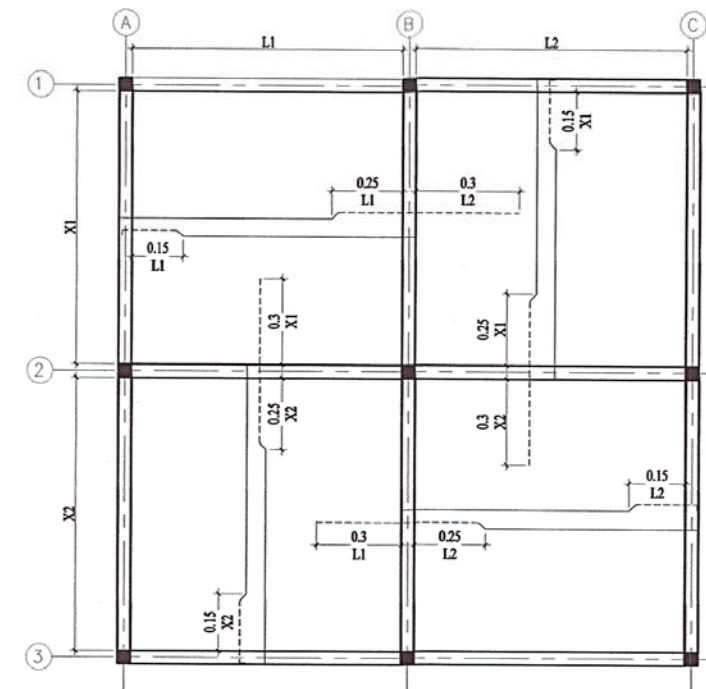


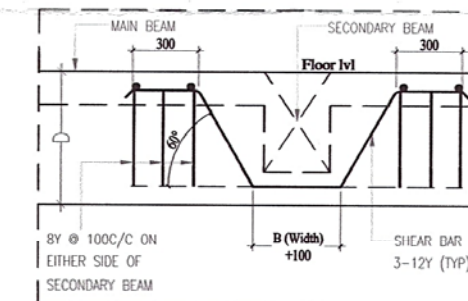
BASEMENT FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
BRB1	200x450		
BRB2	200x450		
BRB3	200x600		
BRB4	200x450		
BRB5	200x600		
BRB6	200x600		
BRB7	200x600		
BRB8	200x375		
BRB9	200x450		
BRB10	300x1500		

BASEMENT FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
BRB11	300x1500		
BRB12	200x600		
BRB13	200x450		
BRB14	200x450		
BRB15	200x600		
BRB16	200x450		
BRB17	200x450		
BRB18	200x450		

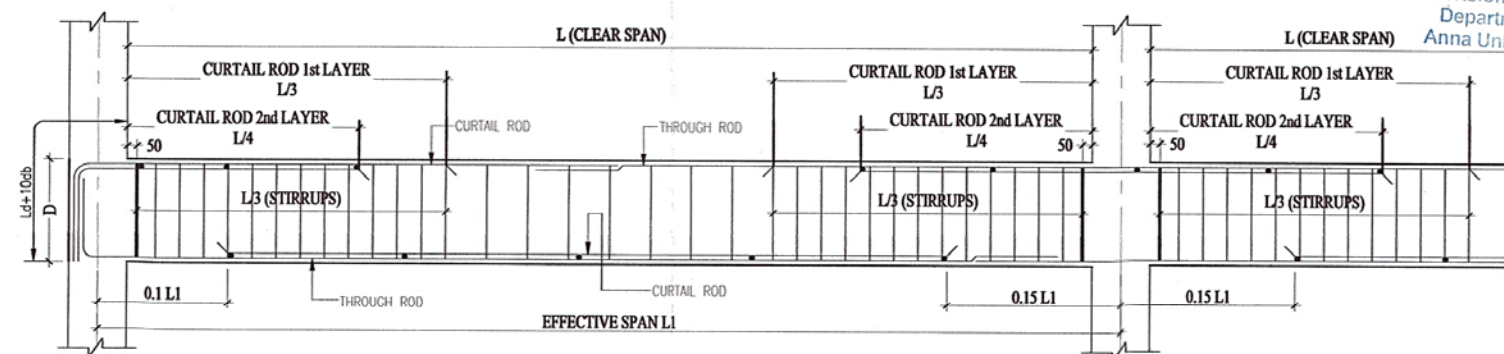


TYPICAL SLAB LAYOUT

ROOF SLAB DETAILS					
TYPE	SLAB DEPTH	SLAB TYPE	REINFORCEMENT		
			SHORTER	LONGER	
S1	175 THK.	TWO WAY	12Y @100C/C	12Y @125C/C	
S2	165 THK.	TWO WAY	10Y @100C/C	10Y @125C/C	
S3	150 THK.	TWO WAY	10Y @125C/C	10Y @150C/C	
S4	150 THK.	ONE WAY	10Y @100C/C	8Y @200C/C	
S5	150 THK.	ONE WAY	10Y @150C/C	10Y @150C/C	
S6	250 THK.	ONE WAY	12Y @100C/C	12Y @150C/C	



TYPICAL SHEAR REINFORCEMENT DETAILS



TYPICAL L.S OF BEAM

GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
- Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d where d is the diameter of the bar.
- The center line of column should coincide with center line of footing if not shown specifically.
- The Foundation and Columns are designed for Basement + Stilt + 11 floors only.
- Do not scale this drawing and follow architectural drawing dimensions only.
- No.changes shall be made without the consent of the structural consultant.
- The position & size of duct beams, please refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

Signature
Dr. I.R. ARUNKUMAAR, M.E., (Structural), M.I.E.
 Consulting Structural Engineer,
 Chartered Civil Engineer (M-165213-8)
 CMDA Regn. No. SE/GR-1/2024/03/013,
 Greater Chennai Corporation, Regn. No. RSE100482025,
 No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO :	1196-ST-S-09	DATE :	21-07-2025

CLIENT:
M/s. S R and Co
 Hosur.

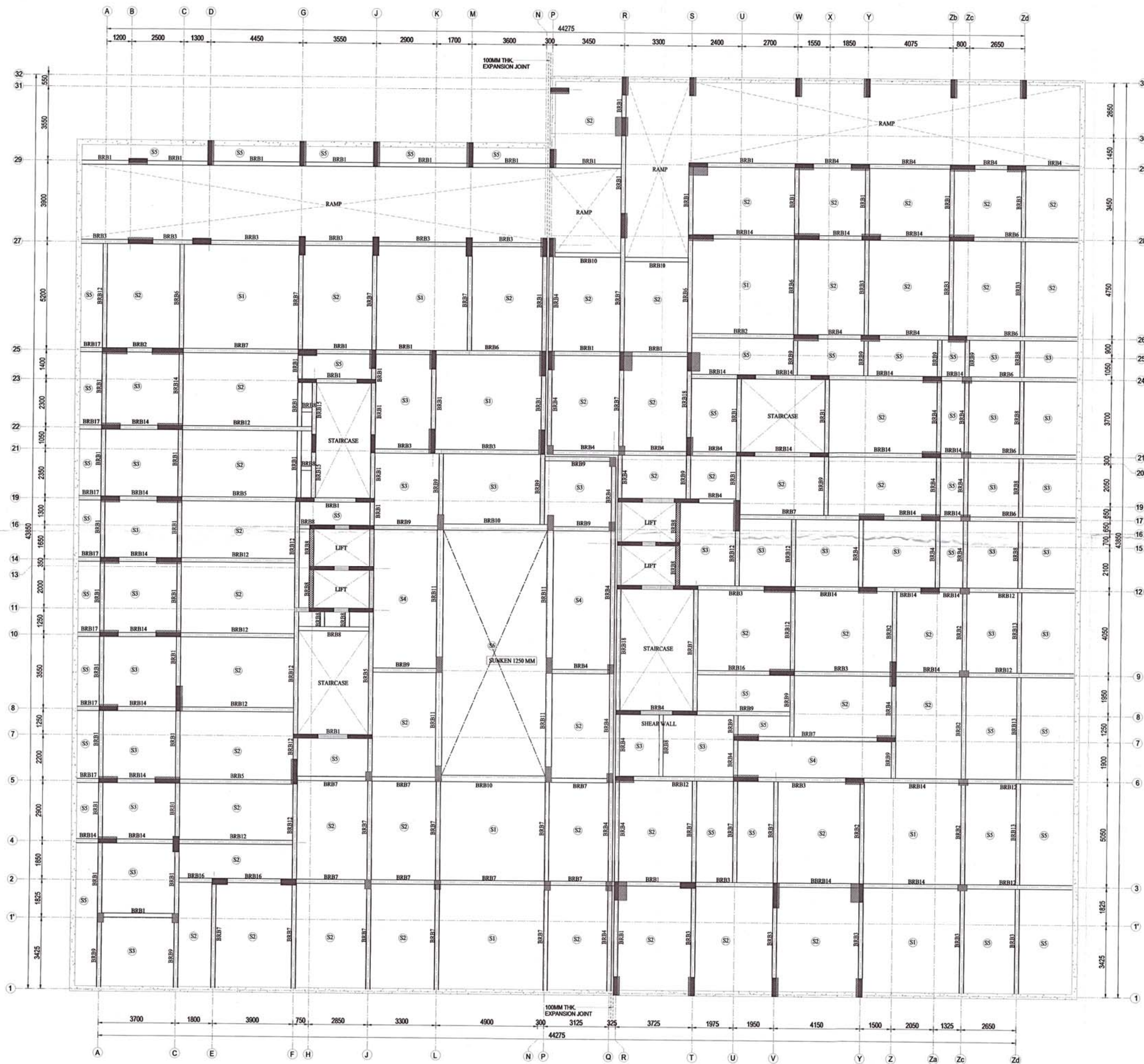
ARCHITECTS :
ART+ID
 ARTID ARCHITECTS
 #AK25, 11TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040.

PROJECT TITLE:
 PROPOSED CONSTRUCTION OF
 MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
 HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
 BASEMENT FLOOR ROOF BEAM
 DETAILS

STRUCTURAL CONSULTANT:
AKR
 CONSULTANTS
Dr. I.R. ARUNKUMAAR, M.E., M.I.E.
 AKR CONSULTANTS
 NO.10, 9th STREET,
 2nd SECTOR, K.K. NAGAR
 CHENNAI - 600078.
 email : info@akrconsultants.com
 Mob : +91 9994160046

SCALE	1 : 50	DRAWN BY	NPK
SHEET SIZE	A2	CHECKED BY	AKR
APPROVED BY			I.R. ARUNKUMAAR



GENERAL NOTES :

1. All dimensions are in millimeter.
2. Concrete Mix : M30 grade
3. Raft foundation Concrete Mix : M40 grade
4. Steel grade : TMT Bars of Fe500D
5. Conforming to IS 1786 - 2008.
6. Clear cover details :
 - Column clear cover -40mm,
 - Footing clear cover -50 mm,
 - Raft beam clear cover -50mm,
 - R.C.C wall clear cover - 25mm,
 - Beam clear cover -25mm,
 - Slab clear cover -20mm.
7. Lap length for all bars shall be 46 d where d is the diameter of the bar.
8. The center line of column should coincide with center line of footing if not shown specifically.
9. The Foundation and Columns are designed for Basement + Stilt + 11 floors only.
10. Do not scale this drawing and follow architectural drawing dimensions only.
11. No changes shall be made without the consent of the structural consultant.
12. The position & size of duct beams, please refer architectural drawing.
13. Provide spacer bar at every 900 intervals
14. S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION


Er. R. R. ARUNKUMAR, M.E., (Structural), M.E.,
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-8)
CMAA Regn. No. SE/GR-1/2024/03/013,
Greater Chennai Corporation, Regn. No. RSE/100482025,
No.10, 5th St., 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO : 1196-ST-S-08		DATE: 21-07-2025	

CLIENT:
M/s. S R and Co
Hosur.

ARCHITECTS :

ART+ID
ART+ID ARCHITECTS

BAK25, 11TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040.

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALLUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
BASEMENT FLOOR ROOF BEAM
LAYOUT

STRUCTURAL CONSULTANT:

VARA
CONSULTANTS

B.I.R. ARUNKUMAR, M.E., M.T.E.
AKR CONSULTANTS

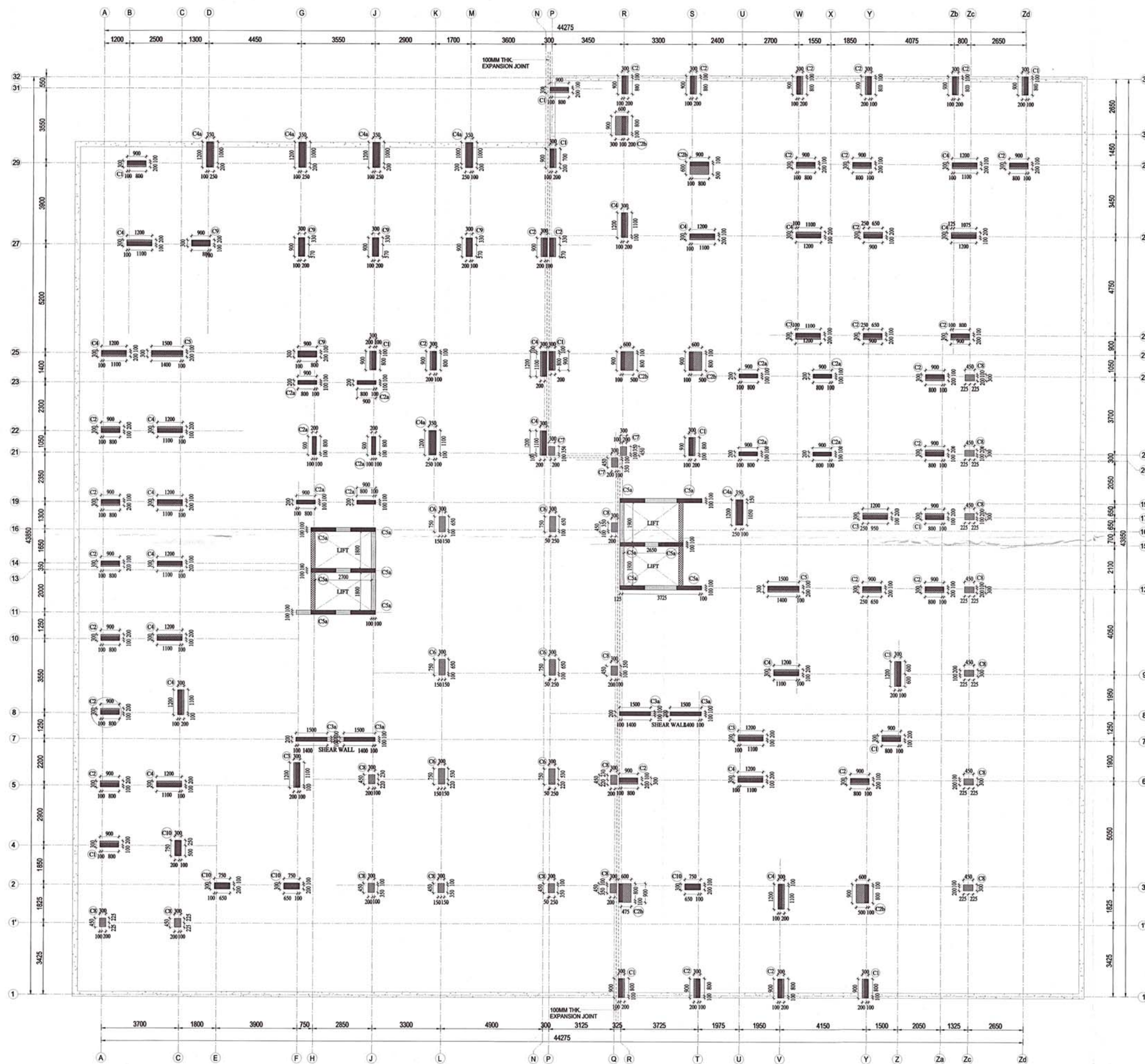
ARK CONSULTANTS
NO.10, 9th STREET,
S. JERSEY, NEW JERSEY

2nd SECTOR, K.K.NAGAR
CHENNAI - 600078.

email : info@akzconsultants.com
Mob : +91 9994149944

SCALE	1 : 90	D
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SHEET SIZE	A1	0
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GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d
where d is the diameter of the bar.
- The center line of column should coincide
with center line of footing if not shown
specifically.
- The Foundation and Columns are designed
for Basement + Stilt + 11 floors only.
- Do not scale this drawing and follow
architectural drawing dimensions only.
- No changes shall be made without the
consent of the structural consultant.
- The position & size of duct beams, please
refer architectural drawing.
- Provide spacer bar at every 900 intervals
S.B.C of soil is taken as 200 kN/m² at 3.6m
depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

Signature
Dr. K. P. JAYA, M.E., Structural M.E.,
 Consulting Structural Engineer,
 Chartered Civil Engineer (4-165213-0)
 CMAA Regn. No. SE/CR-12204/03/013,
 Greater Chennai Corporation, Regn. No. RSE100482025,
 No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO :	1196-ST-S-01		DATE: 21-07-2025

CLIENT:

M/s. S R and Co
 Hosur.

ARCHITECTS :

ARTID ARCHITECTS
 #AKR/5, 6TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 025.

PROJECT TITLE:
 PROPOSED CONSTRUCTION OF
 MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
 HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:

COLUMN CENTER LINE LAYOUT



STRUCTURAL CONSULTANT:

AKR CONSULTANTS
 Dr. K. P. JAYA
 Professor
 Division of Structural Engineering
 Department of Civil Engineering
 Anna University, Chennai - 600 025.
 B1.RARUNIKUMAR.M.E., M.E.,
 AKR CONSULTANTS
 NO.10, 9TH STREET,
 2ND SECTOR, K.K.NAGAR
 CHENNAI - 600078.
 email : info@akrconsultants.com
 Mob : +91 9994160046

SCALE	1 : 90	DRAWN BY	NPX
SHEET SIZE	A1	CHECKED BY	AKR
APPROVED BY			1.RARUNIKUMAR

COLUMN DETAILS				
TYPE	SIZE	CROSS SECTION	MAIN ROD	TIER PROFILE
C1	300 x 300 Basement & 5th Floor		14-25Y + 1-14Y	
	300 x 300 5th Floor		14-25Y + 1-14Y	
	200 x 300 First Floor		6-25Y + 6-20Y	
	200 x 300 Second Floor		6-25Y + 6-20Y	
	200 x 300 Third & Fourth Floor		6-25Y + 6-20Y	
	200 x 300 Fifth Floor		6-25Y + 6-20Y	
	200 x 300 Upper Floor		6-25Y + 6-20Y	
	200 x 300 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 300 First Floor		20-20Y	
	200 x 300 Second Floor		20-20Y	
C2	200 x 300 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 300 First Floor		20-20Y	
	200 x 300 Second Floor		20-20Y	
	200 x 300 Third Floor		20-20Y	
	200 x 300 Fourth Floor		20-20Y	
	200 x 300 Fifth Floor		20-20Y	
	200 x 300 Upper Floor		20-20Y	
	200 x 300 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 300 First Floor		20-20Y	
	200 x 300 Second Floor		20-20Y	

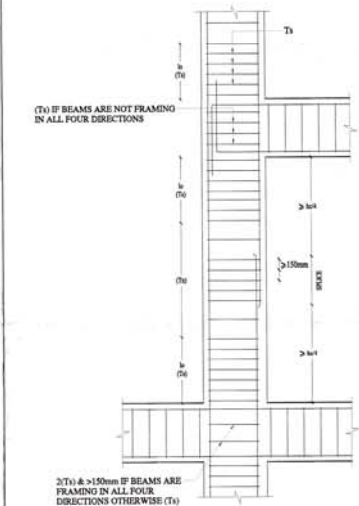
COLUMN DETAILS				
TYPE	SIZE	CROSS SECTION	MAIN ROD	TIER PROFILE
C3	200 x 1200 Basement & 5th Floor		16-20Y + 8-24Y	
	200 x 1200 5th Floor		16-20Y	
	200 x 1200 First Floor		16-20Y	
	200 x 1200 Second Floor		16-20Y	
	200 x 1200 Third Floor		16-16Y	
	200 x 1200 Fourth Floor		16-16Y	
	200 x 1200 Fifth Floor		16-16Y	
	200 x 1200 Upper Floor		16-16Y	
	200 x 1200 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 1200 First Floor		20-20Y	
C4	200 x 1200 Basement & 5th Floor		16-20Y + 8-24Y	
	200 x 1200 5th Floor		16-20Y	
	200 x 1200 First Floor		16-20Y	
	200 x 1200 Second Floor		16-20Y	
	200 x 1200 Third Floor		16-16Y	
	200 x 1200 Fourth Floor		16-16Y	
	200 x 1200 Fifth Floor		16-16Y	
	200 x 1200 Upper Floor		16-16Y	
	200 x 1200 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 1200 First Floor		20-20Y	

COLUMN DETAILS				
TYPE	SIZE	CROSS SECTION	MAIN ROD	TIER PROFILE
C4	200 x 1200 Basement & 5th Floor		16-20Y + 8-24Y	
	200 x 1200 5th Floor		16-20Y	
	200 x 1200 First Floor		16-20Y	
	200 x 1200 Second Floor		16-20Y	
	200 x 1200 Third Floor		16-16Y	
	200 x 1200 Fourth Floor		16-16Y	
	200 x 1200 Fifth Floor		16-16Y	
	200 x 1200 Upper Floor		16-16Y	
	200 x 1200 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 1200 First Floor		20-20Y	
C5	200 x 1200 Basement & 5th Floor		16-20Y + 8-24Y	
	200 x 1200 5th Floor		16-20Y	
	200 x 1200 First Floor		16-20Y	
	200 x 1200 Second Floor		16-20Y	
	200 x 1200 Third Floor		16-16Y	
	200 x 1200 Fourth Floor		16-16Y	
	200 x 1200 Fifth Floor		16-16Y	
	200 x 1200 Upper Floor		16-16Y	
	200 x 1200 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 1200 First Floor		20-20Y	

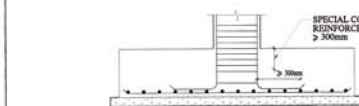
COLUMN DETAILS				
TYPE	SIZE	CROSS SECTION	MAIN ROD	TIER PROFILE
C6	300 x 750 Basement & 5th Floor		16-20Y	
	300 x 750 5th Floor		16-20Y	
	300 x 750 First Floor		16-20Y	
	300 x 750 Second Floor		16-20Y	
	300 x 750 Third Floor		16-20Y	
	300 x 750 Fourth Floor		16-20Y	
	300 x 750 Fifth Floor		16-20Y	
	300 x 750 Upper Floor		16-20Y	
	300 x 750 Basement & 5th Floor		20-20Y + 10-16Y	
	300 x 750 First Floor		20-20Y	
C7	300 x 750 Basement & 5th Floor		16-20Y	
	300 x 750 5th Floor		16-20Y	
	300 x 750 First Floor		16-20Y	
	300 x 750 Second Floor		16-20Y	
	300 x 750 Third Floor		16-20Y	
	300 x 750 Fourth Floor		16-20Y	
	300 x 750 Fifth Floor		16-20Y	
	300 x 750 Upper Floor		16-20Y	
	300 x 750 Basement & 5th Floor		20-20Y + 10-16Y	
	300 x 750 First Floor		20-20Y	

COLUMN DETAILS				
TYPE	SIZE	CROSS SECTION	MAIN ROD	TIER PROFILE
C8	200 x 900 Basement & 5th Floor		20-20Y	
	200 x 900 5th Floor		20-20Y	
	200 x 900 First Floor		20-20Y	
	200 x 900 Second Floor		20-20Y	
	200 x 900 Third Floor		20-20Y	
	200 x 900 Fourth Floor		20-20Y	
	200 x 900 Fifth Floor		20-20Y	
	200 x 900 Upper Floor		20-20Y	
	200 x 900 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 900 First Floor		20-20Y	
C9	200 x 900 Basement & 5th Floor		20-20Y	
	200 x 900 5th Floor		20-20Y	
	200 x 900 First Floor		20-20Y	
	200 x 900 Second Floor		20-20Y	
	200 x 900 Third Floor		20-20Y	
	200 x 900 Fourth Floor		20-20Y	
	200 x 900 Fifth Floor		20-20Y	
	200 x 900 Upper Floor		20-20Y	
	200 x 900 Basement & 5th Floor		20-20Y + 10-16Y	
	200 x 900 First Floor		20-20Y	

COLUMN DETAILS				
TYPE	SIZE	CROSS SECTION	MAIN ROD	TIER PROFILE
C10	300 x 1200 Basement & 5th Floor		20-20Y + 10-16Y	
	300 x 1200 5th Floor		20-20Y	
	300 x 1200 First Floor		20-20Y	
	300 x 1200 Second Floor		20-20Y	
	300 x 1200 Third Floor		20-20Y	
	300 x 1200 Fourth Floor		20-20Y	
	300 x 1200 Fifth Floor		20-20Y	
	300 x 1200 Upper Floor		20-20Y	
	300 x 1200 Basement & 5th Floor		20-20Y + 10-16Y	
	300 x 1200 First Floor		20-20Y	



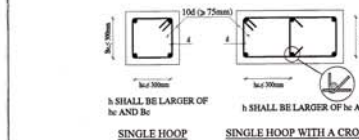
COLUMN AND JOINT DETAILING



PROVISION OF SPECIAL CONFINING REINFORCEMENT IN FOOTING

NOTES REGARDING DUCTILITY DETAILING:-

- Distance for which special confining reinforcement to be provided shall not be less than
 - Larger lateral dimension of the member
 - 1/8 of clear span of the member
 - 450mm
- Development length of bar in tension
 - For Fe500 grade steel and 40N/mm² stress
 - Where d is the diameter of the bar
 - Effective depth of beam
- Special confining reinforcement
 - The spacing of stirrups shall not exceed 1/4 of minimum member dimension but need not be less than 75mm nor more than 100mm.
- Normal lateral reinforcement
 - The spacing of stirrups shall not exceed half the least lateral dimension of the column.
 - Lap splices shall not be provided
 - Within a joint
 - Within a distance of 2d from joint face &
 - Within a quarter length of member from joint
 - Not more than 50% of the bars shall be spliced at one section



PROVISION OF SPECIAL CONFINING REINFORCEMENT IN FOOTING

- GENERAL NOTES :
- All dimensions are in millimeter.
 - Concrete Mix : M30 grade
 - Raft foundation Concrete Mix : M40 grade
 - Steel grade : TMT Bars of Fe500D
 - Clear cover details :
 - Column clear cover - 40mm,
 - Footing clear cover - 50 mm,
 - Raft beam clear cover - 40mm,
 - R.C.C wall clear cover - 25mm,
 - Beam clear cover - 25mm,
 - Slab clear cover - 20mm.
 - Lap length for all bars shall be 46 d where d is the diameter of the bar.
 - The center line of column should coincide with center line of footing if not shown specifically.
 - The Foundation and Columns are designed for Basement + Silt + 11 floors only.
 - Do not scale this drawing and follow architectural drawing dimensions only.
 - No changes shall be made without the consent of the structural consultant.
 - The position & size of duct beams, please refer architectural drawing.
 - Provide space bar at every 900 intervals.
 - S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/BGL (as per soil)

GOOD FOR CONSTRUCTION

REV.	DESCRIPTION	BY	DATE
1	1196-ST-S-02		21-07-2025

CLIENT:
M/s. S R and Co
Hosur.

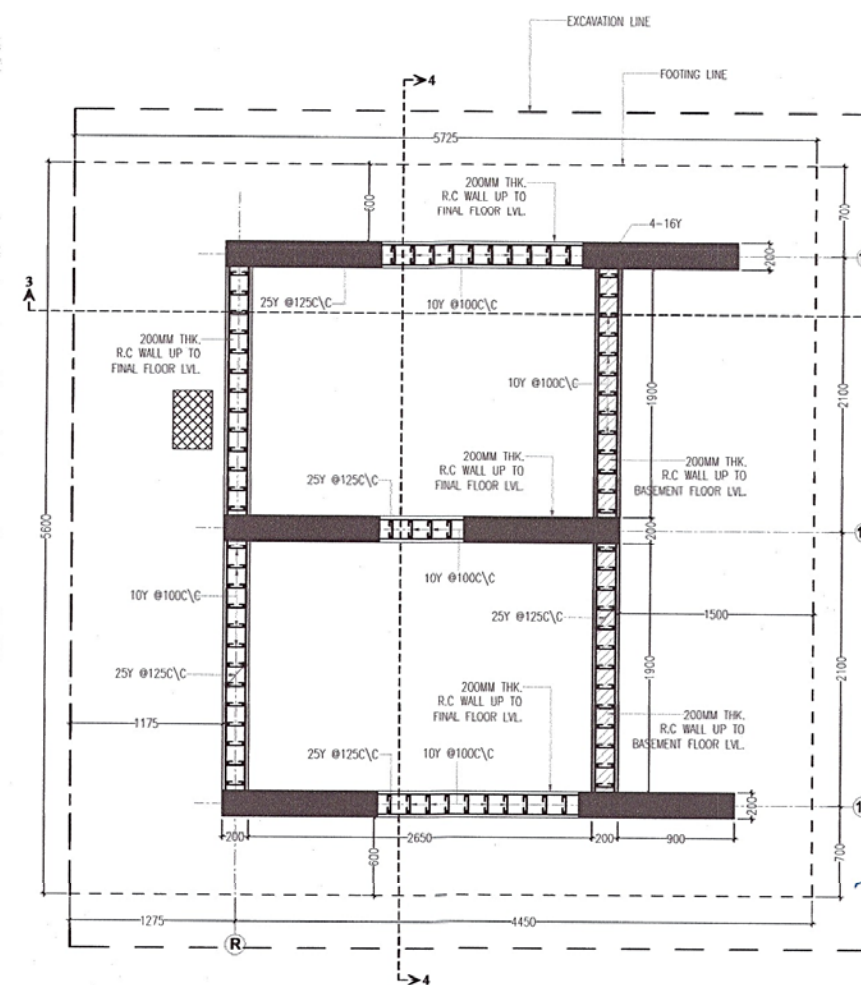
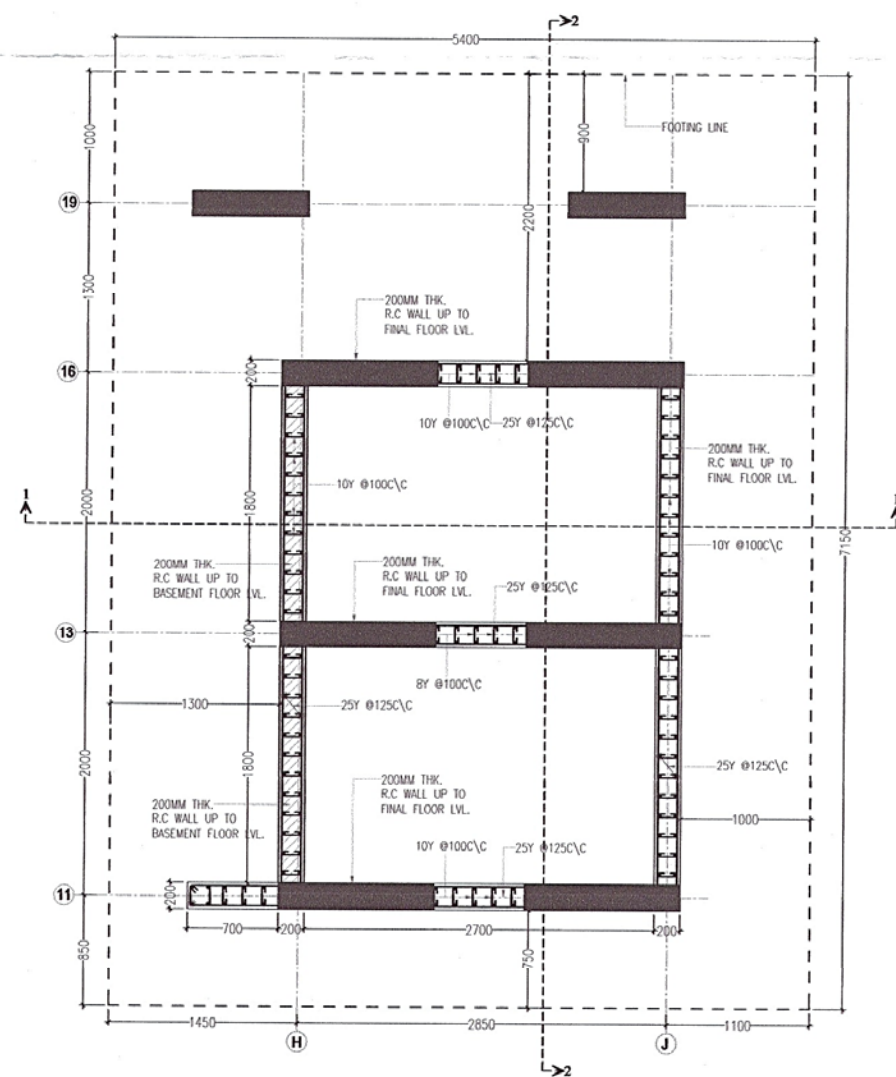
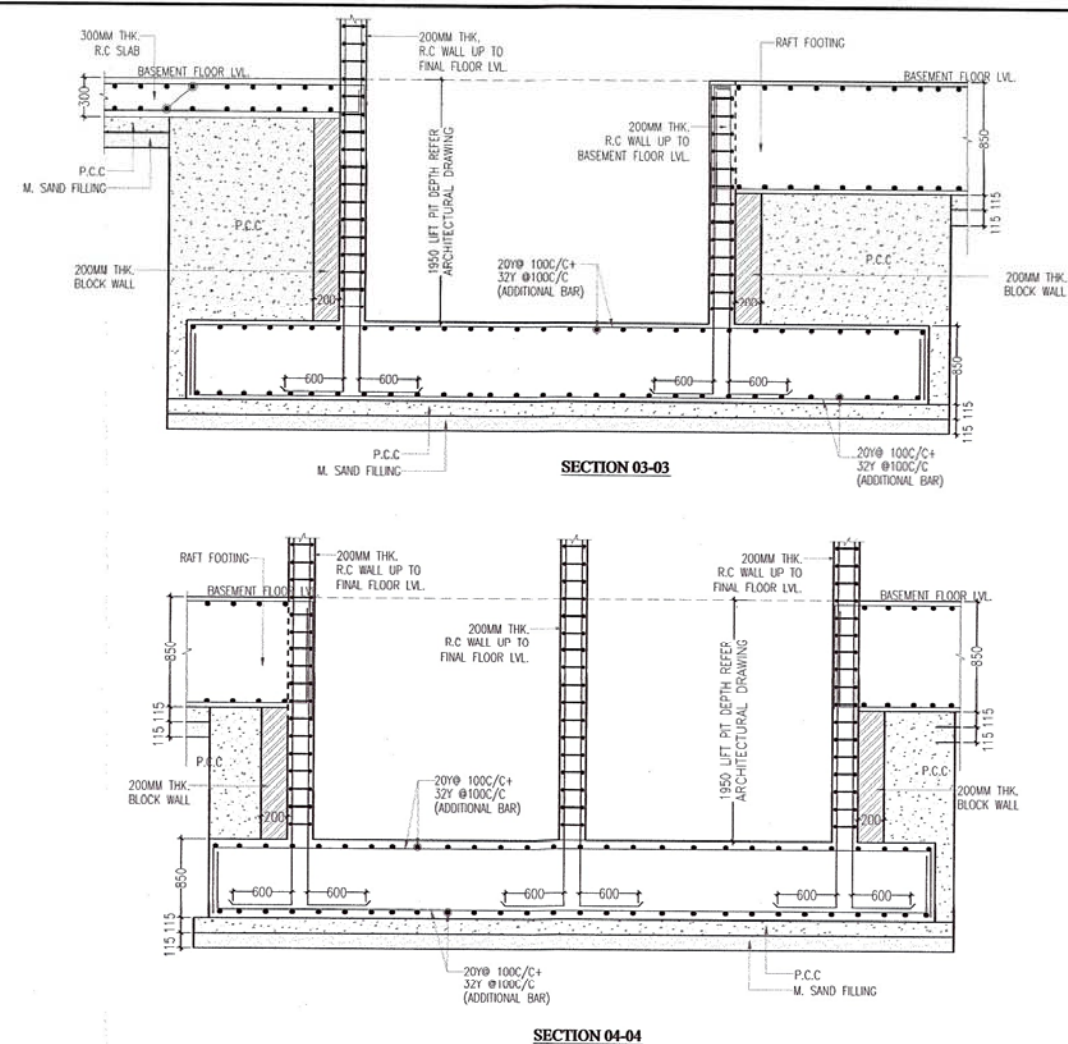
ARCHITECTS :
AR+ID
ARCHITECTS

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI-STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
COLUMN DETAILS

STRUCTURAL CONSULTANT:
AKR
CONSULTANTS
AIR CONSULTANTS
NO.10, 9th STREET,
2nd FLOOR, KANAGAR
CHENNAI - 600078
Email: info@akrconsultants.com
Mob: +91 9941800461

SCALE: 1 : 50
SHEET SIZE: A0
DRAWN BY: NPK
CHECKED BY: AKR
APPROVED BY: LR.AJUNUMAR



- | GENERAL NOTES : | |
|-----------------|---|
| 1. | All dimensions are in millimeter, |
| 2. | Concrete Mix : M30 grade |
| 3. | Raft foundation Concrete Mix : M40 grade |
| 4. | Steel grade : TMT Bars of Fe500D
Conforming to IS 1786 - 2008. |
| 5. | Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm. |
| 6. | Lap length for all bars shall be 4d
where d is the diameter of the bar. |
| 7. | The center line of column should coincide
with center line of footing if not shown
specifically. |
| 8. | The Foundation and Columns are designed
for Basement + Stilt + 11 floors only. |
| 9. | Do not scale this drawing and follow
architectural drawing dimensions only. |
| 10. | No changes shall be made without the
consent of the structural consultant. |
| 11. | The position & size of duct beams, please
refer architectural drawing. |
| 12. | Provide spacer bar at every 900 intervals |
| 13. | S.B.C of soil is taken as 200 kN/m ² at 3.6m
depth from NGL/EGL (as per soil) |

GOOD FOR CONSTRUCTION

Er.I.RARUNKUMAAR, M.E. (Structural), M.I.E.,
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-8)
CMDA Regn. No. SE/GR-I/2024/03/013,
Greater Chennai Corporation, Regn. No.RSE100482025
No.10, 9th St, 2nd Sector, K.K Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO : 1196-ST-S-06		DATE: 21-07-2025	

CLIENT:
M/s. S R and Co
Hosur.

ARCHITECTS : **ART+ID**
ARTID ARCHITECT
#AK35, 11TH MAIN ROAD, ANINA NAGAR, CHENNAI

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
LIFT FOUNDATION DETAILS

STRUCTURAL CONSULTANT

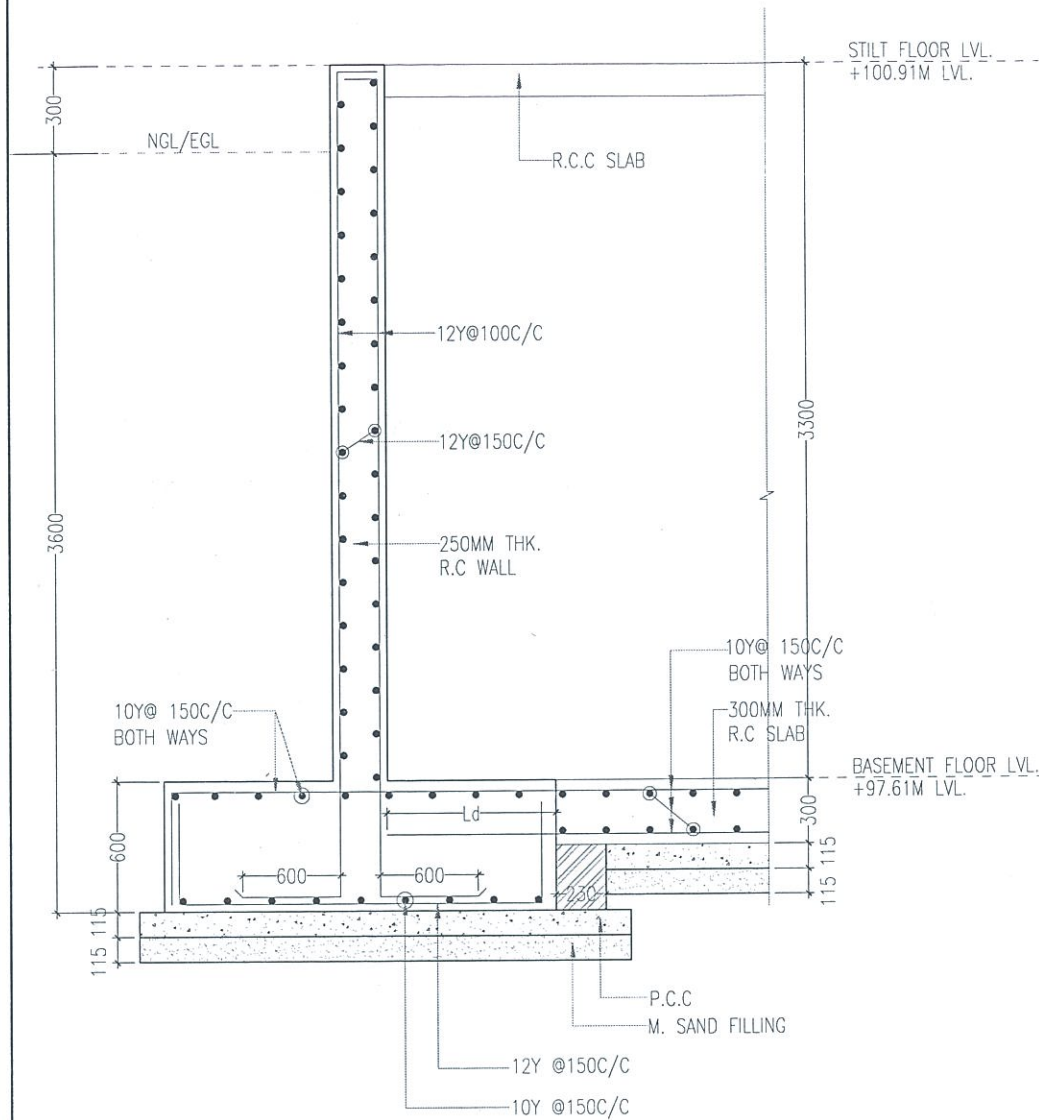
AKR CONSULTANTS
B.J.R. ARUNKUMAR, M.E., M.L.E.
AKR CONSULTANTS
NO.10, 9th STREET,
2nd SECTOR, K.J. NAGAR
CHENNAI - 600078.
email : info@akrconsultants.com
Mob : +91 9994160046

SCALE	1 : 60	DRAWN BY	NPK
SHEET SIZE	A2	CHECKED BY	AKR
APPROVED BY	L.R.ARUNKUMAAR		

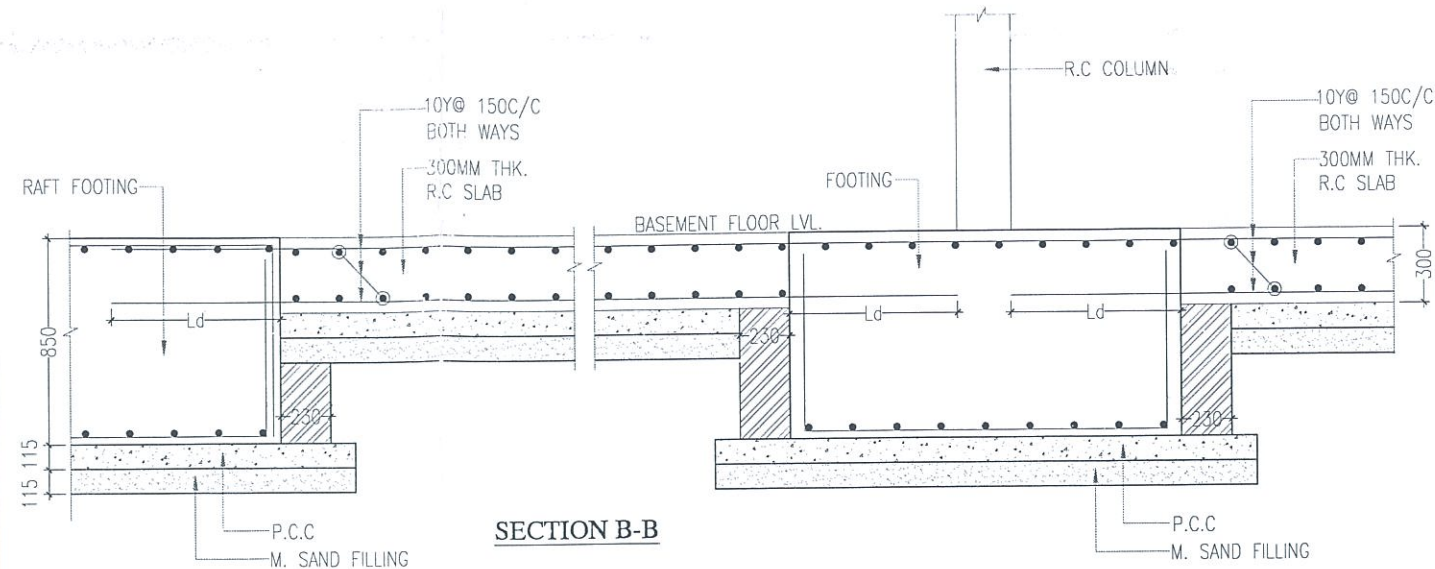
LIFT - 1 R.C WALL DETAILS

LIFT - 2 R.C WALL DETAILS

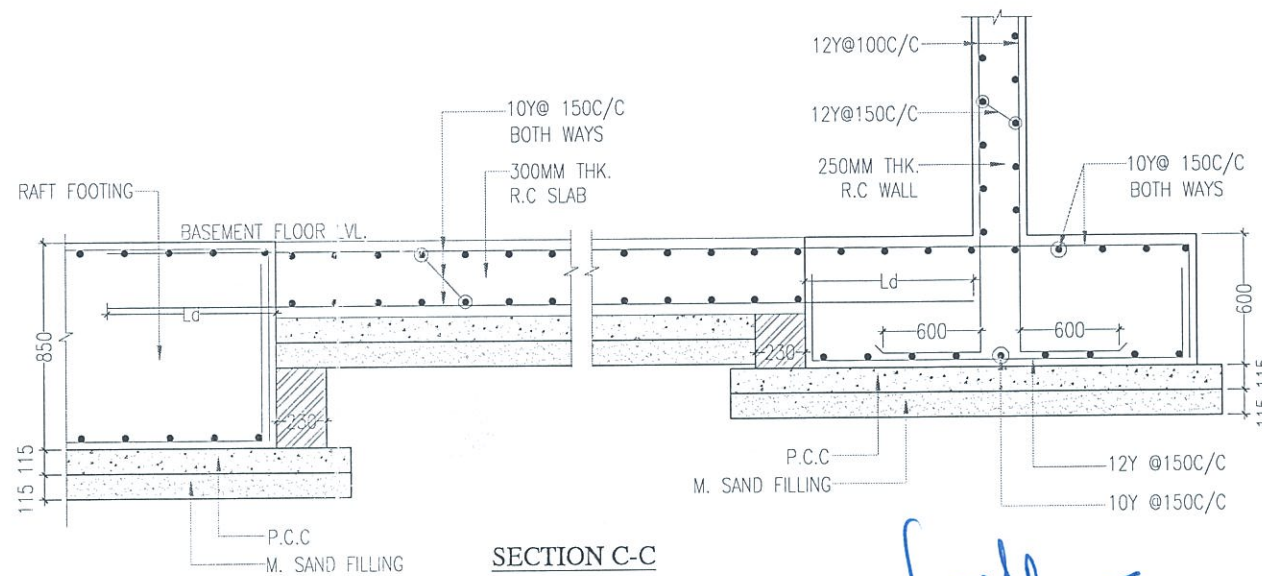
Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai



SECTION A-A



SECTION B-B



SECTION C-C

Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025.

FOOTING DETAILS						
TYPE	SIZE LxB	D	BOTTOM MAT		TOP MAT	
			SHORTER	LONGER	SHORTER	LONGER
F1	2750 x 2750	850	12Y @ 125C/C	12Y @ 125C/C	10Y @ 150C/C	10Y @ 150C/C
F2	2000 x 2000	850	12Y @ 150C/C	12Y @ 150C/C	10Y @ 150C/C	10Y @ 150C/C
F3	1500 x 1500	850	10Y @ 150C/C	10Y @ 150C/C	10Y @ 150C/C	10Y @ 150C/C

GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d
where d is the diameter of the bar.
- The center line of column should coincide
with center line of footing if not shown
specifically.
- The Foundation and Columns are designed
for Basement + Stilt + 11 floors only.
- Do not scale this drawing and follow
architectural drawing dimensions only.
- No changes shall be made without the
consent of the structural consultant.
- The position & size of duct beams, please
refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m
depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

Er. I. ARUNKUMAAR, M.E., (Structural), M.I.E.,
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-8)
CMDA Regn. No. SE/CR-I/2024/03/013,
Greater Chennai Corporation, Regn. No. RSE100482025,
No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO :	1196-ST-S-05	DATE:	21-07-2025

CLIENT:

M/s. S R and Co
Hosur.

ARCHITECTS :

ART+ID

ART+ID ARCHITECTS

#AK25, 11TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040.

PROJECT TITLE:

PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:

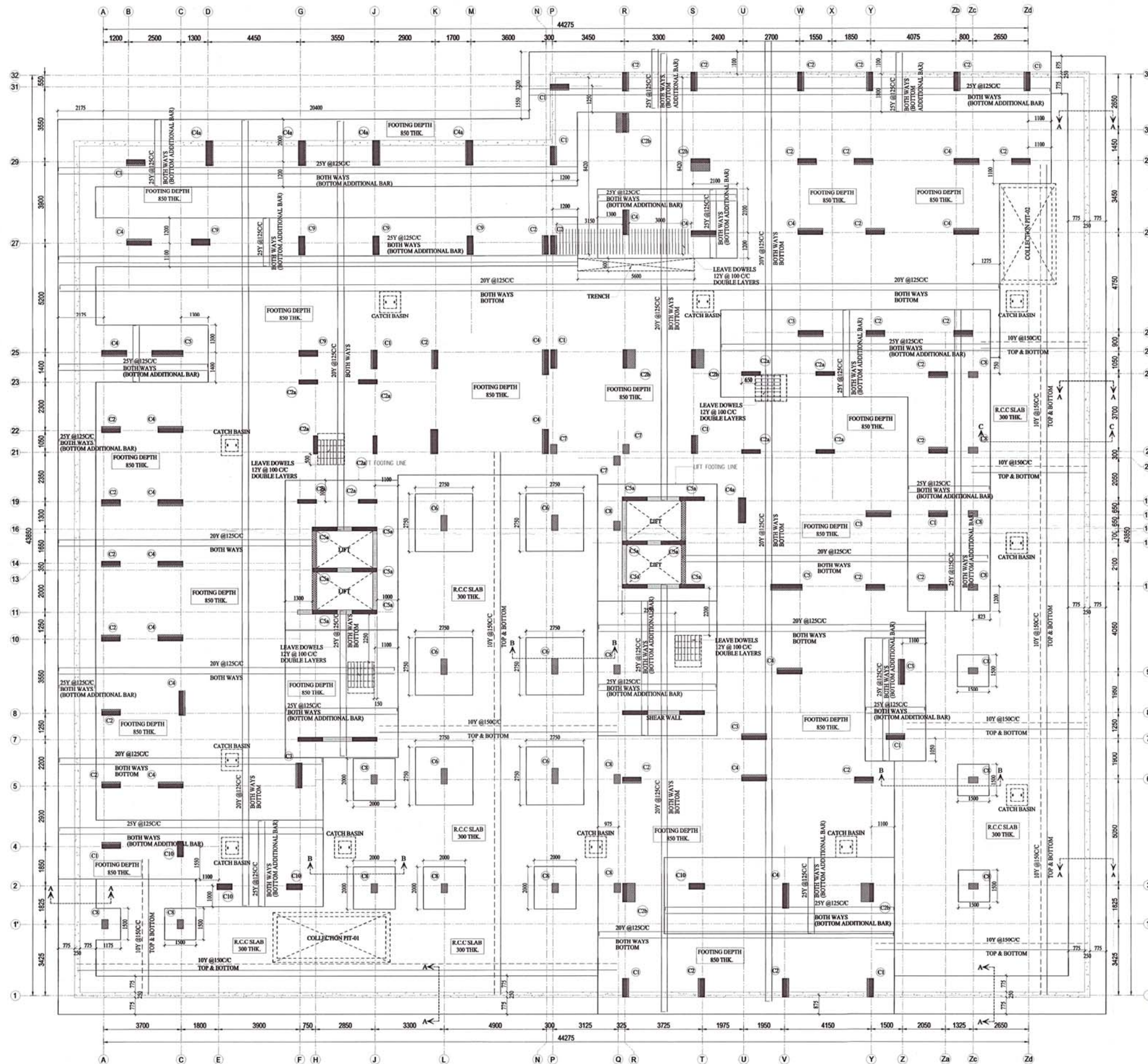
RAFT FOOTING SECTION DETAILS

STRUCTURAL CONSULTANT:

AKR
CONSULTANTS

Er. I. ARUNKUMAAR, M.E., M.I.E.,
AKR CONSULTANTS
NO.10, 9th STREET,
2nd SECTOR, K.K. NAGAR
CHENNAI - 600078.
email : info@akrconsultants.com
Mob : +91 9994160046

SCALE	1 : 50	DRAWN BY	NPK
SHEET SIZE	A3	CHECKED BY	AKR
APPROVED BY			I. ARUNKUMAAR



GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover - 40mm,
Footing clear cover - 50 mm,
Raft beam clear cover - 50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover - 25mm,
Slab clear cover - 20mm.
- Lap length for all bars shall be 46 d
where d is the diameter of the bar.
- The center line of column should coincide
with center line of footing if not shown
specifically.
- The Foundation and Columns are designed
for Basement + Silt + 11 floors only.
- Do not scale this drawing and follow
architectural drawing dimensions only.
- No changes shall be made without the
consent of the structural consultant.
- The position & size of duct beams, please
refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m
depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

Dr. K. P. JAYA
Consulting Structural Engineer,
Chartered Civil Engineer No. 155213-01,
CMAA Regn. No. SE/CR-12024/03/013,
Greater Chennai Corporation, Regn. No. RSE/100482025,
No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV. DESCRIPTION BY DATE
DRAWING NO : 1196-ST-S-03 DATE: 21-07-2025

CLIENT:

M/s. S R and Co
Hosur.

ARCHITECTS :

ART+ID
ARTID ARCHITECTS

#A935, 13TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 095.

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI STORED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
RAFT FOUNDATION
BOTTOM REINFORCEMENT LAYOUT

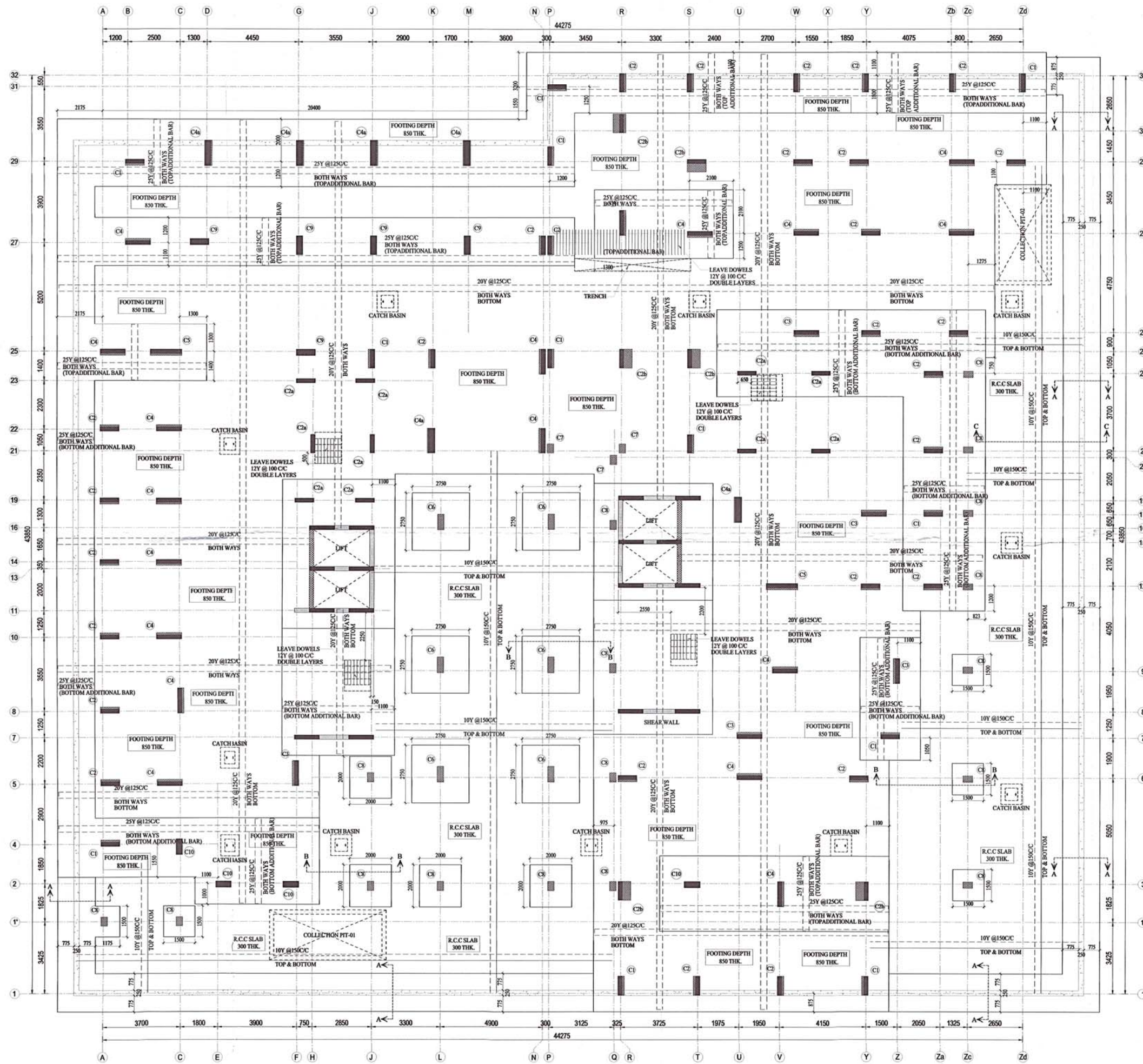
STRUCTURAL CONSULTANT:

AKR
CONSULTANTS

Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025.

Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025.

SCALE 1 : 90 DRAWN BY NPK
SHEET SIZE A1 CHECKED BY AKR
APPROVED BY LR.ARUNKUMAR



GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete grade : M30 (column, beam, r.c wall & slab)
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover -25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d where d is the diameter of the bar.
- The center line of column should coincide with center line of footing if not shown specifically.
- The Foundation and Columns are designed for Basement + Silt + 11 floors only.
- Do not scale this drawing and follow architectural drawing dimensions only.
- No changes shall be made without the consent of the structural consultant.
- The position & size of duct beams, please refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025

REV.	DESCRIPTION	BY	DATE
1	1196-ST-S-04		21-07-2025

CLIENT:
M/s. S R and Co
Hosur.

ARCHITECTS :
ARTID
ARTID ARCHITECTS
#AKC/15, 15TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 025.

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
RAFT FOUNDATION
TOP REINFORCEMENT LAYOUT

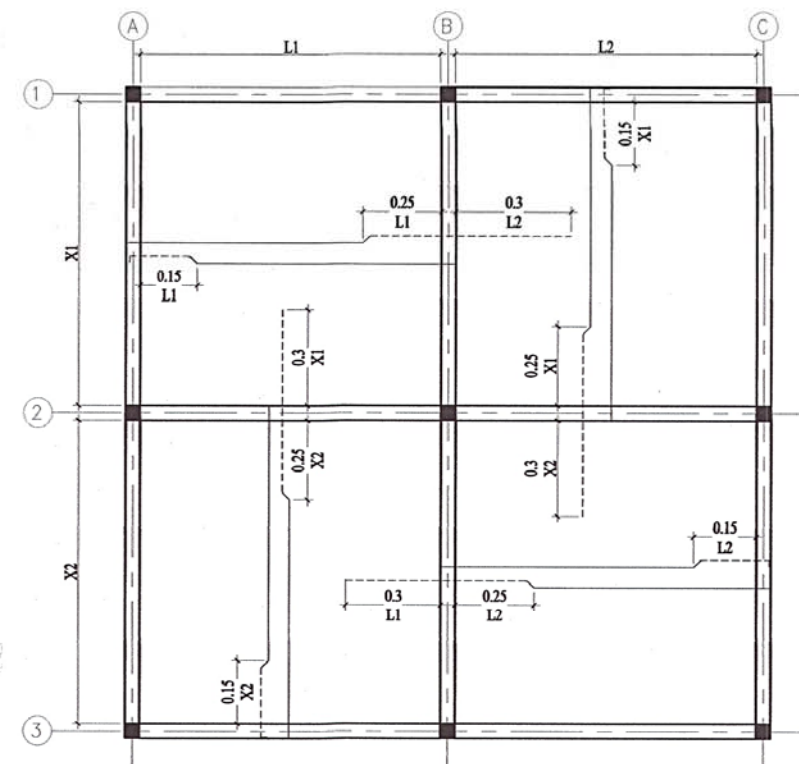
STRUCTURAL CONSULTANT:
AKR
CONSULTANTS
Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025

Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025

SCALE	1 : 90	DRAWN BY	NPK
SHEET SIZE	A1	CHECKED BY	AKR
APPROVED BY			IRARUNKUMAR

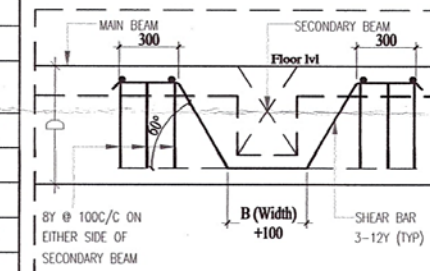
STILT FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
GRB1	200x450		
GRB2	200x450		
GRB3	200x525		
GRB4	200x450		
GRB5	200x600		
GRB6	200x600		
GRB7	200x525		
GRB8	200x375		
GRB9	200x600		
GRB10	200x375		
GRB11	200x450		

STILT FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
GRB12	200x600		
GRB13	450x750	BEAM REMOVED	
GRB14	300x600		
GRB15	300x450		
GRB16	300x750		
GRB17	200x600		
GRB18	200x600		
GRB19	200x450		
GRB11a	200x375		



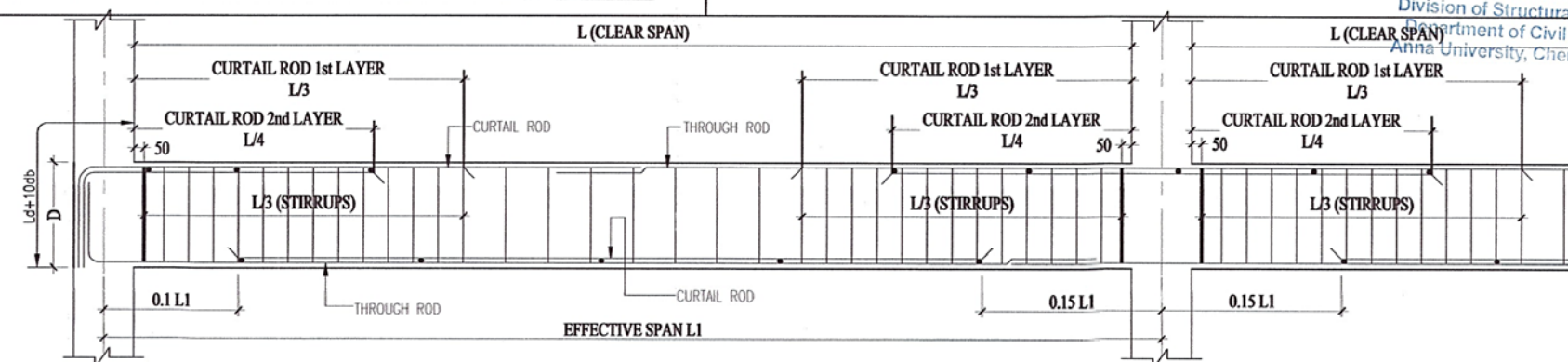
TYPICAL SLAB LAYOUT

ROOF SLAB DETAILS				
TYPE	SLAB DEPTH	SLAB TYPE	REINFORCEMENT	
			SHORTER	LONGER
S1	125 THK.	TWO WAY	8Y @125C/C	8Y @150C/C
S2	150 THK.	ONE WAY	10Y @100C/C	8Y @230C/C
S3	125 THK.	TWO WAY (SUNKEN 75)	8Y @150C/C	8Y @150C/C
S4	150 THK.	TWO WAY	10Y @100C/C	10Y @125C/C
S5	125 THK.	TWO WAY	8Y @150C/C	8Y @150C/C
S6	125 THK.	ONE WAY	8Y @150C/C	8Y @230C/C
S7	125 THK.	TWO WAY	10Y @150C/C	10Y @150C/C
S8	150 THK.	TWO WAY	10Y @125C/C	10Y @150C/C
S9	175 THK.	TWO WAY	12Y @125C/C	12Y @150C/C
S10	135 THK.	TWO WAY	10Y @125C/C	10Y @150C/C



TYPICAL SHEAR REINFORCEMENT DETAILS

STILT FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
GRB11a	200x375		



TYPICAL L.S OF BEAM

GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
- Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d where d is the diameter of the bar.
- The center line of column should coincide with center line of footing if not shown specifically.
- The Foundation and Columns are designed for Basement + Stilt + 11 floors only.
- Do not scale this drawing and follow architectural drawing dimensions only.
- No.changes shall be made without the consent of the structural consultant.
- The position & size of duct beams, please refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

[Signature]
E.I.R.ARUNKUMAAR, M.E. (Structural), M.I.E.,
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-8)
CMDA Regn. No. SE/GR-I/2024/03/013,
Greater Chennai Corporation, Regn. No.RSE100482025,
No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO :	1196-ST-S-11	DATE :	21-07-2025

CLIENT:
M/s. S R and Co
Hosur.

ARCHITECTS :
ART+ID
ARTID ARCHITECTS
#AK25, 11TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040.

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
STILT FLOOR ROOF BEAM
DETAILS

STRUCTURAL CONSULTANT:
AKR
CONSULTANTS
E.I.R.ARUNKUMAAR, M.E., M.I.E.,
AKR CONSULTANTS
NO.10, 9th STREET,
2nd SECTOR, K.K.NAGAR
CHENNAI - 600078.
email : info@akrconsultants.com
Mob : +91 9994160046

SCALE	1 : 50	DRAWN BY	NPK
SHEET SIZE	A2	CHECKED BY	AKR
APPROVED BY	I.R.ARUNKUMAAR		

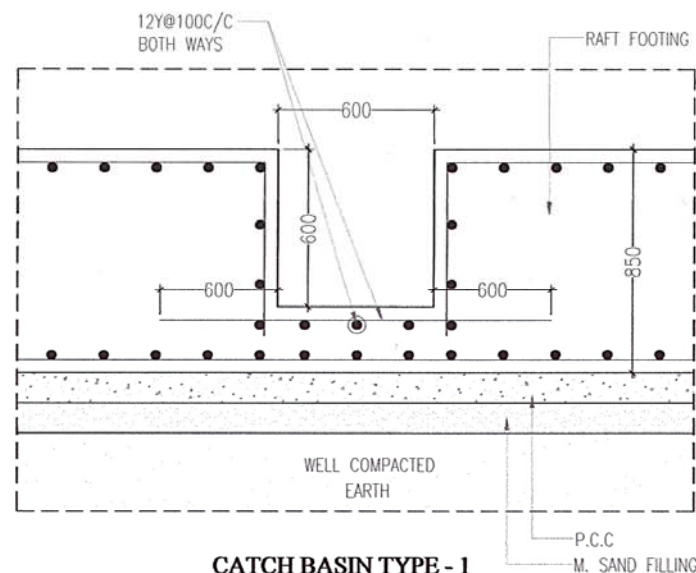


- GENERAL NOTES :
- All dimensions are in millimeter.
 - Concrete Mix : M30 grade
 - Raft foundation Concrete Mix : M40 grade
 - Steel grade : TMT Bars of Fe500D
 - Clear cover details :
 - Column clear cover -40mm,
 - Footing clear cover -50 mm,
 - Raft beam clear cover -50mm,
 - R.C.C wall clear cover - 25mm,
 - Beam clear cover -25mm,
 - Slab clear cover -20mm.
 - Lap length for all bars shall be 46 d where d is the diameter of the bar.
 - The center line of column should coincide with center line of footing if not shown specifically.
 - The Foundation and Columns are designed for Basement + Silt + 11 floors only.
 - Do not scale this drawing and follow architectural drawing dimensions only.
 - No changes shall be made without the consent of the structural consultant.
 - The position & size of duct beams, please refer architectural drawing.
 - Provide spacer bar at every 900 intervals
 - S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

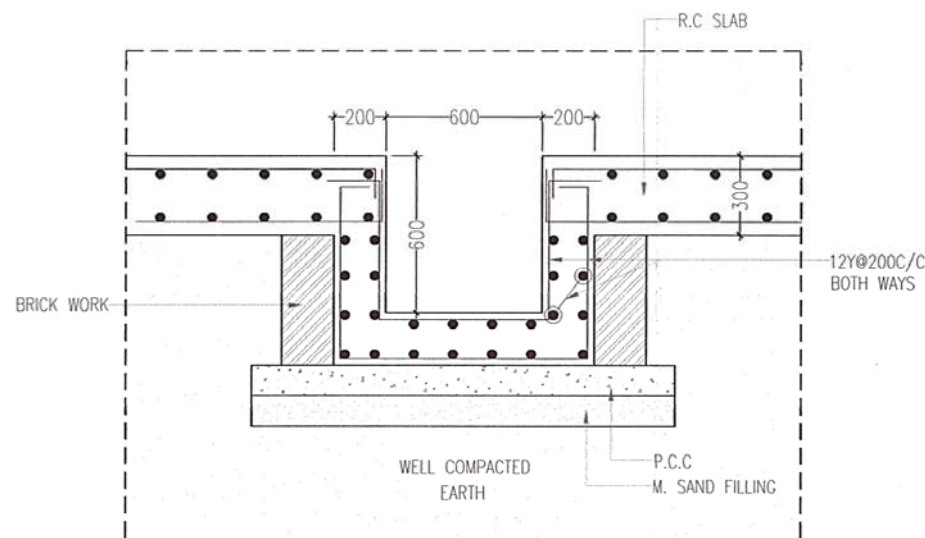
GOOD FOR CONSTRUCTION

Dr. K. P. JAYA
Dr. K. P. JAYA
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-6)
CIDA Regn. No. SE/CR-1202403013,
Greater Chennai Corporation, Regn. No. SSE100482025,
No.10, 9th St, 2nd Sector, K.K Nagar, Chennai - 78

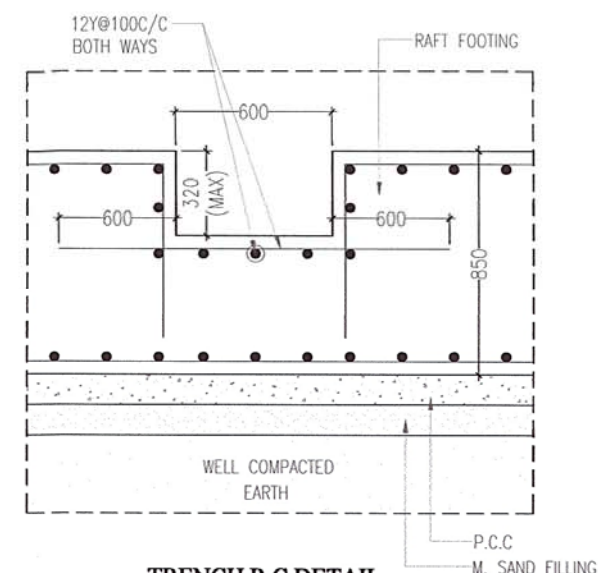
REV.	DESCRIPTION	BY	DATE
DRAWING NO :	1196-ST-S-10	DATE :	21-07-2025
CLIENT:	M/s. S R and Co Hosur.		
ARCHITECTS :	ARTID ARCHITECTS #A/25, 6TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 025.		
PROJECT TITLE:	PROPOSED CONSTRUCTION OF MULTI STORED RESIDENTIAL BUILDING AT THALLY ROAD, HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.		
DRAWING TITLE:	STILT FLOOR ROOF BEAM LAYOUT		
STRUCTURAL CONSULTANT:	AKR CONSULTANTS Dr. K. P. JAYA Division of Structural Engineering Department of Civil Engineering, Anna University, Chennai - 600 025.		
SCALE	1 : 90	DRAWN BY	NPB
SHEET SIZE	A1	CHECKED BY	AKR
APPROVED BY	L.R. ARUNKUMAR		



CATCH BASIN TYPE - 1



CATCH BASIN TYPE - 2

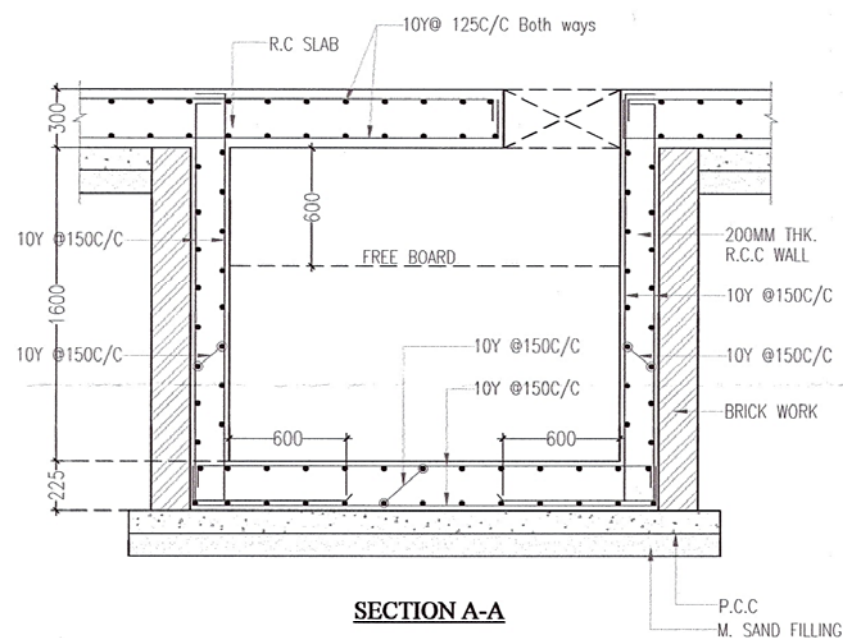


TRENCH R.C DETAIL

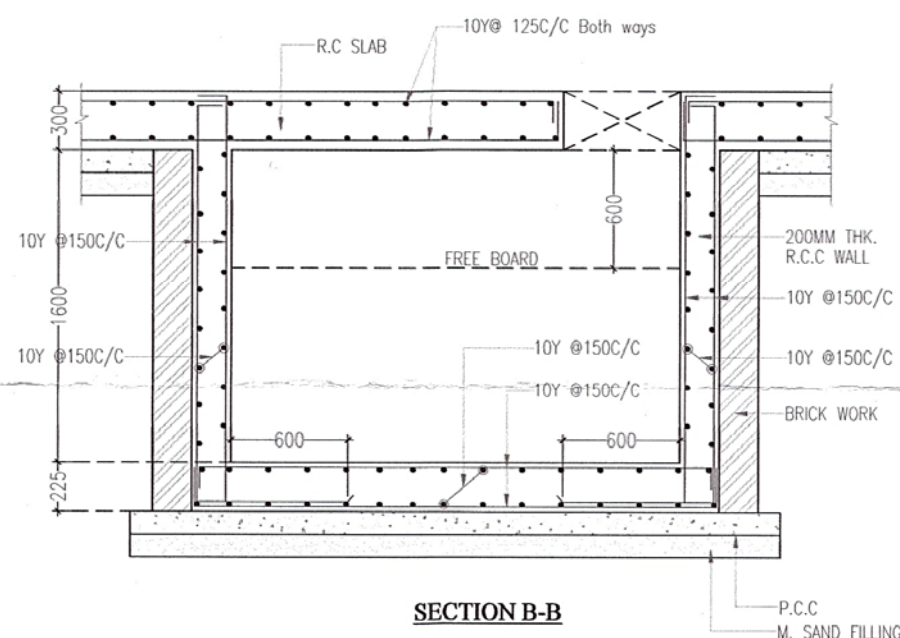
GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
- Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d where d is the diameter of the bar.
- The center line of column should coincide with center line of footing if not shown specifically.
- The Foundation and Columns are designed for Basement + Stilt + 11 floors only.
- Do not scale this drawing and follow architectural drawing dimensions only.
- No changes shall be made without the consent of the structural consultant.
- The position & size of duct beams, please refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

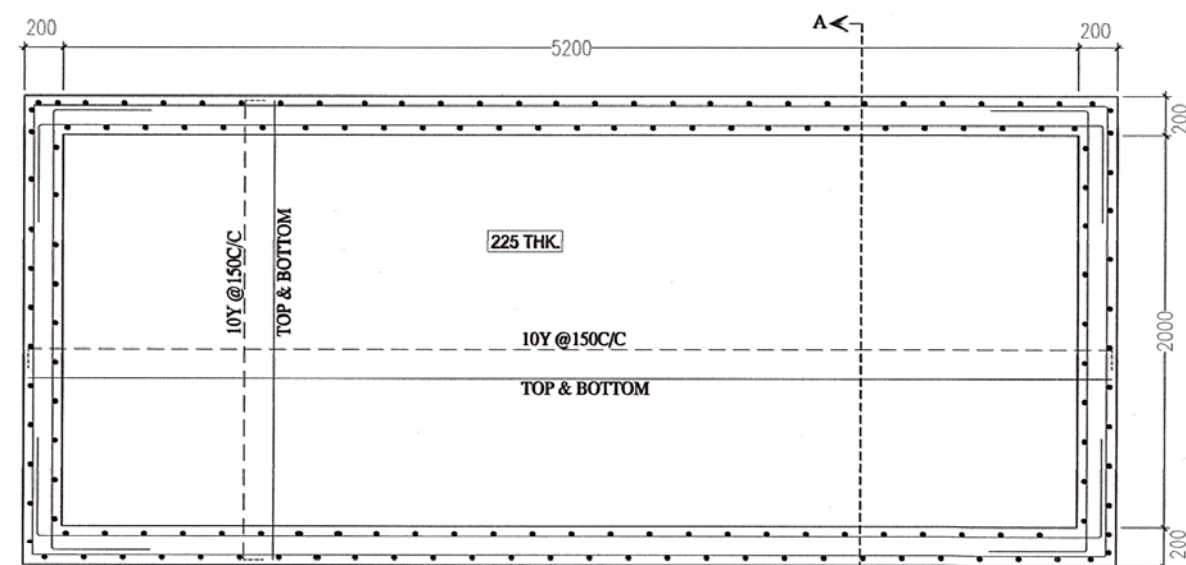
GOOD FOR CONSTRUCTION



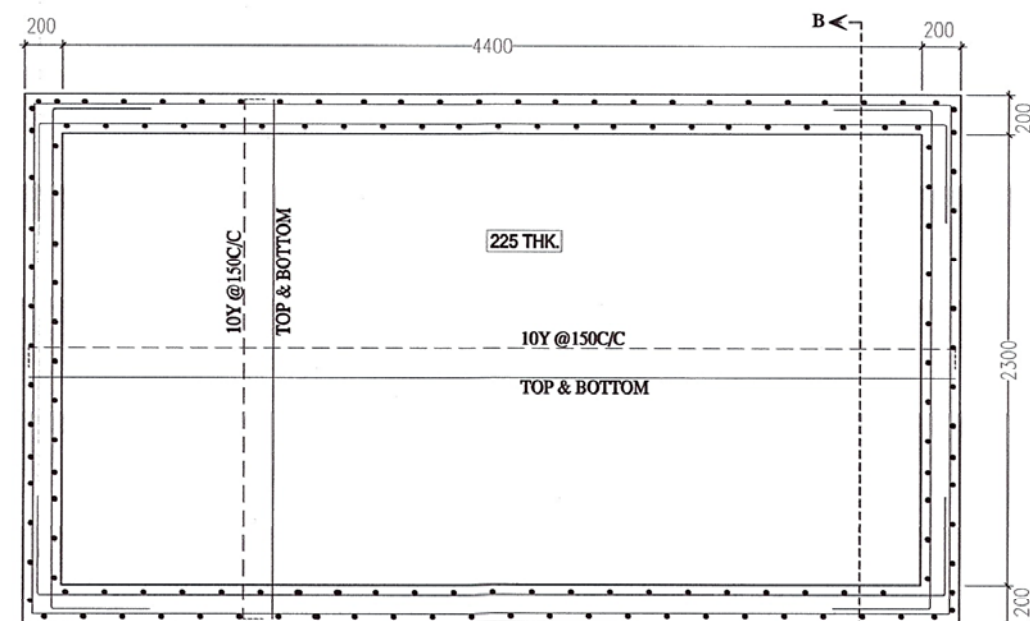
SECTION A-A



SECTION B-B



**COLLECTION PIT-01 R.C DETAIL
BASE SLAB LAYOUT**



**COLLECTION PIT-02 R.C DETAIL
BASE SLAB LAYOUT**

Er. I. R. ARUNKUMAR, M.E. (Structural), M.I.E.
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-8)
CMAA Regn. No. SE/GR-I/2024/03/013,
Greater Chennai Corporation, Regn. No. RSE100482025,
No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO :	1196-ST-S-07	DATE:	21-07-2025

CLIENT:
M/s. S R and Co
Hosur.

ARCHITECTS :
ART+ID
ARTID ARCHITECTS
#AK25, 21TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 046.

PROJECT TITLE:
PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
TRENCH, CATCH BASIN &
COLLECTION PIT R.C DETAIL

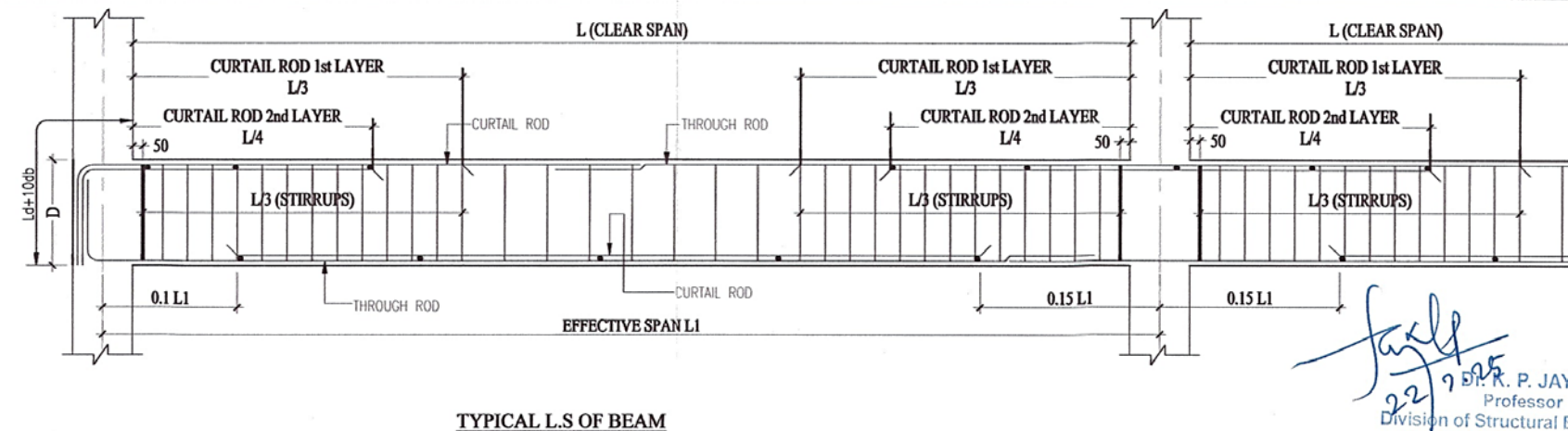
STRUCTURAL CONSULTANT:
AKR CONSULTANTS
Er. I. R. ARUNKUMAR, M.E., M.I.E.
AKR CONSULTANTS
NO.10, 9th STREET,
2nd SECTOR, K.K. NAGAR
CHENNAI - 600078.
email : info@akrconsultants.com
Mob : +91 9994160046

SCALE	1 : 50	DRAWN BY	NPK
SHEET SIZE	A2	CHECKED BY	AKR
APPROVED BY			LR.ARUNKUMAR

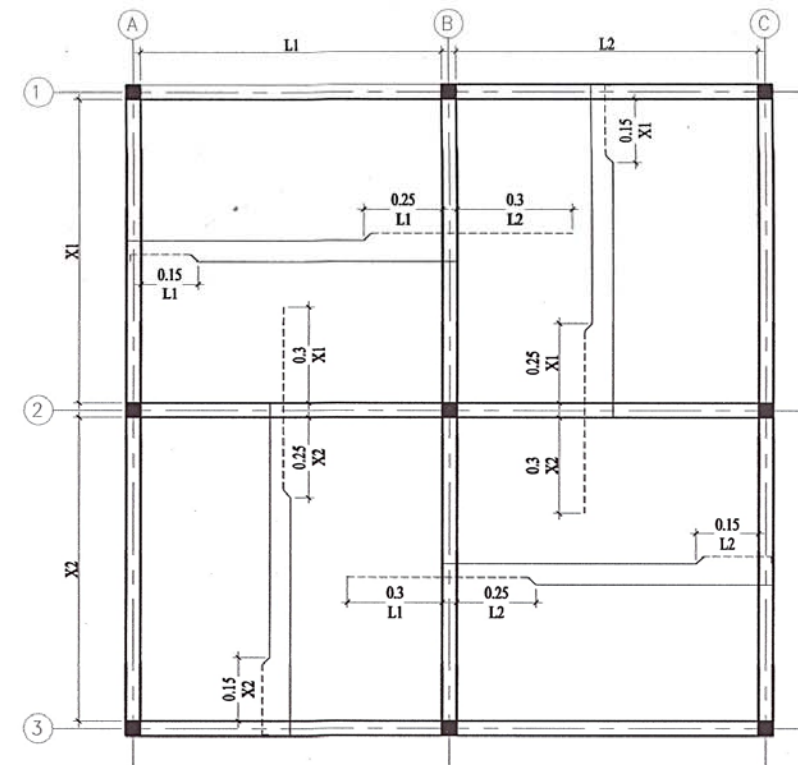
Dr. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025.

TYPICAL FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
TRB1	200x525		
TRB2	200x450		
TRB3	200x525		
TRB4	200x525		
TRB5	200x600		
TRB6	200x600		
TRB7	200x525		
TRB8	200x375		
TRB9	200x600		
TRB10	200x375		
TRB11	200x450		

TYPICAL FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
TRB12	200x600		
TRB13		BEAM REMOVED	
TRB14		BEAM REMOVED	
TRB15		BEAM REMOVED	
TRB16		BEAM REMOVED	
TRB17	200x600		
TRB18	200x600		
TRB19	200x450		
TRB20	200x600		
TRB21	200x450		
TRB22	200x525		



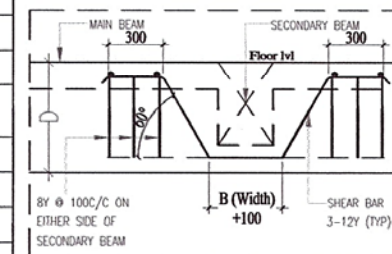
TYPICAL L.S OF BEAM



TYPICAL SLAB LAYOUT

TYPICAL FLOOR ROOF BEAM DETAILS			
Type	Size BxD	AT MIDSPAN	AT SUPPORT
TRB11a	200x375		

ROOF SLAB DETAILS				
TYPE	SLAB DEPTH	SLAB TYPE	REINFORCEMENT	
			SHORTER	LONGER
S1	125 THK.	TWO WAY	8Y @125C/C	8Y @150C/C
S2	150 THK.	ONE WAY	10Y @100C/C	8Y @230C/C
S3	125 THK.	TWO WAY (SUNKEN 75)	8Y @150C/C	8Y @150C/C
S4	150 THK.	TWO WAY	10Y @100C/C	10Y @125C/C
S5	125 THK.	TWO WAY	8Y @150C/C	8Y @150C/C
S6	125 THK.	ONE WAY	8Y @150C/C	8Y @230C/C
S7	135 THK.	TWO WAY	10Y @100C/C	10Y @125C/C
S8	135 THK.	TWO WAY	10Y @125C/C	10Y @150C/C



TYPICAL SHEAR REINFORCEMENT DETAILS

GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D
- Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
- Lap length for all bars shall be 46 d where d is the diameter of the bar.
- The center line of column should coincide with center line of footing if not shown specifically.
- The Foundation and Columns are designed for Basement + Stilt + 11 floors only.
- Do not scale this drawing and follow architectural drawing dimensions only.
- No.changes shall be made without the consent of the structural consultant.
- The position & size of duct beams, please refer architectural drawing.
- Provide spacer bar at every 900 intervals
- S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

E. R. Arunkumar
E.R.ARUNKUMAR, M.E., (Structural), M.I.E.,
Consulting Structural Engineer,
Chartered Civil Engineer (M-165213-8)
CMDA Regn. No. SE/GR-1/2024/03/013,
Greater Chennai Corporation, Regn. No.RSE100482025,
No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
	DRAWING NO : 1196-ST-S-13		DATE: 21-07-2025

CLIENT:

M/s. S R and Co
Hosur.

ARCHITECTS :

ART+ID
ARTID ARCHITECTS

#AK35, 11TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 040.

PROJECT TITLE:

PROPOSED CONSTRUCTION OF
MULTI STORIED RESIDENTIAL BUILDING AT THALLY ROAD,
HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:

TYPICAL FLOOR ROOF BEAM
DETAILS

STRUCTURAL CONSULTANT:

AKR
CONSULTANTS

E.R.ARUNKUMAR, M.E., M.I.E.
AKR CONSULTANTS
NO.10, 9th STREET,
2nd SECTOR, K.K.NAGAR
CHENNAI - 600078.
email : info@akrconsultants.com
Mob : +91 9994160046

SCALE	1 : 50	DRAWN BY	NPK
SHEET SIZE	A2	CHECKED BY	AKR
APPROVED BY			I.R.ARUNKUMAR

P. K. P. JAYA
Professor
Division of Structural Engineering
Department of Civil Engineering
Anna University, Chennai - 600 025



GENERAL NOTES :

- All dimensions are in millimeter.
- Concrete Mix : M30 grade
- Raft foundation Concrete Mix : M40 grade
- Steel grade : TMT Bars of Fe500D Conforming to IS 1786 - 2008.
- Clear cover details :
Column clear cover -40mm,
Footing clear cover -50 mm,
Raft beam clear cover -50mm,
R.C.C wall clear cover - 25mm,
Beam clear cover -25mm,
Slab clear cover -20mm.
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- Do not scale this drawing and follow architectural drawing dimensions only.
- No changes shall be made without the consent of the structural consultant.
- The position & size of duct beams, please refer architectural drawing.
- Provide spacer bar at every 900 intervals S.B.C of soil is taken as 200 kN/m² at 3.6m depth from NGL/EGL (as per soil)

GOOD FOR CONSTRUCTION

Signature
Dr. L. ARUNKUMAR, M.E., (Structural), MIE.
 Consulting Structural Engineer,
 Chartered Civil Engineer (M-105213-S)
 CIVIL Regn. No. SE/CR-1200403013,
 Jeyar Chemical Corporation, Regn. No. SSE/100482025,
 No.10, 9th St, 2nd Sector, K.K. Nagar, Chennai - 78

REV.	DESCRIPTION	BY	DATE
DRAWING NO : 1196-ST-S-12			DATE: 21-07-2025

CLIENT:
M/s. S R and Co
Hosur.

ARCHITECTS :
ARTID
 ARTID ARCHITECTS
 #A/C-5, 11TH MAIN ROAD, ANNA NAGAR, CHENNAI - 600 029.
 PROJECT TITLE:
 PROPOSED CONSTRUCTION OF
 MULTI STORED RESIDENTIAL BUILDING AT THALLY ROAD,
 HOSUR TOWN & TALUK, KRISHNAGIRI DISTRICT.

DRAWING TITLE:
 TYPICAL FLOOR ROOF BEAM
 LAYOUT

STRUCTURAL CONSULTANT:

AKR
 CONSULTANTS
Dr. L. ARUNKUMAR, M.E., MIE.
 AKR CONSULTANTS
 NO.10, 9TH STREET,
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SCALE	1 : 90	DRAWN BY	NPK
SHEET SIZE	A1	CHECKED BY	AKR
APPROVED BY			LR. ARUNKUMAR

Signature
Dr. K. P. JAYA
 Professor
 Division of Structural Engineering
 Department of Civil Engineering
 Anna University, Chennai - 600 025.