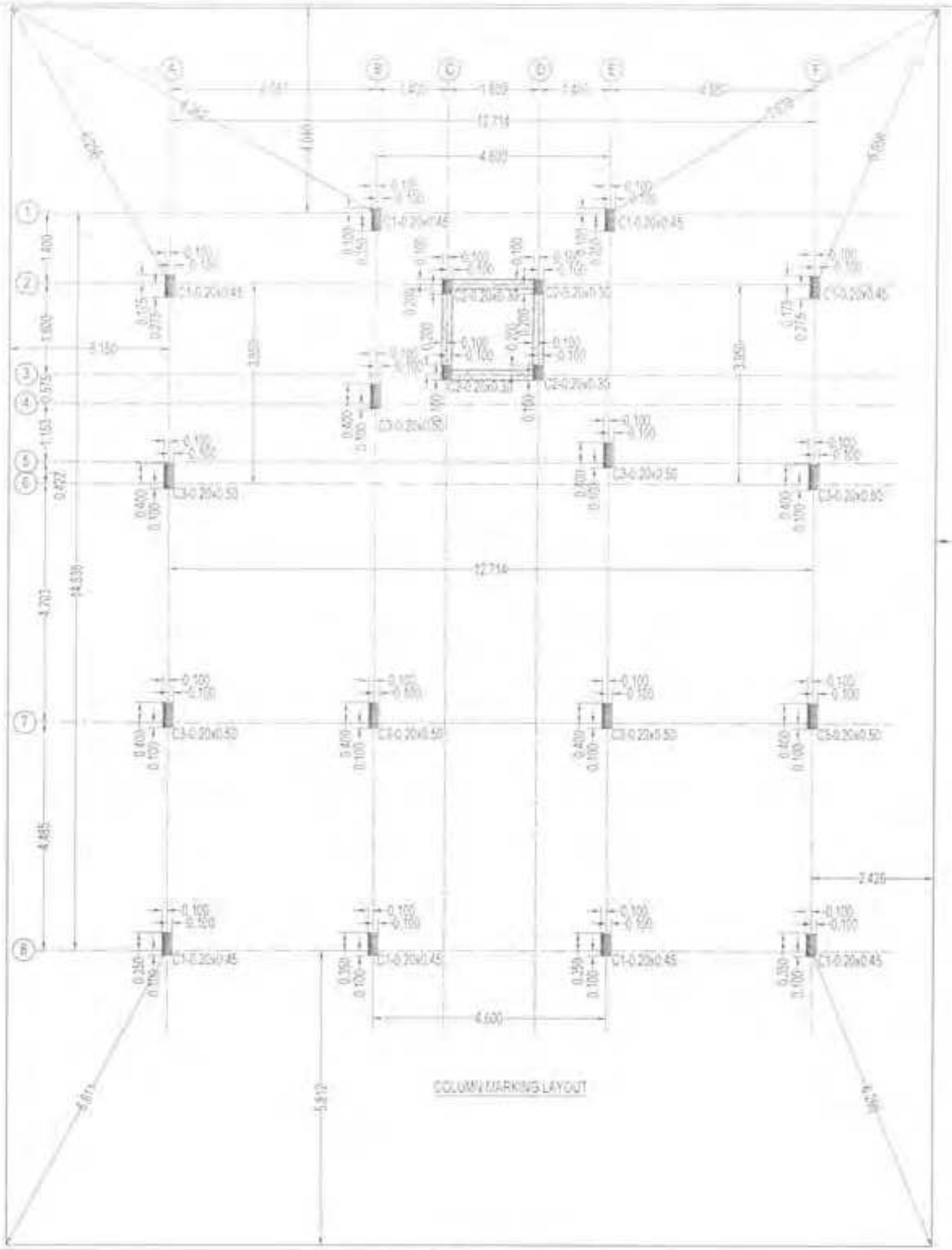
SAFE STRUCTURAL CONSULTANCY
Safe

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	14



TECHNICAL NOTES

- ALL DIMENSIONS ARE IN MILLIMETERS & ALL LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.
- DO NOT SCALE DRAWINGS.
- ALL DIMENSIONS SHALL BE VERIFIED AT SITE BEFORE COMMENCEMENT OF WORK & ANY DISCREPANCY SHALL BE REPORTED TO THE ARCHITECT IMMEDIATELY.
- ALL DIMENSIONS SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWINGS.
- ANY CHANGE IN DESIGN SHALL BE APPROVED BY THE STRUCTURAL CONSULTANT.
- ALL CONCRETE SHALL BE DESIGNED AS PER IS 456:2000.
- ALL CONCRETE SHALL ATTAIN A MINIMUM CHARACTERISTIC COMPRESSIVE STRENGTH AS SPECIFIED IN SCHEDULE.
- ALL REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO IS 1786:2008.
- CONCRETE COVER SHALL BE AS FOLLOWS:
  - COLUMNS : 40MM
  - RAFT FOUNDATION : 50MM
  - BEAMS : 25MM
  - SLABS : 20MM
  - FOOTINGS : 50MM
- ALL REINFORCEMENT SHALL BE FREE FROM RUST, OIL, GREASE, LOOSE MILL SCALE, LOOSE RUST & OTHER DELETERIOUS MATERIALS.
- ALL CONCRETE SHALL BE MECHANICALLY VIBRATED.
- CURING SHALL BE DONE FOR A MINIMUM PERIOD OF 7 DAYS FOR ORDINARY PORTLAND CEMENT & 10 DAYS FOR PPC.
- ALL CONCRETE SHALL BE MADE WITH READY MIX CONCRETE.

LAP JOINTS FOR REINFORCEMENT BARS

- LAP JOINTS SHALL BE PROVIDED FOR THE REINFORCEMENT AT LOCATIONS AS SHOWN IN THE DRAWINGS. LAP JOINTS SHALL NOT BE PROVIDED AT POINTS OF MAXIMUM STRESS.
- LAP JOINTS IN COLUMNS SHALL BE PROVIDED AT MID HEIGHT OF FLOOR AND NOT AT FLOOR LEVEL.
- LAPS IN BEAMS AND SLABS SHALL BE PROVIDED AT THE NEAR 1/3RD OF CONCRETE SPAN.

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (C)

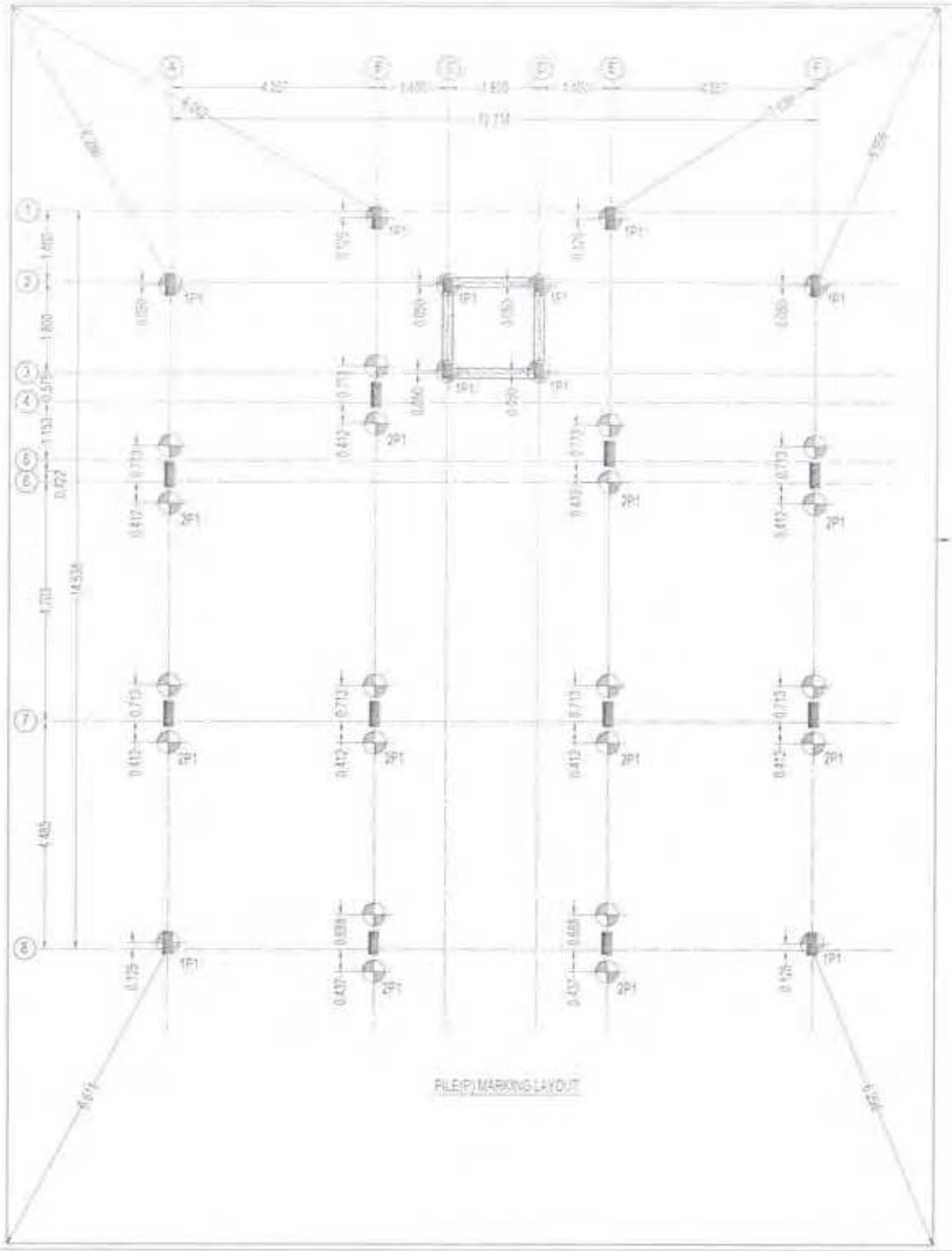
LEGENDS
C - COLUMN

CLIENT	
PROJECT	PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT EGR, CHENNAI.
ARCHITECT	ADITYARAM GROUP
STRUCTURAL CONSULTANT	SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME: COLUMN MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	01



TECHNICAL NOTES

AP JOINTS FOR REINFORCEMENT BARS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGENDS

P - PILE(1'-6" dia)

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

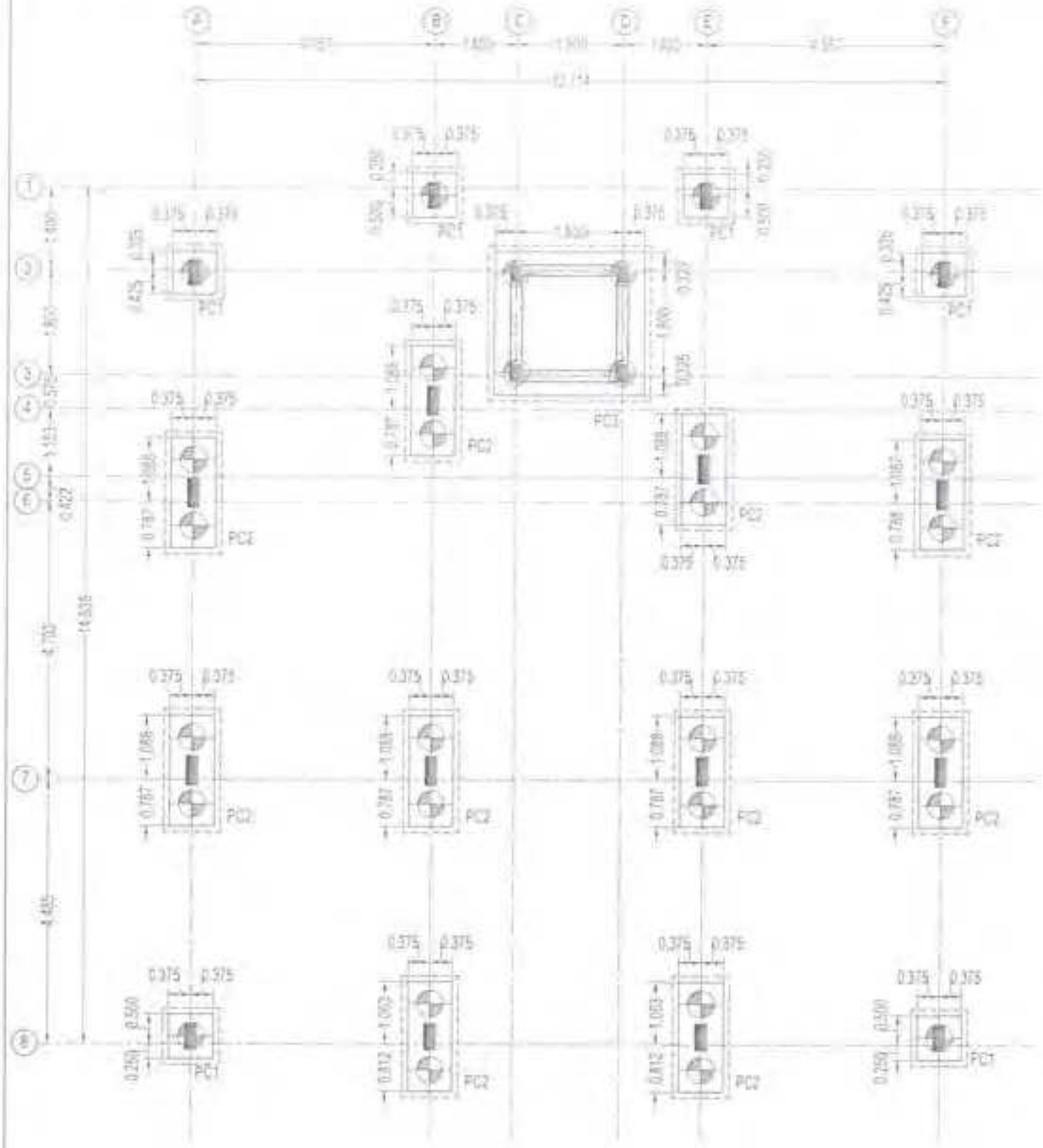
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE(P) MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	02



PILE CAP(PC) MARKING LAYOUT

LEGENDS

PC - PILE CAP

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE
M E (Structural Engg)
Reg. No - SE/GR-1/13/12/231 (CMDA)

TECHNICAL NOTES

AF JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 5)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

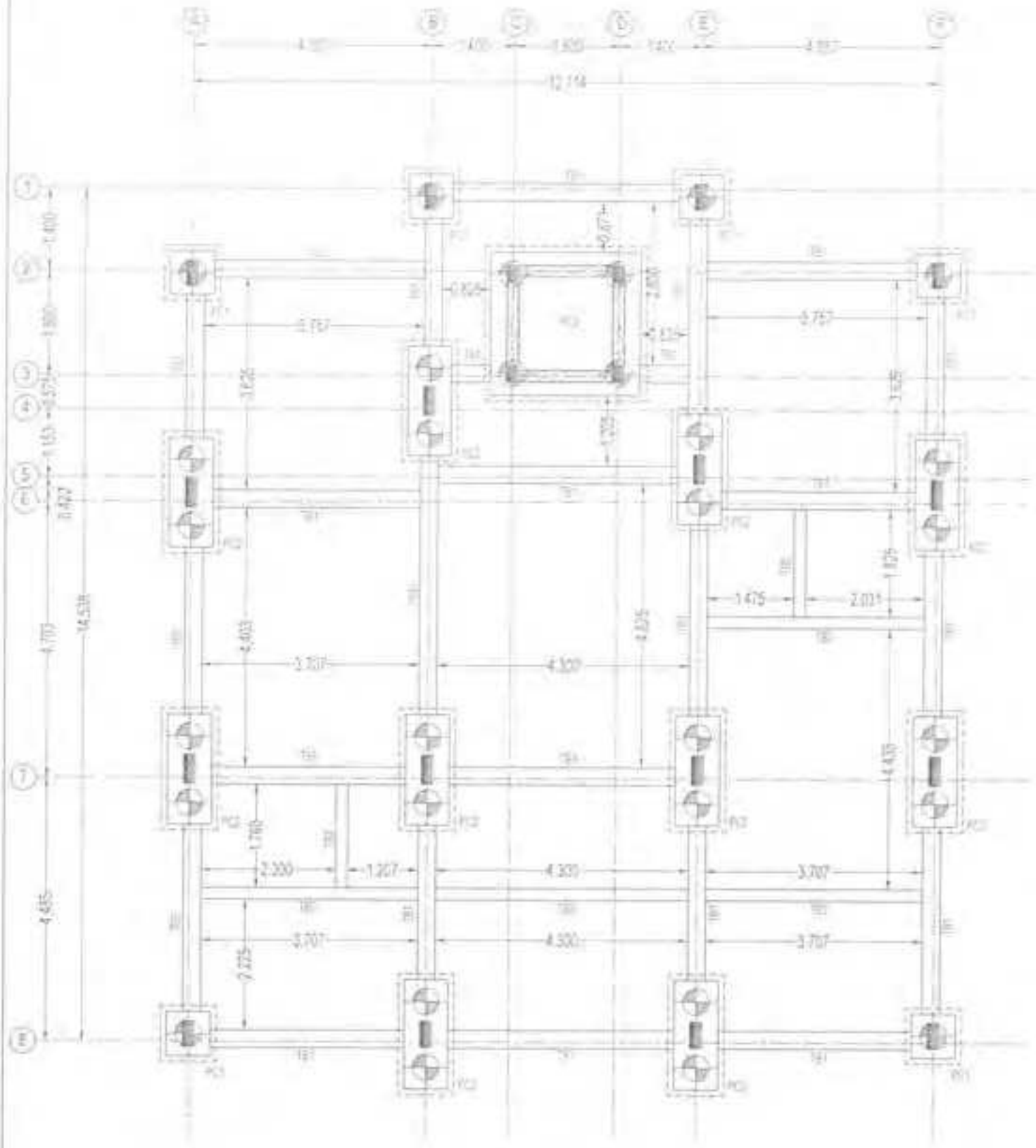
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	03



LEGENDS

TB - TIE BEAM

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (COMEN)

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETER & ELEVATIONS IN METER UNLESS OTHERWISE SPECIFIED.
2. DO NOT SCALE DRAWINGS.
3. ANY DISCREPANCIES NOTED IN THE DRAWINGS SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT & STRUCTURAL CONSULTANT BEFORE EXECUTION OF WORKS.
4. ALL DIMENSIONS SHALL BE CHECKED AT SITE BEFORE EXECUTION OF WORKS. ANY DISCREPANCIES SHALL BE BROUGHT TO THE NOTICE OF THE ARCHITECT & STRUCTURAL CONSULTANT.
5. ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE TO BE CHECKED WITH ARCHITECTURAL DRAWINGS.
6. ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE TO BE CHECKED WITH ARCHITECTURAL DRAWINGS.
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19. ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE TO BE CHECKED WITH ARCHITECTURAL DRAWINGS.
20. ALL DIMENSIONS SHOWN ON STRUCTURAL DRAWINGS ARE TO BE CHECKED WITH ARCHITECTURAL DRAWINGS.

LAP JOINTS FOR REINFORCEMENT BARS

1. ALL LAP JOINTS SHALL BE STAGGERED AS PER IS456:2000. THE LAP JOINTS SHALL BE LOCATED AT THE MIDDLE THIRD OF THE SPAN.
2. LAP JOINTS SHALL BE PROVIDED AT THE MIDDLE THIRD OF THE SPAN.
3. LAP JOINTS SHALL BE PROVIDED AT THE MIDDLE THIRD OF THE SPAN.
4. LAP JOINTS SHALL BE PROVIDED AT THE MIDDLE THIRD OF THE SPAN.
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9. LAP JOINTS SHALL BE PROVIDED AT THE MIDDLE THIRD OF THE SPAN.
10. LAP JOINTS SHALL BE PROVIDED AT THE MIDDLE THIRD OF THE SPAN.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

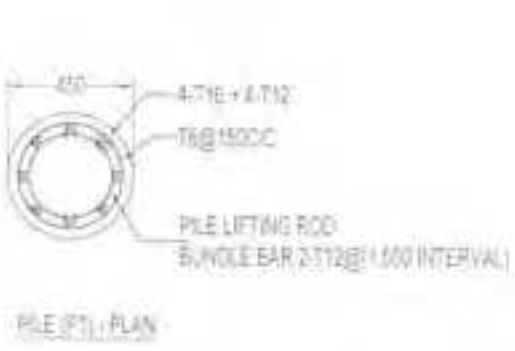
DRAWING NAME

GRADE BEAM(GB) LAYOUT

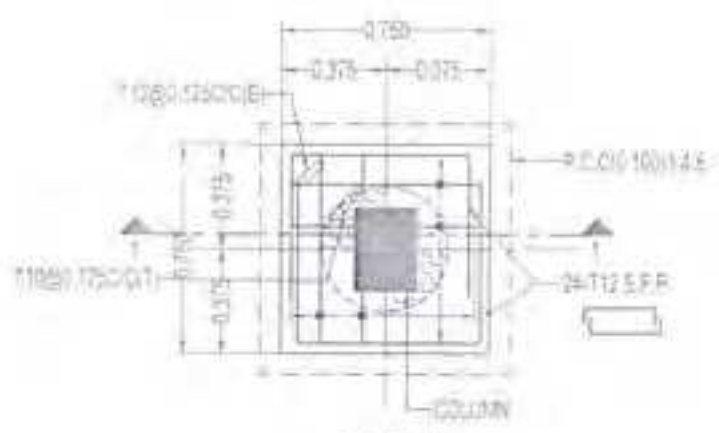
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2020	ST-2020-05-04	04

COLUMN REINFORCEMENT SCHEDULE

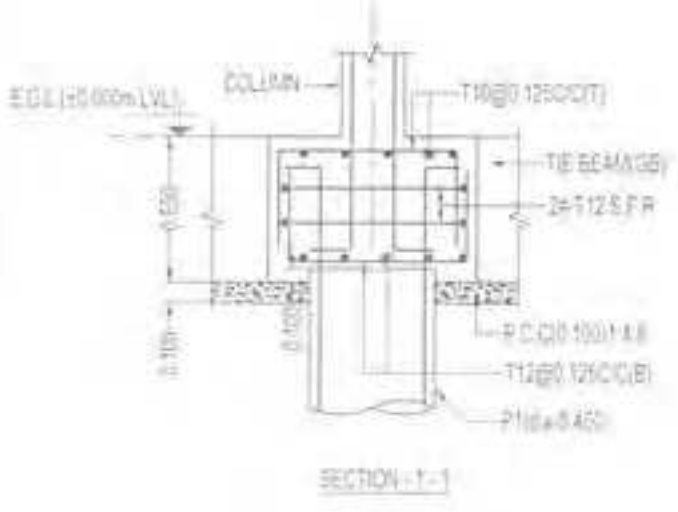
TERRACE LEVEL			
TO	H=T8@150C/C	H=T8@150C/C	H=T8@150C/C
	H=T8@150C/C	H=T8@150C/C	H=T8@150C/C
FOOTING SIZE (M) @ T16 @ T12	0.450, 0.700	0.300, 0.700	0.500, 0.700
	6-T16	4-T16 + 2-T12	10-T16
COLUMN MARKED	C1	C2	C3



PILE (PT) - PLAN



PC1 - PLAN



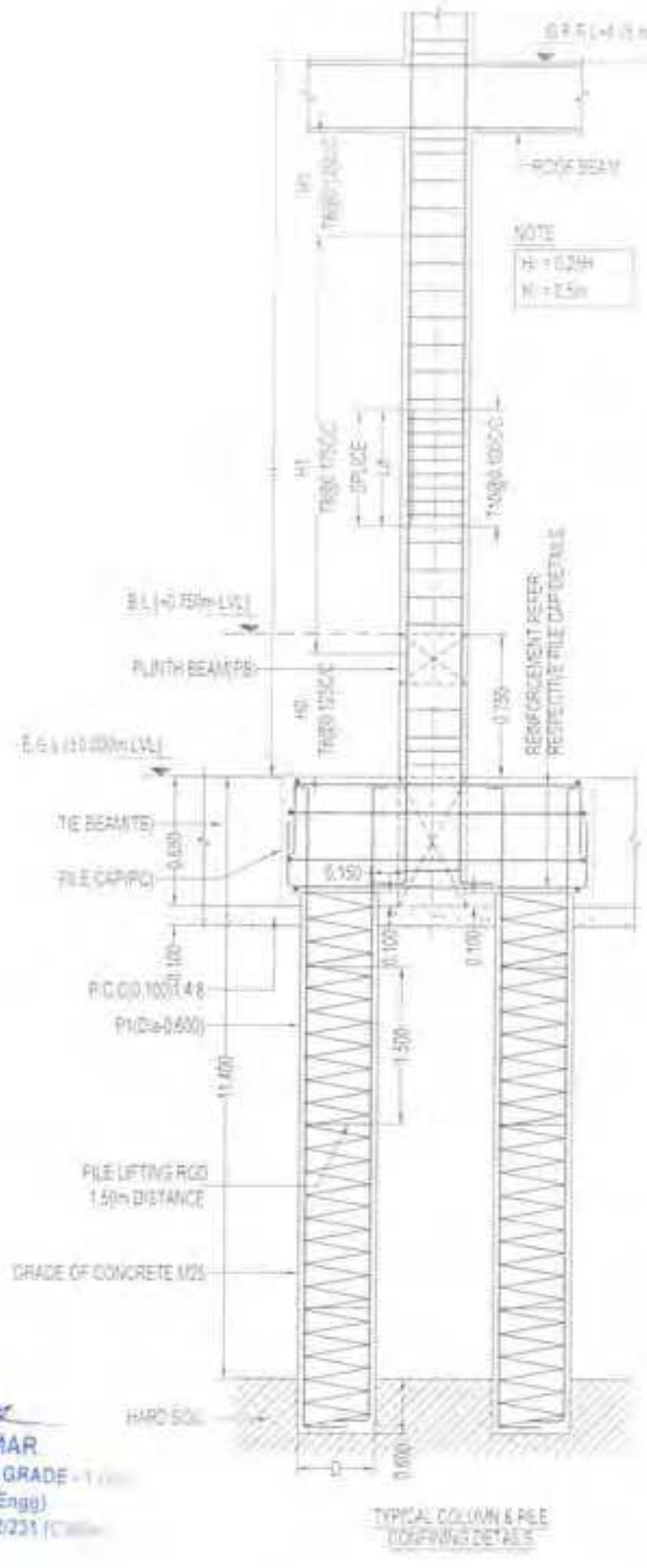
SECTION - 1 - 1

** S.F.R - SIDE FACE REINFORCEMENT

LEGENDS

B.L - BASEMENT LEVEL
G.F.R.L - GROUND FLOOR ROOF LEVEL
E.G.L - EXISTING GROUND LEVEL

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231



TYPICAL COLUMN & PILE CONFIRMED DETAILS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

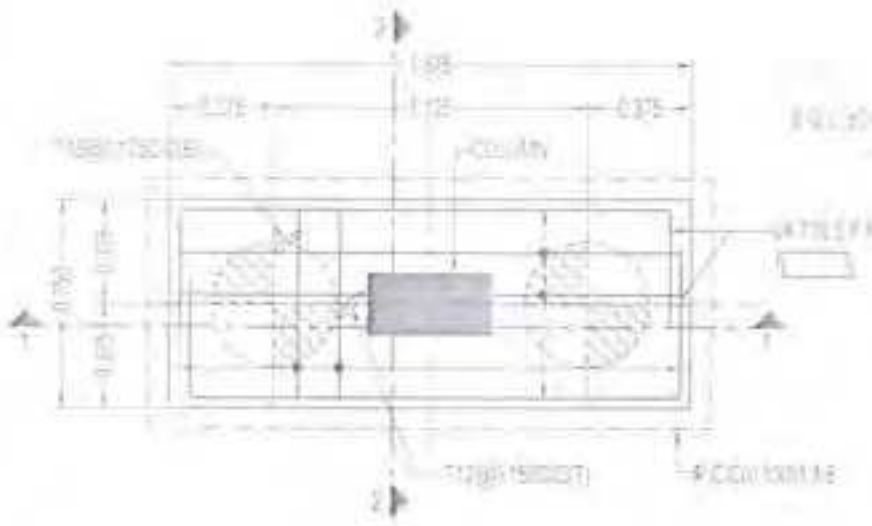
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

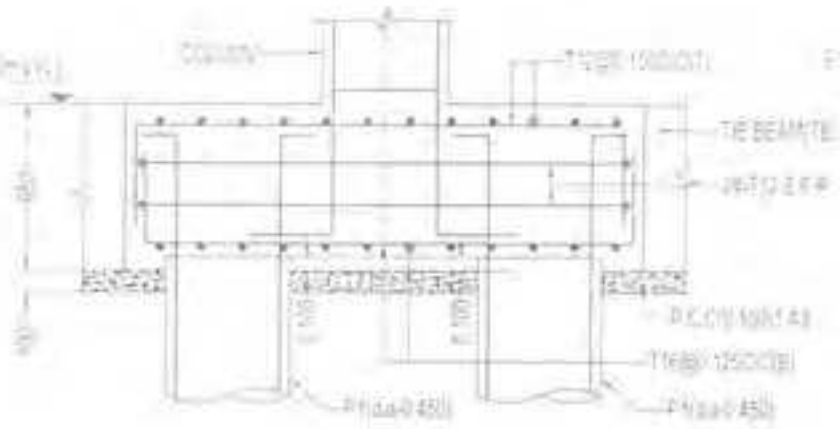
DRAWING NAME

COLUMN , PILE & PILE CAP DETAILS

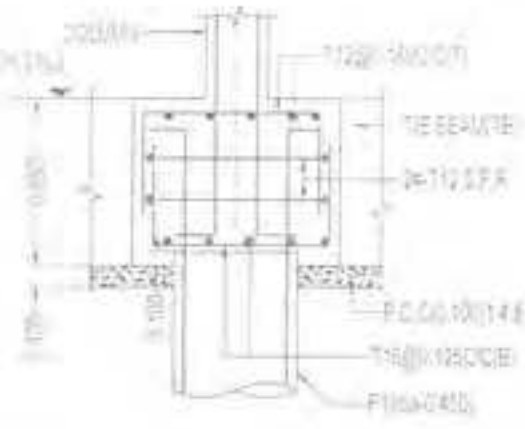
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	05



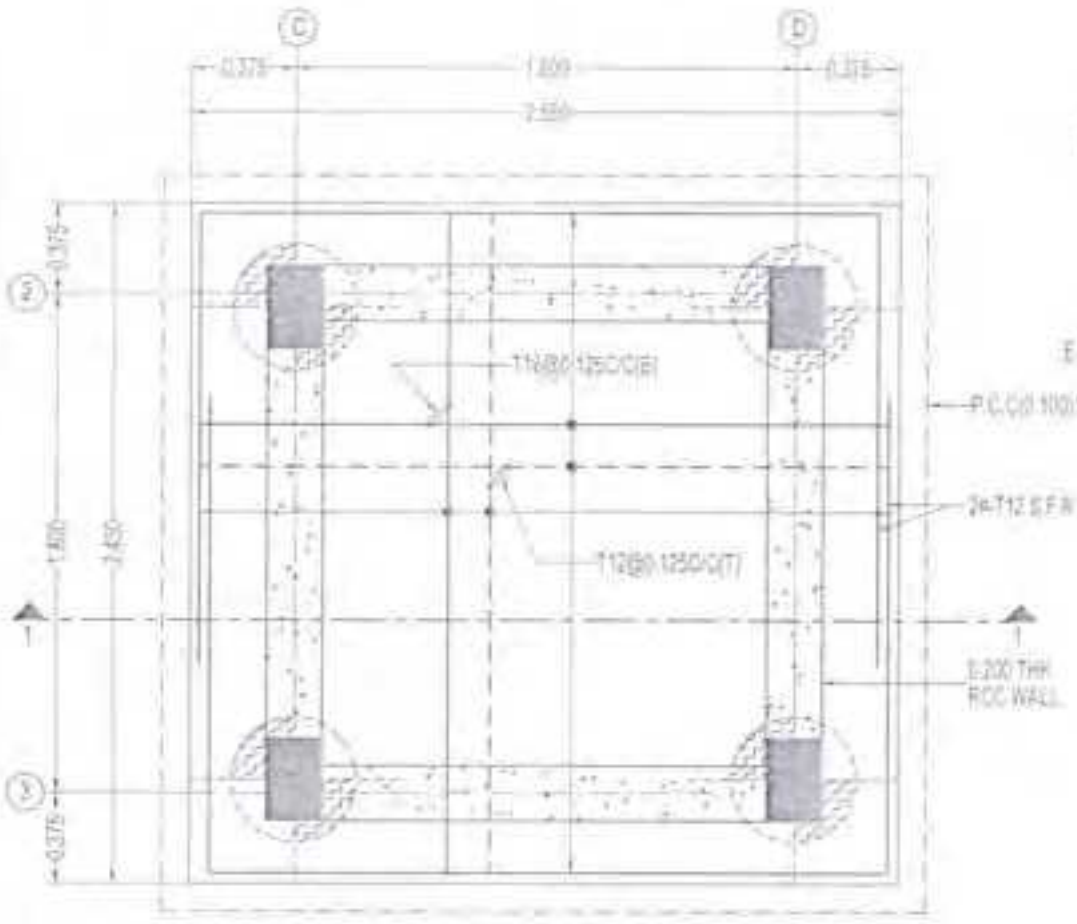
PC2 - PLAN



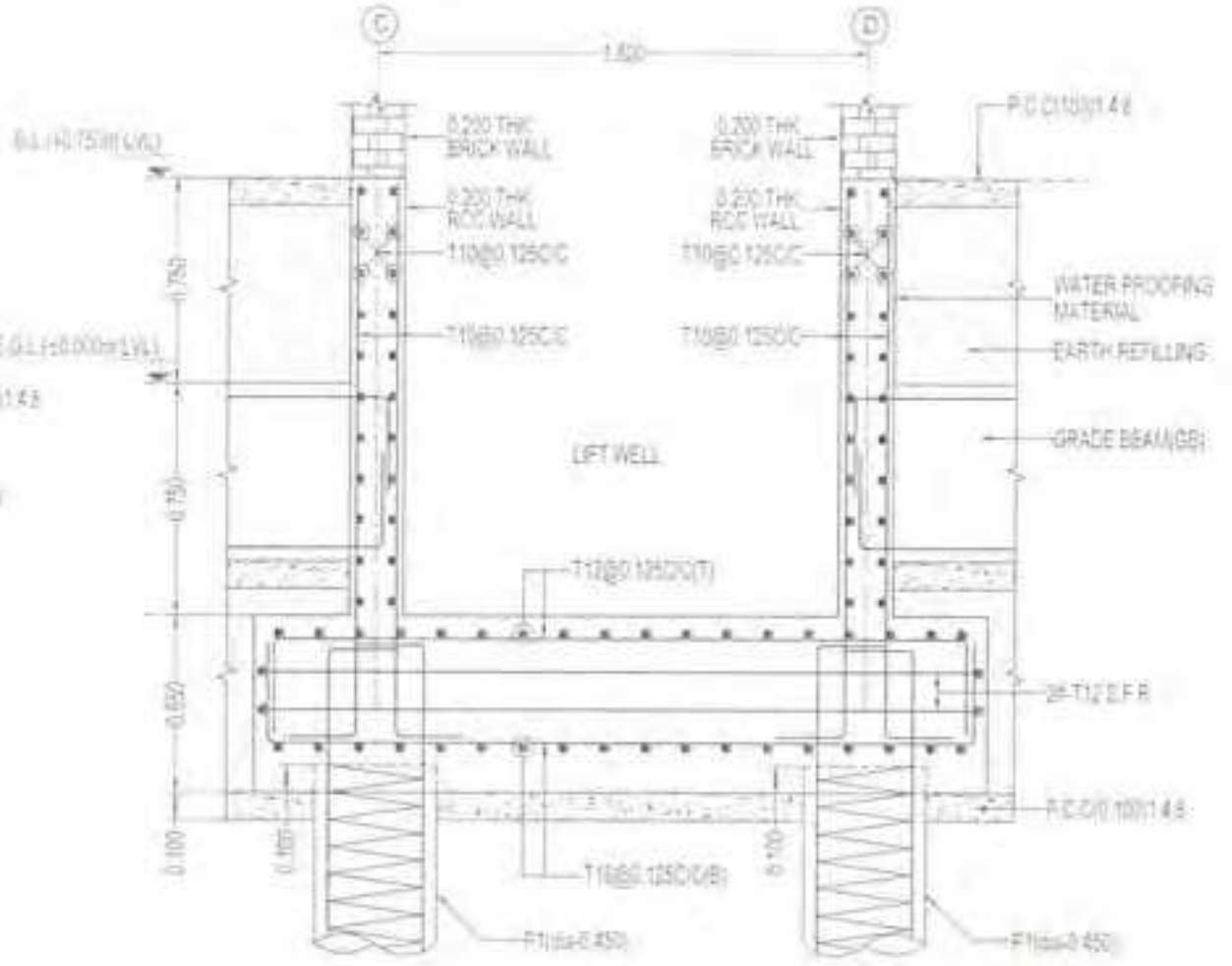
SECTION - 1 - 1



SECTION - 2 - 2



PC3 - PLAN
LIFT PIT DETAILS



SECTION - 1 - 1
LIFT WELL DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/15/12/231 (Chennai)

TECHNICAL NOTES

- ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
- ALL REINFORCEMENT DETAILS SHALL BE AS PER IS 456:2000.
- THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AT SITE BEFORE COMMENCING ANY WORK.
- ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
- THE GRADE OF CONCRETE USED SHALL BE AS FOLLOWS:
  - COLUMNS : M40
  - FOUNDATIONS : M40
  - SLABS : M40
  - BEAMS : M40
  - FLOOR FILL : M40
  - FLOOR SLAB : M40
- THE SLAB SHALL BE DESIGNED AS PER IS 456:2000 FOR LIVE LOAD AND DEAD LOAD AS PER IS 875 (PART 1 & 2) RESPECTIVELY.
- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY STATUTORY CLEARANCES BEFORE COMMENCEMENT OF WORK.
- ALL CONCRETE SHALL BE DESIGNED AS PER IS 456:2000 UNLESS OTHERWISE NOTED.
- ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

LAP JOINTS FOR REINFORCEMENT BARS

- LAP LENGTH SHALL BE PROVIDED AS PER IS 456:2000 CLAUSE 26.2.5.1.
- LAPS SHALL NOT BE PROVIDED AT CRITICAL SECTIONS.
- LAPS SHALL BE STAGGERED AS PER IS 456:2000 CLAUSE 26.2.5.2.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

Safe

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

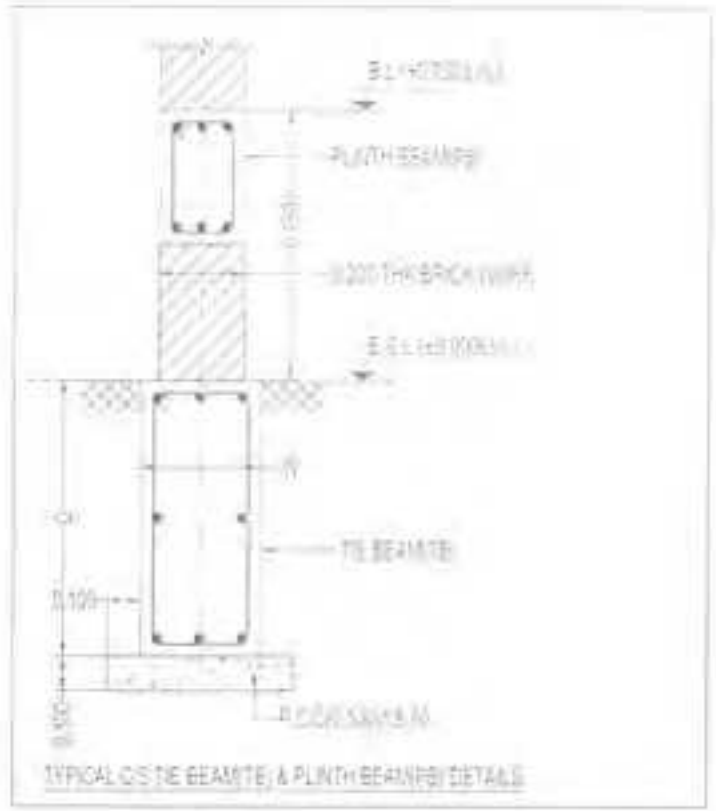
PILE CAP SECTION DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	06

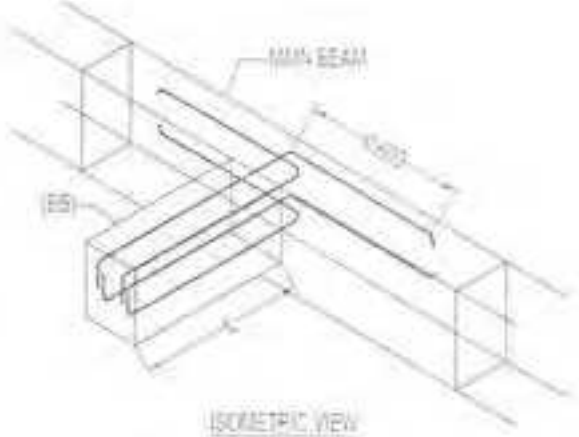
TIE BEAM (TB) REINFORCEMENT DETAILS

BEAM SIZE B X D	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(GROUND FLOOR)			
TB1	3-T16(C) T8@150 C/C 2-T12(C) E.F.R.E.F P.C.C 3-T16(C)	3-T16(C) T8@150 C/C 2-T12(C) E.F.R.E.F P.C.C 3-T16(C)	3-T16(C) T8@150 C/C 2-T12(C) E.F.R.E.F P.C.C 3-T16(C)
(PLINTH LEVEL)			
TB2	2-T16(C) T8@150 C/C 2-T12(C) E.F.R.E.F P.C.C 2-T16(C)	2-T16(C) T8@150 C/C 2-T12(C) E.F.R.E.F P.C.C 2-T16(C)	2-T16(C) T8@150 C/C 2-T12(C) E.F.R.E.F P.C.C 2-T16(C)

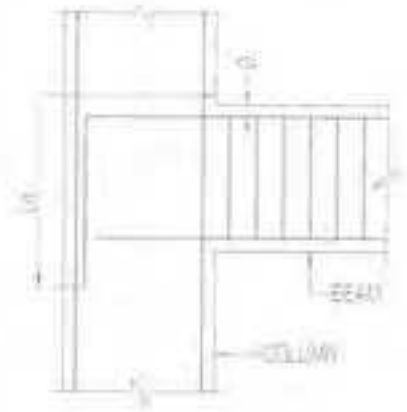
S.F.R - SIDE FACE REINFORCEMENT
E.F - EACH FACE



TYPICAL (G/S TIE BEAM(TB) & PLINTH BEAM(PB) DETAILS



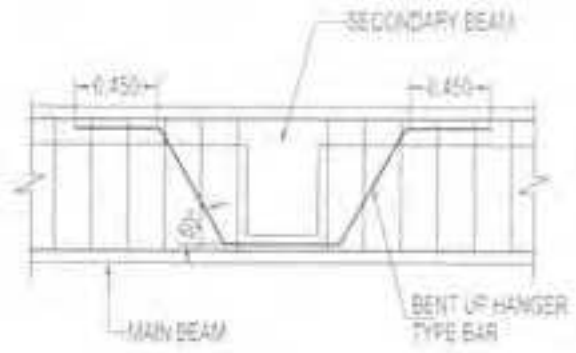
ISOMETRIC VIEW
OF (TYP) BRACKET BEAM REST ON BEAM DETAIL



TYPICAL ANCHORAGE OF BEAM
BARS IN AN EXTERNAL JOINT
** LAPS TAKES 0/4 OF BAR

LEGENDS

E.G.L - EXISTING GROUND LEVEL
T.B - TIE BEAM
P.B - PLINTH BEAM
B.L - BASEMENT LEVEL



WHERE CROSS BEAM, SHEAR ROD SHOULD BE
PROVIDED AT 2-T16

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (CHN/A)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 5)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

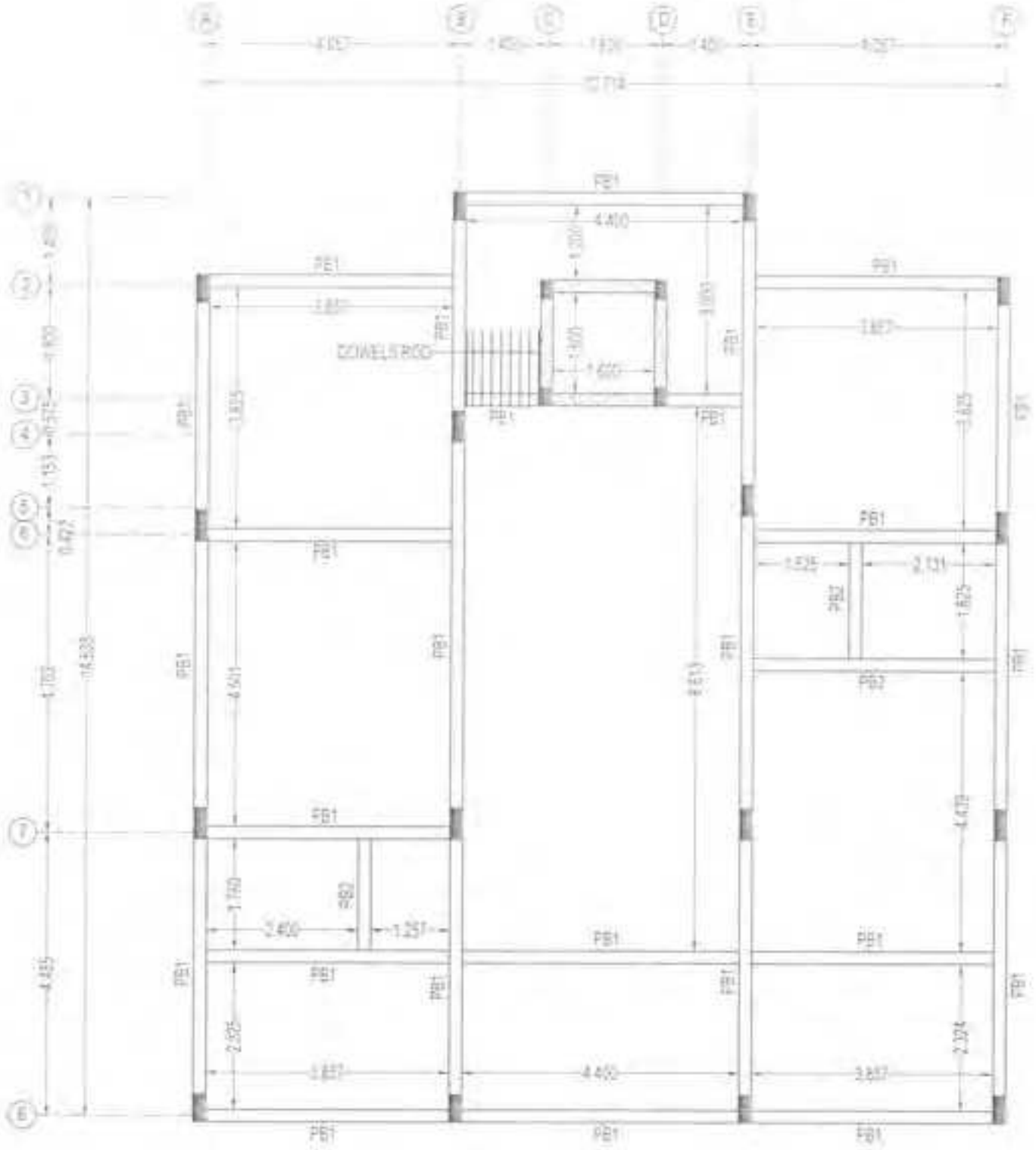
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

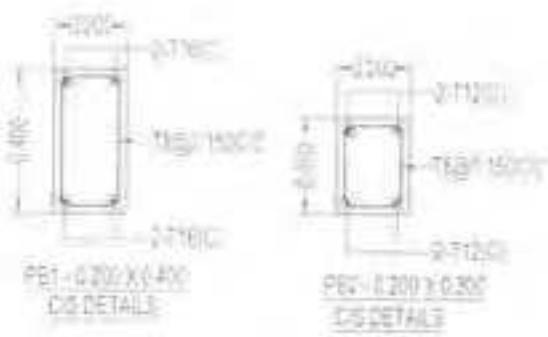
TIE BEAM (TB) REINFORCEMENT DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-05-04	07



PLINTH BEAM(PB) LAYOUT

TOP OF PLINTH BEAM AT +0.750m LVL



LEGENDS

PB - PLINTH BEAM

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No : SE/GR-1/19/12231

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 5)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

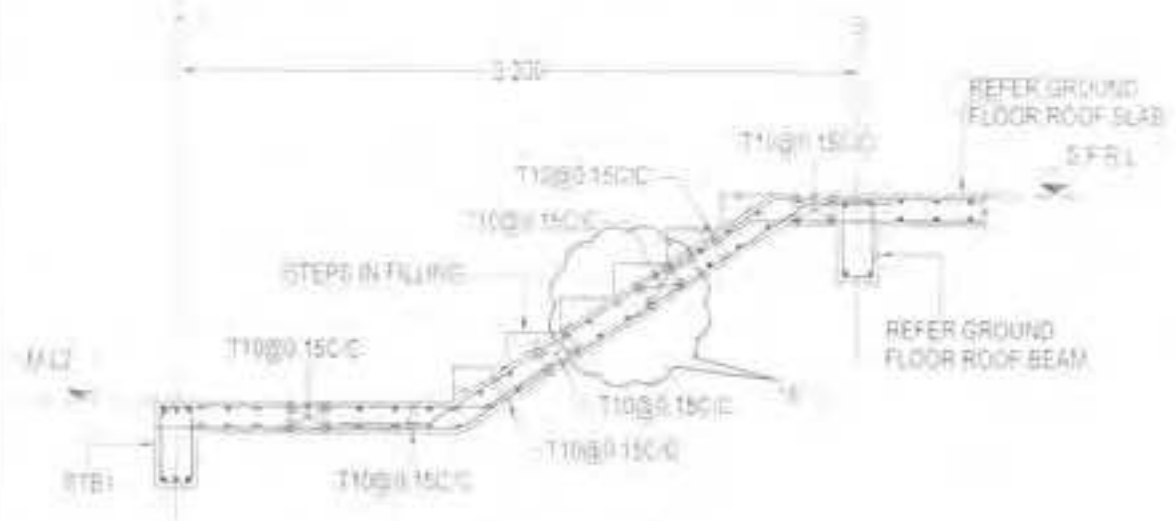
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

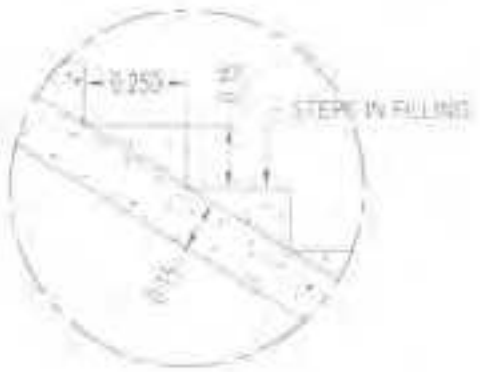
DRAWING NAME

PLINTH BEAM(PB) LAYOUT & DETAILS

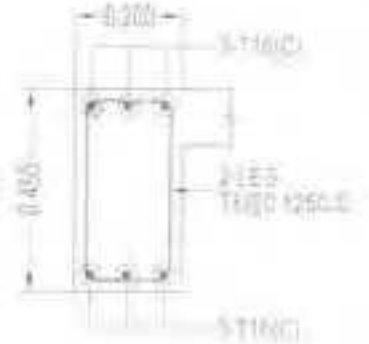
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	08



SECTION - 3 - 3

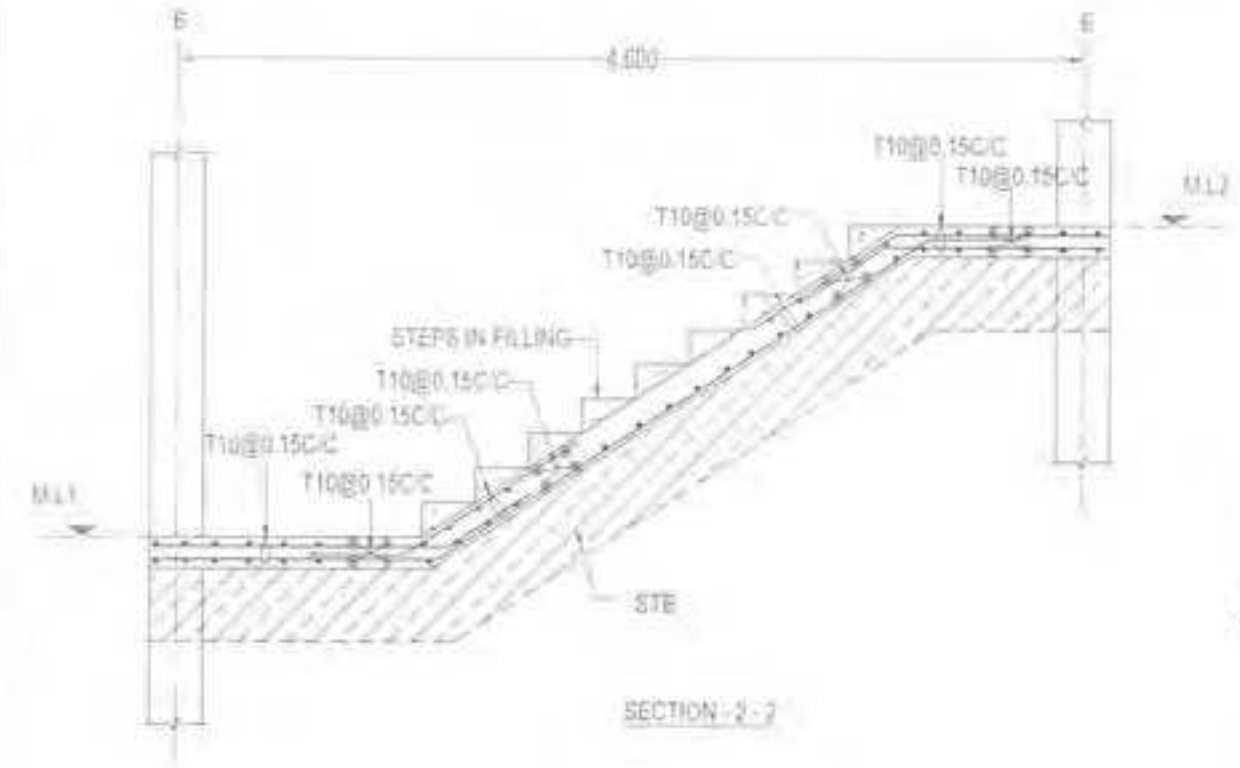


DETAIL - 'A'

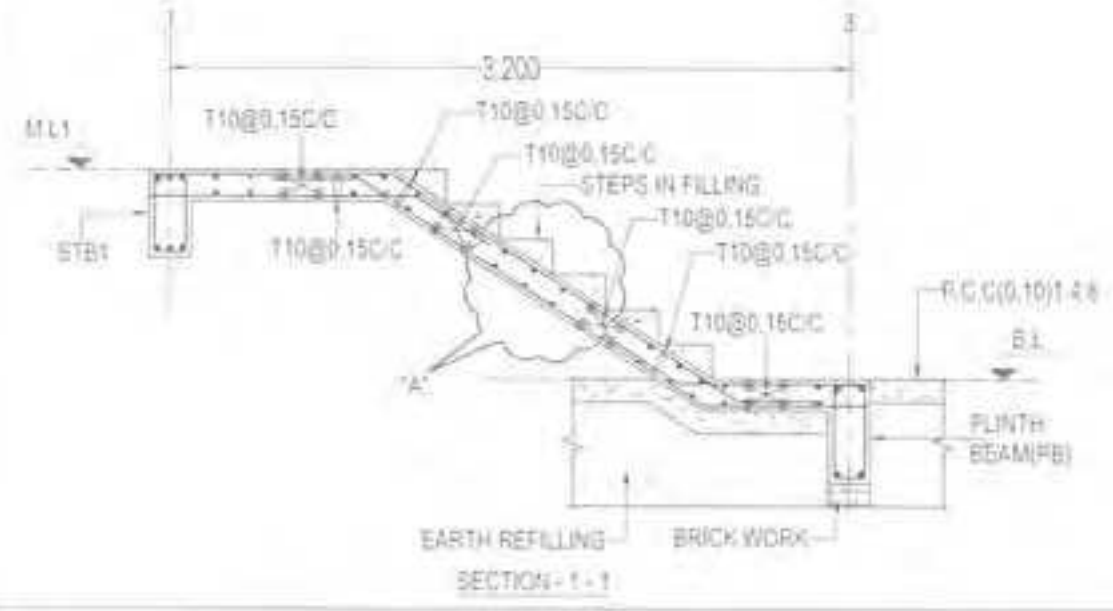


STB - 0.230 X 0.450
C/S DETAILS

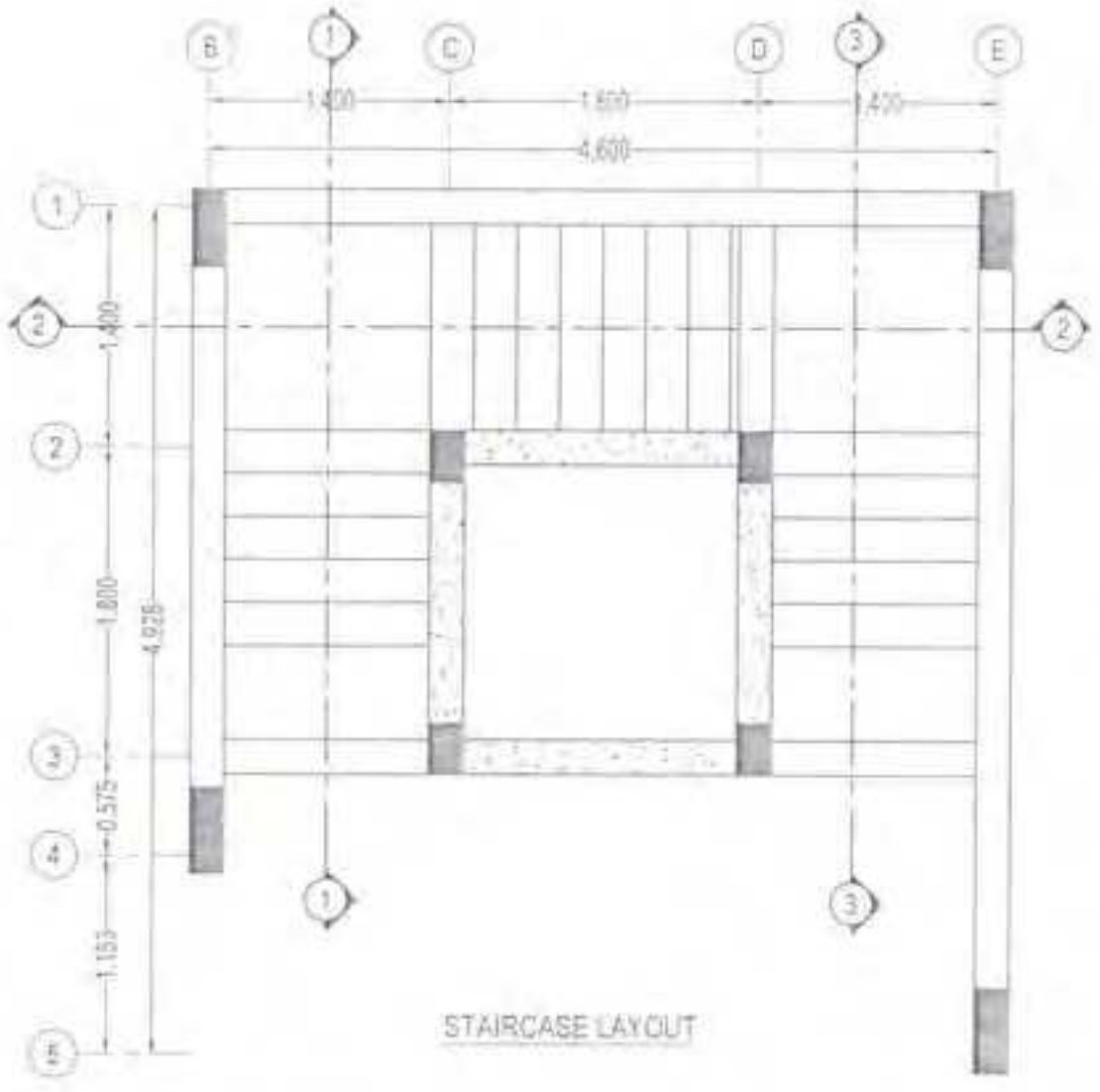
**NO OF STEPS & LEVELS REFER LATEST ARCHITECTURAL DRAWING



SECTION - 2 - 2



SECTION - 1 - 1



STAIRCASE LAYOUT

RK
VIKUMAR
DIPLOMA
Structural Engg
REGR.NO:19/12231 (CHENNAI)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

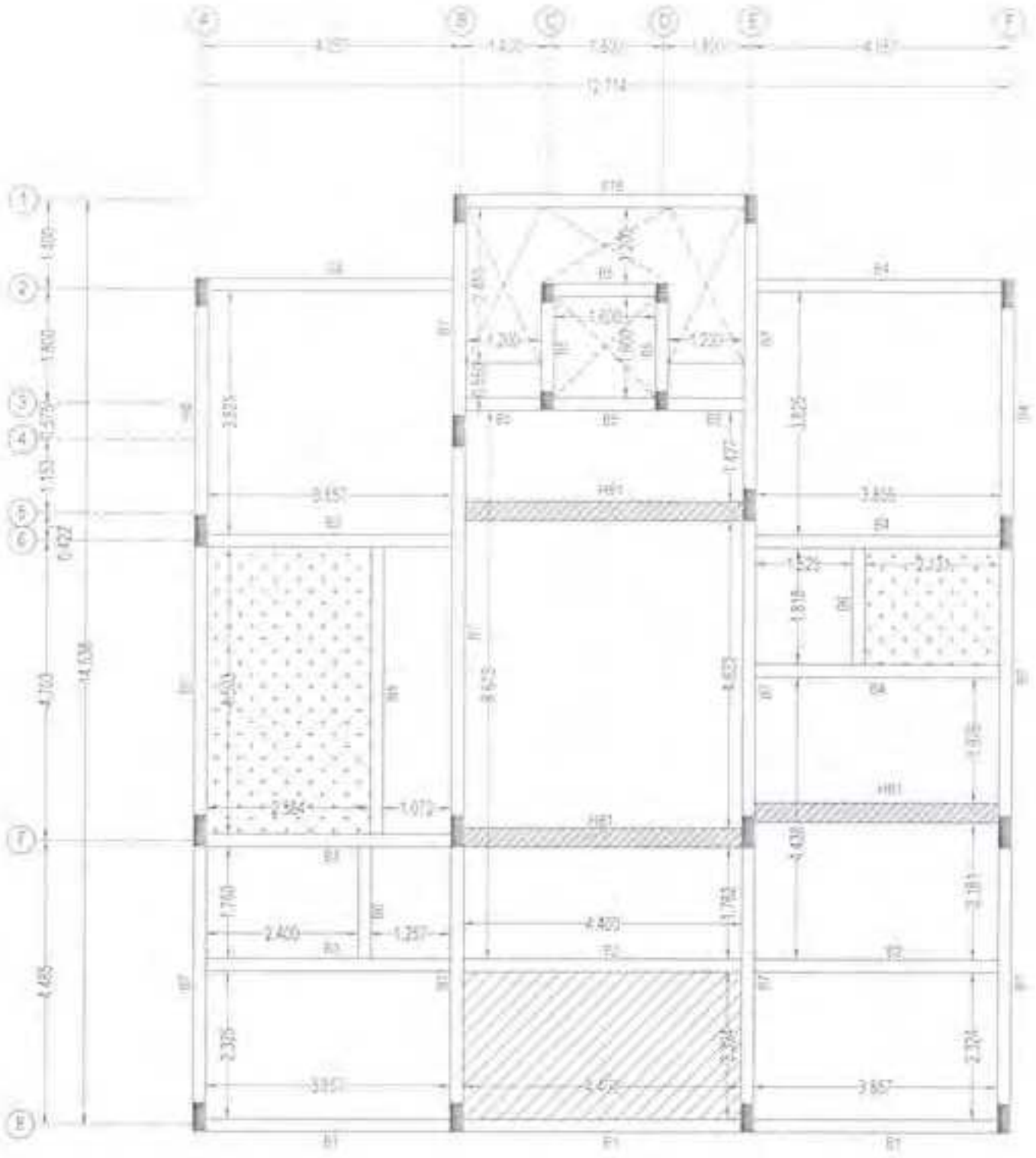
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

STAIRCASE LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	08A



GROUND FLOOR ROOF BEAM LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/13/231

LEGENDS
- TOILET SUNKEN
- BALCONY SUNKEN
- HB - HIDDEN BEAM
- OPENING

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. ALL LEVELS TO BE VERIFIED WITH SITE CONDITIONS.
3. REFER ARCHITECTURAL DRAWINGS FOR ALL DIMENSIONS, OPENINGS AND SLAB LEVELS.
4. ALL CONCRETE WORKS SHALL BE DONE AS PER IS 456 : 2000.
5. GRADE OF CONCRETE USED :
   a. COLUMN : M30
   b. RAFT FOUNDATION : M30
   c. GRADE BEAM : M30
   d. FLOOR BEAM : M30
   e. FLOOR SLAB : M30
6. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR SAFE BEARING CAPACITY OF SOIL AS PER SOIL INVESTIGATION REPORT. THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR CONDUCTING SOIL TESTING BY CONSULTING WITH SOIL EXPERTS.
7. COVER BLOCKS OF APPROVED QUALITY SHALL BE PROVIDED FOR ALL R.C.C. WORKS.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AT SITE.

LAP JOINTS FOR REINFORCEMENT BARS

1. LAPS SHALL BE STAGGERED AS FAR AS PRACTICABLE AND SHALL BE AVOIDED AT POINTS OF MAXIMUM BENDING MOMENT.
2. LAPS IN COLUMNS SHALL BE PROVIDED AT MID HEIGHT OF FLOOR AND NOT AT FLOOR LEVEL.
3. LAPS IN BEAMS AND SLABS SHALL BE STAGGERED AT THE POINTS OF CONTRAFLEXURE.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 5) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM LAYOUT

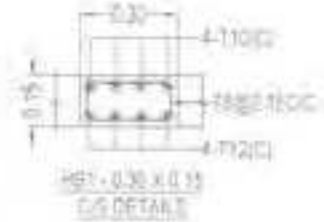
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R0	25/04/2026	ST-2026-06-04	09

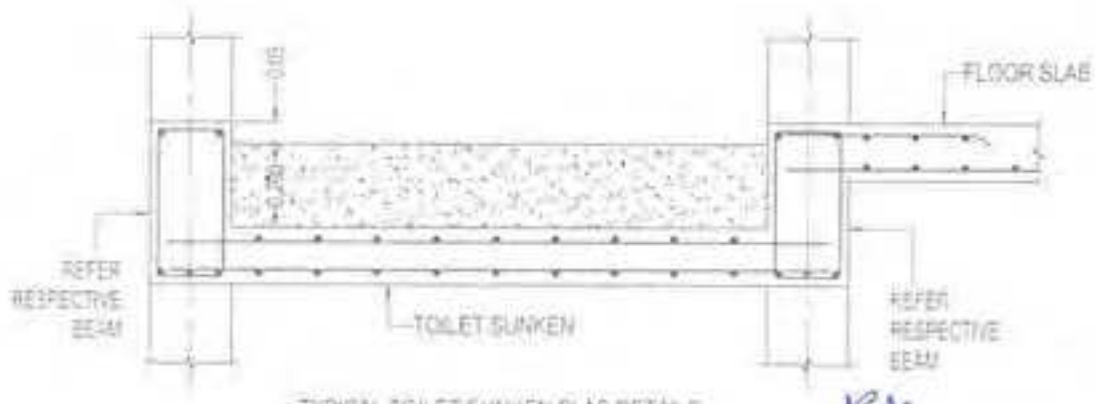
GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE B X D	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	2-T12(C) T8@0.125C/C 2-T12(C) 2-T16(C)	2-T12(C) T8@0.125C/C 2-T12(C) 2-T16(C)	2-T12(C) T8@0.125C/C 2-T12(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B2	2-T16(C) T8@0.125C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.125C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.125C/C 2-T16(C) 2-T16(C)	
(0.23 X 0.53)	2-T16(C)	2-T16(C)	2-T16(C)	
B3	2-T12(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T12(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B4	T8@0.150C/C 2-T12(C) 2-T16(C)	T8@0.150C/C 2-T12(C) 2-T16(C)	T8@0.150C/C 2-T12(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B5	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	
(0.23 X 0.45)	2-T12(C)	2-T12(C)	2-T12(C)	
B6	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	
(0.23 X 0.53)	2-T16(C)	2-T16(C)	2-T16(C)	
B7	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE B X D	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B8	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
STE	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	





TYPICAL TOILET SUNKEN SLAB DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGEND:
HB - HIDDEN BEAM
C - CONTINUOUS ROD
E - EXTRA ROD

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS UNLESS OTHERWISE SPECIFIED.
2. ONLY DRAWN DIMENSION TO BE FOLLOWED.
3. ANY DISCREPANCY AT SITE FROM THE DRAWING SHALL BE BROUGHT TO OUR NOTICE IMMEDIATELY.
4. ALL CONCRETE WORKS SHALL CONFORM TO IS 456 - LATEST REVISION IN ALL RESPECTS.
5. ENGINEER'S DECISION IS FINAL IN CASE OF ANY DISCREPANCY.
6. ALL REINFORCEMENT SHALL CONFORM TO IS 1786 - LATEST REVISION.
7. MINIMUM CONCRETE GRADE USED SHALL BE M25 UNLESS OTHERWISE NOTED.
8. THE FOOTING FOUNDATION HAS BEEN DESIGNED FOR
   Q = THE RECOMMENDED CAPACITY OF SOIL IS 20 KN/M2.
   THE CONTRACTOR IS RESPONSIBLE FOR ATTAINING THE CAPACITY GIVEN BY GEOTECHNICAL EXPERTS.
9. LOCAL SOIL IF ANY SHALL BE REMOVED EXCEPT AS USING FOR BACK FILLING.
10. THE DEPTH OF BEAM SHALL BE INCLUDING THE SLAB THICKNESS.

LAP JOINTS FOR REINFORCEMENT BARS

1. LAP JOINTS SHALL BE PROVIDED AT MIDDLE THIRD OF THE SPAN FOR TENSION BARS.
2. LAP JOINTS SHALL BE PROVIDED AT NEAR SUPPORT FOR COMPRESSION BARS.
3. LAP LENGTH SHALL BE 50 DIA OF BAR.
4. LAP JOINTS SHALL BE STAGGERED.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 5) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

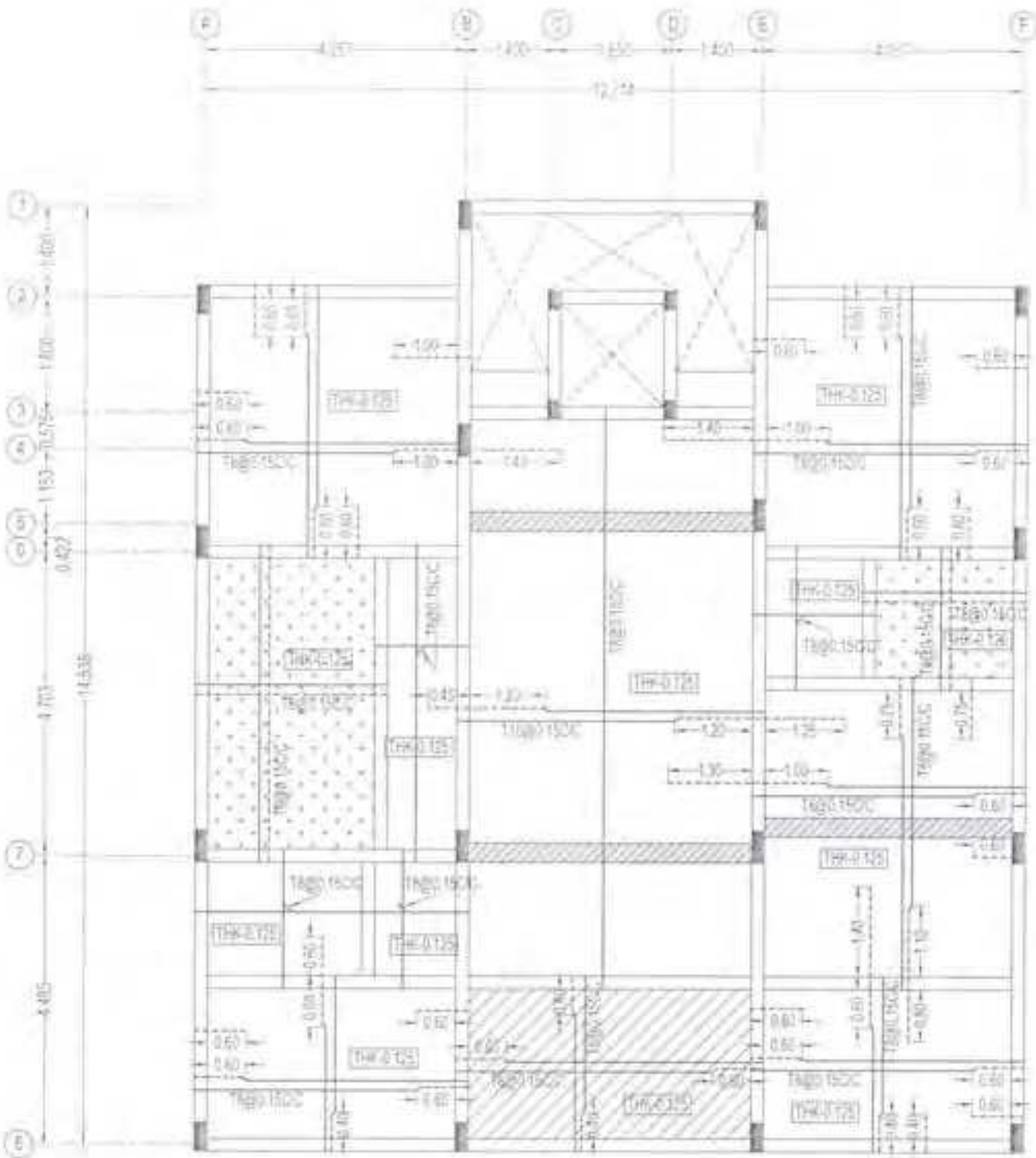
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	10



GROUND FLOOR ROOF SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CWM)

LEGEND

TOP F/W
BOTTOM F/W
THK - THICKNESS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 5)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

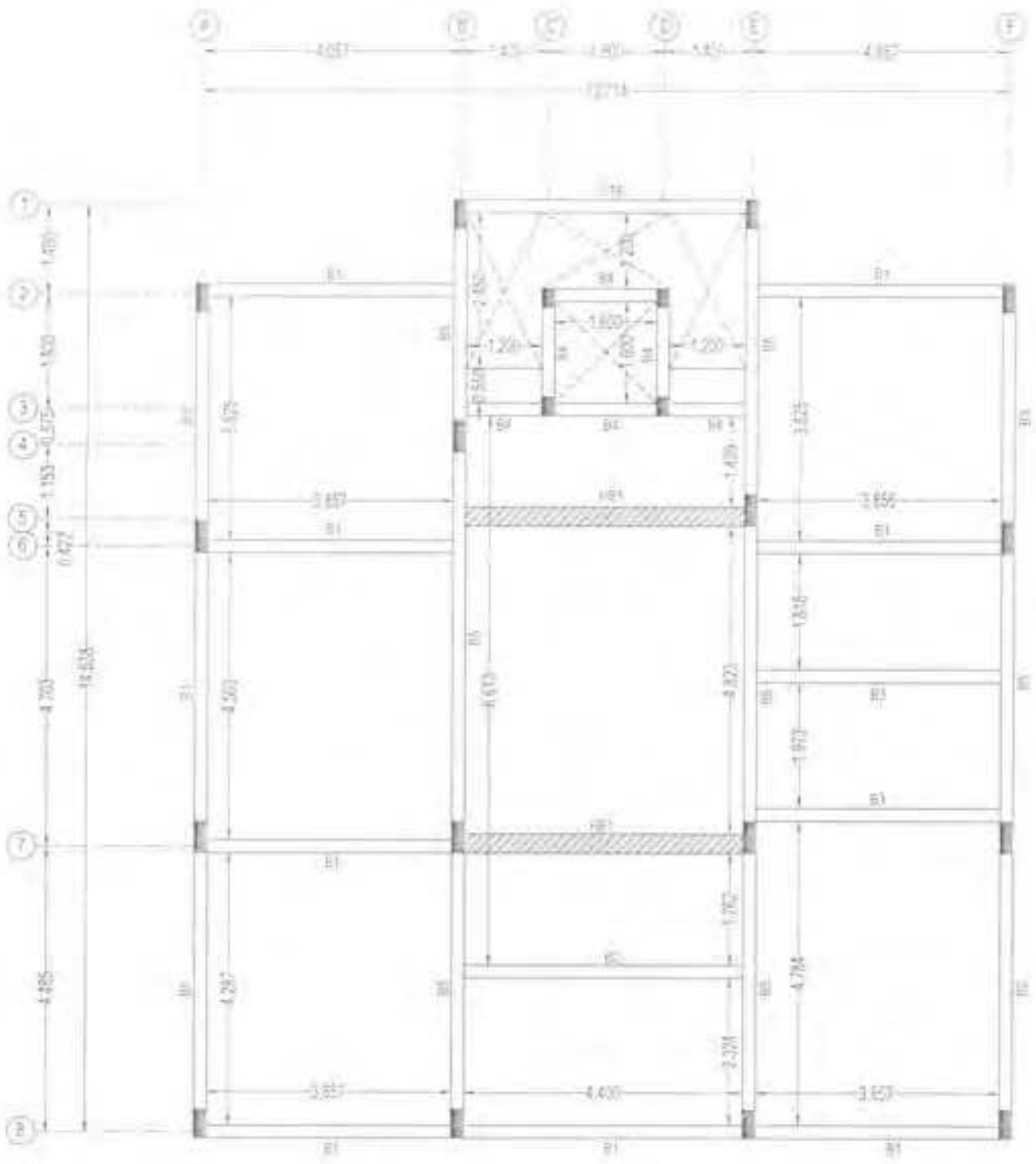
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	11



TERRACE BEAM LAYOUT

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 5)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-I/19413/2021

HB1 - 0.30 X 0.15
C/S DETAILS

LEGENDS

HB - HIDDEN BEAM
OPENING

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM LAYOUT

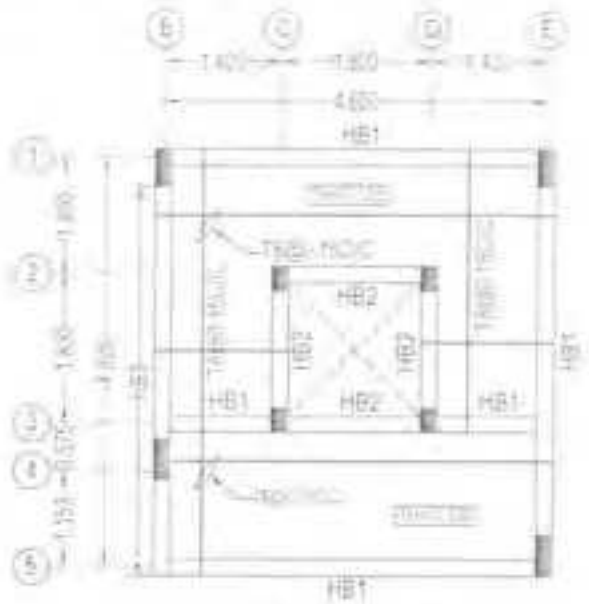
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	12

TERRACE BEAM REINFORCEMENT SCHEDULE

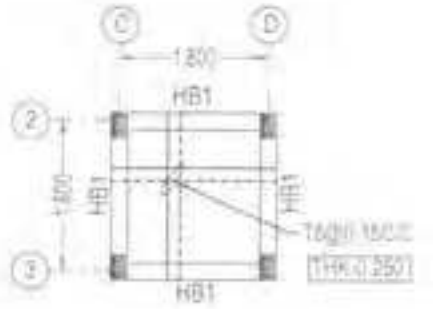
BEAM SIZE & NO.	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.20 X 0.45) B1	2-T16(C) 2-T12(C) T8@0.150/C 2-T12(C) 2-T16(C)	2-T16(C) 2-T12(C) T8@0.150/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T12(C) T8@0.150/C 2-T12(C) 2-T16(C)	
(0.20 X 0.45) B2	2-T16(C) T8@0.150/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.150/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.150/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45) B3	2-T16(C) T8@0.150/C 2-T12(C) 2-T16(C)	2-T16(C) T8@0.150/C 2-T12(C) 2-T16(C)	2-T16(C) T8@0.150/C 2-T12(C) 2-T16(C)	
(0.20 X 0.45) B4	2-T16(C) T8@0.150/C 2-T16(C)	2-T16(C) T8@0.150/C 2-T16(C)	2-T16(C) T8@0.150/C 2-T16(C)	
(0.20 X 0.50) B5	2-T16(C) 2-T16(C) T10@0.150/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150/C 2-T16(C) 2-T16(C)	

LEGEND

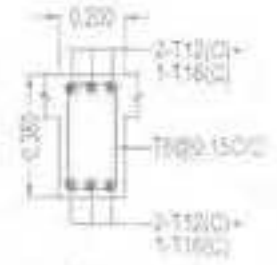
HB - HIDDEN BEAM
C - CONTINUOUS ROD
E - EXTRA ROD



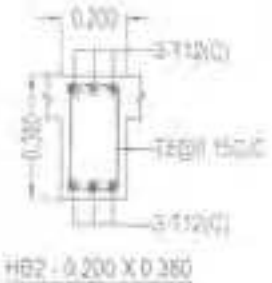
STAIRCASE HEADROOM LAYOUT & DETAILS



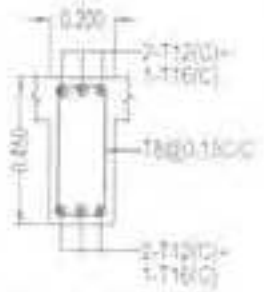
STAIRCASE HEADROOM LAYOUT & DETAILS



HB1 - 0.200 X 0.380
C/S DETAILS



HB2 - 0.200 X 0.380
C/S DETAILS



HB3 - 0.200 X 0.450
C/S DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE-I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (CHN/AT)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 5) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

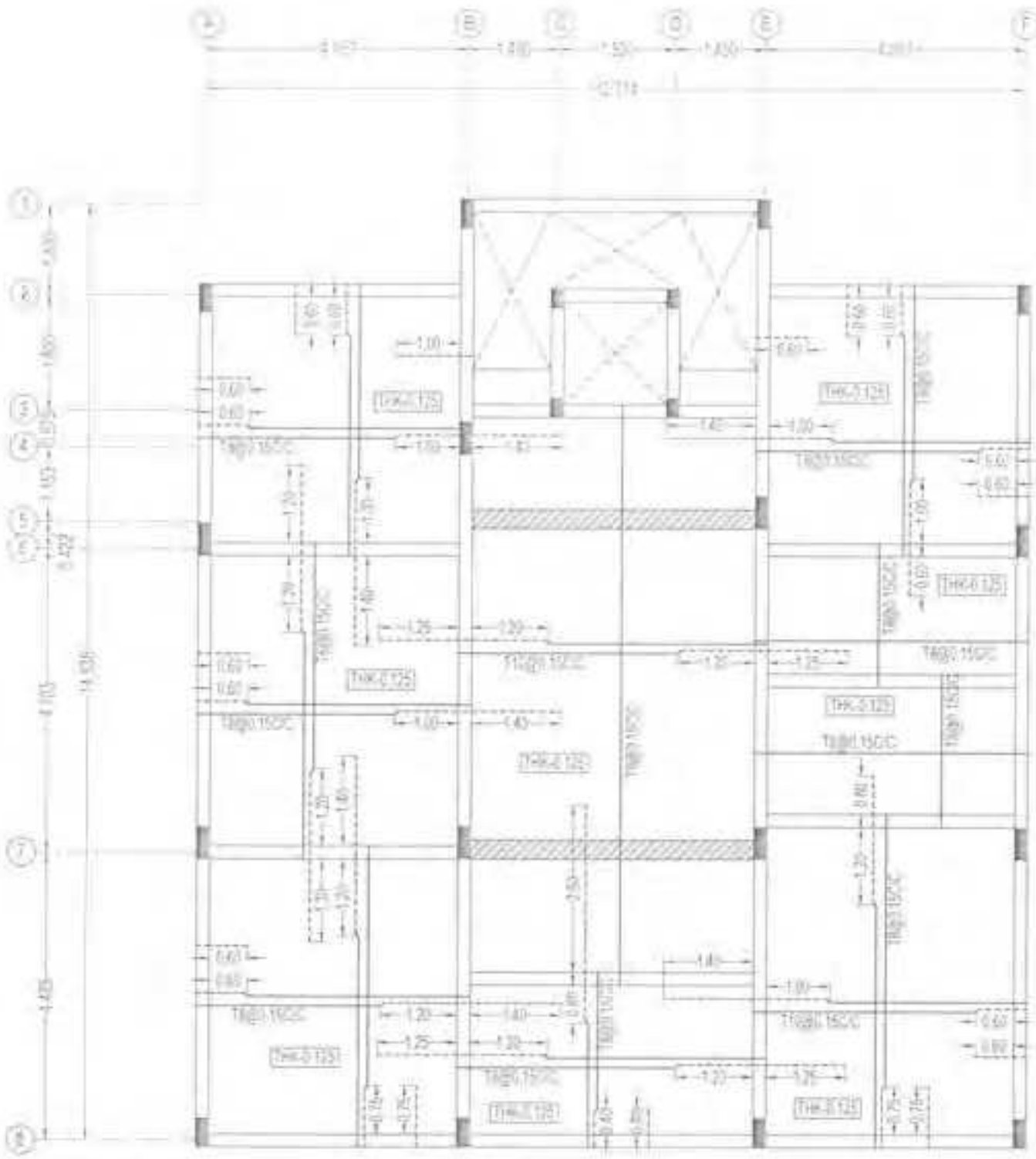
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2020	ST-2020-06-04	13



TERRACE SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12231

LEGEND

TOP ROD
BOTTUM ROD
THK: THICKNESS

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL CONCRETE SHALL BE OF M25 GRADE.
3. ALL REINFORCEMENT SHALL BE HYSD BARS CONFORMING TO IS 1786 GRADE Fe 500.
4. CLEAR COVER TO REINFORCEMENT
   - a. SLAB ABOVE GROUND : 20MM
   - b. SLAB FOUNDATION : 40MM
   - c. BEAM : 25MM
   - d. COLUMN : 40MM
   - e. FOOTING : 50MM
5. THE SLAB SHOWN FOR MASON AND SEVEN FEET WIDE ON THE MASONRY WALL IS CANTILEVER SLAB OF 900MM PROJECTION AS PER DETAILS GIVEN IN THE DRAWING.
6. ALL SLAB EDGES SHALL BE PROVIDED WITH EDGE BEAMS.
7. ALL SLAB OPENINGS SHALL BE PROVIDED WITH EDGE BEAMS.

LAP JOINTS FOR REINFORCEMENT BARS :

1. LAP SHALL BE PROVIDED AT THE MIDDLE THIRD OF THE SPAN FOR TENSION BARS.
2. LAPS IN TENSION ZONES SHALL BE STAGGERED AND SHOULD BE AVOIDED AT SECTIONS OF MAXIMUM BENDING MOMENT.
3. LAPPED BARS SHALL BE PROVIDED WITH CLOSED STIRRUPS OR TIES THROUGHOUT THE LAP LENGTH.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (V6 LA 5) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

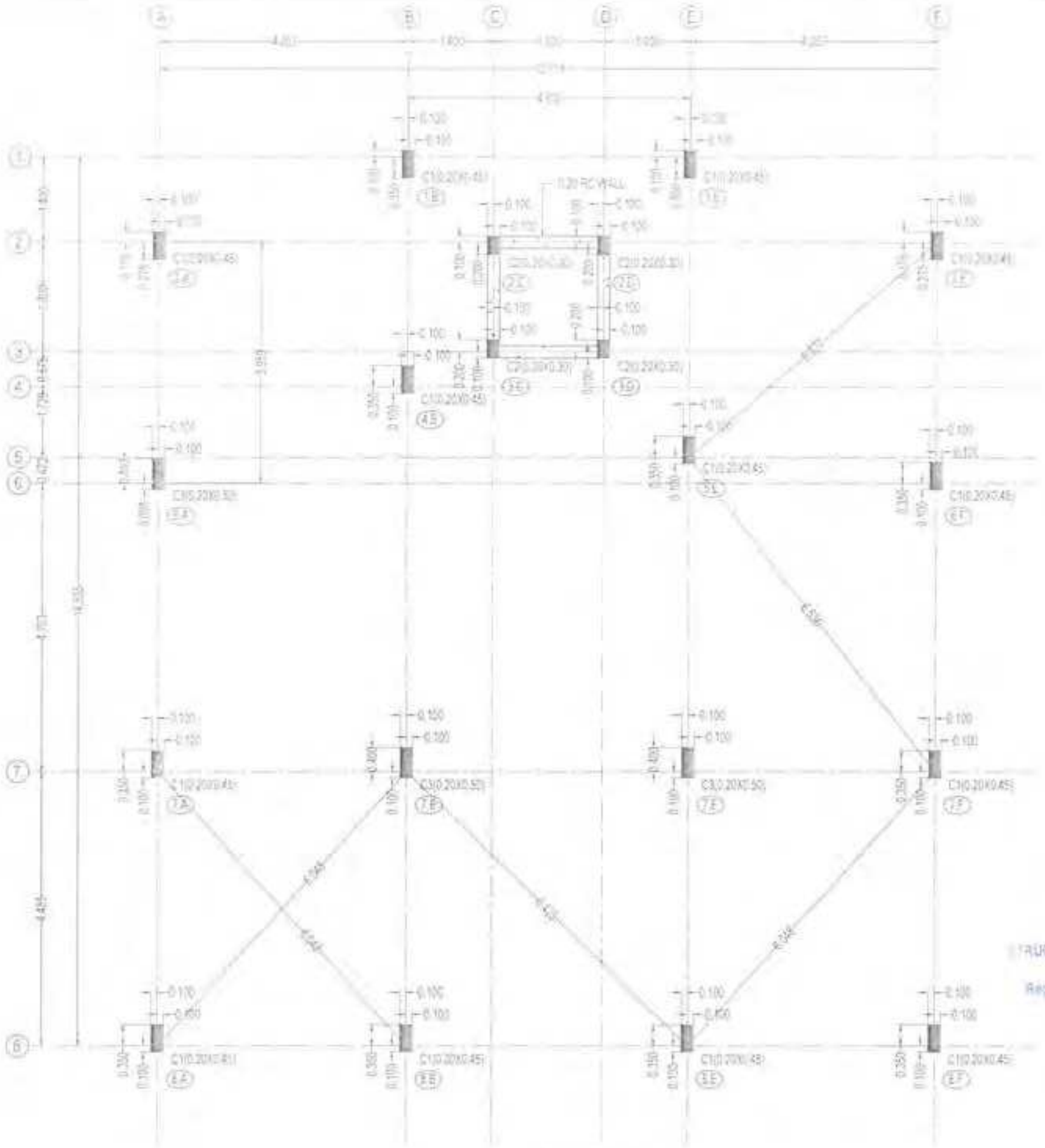
Safe

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE SLAB LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-04	14



COLUMN MARKING LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1 (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CHILLA)

LEGENDS
C - COLUMN

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

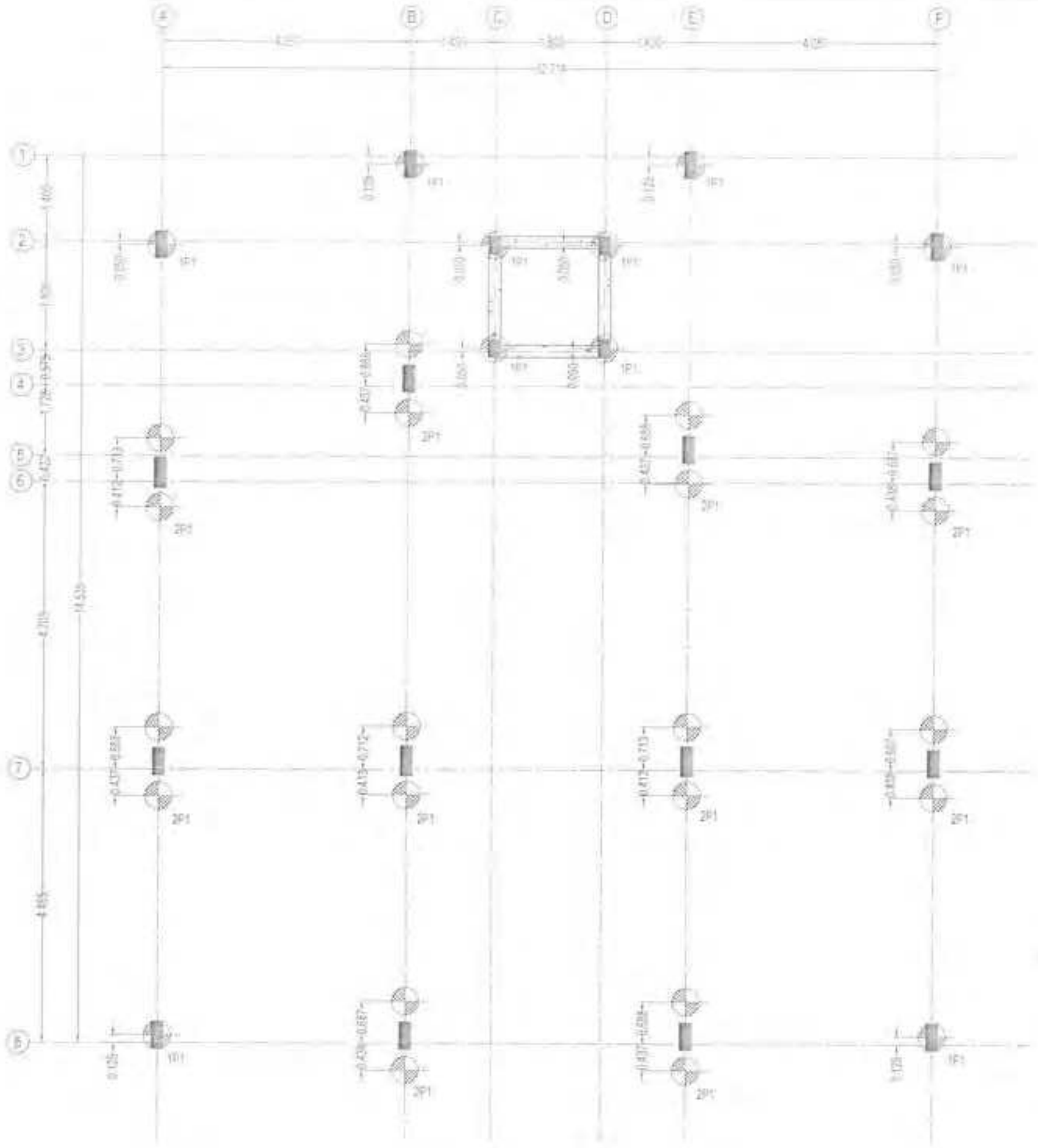
Safe

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

COLUMN MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	29/04/2026	ST-2026-06-05	01



PILE MARKING LAYOUT

TECHNICAL NOTES

AF JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

R. RAVIKUMAR
M.E (Structural Engg)
Reg. No - SE/GR-1/15/12/231 (CMDA)

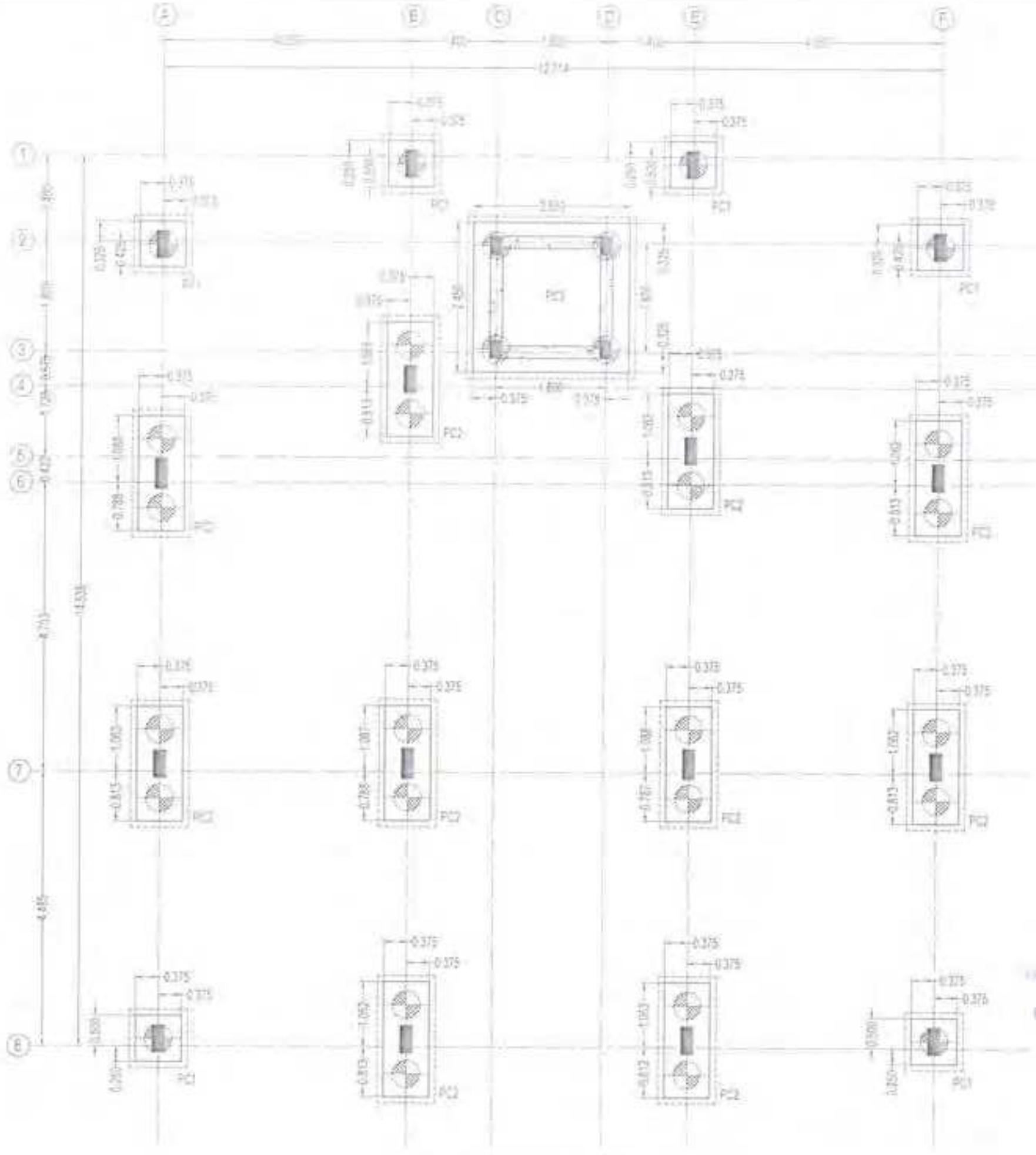
LEGENDS:

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

FILE MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	29/04/2020	ST-2026-06-05	02



PILE CAP MARKING LAYOUT

TECHNICAL NOTES

AP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE
M.E (Structural Engg)
Reg No - SE/GR-1115/12/231

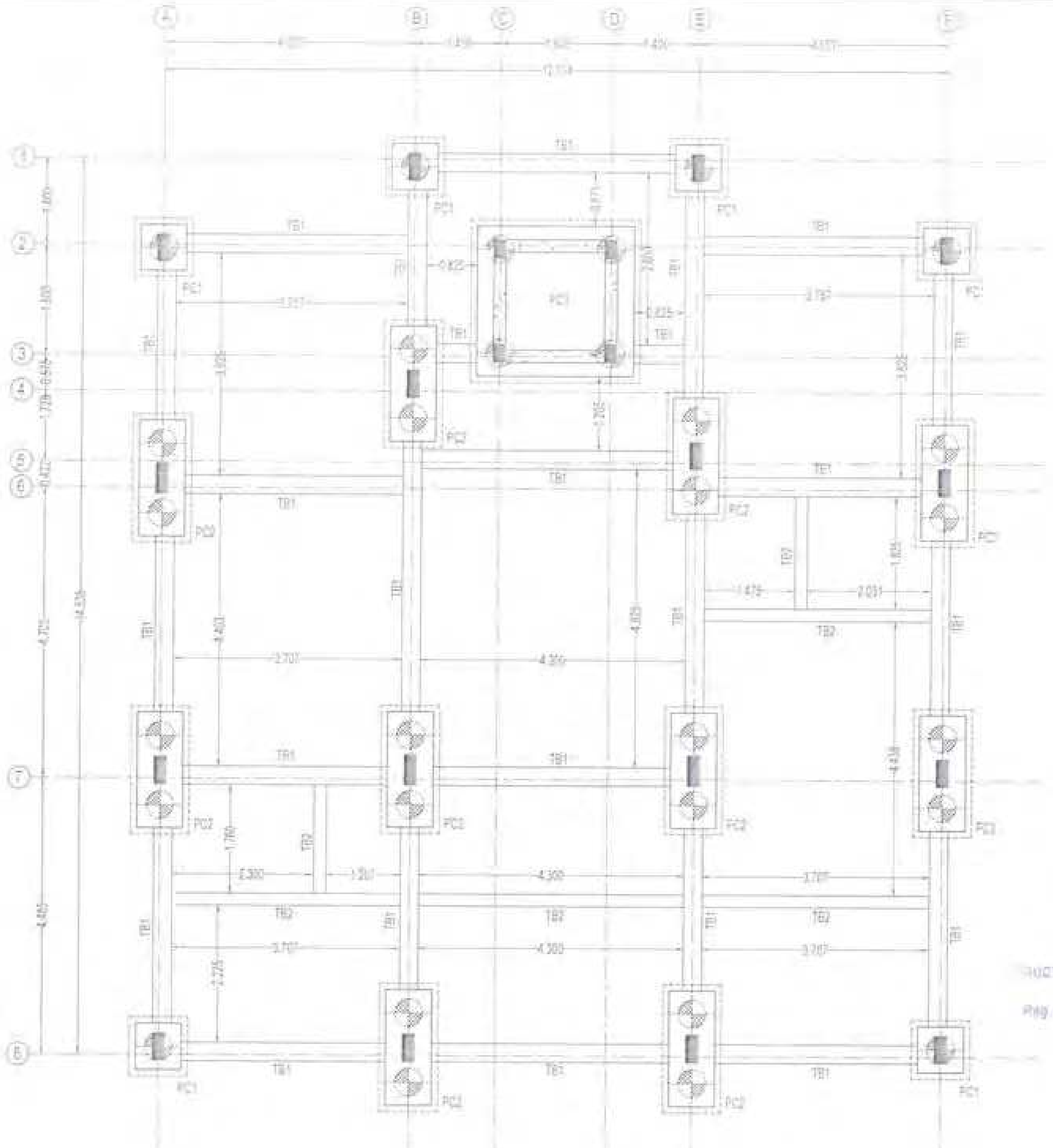
LEGENDS
PC - PILE CAPE

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	03



TIE BEAM(TB) LAYOUT

LEGENDS

TE - TIE BEAM

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/15/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

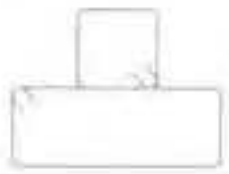
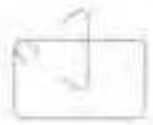
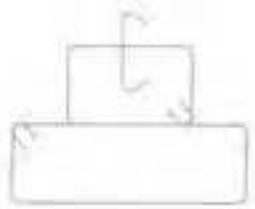
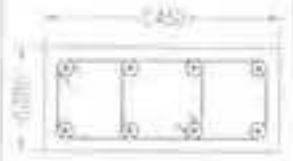
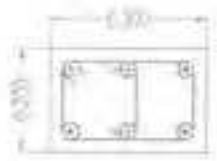
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DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

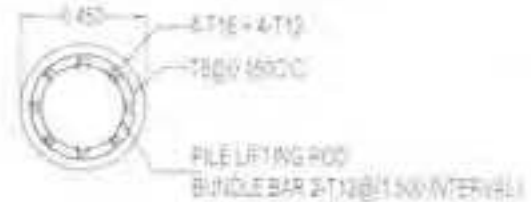
DRAWING NAME

PILE CAP(PC) & TIE BEAM(TB) LAYOUT

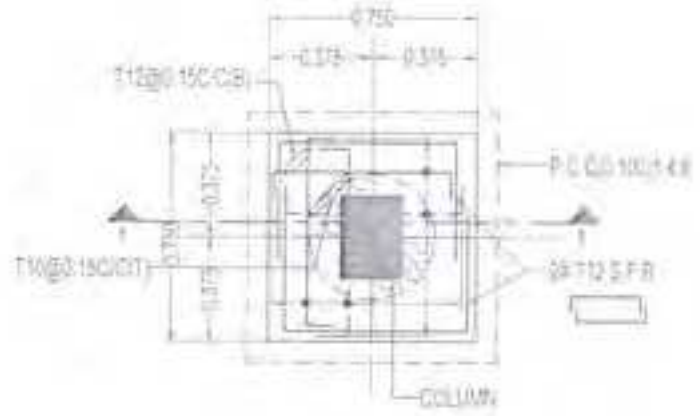
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	04

COLUMN REINFORCEMENT SCHEDULE

TERRACE LEVEL			
TO	H=T8@150 C/C	H=T8@150 C/C	H=T8@150 C/C
	H=T8@175 C/C	H=T8@175 C/C	H=T8@175 C/C
FOOTING TO F.S.L W1-T16 W2-T12			
	8-T16	4-T16 + 2-T12	8-T16 + 2-T12
COLUMN MARKED	C1	C2	C3



PILE (P1) - PLAN

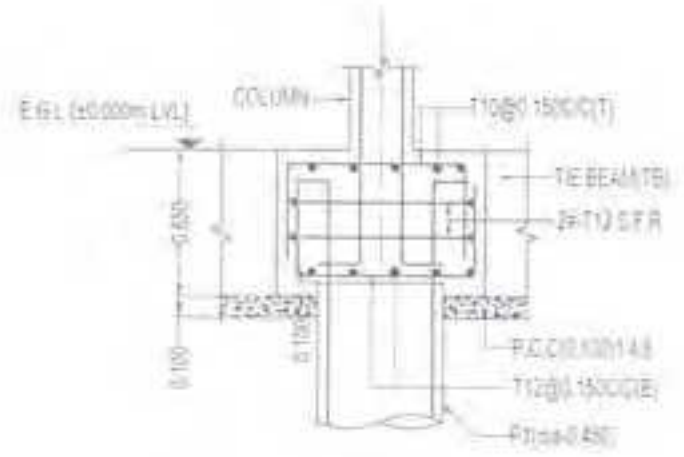


PC1 - PLAN

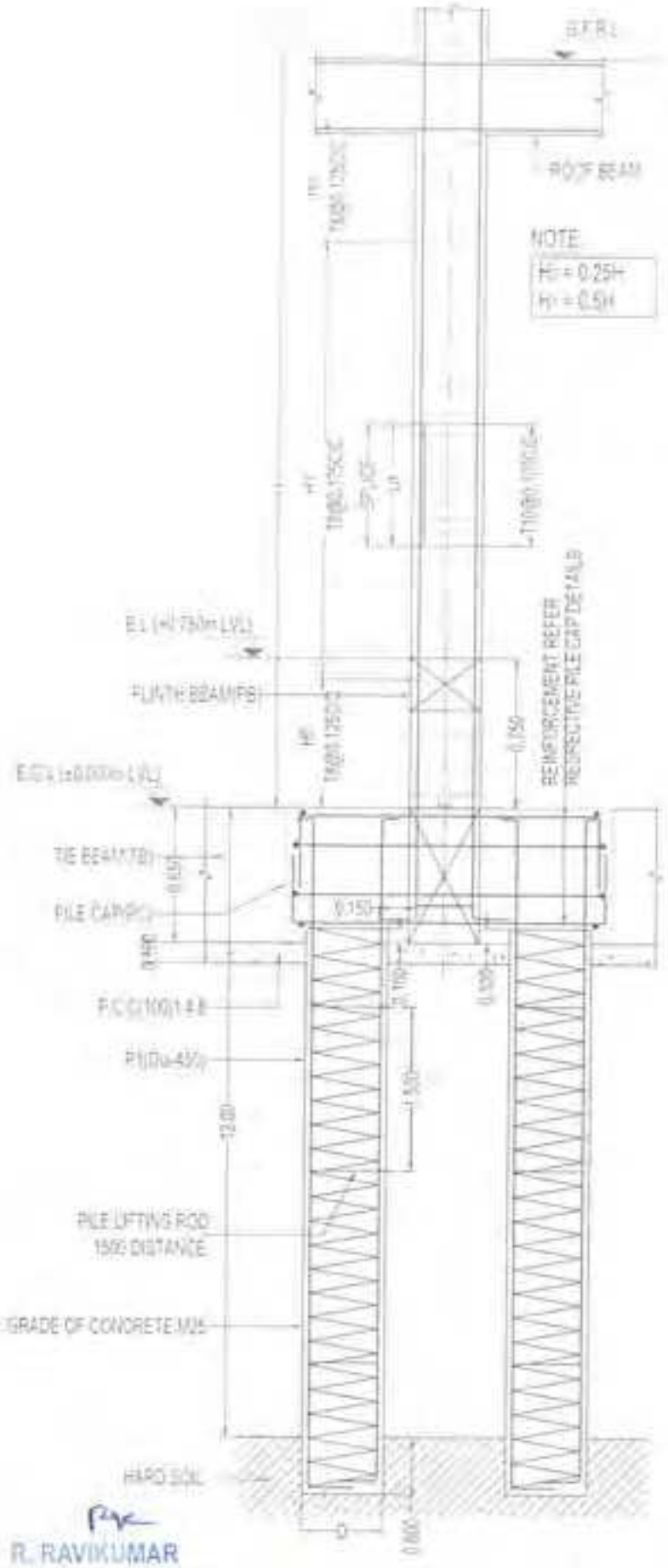
** S.F.R - SIDE FACE REINFORCEMENT

LEGENDS

B.L - BASEMENT LEVEL
G.F.R.L - GROUND FLOOR ROOF LEVEL
E.G.L - EXISTING GROUND LEVEL



SECTION - 1 - 1



TYPICAL COLUMN & PILE CONFINING DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (M.E)
M.E (Structural Engg)
Regn. No - SE/GR-I/19/12/231 (Chennai)

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.
2. ALL CONCRETE WORKS SHALL CONFORM TO IS 456:2000.
3. ALL REINFORCEMENT SHALL BE HIGH YIELD STRENGTH DEFORMED BARS CONFORMING TO IS 1786:2008.
4. CONCRETE GRADE USED FOR VARIOUS ELEMENTS:
   - FOOTING - M25
   - COLUMN - M25
   - SHEAR WALL - M25
   - FLOOR BEAM - M25
   - FLOOR SLAB - M25
5. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR SAFE BEARING CAPACITY OF 20 T/SQ.M AS PER THE RECOMMENDATIONS OF THE SOIL INVESTIGATION REPORT. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE ACTUAL SOIL CONDITIONS AT THE SITE MATCH THE ASSUMED SOIL PROPERTIES.
6. ALL EXPOSED CONCRETE SURFACES SHALL BE PROTECTED FROM DIRECT SUNLIGHT AND RAIN FOR A MINIMUM PERIOD OF 7 DAYS AFTER CASTING.
7. THE MINIMUM CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:
   - FOOTINGS: 50 MM
   - COLUMNS: 40 MM
   - BEAMS: 25 MM
   - SLABS: 20 MM

LAP JOINTS FOR REINFORCEMENT BARS:

1. LAP SHALL OCCUR AT THE MIDDLE THIRD OF THE SPAN FOR BOTH TOP AND BOTTOM REINFORCEMENT.
2. LAP LENGTH SHALL BE 50 TIMES THE DIAMETER OF THE BAR FOR TENSION LAPS AND 40 TIMES THE DIAMETER FOR COMPRESSION LAPS.
3. LAPS IN ADJACENT BARS SHALL BE STAGGERED BY AT LEAST 600 MM.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 6) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

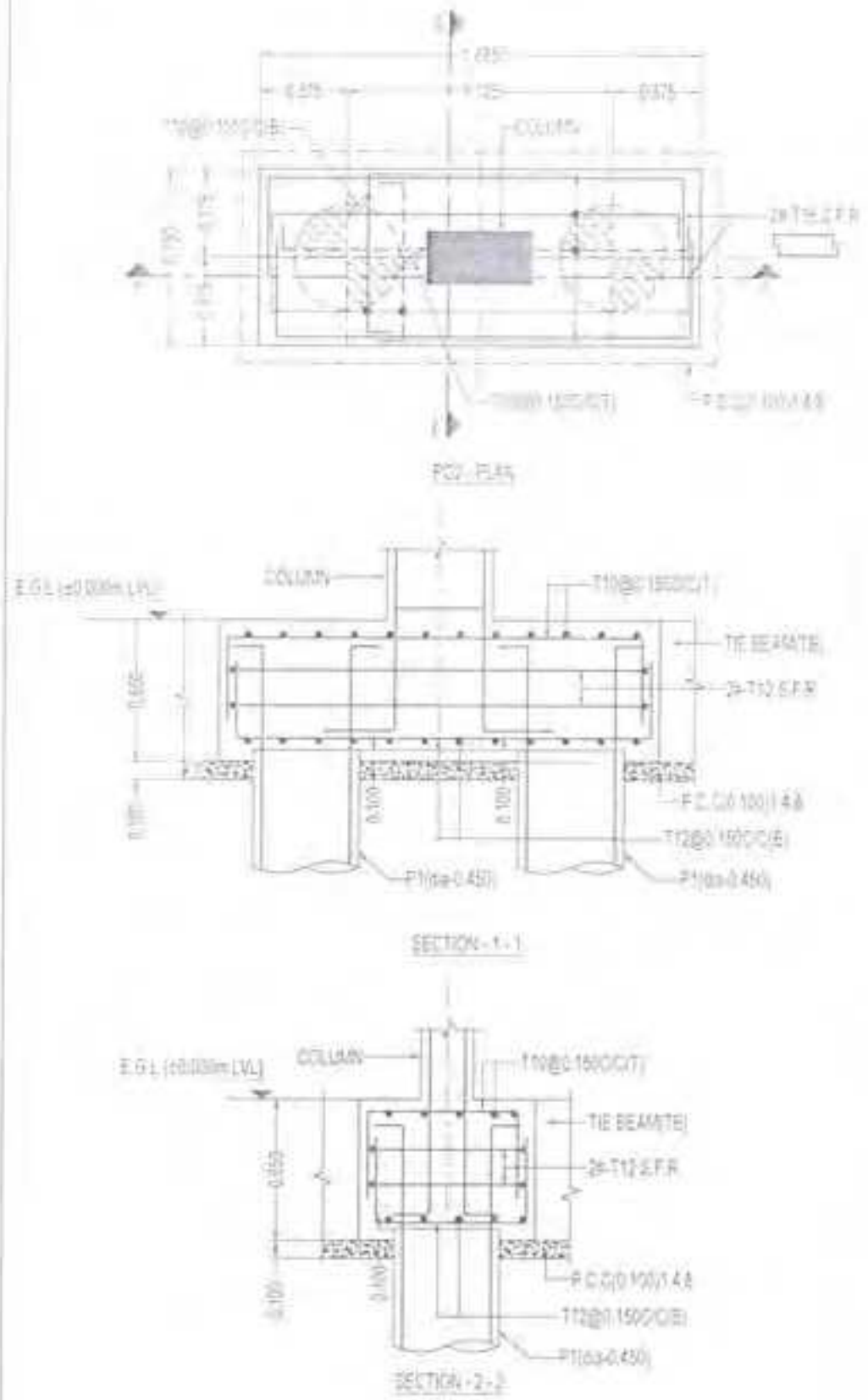
SAFE STRUCTURAL CONSULTANCY

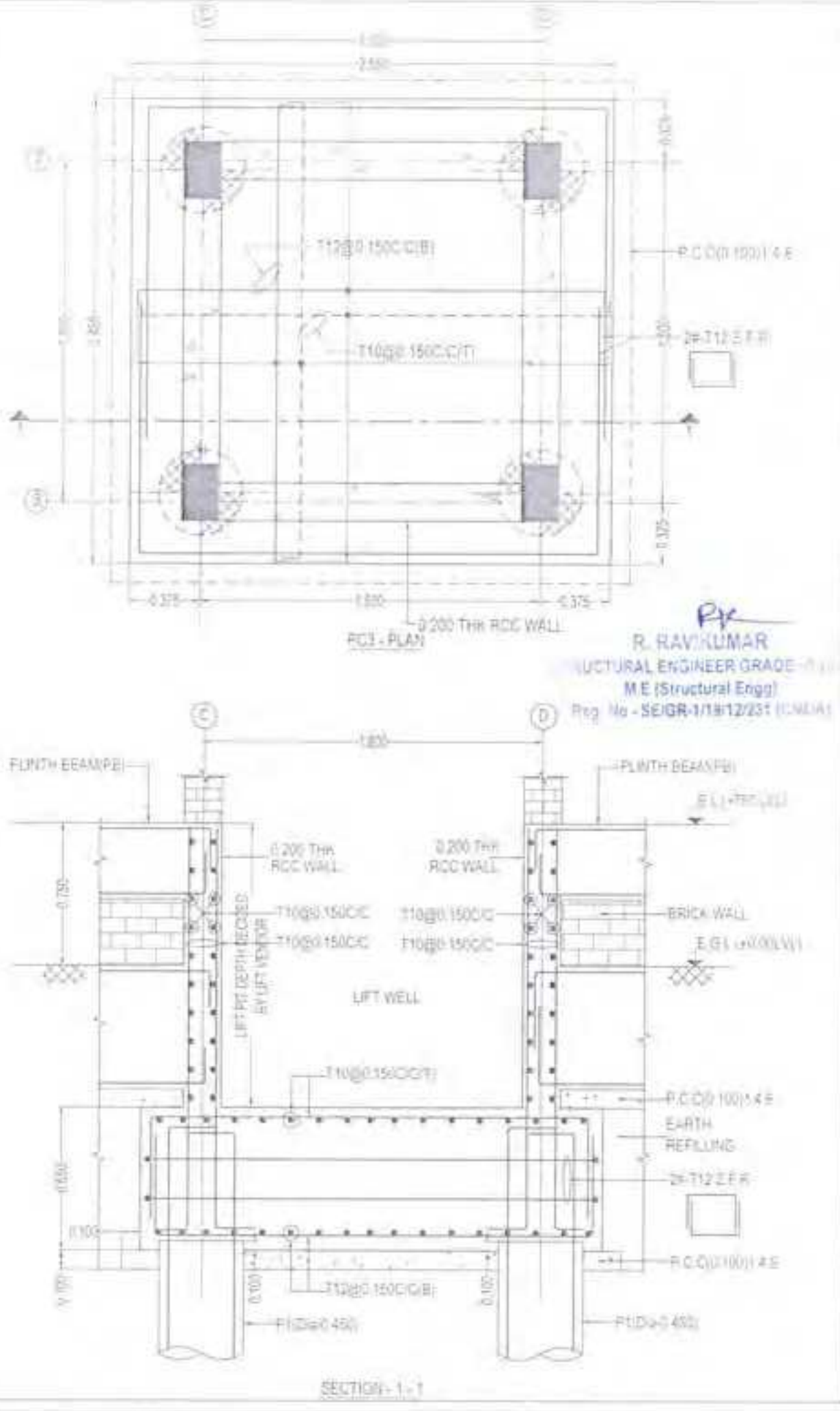
DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

COLUMN, PILE & PILE CAP DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25.04.2026	ST-2026-06-05	05





R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CHENNAI)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

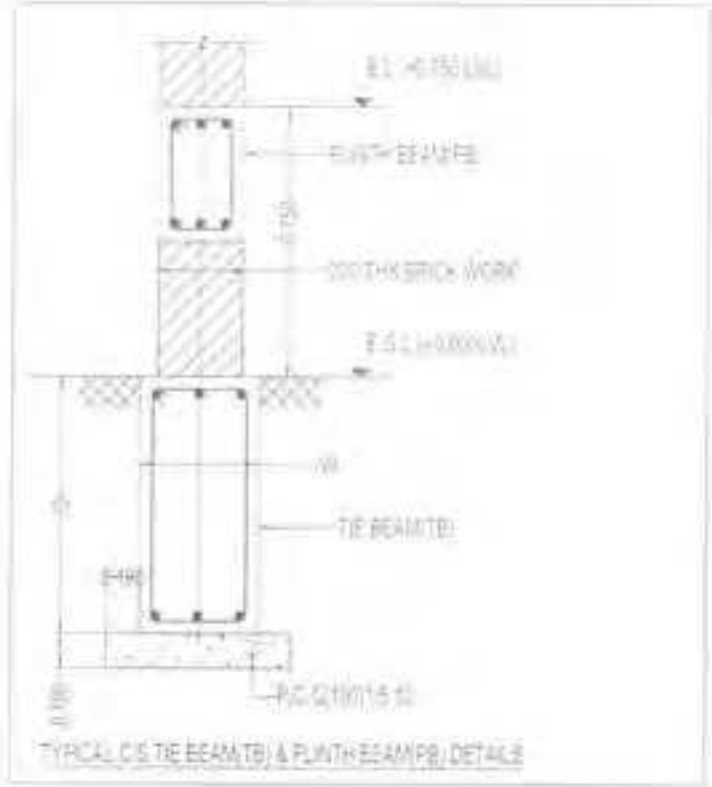
DRAWING NAME

PILE & PILE CAP DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	06

TIE BEAM (TB) REINFORCEMENT SCHEDULE

BEAM MARK & NO	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(230 X 750)	3-T16(C)	3-T16(C)	3-T16(C)
TB1	T10@150 C/C P.C.C 3-T16(C)	T10@150 C/C P.C.C 3-T16(C)	T10@150 C/C P.C.C 3-T16(C)
(230 X 600)	2-T16(C)	2-T16(C)	2-T16(C)
TB2	T10@150 C/C P.C.C 2-T16(C)	T10@150 C/C P.C.C 2-T16(C)	T10@150 C/C P.C.C 2-T16(C)



TYPICAL C/S TIE BEAM (TB) & PLINTH BEAM (PB) DETAILS

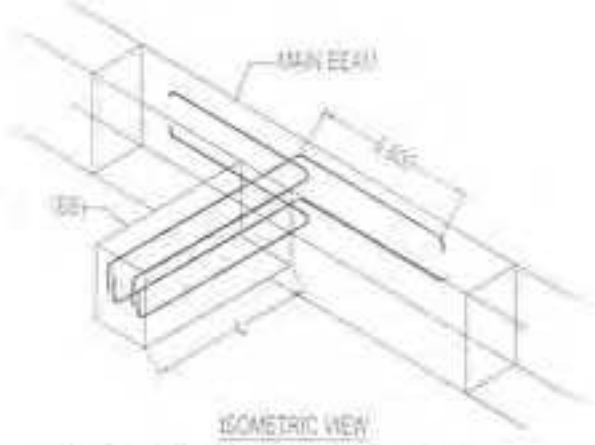


TYPICAL ANCHORAGE OF BEAM BARS IN AN EXTERNAL JOINT
**L/d-45 TIMES DIA OF BAR

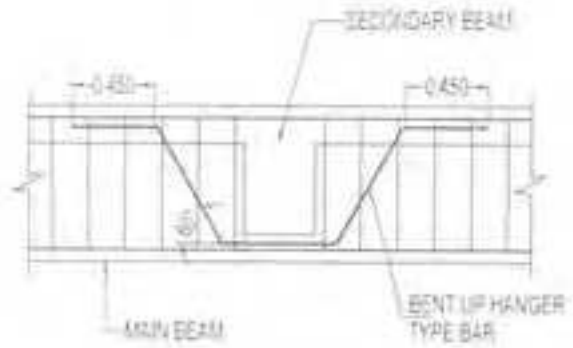
LEGENDS

E.G.L - EXISTING GROUND LEVEL
T.B - TIE BEAM
P.B - PLINTH BEAM
B.L - BASEMENT LEVEL

S.F.R - SIDE FACE REINFORCEMENT
E.F - EACH FACE



(2 (TYP) BRACKET BEAM REST ON BEAM DETAIL



WHERE CROSS BEAM SHEAR ROD SHOULD BE PROVIDED AT 2-T16

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
T.No - SE/GR-I/19/12/231 (CHEN)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

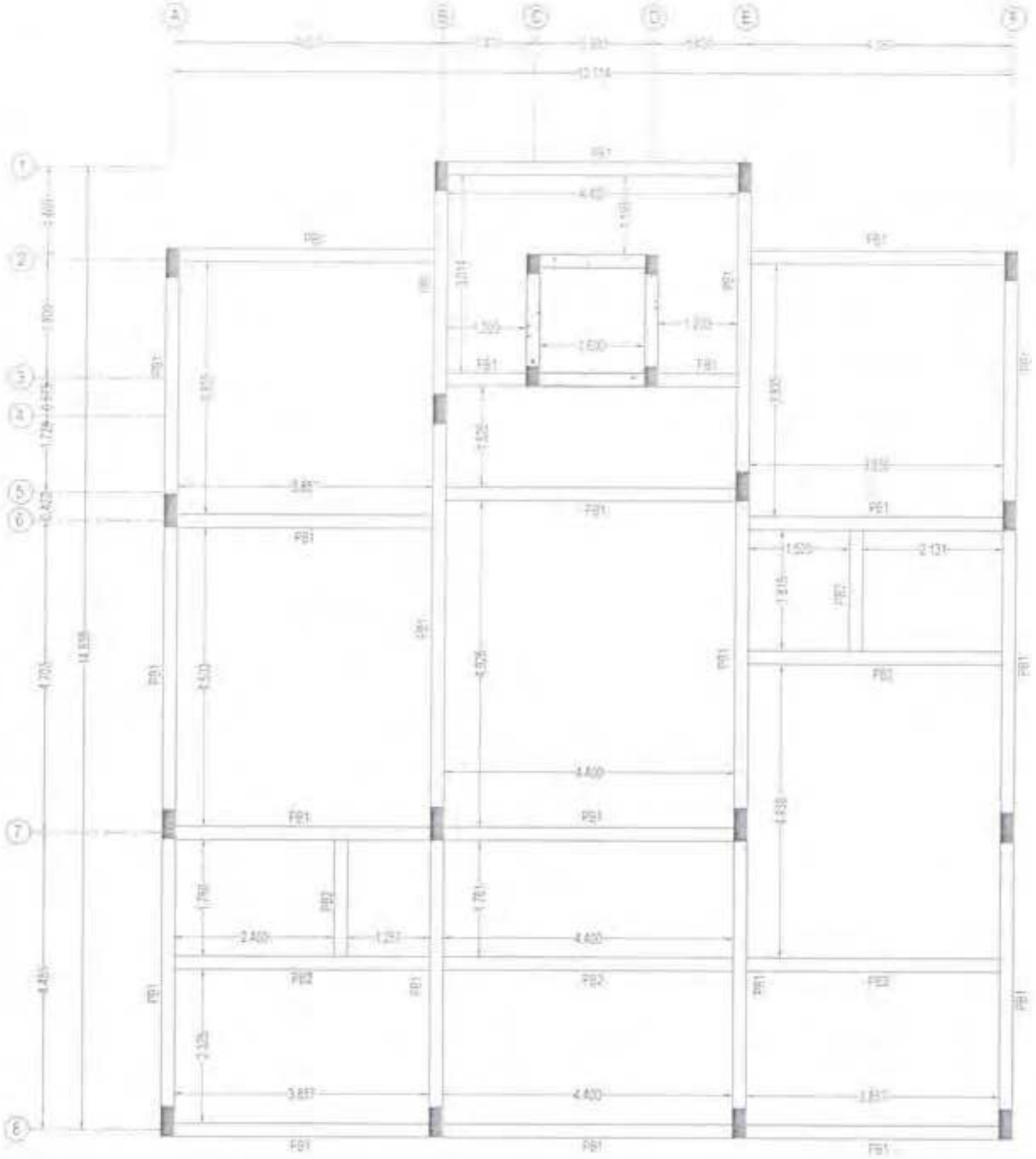
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR:
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TIE BEAM (TB) REINFORCEMENT DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	07

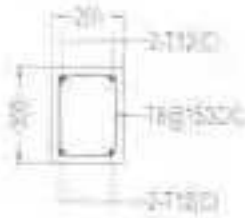


PLINTH BEAM(PB) LAYOUT

TOP OF PLINTH BEAM AT +0.750m LVL



PB1 - 200 X 400
SEE DETAILS



PB2 - 200 X 350
SEE DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12231 (TNEA)

LEGENDS

PB - PLINTH BEAM

TECHNICAL NOTES

- 1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
- 2. ALL CONCRETE WORKS SHALL BE AS PER IS 456:2000.
- 3. ALL REINFORCEMENT SHALL BE FE 500 GRADE HYSD BARS CONFORMING TO IS 1786:2008.
- 4. EARTHQUAKE CALCULATIONS ARE CONSIDERED AS PER IS 1893:2016 (PART 1).
- 5. CONCRETE IN FOOTING SHALL BE OF M25 GRADE AND CONFORMING TO IS 456:2000.
- 6. MINIMUM CLEAR COVER TO REINFORCEMENT
  - A. COLUMNS = 40MM
  - B. FOUNDATION = 50MM
  - C. CHAJJA SLABS = 40MM
  - D. FLOOR BEAM = 25MM
  - E. FLOOR SLAB = 20MM
- 7. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR SAFE BEARING CAPACITY OF 15T/SQ.M. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONFIRM THE SAFE BEARING CAPACITY BY CARRYING OUT PLATE LOAD TEST.
- 8. CONCRETE SHALL BE AVOIDED DURING RAINY SEASON.
- 9. THE DEPTH OF BEAMS SHALL BE INCLUDING THE SLAB THICKNESS.

LAP JOINTS FOR REINFORCEMENT BARS:

- 1. ANY DEFECTION OF THE REINFORCEMENT FROM THE SPECIFIED BARS SHALL BE LAPPED.
- 2. LAPS IN COLUMNS SHALL BE PROVIDED AT MID-HEIGHT OF FLOOR AND NOT AT SLAB LEVEL.
- 3. LAPS IN BEAMS AND SLABS SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

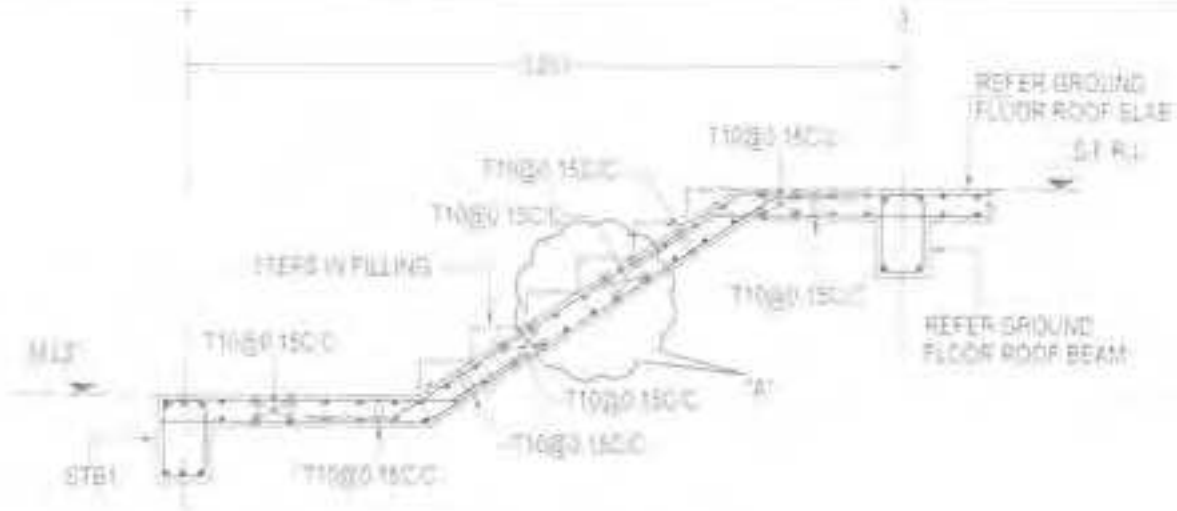
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

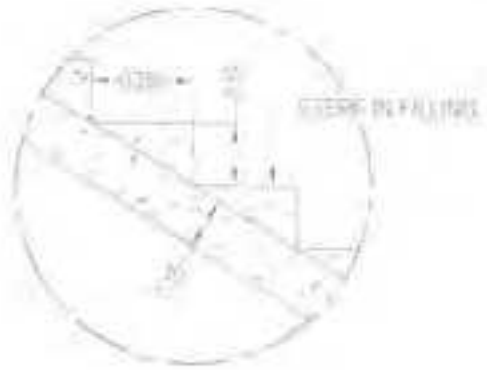
DRAWING NAME

PLINTH BEAM(PB) LAYOUT & DETAILS

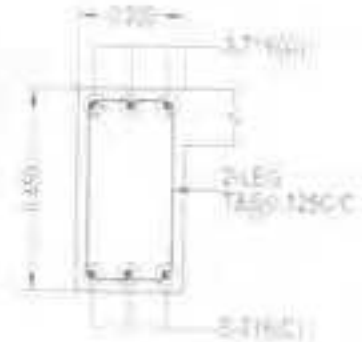
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	08



SECTION - 1 - 1

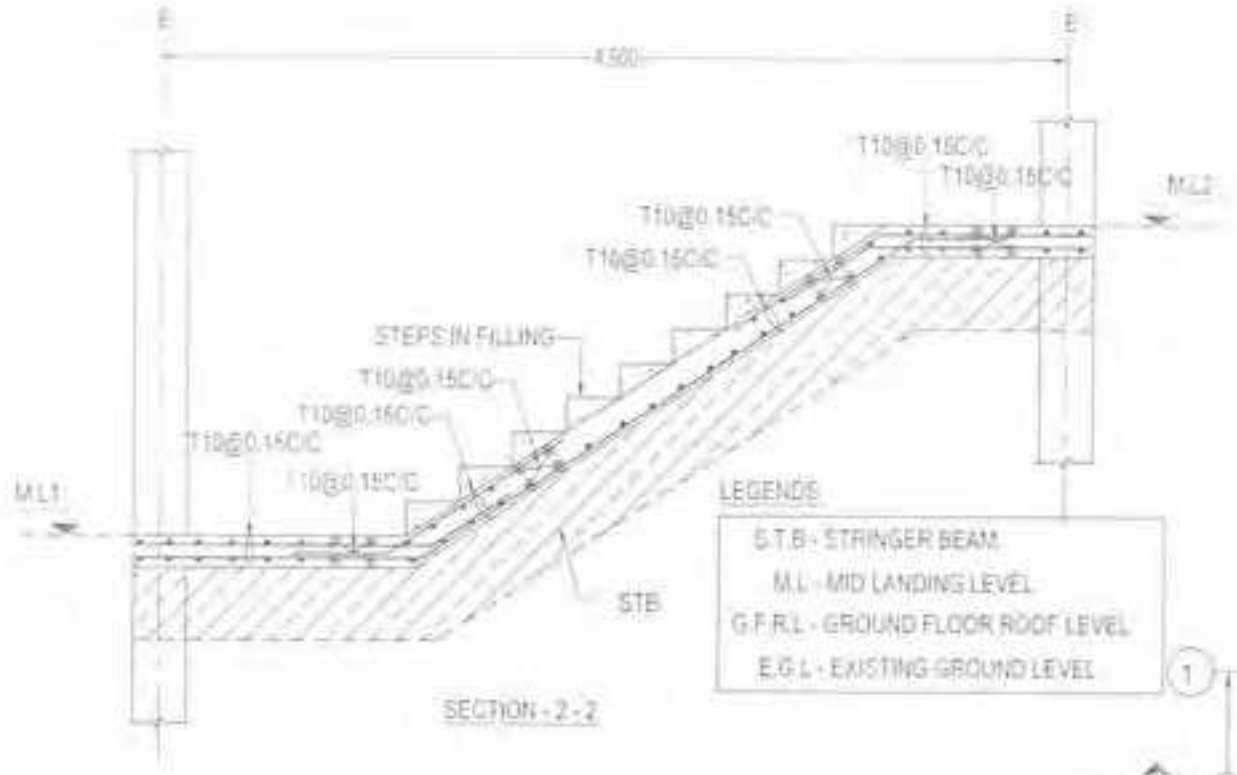


DETAIL 'A'

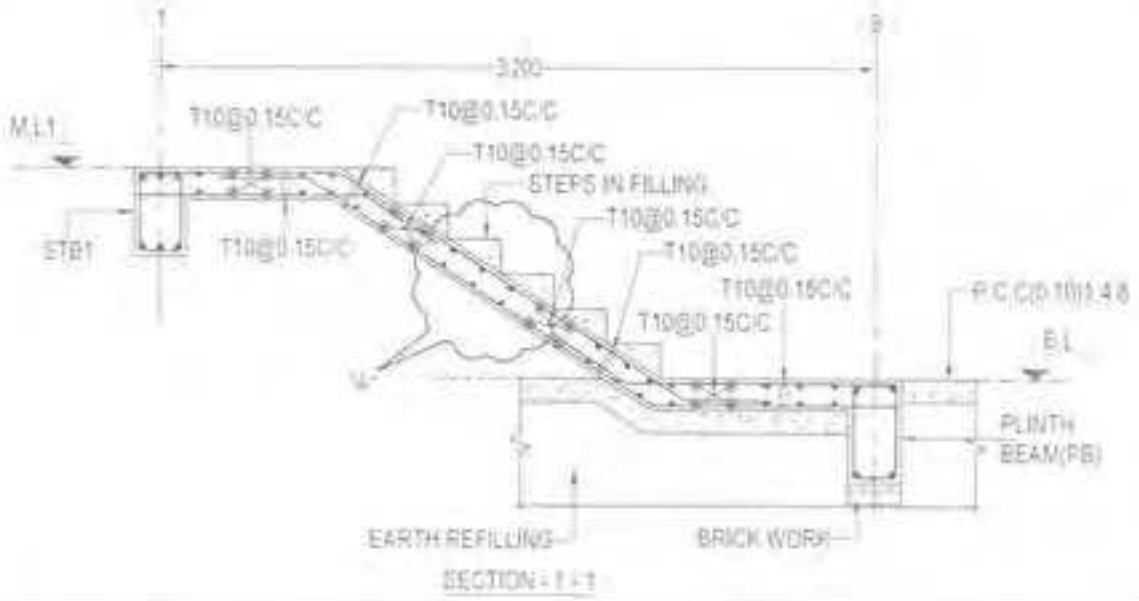


STB - 0.230 X 0.450
C/S DETAILS

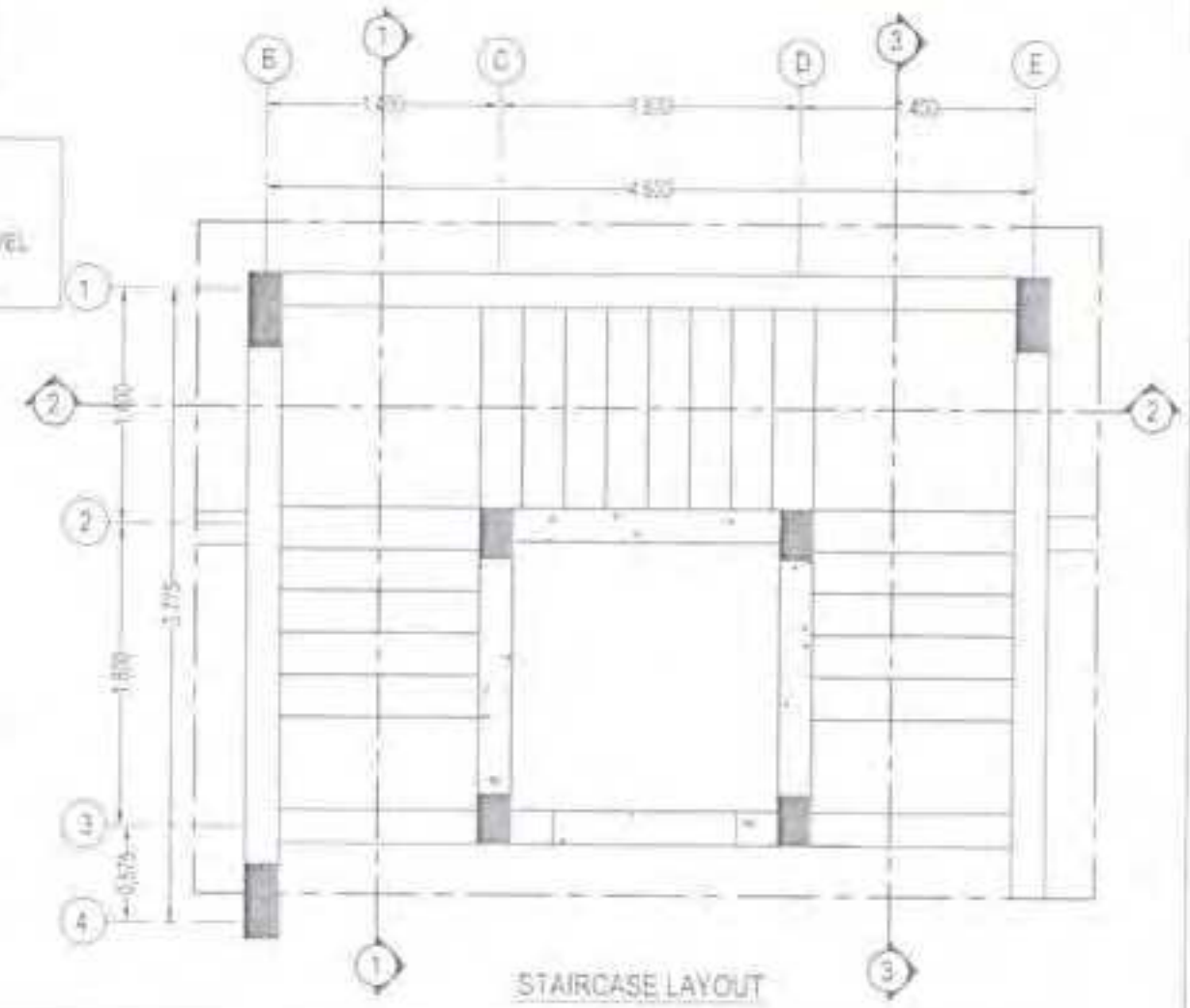
** NO OF STEPS & LEVELS REFER LATEST ARCHITECTURAL DRAWING



SECTION - 2 - 2



SECTION - 3 - 3



STAIRCASE LAYOUT

R. RAVINUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/12/231 (CBE/A)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

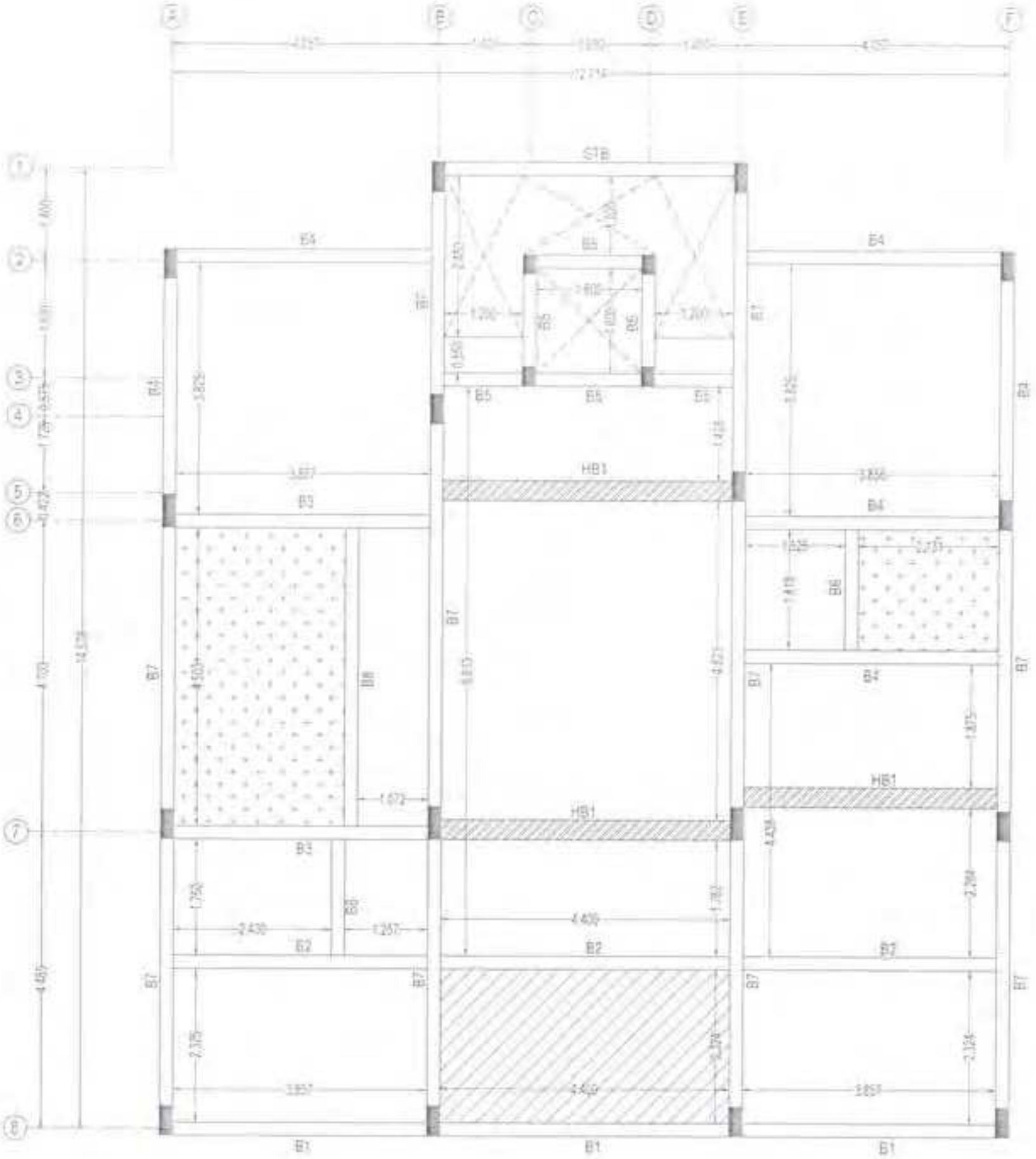
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

STAIRCASE LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	20/04/2026	ST-2026-06-05	08A



GROUND FLOOR ROOF BEAM LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CHENNAI)

LEGENDS:
- TOILET SUNKEN
- BALCONY SUNKEN
- HB - HIDDEN BEAM
- OPENING

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS EXCEPT THE SLAB CONCRETE IS IN MM.
2. GRID LINES ARE DIMENSIONED TO CENTRELINES.
3. ALL DIMENSIONS ARE TO BE CHECKED AT SITE BEFORE EXECUTION OF WORKS.
4. ALL CONCRETE WORKS SHALL BE DONE AS PER IS 456-2000.
5. CONCRETE GRADE USED FOR DIFFERENT ELEMENTS OF BUILDING ARE AS FOLLOWS:
   a. COLUMN - M40
   b. FOOTING - M40
   c. SLAB - M40
   d. BEAM - M40
   e. CONCRETE - M40
   f. PLINTH BEAM - M40
6. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR SAFE BEARING PRESSURE OF 30 T/M2 AT 1.5M DEPTH BELOW EXISTING GROUND LEVEL. THE CONTRACTOR IS RESPONSIBLE FOR ATTAINING THE SAFE BEARING CAPACITY AS PER SOIL INVESTIGATION REPORT.
7. LOOSE SOIL IF ANY SHALL BE REMOVED BEFORE LAYING FOUNDATION.
8. THE DEPTH OF BEAMS SHALL BE INCLUDING THE SLAB THICKNESS.

LAP JOINTS FOR REINFORCEMENT BARS

i) EVERY EFFORT SHALL BE MADE TO AVOID LAPS AT SECTIONS OF MAXIMUM STRESS. LAPS SHALL BE STAGGERED AND SHALL NOT BE MADE AT POINTS OF MAXIMUM BENDING MOMENT.

ii) LAPS IN TENSION ZONE SHALL BE PROVIDED AT THE MIDDLE THIRD OF SPAN AND NOT AT CLEAR END.

iii) LAPS IN BEAMS AND COLUMNS SHALL BE PROVIDED AT THE MIDDLE THIRD OF CLEAR LENGTH.

CLIENT	
PROJECT	PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 6) AT ECR, CHENNAI
ARCHITECT	ADITYARAM GROUP
STRUCTURAL CONSULTANT	SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME: GROUND FLOOR ROOF BEAM LAYOUT

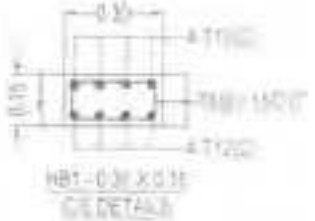
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-03	09

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO.	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	2-T12(C) 2-T16(C) T8@0.150C/C	2-T12(C) T10@0.150C/C 2-T12(C) 2-T16(C)	2-T12(C) 2-T16(C) T8@0.150C/C	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B2	2-T16(C) T8@0.125C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.125C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.125C/C 2-T16(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B3	2-T12(C) T10@0.100C/C 2-T16(C) 2-T16(C)	2-T12(C) T10@0.100C/C 2-T16(C) 2-T16(C)	2-T12(C) T10@0.100C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B4	2-T12(C) T8@0.150C/C 2-T16(C) 2-T16(C)	2-T12(C) T8@0.150C/C 2-T16(C) 2-T16(C)	2-T12(C) T8@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B5	2-T16(C) T8@0.150C/C 2-T16(C)	2-T16(C) T8@0.150C/C 2-T16(C)	2-T16(C) T8@0.150C/C 2-T16(C)	
(0.20 X 0.45)	2-T12(C)	2-T12(C)	2-T12(C)	
B6	2-T12(C) T8@0.110C/C 2-T16(C)	2-T12(C) T8@0.150C/C 2-T16(C)	2-T12(C) T8@0.180C/C 2-T16(C)	
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)	
B7	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO.	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
SB	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
STB	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	



HB1 - 0.30 X 0.15
G/S DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231



TYPICAL TOILET SUNKEN SLAB DETAILS

LEGEND:
HB - HIDDEN BEAM
C - CONTINUOUS ROD
E - EXTRA ROD

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

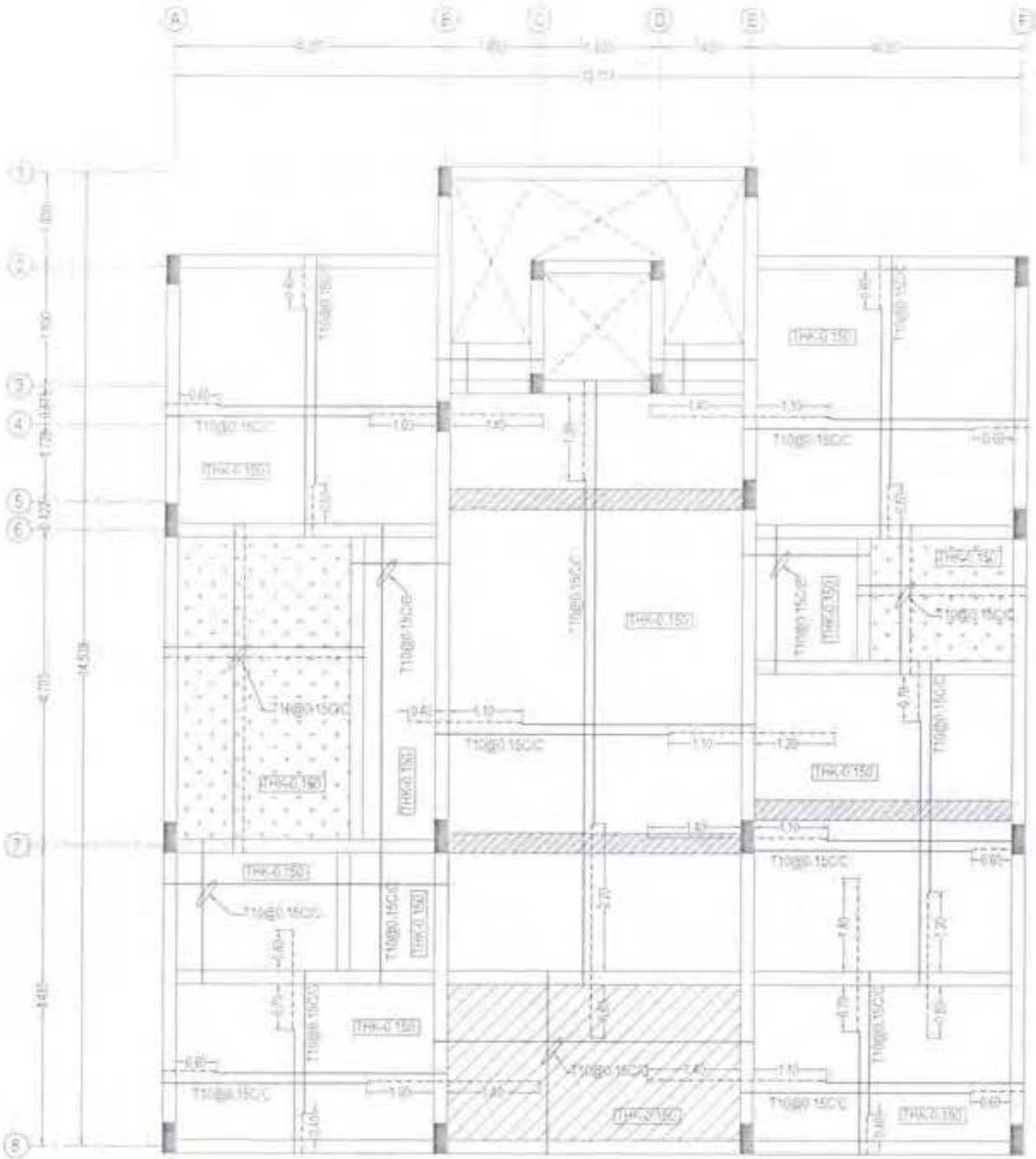
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	10



GROUND FLOOR ROOF SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (S)
M E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CHN)

LEGENDS:
- TOP ROD
- BOTTOM ROD
- THK. THICKNESS

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS EXCEPT WHERE OTHERWISE SPECIFIED.
2. ALL LEVELS TO BE CONFIRMED ON SITE BEFORE CASTING.
3. ALL REINFORCEMENT SHALL BE FREE FROM RUST, OIL, GREASE AND OTHER DELETERIOUS MATERIALS.
4. CONCRETE GRADE SHALL BE AS PER STRUCTURAL DRAWINGS UNLESS OTHERWISE NOTED.
5. ALL SLABS SHALL BE CAST IN ONE CONTINUOUS POUR WHERE POSSIBLE. CONSTRUCTION JOINTS SHALL BE LOCATED AS APPROVED BY THE STRUCTURAL ENGINEER.
6. CONCRETE SHALL BE CURED FOR A MINIMUM OF 7 DAYS BY WATER PONDING OR WET HESSIAN COVERING.
7. FORMWORK SHALL BE REMOVED ONLY AFTER THE CONCRETE HAS ATTAINED SUFFICIENT STRENGTH AS PER IS 456:2000.
8. ALL EMBEDDED PIPES, CONDUITS AND SLEEVES SHALL BE INSTALLED BEFORE CASTING AND SHALL NOT BE CUT THROUGH BEAMS OR SLABS WITHOUT APPROVAL.
9. ANY DISCREPANCIES BETWEEN DRAWINGS SHALL BE REPORTED TO THE ENGINEER BEFORE PROCEEDING WITH THE WORK.
10. THE CONTRACTOR SHALL ENSURE ADEQUATE PROTECTION OF CONCRETE FROM RAIN, SUN AND FROST DURING AND AFTER PLACEMENT.

LAP JOINTS FOR REINFORCEMENT BARS

1. LAP JOINTS SHALL BE PROVIDED AT THE POINTS WHERE THE MAXIMUM STRESS IN THE BARS SHALL BE LAPPED.
2. LAPS IN EQUATIVE SHALL BE PROVIDED FOR A LENGTH OF 50D OR 300 MM, WHICHEVER IS GREATER.
3. LAPS IN RIGHTS AND SLABS SHALL BE PROVIDED AT THE BOTTOM OF CONTINUOUS BARS.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 8) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

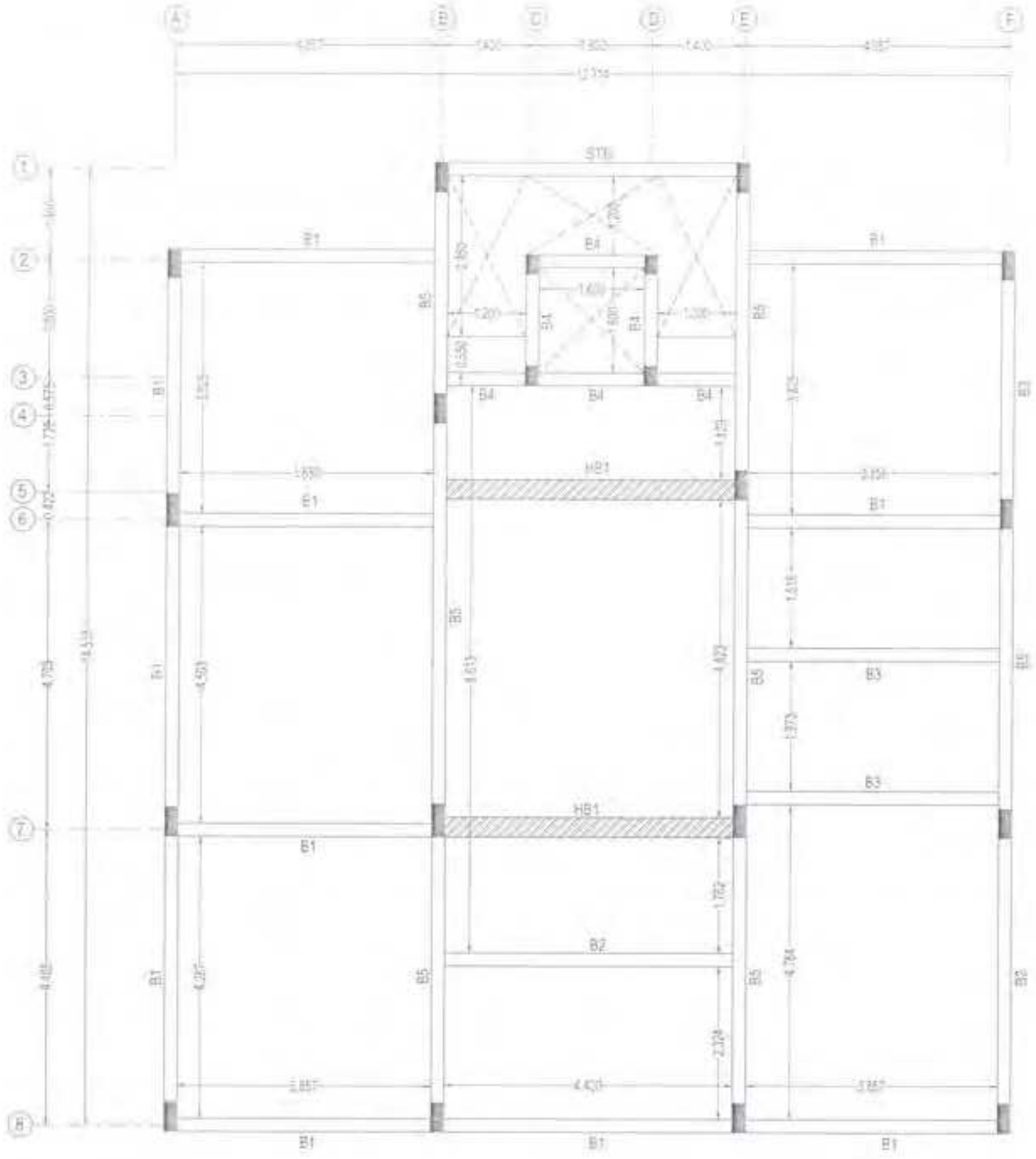
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	11

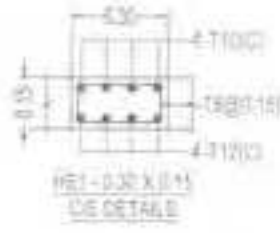


TERRACE BEAM LAYOUT

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS:

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (NS)
M.E (Structural Engg)
Reg. No - SE/GR-I/13/12/231 (CMDA)



LEGENDS:
- HB - HIDDEN BEAM
- OPENING

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

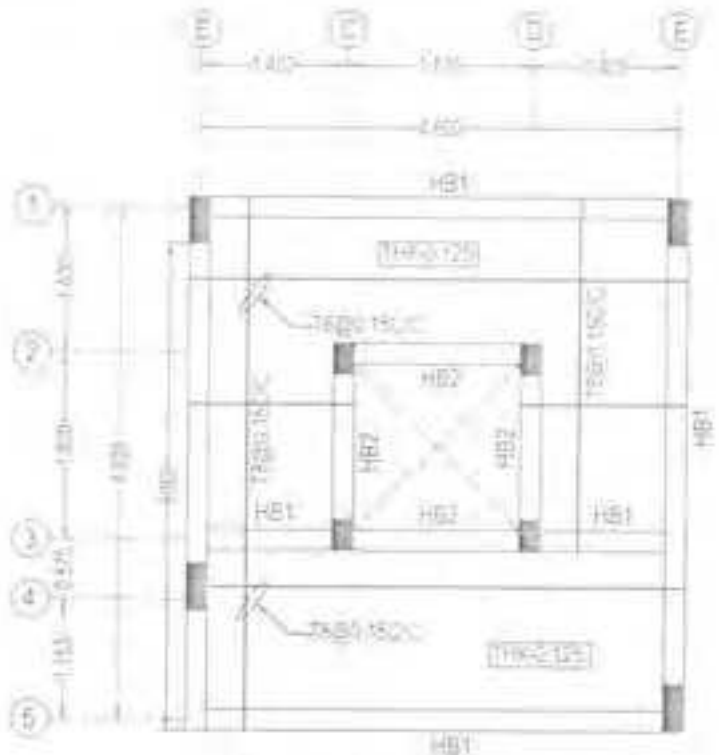
DRAWING NAME

TERRACE BEAM LAYOUT

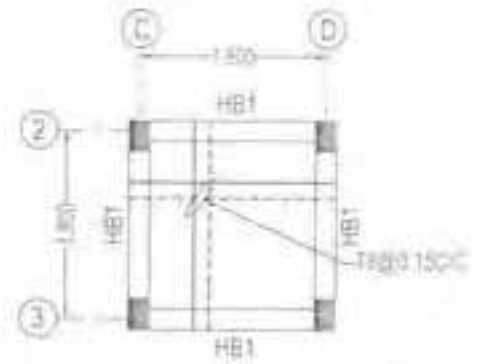
REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-05-05	12

TERRACE BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO.	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.20 x 0.45) B1	2-T16(E) 2-T12(C) T8@0.15C/C 2-T12(C) 2-T16(C)	2-T16(C) 2-T12(C) T8@0.15C/C 2-T12(C) 2-T16(C)	2-T16(C) 2-T12(C) T8@0.15C/C 2-T12(C) 2-T16(C)	- - - -
(0.20 X 0.45) B2	2-T16(C) T8@0.15C/C 2-T16(E) 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(E) 2-T16(C)	- - - -
(0.20 X 0.45) B3	2-T16(C) T8@0.15C/C 2-T12(C) 2-T16(C)	2-T16(C) T8@0.15C/C 2-T12(C) 2-T16(C)	2-T16(C) T8@0.15C/C 2-T12(C) 2-T16(C)	- - - -
(0.20 X 0.45) B4	2-T16(C) T8@0.15C/C 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C)	- - - -
(0.20 X 0.50) B5	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	- - - -

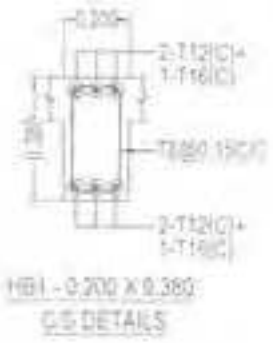


STAIRCASE HEADROOM LAYOUT & DETAILS

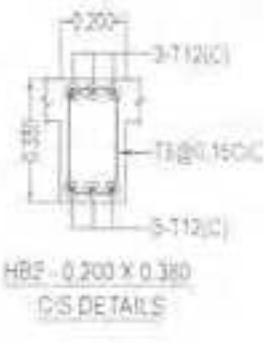


LIFT MACHINE ROOM LAYOUT & DETAILS

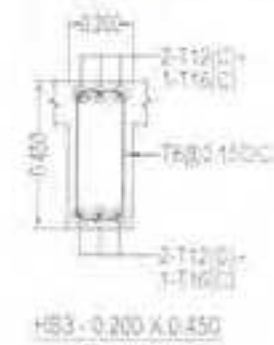
R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (I/C)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)



HB1 - 0.200 X 0.380
C/S DETAILS



HB2 - 0.200 X 0.380
C/S DETAILS



HB3 - 0.200 X 0.450
C/S DETAILS

LEGEND
HB - HIDDEN BEAM
C - CONTINUOUS ROD
E - EXTRA ROD

TECHNICAL NOTES

- ACCORDINGLY ONLY FIGURED DIMENSIONS TO BE TAKEN. DO NOT SCALE FROM DRAWING.
- ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
- ALL CONCRETE WORKS SHALL BE CARRIED OUT AS PER IS 456:2000.
- ALL REINFORCEMENT SHALL CONFORM TO IS 1786:2008 GRADE Fe 500 UNLESS OTHERWISE NOTED.
- ALL CONCRETE SHALL BE OF GRADE M 30 UNLESS OTHERWISE NOTED.
- CLEAR COVER TO REINFORCEMENT
  a. COLUMNS - 40MM
  b. FOOTINGS - 50MM
  c. BEAMS - 25MM
  d. SLABS - 20MM
  e. RETAINING WALL - 50MM
- THE BEARING PRESSURE FOR THE FOUNDATION IS TO BE RESTRICTED TO THE CAPACITY OF THE SOIL AS PER THE RECOMMENDATIONS OF THE SOIL INVESTIGATION REPORT. THE CONTRACTOR IS RESPONSIBLE FOR ATTAINING THE CAPACITY MENTIONED IN THE REPORT BEFORE CASTING.
- ALL CONCRETE SHALL BE VIBRATED BY MECHANICAL VIBRATORS.
- THE DESIGN IS BASED ON THE ASSUMPTIONS MADE IN THE STRUCTURAL DRAWINGS.

LAP JOINTS FOR REINFORCEMENT BARS

- THE LAP LENGTH SHALL BE 50 DIAMETERS OR 600MM WHICHEVER IS LESS.
- LAPS IN COLUMNS SHALL BE PROVIDED AT MID HEIGHT OF FLOOR AND NOT AT FLOOR LEVEL.
- LAPS IN BEAMS SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 6)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

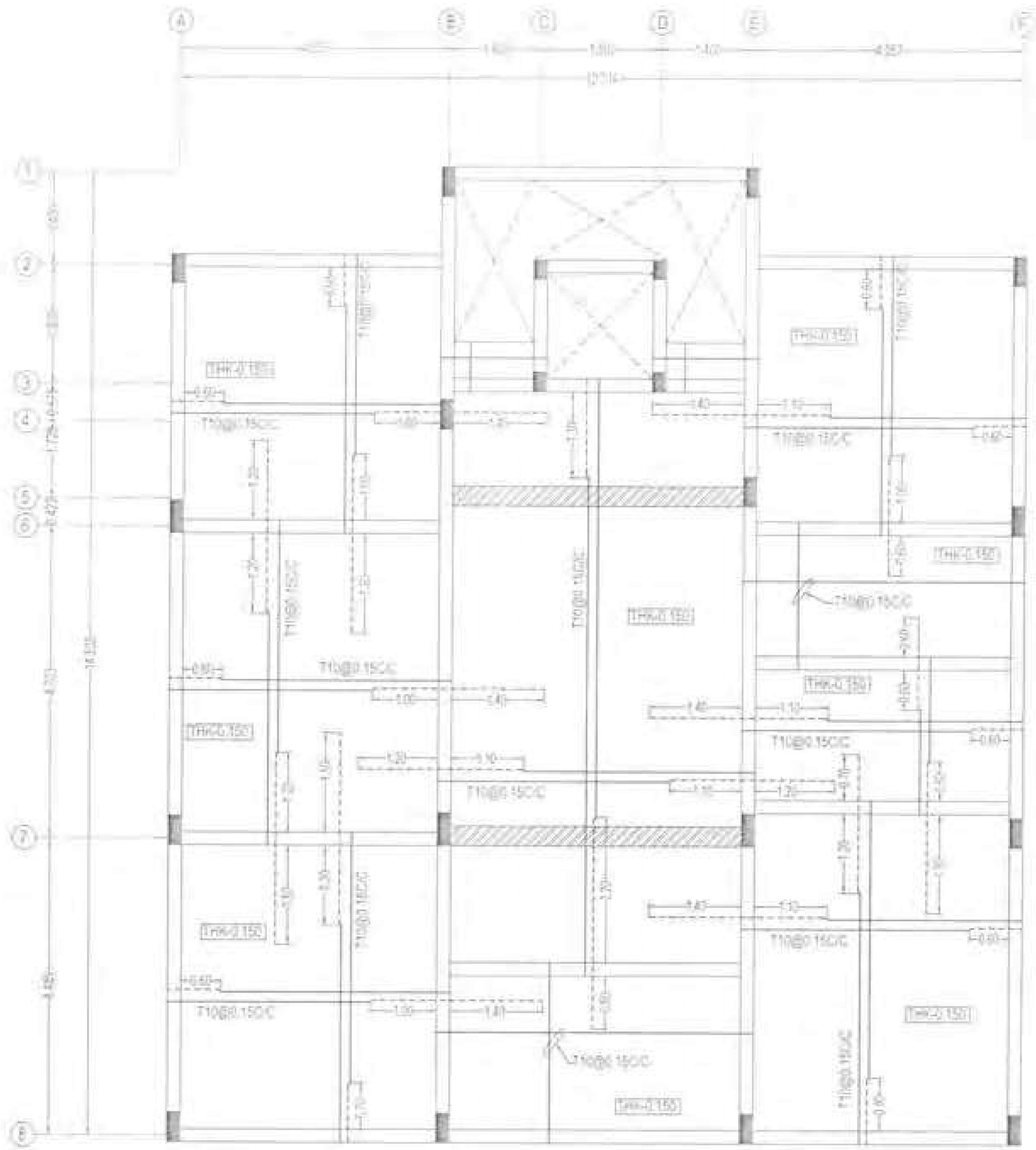
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2025	ST-2025-00-05	13



TERRACE SLAB LAYOUT & DETAILS

LEGENDS
- - - TOP ROD
—— BOTTOM ROD
THK - THICKNESS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 6) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

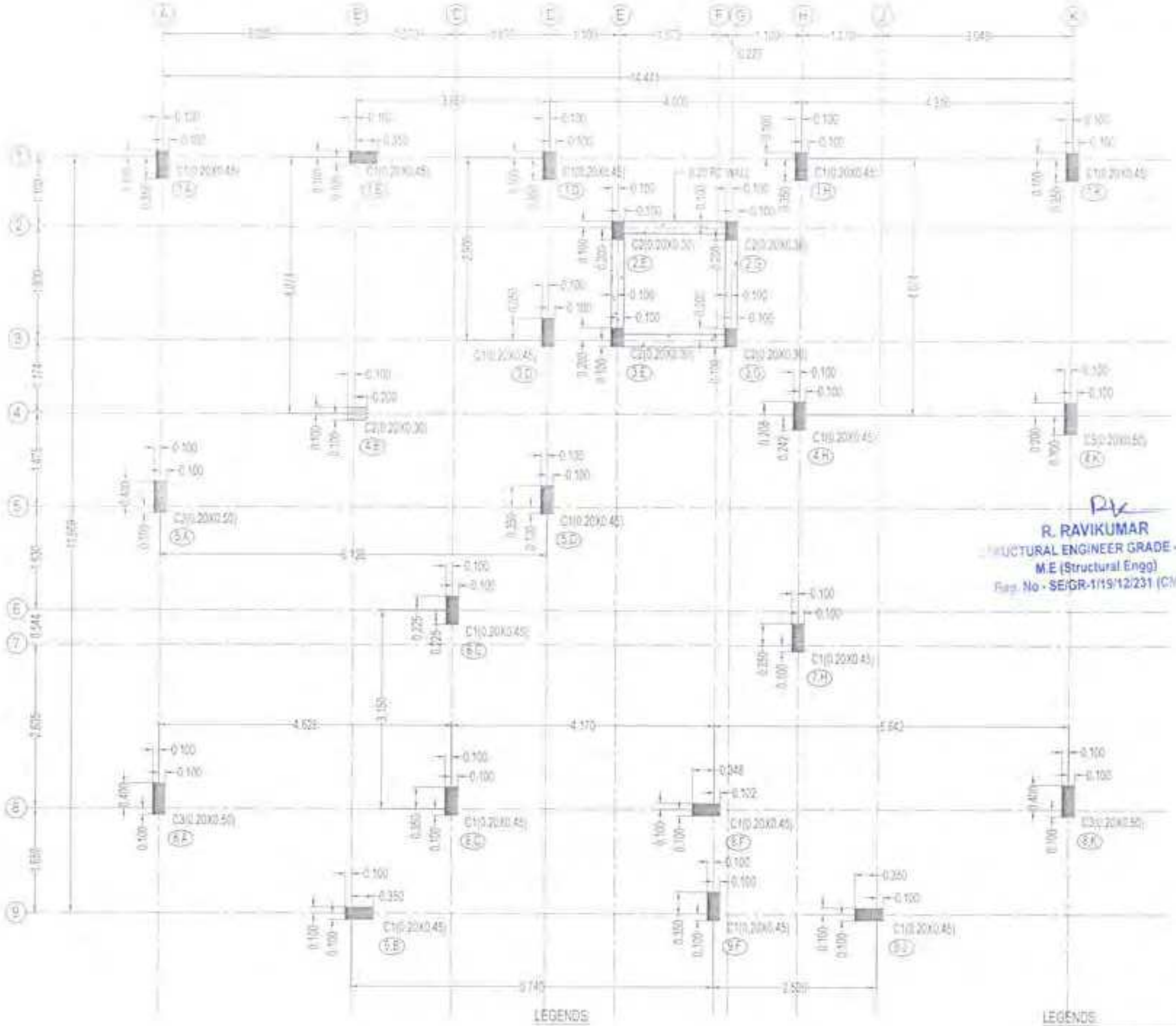
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	25/04/2026	ST-2026-06-05	14



R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

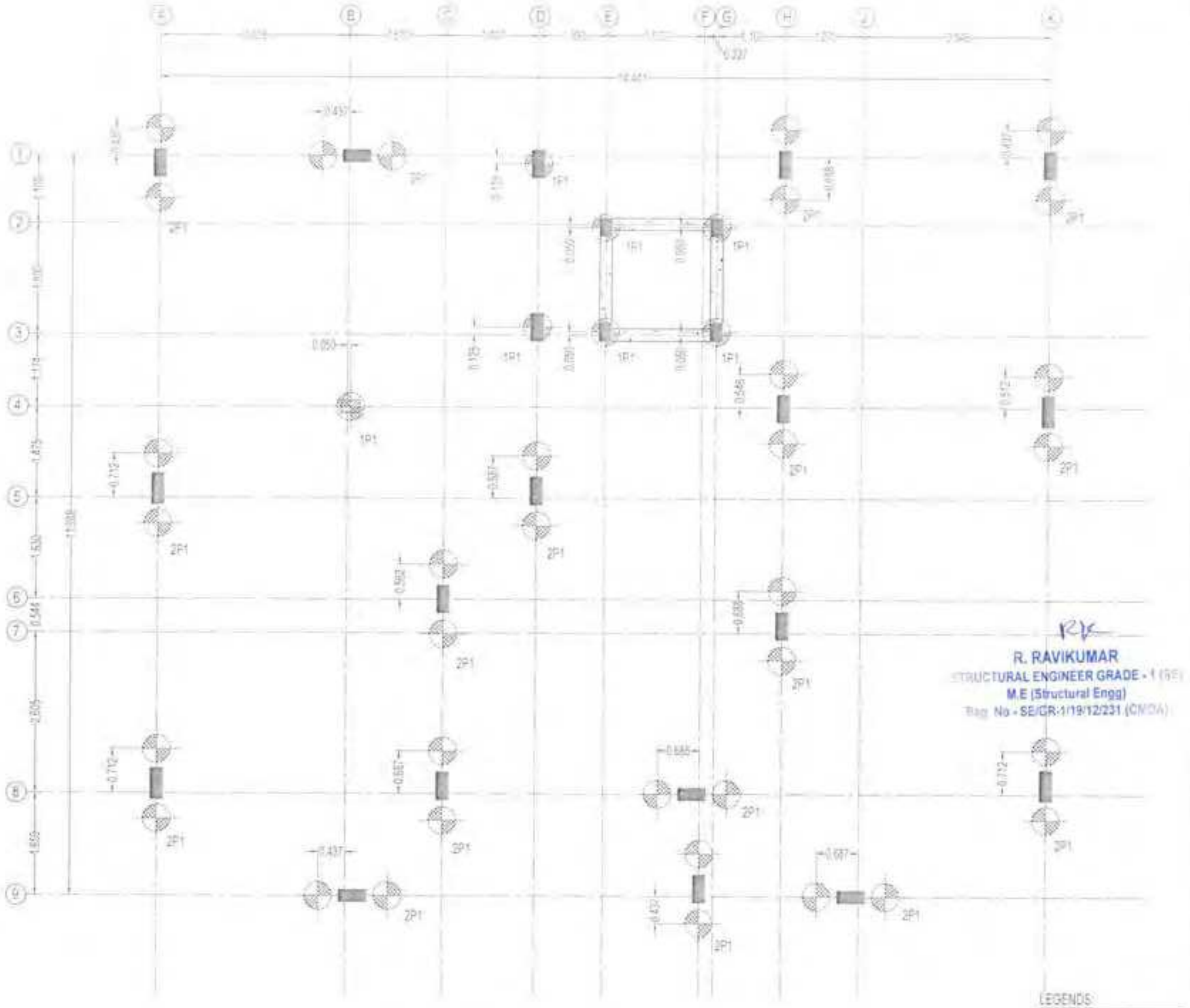
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

COLUMN MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	01



PILE MARKING LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

LEGENDS

0.450
P - PILE @ 450mm

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN CENTIMETERS UNLESS OTHERWISE SPECIFIED.
2. ALL LEVELS ARE REFERENCED TO M.S.L.
3. ALL DIMENSIONS SHALL BE VERIFIED AT SITE BEFORE ANY WORK IS CARRIED OUT.
4. ANY DISCREPANCIES SHALL BE REPORTED TO THE ENGINEER IMMEDIATELY.
5. ALL LEVELS IN METRES.
6. FIGURES IN FIGURES SHALL NOT BE SCALED. ANY DIMENSIONS NOT MENTIONED SHALL BE MEASURED ONLY FROM THE CONSTRUCTION DRAWINGS.
7. GRADE OF CONCRETE USED FOR DIFFERENT ELEMENTS SHALL BE AS PER THE APPROVED DRAWINGS.
8. ALL REINFORCEMENT SHALL CONFORM TO IS 1786.
9. CLEAR COVER TO REINFORCEMENT:
   - A. COLUMNS : 40MM
   - B. FOUNDATION : 50MM
   - C. GRADE BEAM : 40MM
   - D. FLOOR BEAM : 25MM
   - E. FLOOR SLAB : 20MM
10. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR SAFE BEARING PRESSURE OF 10T/SQ.M. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ESTIMATING THE CAPACITY BORING & CONSULTING WITH SOIL EXPERTS.
11. LOOSE SOIL IF ANY SHALL BE REMOVED BEFORE LAYING FOUNDATION.
12. THE DEPTH OF BEAMS SHALL BE INCLUDING THE SLAB THICKNESS.

LAP JOINTS FOR REINFORCEMENT BARS

1. NO ANY SPLICE SHALL BE MADE IN THE REINFORCEMENT BARS EXCEPT AT THE BARS SHALL BE LAPPED.
2. LAPS IN COLUMNS SHALL BE PROVIDED IMMEDIATELY ABOVE FLOOR AND NOT AT SLAB LEVEL.
3. LAPS IN BEAMS AND SLABS SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

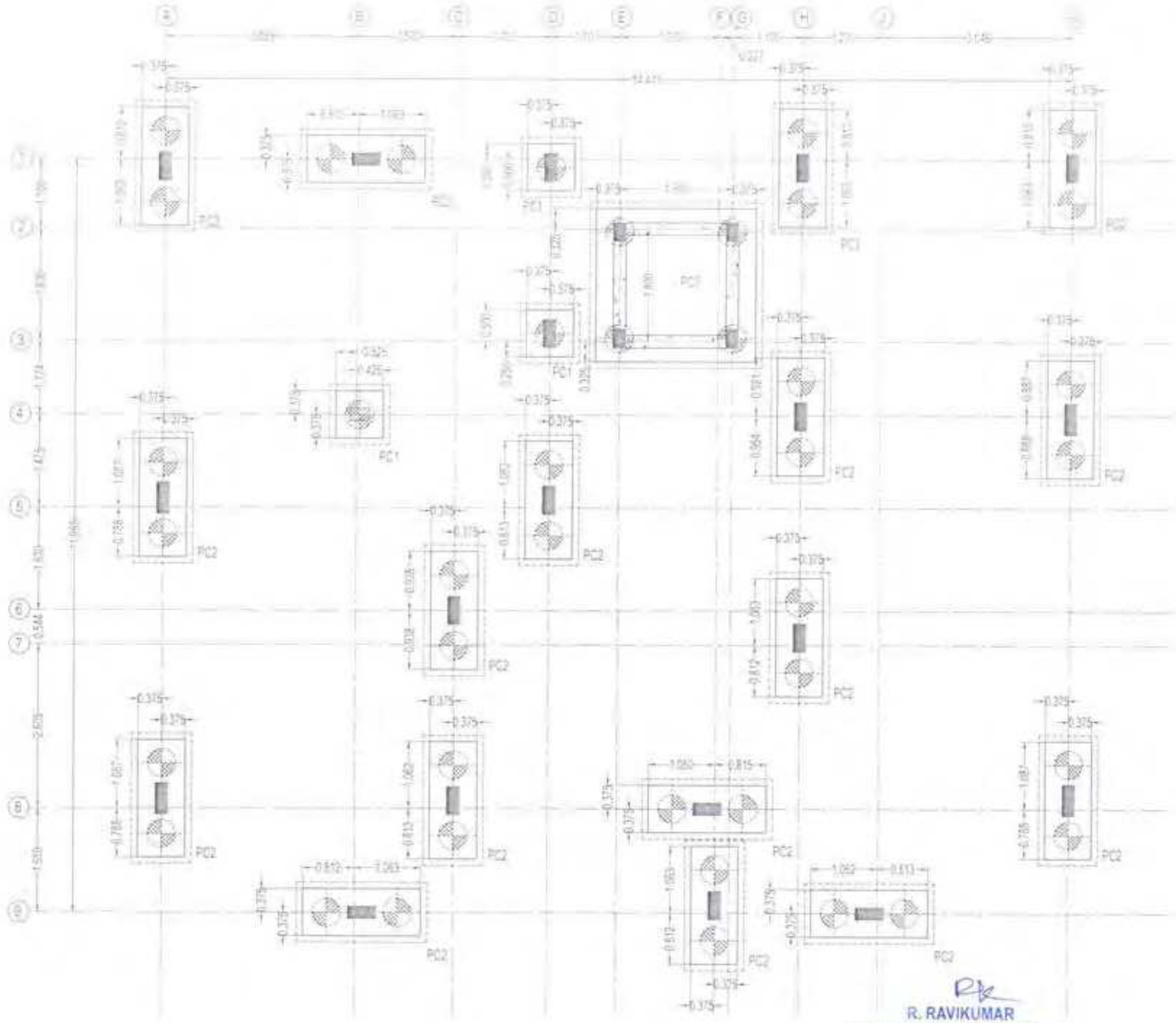
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	02



PILE CAP MARKING LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGENDS
PC - PILE CAPS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

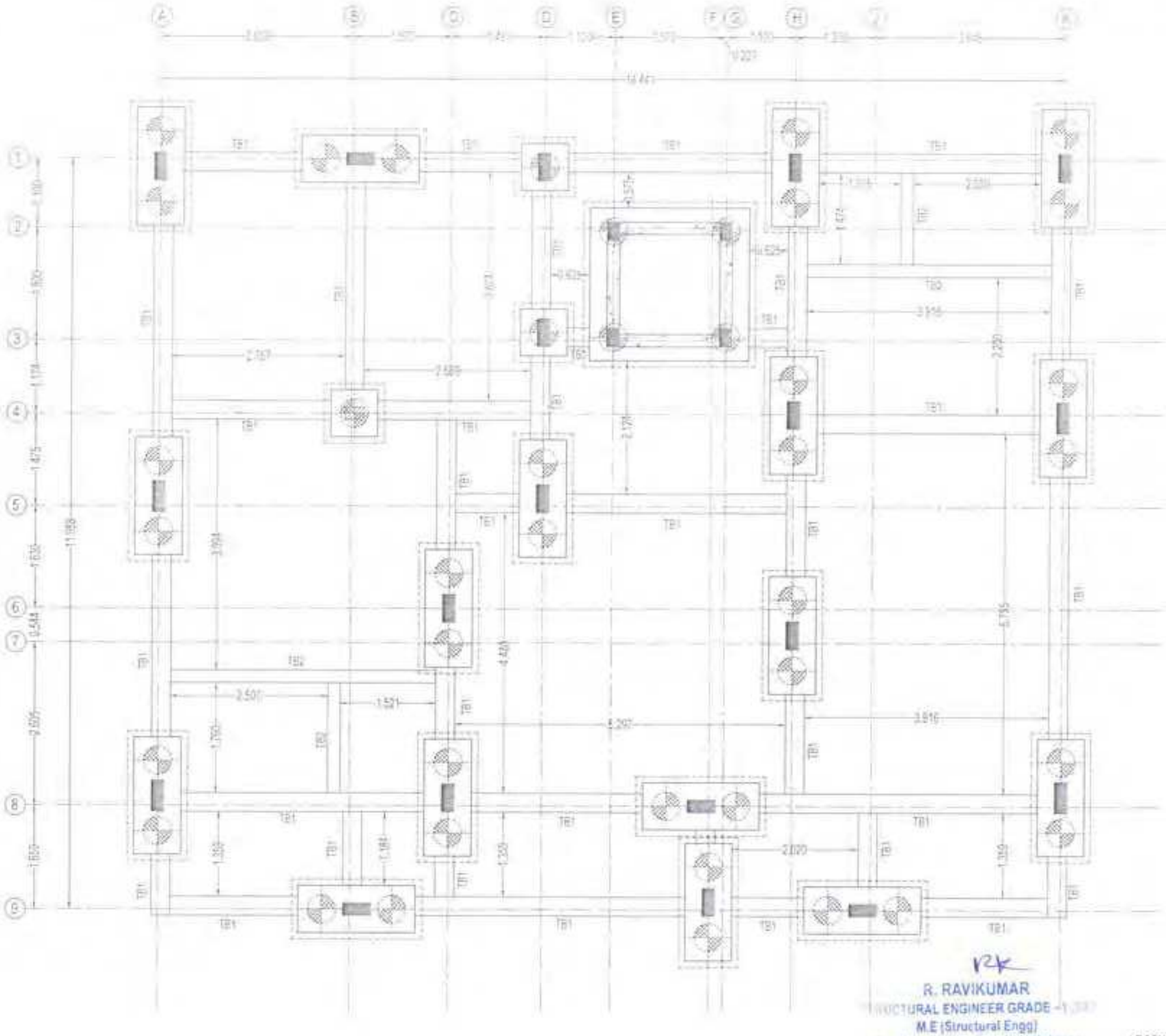
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-05-06	03



TIE BEAM(TB) LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE -I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGENDS
TB - TIE BEAM

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 17 & 18)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

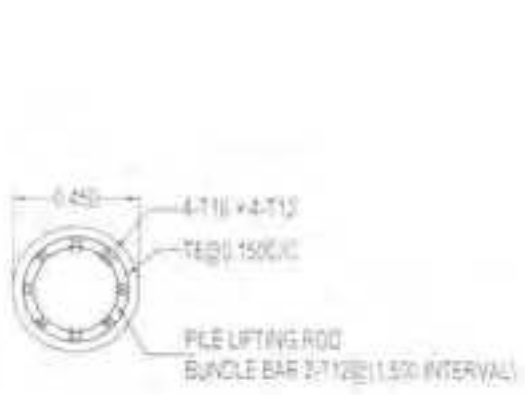
DRAWING NAME

PILE CAP,PCI & TIE BEAM(TB) LAYOUT

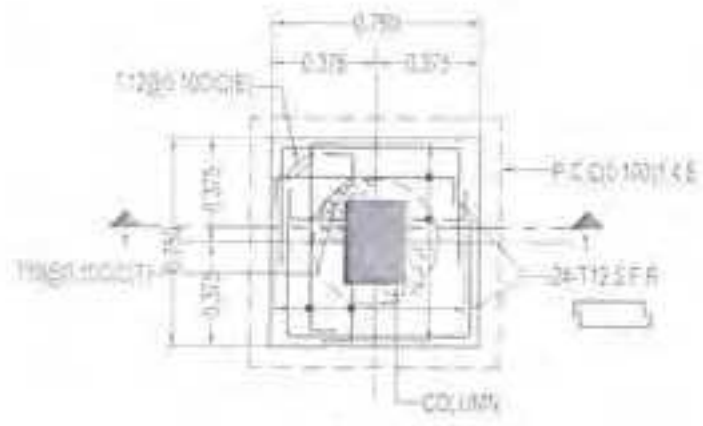
REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	04

COLUMN REINFORCEMENT SCHEDULE

TERRACE LEVEL			
TO	H=T8@125C/C	H=T8@125C/C	H=T8@125C/C
	H=T8@175C/C	H=T8@175C/C	H=T8@175C/C
FOOTING MARKED @ T/F @ F/F	0.450 / 0.300	0.300 / 0.300	0.500 / 0.300
	8-T16	4-T16 + 2-T12	10-T16
COLUMN MARKED	C1	C2	C3

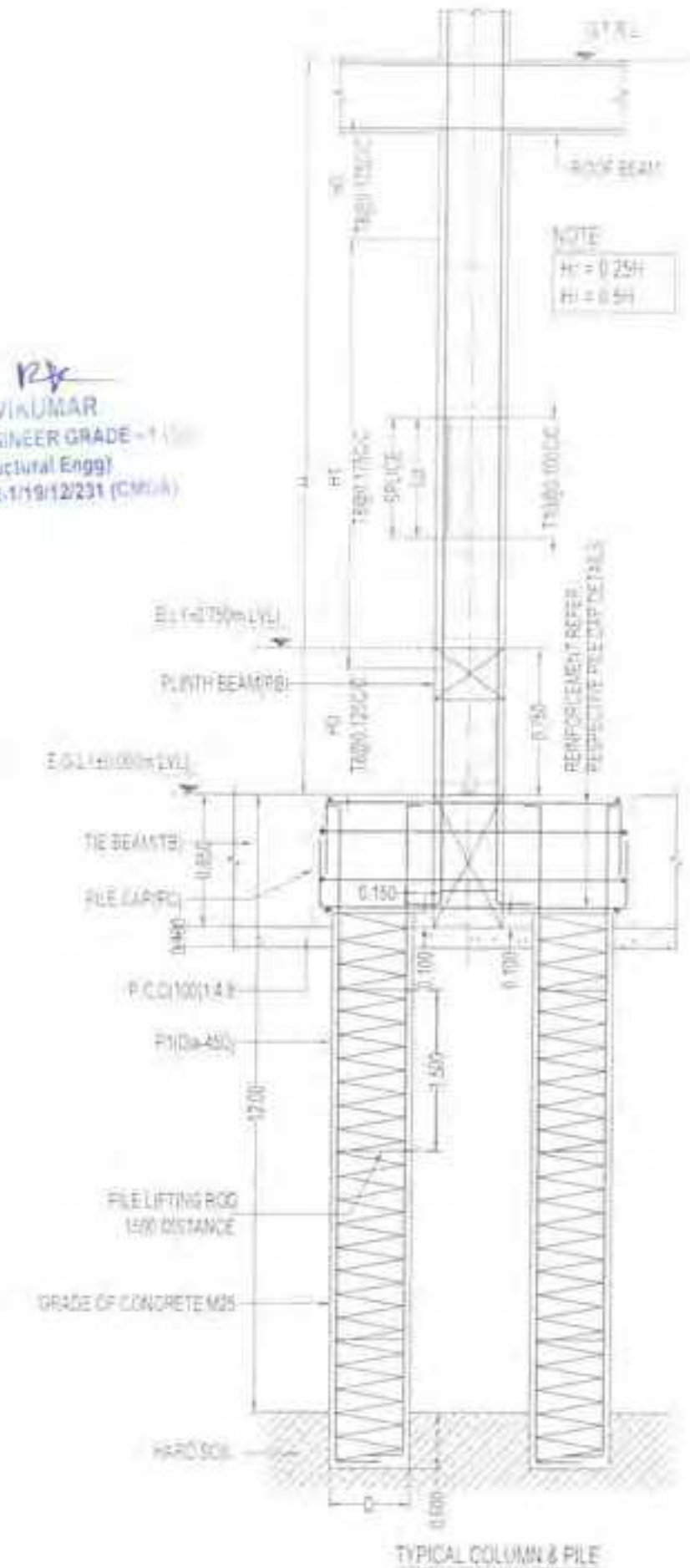


PILE (P1) - PLAN



PC1 - PLAN

SECTION - 1 - 1



TYPICAL COLUMN & PILE CONFINING DETAILS

** S.F.R - SIDE FACE REINFORCEMENT

LEGENDS:

B.L - BASEMENT LEVEL
G.F.R.L - GROUND FLOOR ROOF LEVEL
E.G.L - EXISTING GROUND LEVEL

A. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
No - SE/GR-1/19/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

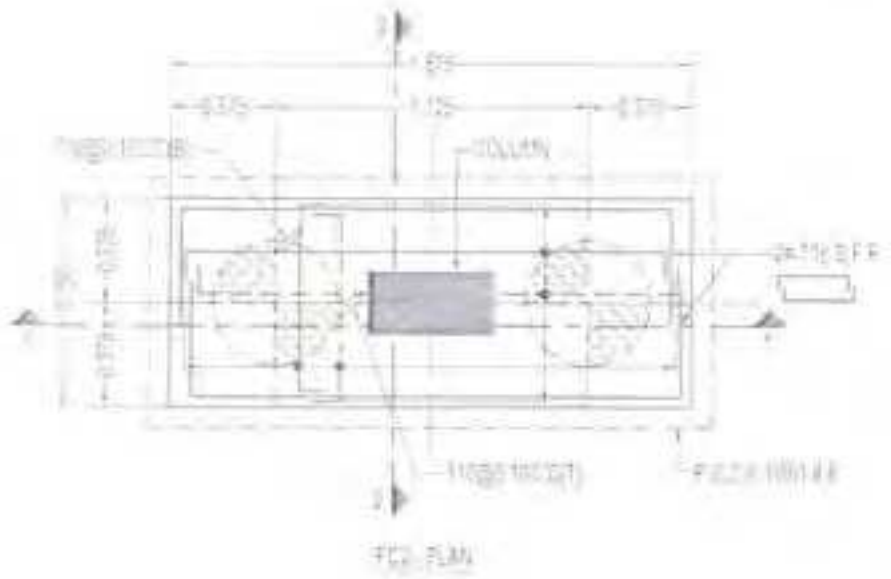
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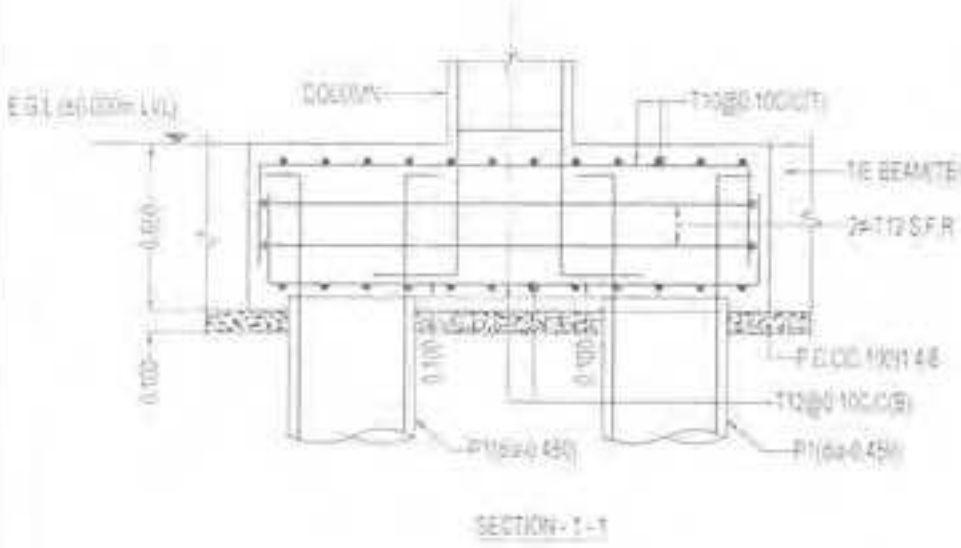
DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

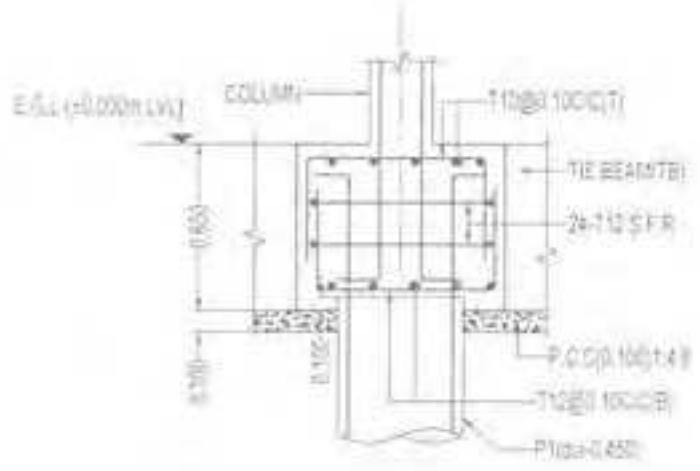
COLUMN, PILE & PILE CAP DETAILS

REV	DATE	PROJECT NO	SHEET NO
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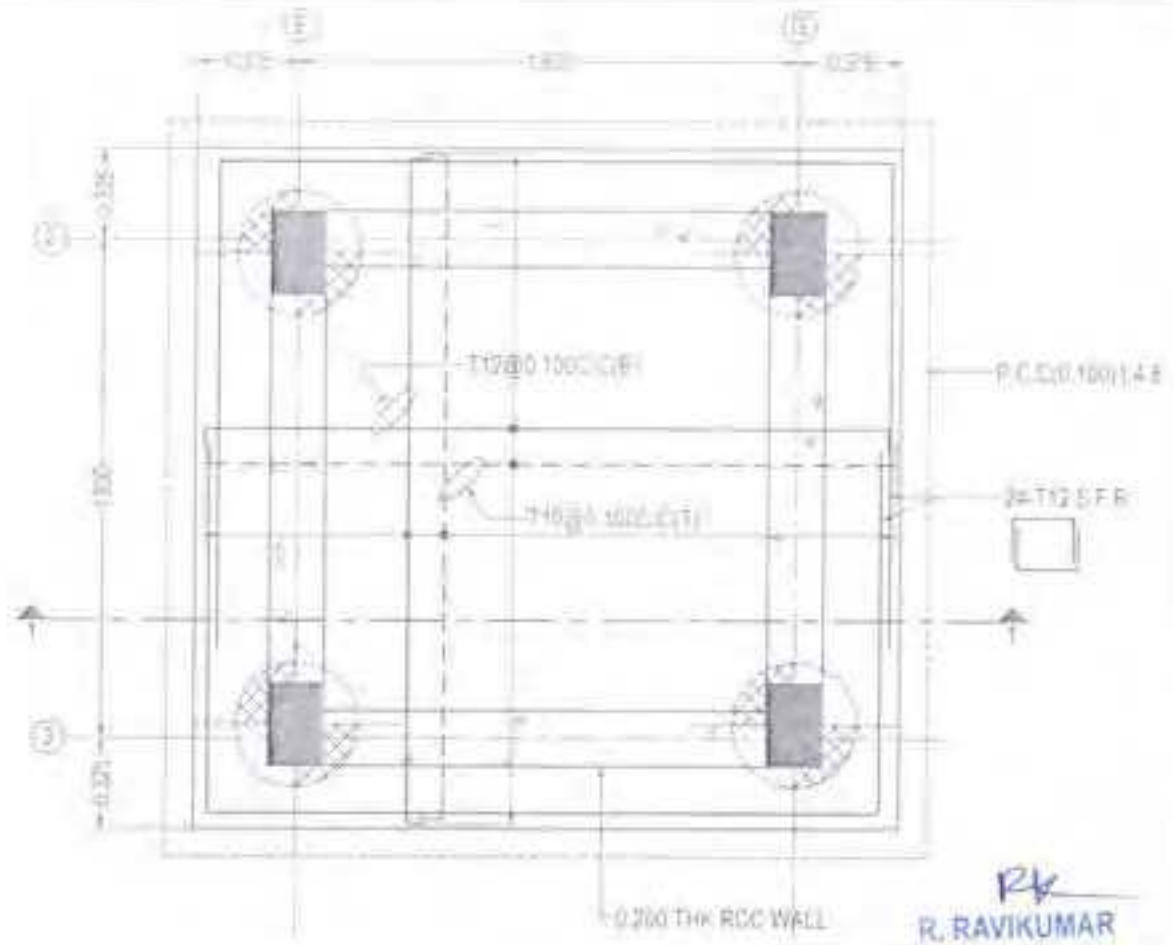




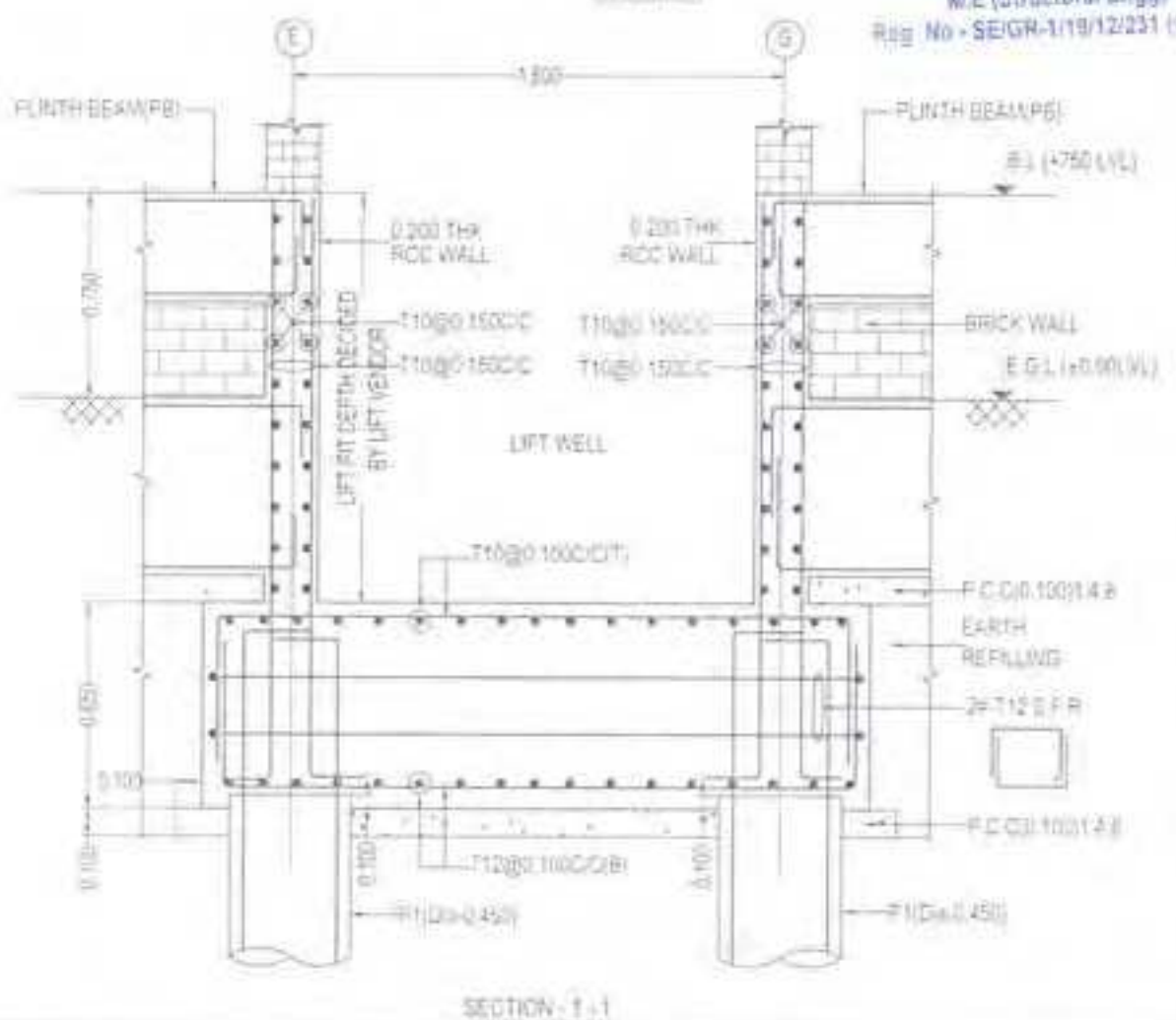
SECTION - 1 - 1



SECTION - 2 - 2



PC3 - PLAN



SECTION - 1 - 1

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT EGR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

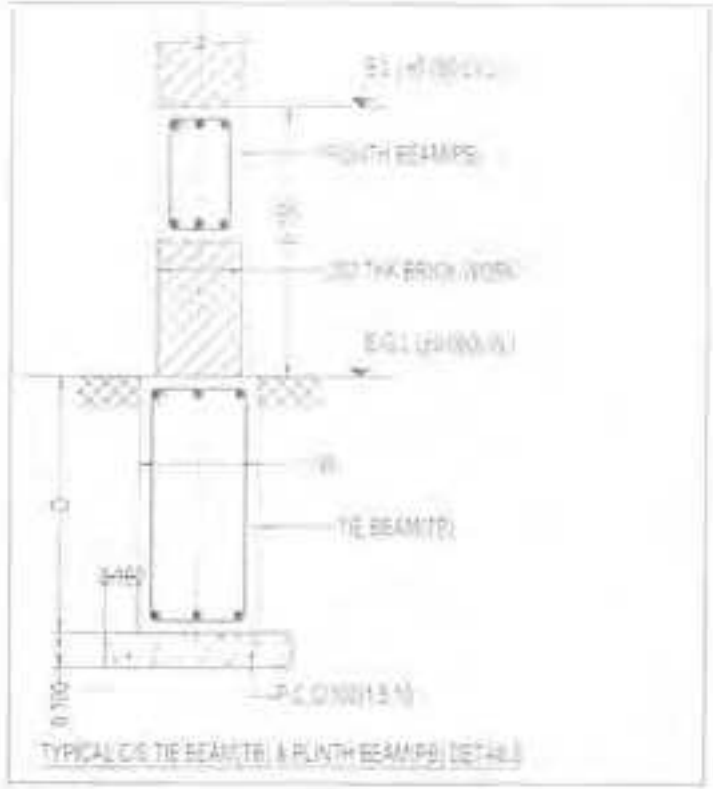
DRAWING NAME

PILE & PILE CAP DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	06/05/2026	ST-2026-06-06	06

TIE BEAM (TB) REINFORCEMENT SCHEDULE

BEAM SIZE & NO.	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(0.300 X 0.600) TB1	2-T16(C), T10@150 C/C, P.C.C, 3-T16(C)	3-T16(C), T10@150 C/C, P.C.C, 3-T16(C)	3-T16(C), T10@150 C/C, P.C.C, 3-T16(C)
(0.300 X 0.600) TB2	2-T16(C), T10@150 C/C, P.C.C, 2-T16(C)	2-T16(C), T10@150 C/C, P.C.C, 2-T16(C)	2-T16(C), T10@150 C/C, P.C.C, 2-T16(C)



TYPICAL (C/S TIE BEAM(TB) & PLINTH BEAM(PB) DETAIL)

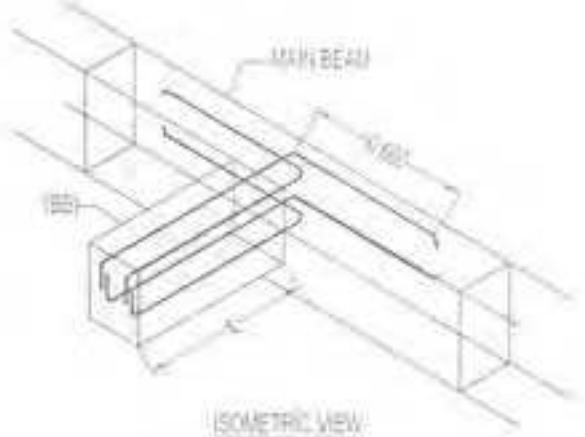


TYPICAL ANCHORAGE OF BEAM BARS IN AN EXTERNAL JOINT

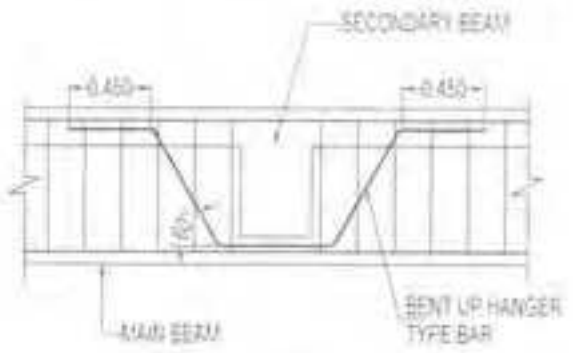
**12dia TWO'S DIA OF BAR

LEGENDS

E.G.L - EXISTING GROUND LEVEL
T.B - TIE BEAM
P.B - PLINTH BEAM
B.L - BASEMENT LEVEL



OF (TYP) BRACKET BEAM REST ON BEAM DETAIL



WHERE CROSS BEAM SHEAR ROD SHOULD BE PROVIDED AT 2-T16

S.F.R - SIDE FACE REINFORCEMENT
B.F - EACH FACE

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (E)
M.E (Structural Engg)
Tvpe No - SE/GR-1/19/12/231 (Chn)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS:

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

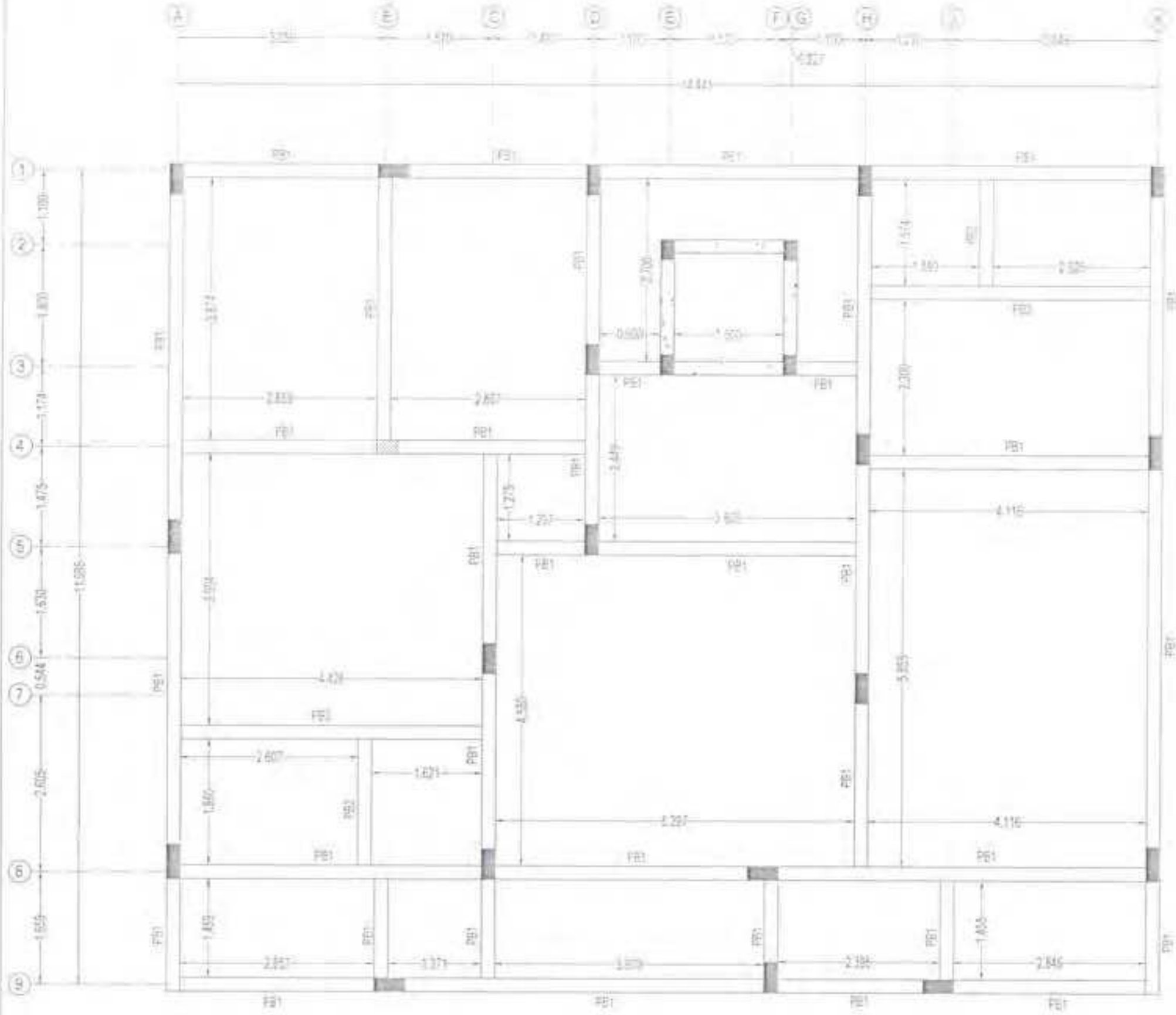
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TIE BEAM (TB) REINFORCEMENT DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	07

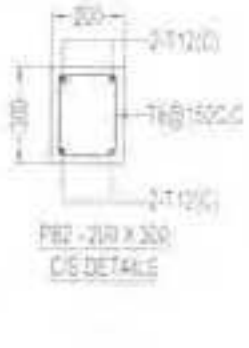


PLINTH BEAM,PB1 LAYOUT

TOP OF PLINTH BEAM AT +0.150m LVL



PB1 - 200 X 450
DS DETAILS



PB2 - 200 X 300
DS DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

LEGENDS

PB - PLINTH BEAM

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

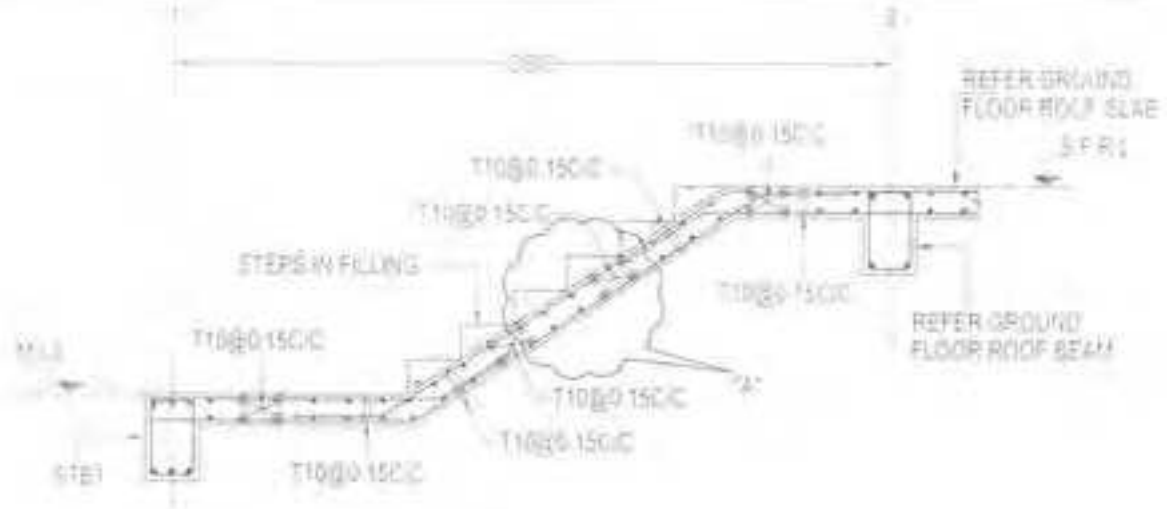
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

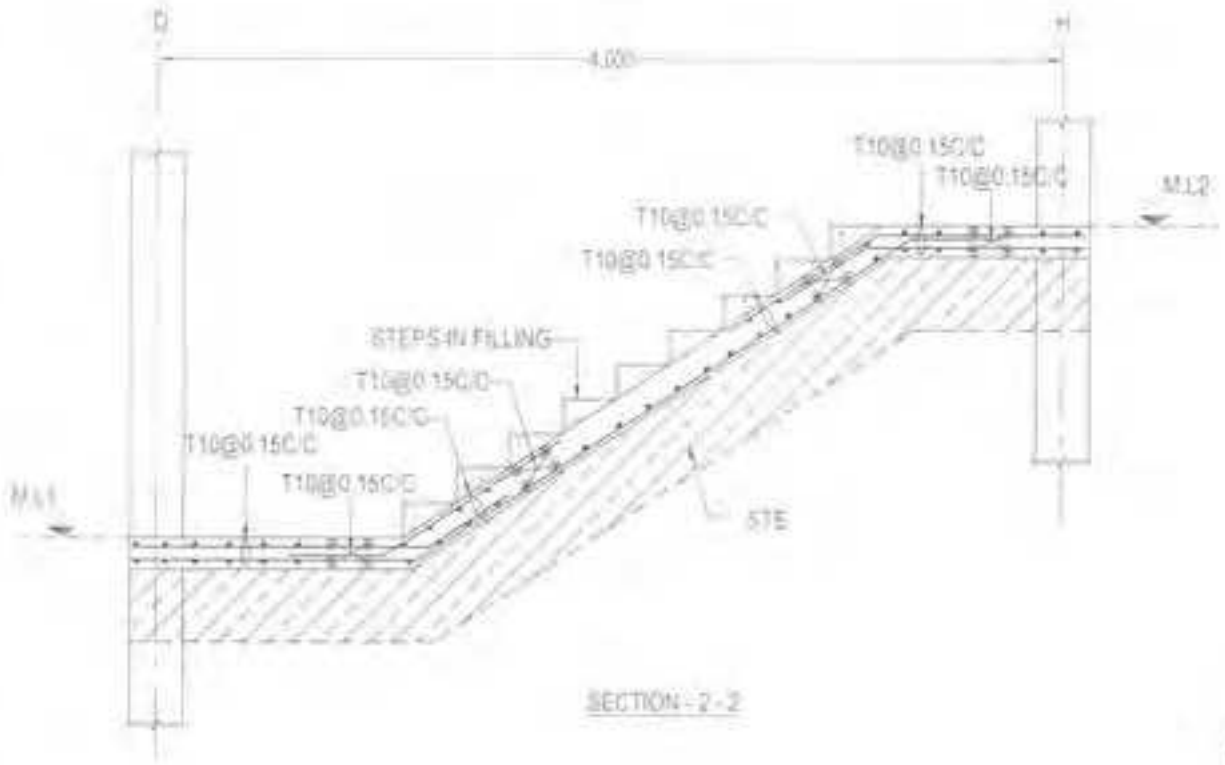
DRAWING NAME

PLINTH BEAM,PB1 LAYOUT & DETAILS

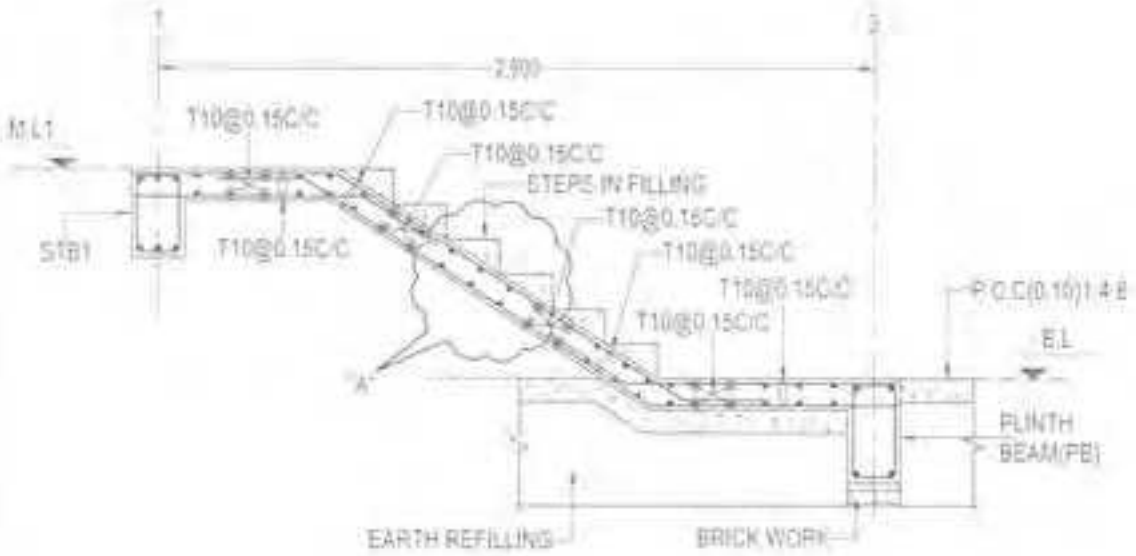
REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	08



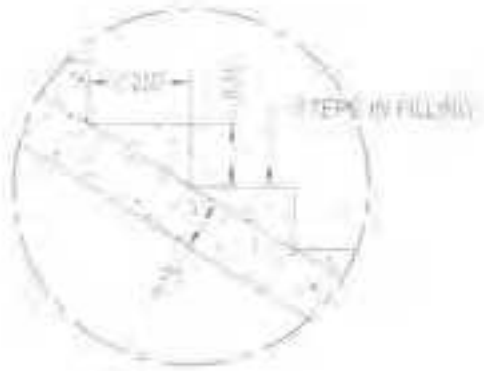
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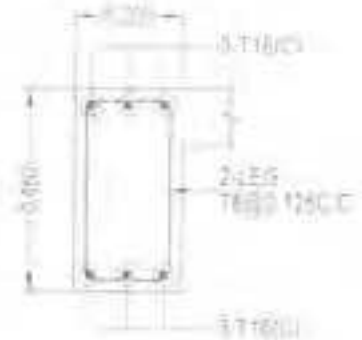


SECTION - 2 - 2



SECTION - 1 - 1





STB - 0.230 X 0.450
C/S DETAILS

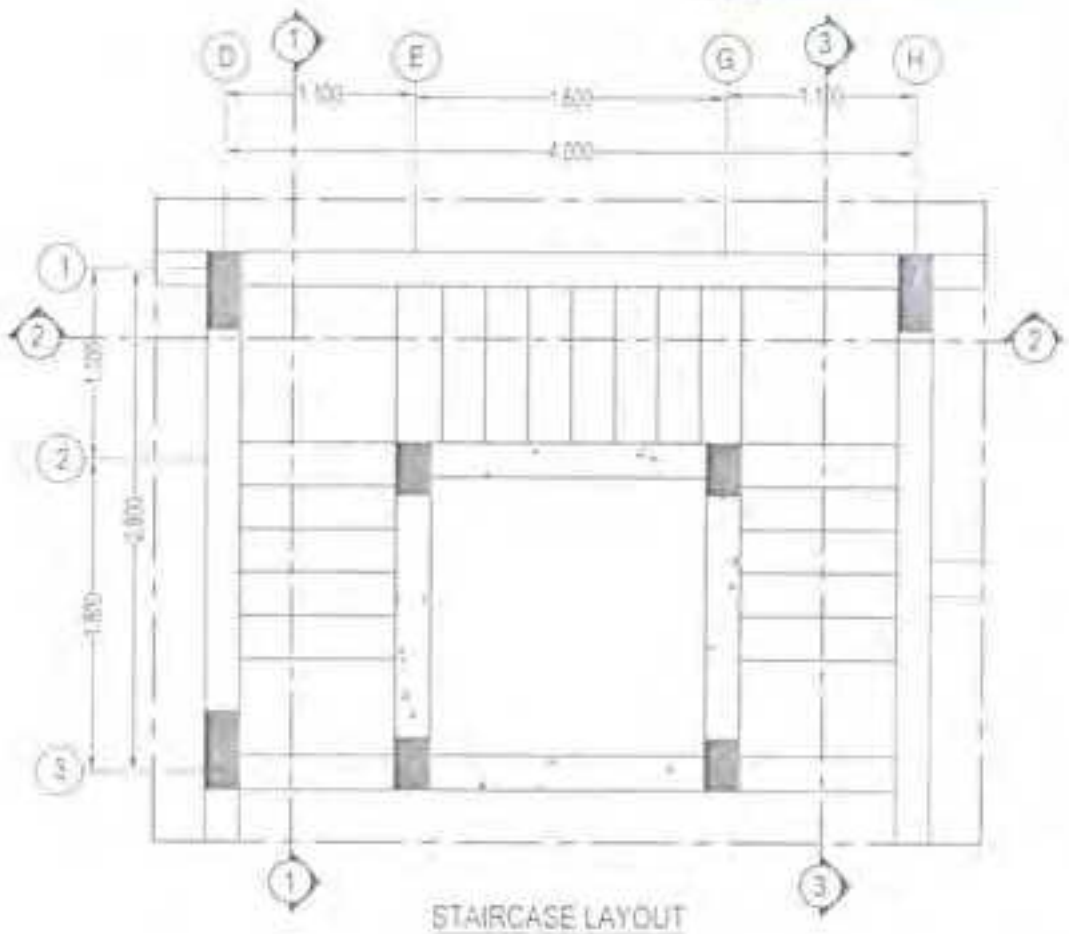
** NO.OF STEPS & LEVELS REFER LATEST ARCHITECTURAL DRAWING

LEGENDS

S.T.B - STRINGER BEAM
M.L - MID LANDING LEVEL
G.F.R.L - GROUND FLOOR ROOF LEVEL
E.G.L - EXISTING GROUND LEVEL

RK

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (C)



STAIRCASE LAYOUT

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 17 & 18) AT ECR CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

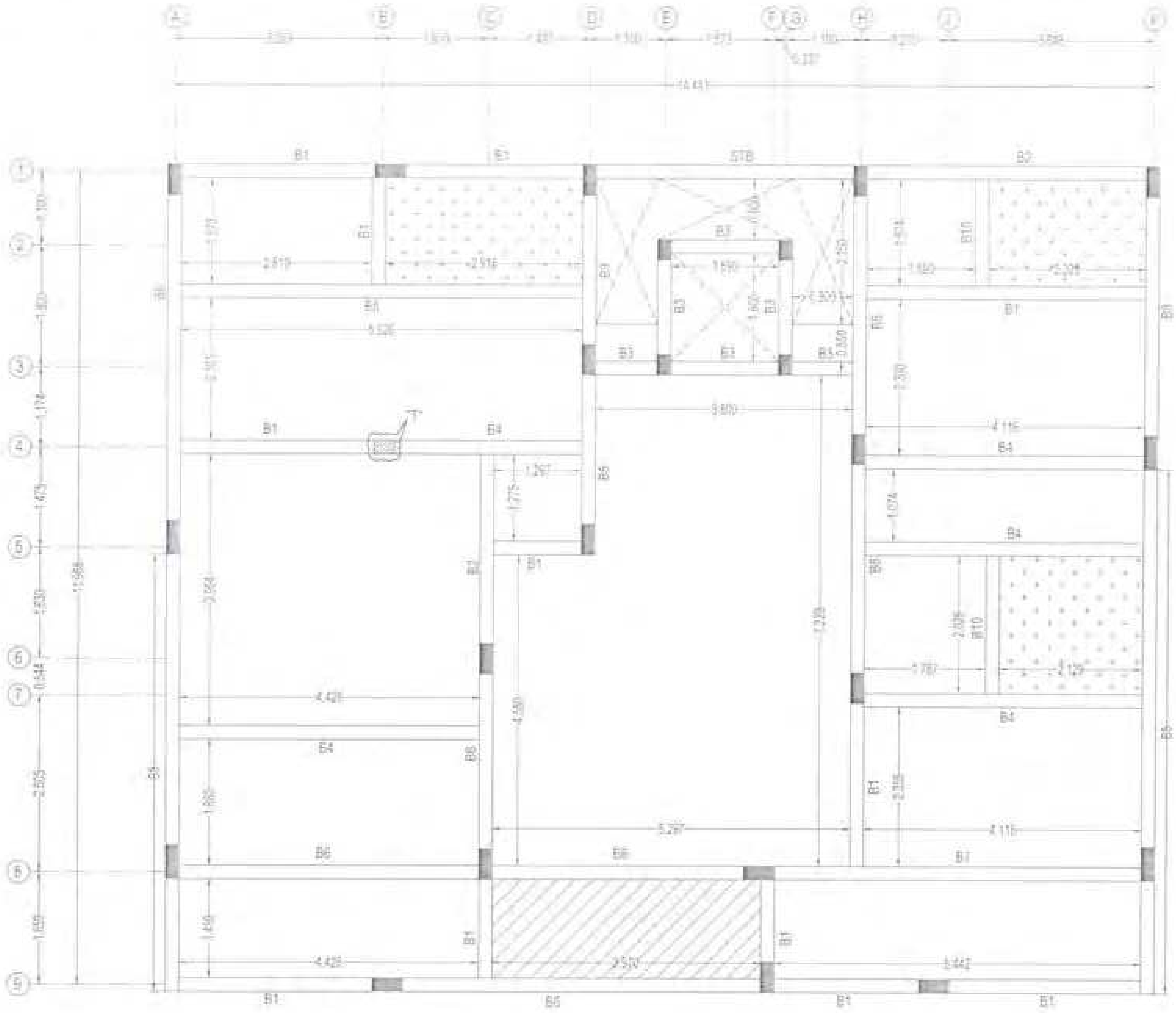
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

STAIRCASE LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	08A



GROUND FLOOR ROOF BEAM LAYOUT

LEGENDS:

- TOILET SUNKEN
- BALCONY SUNKEN
- OPENING
- T - COLUMN CUT @ GROUND FLOOR ROOF LEVEL

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1
M.E (Structural Engg)
Regn No - SE/GR-1/19/12/231 (CMDA)

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-05-06	09

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

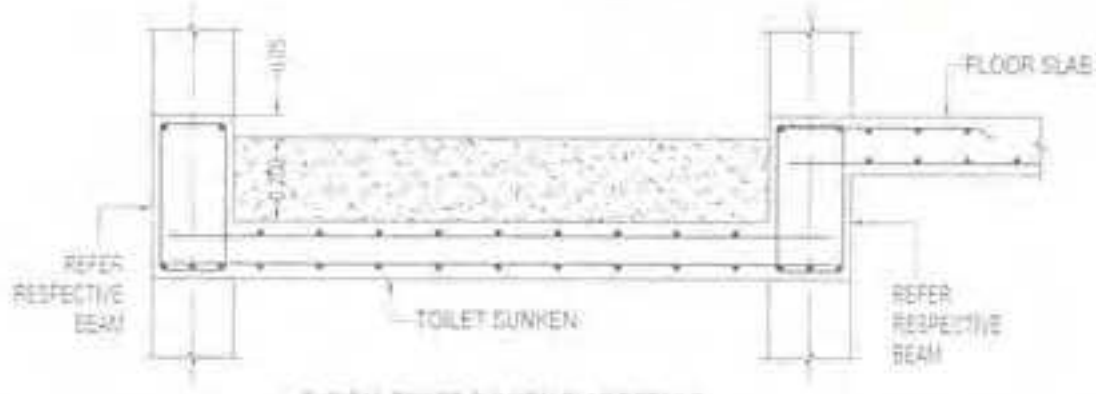
BEAM SIZE & MK	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B2	T8@0.150C/C 2-T12(C) 2-T16(C)	T8@0.150C/C 2-T12(C) 2-T16(C)	T8@0.150C/C 2-T12(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B3	T10@0.150C/C 2-T16(C)	T10@0.150C/C 2-T16(C)	T10@0.150C/C 2-T16(C)	
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)	
B4	T10@0.150C/C 2-T16(C) 2-T16(C)	T10@0.150C/C 2-T16(C) 2-T16(C)	T10@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.60)	2-T16(C) 2-T12(C)	2-T16(C) 2-T12(C)	2-T16(C) 2-T12(C)	
B5	T10@0.150C/C 2-T16(C) 2-T16(C)	T10@0.150C/C 2-T16(C) 2-T16(C)	T10@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C)	
B6	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.60)	2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C)	
B7	T10@0.150C/C 2-T16(C) 2-T16(C)	T10@0.150C/C 2-T16(C) 2-T16(C)	T10@0.150C/C 2-T16(C) 2-T16(C)	

UPPER FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & MK	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B2	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T12(C)	2-T12(C)	2-T12(C)	
B4	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	T8@0.150C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
STB	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	T8@0.150C/C 2-T16(C)	

LEGEND:
C - CONTINUOUS ROD
E - EXTRA ROD

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No.- SE/GR-I/19/12/231 (Civil)



TYPICAL TOILET SUNKEN SLAB DETAILS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

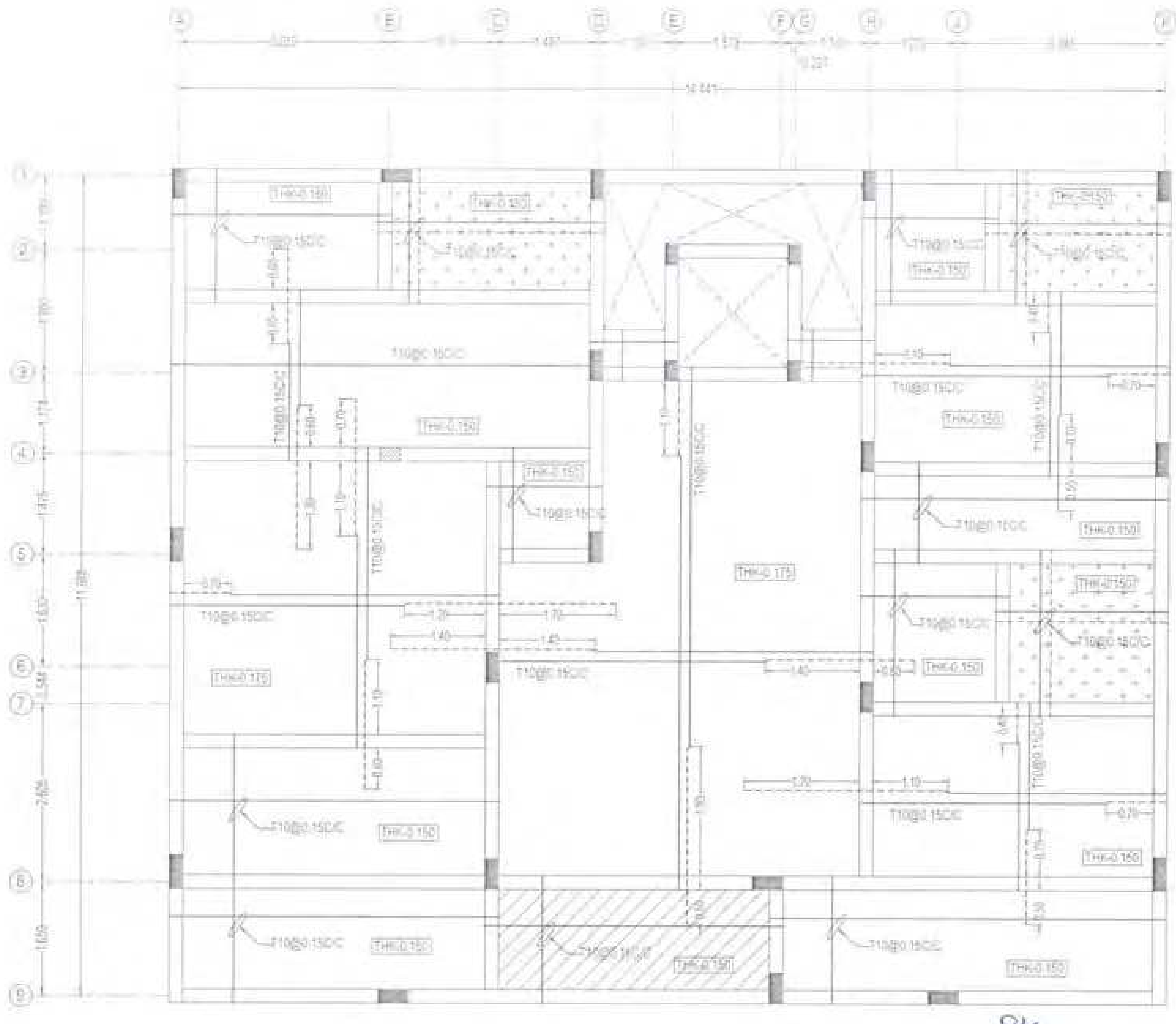
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2020	ST-2020-06-06	10



GROUND FLOOR ROOF SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGENDS
- - - TOP ROD
—— BOTTOM ROD
THK - THICKNESS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

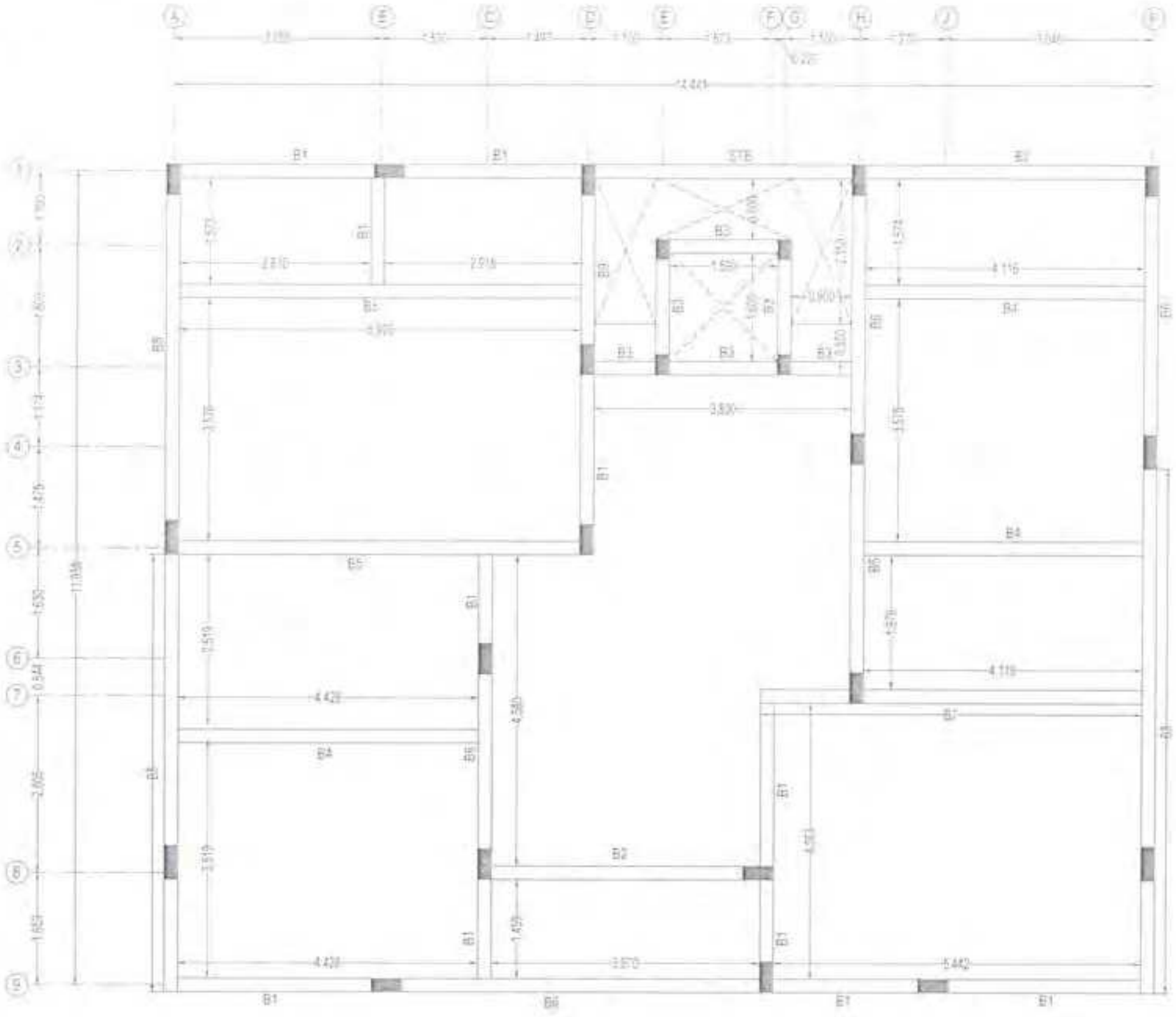
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-05-06	11



TERRACE BEAM LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231

LEGENDS
OPENING

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.
2. DO NOT SCALE DRAWINGS.
3. ALL CONSTRUCTION MATERIALS SHALL BE NEW AND FREE FROM DEFECTS.
4. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF OPENINGS.
5. CONCRETE GRADES:
   - A. COLUMNS : M30
   - B. FOUNDATIONS : M30
   - C. GROUND BEAM : M30
   - D. FLOOR SLAB : M30
   - E. ROOF SLAB : M30
6. THE BUILDING FOUNDATION AND SOIL CONDITIONS:
   (a) THE REQUIRED SAFE CAPACITY OF SOIL IS 30 T/M2.
   FOR FOUNDATION NOT AVAILABLE FOR LOCATIONS THE CAPACITY SHALL BE FURNISHED BY SOIL ENGINEER.
7. LAYOUT OF R.C.C. WALL SHALL BE REVIEWED BY THE CIVIL ENGINEER.
8. ALL PARTS OF WORK SHALL BE PROPERLY AND THOROUGHLY CURED.

LAP JOINTS FOR REINFORCEMENT BARS

1. AT ANY CROSS SECTION OF THE MEMBER NOT MORE THAN ½ BARS OF THE BARS SHALL BE LAPPED.
2. LAPS IN COLUMN BARS SHALL BE PROVIDED NOT NEAR THE FLOOR LEVEL BUT AT MID LEVEL.
3. LAPS IN BEAMS AND SLABS SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM LAYOUT

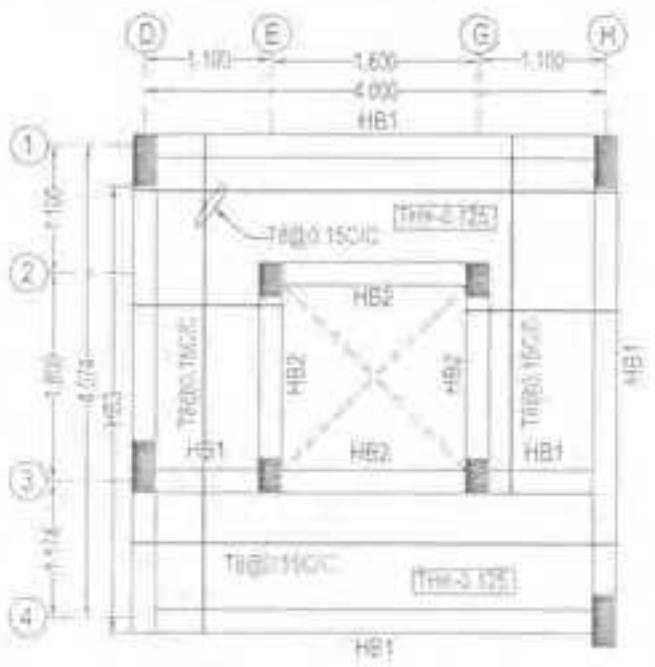
REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	12

TERRACE BEAM REINFORCEMENT SCHEDULE

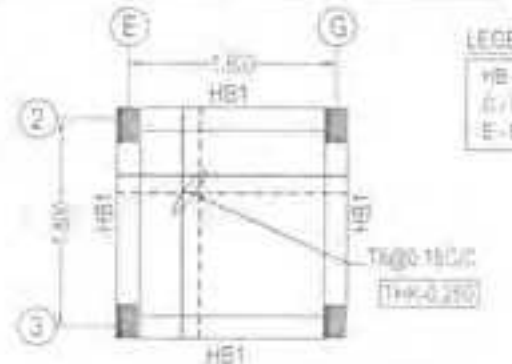
BEAM SIZE & NO	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)
B1	T8@0.15C/C	T8@0.15C/C	T8@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)
B2	T8@0.15C/C	T8@0.15C/C	T8@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)
B3	T10@0.15C/C	T10@0.15C/C	T10@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)
B4	T10@0.15C/C	T10@0.15C/C	T10@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)
B5	2-T12(C)	2-T12(C)	2-T12(C)
	T10@0.15C/C	T10@0.15C/C	T10@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
	2-T16(C)	2-T16(C)	2-T16(C)
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)
B6	T8@0.15C/C	T8@0.15C/C	T8@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
	2-T16(C)	2-T16(C)	2-T16(C)
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)
B7	T10@0.15C/C	T10@0.15C/C	T10@0.15C/C
	2-T16(C)	2-T16(C)	2-T16(C)
	2-T16(C)	2-T16(C)	2-T16(C)

TERRACE BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	2-T16(C)	2-T16(C)	2-T16(C)	
	T10@0.15C/C	T10@0.15C/C	T10@0.15C/C	
	2-T16(C)	2-T16(C)	2-T16(C)	
	2-T16(C)	2-T16(C)	2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1'	2-T12(C)	2-T12(C)	2-T12(C)	
	T10@0.15C/C	T10@0.15C/C	T10@0.15C/C	
	2-T16(C)	2-T16(C)	2-T16(C)	
	2-T16(C)	2-T16(C)	2-T16(C)	
(0.20 X 0.45)	2-T12(C)	2-T12(C)	2-T12(C)	
B2	T8@0.15C/C	T8@0.15C/C	T8@0.15C/C	
	2-T16(C)	2-T16(C)	2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
STB	T8@0.15C/C	T8@0.15C/C	T8@0.15C/C	
	2-T16(C)	2-T16(C)	2-T16(C)	



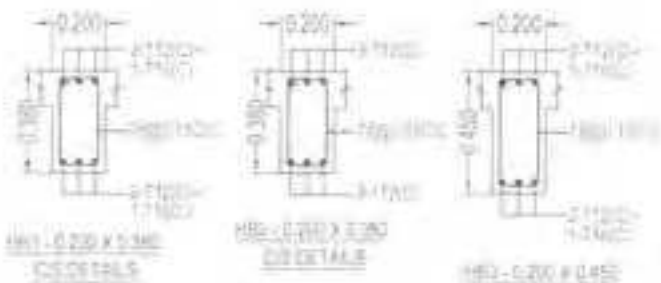
STAIRCASE HEADROOM LAYOUT & DETAILS



LIFT MACHINE ROOM LAYOUT & DETAILS

LEGEND

HB - HEADROOM BEAM
C - CONTINUOUS ROD
E - EXTRA ROD



HB1 - 0.230 X 0.380 C/S DETAILS

HB2 - 0.200 X 0.380 C/S DETAILS

HB3 - 0.200 X 0.450 C/S DETAILS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/231 (CMDA)

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

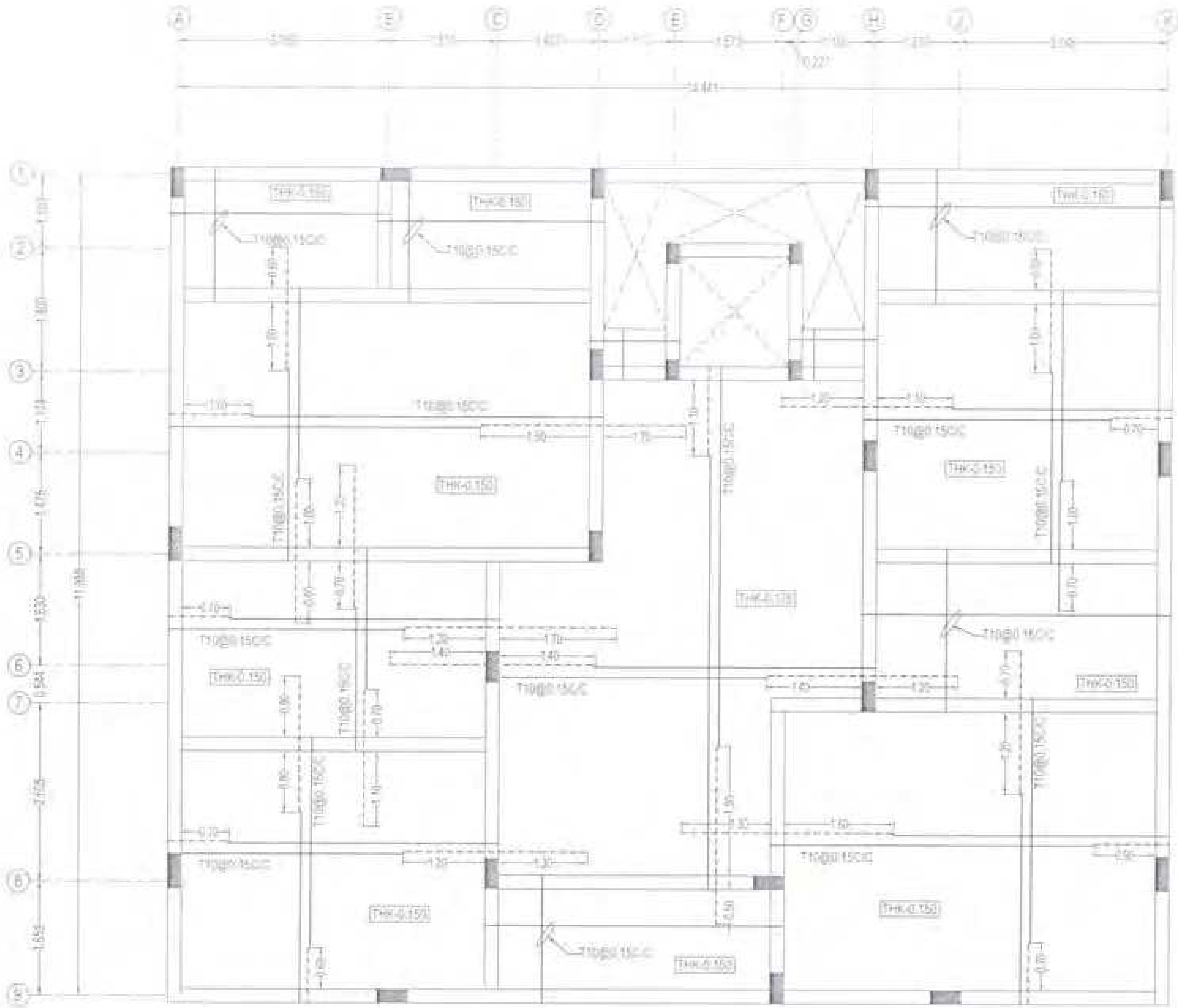
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	13



TERRACE SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGENDS
TOP ROD
BOTTOM ROD
THK - THICKNESS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 17 & 18) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

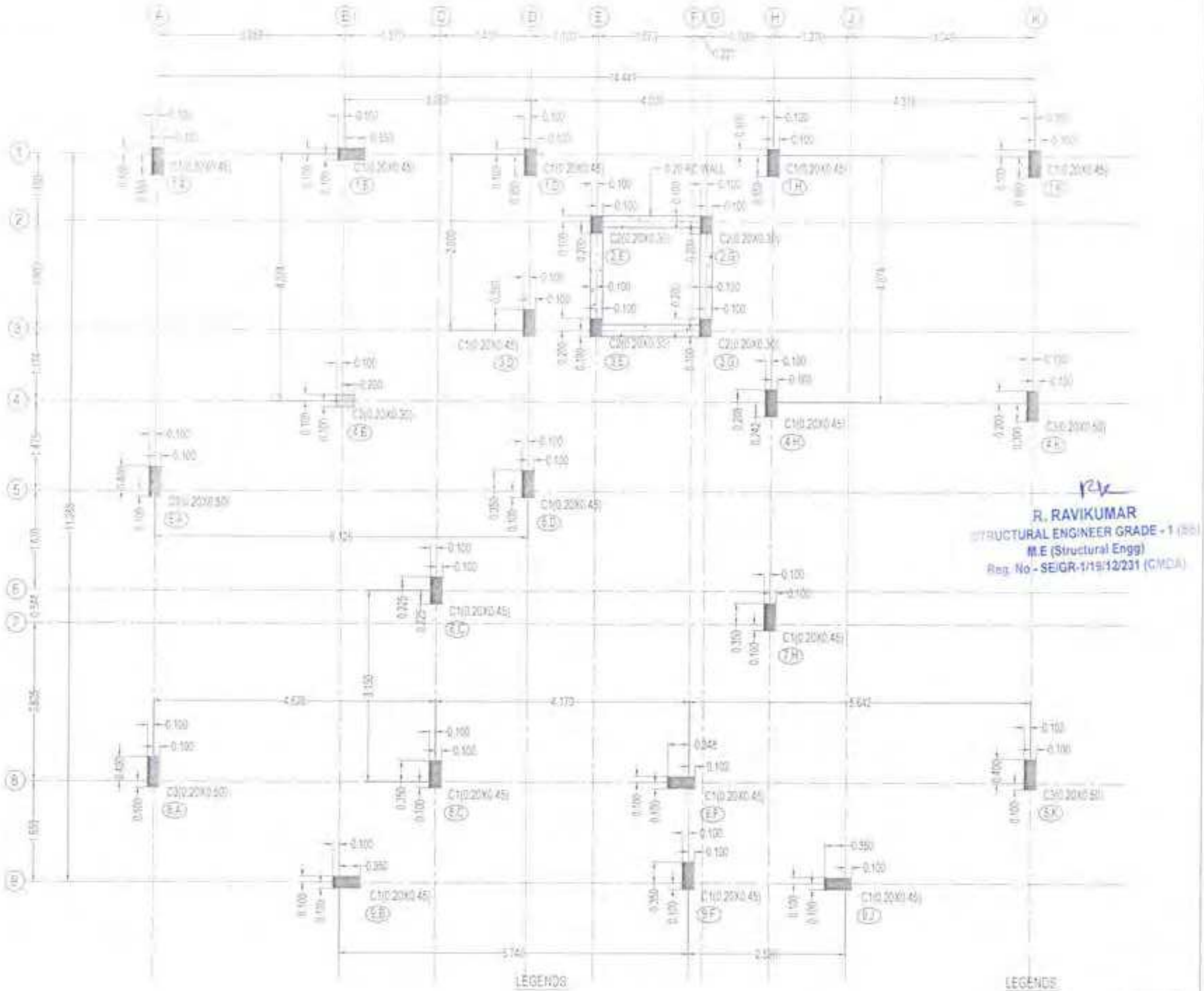
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-06	14



R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1 (SG)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 19 & 20)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

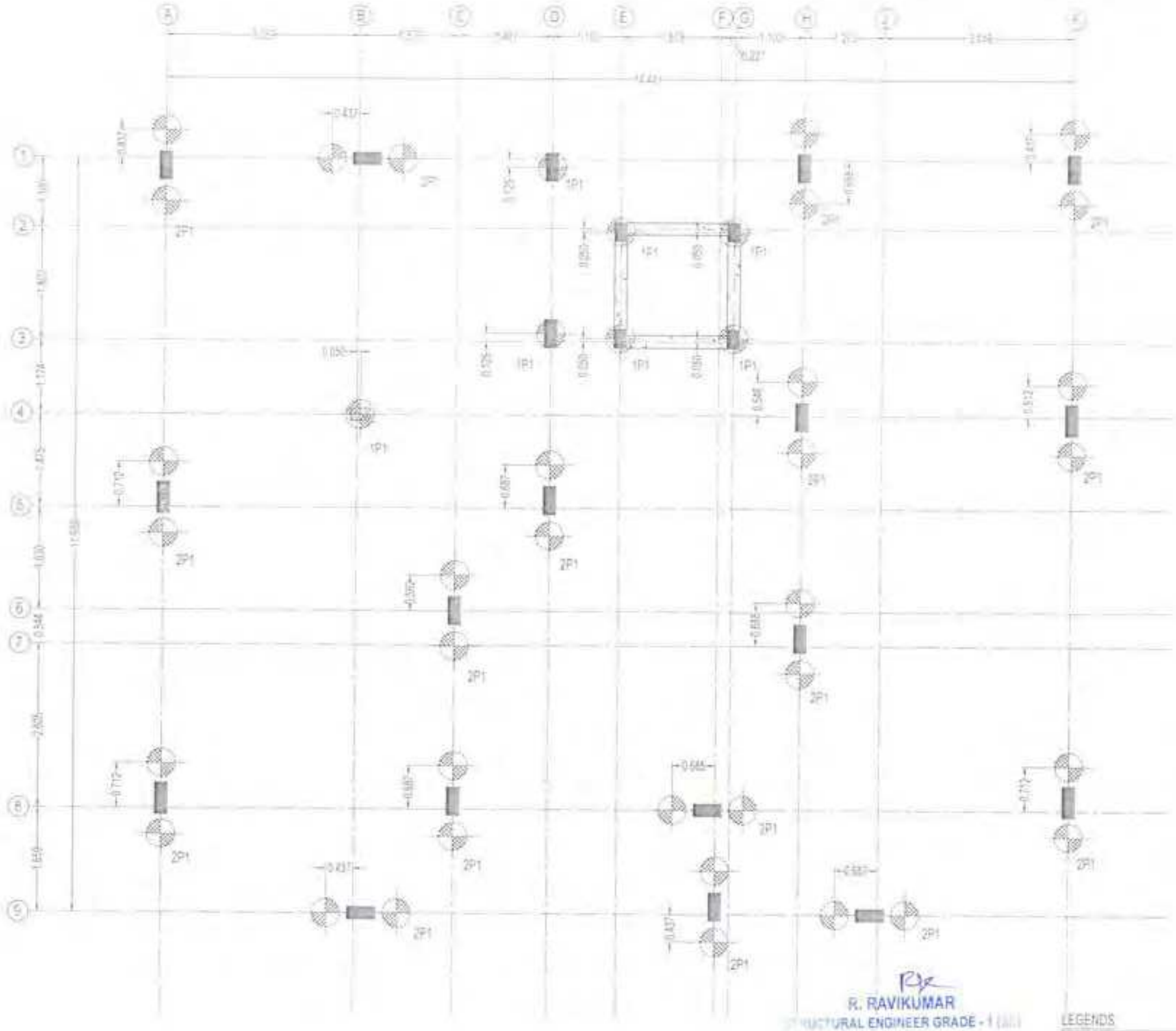
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

COLUMN MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	01



PILE MARKING LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (A)
M.E (Structural Engg)
Reg. No - SE/GR-I/13/12/231 (CMDA)

LEGENDS

P - PILE (0.450ø)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 19 & 20)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

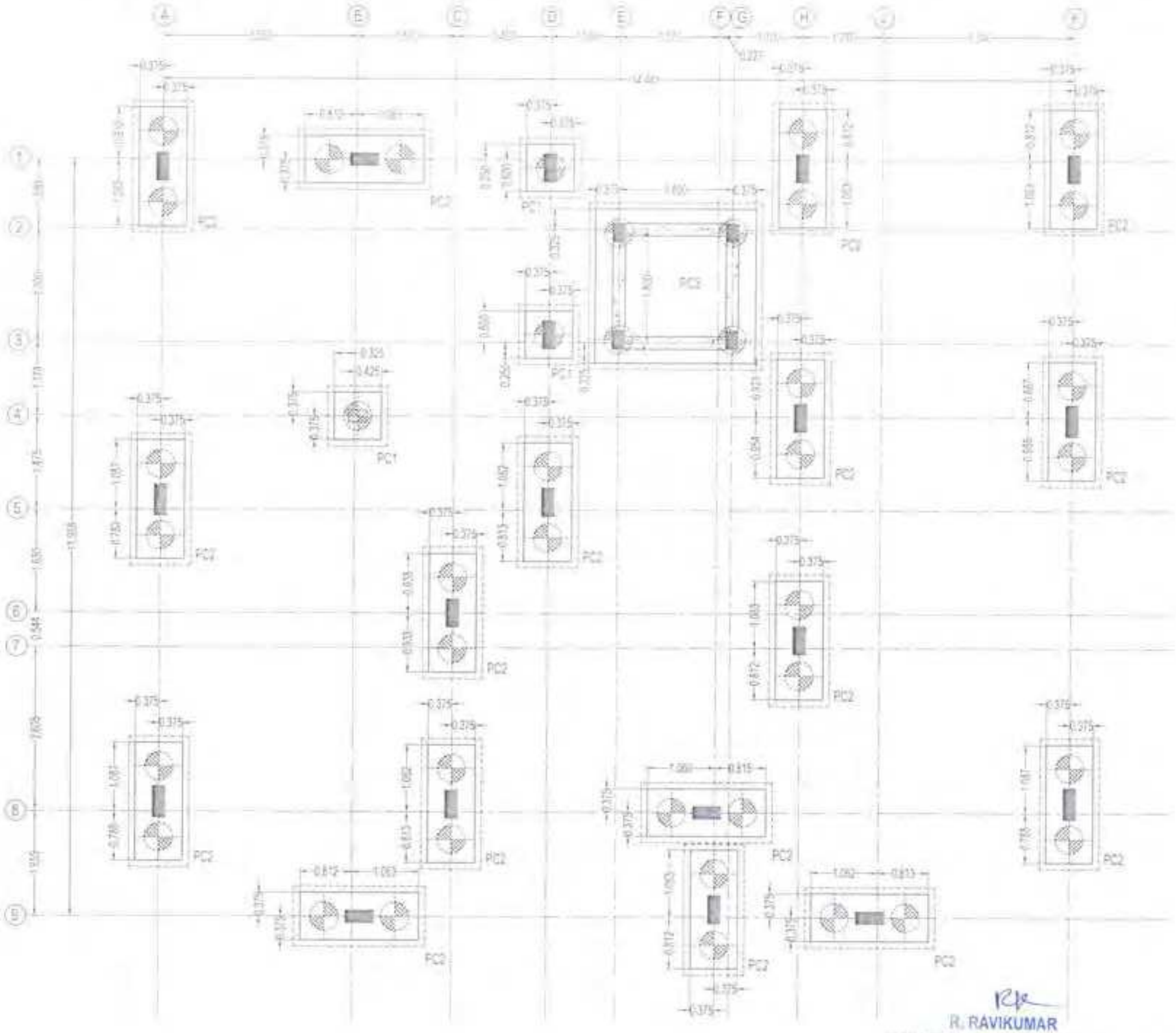
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	02



PILE CAP MARKING LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

LEGENDS
PC - PILE CAPE

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 19 & 20)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

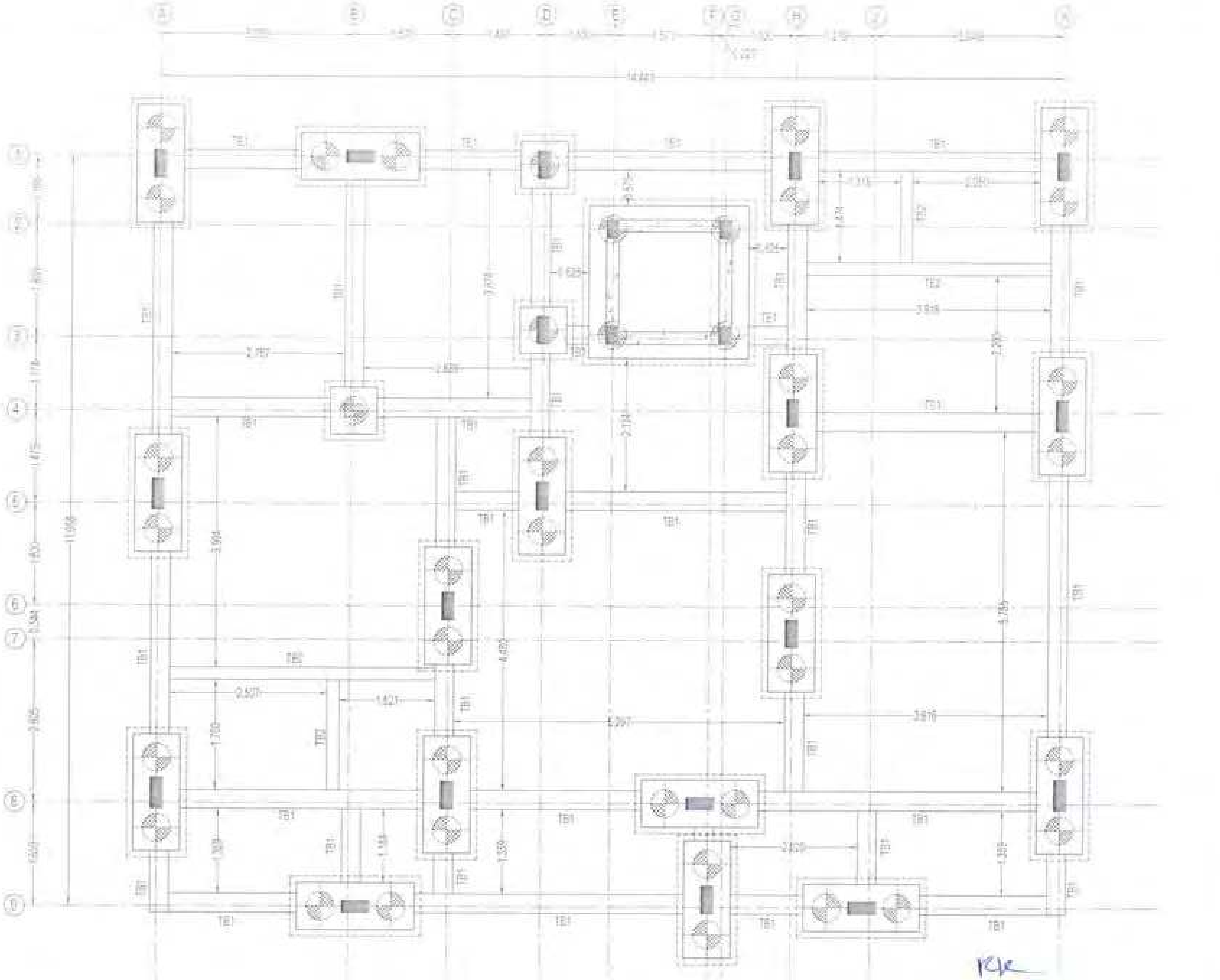
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR:
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) MARKING LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-05-07	03



TIE BEAM(TB) LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - 1
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CMDA)

LEGENDS

TB - TIE BEAM

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 19 & 20) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PILE CAP(PC) & TIE BEAM(TB) LAYOUT

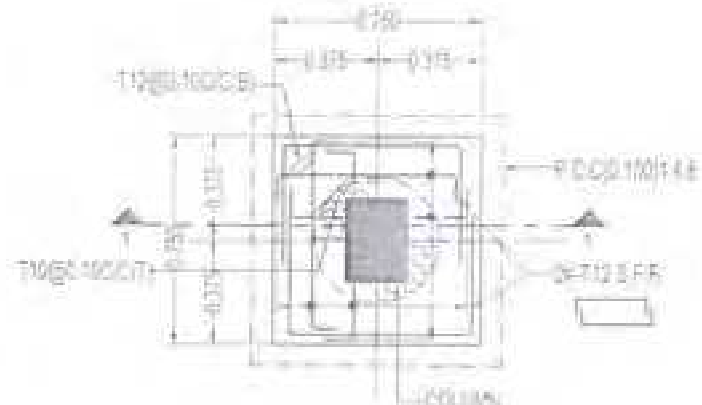
REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	04

COLUMN REINFORCEMENT SCHEDULE

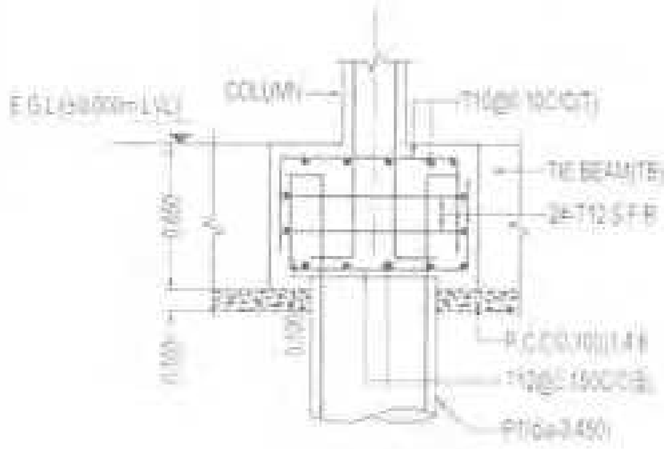
TERRACE LEVEL			
TO	H₀=T8@100C/C	H₀=T8@100C/C	H₀=T8@100C/C
	H₁=T8@150C/C	H₁=T8@150C/C	H₁=T8@150C/C
FOOTING MARKS ⊕-T16 ⊕-T12	0.450 x 0.200	0.300 x 0.200	0.520 x 0.200
	8-T16	4-T16 + 2-T12	10-T16
COLUMN MARKED	C1	C2	C3



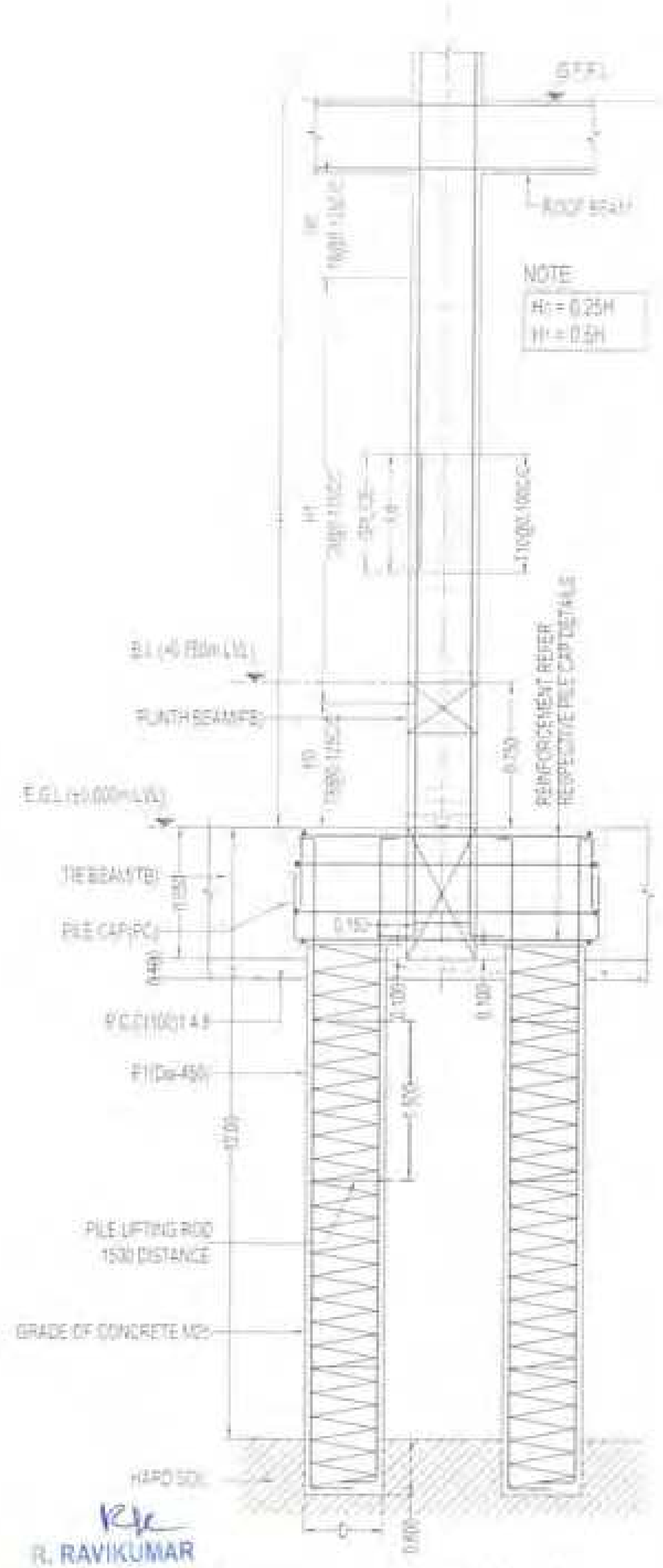
PILE (P1) - PLAN



PC1 - PLAN



SECTION - 1 - 1



TYPICAL COLUMN & PILE CONFINING DETAILS

** S.F.R - SIDE FACE REINFORCEMENT

LEGENDS

B.L - BASEMENT LEVEL
G.F.R.L - GROUND FLOOR ROOF LEVEL
E.G.L - EXISTING GROUND LEVEL

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 19 & 20) AT ECR CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

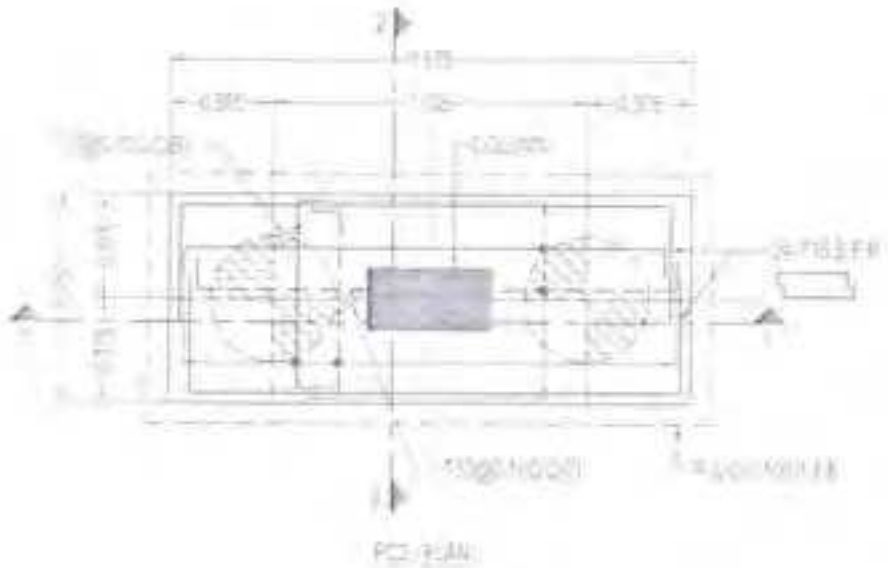
SAFE STRUCTURAL CONSULTANCY

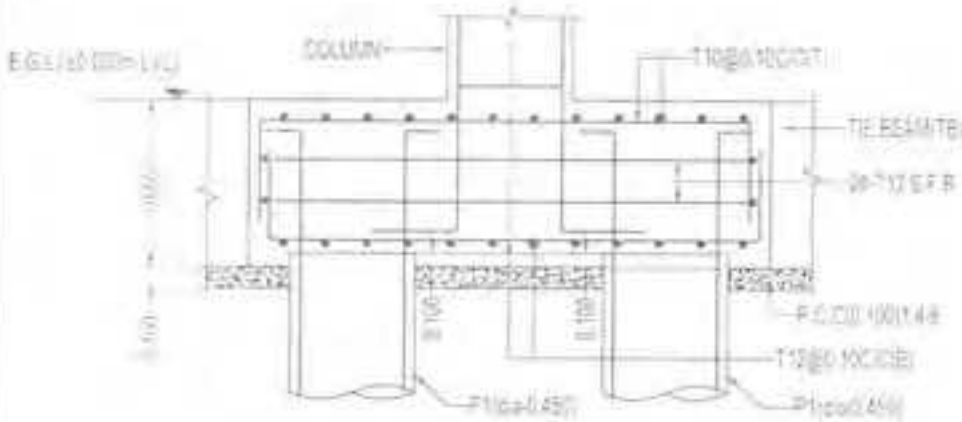
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DESIGNED	RK	
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

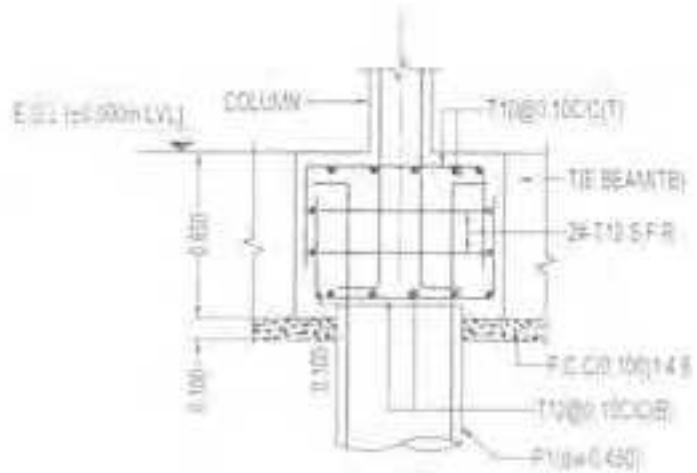
COLUMN, PILE & PILE CAP DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	05

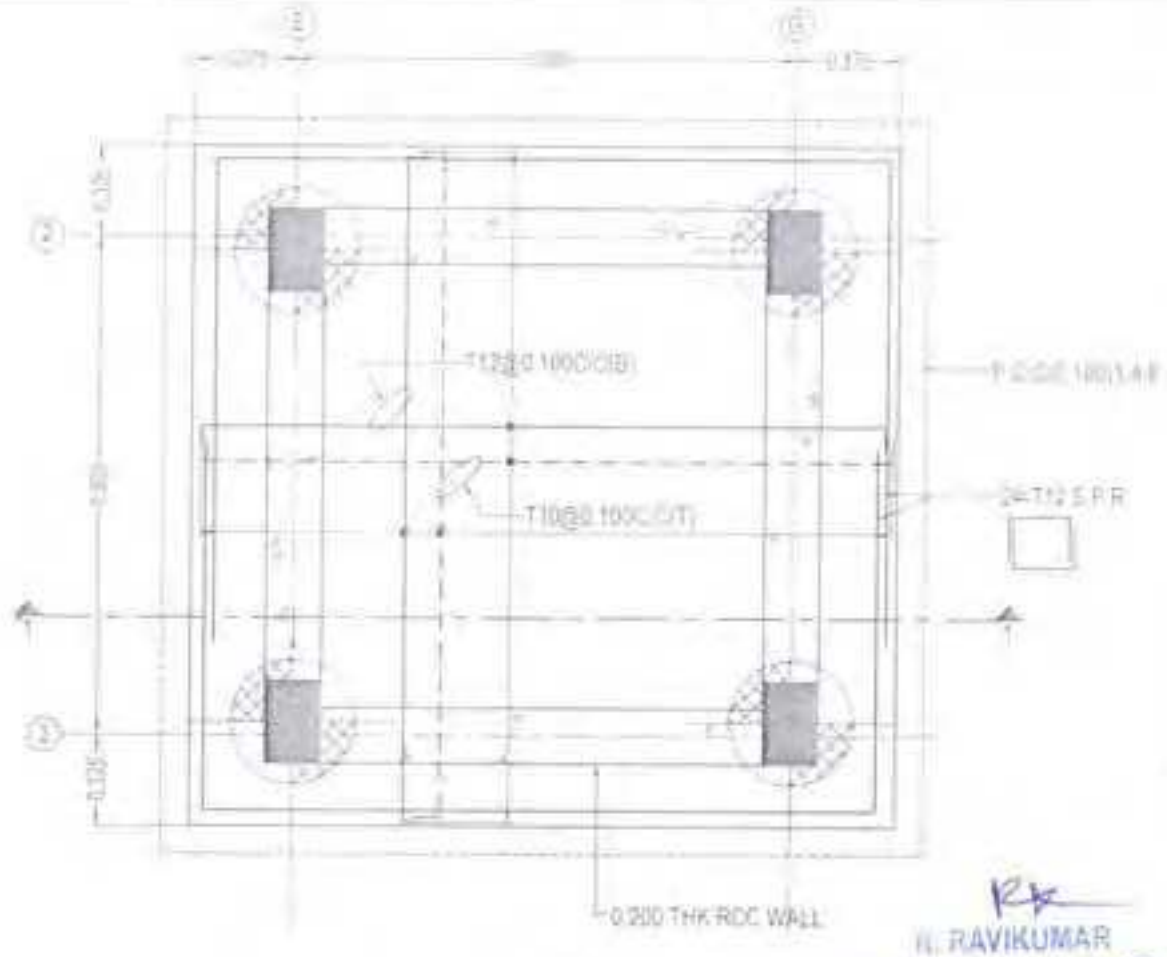


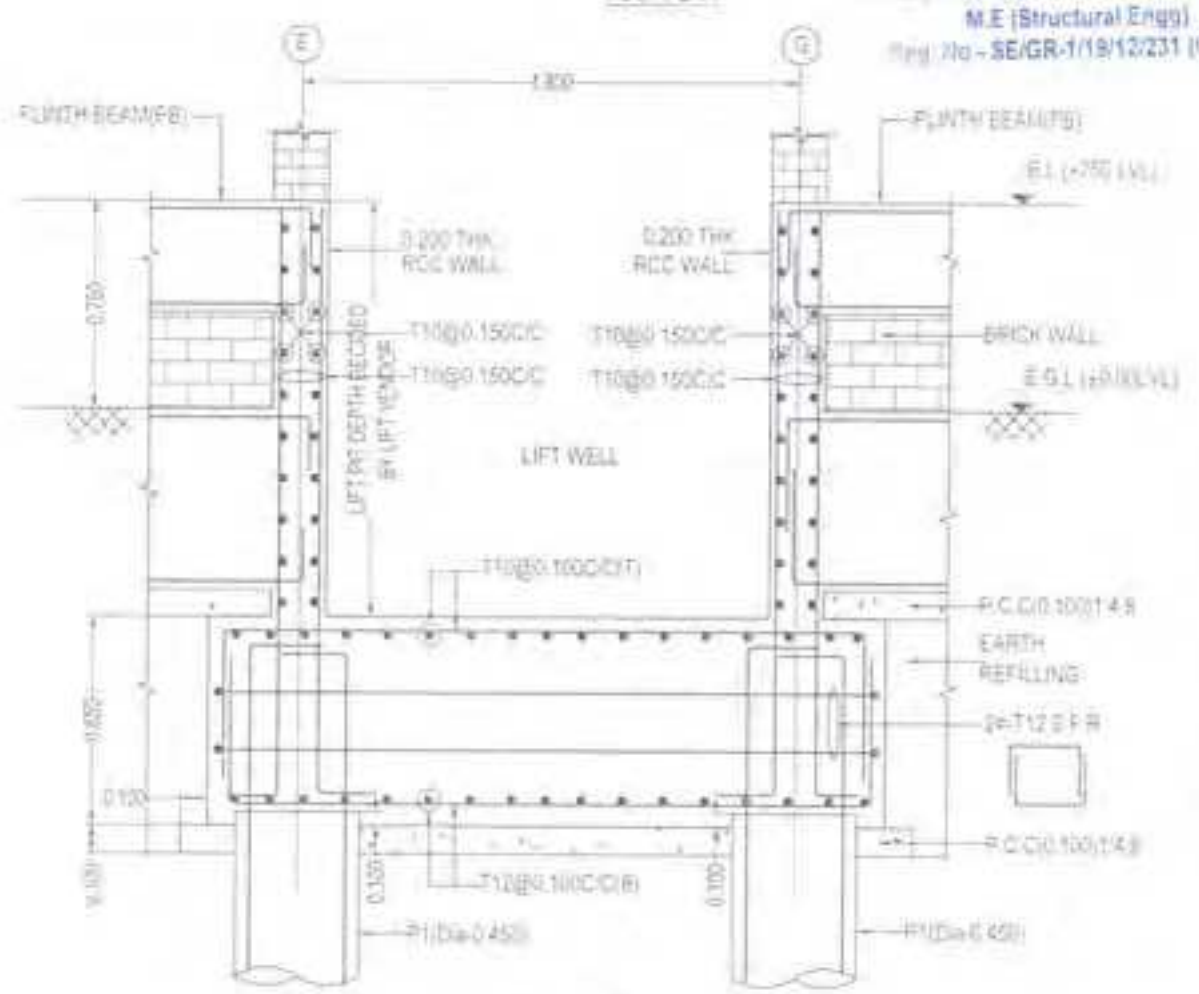


SECTION - 1-1



SECTION - 2-2





SECTION - 1 - 1

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE -
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231

CLIENT	
PROJECT	PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 19 & 20) AT ECR, CHENNAI.
ARCHITECT	ADITYARAM GROUP
STRUCTURAL CONSULTANT	SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

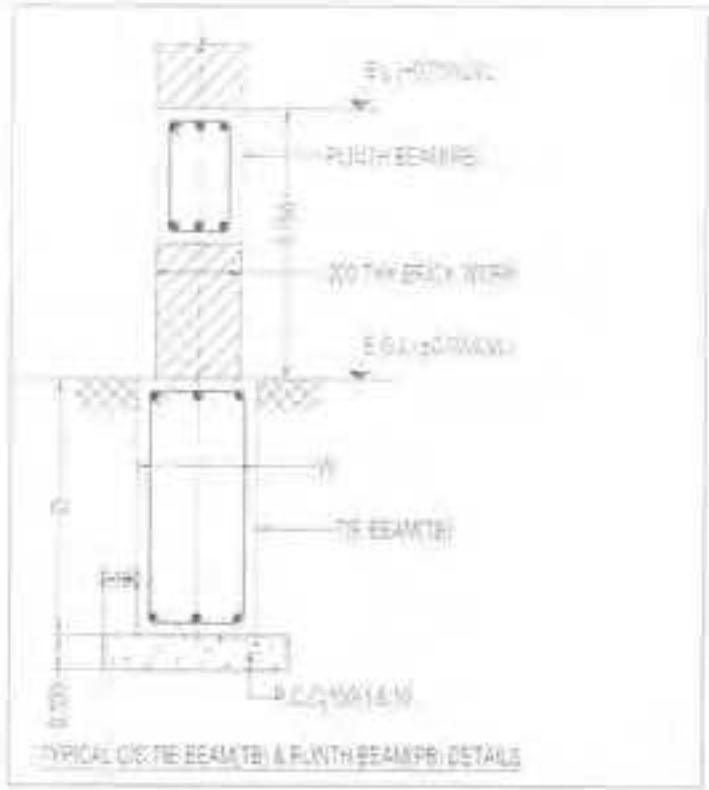
DRAWING NAME: PILE & PILE CAP DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-05-07	06

TIE BEAM (TB) REINFORCEMENT SCHEDULE

BEAM SIZE & NO.	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(230 X 450) TB1	3-T16(C) 2-T16(C) T10@150 C/C P.C.C	3-T16(C) 2-T16(C) T10@150 C/C P.C.C	3-T16(C) 2-T16(C) T10@150 C/C P.C.C
(230 X 300) TB2	2-T16(C) 2-T16(C) T10@150 C/C P.C.C	2-T16(C) 2-T16(C) T10@150 C/C P.C.C	2-T16(C) 2-T16(C) T10@150 C/C P.C.C

S.F.R - SIDE FACE REINFORCEMENT
E.F - EACH FACE



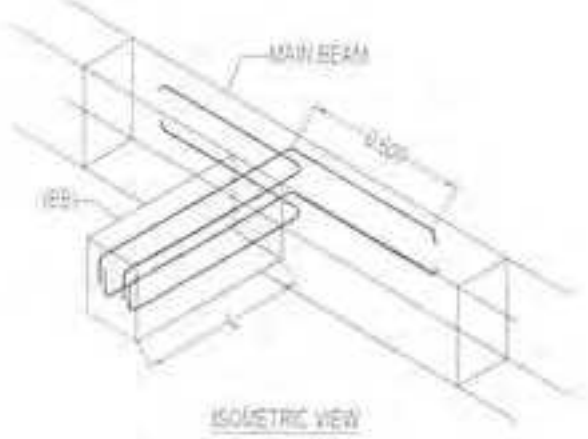
TYPICAL C/S OF TIE BEAM(TB) & PLINTH BEAM(PB) DETAILS



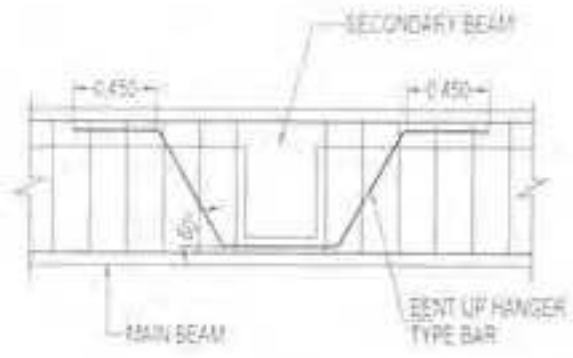
TYPICAL ANCHORAGE OF BEAM BARS IN AN EXTERNAL JOINT
** Ld=45 TIMES DIA OF BAR

LEGENDS

E.G.L - EXISTING GROUND LEVEL
T.B - TIE BEAM
P.B - PLINTH BEAM
B.L - BASEMENT LEVEL



ISOMETRIC VIEW
OF (TYP) BRACKET BEAM REST ON BEAM DETAIL



WHERE CROSS BEAM, SHEAR ROD SHOULD BE PROVIDED AT 2-T16

R. RAVIKUMAR
...URAL ENGINEER GRADE - I (...)
M.E (Structural Engg)
...g. No - SE/GR-1/19/12/231 (CIVIL)

TECHNICAL NOTES

1. ALL CONCRETE WORKS SHALL BE CARRIED OUT AS PER IS 456-2000.
2. ALL REINFORCEMENT BARS SHALL CONFORM TO IS 1786-2008 GRADE Fe 500 D.
3. ALL REINFORCEMENT BARS SHALL BE FREE FROM RUST, OIL, GREASE, PAINT, MUD, LOOSE MILL SCALE AND OTHER DELETERIOUS MATERIALS.
4. ALL REINFORCEMENT BARS SHALL BE BENT COLD AND SHALL NOT BE BENT ON SITE UNLESS SPECIFICALLY PERMITTED BY THE ENGINEER.
5. ALL REINFORCEMENT BARS SHALL BE SECURELY TIED AT ALL INTERSECTIONS WITH 18 GAUGE ANNEALED BLACK WIRE.
6. CONCRETE COVER TO REINFORCEMENT BARS SHALL BE AS FOLLOWS:
   - a. COLUMNS - 40MM
   - b. R.C.C SLABS (TOP) - 15MM
   - c. SLABS (BOTTOM) - 20MM
   - d. R.C.C BEAMS - 25MM
   - e. FOOTINGS - 50MM
   - f. PLINTH BEAM - 25MM
7. THE MIX DESIGN PROPORTIONS AND SLUMP SHALL BE STRICTLY AS PER THE RECOMMENDATIONS OF MIX DESIGN FOR A MINIMUM CONCRETE GRADE AS FOLLOWS:
   - a. FOOTINGS - M25
   - b. COLUMNS - M25
   - c. BEAMS - M25
   - d. SLABS - M25
8. ALL CONCRETE WORKS SHALL BE PROTECTED FROM RAIN AND SUN BY SUITABLE COVERINGS.
9. ALL CONCRETE WORKS SHALL BE CURED FOR A MINIMUM PERIOD OF 7 DAYS.
10. ALL REINFORCEMENT BARS SHALL BE PROVIDED WITH CONCRETE SPACERS.

LAP JOINTS FOR REINFORCEMENT BARS

1. LAP JOINTS SHALL NOT BE PROVIDED AT THE MEMBER FACE CLOSE TO THE JOINT OF THE MEMBER (SHALL BE AVOIDED).
2. LAP JOINTS SHALL BE PROVIDED AT MIDDLE THIRD PORTION OF THE MEMBER (NOT CLOSE TO THE JOINT OF THE MEMBER).
3. LAP JOINTS SHALL NOT BE PROVIDED AT MORE THAN ALTERNATE BARS AT A GIVEN SECTION.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY (VILLA 16 & 20) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

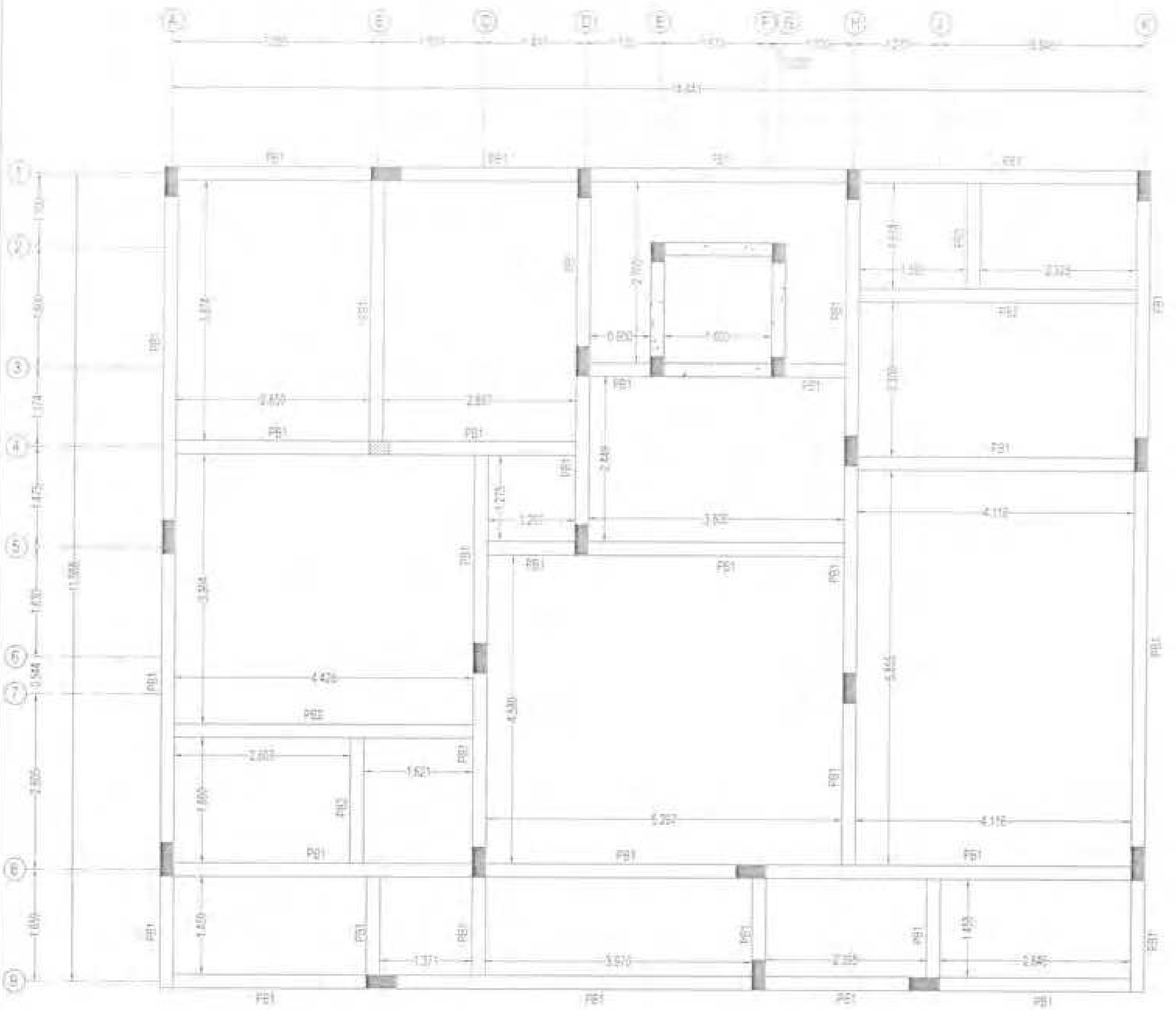
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TIE BEAM (TB) REINFORCEMENT DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	07



PLINTH BEAM(PB) LAYOUT

TOP OF PLINTH BEAM AT +0.750M LVL



LEGENDS

PB - PLINTH BEAM

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No. - SE/GR-1/19/12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 19 & 20)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

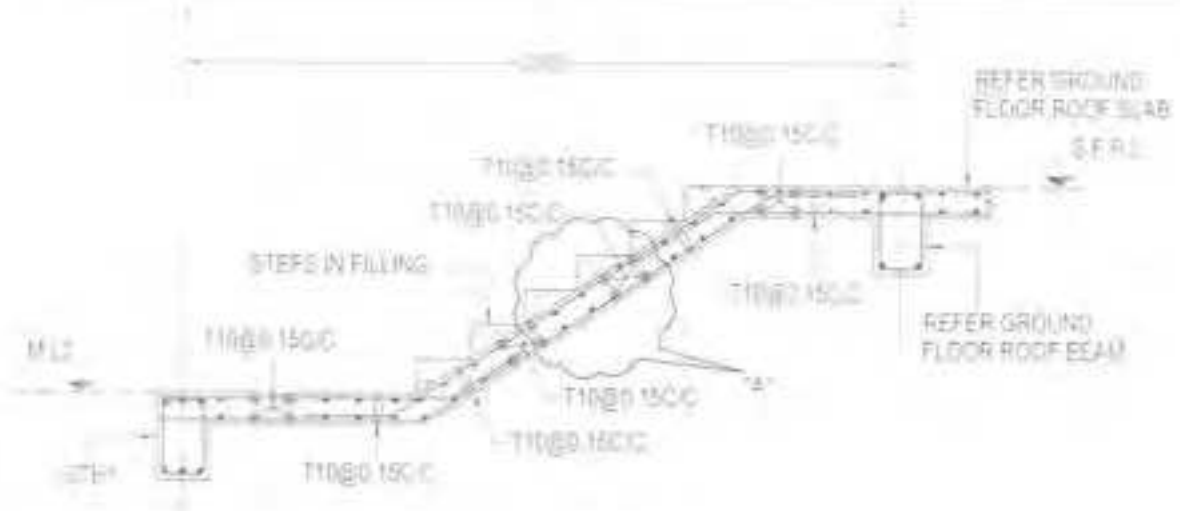
SAFE STRUCTURAL CONSULTANCY

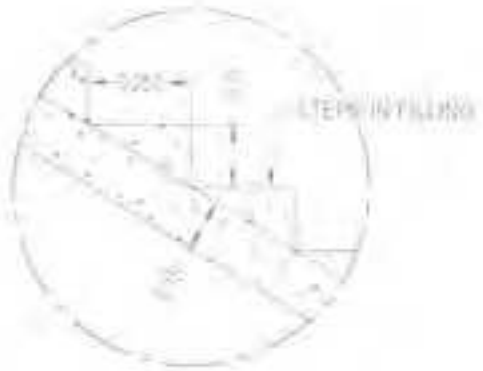
DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

PLINTH BEAM(PB) LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	08



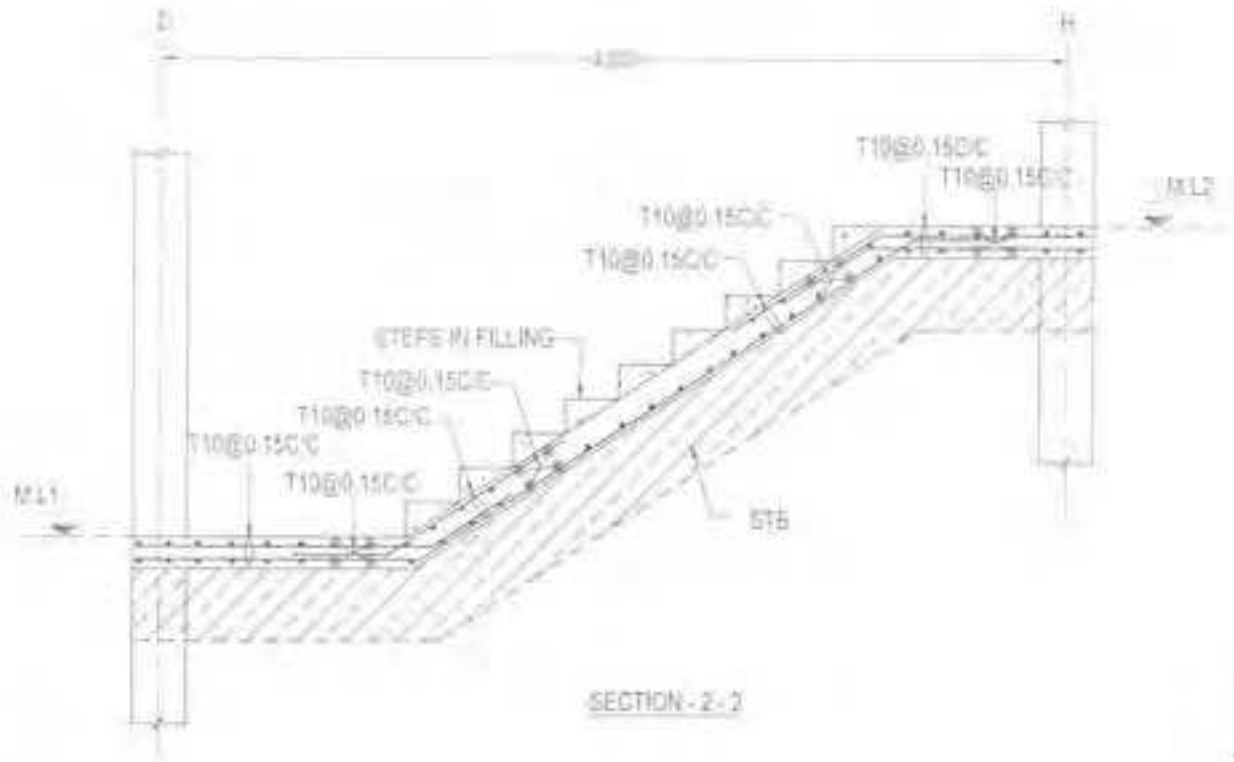


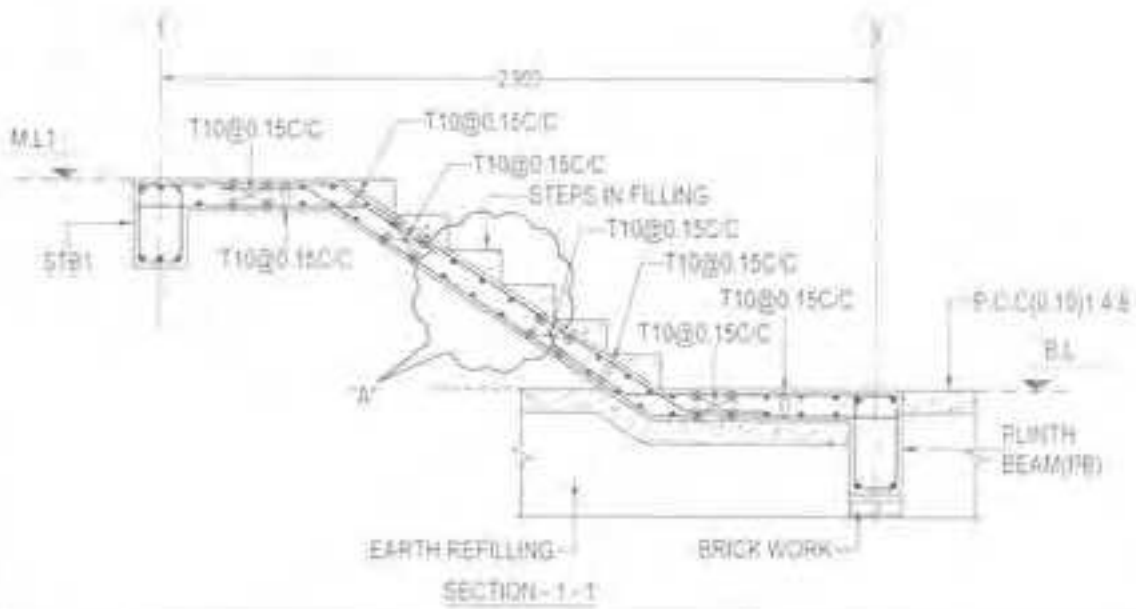


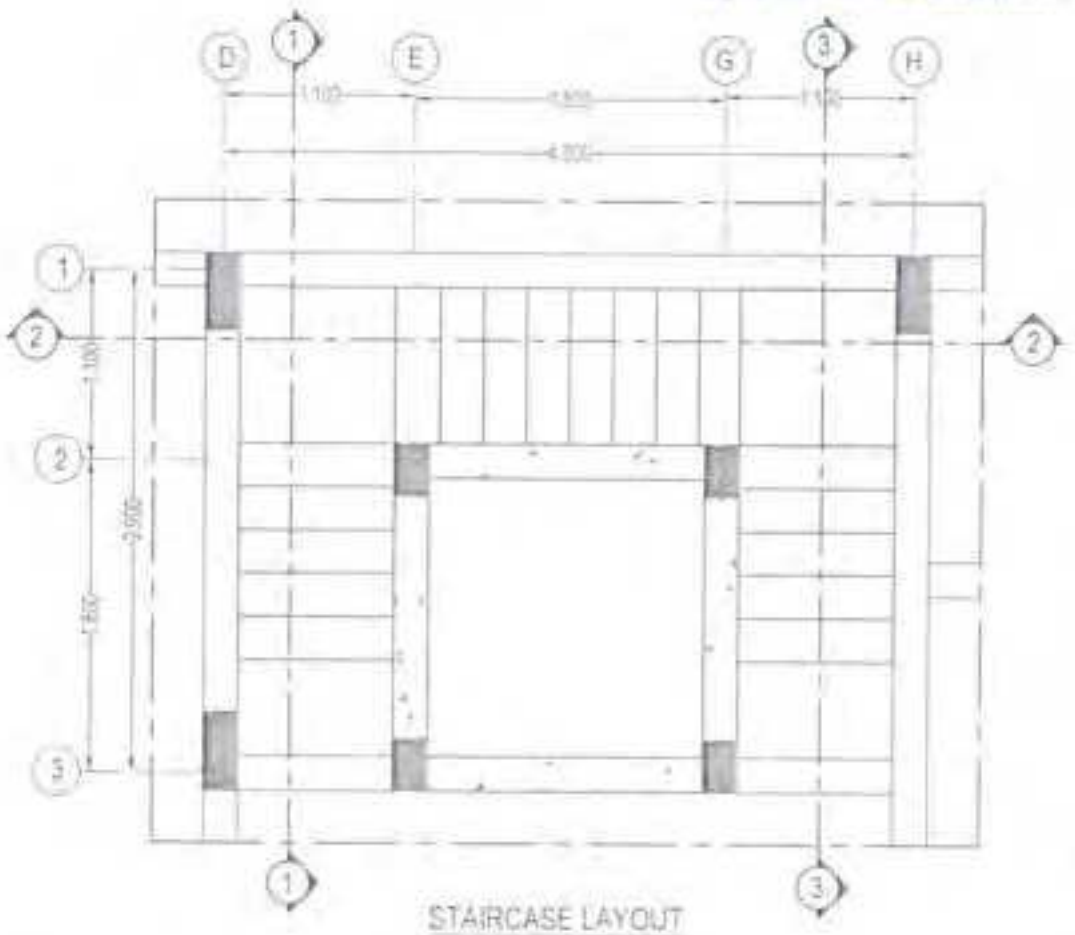
** NO OF STEPS & LEVELS REFER LATEST ARCHITECTURAL DRAWING

LEGENDS

S.T.B	STRINGER BEAM
M.L	MID LANDING LEVEL
G.F.R.L	GROUND FLOOR ROOF LEVEL
E.G.L	EXISTING GROUND LEVEL







R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-I/19.12/231 (CMDA)

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 19 & 20)
AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

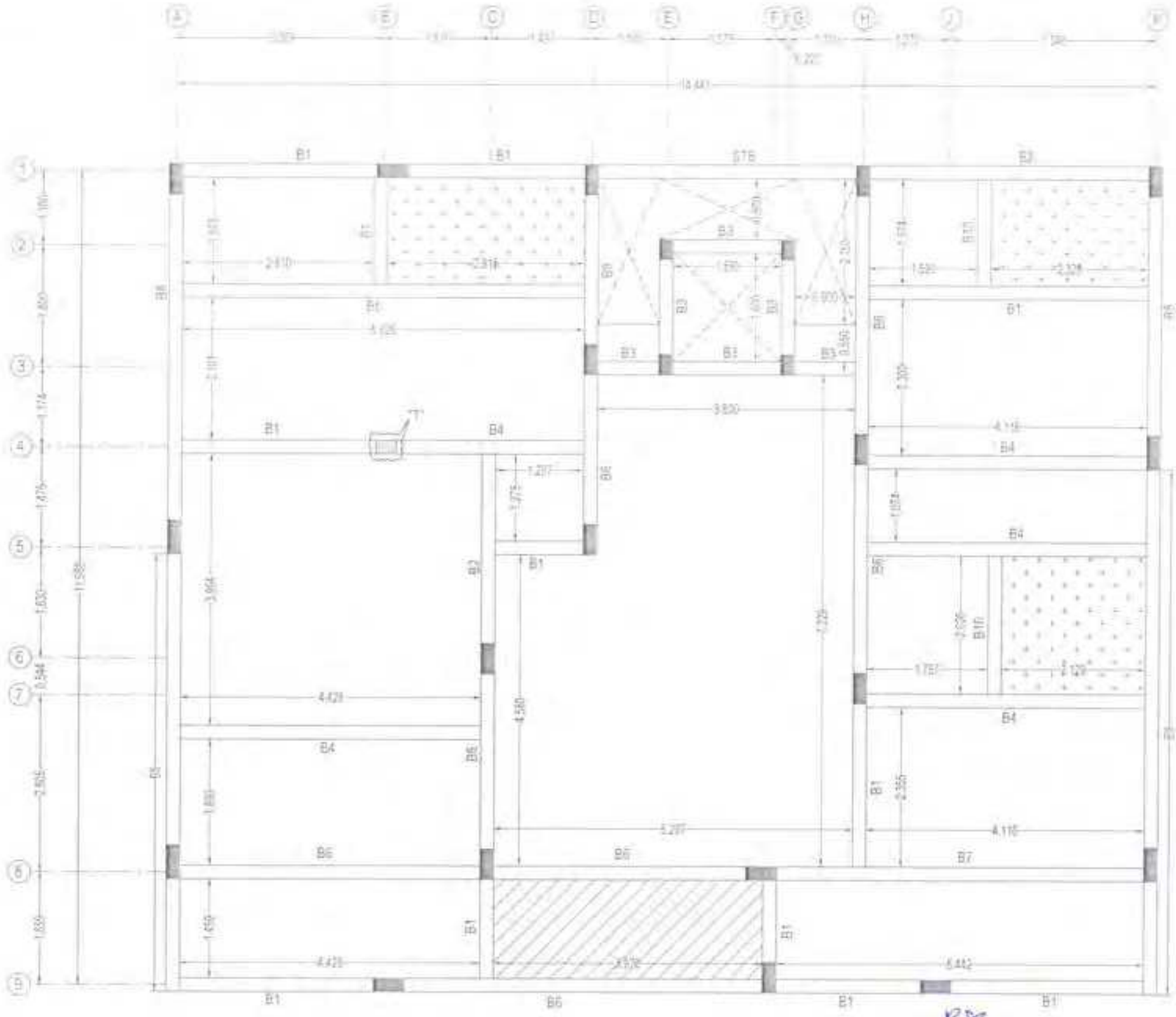
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

STAIRCASE LAYOUT & DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-05-07	08A



GROUND FLOOR ROOF BEAM LAYOUT

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Regn No - SE/GR-I/19/12/231 (CMDA)

LEGENDS
- TOILET SUNKEN
- BALCONY SUNKEN
- OPENING
- T - COLUMN CUT @ GROUND FLOOR ROOF LEVEL

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 19 & 20)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM LAYOUT

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	09

GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B1	T8@0.150 C/C 2-T16(C)	T8@0.150 C/C 2-T16(C)	T8@0.150 C/C 2-T16(C)	
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)	
B2	T8@0.150 C/C 2-T12(C) 2-T16(C)	T8@0.150 C/C 2-T16(C) 2-T16(C)	T8@0.150 C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B3	T10@0.150 C/C 2-T16(C)	T10@0.150 C/C 2-T16(C)	T10@0.150 C/C 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B4	T10@0.150 C/C 2-T16(C) 2-T16(C)	T10@0.150 C/C 2-T16(C) 2-T16(C)	T10@0.150 C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)	
B5	T10@0.150 C/C 2-T12(C) 2-T16(C)	T10@0.150 C/C 2-T16(C) 2-T16(C)	T10@0.150 C/C 2-T12(C) 2-T16(C)	
(0.20 X 0.45)	2-T16(C)	2-T16(C)	2-T16(C)	
B6	T8@0.150 C/C 2-T16(C) 2-T16(C)	T8@0.150 C/C 2-T16(C) 2-T16(C)	T8@0.150 C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.60)	2-T16(C)	2-T16(C)	2-T16(C)	
B7	T10@0.150 C/C 2-T16(C) 2-T16(C)	T10@0.150 C/C 2-T16(C) 2-T16(C)	T10@0.150 C/C 2-T16(C) 2-T16(C)	

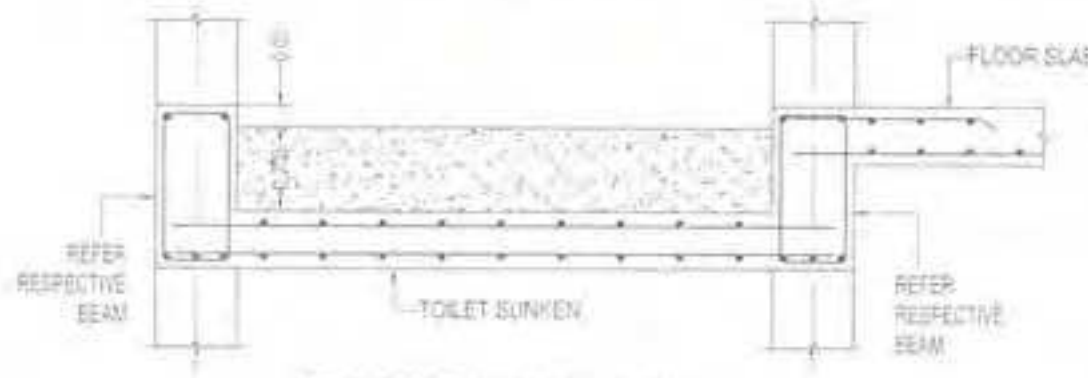
GROUND FLOOR ROOF BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & NO	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.23 X 0.45)	2-T16(C) 2-T16(C) T10@0.150 C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150 C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150 C/C 2-T16(C) 2-T16(C)	
B4				
(0.20 X 0.60)	2-T16(C) 2-T12(C) T10@0.150 C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.150 C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T12(C) T10@0.150 C/C 2-T16(C) 2-T16(C)	
B5				
(0.20 X 0.45)	2-T12(C) T8@0.150 C/C 2-T16(C) 2-T16(C)	2-T12(C) T8@0.150 C/C 2-T16(C) 2-T16(C)	2-T12(C) T8@0.150 C/C 2-T16(C) 2-T16(C)	
B6				
(0.20 X 0.45)	2-T16(C) T8@0.150 C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.150 C/C 2-T16(C) 2-T16(C)	2-T16(C) T8@0.150 C/C 2-T16(C) 2-T16(C)	
GTB				

LEGEND

C - CONTINUOUS ROD
E - EXTRA ROD

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - [illegible]
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12221 (CMC.A)



TYPICAL TOILET SUNKEN SLAB DETAILS

TECHNICAL NOTES

[illegible]

LAP JOINTS FOR REINFORCEMENT BARS

[illegible]

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 19 & 20) AT ECR, CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

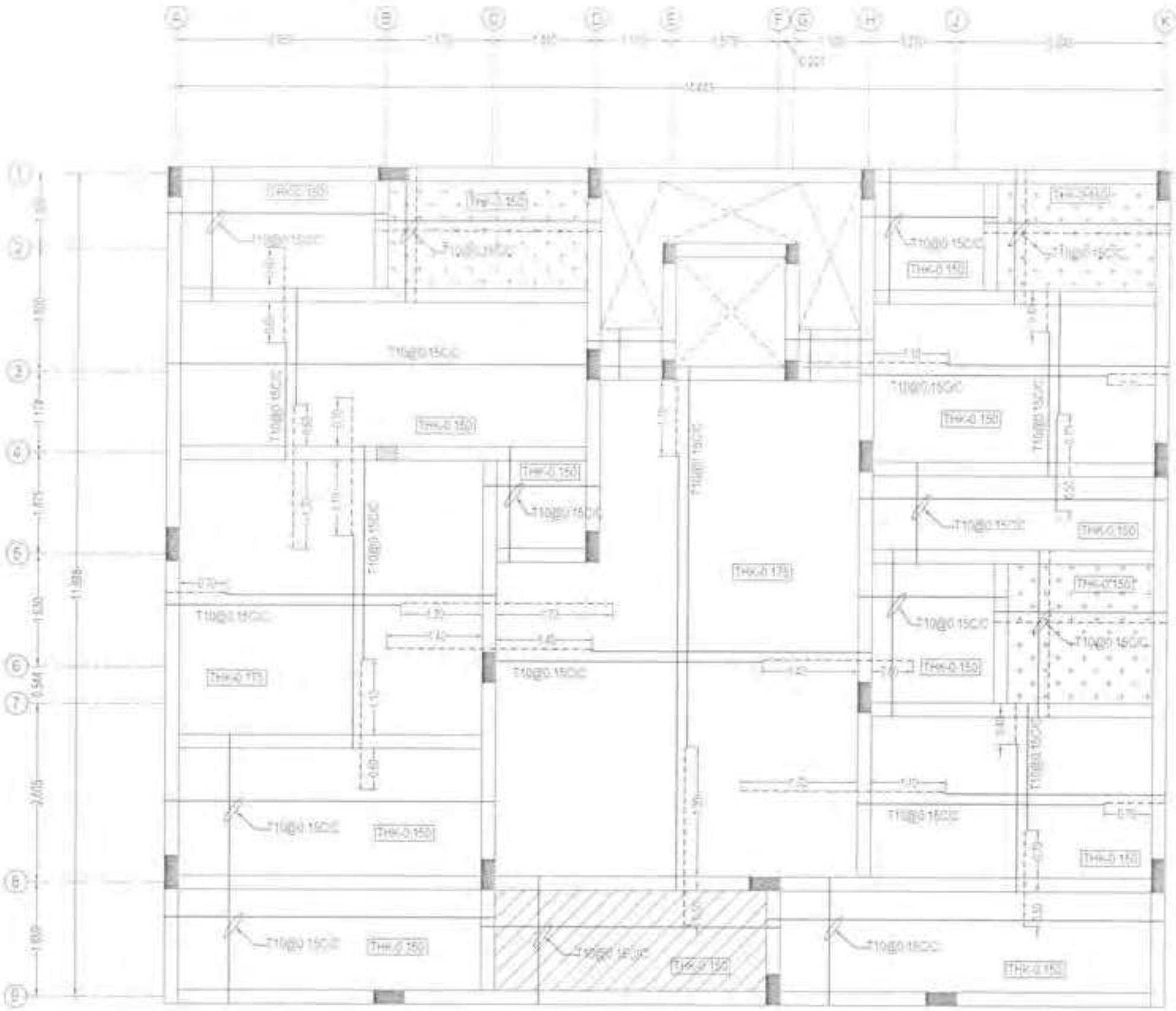
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DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	10



GROUND FLOOR ROOF SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I (SE)
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (Chennai)

LEGEND
- - - - TOP ROD
——— BOTTOM ROD
THK - THICKNESS

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED.
2. THE STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH ALL OTHER ARCHITECTURAL AND SERVICES DRAWINGS.
3. ANY DISCREPANCIES OR OMISSIONS IN THE DRAWINGS SHALL BE REPORTED TO THE ARCHITECT BEFORE PROCEEDING WITH THE WORK.
4. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS ON SITE BEFORE COMMENCING ANY WORK.
5. DO NOT SCALE DRAWINGS. USE FIGURED DIMENSIONS ONLY.
6. ALL WORKMANSHIP AND MATERIALS SHALL BE IN ACCORDANCE WITH RELEVANT INDIAN STANDARD CODES OF PRACTICE.
7. CONCRETE GRADES:
   - A. COLUMN - M30
   - B. FOOTING - M30
   - C. GRADE BEAM - M30
   - D. SLAB - M30
   - E. STAIR - M30
8. THE BEARING CAPACITY OF SOIL IS ASSUMED AS 20 T/M². THE CONTRACTOR IS RESPONSIBLE FOR CONFIRMING THE CAPACITY BEFORE CASTING OF FOUNDATIONS.
9. CONCRETE SHALL BE CURED FOR A MINIMUM PERIOD OF 7 DAYS.
10. THE SLAB THICKNESS IS 150MM UNLESS OTHERWISE NOTED.

LAP JOINTS FOR REINFORCEMENT BARS

- NOT MORE THAN 50% OF THE BARS AT ONE SECTION SHALL BE LAPPED.
- LAPS IN COLUMNS SHALL BE AVOIDED AT MID-HEIGHT OF FLOOR AND NOT WITHIN 300MM OF JOINTS.
- ALL LAPS IN BEAMS AND SLABS SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 19 & 20)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

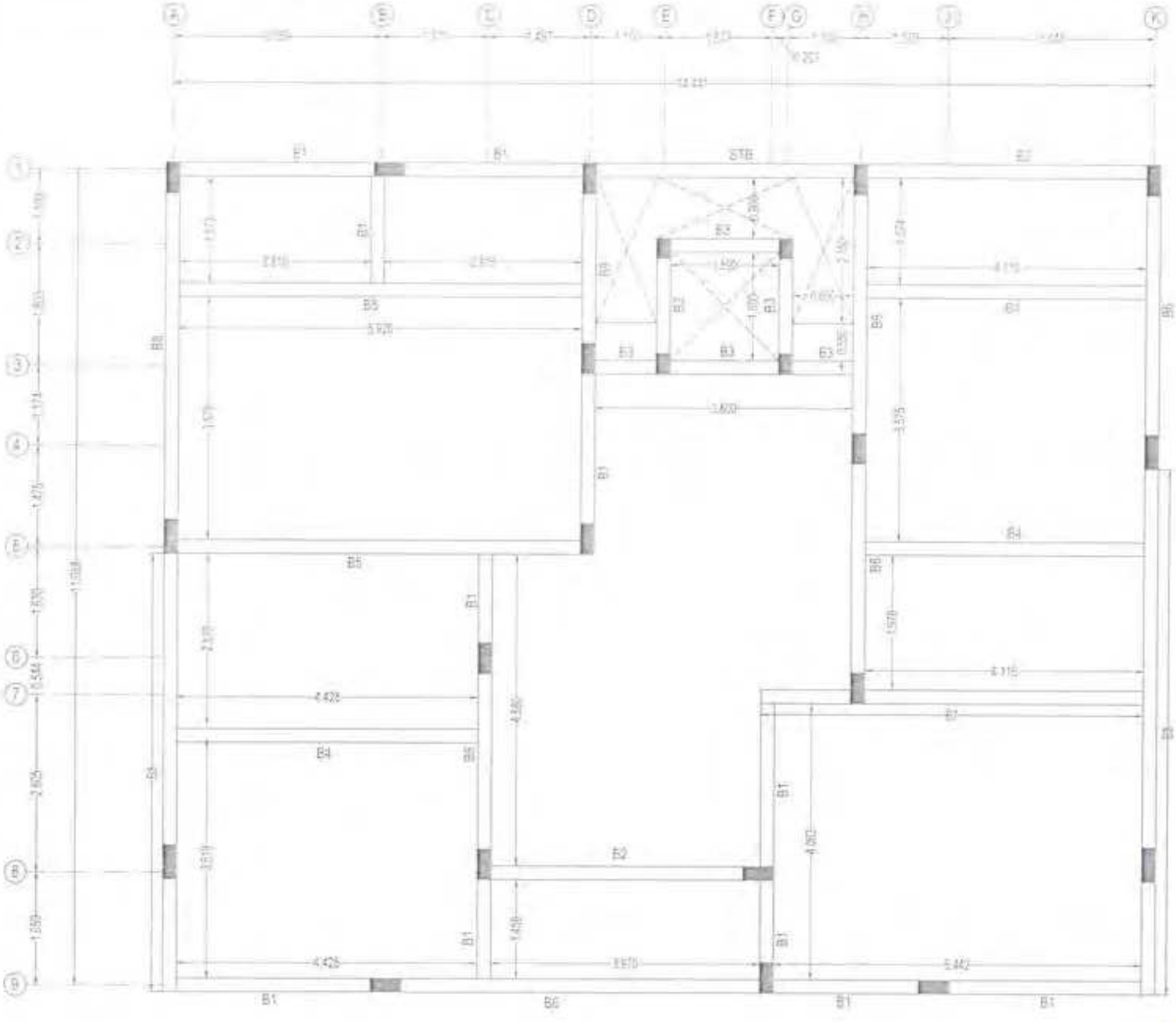
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

GROUND FLOOR ROOF SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	11



TERRACE BEAM LAYOUT

LEGENDS

OPENING

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)
Reg. No - SE/GR-1/19/12/231 (CHENNAI)

TECHNICAL NOTES

1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE NOTED.
2. ALL LEVELS ARE IN METERS.
3. ALL DIMENSIONS SHOULD BE CHECKED AT SITE BEFORE EXECUTION. DISCREPANCIES SHOULD BE REPORTED TO THE ARCHITECT.
4. THE CONTRACTOR SHALL CHECK ALL DRAWINGS BEFORE EXECUTION. ANY DISCREPANCIES SHALL BE REPORTED TO THE ARCHITECT.
5. THE CONTRACTOR SHALL ENSURE THAT ALL WORKS ARE CARRIED OUT IN ACCORDANCE WITH THE LATEST RELEVANT INDIAN STANDARD CODES OF PRACTICE.
6. ALL CONCRETE SHALL BE OF THE FOLLOWING GRADES UNLESS OTHERWISE NOTED:
   - FOOTINGS = M30
   - RAFT FOUNDATION = M30
   - PILE CAPS = M30
   - COLUMNS ABOVE GROUND = M30
   - COLUMNS BELOW GROUND = M30
7. THE SUBSOIL INVESTIGATION HAS BEEN CARRIED OUT BY [ ] AND THE ALLOWABLE BEARING CAPACITY OF SOIL IS [ ] KN/SQ.M. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE ACTUAL BEARING CAPACITY OF SOIL AT SITE IS NOT LESS THAN THE ASSUMED VALUE.
8. ALL LOOSE SOIL, IF ANY, SHALL BE REMOVED BEFORE LAYING OF FOUNDATION CONCRETE.
9. THE BOTTOM OF FOOTINGS SHALL BE AT A MINIMUM DEPTH OF [ ] M BELOW EXISTING GROUND LEVEL.

AF JOINTS FOR REINFORCEMENT BARS

1. ALL LAPPING OF REINFORCEMENT BARS SHALL BE DONE AS PER IS 456:2000. LAPPING SHALL BE AVOIDED AT SECTIONS OF MAXIMUM STRESS AS FAR AS POSSIBLE.
2. LAP LENGTH SHALL BE MINIMUM 50 DIAMETERS OR 600 MM, WHICHEVER IS GREATER, UNLESS OTHERWISE SPECIFIED.
3. LAPPED BARS SHALL BE STAGGERED AND NOT MORE THAN 50% OF REINFORCEMENT SHALL BE LAPPED AT ANY ONE SECTION.

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @ ADITYARAM PALACE CITY, (VILLA 19 & 20) AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM LAYOUT

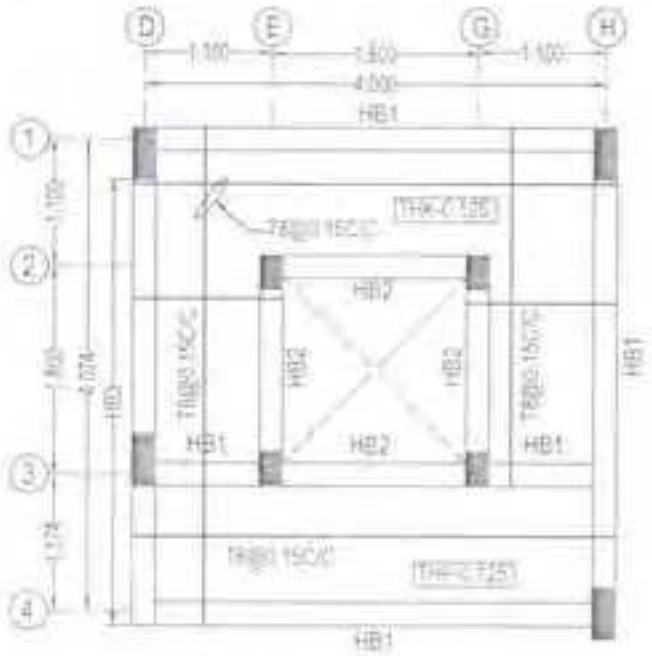
REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	12

TERRACE BEAM REINFORCEMENT SCHEDULE

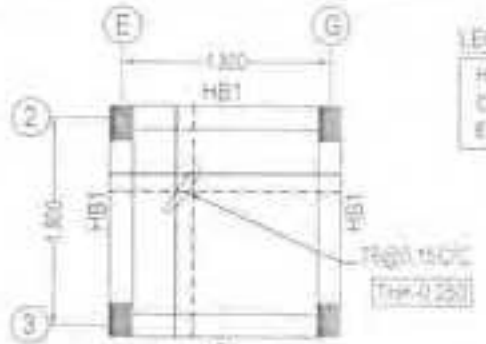
BEAM SIZE & MK	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT
(0.20 X 0.45) B1	2-T16(C) T8@0.15C/C 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C)
(0.20 X 0.45) B2	2-T16(C) T8@0.15C/C 2-T12(C) 2-T16(C)	2-T16(C) T8@0.15C/C 2-T12(C) 2-T16(C)	2-T16(C) T8@0.15C/C 2-T12(C) 2-T16(C)
(0.20 X 0.45) B3	2-T16(C) T10@0.15C/C 2-T16(C)	2-T16(C) T10@0.15C/C 2-T16(C)	2-T16(C) T10@0.15C/C 2-T16(C)
(0.20 X 0.45) B4	2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)
(0.20 X 0.60) B5	2-T16(C) 2-T12(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T12(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T12(C) T10@0.15C/C 2-T16(C) 2-T16(C)
(0.20 X 0.45) B6	2-T16(C) 2-T16(C) T6@0.15C/C 2-T16(C) 2-T16(U)	2-T16(C) 2-T16(C) T6@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T6@0.15C/C 2-T16(C) 2-T16(C)
(0.20 X 0.60) ST	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)

TERRACE BEAM REINFORCEMENT SCHEDULE

BEAM SIZE & MK	DETAIL @ LEFT SUPPORT	DETAIL @ MIDDLE	DETAIL @ RIGHT SUPPORT	DETAIL @ CANTILEVER BEAM
(0.22 X 0.60) B1	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.60) B3	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	2-T16(C) 2-T16(C) T10@0.15C/C 2-T16(C) 2-T16(C)	
(0.20 X 0.45) B5	2-T12(C) T8@0.15C/C 2-T16(C)	2-T12(C) T8@0.15C/C 2-T16(C)	2-T12(C) T8@0.15C/C 2-T16(C)	
(0.20 X 0.45) STB	2-T16(C) T8@0.15C/C 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C)	2-T16(C) T8@0.15C/C 2-T16(C)	



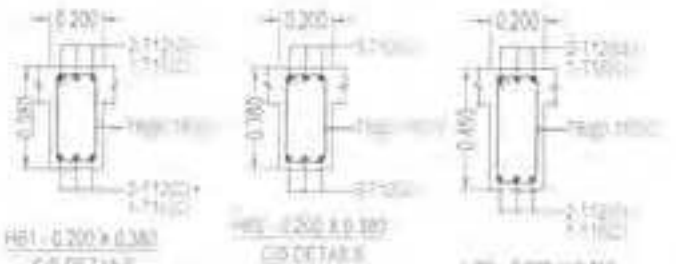
STAIRCASE HEADROOM LAYOUT & DETAILS



LIFT MACHINE ROOM LAYOUT & DETAILS

LEGEND

HB - HEADROOM BEAM
C - CONTINUOUS ROD
E - EXTRA ROD



TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE -
M.E (Structural Engg)
Reg. No - SE/GR-I/19/12/201

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY, (VILLA 19 & 20)
AT ECR, CHENNAI.

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

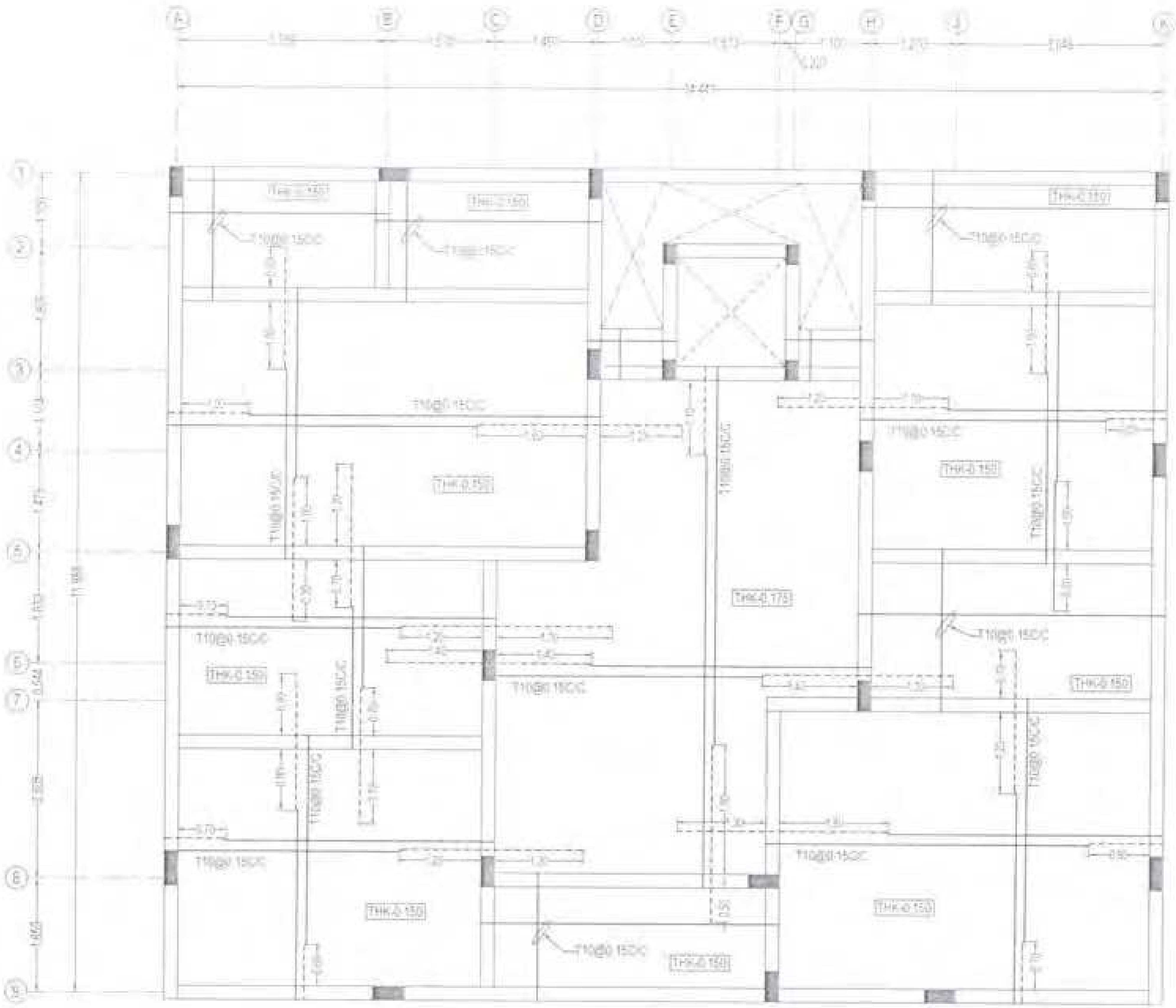
SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE BEAM DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	13



TERRACE SLAB LAYOUT & DETAILS

R. RAVIKUMAR
STRUCTURAL ENGINEER GRADE - I
M.E (Structural Engg)

LEGENDS:
TOP ROD
BOTTOM ROD
THK - THICKNESS

TECHNICAL NOTES

LAP JOINTS FOR REINFORCEMENT BARS

CLIENT

PROJECT

PROPOSED RESIDENTIAL BUILDING @
ADITYARAM PALACE CITY (VILLA 19 & 20)
AT ECR CHENNAI

ARCHITECT

ADITYARAM GROUP

STRUCTURAL CONSULTANT

SAFE STRUCTURAL CONSULTANCY

DESIGNED	RK	RELEASED FOR
DETAILED	SG	☐ TENDER
SCALE	1:100	☑ APPROVAL
SHEET	A3	☐ CONSTRUCTION

DRAWING NAME

TERRACE SLAB DETAILS

REV	DATE	PROJECT NO	SHEET NO
R0	05/05/2026	ST-2026-06-07	14

THE LANDLENS SUITE

Eight ways to know a piece of land before you pay for it.

This report covers one part of the picture. These cover the rest, drawn from the same government records, for any property in Tamil Nadu.

LandLens One
Ask anything about a property and get an answer grounded in live government records, with the sources shown.
/landlens/one

Verify My Land
Every record check run on one property and returned as a single report.
/landlens/verify-my-land

Legal Opinion
An advocate's written opinion on the title, built on the records we pull for it.
/landlens

One Map
Every layer on one map: the parcel, its boundary, zoning, water bodies and what sits around it.
/landlens/one/map

PriceMap
What land actually changed hands for around this plot, taken from the registered deeds.
/landlens/pricemap

Build Scope
What you are allowed to build here: floor space, height, coverage and setbacks.
/landlens/build-scope

Property Tracker
Watch a property and hear about it when something new is registered against it.
/landlens/property-tracker

Deal Room
Run the transaction in one place: documents, stamping, signatures and the parties.
/landlens/deal-room

FREE TOOLS · NO ACCOUNT NEEDED

Twenty-four checks you can run yourself, at no cost.

Records and verification

The registers themselves, read for you.

- Encumbrance Certificate
- Patta and Chitta
- Field Measurement Sketch
- EC Analyzer
- Bank charge check
- Court case search
- Seller background check
- Approval check by survey

Value and duty

What it is worth and what it costs to register.

- Guideline value by street
- Guideline value by survey
- Stamp duty and registration fees
- Capital gains
- Floor space index
- Area unit converter

Zoning and land use

What the plan says can happen on this land.

- Land use zone finder
- CMDA land use check
- Coastal regulation zone
- Master plan check
- Water bodies finder
- Airport height clearance

Registers and directories

Who holds it, and which office keeps the record.

- Find your registering office
- Temple property check
- Waqf property check
- RERA register

Every free tool
/tools

Services we run for you
/services

The LandLens suite
/landlens/one

Verified RealEstate™

Every claim in this document traces back to a government record.

- Legal opinions, due diligence and title verification
- Building plan, layout and sub-division approvals
- Completion and occupancy certificates, regularisation
- Escrow, negotiation and NRI property management
- Land survey, soil testing, architecture and construction

Verified RealEstate
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai 600 097, India
hello@verified.realestate
+91 9996 12 9996

Prepared from the registers named on the page each finding sits on. Where a register could not be read, this document says so in its place rather than leaving the gap to be read as a clean result.