

C.KANNAN, M.E. (Structure)
STRUCTURAL ENGINEER

Door .21, plot No. 257- W, Flat No. 2B
"Utopia Apartments" 2nd Floor,
4th Main Road, Indira Nagar,
Chennai- 600 020
Mobile: 9841249815
Email: kannankds2007@gmail.com

01-01-2026

STRUCTURAL STABILITY CERTIFICATE

The detailed engineering and structure design of the Proposed Residential Building comprising of stilt floor +5 floors(18.30m height) residential building with 13 dwelling units New Door No.18 and Old Door No.9 (earlier Plot No.9 (originally Plot No.30), Ramappa Nagar Main Road (Ramappa Nagar), Perungudi, Chennai-600 096, comprised in S.No.56 and as per Patta S.No.56/29, situated in Perungudi Village, Sholinganallur Taluk, Chennai District, has been done based on the report of geotechnical investigation (soil test) done by Geo build Engineering Pvt Ltd Report No:GECS-JC-GT-3228-2025-2026 dated: 28/06/2025and considering the functional requirement of the building.

1. It is certified that among other factors, the proposed building has been designed to resist earthquake. I have checked various parameters and found that the proposed building would be safe.
2. I further certify that:
 - (i) The minimum grade of concrete is M25
 - (ii) The design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456, design loads as per IS-875 Part I to III and design of earthquake resistant structure as per one code IS 1893, is carried out.

The Structure is safe and sound when used for the purpose for which it is designed.


C. KANNAN, B.E., M.E. (Structure)
Structural Engineer,
CMDA Reg. No: SE/I/2024/2/0047
Door No: 21, 4th Main Road,
Indira Nagar, Chennai-600 020.

PROPOSED RESIDENTIAL BUILDING NEW DOOR NO.18 AND OLD DOOR NO.9 (EARLIER PLOT NO.9 (ORIGINALLY PLOT NO.30), RAMAPPA NAGAR MAIN ROAD (RAMAPPA NAGAR), PERUNGUDI, CHENNAI-600 096, COMPRISED IN S.NO.56 AND AS PER PATTA S.NO.56/29, SITUATED IN PERUNGUDI VILLAGE, SHOLINGANALLUR TALUK, CHENNAI DISTRICT.

GENERAL NOTE ON STRUCTURAL DESIGN

1.0 GENERAL

1.1 DESIGN BASIS

The proposed residential building consists of Stilt plus Five upper floors.

The design of this building is carried out based on frame analysis using STAAD CONNECT.

1.2 CODES AND STANDARDS

All structural design is carried out conforming to the provisions of National Building Code of India and other relevant Indian Codes and Standards.

1. I.S. 456 - 2000
2. I.S. 875 - Part I to III
3. I.S.1893 - 2016

2.0 BASIC CIVIL DESIGN LOADS

2.1 DEAD LOADS & LIVE LOADS

Typical slab dead load is calculated as follows

Self weight of slab	=	3.25kN/m ²
Floor finish	=	2.0kN/m ²
Live load	=	2.0kN/m ²

		7.25kN/m ²


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3.0 SOIL DETAILS

Based on soil test report Pile Foundation is adopted.

DESIGN METHODS

General design and detailing of concrete members/elements are done conforming to the provisions of I.S: 456 and other relevant I.S codes. Limit State method is followed for the design.

Seismic Zone III load is taken into account for the analysis. The predominant direction of vibration is horizontal. Relevant combination of forces has been taken into account.

4.1

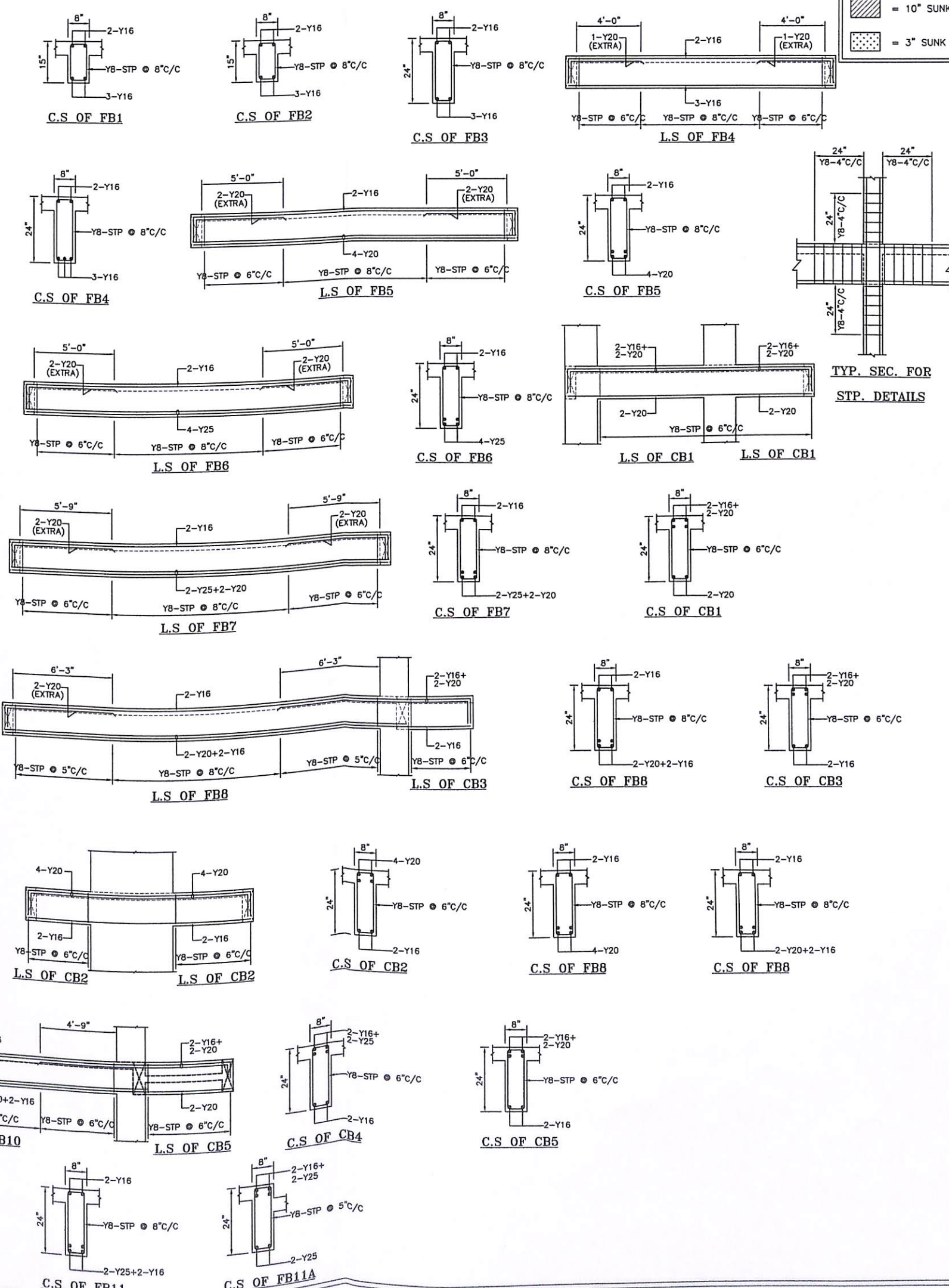
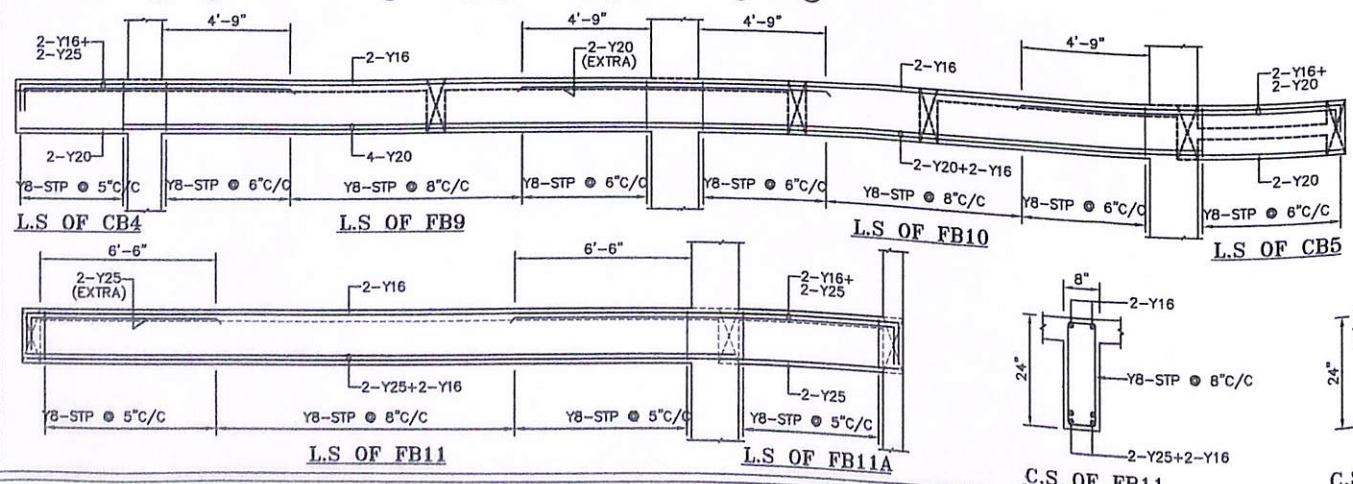
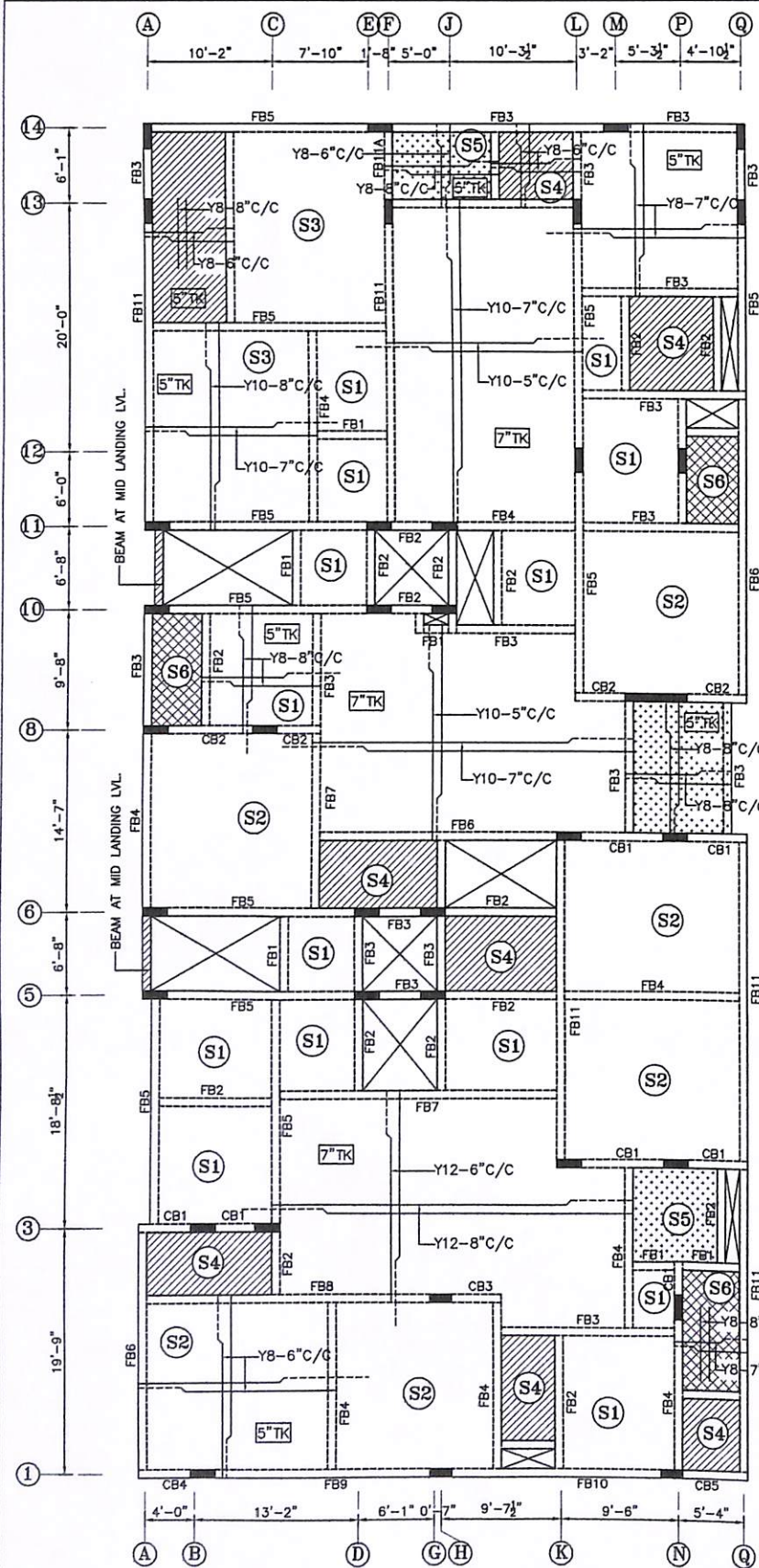
Load Combination	Ultimate Limit Load	Serviceability Limit State
DL+LL+WL Or DL+LL+EL	1.2DL+1.2LL+1.2WL Or 1.2DL+1.2LL+1.2EL	DL+LL+WL or DL+LL+EL

4.3 MINIMUM COVER

Slab	15 mm
Beam	25 mm
Columns	40 mm
Foundations	50 mm

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- Notes:-**
- This drawing should be read along with architectural drawings.
 - Grade of R.C.C. items shall be M30 for column & M25 for all other R.C.C. works
 - Y Denotes TOR50 Steel conforming to I.S. 1786 - 1985. Grade - Fe 500
 - Clear cover to the main steel
 - 50 for Footings, Raft Slabs & Raft Beams.
 - 40 for Columns.
 - 25 for Lintel & Beams.
 - 15 for Sunshade & Slab.
 - Lap length shall be 50 d (Max. dia) for all bars.
 - Bottom Reinforcement
 - Top Reinforcement
 - Provide Continuous Chairs to keep the top Reinforcement in position
 - Provide Y 8 at 200 as Distribution steel for all top Reinforcement.
 - Spacer Bar to be Provided in Between Two Layers of Reinforcement of Same Dia at Every 1000 C/ C.
 - Not more than 40% of Reinforcement shall be Lapped at any particular junction.
 - Cantilever props should not be released until the roof is concreted.
 - Foundation is designed for Stilt plus Five upper floor only.
 - For Earthquake analysis Zone III is taken as per IS : 1893-2016 code.
 - Removal of formworks :
 - i) For Slabs :
 - a. Slabs spanning upto 4.5 m (15'-0") - 7 days
 - b. Slabs spanning over 4.5 m (15'-0") - 14 days
 - ii) For Beams and Arches :
 - c. Beams and Arches spanning upto 6 m (20'-0") - 14days
 - d. Beams and Arches spanning over 6 m (20'-0") - 21days

R.NO	DATE	DESCRIPTION

PROJECT

PROPOSED RESIDENTIAL BUILDING AT NEW DOOR NO.18 AND OLD DOOR NO.9 (EARLIER PLOT NO.30), RAMAPPA NAGAR MAIN ROAD (RAMAPPA NAGAR), PERUNGUDI, CHENNAI-600 096, COMPRISED IN S.NO.56 AND AS PER PATT A S.NO.56/29, SITUATED IN PERUNGUDI VILLAGE, SHOLINGANALLUR TALUK, CHENNAI DISTRICT

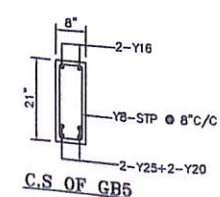
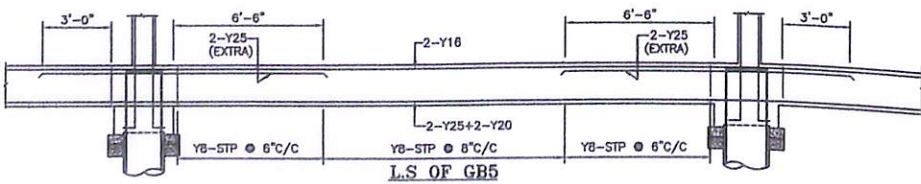
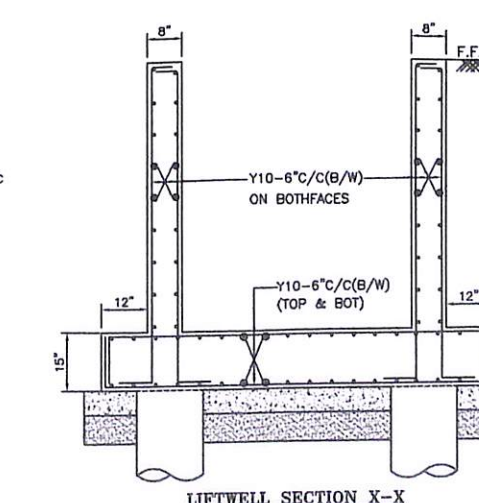
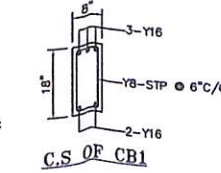
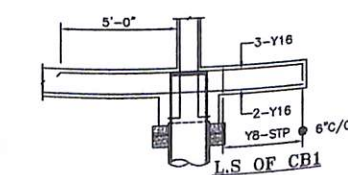
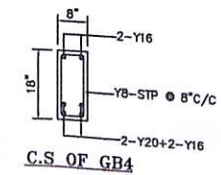
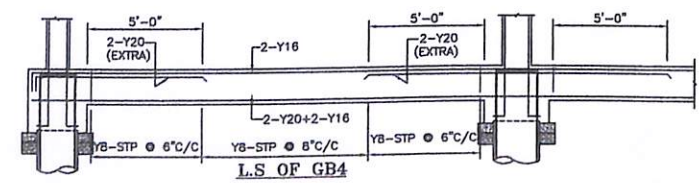
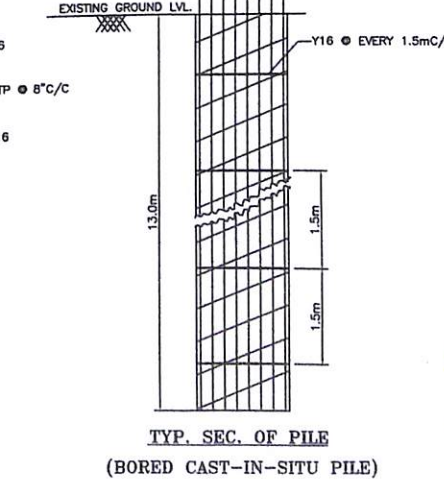
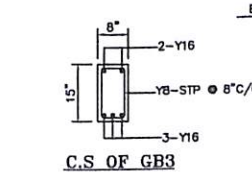
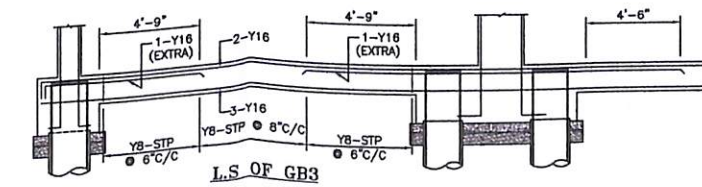
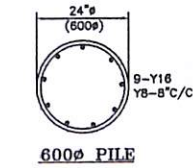
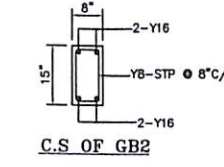
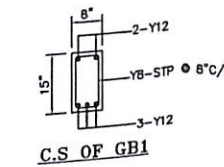
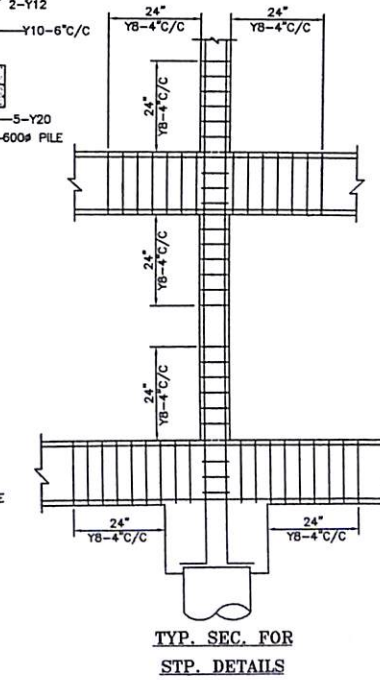
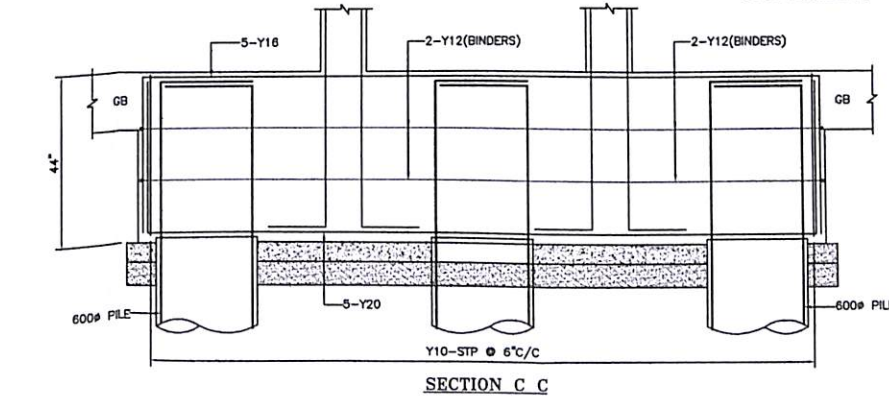
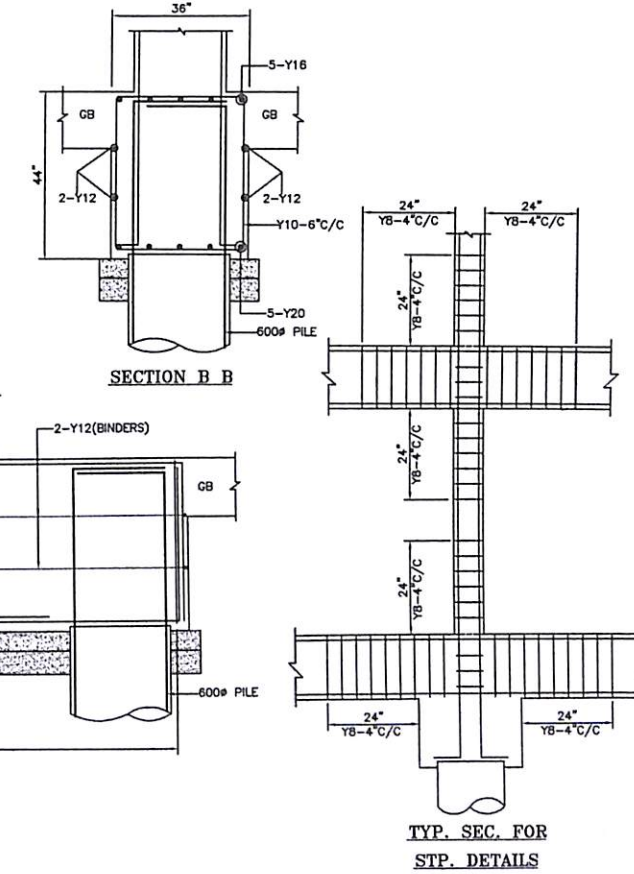
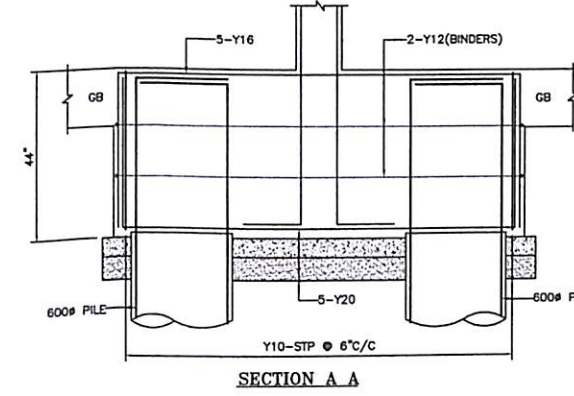
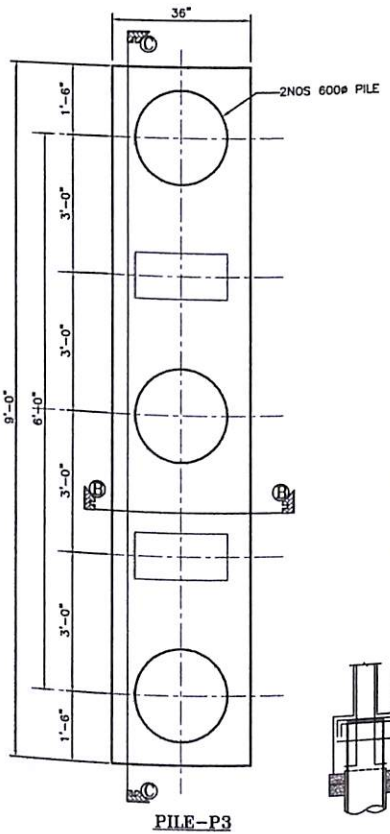
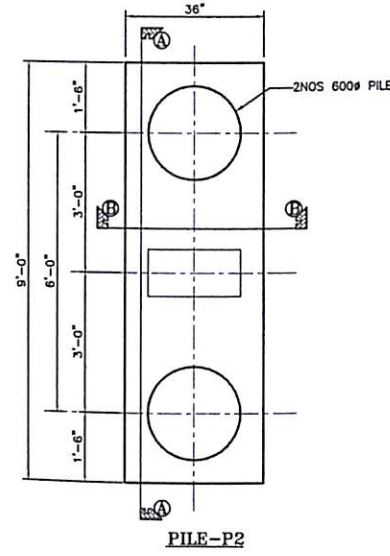
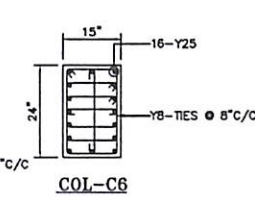
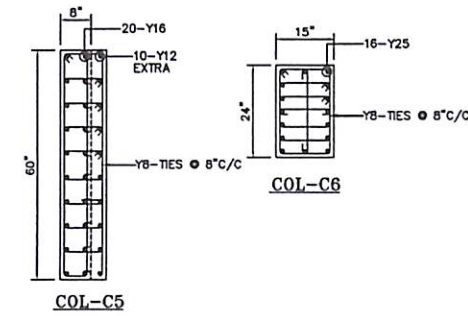
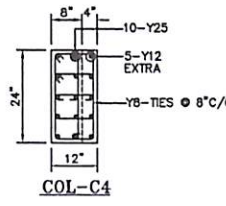
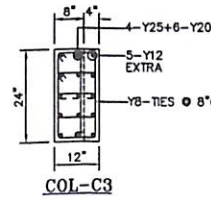
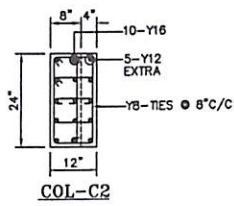
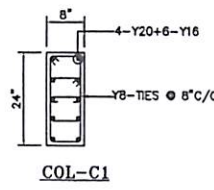
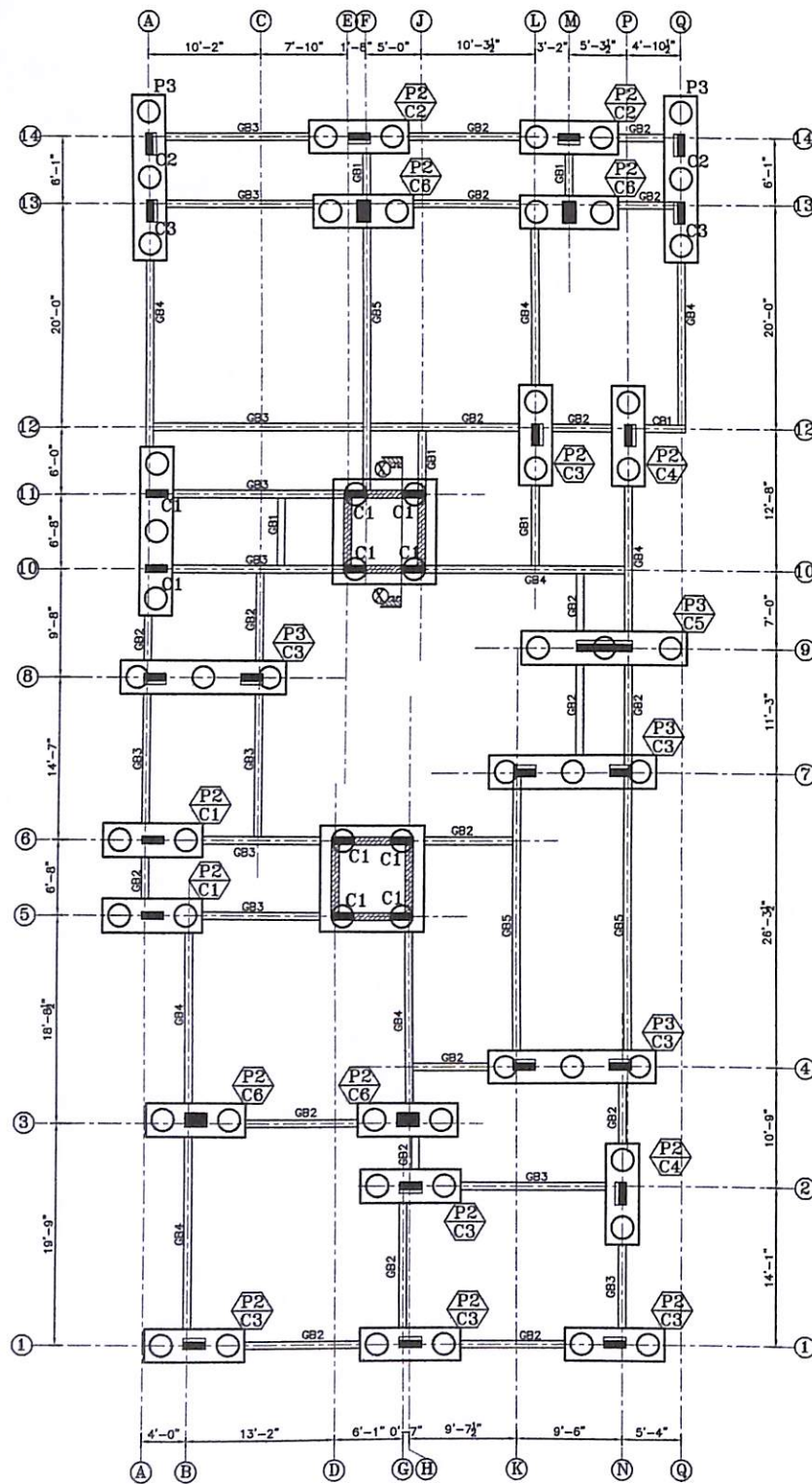
TYPICAL FLOOR SLAB DETAIL

DESIGNED	KANNAN	SCALE	1 : 100
DRAWN	VINAYAGAM	DATE	02-01-2026

STRUCTURAL CONSULTANTS:

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 Structural Engineer,
 CMDA Reg. No: SE/I/2024/2/0047
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 FLAT NO:2B, "UTOPIA APARTMENTS",
 2nd FLOOR, 4th MAIN ROAD,
 INDIRA NAGAR, CHENNAI-20.
 MOBILE NO: 098412 49815.
 E-MAIL:kannankds2007@gmail.com
 FILE NAME : [D/CHITRA/2018-2020/



- Notes:-**
- This drawing should be read along with architectural drawings.
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FOUNDATION DETAIL		
DESIGNED	KANNAN	SCALE 1 : 100
DRAWN	ANGEL	DATE 02-01-2026
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