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DIGITALLY VERIFIED RECORD

Office of Executive Engineer,
Structural & Quality Control Cell,
Tamil Nadu Urban Habitat
Development Board,
No.5, Kamarajar Salai, Chennai – 5.

STABILITY CERTIFICATE

Date: 22.12.2025

1. The detailed engineering and structure design of the proposed construction of high rise group development with 5 blocks for residential use in Block A: Partial Stilt + 11 floors residential use building with 414 dwelling units, Block No. B & C: Partial Stilt + 11 floors residential use building with 370 dwelling units, Block D: Partial Stilt + 11 floors residential use building with 184 dwelling units, Block E: Partial Stilt + 11 floors residential use building with 162 dwelling units, totally 1500 dwelling units at East Cemetry Road, West Cemetry Road & South Cemetry Road, comprised in S.No:1651/2pt, Block No. 23, Ward- 51 Of Tondiorpet Village , Fort Tondiorpet Taluk, Chennai District, within the limits of Greater Chennai Corporation, Tamil Nadu has been done by me/us based on the report of geotechnical investigation (soil test) done by Anna University, Chennai Report, Job No. SM&FE 291/Consultancy/2024, Dated 24.05.2024 & SM&FE/291(a)/Consultancy/2024, Dated 30.08.2024 and considering the functional requirement of the building.

2. It is certified that among other factors, the proposed building has been designed to resist earthquake. I/We have checked various parameters and found that the proposed building would be safe.

3. I/We further certify that:

(i) The minimum grade of concrete is M30.

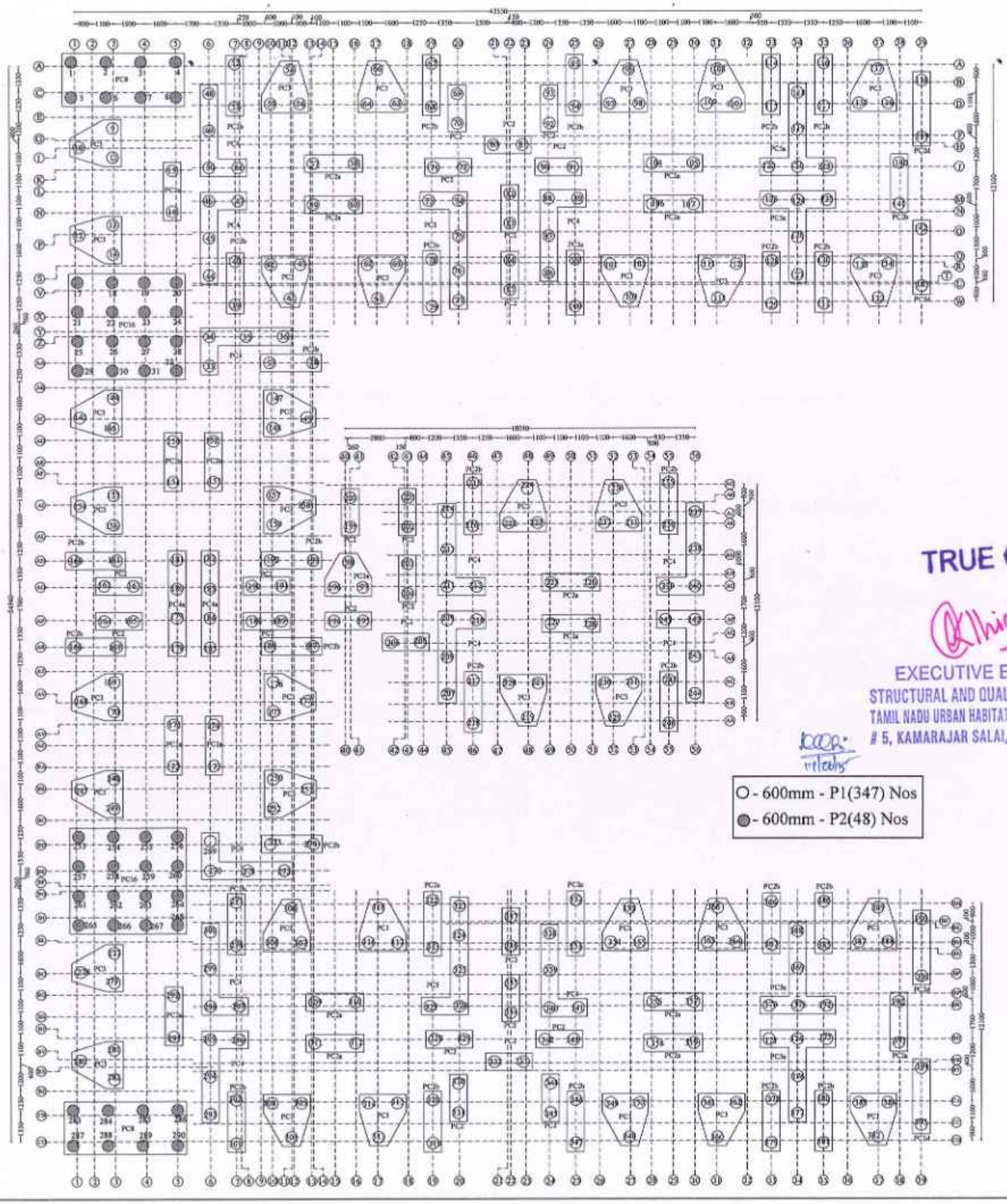
(ii) The design and analysis has been done using the code of practice for plain and reinforced concrete as per IS 456:2000, live load 2 KN/m^2 as per IS 875 Part II and designed for earthquake resistant structure as per IS Code 1893 (Part 1):2016.

4. The building will be safe and sound when used for the purpose for which it is designed.

22/12/2025

R. VENKATESAN, M.E.,
Assistant Engineer
Registered Structural Engineer Grade-I (SE)
Registration No: SE/I/2024/4/0073
Tamil Nadu Urban Habitat Development Board
No. 5, Kamarajar Salai, Chennai-600 005.

PILE LAYOUT



TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/01.

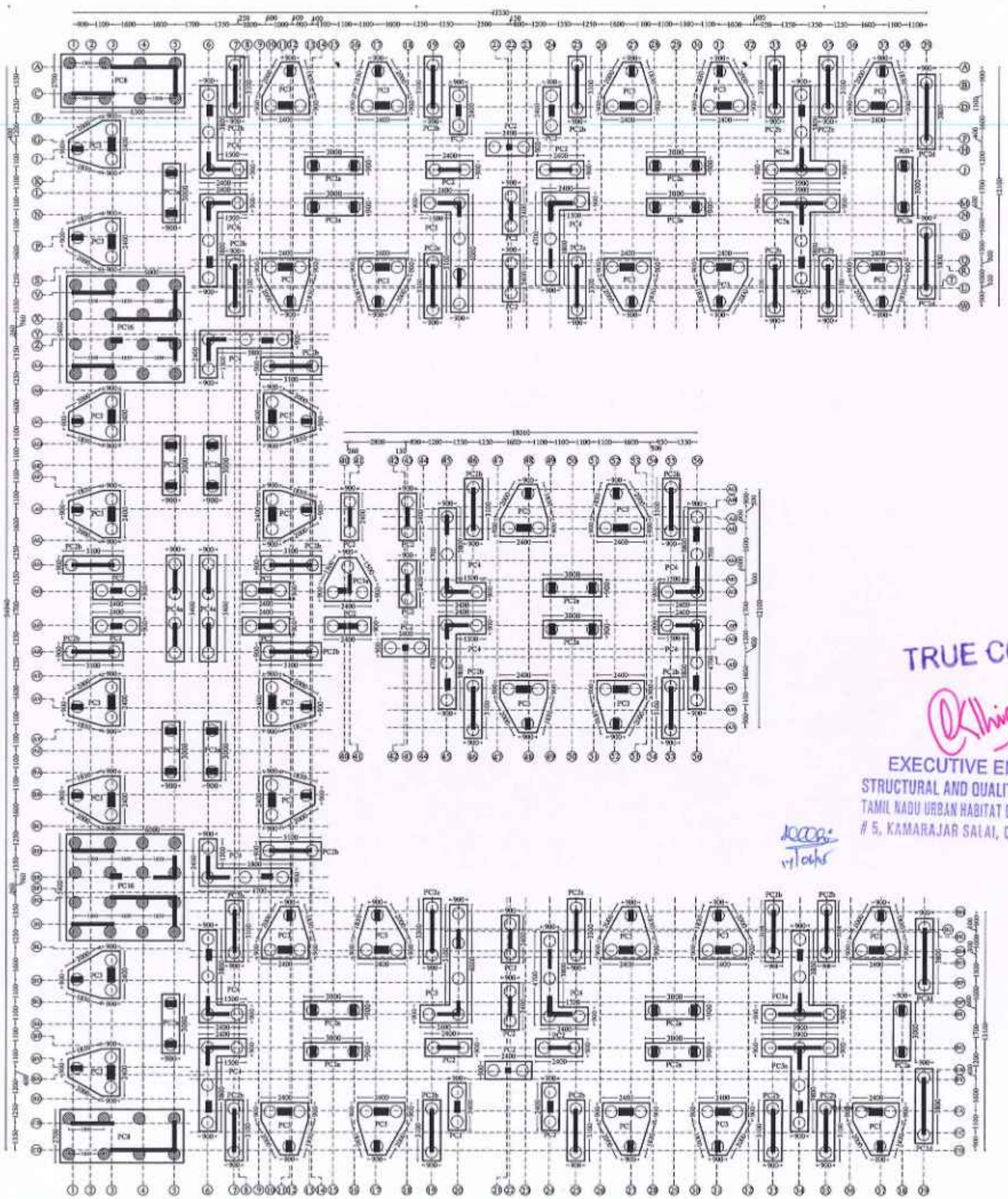
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLAN AT PILE CAP LEVEL



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TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLAN AT PILE CAP LEVEL.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/02.

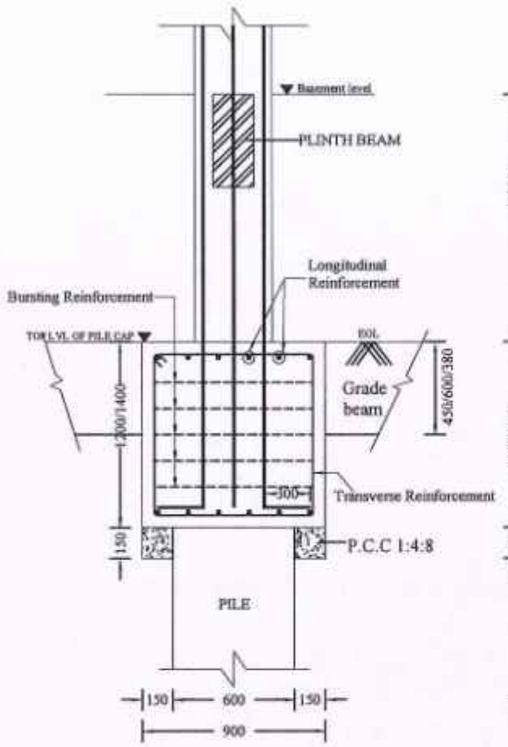
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

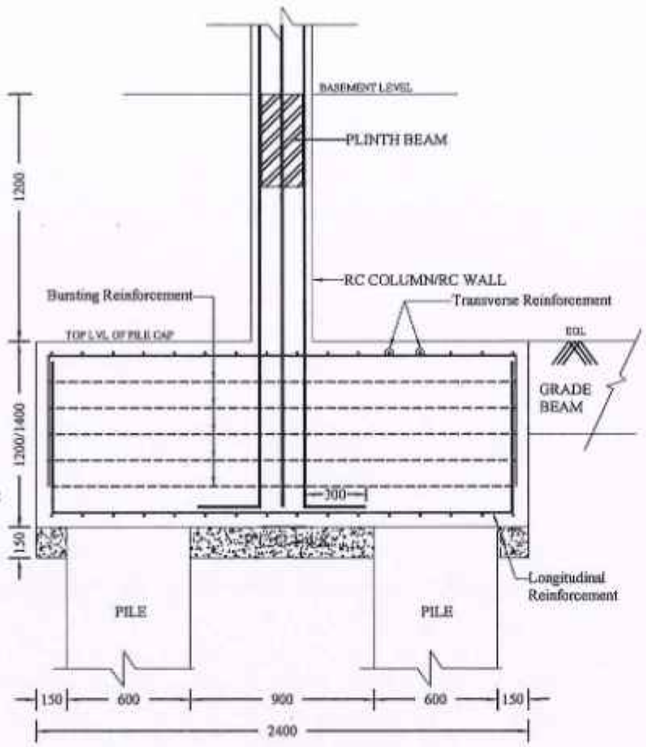
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

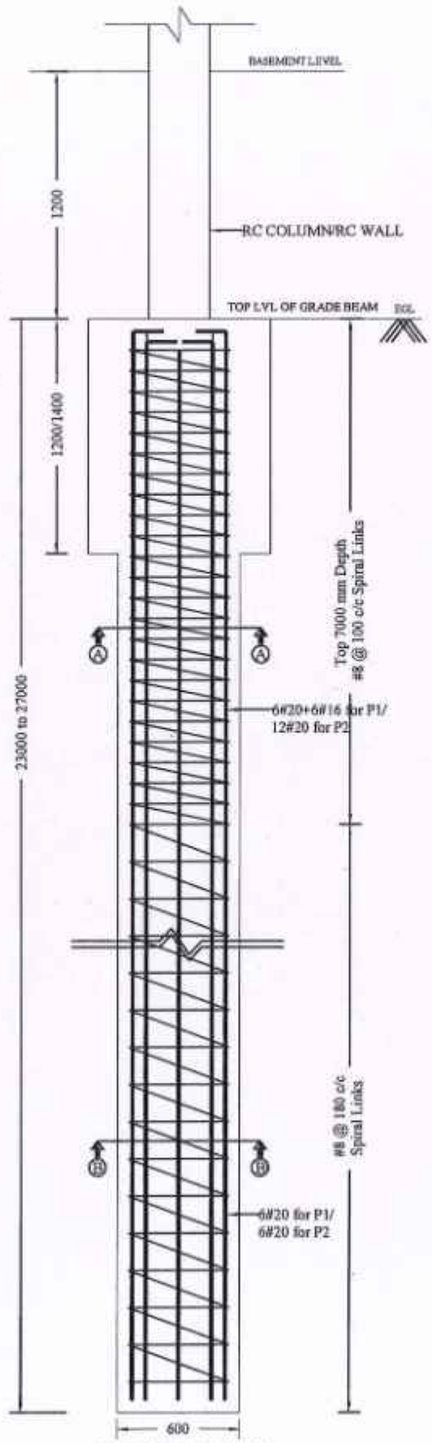
PILE CAP CROSS SECTIONAL DETAILS (TYPICAL) & DETAILS OF PILE.



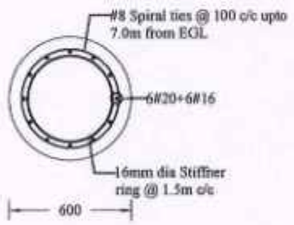
TYPICAL CROSS SECTION



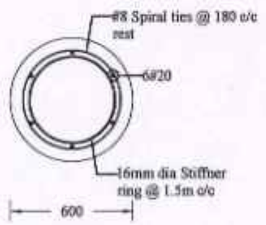
TYPICAL LONGITUDINAL SECTION



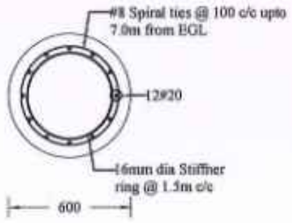
DETAILS OF PILE



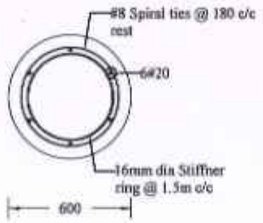
C/S OF P-1 @ AA



C/S OF P-1 @ BB



C/S OF P-2 @ AA



C/S OF P-2 @ BB

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10/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE CAP CROSS SECTIONAL DETAILS (TYPICAL) & DETAILS OF PILE.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/03.

REVISION NO.:

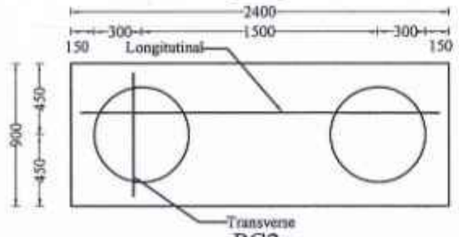
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

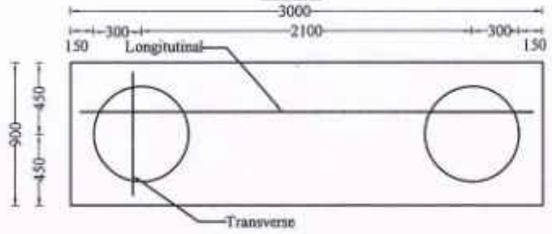
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PILE CAP DETAILS

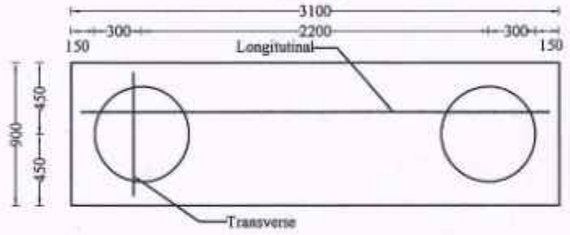
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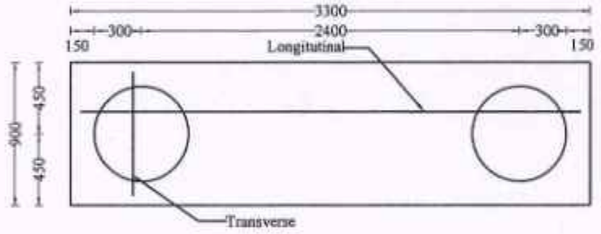
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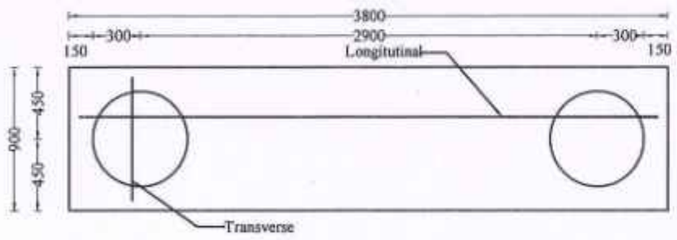
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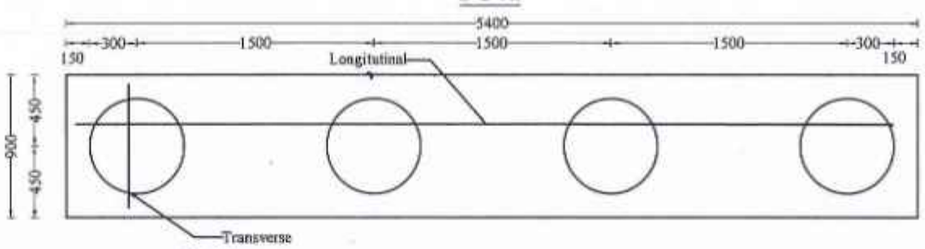
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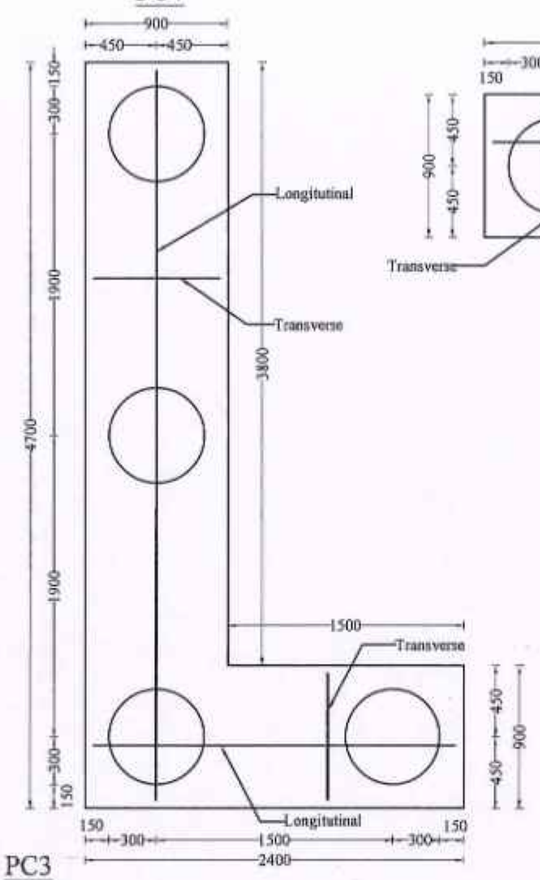
PC2d



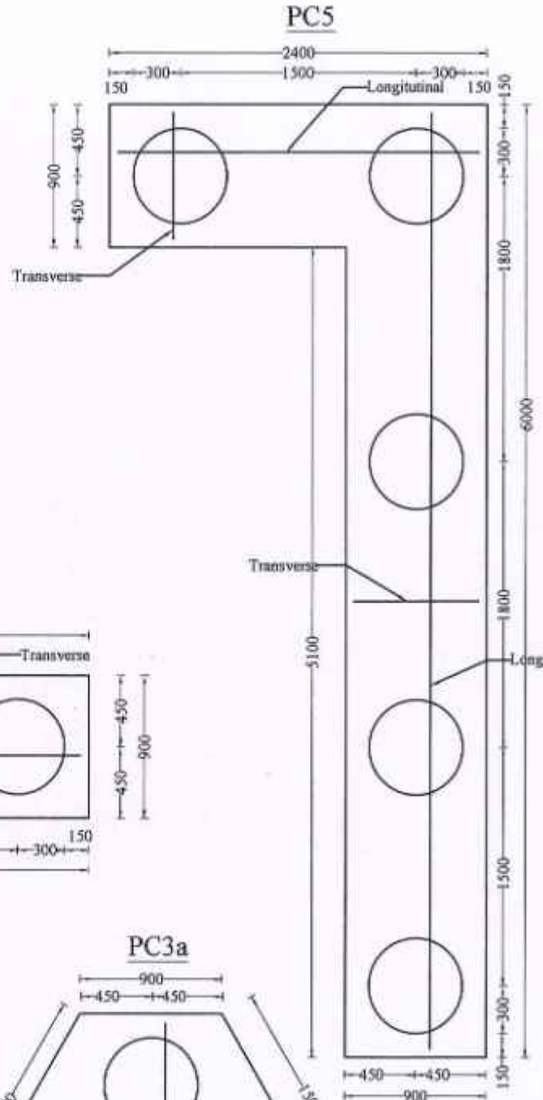
PC4a



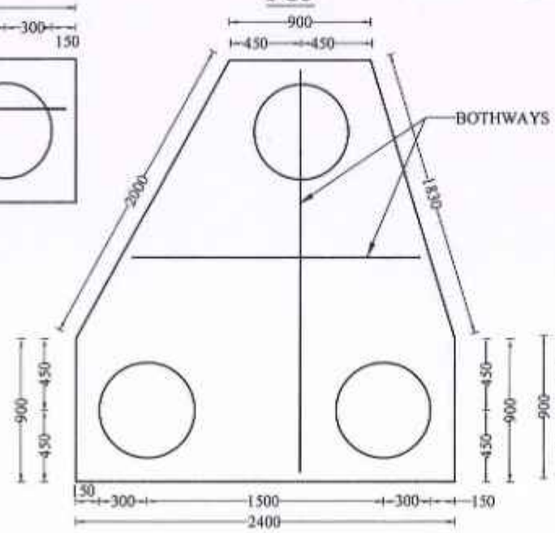
PC4



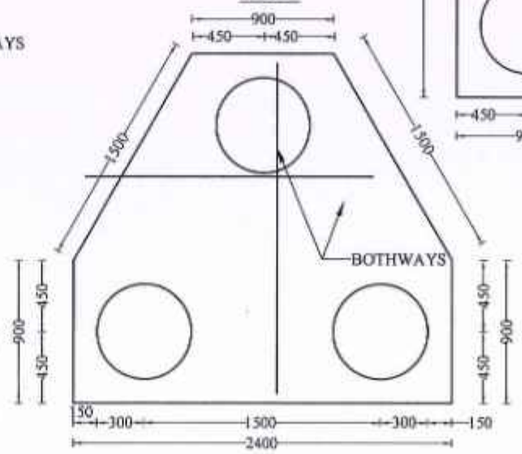
PC5



PC3



PC3a



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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE CAP DETAILS .

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/04.

REVISION NO.:

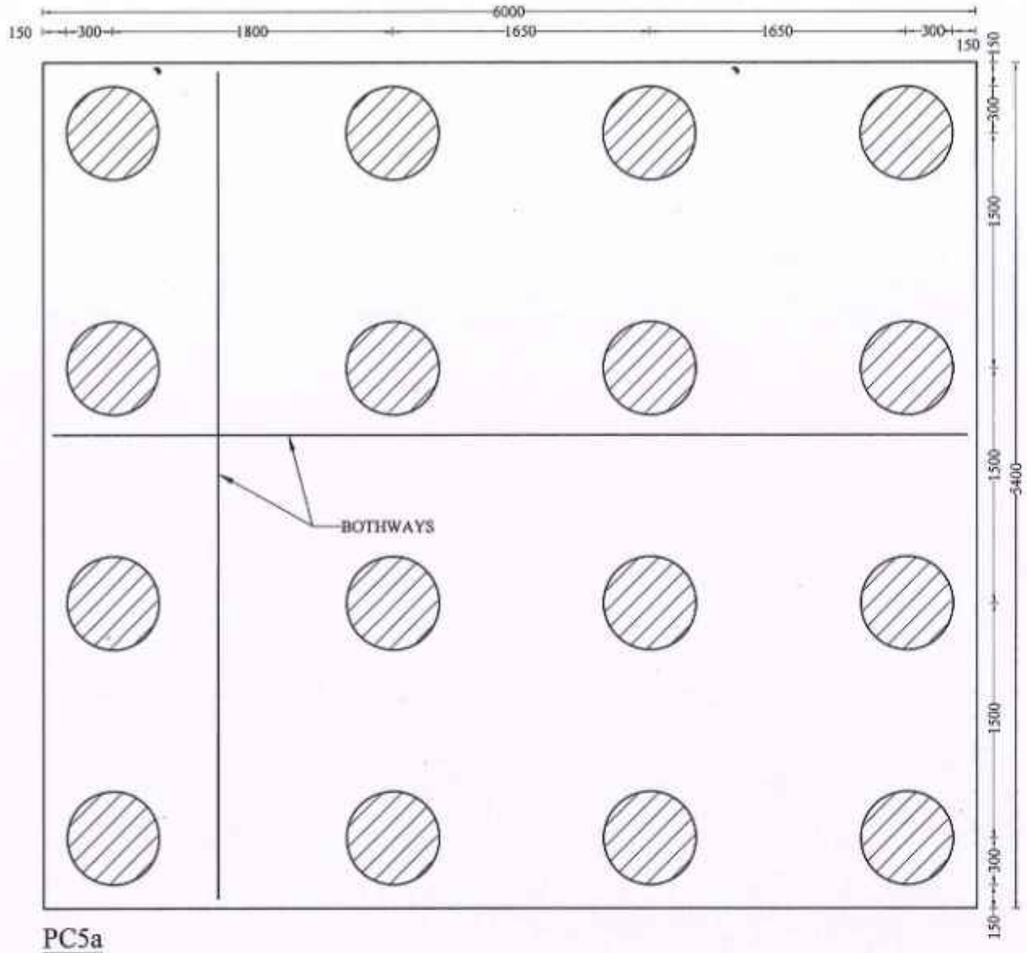
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

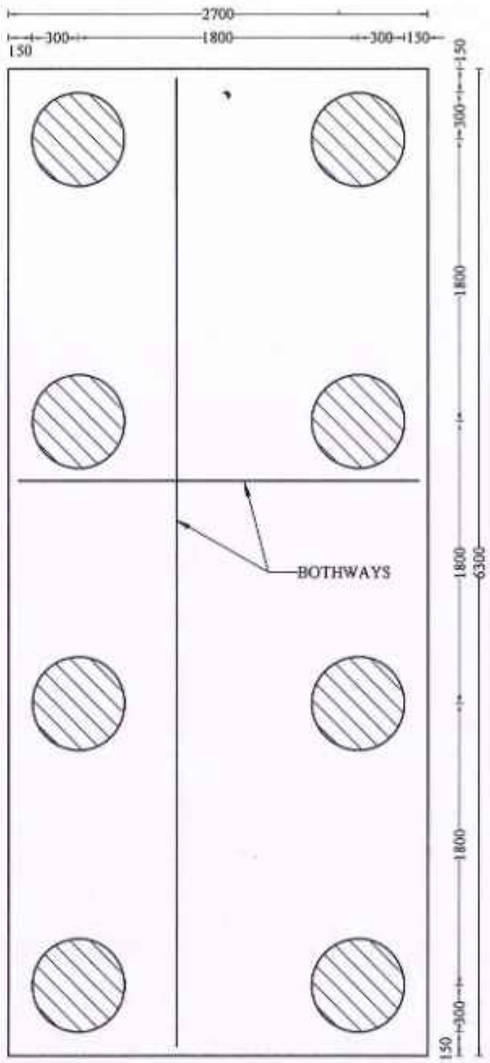
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PILE CAP DETAILS

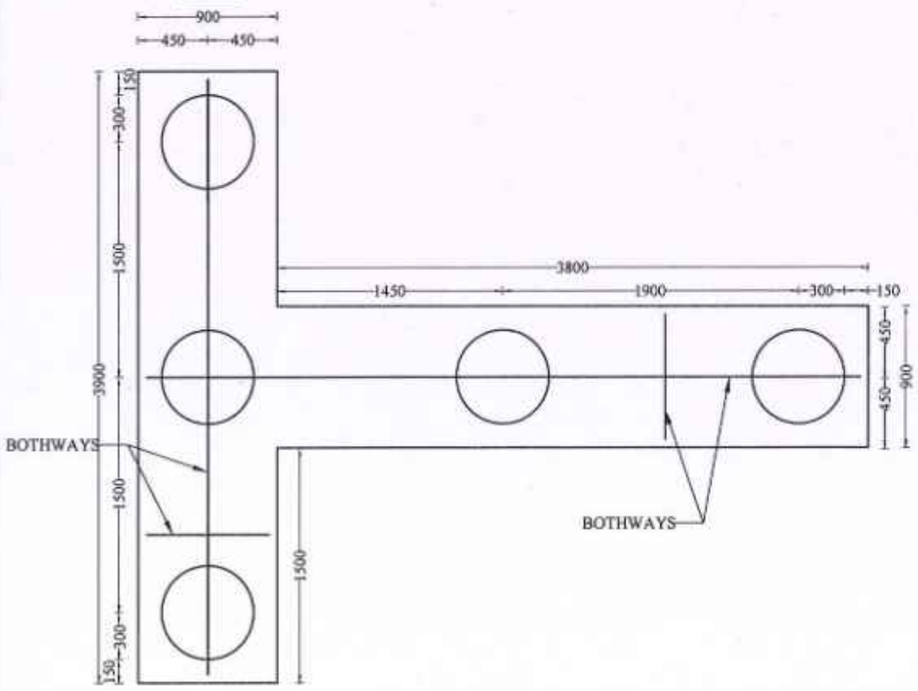
PC16



PC8



PC5a



PILE CAP SCHEDULE

PILE CAP ID	PILE CAP SIZE (mm)			LONGITUDINAL REINFORCEMENT		TRANSVERSE REINFORCEMENT	BURSTING REINFORCEMENT
	LENGTH	BREATH	DEPTH	TOP	BOTTOM		
PC2	2400	900	1200	8-Nos #16	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2a	3000	900	1200	8-Nos #16	6-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2b	3100	900	1200	8-Nos #16	6-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2c	3300	900	1200	8-Nos #16	6-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2d	3800	900	1200	8-Nos #20	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC3	Refer Drawing		1200	#16@125mmc/c (Bothways)	#20@125mmc/c (Bothways)	--	5-Nos #12
PC3a	Refer Drawing		1200	#16@125mmc/c (Bothways)	#20@125mmc/c (Bothways)	--	5-Nos #12
PC4	Refer Drawing		1200	7-Nos #20	8-Nos #20	4L- #12 @150 c/c	5-Nos #12
PC4a	5400	900	1200	7-Nos #20	8-Nos #20	4L- #12 @150 c/c	5-Nos #12
PC5	Refer Drawing		1200	7-Nos #20	8-Nos #20	4L- #12 @150 c/c	5-Nos #12
PC5a	Refer Drawing		1400	8-Nos #20	8-Nos #25	4L- #12 @150 c/c	6-Nos #12
PC8	6300	2700	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12
PC16	6000	5400	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12

NOTE :

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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
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10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE CAP DETAILS .

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/05.

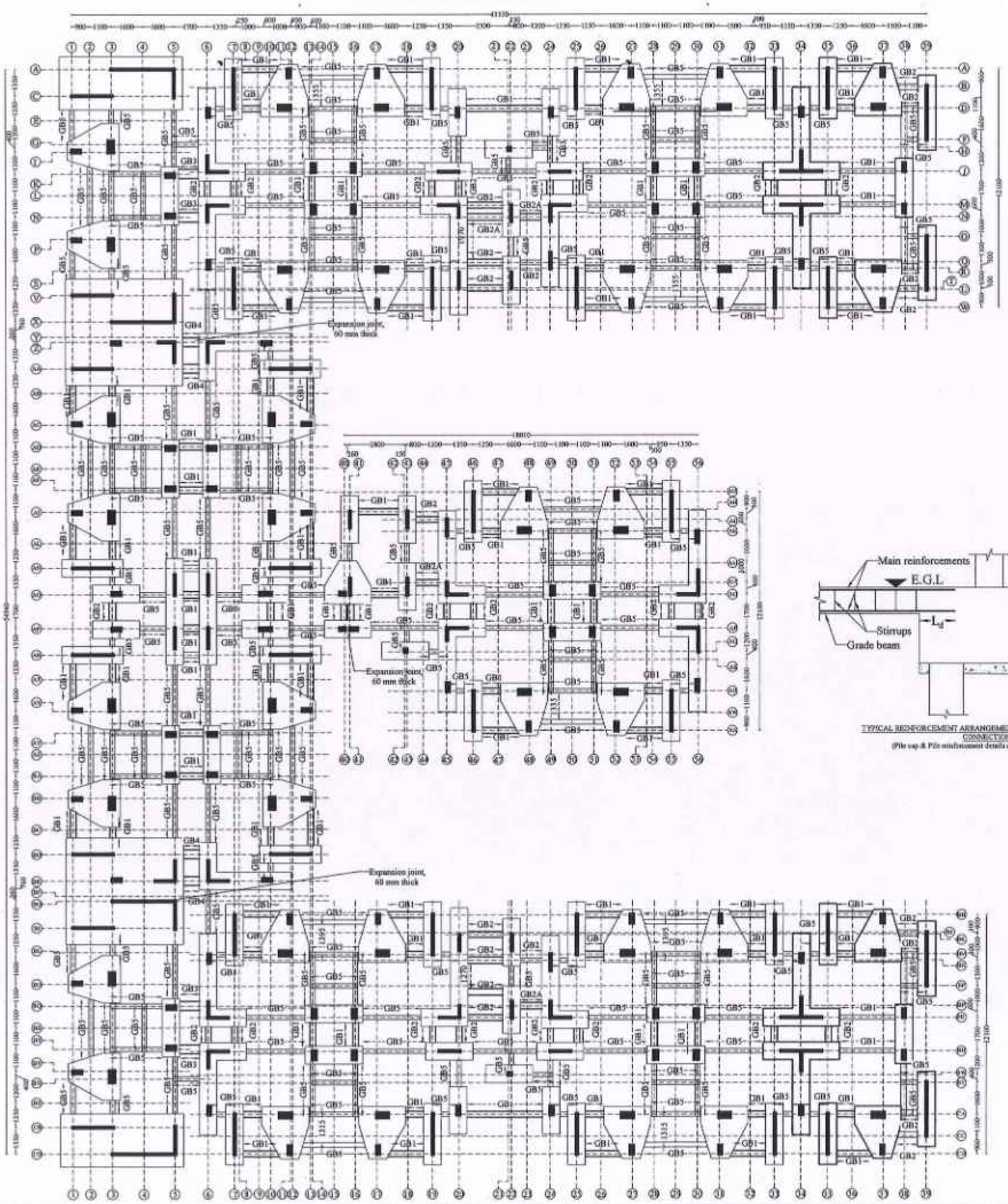
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

GRADE BEAM LAYOUT



TYPICAL REINFORCEMENT ARRANGEMENT OF GRADE BEAM PILE CAP CONNECTION
(Pile cap & Pile reinforcement details are not shown for clarity)

NOTE :

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
GRADE BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/06.

REVISION NO.:

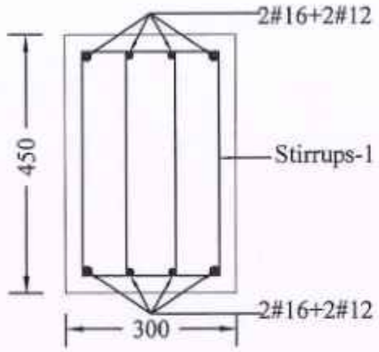
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

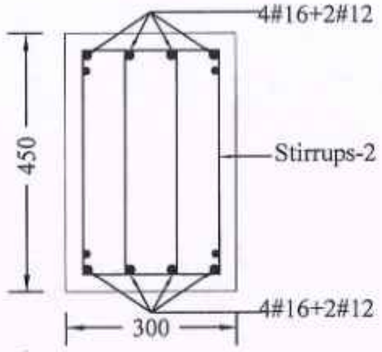
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

GRADE BEAM DETAILS

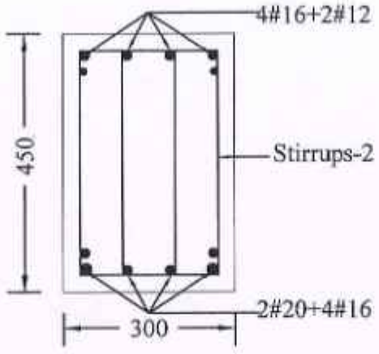
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(300x450)



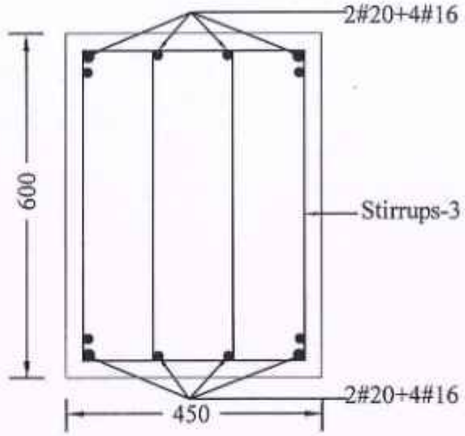
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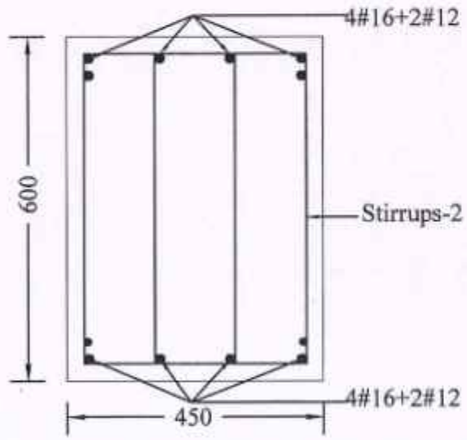
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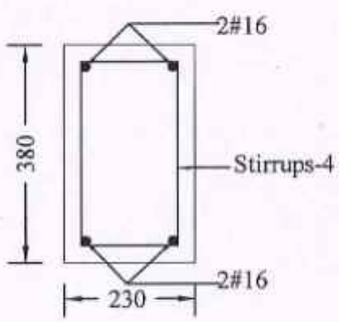
GB3
(450x600)



GB4
(450x600)



GB5
(230x380)



NOTE :
1) Stirrups-1 - 4L#10mm Stirrups @ 150mm c/c throughout the length.
2) Stirrups-2 - 4L#10mm Stirrups @ 100mm c/c throughout the length.
3) Stirrups-3 - 4L#12mm Stirrups @ 100mm c/c throughout the length.
4) Stirrups-4 - 2L#10mm Stirrups @ 100mm c/c for 700 mm length on all side from pilecap face and the rest at 2L#10 @ 150mm c/c.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
GRADE BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/07.

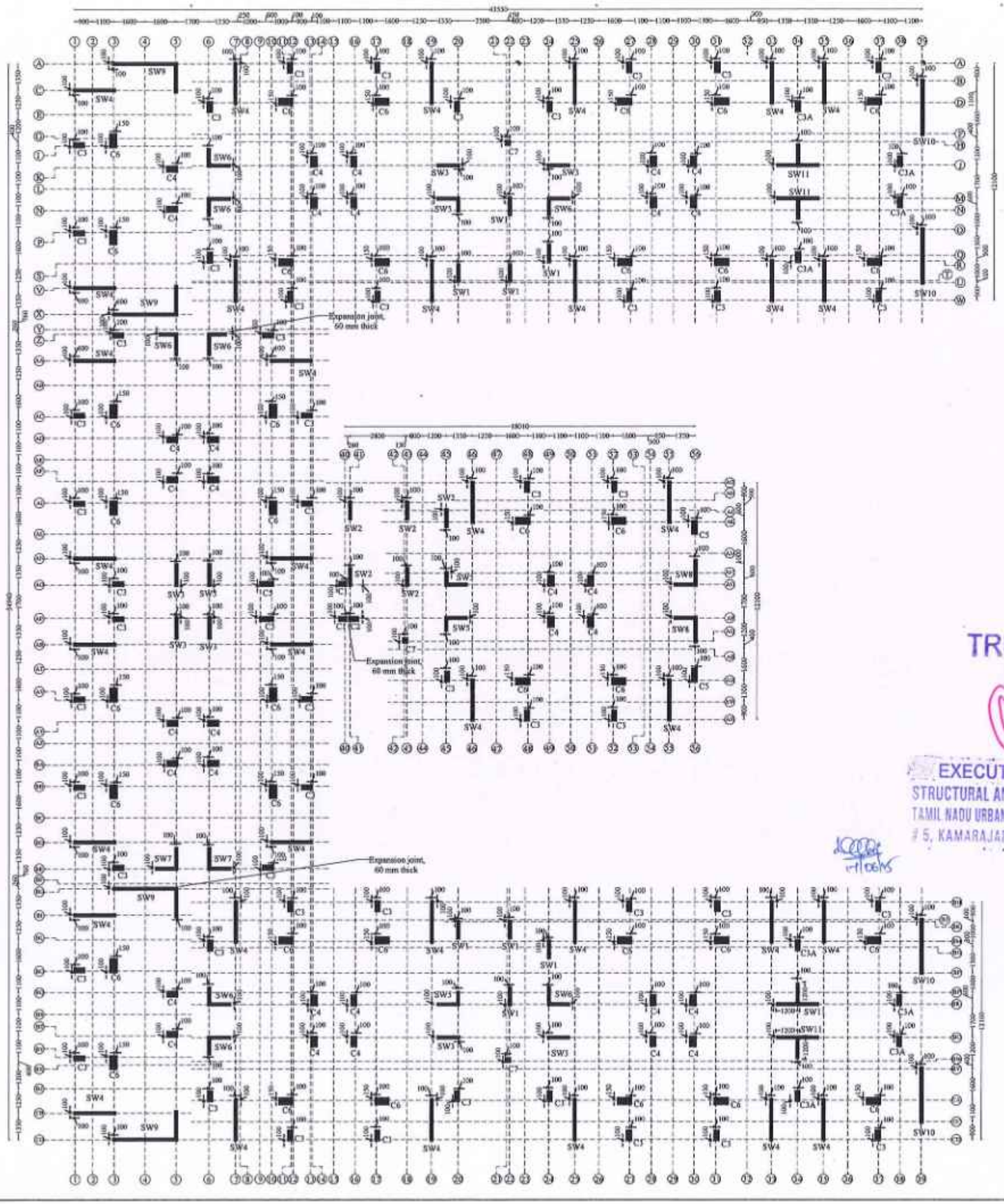
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - UPTO STILT FLOOR



NOTE :

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT-UPTO STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/08.

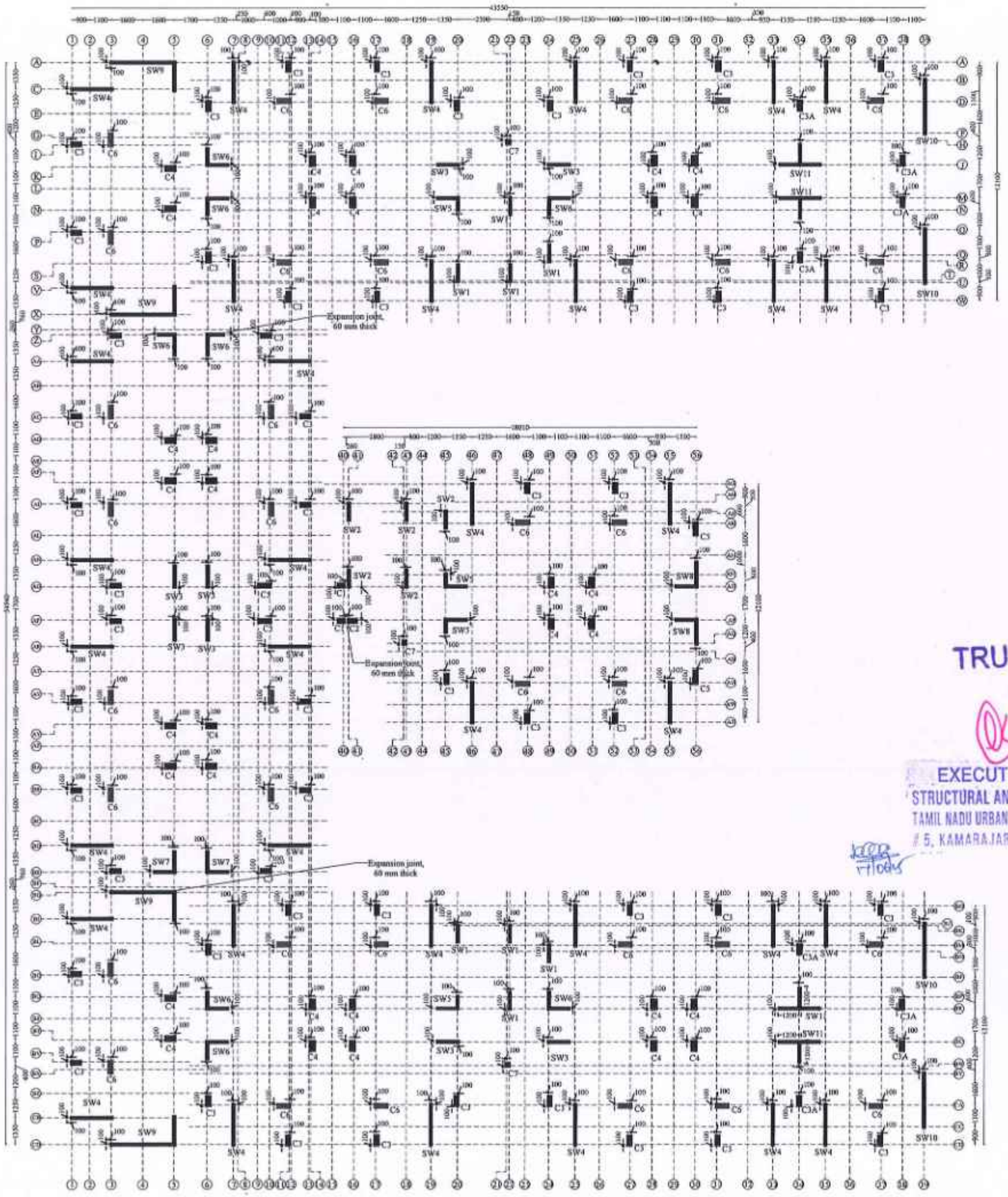
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - ABOVE STILT FLOOR



NOTE :

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT-ABOVE STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/09.

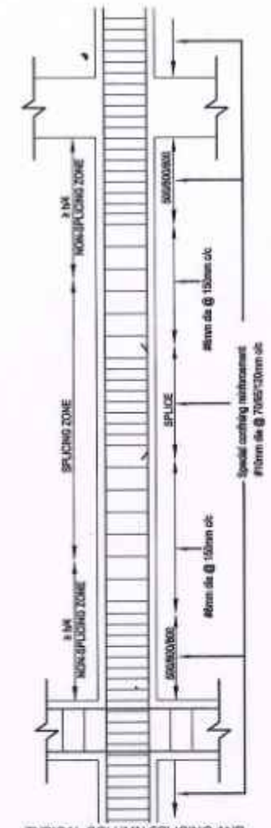
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

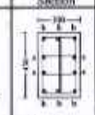
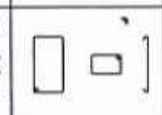
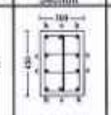
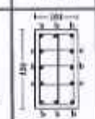
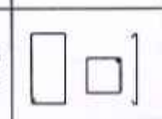
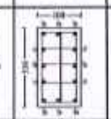
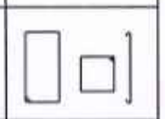
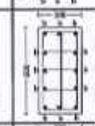
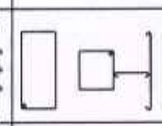
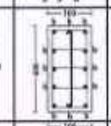
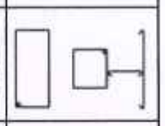
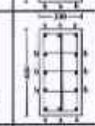
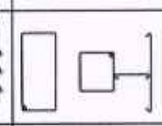
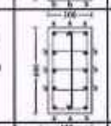
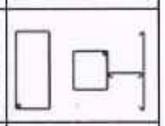
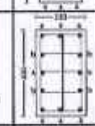
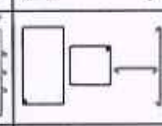
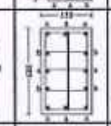
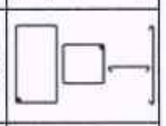
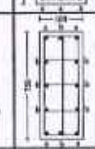
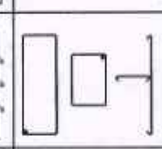
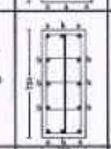
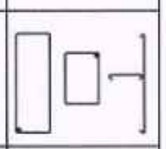
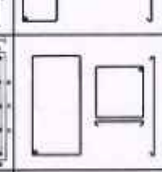
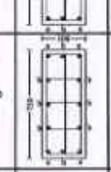
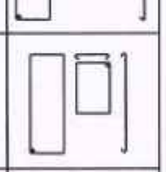
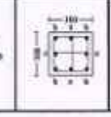
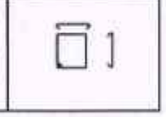
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SCHEDULE OF COLUMNS

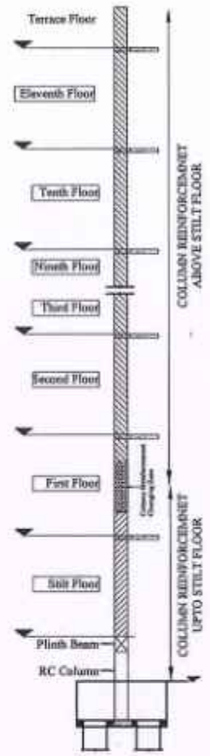


TYPICAL COLUMN SPLICING AND CONFINING REINFORCEMENT DETAILS

Sl.No.	Column Marking	No of Columns	Size		E.G.L to Stilt Floor Column Reinforcement Details			Ties Profile	Above Stilt Floor Column Reinforcement Details			Ties Profile
			Upto Stilt Floor	Above Stilt Floor	Column Verticals	Lateral Ties	Cross Section		Column Verticals	Lateral Ties	Cross Section	
1.	C1	02	300 x 450	300 x 450	# 16 - 6 Nos + # 12 - 4 Nos	1) Upto Plinth Beam: #10 @ 70 mm c/c 2) Above Plinth Beam: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 12 - 6 Nos + # 16 - 4 Nos.	#10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
2.	C2	01	300 x 550	300 x 550	#16 - 8 Nos + #12 - 4 Nos	1) Upto Plinth Beam: #10 @ 70 mm c/c 2) Above Plinth Beam: #10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			#16 - 8 Nos + #12 - 4 Nos	#10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
3.	C3	55	300 x 600	300 x 600	# 16 - 12 Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 12 Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
4.	C3A	08	300 x 600	300 x 600	#20 - 6 Nos + #16 - 6 Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			#20 - 6 Nos + #16 - 6 Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
5.	C4	32	350 x 600	350 x 600	# 20 - 8Nos + #16 - 4Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 8Nos + #16 - 4Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
6.	C5	04	300 x 750	300 x 750	# 20 - 4Nos + #16 - 8Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 4Nos + #16 - 8Nos	#10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
7.	C6	36	400 x 750	300 x 750	# 20 - 12Nos	1) Upto Plinth Beam: #10 @ 120 mm c/c 2) Above Plinth Beam: #10 @ 120 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 4Nos + #16 - 8Nos	#10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
8.	C7	03	300 x 300	300 x 300	# 16 - 4Nos + #12 - 4Nos	1) Upto Plinth Beam: #8 @ 75 mm c/c 2) Above Plinth Beam: #8 @ 75 mm c/c for 450 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 4Nos + #12 - 4Nos	#8 @ 75 mm c/c for 450 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		

NOTE:
1. For Varying Column Size details refer drawing TNUHDB/EAST CEMENTRY ROAD/GEN/01.

Notes: In Cross Section a - # 20 mm b - # 16 mm c - # 12 mm



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SCHEDULE OF COLUMNS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/10.

REVISION NO.:

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

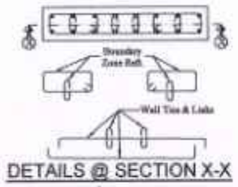
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

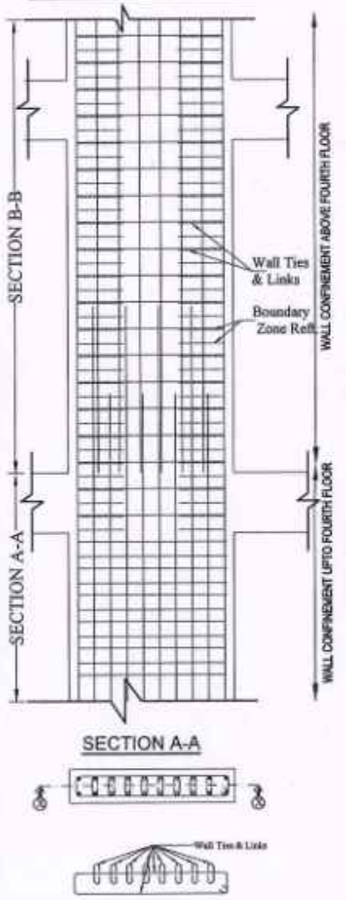
SHEAR WALL DETAILS-1

TYPICAL SHEAR WALL CONFINING REINFORCEMENT DETAILS

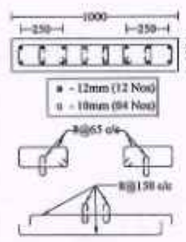
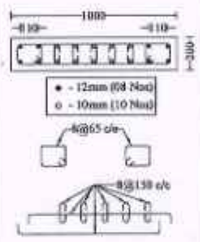
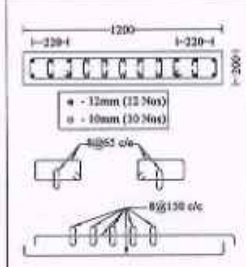
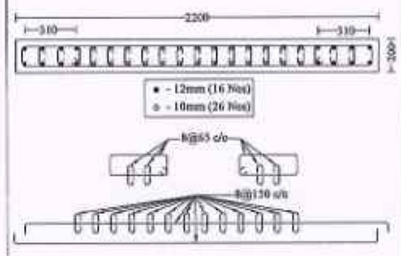
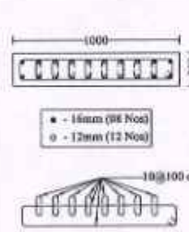
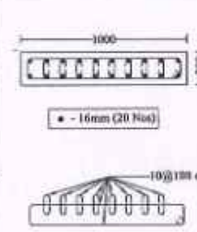
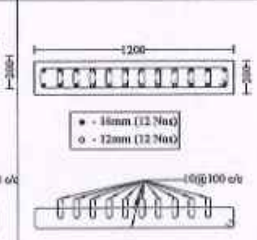
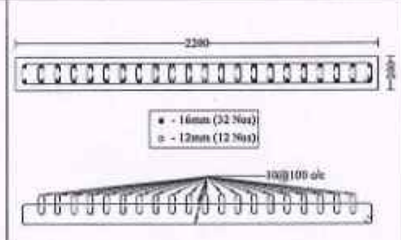
SECTION B-B

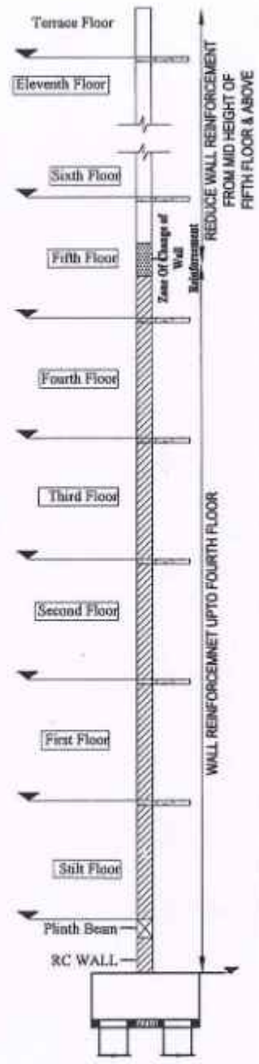


DETAILS @ SECTION X-X



SECTION A-A

Curtailments Levels	SW1 (08 Nos)	SW2 (05 Nos)	SW3 (8 Nos)	SW4 (36 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)				
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)				



NOTE :

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TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
KAMARAJAR SALAI, CHENNAI-600 005

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-1.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/11.

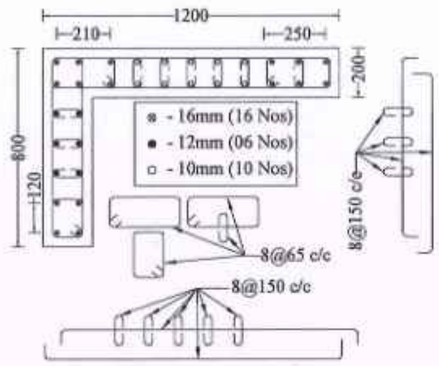
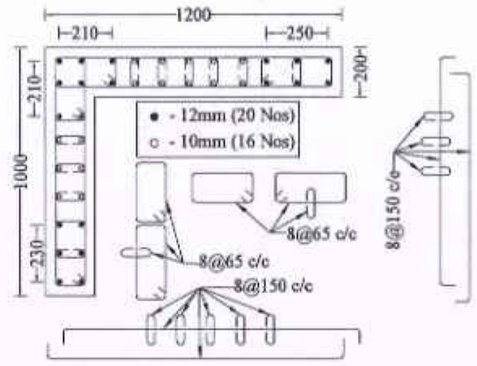
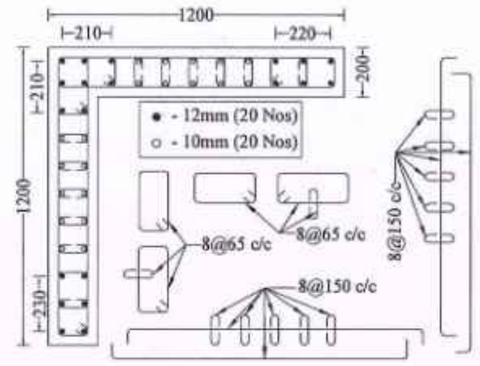
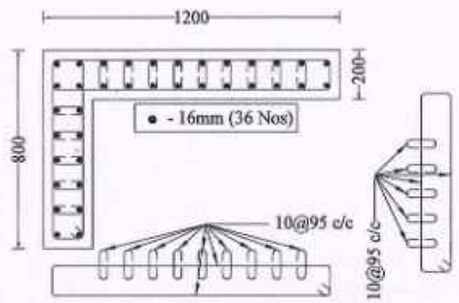
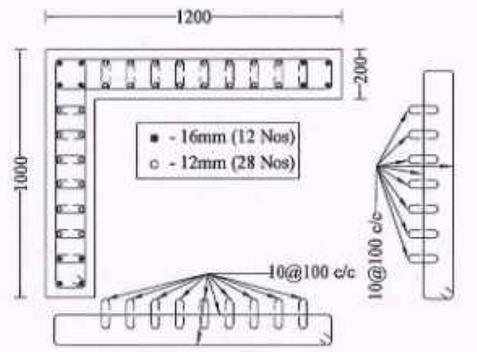
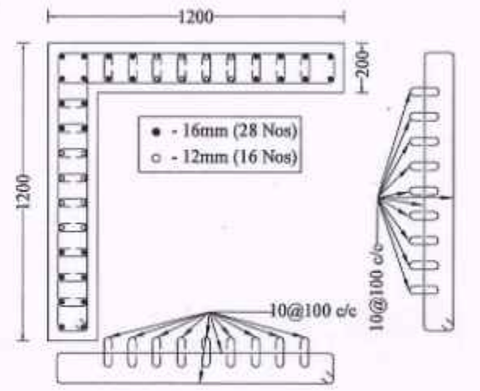
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SHEAR WALL DETAILS-2

Curtailments Levels	SW5 (04 Nos)	SW6 (08 Nos)	SW7 (02 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)			
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)			

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-2.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/12.

REVISION NO.:

TRUE COPY

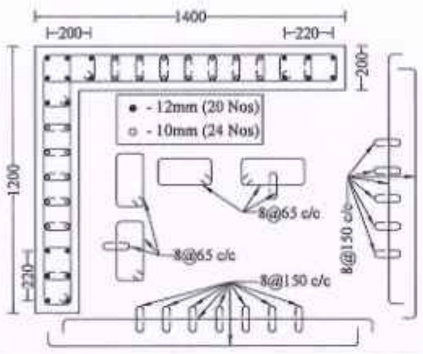
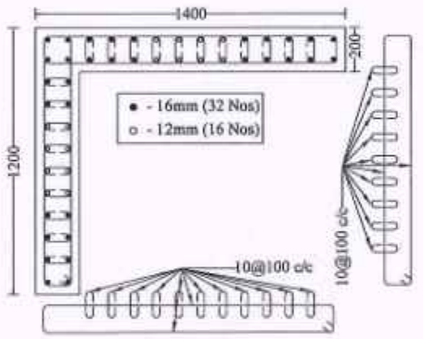
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI, CHENNAI-600 005.

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

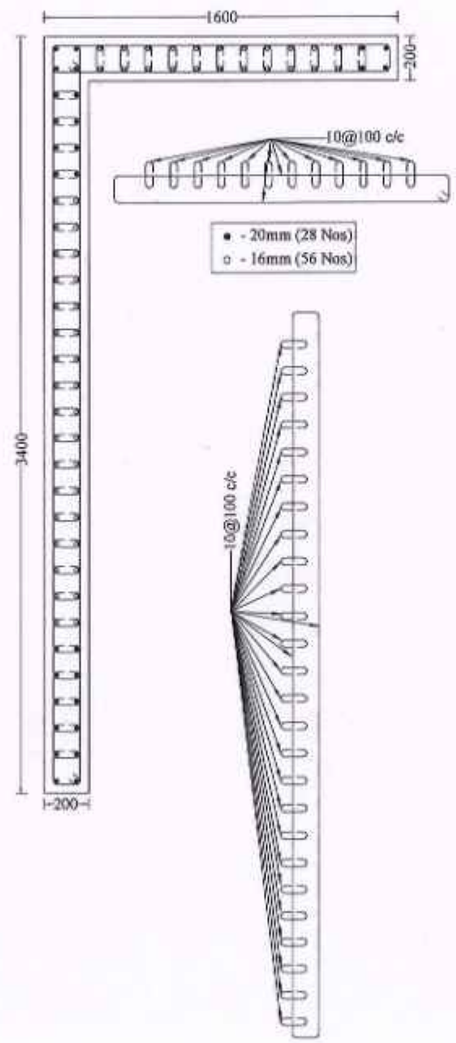
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SHEAR WALL DETAILS-3

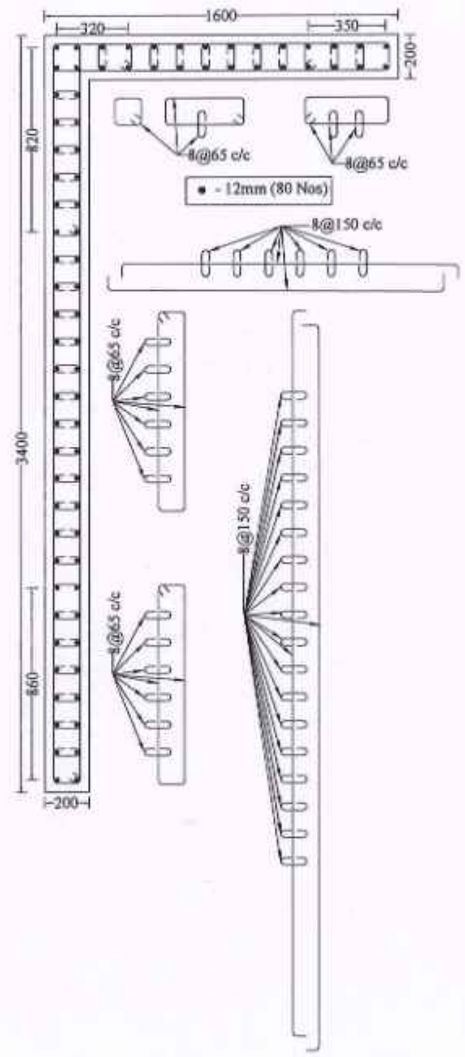
Curtailments Levels	SW8 (02 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)	
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)	

SW9 (4 No)

Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)



Above 4th Floor level (Bar Curtailment at mid height of 5th floor)



NOTE :

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3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-3.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/13.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

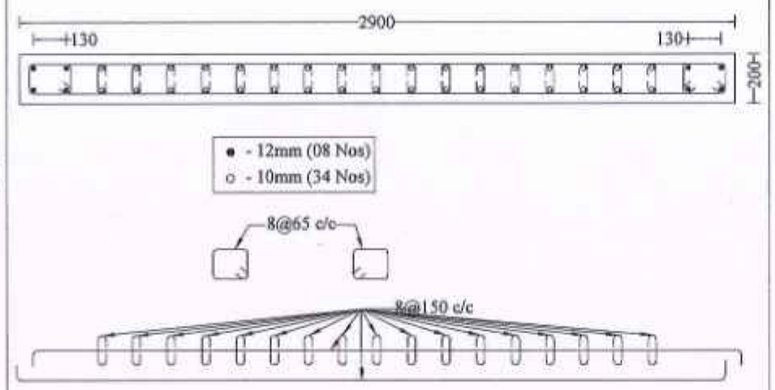
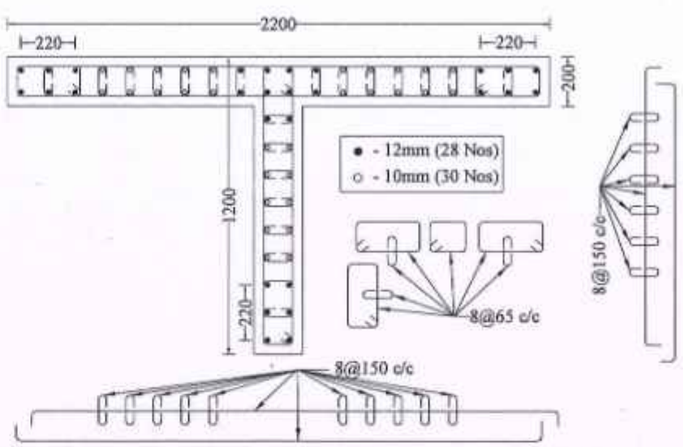
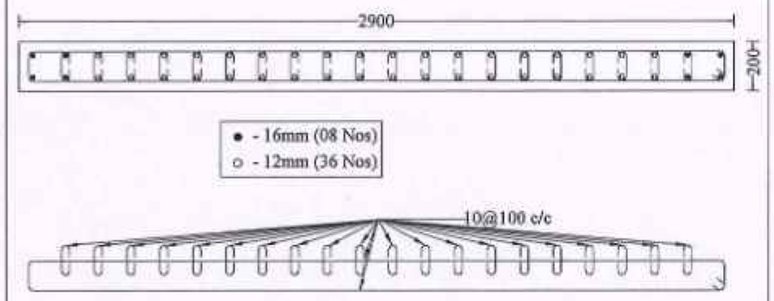
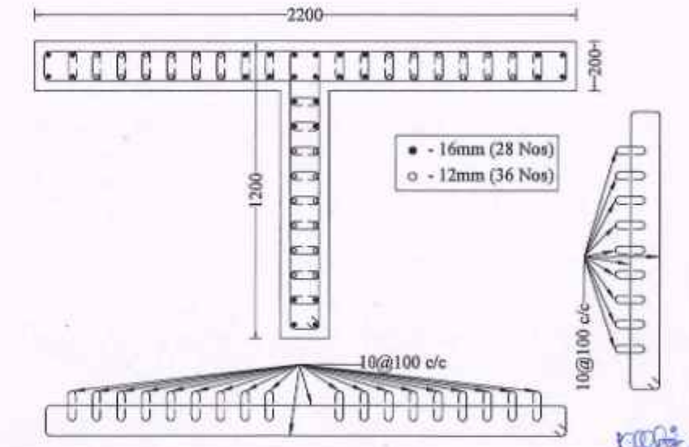
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL
TAMIL NADU URBAN HABITAT DEVELOPMENT
5, KAMARAJAR SALAI, CHENNAI-60

SHEAR WALL DETAILS-4

Curtailments Levels	SW10 (04 Nos)	SW11 (04 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)		
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)		

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-4.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/14.

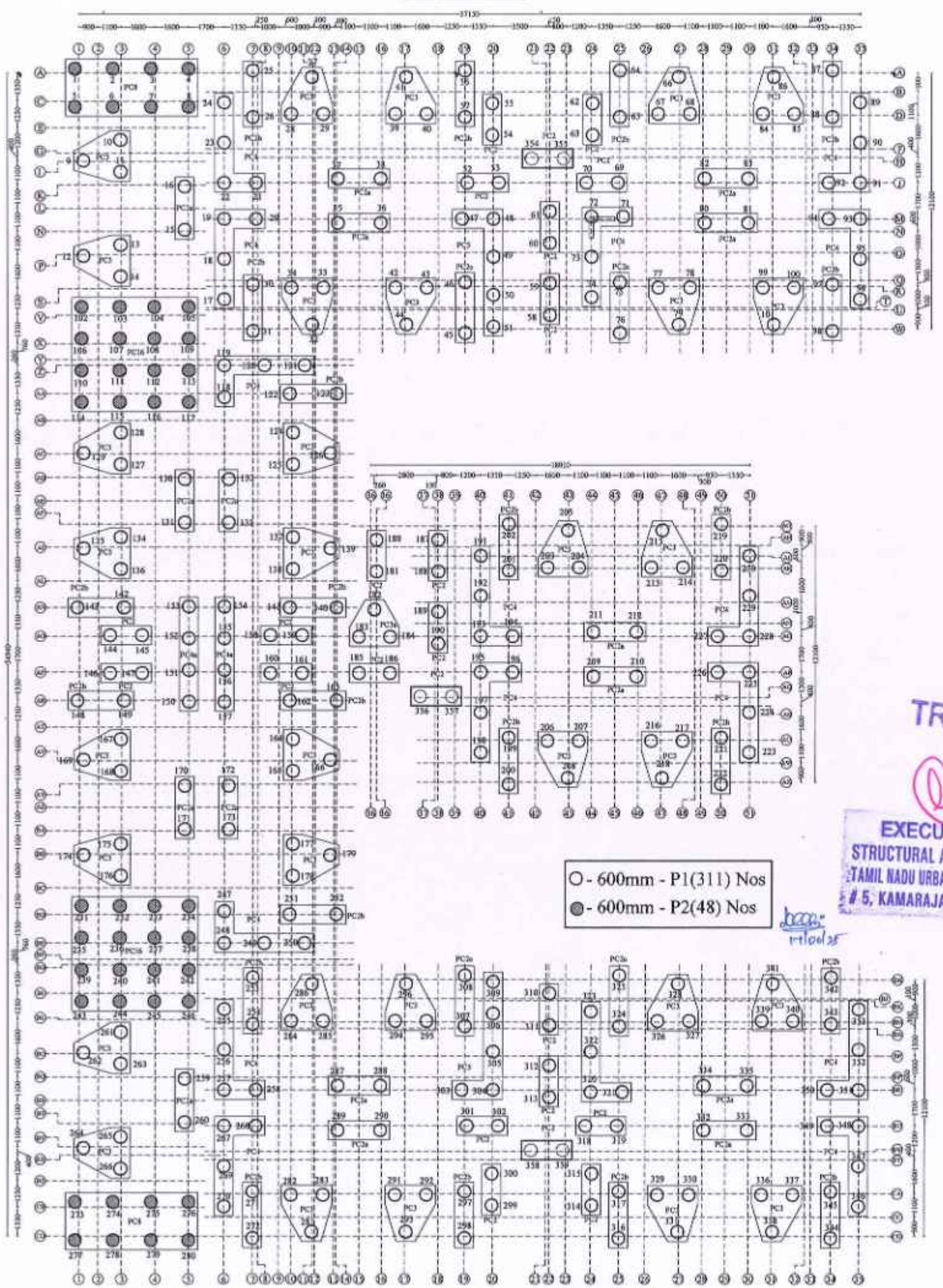
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PILE LAYOUT



NOTE :

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/01.

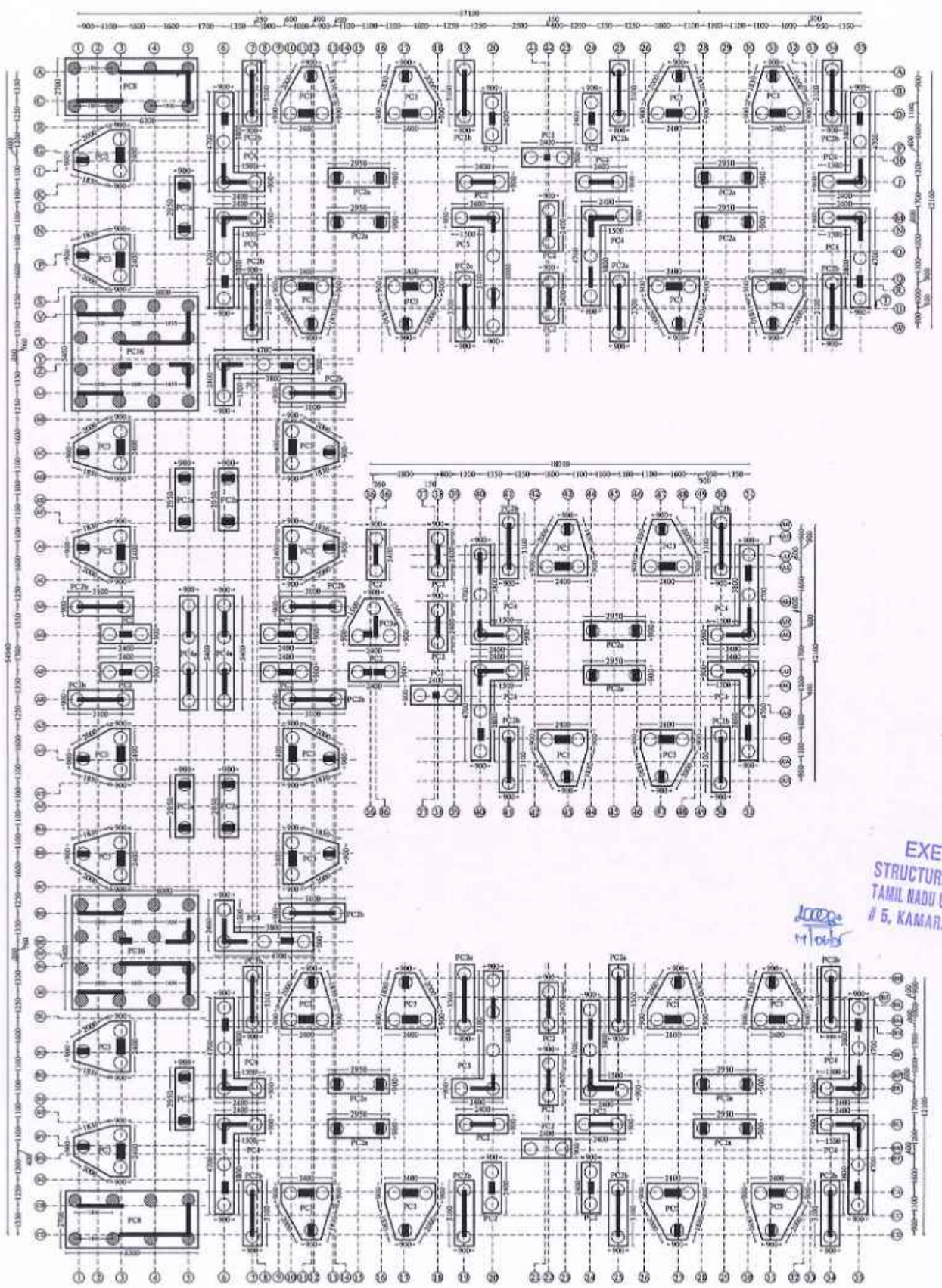
REVISION NO.: R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLAN AT PILE CAP LEVEL



NOTE :

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLAN AT PILE CAP LEVEL.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/02.

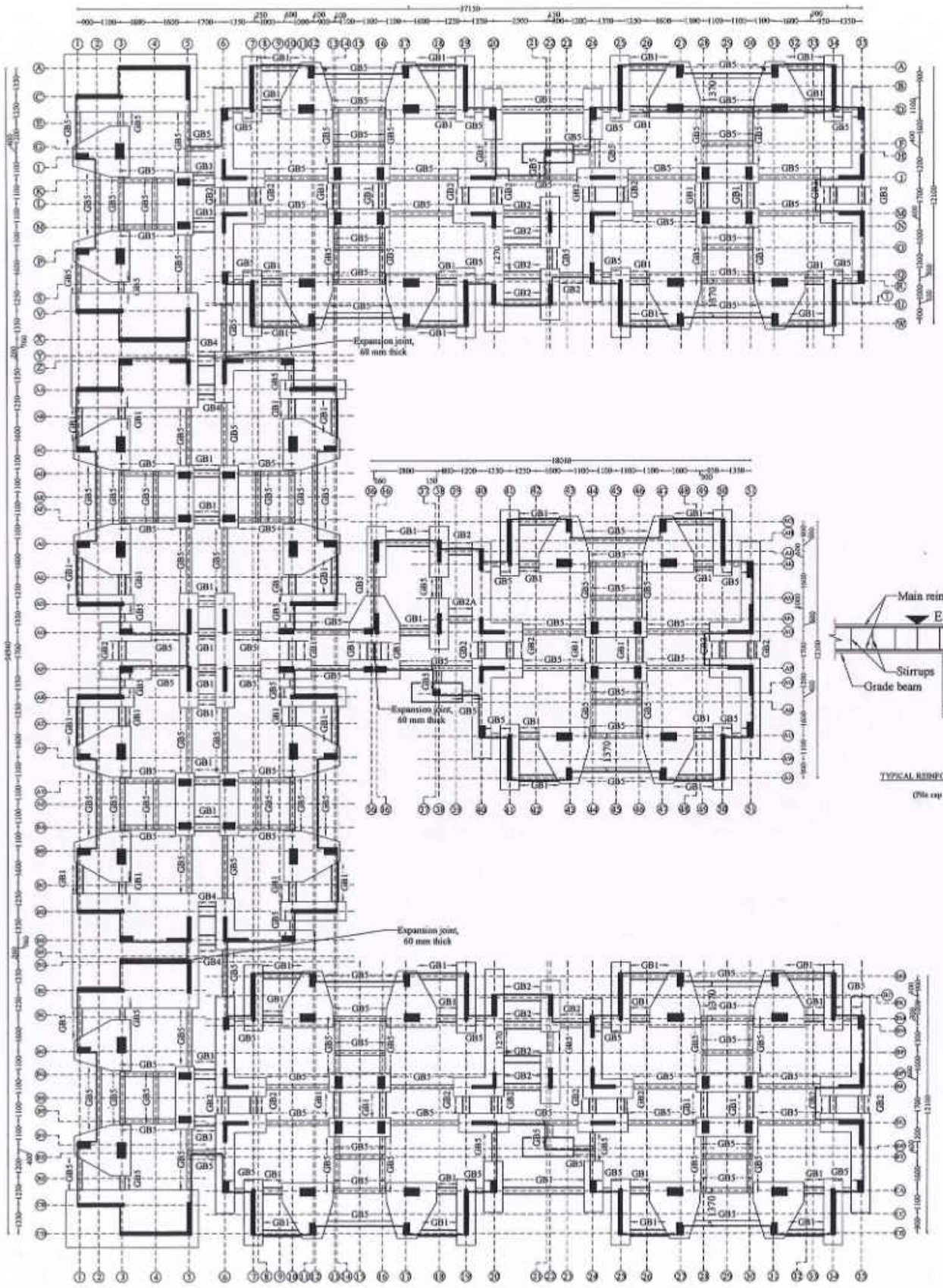
REVISION NO.: R1

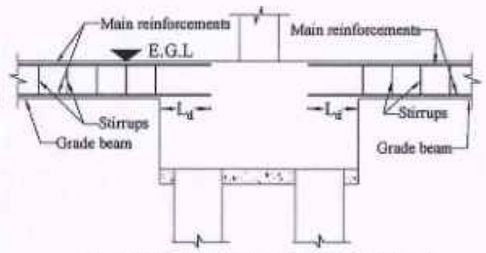
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

GRADE BEAM LAYOUT





TYPICAL REINFORCEMENT ARRANGEMENT OF GRADE BEAM PILE CAP CONNECTION

(Pile cap & Pile reinforcement details are not shown for clarity)

NOTE :

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2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
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18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
GRADE BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/06.

REVISION NO.: R1

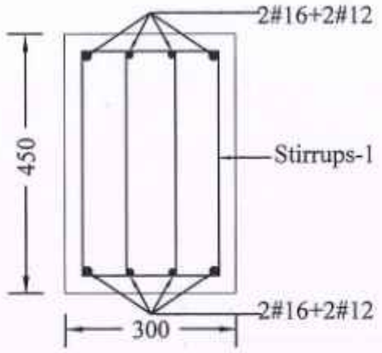
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

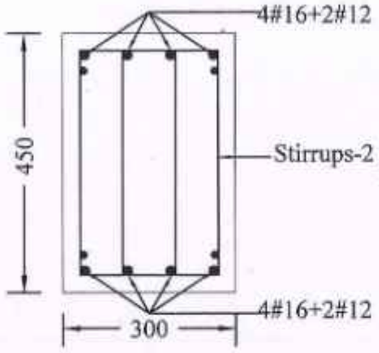
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

GRADE BEAM DETAILS

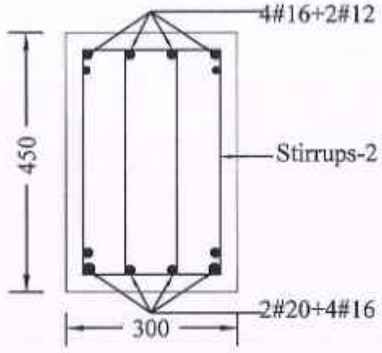
GB1
(300x450)



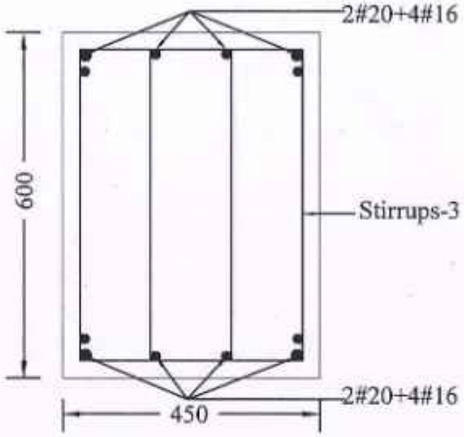
GB2
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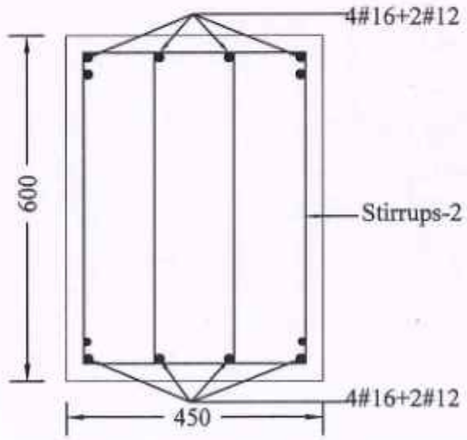
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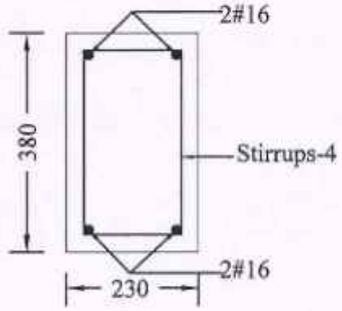
GB3
(450x600)



GB4
(450x600)



GB5
(230x380)



NOTE :

1) Stirrups-1 - 4L#10mm Stirrups @ 150mm c/c throughout the length.
2) Stirrups-2 - 4L#10mm Stirrups @ 100mm c/c throughout the length.
3) Stirrups-3 - 4L#12mm Stirrups @ 100mm c/c throughout the length.
4) Stirrups-4 - 2L#10mm Stirrups @ 100mm c/c for 700 mm length on all side from pilecap face and the rest at 2L#10 @ 150mm c/c.

NOTE :

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10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
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14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
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TRUE COPY
18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
GRADE BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/07.

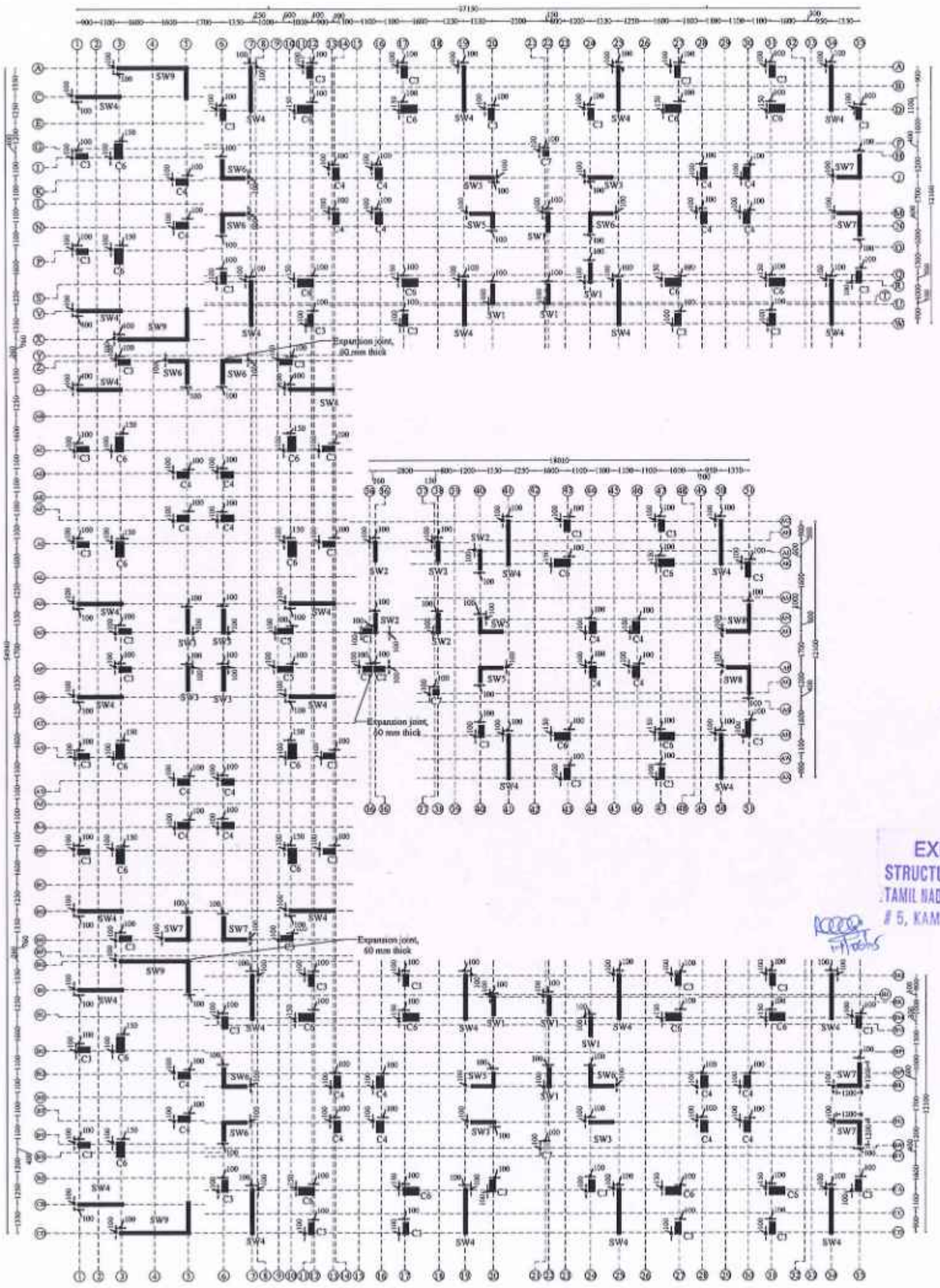
REVISION NO.: R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - UPTO STILT FLOOR



NOTE :

1. All the dimensions are in mm unless noted otherwise.
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3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT -UPTO STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/09.

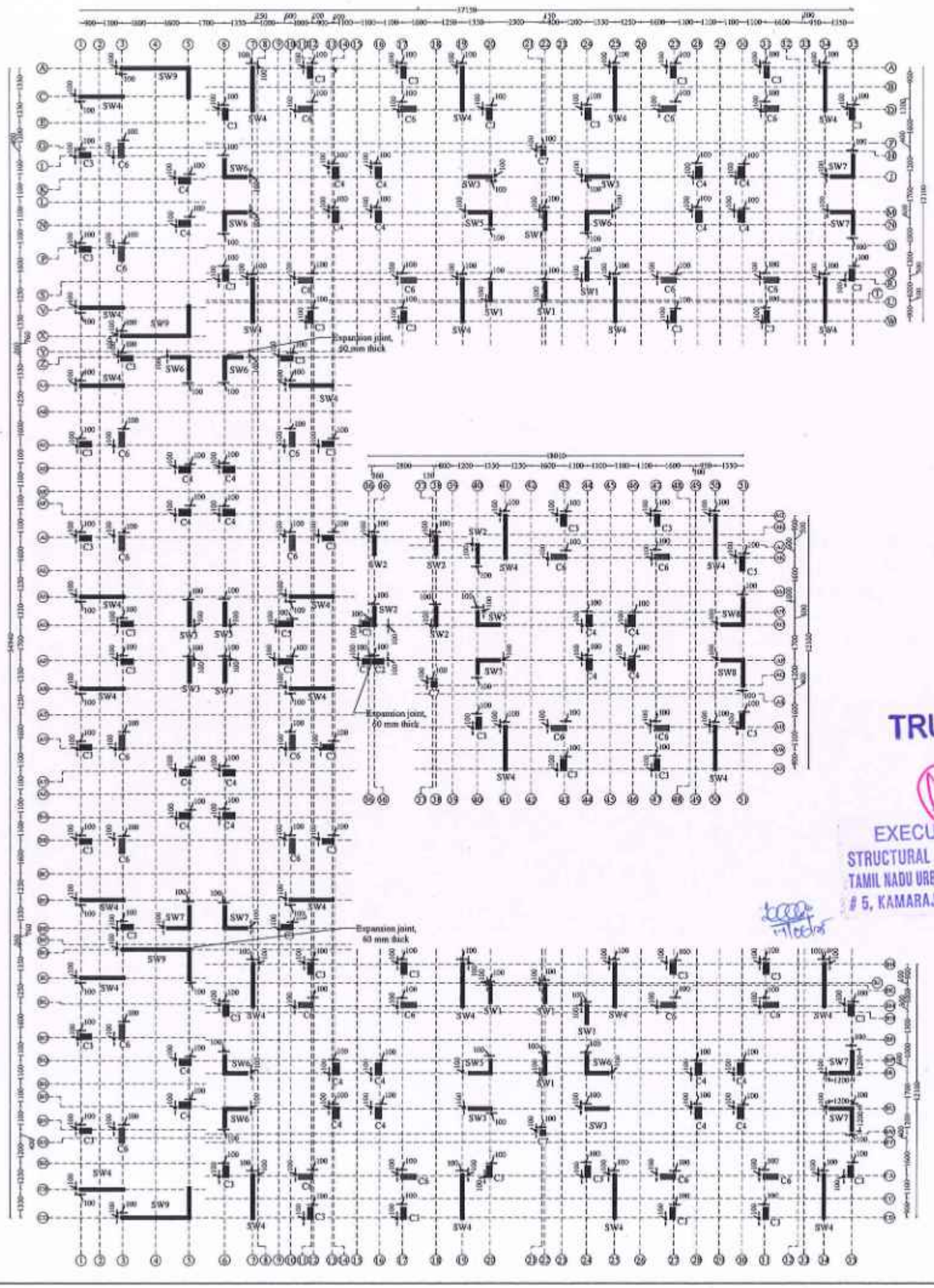
REVISION NO.: R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - ABOVE STILT FLOOR



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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

16/6/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT -ABOVE STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/10.

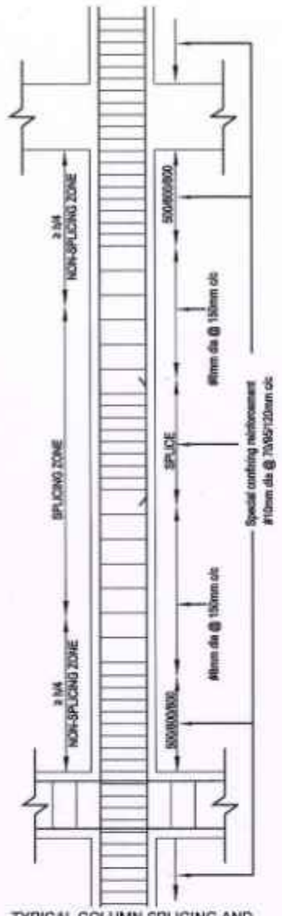
REVISION NO.: R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SCHEDULE OF COLUMNS

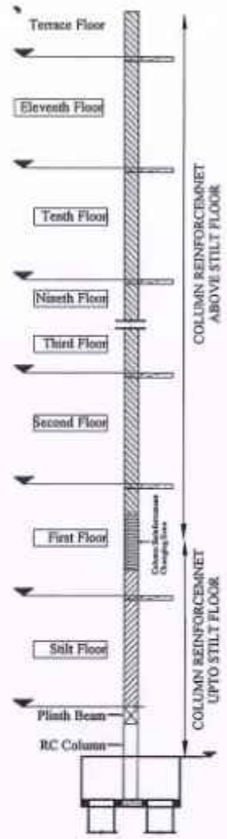


TYPICAL COLUMN SPLICING AND CONFINING REINFORCEMENT DETAILS

Sl.No.	Column Marking	No of Columns	Size		E.G.L to Stilt Floor Column Reinforcement Details			Ties Profile	Above Stilt Floor Column Reinforcement Details			Ties Profile
			Upto Stilt Floor	Above Stilt Floor	Column Verticals	Lateral Ties	Cross Section		Column Verticals	Lateral Ties	Cross Section	
1.	C1	02	300 x 450	300 x 450	# 16 - 6 Nos + # 12 - 4 Nos	1) Upto Plinth Beam: #10 @ 70 mm c/c 2) Above Plinth Beam: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 12 - 6 Nos + # 16 - 4 Nos.	#10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
2.	C2	01	300 x 550	300 x 550	#16 - 8 Nos + #12 - 4 Nos	1) Upto Plinth Beam: #10 @ 70 mm c/c 2) Above Plinth Beam: #10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			#16 - 8 Nos + #12 - 4 Nos	#10 @ 70 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
3.	C3	51	300 x 600	300 x 600	# 16 - 12 Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 12 Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
4.	C4	33	350 x 600	350 x 600	# 20 - 8Nos + #16 - 4Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 8Nos + #16 - 4Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
5.	C5	04	300 x 750	300 x 750	# 20 - 4Nos + #16 - 8Nos	1) Upto Plinth Beam: #10 @ 95 mm c/c 2) Above Plinth Beam: #10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 4Nos + #16 - 8Nos	#10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
6.	C6	32	400 x 750	300 x 750	# 20 - 12Nos	1) Upto Plinth Beam: #10 @ 120 mm c/c 2) Above Plinth Beam: #10 @ 120 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 4Nos + #16 - 8Nos	#10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
7.	C7	06	300 x 300	300 x 300	# 16 - 4Nos + #12 - 4Nos	1) Upto Plinth Beam: #8 @ 75 mm c/c 2) Above Plinth Beam: #8 @ 75 mm c/c for 450 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 4Nos + #12 - 4Nos	#8 @ 75 mm c/c for 450 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		

Notes: In Cross Section a - # 20 mm b - # 16 mm c - # 12 mm

NOTE:
1. For Varying Column Size details refer drawing **TNUHDB/EAST CEMENTRY ROAD/GEN/01.**



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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SCHEDULE OF COLUMNS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/11.

REVISION NO.:R1

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

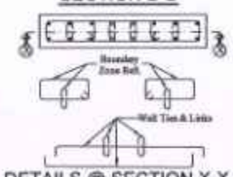
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

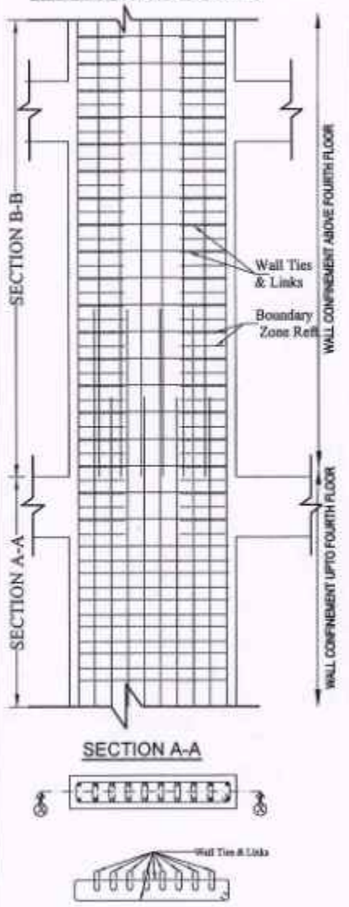
SHEAR WALL DETAILS-1

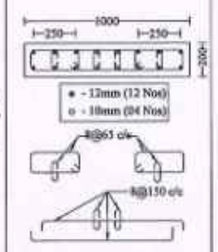
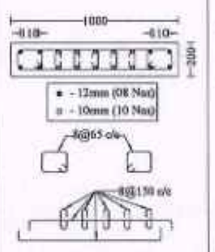
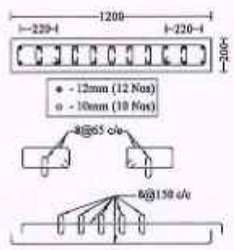
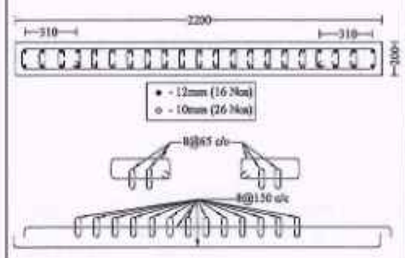
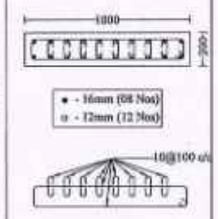
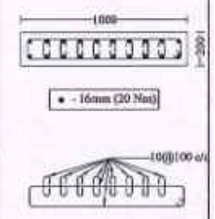
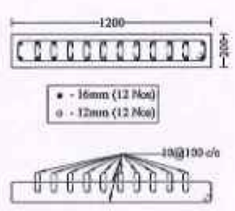
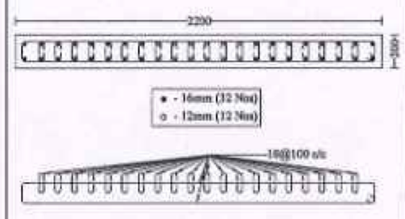
TYPICAL SHEAR WALL CONFINING REINFORCEMENT DETAILS

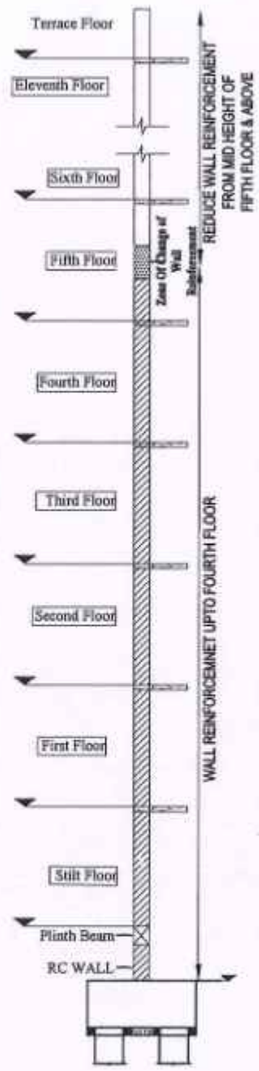
SECTION B-B



DETAILS @ SECTION X-X



Curtailments Levels	SW1 (08 Nos)	SW2 (05 Nos)	SW3 (8 Nos)	SW4 (32 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)				
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)				



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9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-1.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/12.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

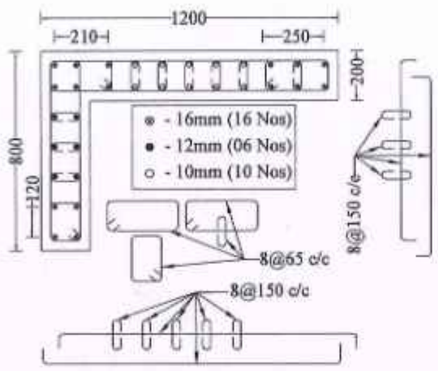
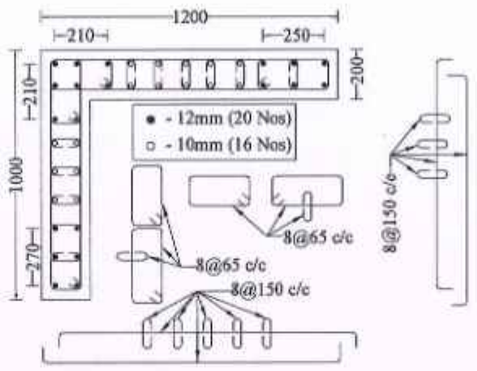
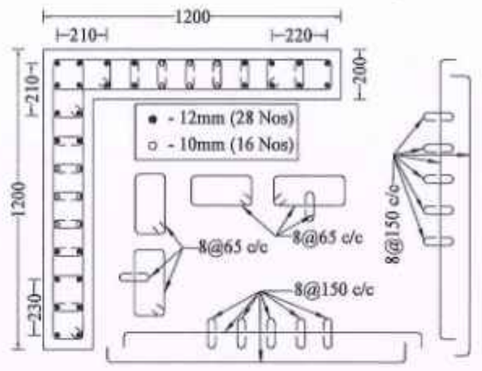
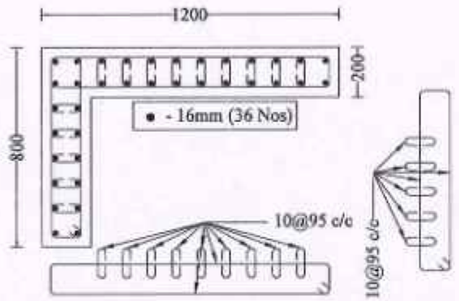
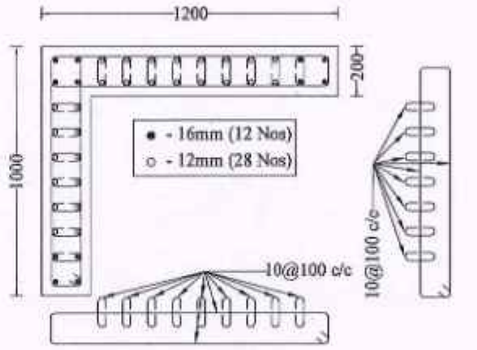
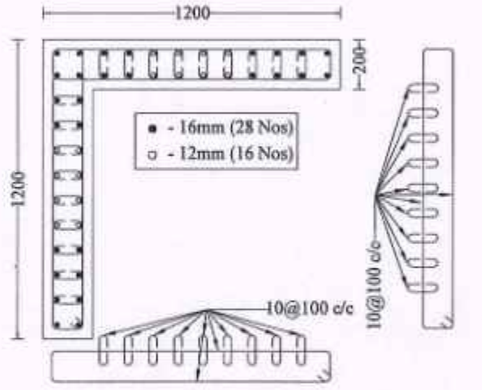
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

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8/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL

SHEAR WALL DETAILS-2

Curtailments Levels	SW5 (04 Nos)	SW6 (08 Nos)	SW7 (06 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)			
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)			

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-2.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/13.

REVISION NO.:R1

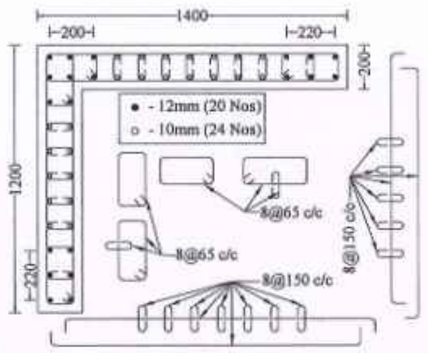
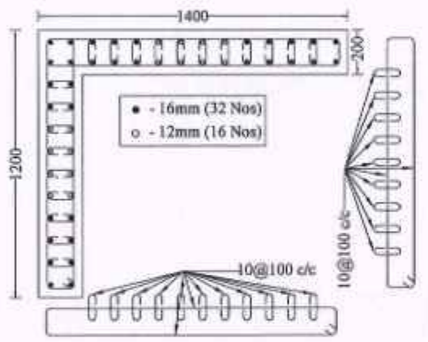
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18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

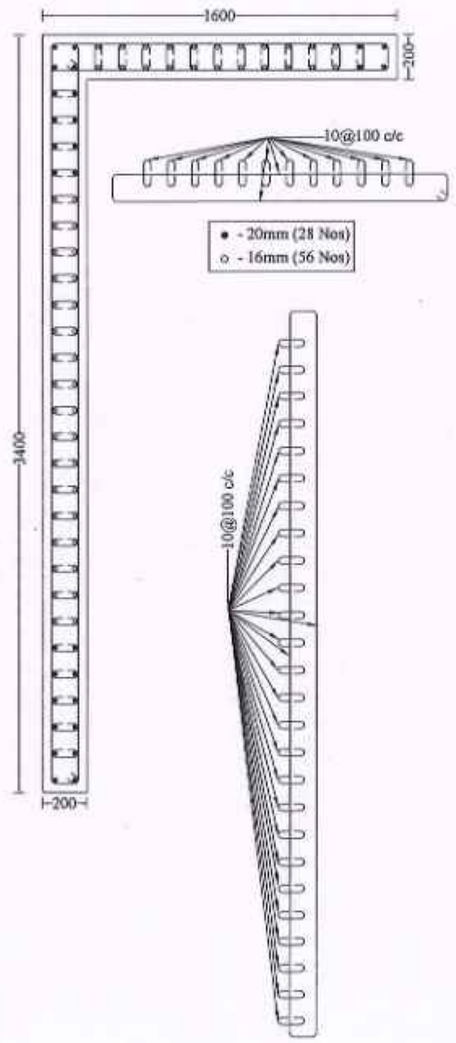
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SHEAR WALL DETAILS-3

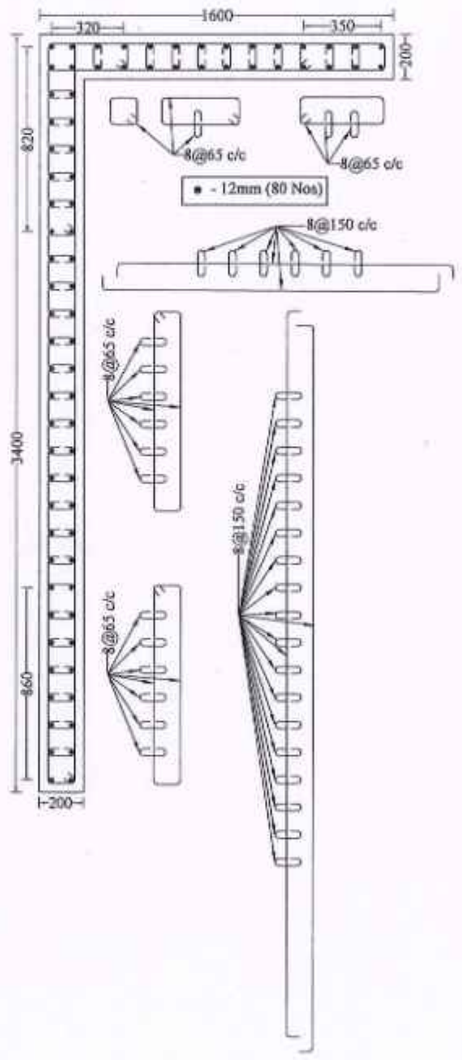
Curtailments Levels	SW8 (02 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)	
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)	

SW9 (4 No)

Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)



Above 4th Floor level (Bar Curtailment at mid height of 5th floor)



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-3.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/14.

REVISION NO.: R1

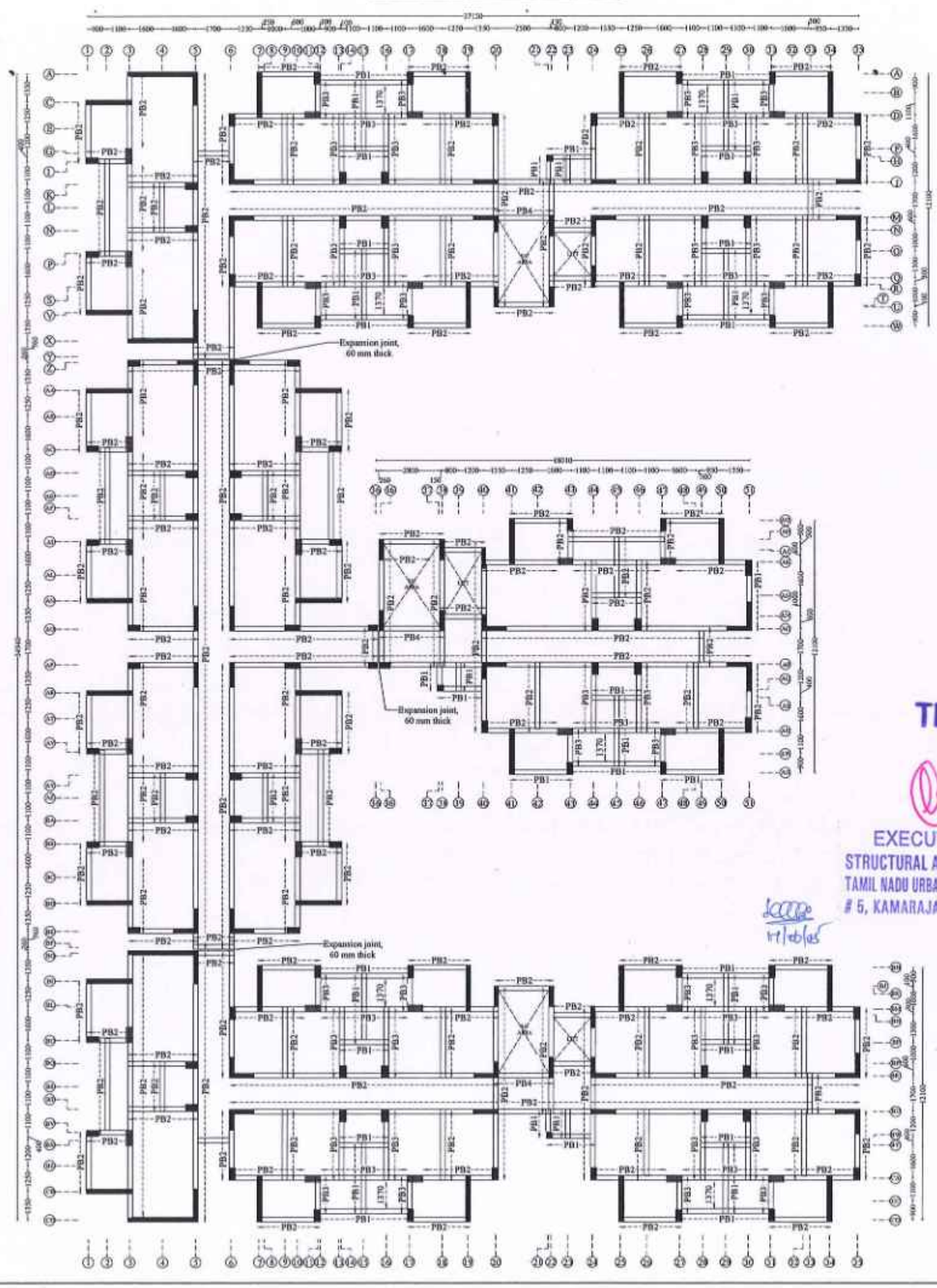
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

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18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

PLINTH BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
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7. Structure is designed for (PS+11) floors only.
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9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

17/06/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLINTH BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/15

REVISION NO.:

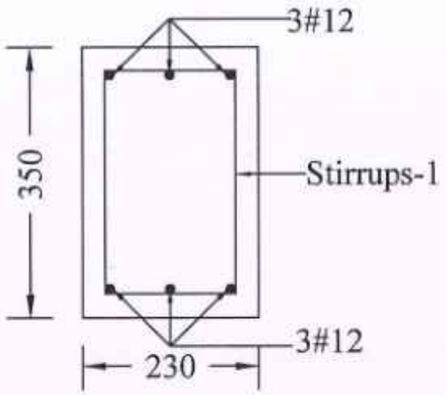
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

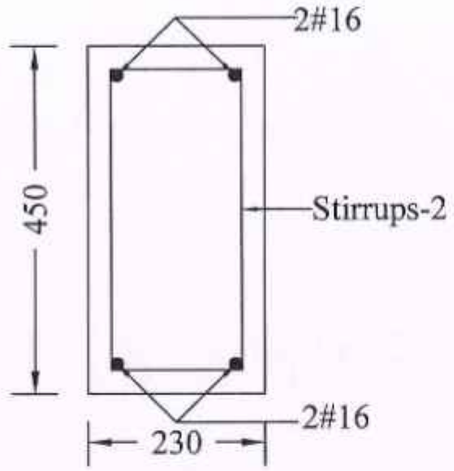
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLINTH BEAM DETAILS

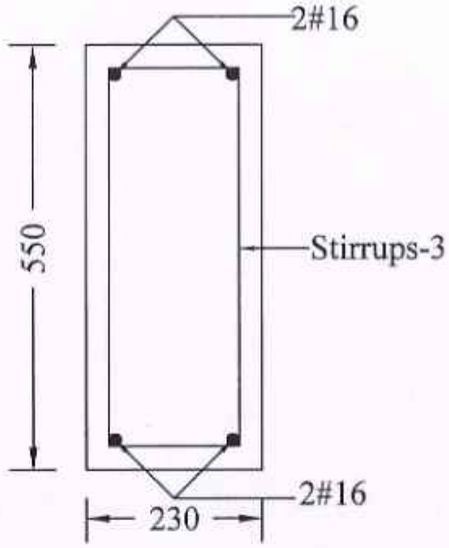
PB1
(230 x 350)



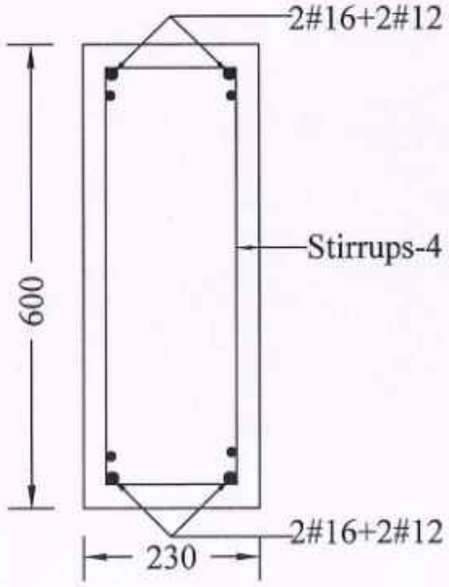
PB2
(230 x 450)



PB3
(230 x 550)



PB4
(230 x 600)



NOTE:

1. **Stirrups-1 :** 2 Legged # 8 mm stirrups at 75 mm c/c for 700 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
2. **Stirrups-2 :** 2 Legged # 8 mm stirrups at 100 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
3. **Stirrups-3 :** 2 Legged # 8 mm stirrups at 100 mm c/c for 1100 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
4. **Stirrups-4 :** 2 Legged # 8 mm stirrups at 100 mm c/c for 1200 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLINTH BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/16.

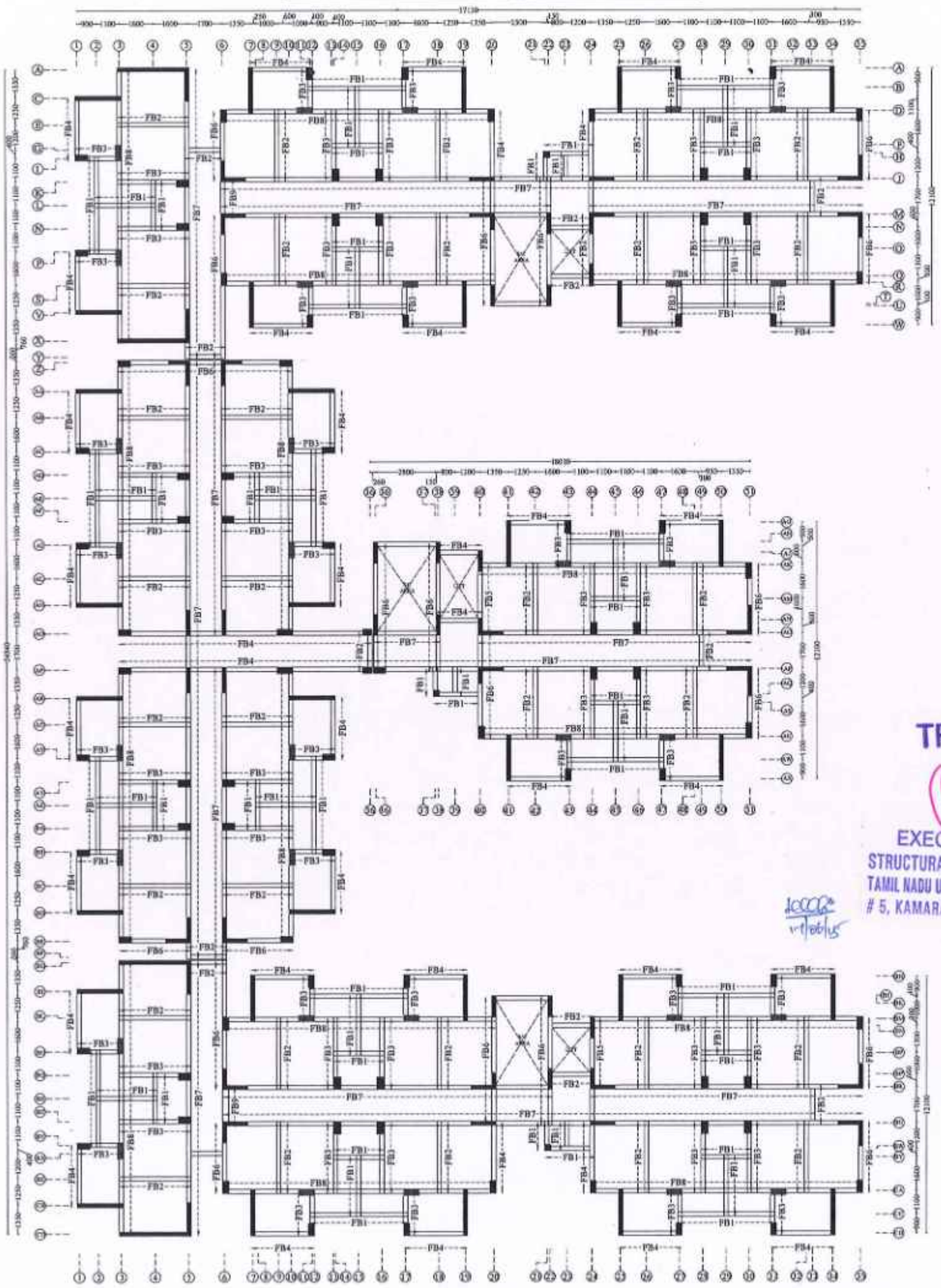
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

STILT & FIRST FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
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9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
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    - (d) Slab - 25 mm
    - (e) Water Tank Walls & Slab - 30 mm
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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
STILT & FIRST FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/17.

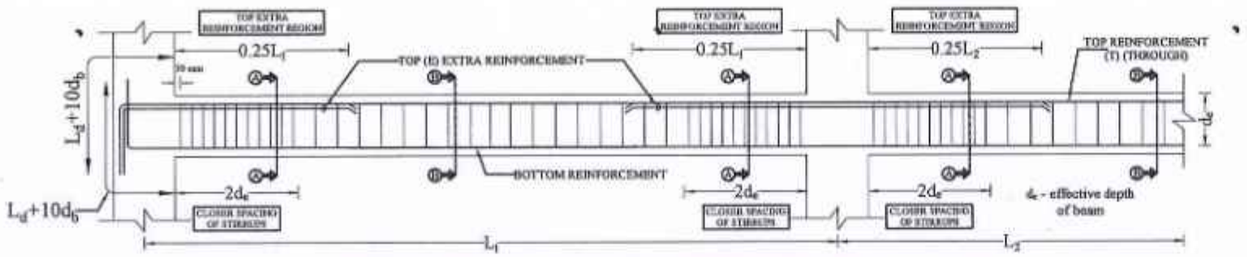
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

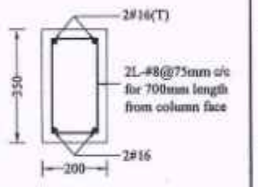
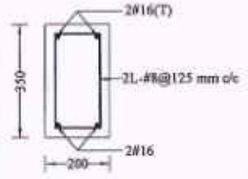
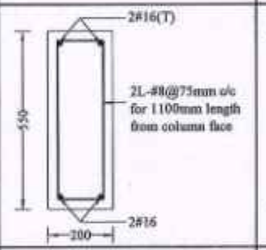
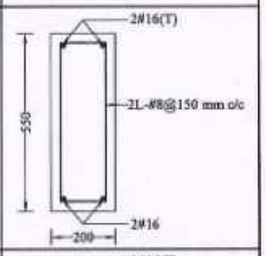
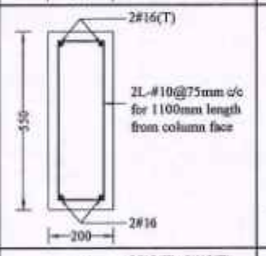
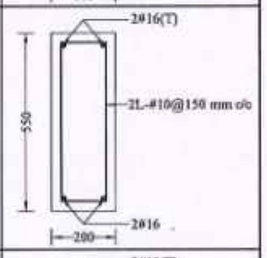
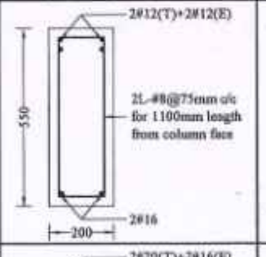
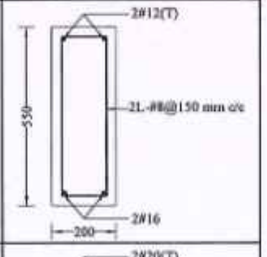
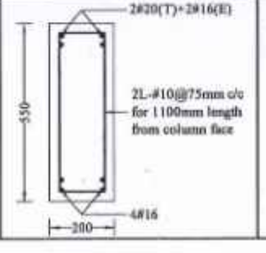
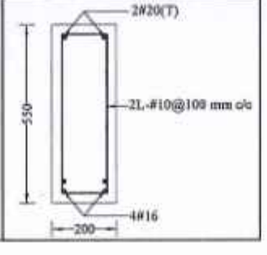
sd.xxxx 16.06.2025
Chief Engineer

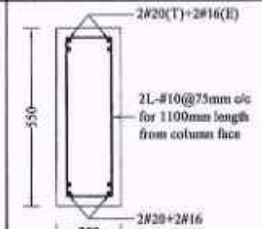
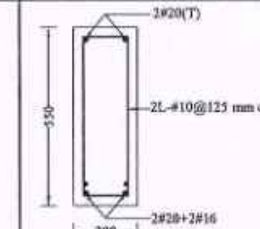
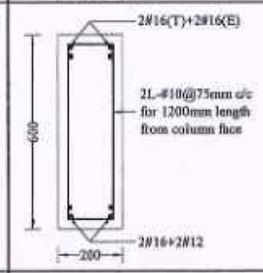
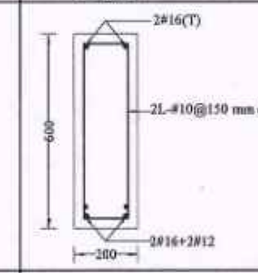
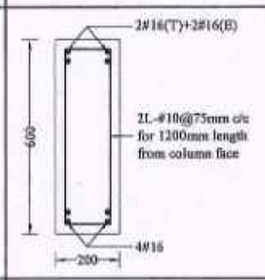
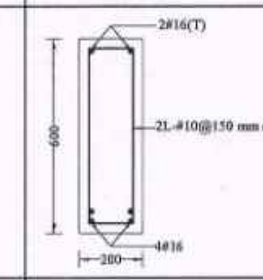
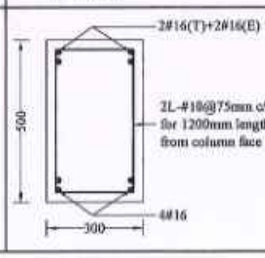
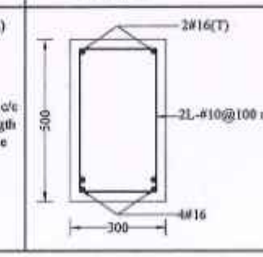
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



STILT & FIRST FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350		
2.	FB2 200 x 550		
3.	FB3 200 x 550		
4.	FB4 200 x 550		
5.	FB5 200 x 550		

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB6 200 x 550		
7.	FB7 200 x 600		
8.	FB8 200 x 600		
9.	FB9 300 x 500		

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
STILT & FIRST FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/18.

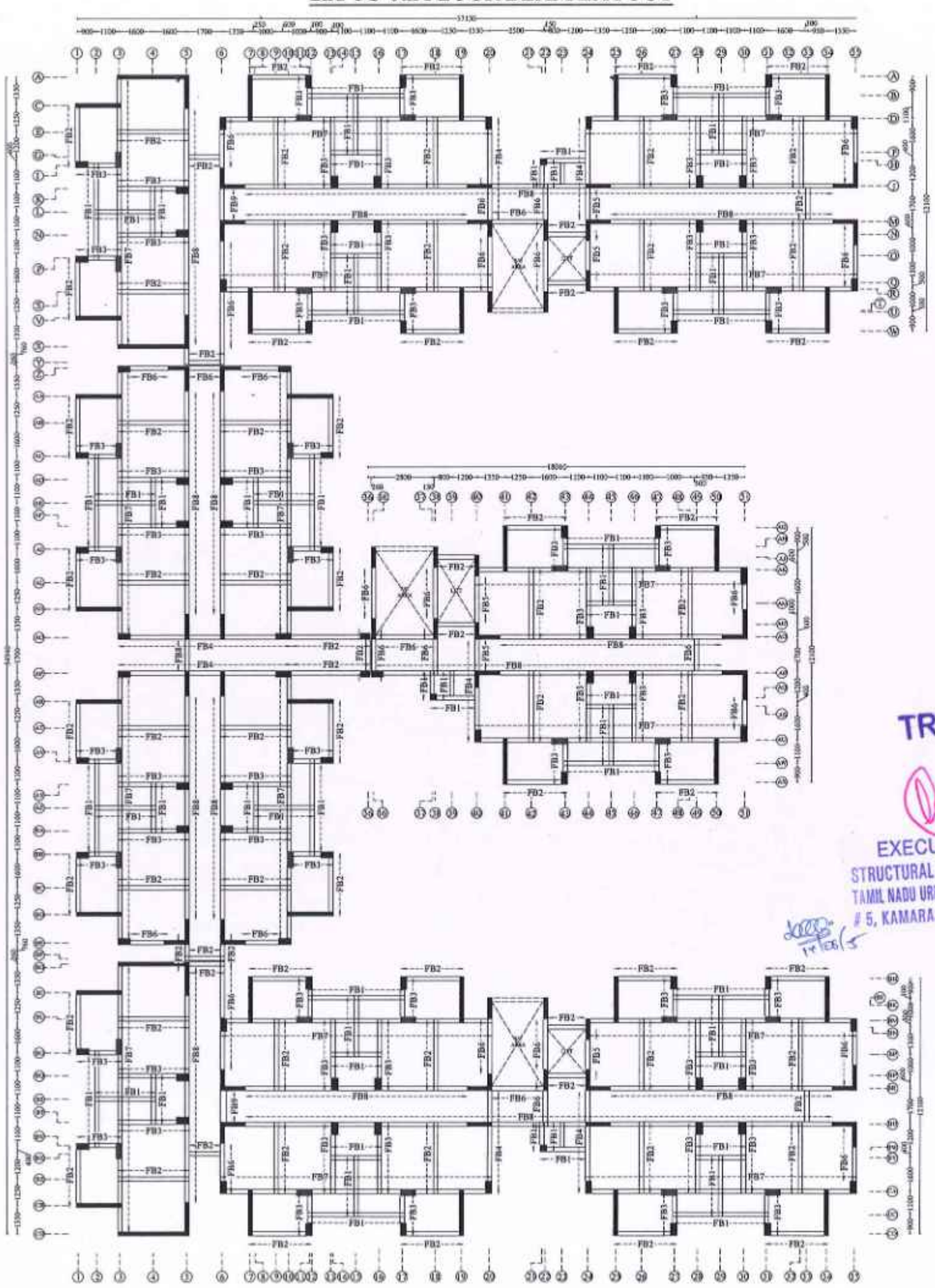
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

2nd TO 6th FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    - (a) Pile & Pile Cap - 60 mm
    - (b) Column/Shear wall - 40 mm
    - (c) Floor and roof beam - 30 mm
    - (d) Slab - 25 mm
    - (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

14/FEB/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM LAYOUT

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/19

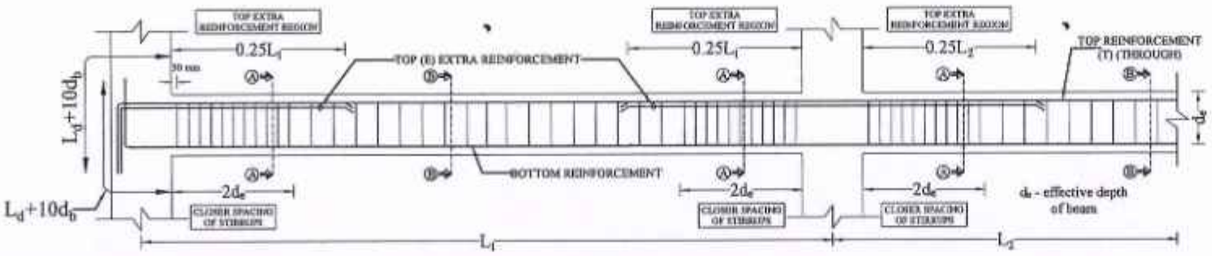
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



2nd TO 6th FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16 350 2L-#8@75mm c/c for 700mm length from column face 2#16 200	2#16 350 2L-#8@125 mm c/c 2#16 200
2.	FB2 200 x 550	2#16 550 2L-#8@75mm c/c for 1100mm length from column face 2#16 200	2#16 550 2L-#8@150 mm c/c 2#16 200
3.	FB3 200 x 550	2#16(T)+2#12(E) 550 2L-#8@75mm c/c for 1100mm length from column face 4#12 200	2#16(T) 550 2L-#8@100 mm c/c 4#12 200
4.	FB4 200 x 550	2#16(T)+2#12(E) 550 2L-#8@75mm c/c for 1100mm length from column face 2#16 200	2#16(T) 550 2L-#8@150 mm c/c 2#16 200
5.	FB5 200 x 550	2#20+2#16 550 2L-#10@85mm c/c for 1100mm length from column face 2#20 + 2#16 200	2#20+2#16 550 2L-#10@125 mm c/c 2#20 + 2#16 200

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB6 200 x 550	2#20(T)+2#20(E) 550 2L-#10@85 mm c/c 4#20 200	2#20(T) 550 2L-#10@85 mm c/c 4#20 200
7.	FB7 200 x 600	2#16(T)+2#16(E) 600 2L-#8@75mm c/c for 1200mm length from column face 4#16 200	2#16(T) 600 2L-#8@125 mm c/c 4#16 200
8.	FB8 200 x 600	2#20(T)+2#16(E) 600 2L-#8@75mm c/c for 1200mm length from column face 4#16 200	2#20(T) 600 2L-#8@100 mm c/c 4#16 200
9.	FB9 300 x 500	4#16 500 2L-#8@75 mm c/c 4#16 300	4#16 500 2L-#8@75 mm c/c 4#16 300

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
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18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMA... CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/20.

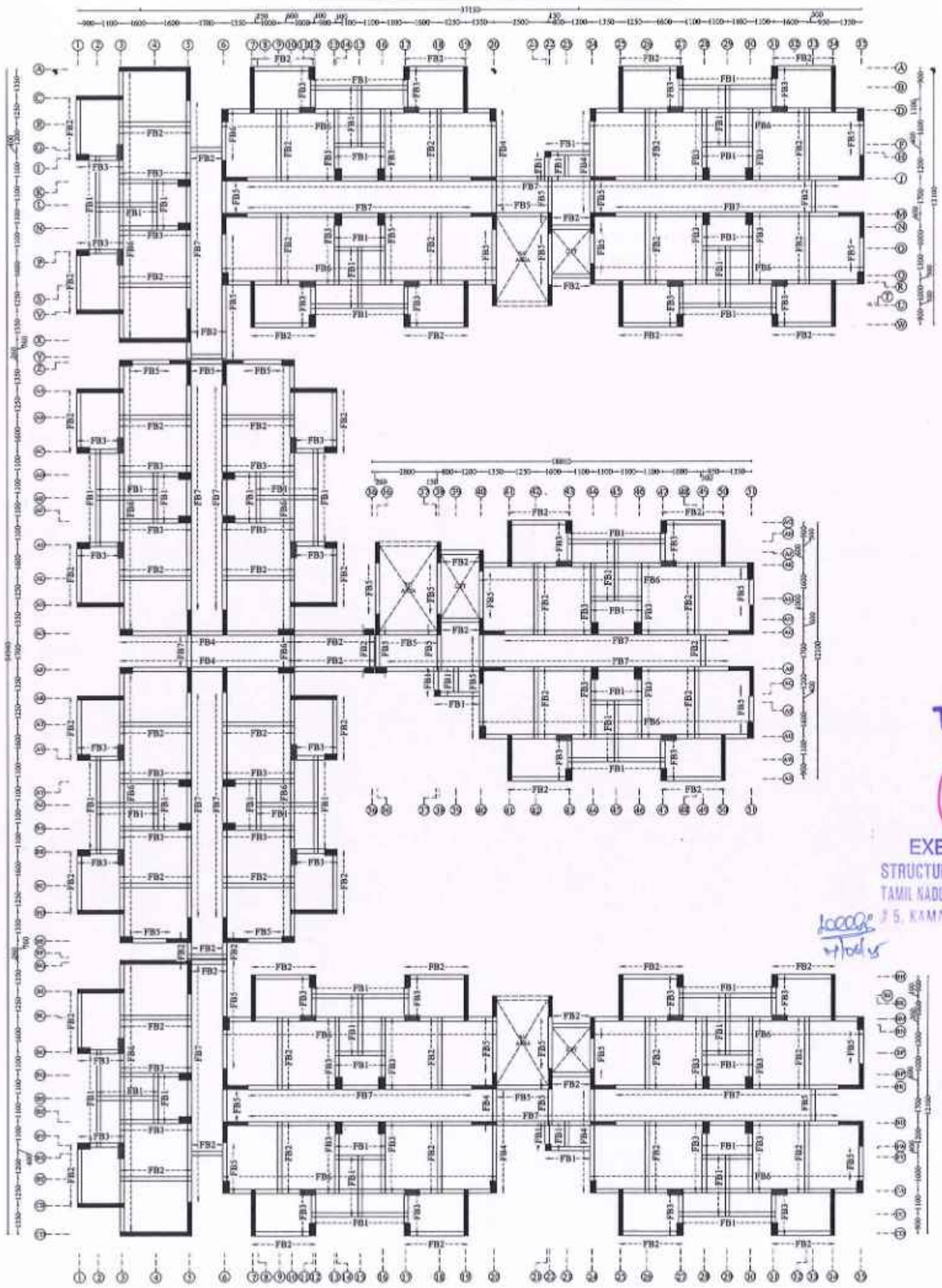
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

7th TO 10th FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with ETABS.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
7th TO 10th FLOOR BEAM LAYOUT

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/21.

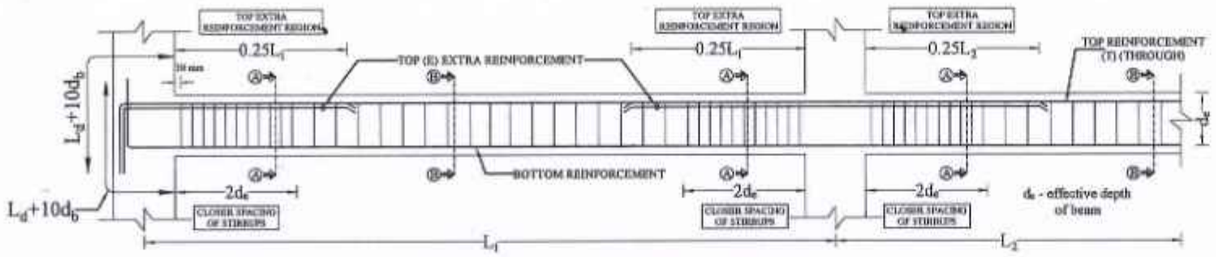
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



7th TO 10th FLOOR BEAM LAYOUT

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16 350 2L-#8@95 mm c/c 2#16 200	2#16 350 2L-#8@95 mm c/c 2#16 200
2.	FB2 200 x 450	2#16 450 2L-#8@95mm c/c for 900mm length from column face 2#16 200	2#16 450 2L-#8@150 mm c/c 2#16 200
3.	FB3 200 x 550	2#16(T)+2#12(E) 550 2L-#8@75mm c/c for 1100mm length from column face 2#16 200	2#16(T) 550 2L-#8@120 mm c/c 2#16 200
4.	FB4 200 x 450	2#16(T)+2#12(E) 450 2L-#8@75mm c/c for 900mm length from column face 2#16 200	2#16(T) 450 2L-#8@150 mm c/c 2#16 200
5.	FB5 200 x 450	2#16(T)+2#12(E) 450 2L-#10@75mm c/c for 900mm length from column face 2#16 + 2#12 200	2#16(T) 450 2L-#10@125 mm c/c 2#16 + 2#12 200
6.	FB6 200 x 600	2#16(T)+2#16(E) 600 2L-#8@75mm c/c for 1200mm length from column face 2#16 + 2#12 200	2#16(T) 600 2L-#8@100 mm c/c 2#16 + 2#12 200
7.	FB7 200 x 600	2#20(T)+2#16(E) 600 2L-#10@75mm c/c for 1200mm length from column face 2#16 + 2#12 200	2#20(T) 600 2L-#10@125 mm c/c 2#16 + 2#12 200

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
7th TO 10th FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/22.

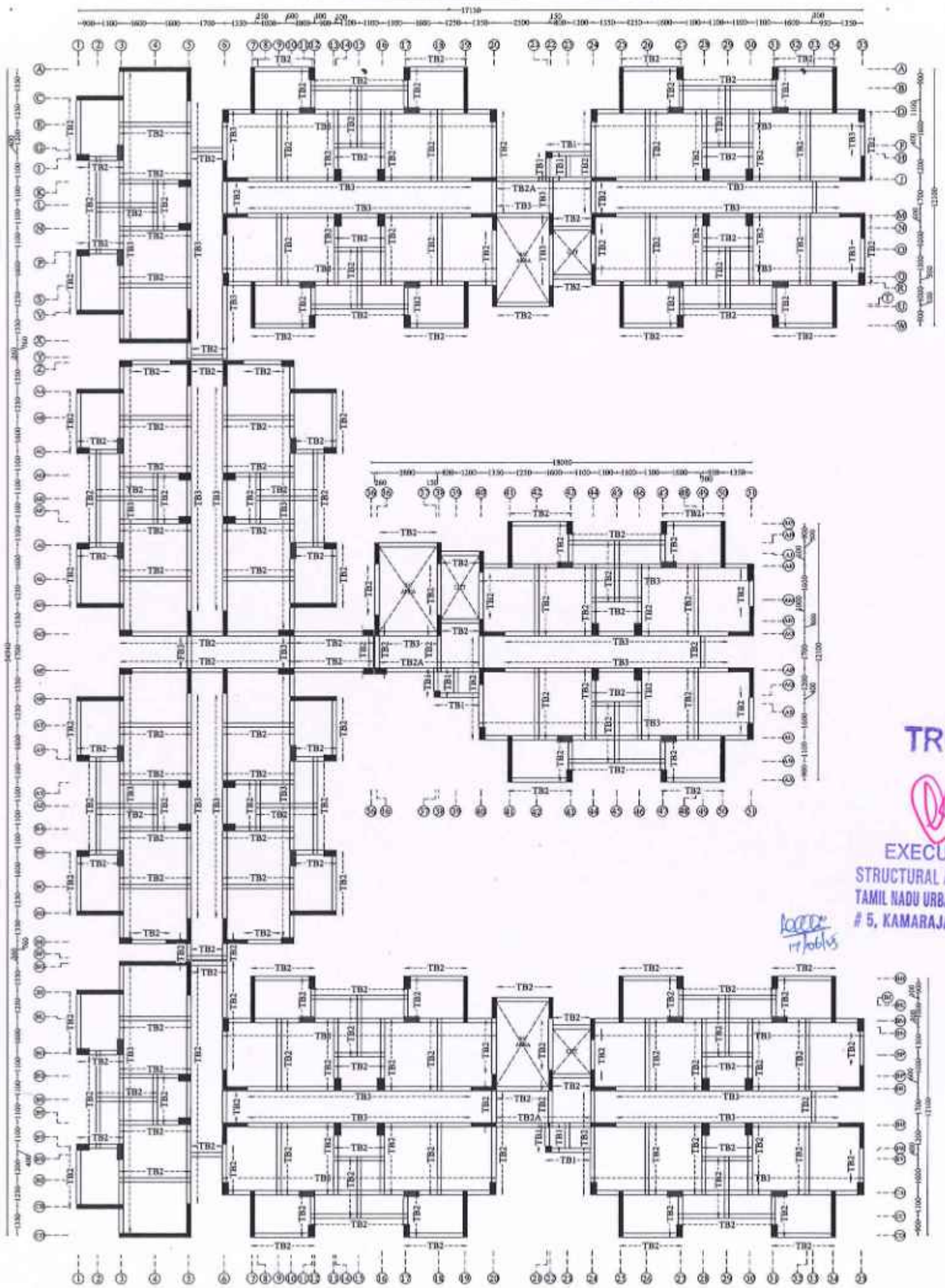
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR BEAM LAYOUT



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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM LAYOUT

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/23.

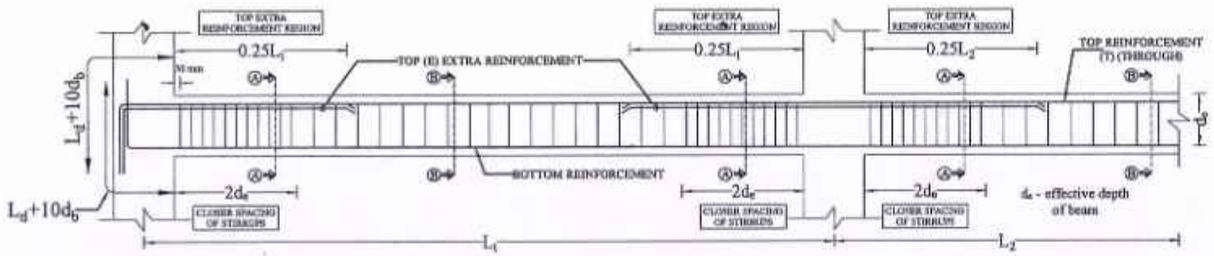
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

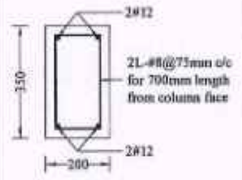
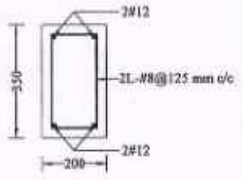
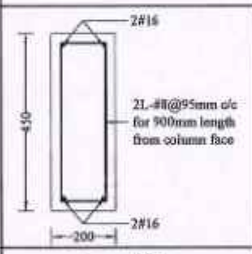
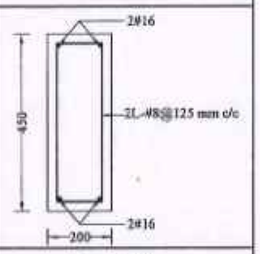
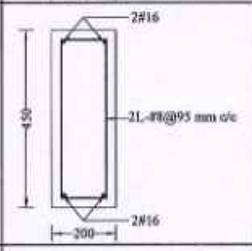
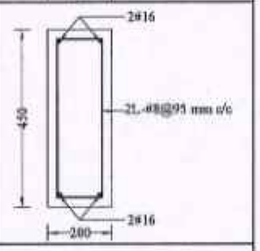
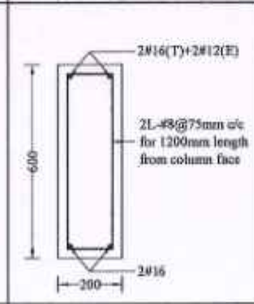
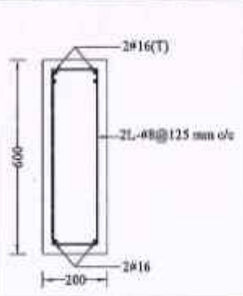
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



TERRACE FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	TB1 200 x 350		
2.	TB2 200 x 450		
3.	TB2A 200 x 450		
4.	TB3 200 x 600		

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

17/06/25

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/24.

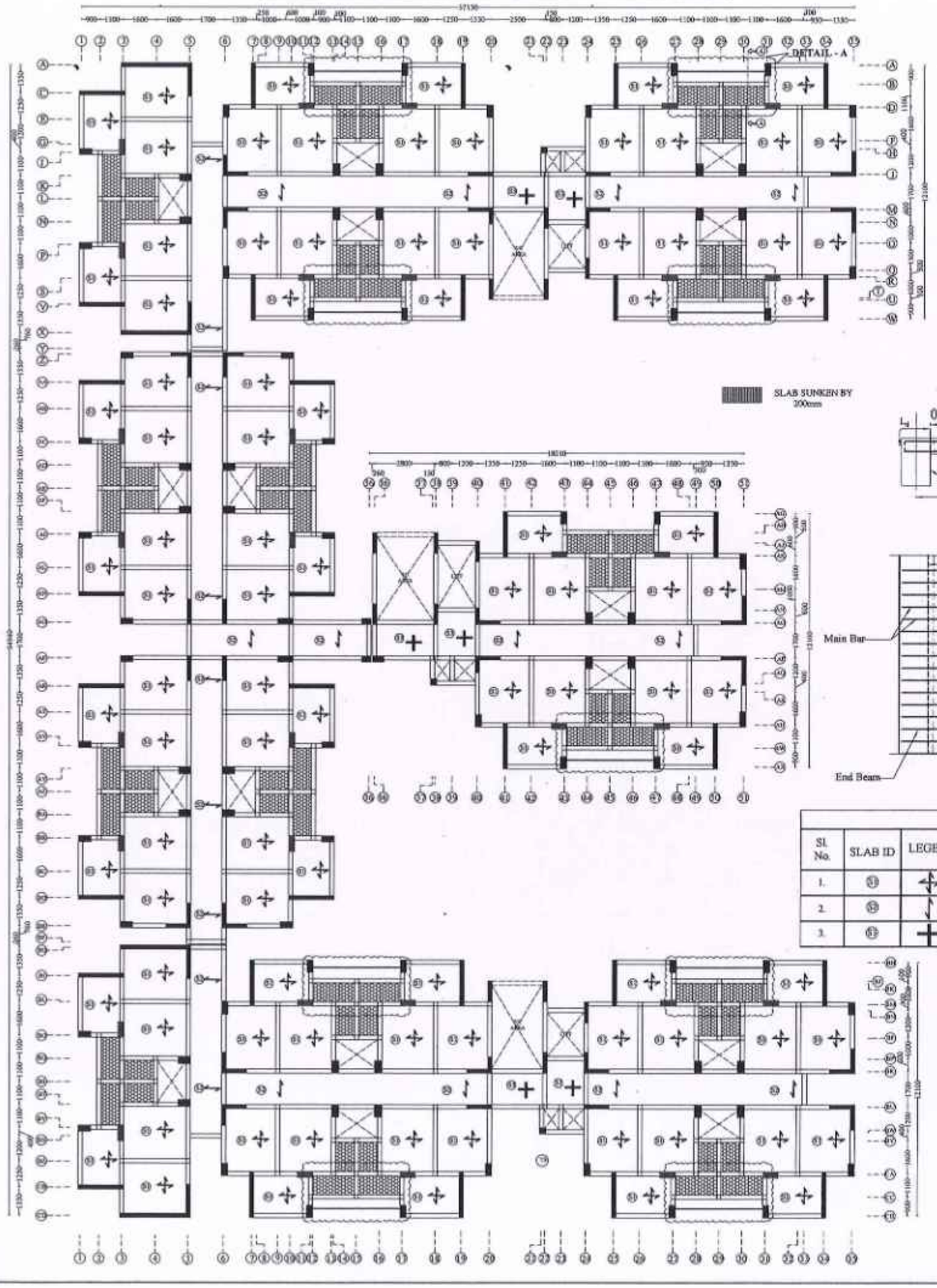
REVISION NO.:

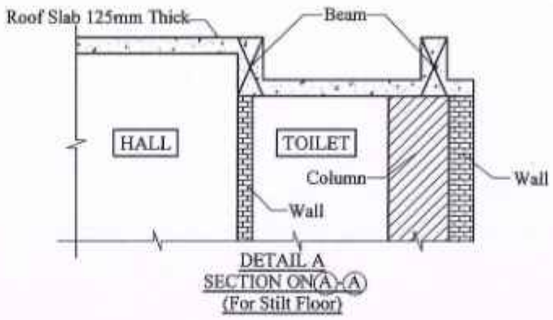
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

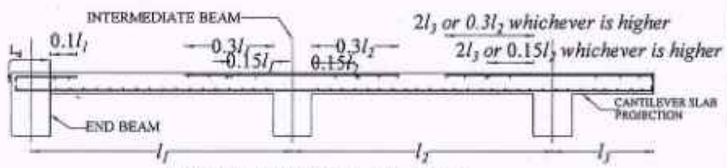
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL FLOOR SLAB LAYOUT & DETAILS

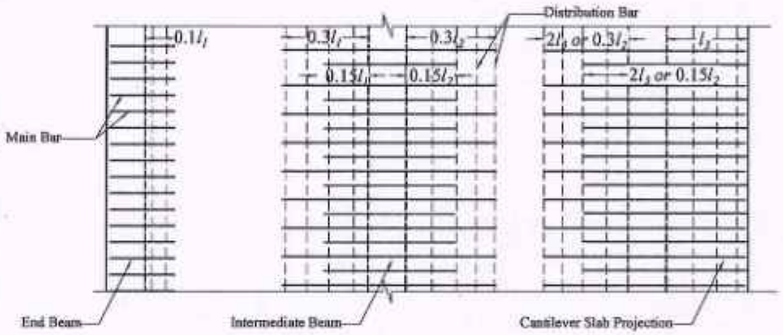




DETAIL A
SECTION ON (A) - (A)
(For Stilt Floor)



TYPICAL SLAB REINFORCEMENT DETAILS



SLAB REINFORCEMENT DETAILS

Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	S1		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	S2		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	S3		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TYPICAL FLOOR SLAB LAYOUT & DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/25.

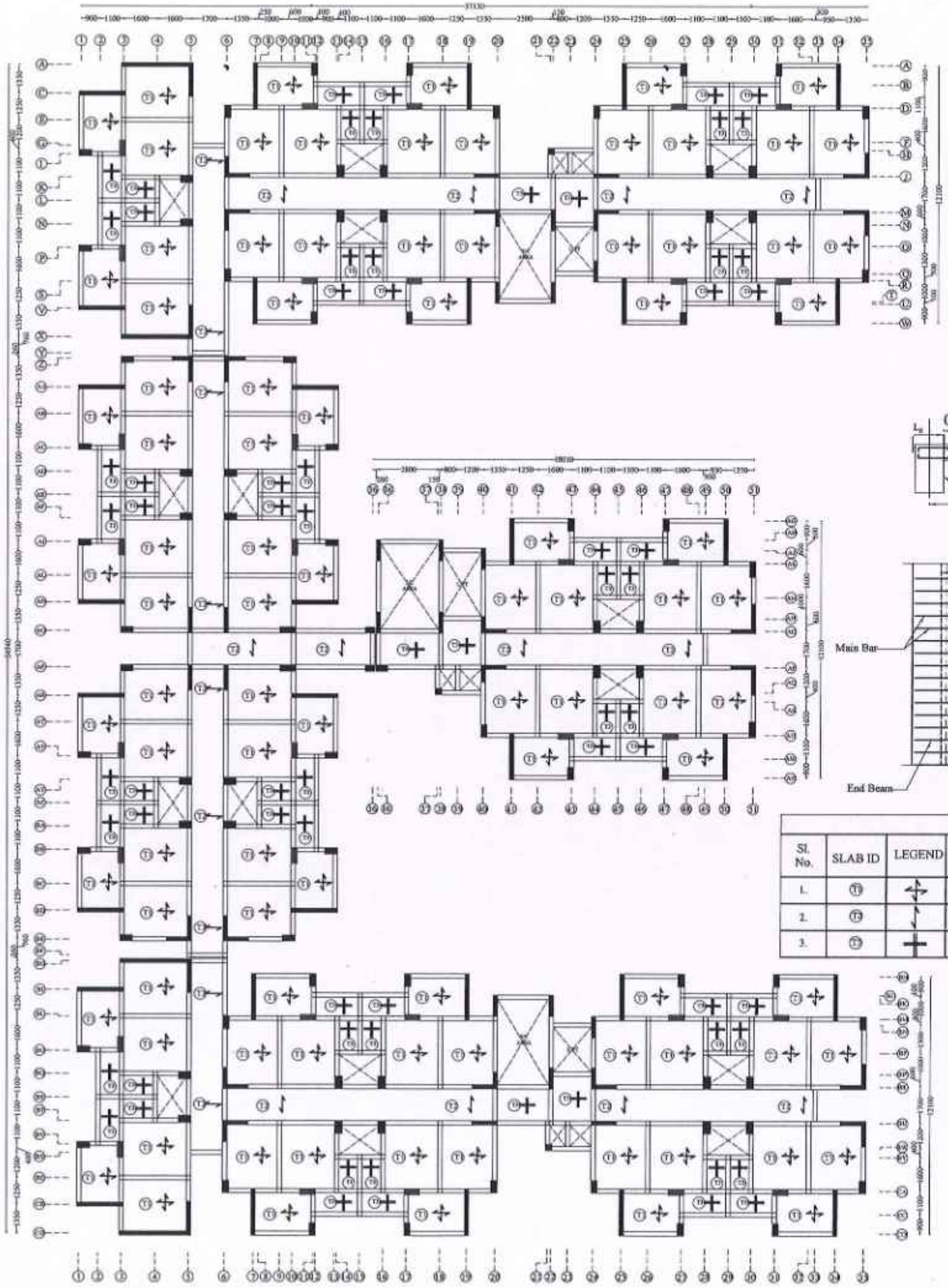
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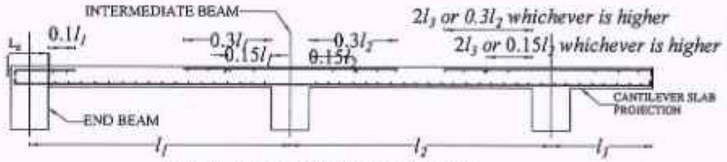
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

Chief Engineer

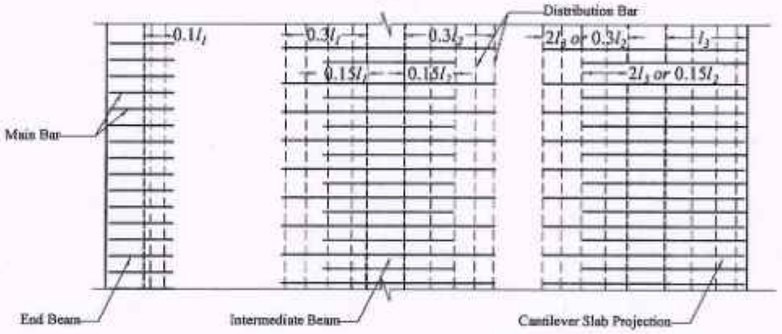
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR SLAB LAYOUT & DETAILS





TYPICAL SLAB REINFORCEMENT DETAILS



SLAB REINFORCEMENT DETAILS

Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	T9		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	T3		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	T2		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--

NOTE:

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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

17/06/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR SLAB LAYOUT & DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/26.

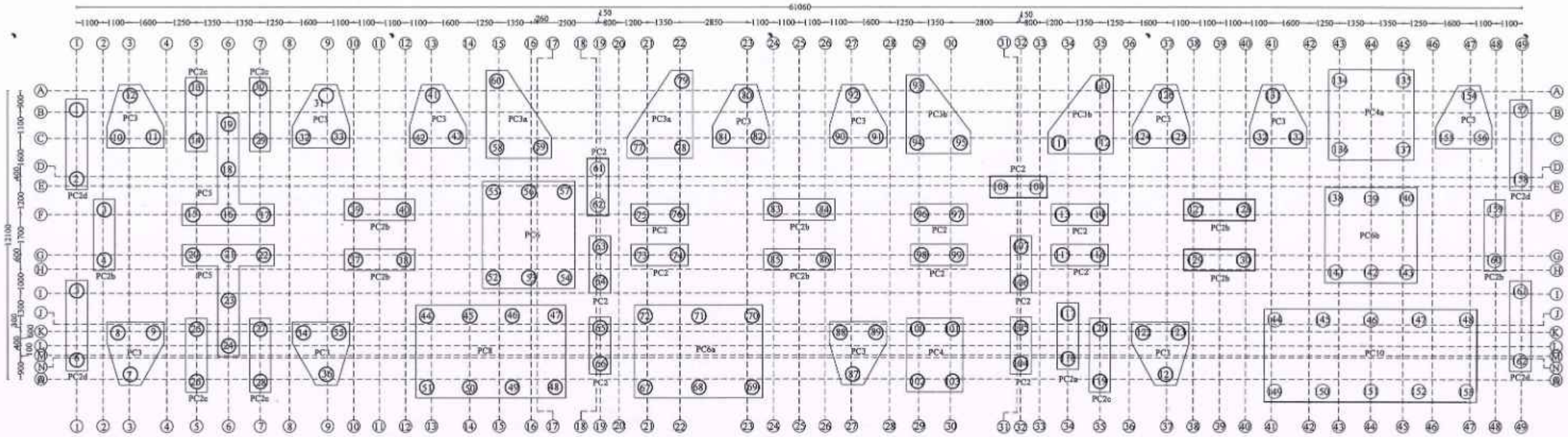
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PILE LAYOUT



○ - 600mm - P1(164) Nos

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

18/06/25

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
PILE LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/01.

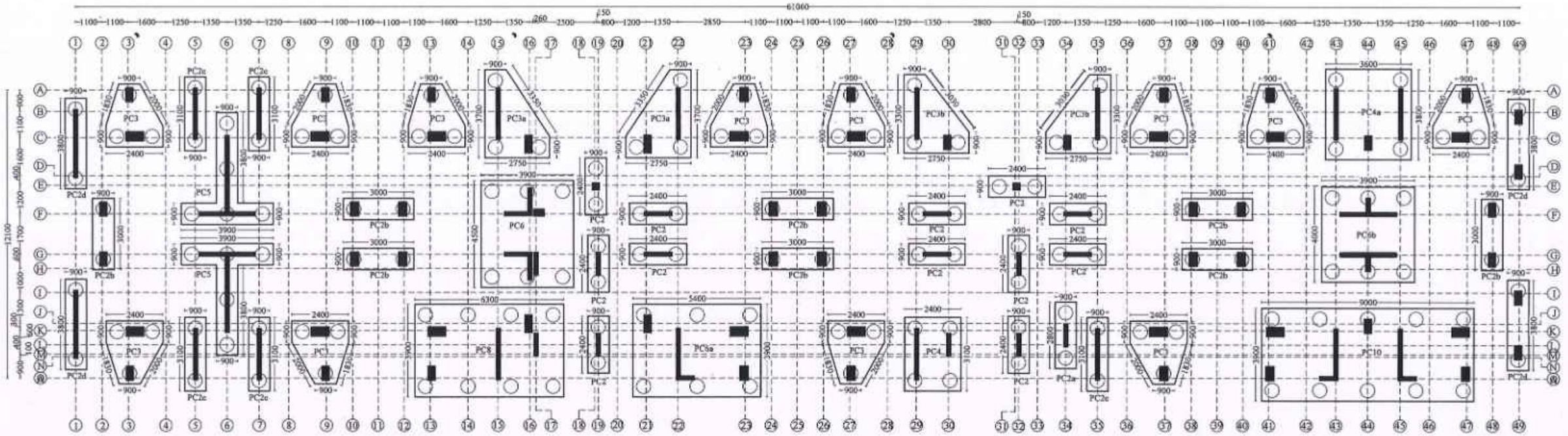
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLAN AT PILE CAP LEVEL



TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

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2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
PLAN AT PILE CAP LEVEL.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/02.

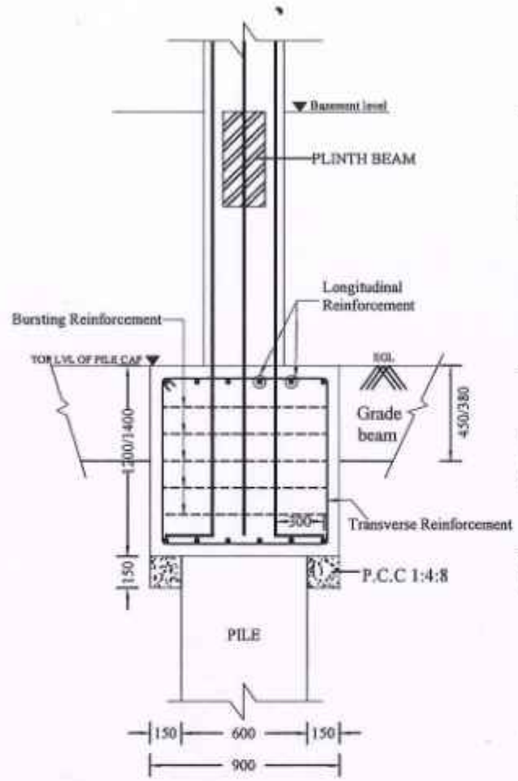
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

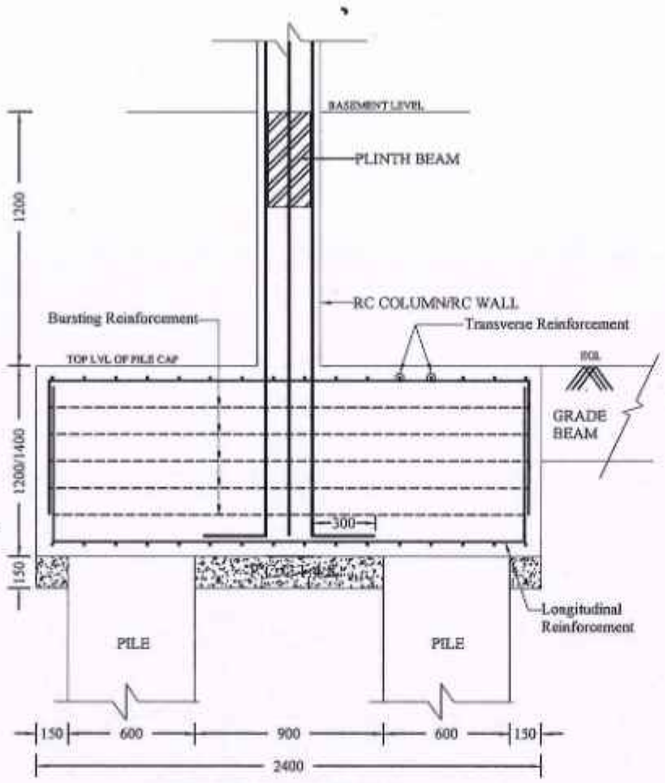
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

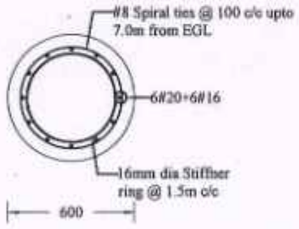
PILE CAP CROSS SECTIONAL DETAILS (TYPICAL) & DETAILS OF PILE.



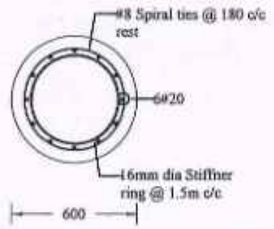
TYPICAL CROSS SECTION



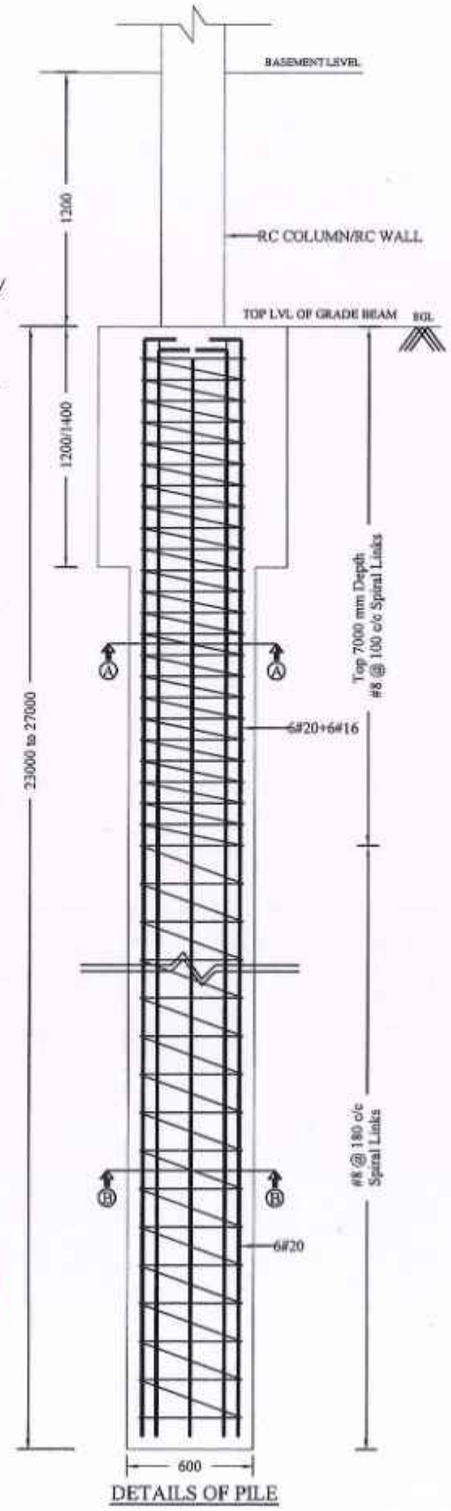
TYPICAL LONGITUDINAL SECTION



C/S OF P-1 @ AA



C/S OF P-1 @ BB



DETAILS OF PILE

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD

17/06/25

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE CAP CROSS SECTIONAL DETAILS (TYPICAL) & DETAILS OF PILE.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/03.

REVISION NO.:

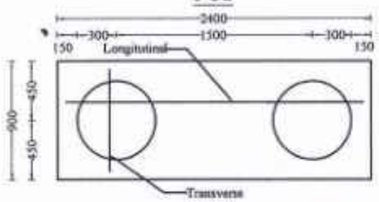
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

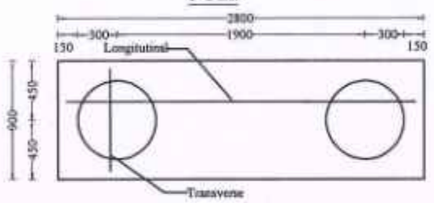
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PILE CAP DETAILS

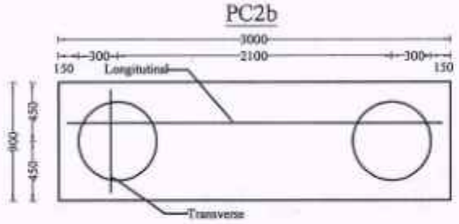
PC2



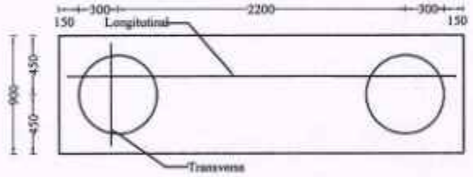
PC2a



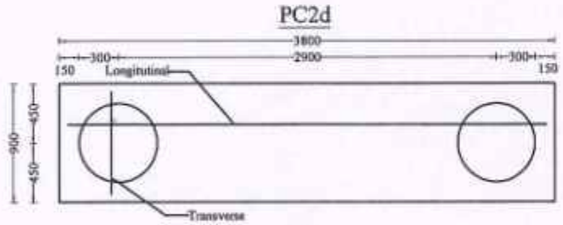
PC2b



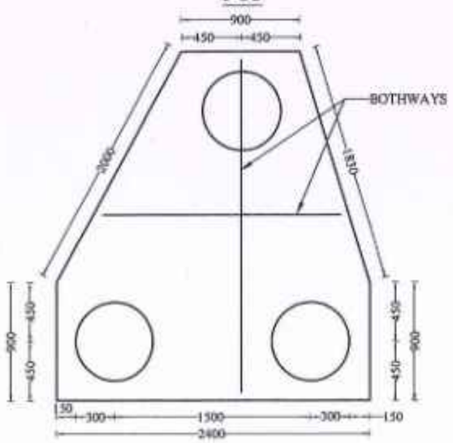
PC2c



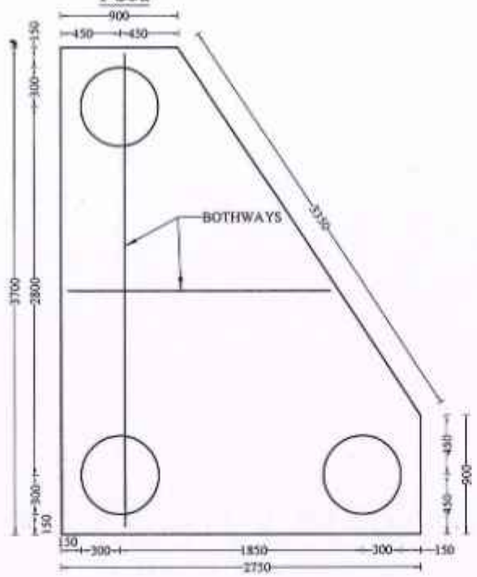
PC2d



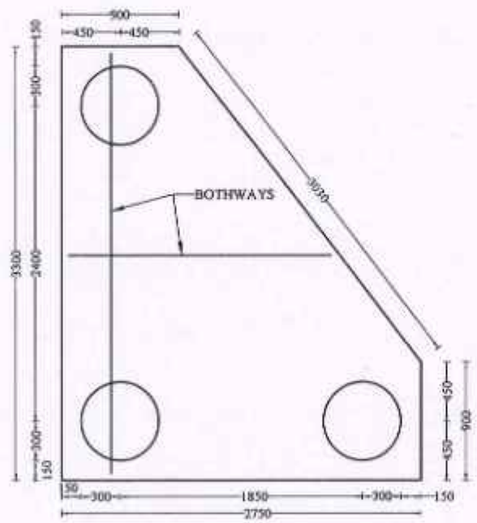
PC3



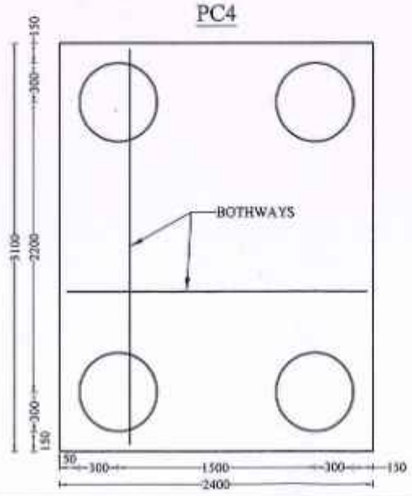
PC3a



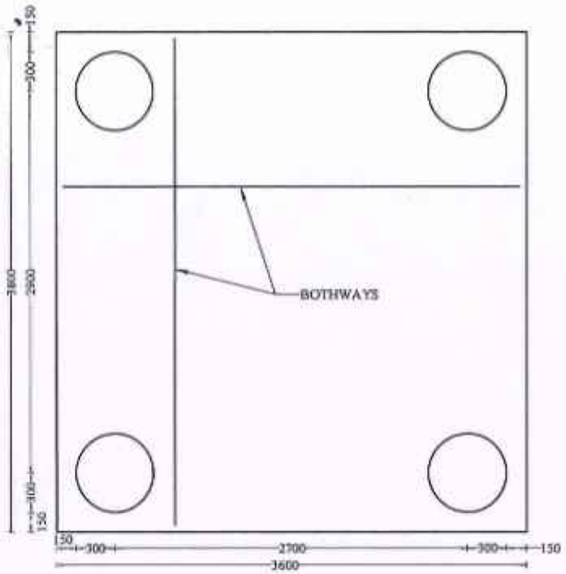
PC3b



PC4



PC4a



PC5

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TRUE COPY
18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE CAP DETAILS .

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/04.

REVISION NO.:

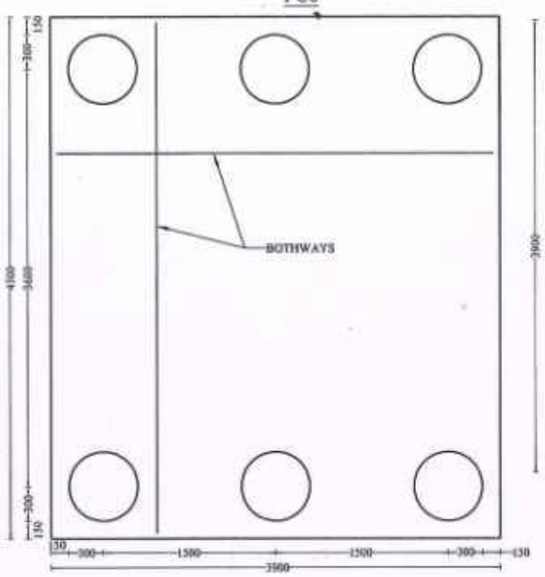
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

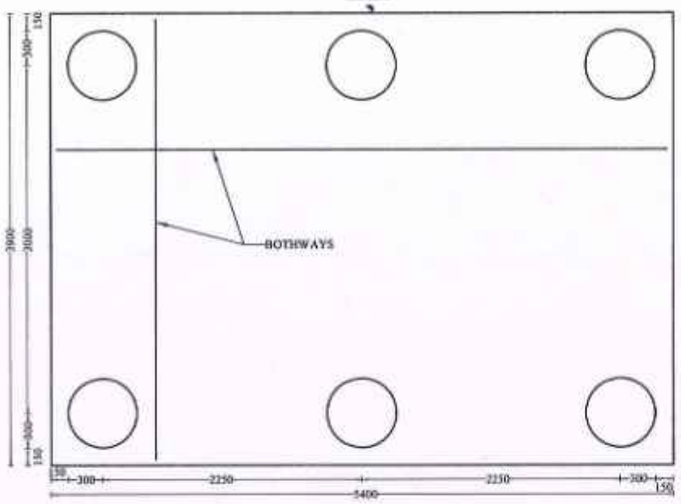
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PILE CAP DETAILS

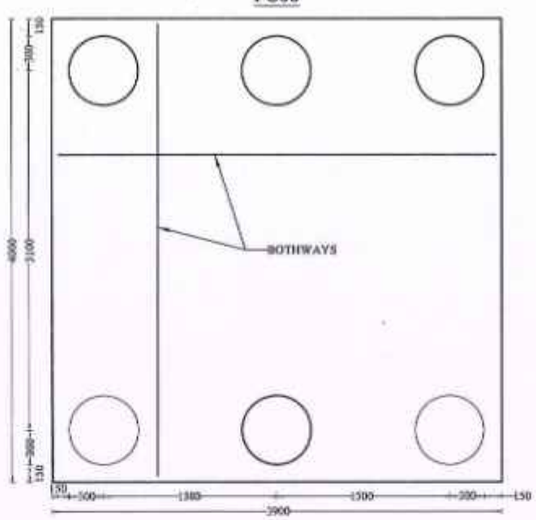
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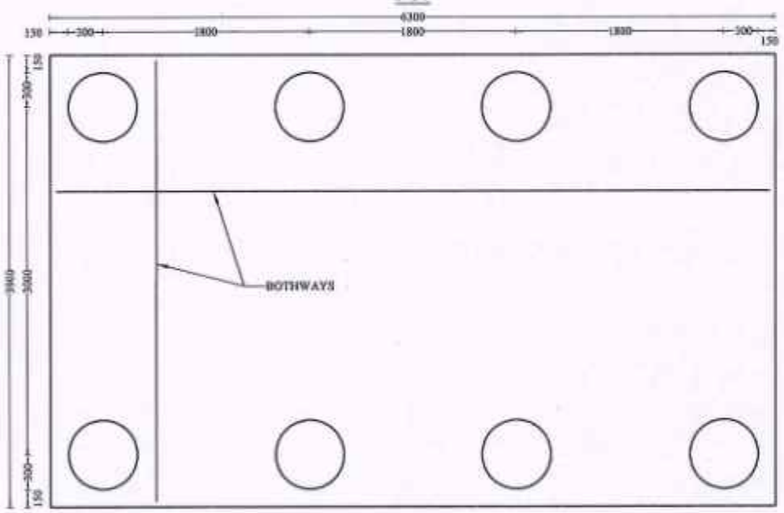
PC6a



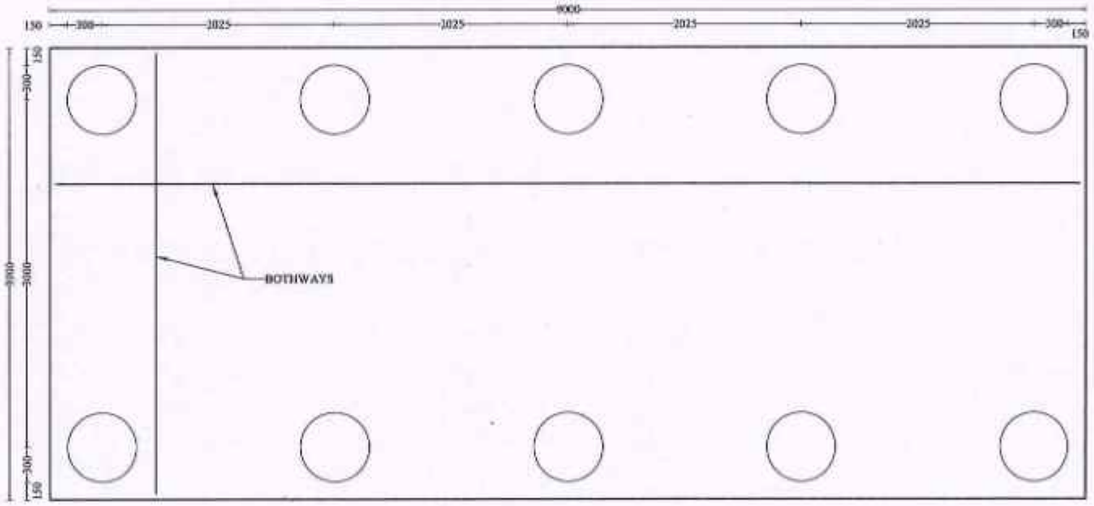
PC6b



PC8



PC10



PILE CAP SCHEDULE							
PILE CAP ID	PILE CAP SIZE (mm)			LONGITUDINAL REINFORCEMENT		TRANSVERSE REINFORCEMENT	BURSTING REINFORCEMENT
	LENGTH	BREATH	DEPTH	TOP	BOTTOM		
PC2	2400	900	1200	8-Nos #20	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2a	2800	900	1200	8-Nos #20	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2b	3000	900	1200	8-Nos #16	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2c	3100	900	1200	8-Nos #20	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC2d	3800	900	1200	8-Nos #20	8-Nos #20	2L- #12 @125 c/c	5-Nos #12
PC3	Refer Drawing		1200	#20@125mmc/c (Bothways)	#20@125mmc/c (Bothways)	--	5-Nos #12
PC3a	Refer Drawing		1200	#20@125mmc/c (Bothways)	#20@125mmc/c (Bothways)	--	5-Nos #12
PC3b	Refer Drawing		1200	#20@125mmc/c (Bothways)	#20@125mmc/c (Bothways)	--	5-Nos #12

PILE CAP SCHEDULE							
PILE CAP ID	PILE CAP SIZE (mm)			LONGITUDINAL REINFORCEMENT		TRANSVERSE REINFORCEMENT	BURSTING REINFORCEMENT
	LENGTH	BREATH	DEPTH	TOP	BOTTOM		
PC4	2400	3100	1200	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	5-Nos #12
PC4a	3600	3800	1200	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	5-Nos #12
PC5	Refer Drawing		1400	8-Nos #20	8-Nos #25	4L- #12 @125 c/c	6-Nos #12
PC6	3900	4500	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12
PC6a	5400	3900	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12
PC6b	3900	4000	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12
PC8	6300	3900	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12
PC10	9000	3900	1400	#20@100mmc/c (Bothways)	#20@100mmc/c (Bothways)	--	6-Nos #12

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TRUE COPY
18/06/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PILE CAP DETAILS .

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/05.

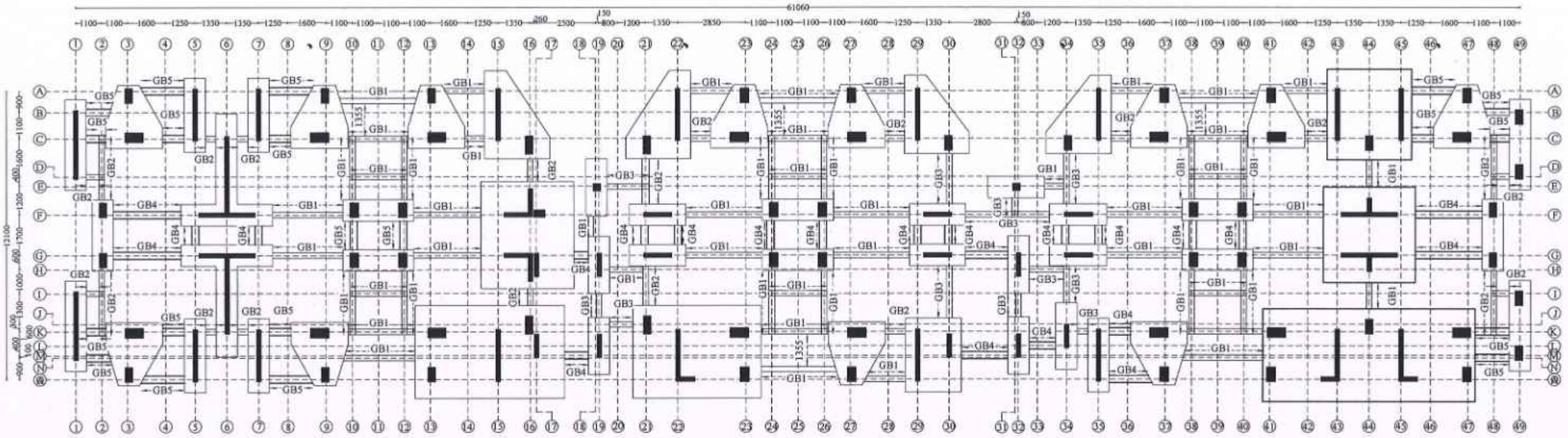
REVISION NO.:

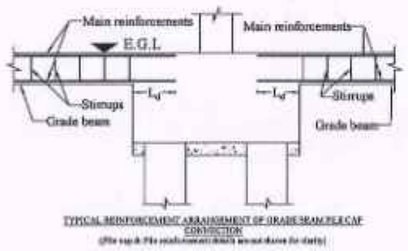
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

GRADE BEAM LAYOUT





TYPICAL REINFORCEMENT ARRANGEMENT OF GRADE BEAM PER CAP CONNECTION

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

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7. Structure is designed for **(PS+11)** floors only.
8. Design of the structure carried out with Limit State Method.
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    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
GRADE BEAM LAYOUT .

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/06.

REVISION NO.:

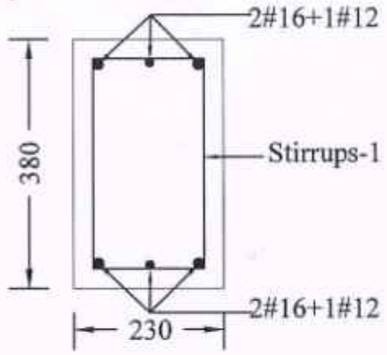
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

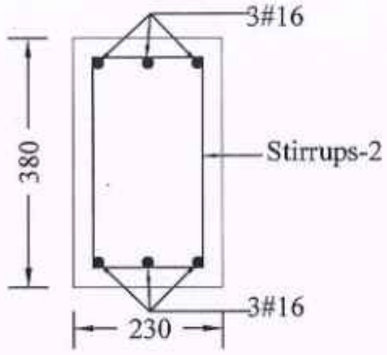
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

GRADE BEAM DETAILS

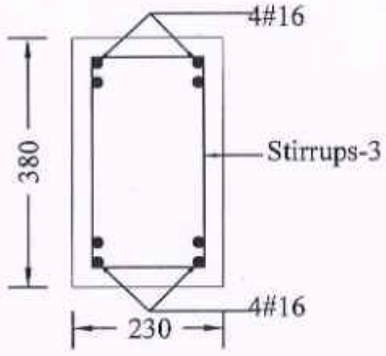
GB1
(230x380)



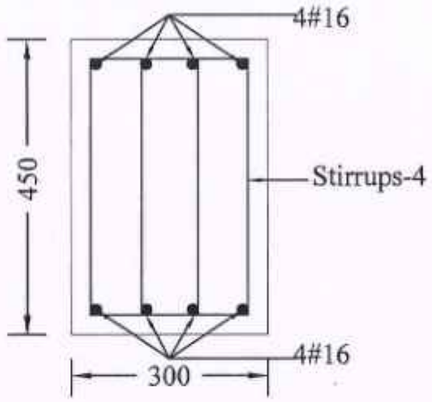
GB2
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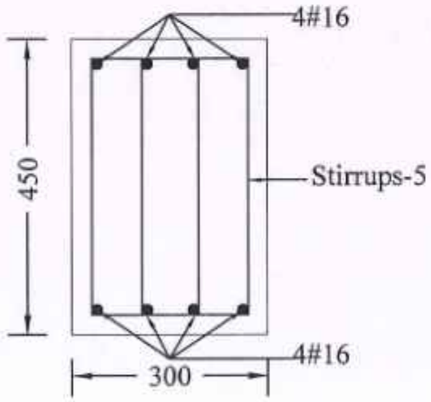
GB3
(230x380)



GB4
(300x450)



GB5
(300x450)



NOTE :

1) Stirrups-1 - 2L#8mm Stirrups @ 100mm c/c throughout the length.
2) Stirrups-2 - 2L#10mm Stirrups @ 100mm c/c throughout the length.
3) Stirrups-3 - 2L#12mm Stirrups @ 100mm c/c throughout the length.
4) Stirrups-4 - 4L#10mm Stirrups @ 100mm c/c throughout the length.
5) Stirrups-5 - 4L#12mm Stirrups @ 100mm c/c throughout the length.

NOTE :

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TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

18/06/25

1-7/06/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
GRADE BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/07.

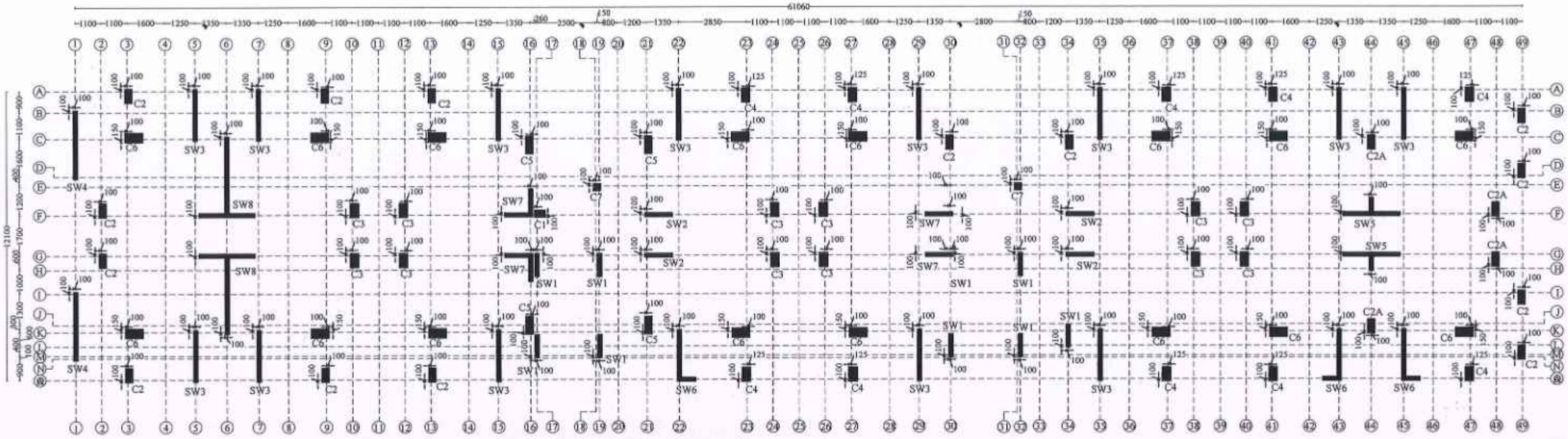
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - UPTO STILT FLOOR



TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT - UPTO STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/08.

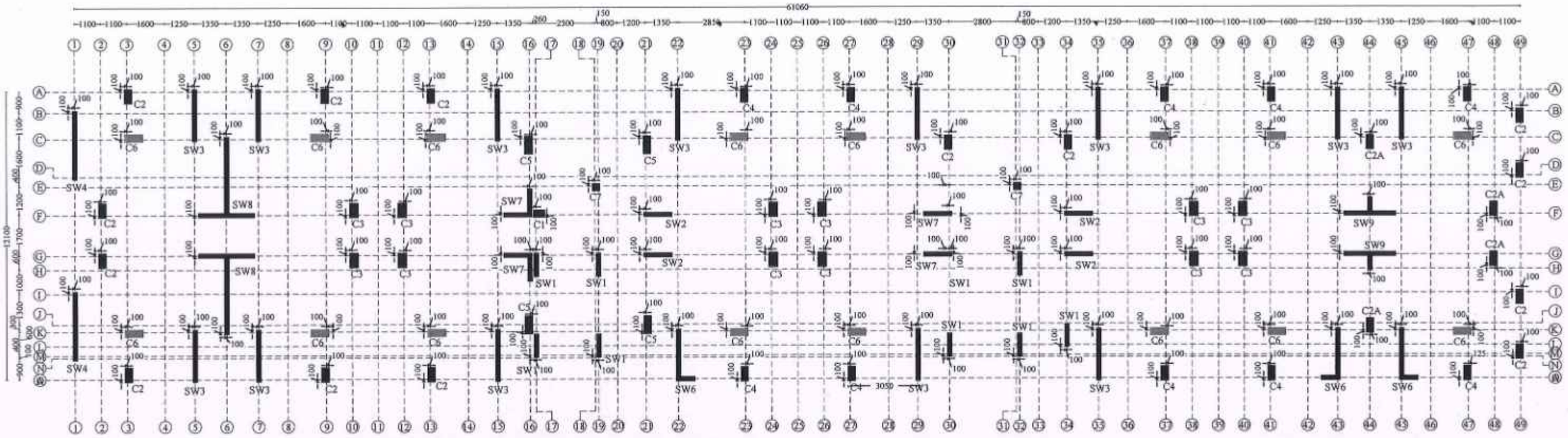
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - ABOVE STILT FLOOR



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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT - ABOVE STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/09.

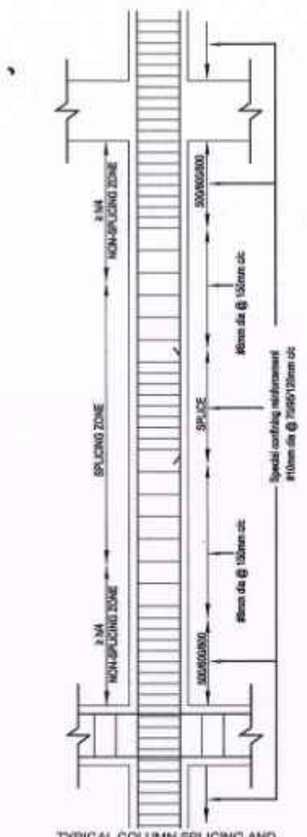
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

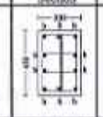
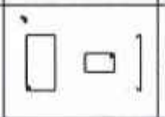
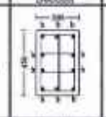
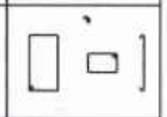
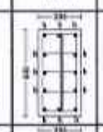
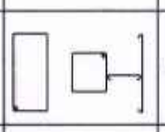
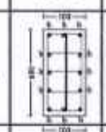
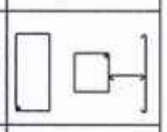
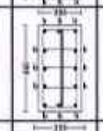
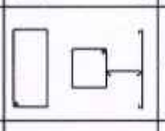
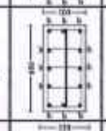
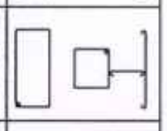
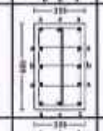
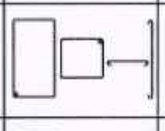
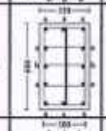
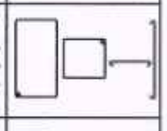
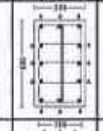
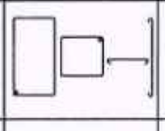
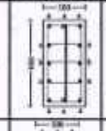
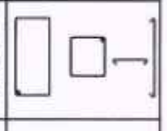
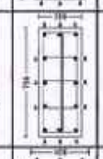
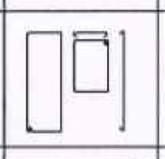
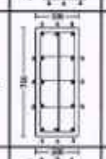
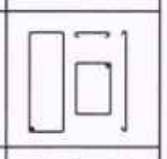
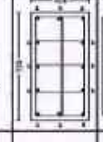
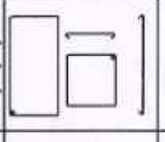
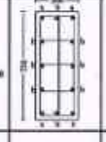
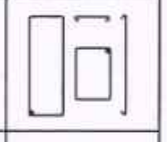
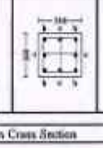
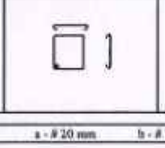
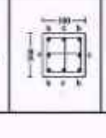
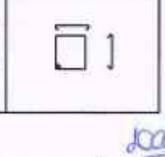
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SCHEDULE OF COLUMNS

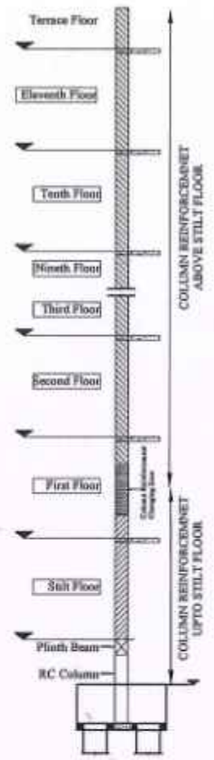


TYPICAL COLUMN SPLICING AND CONFINING REINFORCEMENT DETAILS

Sl.No.	Column Marking	No of Columns	Size		E.G.L to Stilt Floor Column Reinforcement Details			Ties Profile	Above Stilt Floor Column Reinforcement Details			Ties Profile
			Upto Stilt Floor	Above Stilt Floor	Column Verticals	Lateral Ties	Cross Section		Column Verticals	Lateral Ties	Cross Section	
1.	C1	02	300 x 450	300 x 450	# 16 - 10 Nos	1) Upto Plinth beam: #10 @ 70 mm c/c 2) Above Plinth beam: #10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 10 Nos	#10 @ 70 mm c/c for 500 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
2.	C2	14	300 x 600	300 x 600	# 16 - 12 Nos	1) Upto Plinth beam: #10 @ 95 mm c/c 2) Above Plinth beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 12 Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
3.	C2A	04	300 x 600	300 x 600	# 20 - 12 Nos	1) Upto Plinth beam: #10 @ 95 mm c/c 2) Above Plinth beam: #10 @ 93 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 12 Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
4.	C3	12	350 x 600	350 x 600	# 20 - 10Nos + #16 - 2Nos	1) Upto Plinth beam: #10 @ 95 mm c/c 2) Above Plinth beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 10Nos + #16 - 2Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
5.	C4	10	350 x 600	300 x 600	# 20 - 10Nos + #16 - 2Nos	1) Upto Plinth beam: #10 @ 95 mm c/c 2) Above Plinth beam: #10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 10Nos + #16 - 2Nos	#10 @ 95 mm c/c for 600 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
6.	C5	04	300 x 750	300 x 750	# 20 - 12Nos	1) Upto Plinth beam: #10 @ 95 mm c/c 2) Above Plinth beam: #10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 12Nos	#10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
7.	C6	16	400 x 750	300 x 750	# 20 - 12Nos	1) Upto Plinth beam: #10 @ 120 mm c/c 2) Above Plinth beam: #10 @ 120 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 20 - 4Nos + #16 - 8Nos	#10 @ 95 mm c/c for 800 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		
8.	C7	02	300 x 300	300 x 300	# 16 - 4Nos + #12 - 4Nos	1) Upto Plinth beam: #8 @ 75 mm c/c 2) Above Plinth beam: #8 @ 75 mm c/c for 450 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c			# 16 - 4Nos + #12 - 4Nos	#8 @ 75 mm c/c for 450 mm at top and bottom near beam - column junction & lapping zone and the rest #8 @ 150mm c/c		

NOTE:
1. For Varying Column Size details refer drawing TNUHDB/EAST CEMENTRY ROAD/GEN/01.

Notes: In Cross Section a - # 20 mm b - # 16 mm c - # 12 mm



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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SCHEDULE OF COLUMNS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/10.

REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

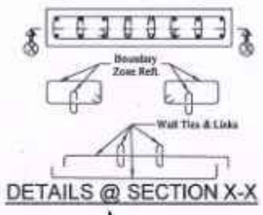
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

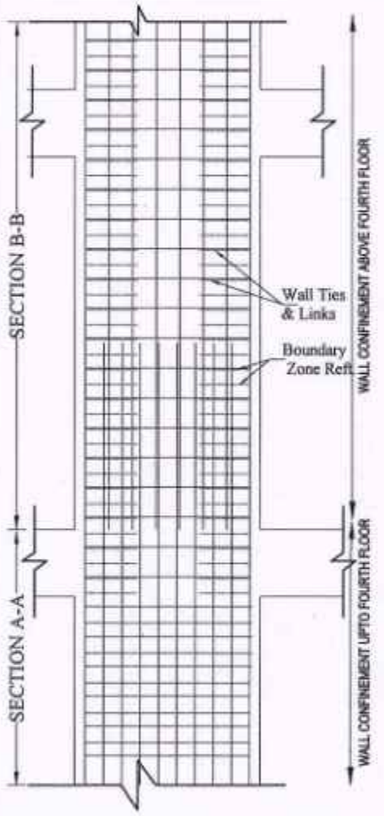
SHEAR WALL DETAILS-1

TYPICAL SHEAR WALL CONFINING REINFORCEMENT DETAILS

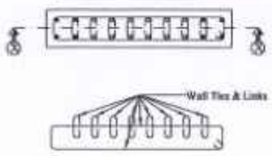
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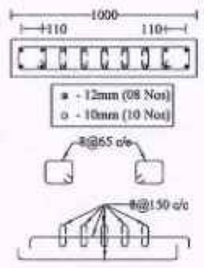
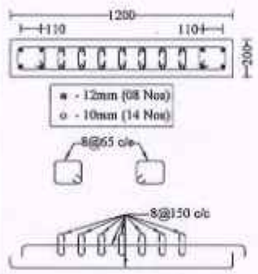
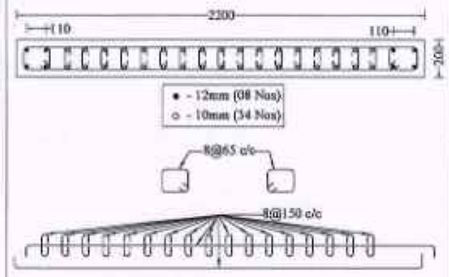
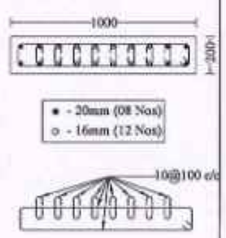
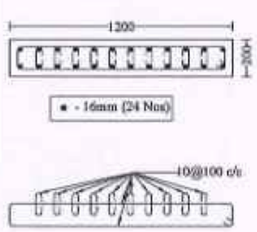
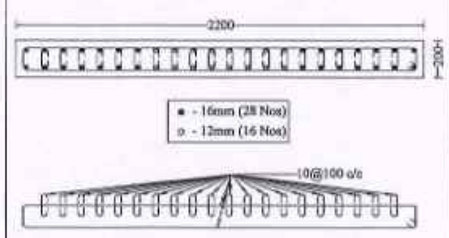


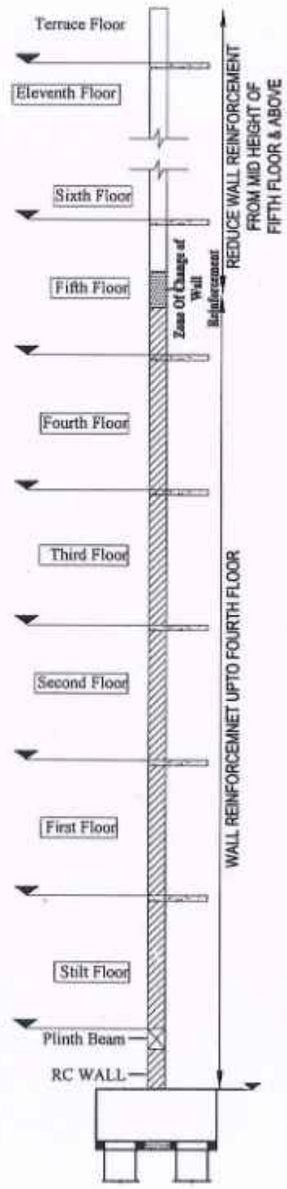
DETAILS @ SECTION X-X



SECTION A-A



Curtailments Levels	SW1 (08 Nos)	SW2 (06 Nos)	SW3 (12 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)			
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)			



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
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    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
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TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI - 600 005.
18/06/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-1.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/11.

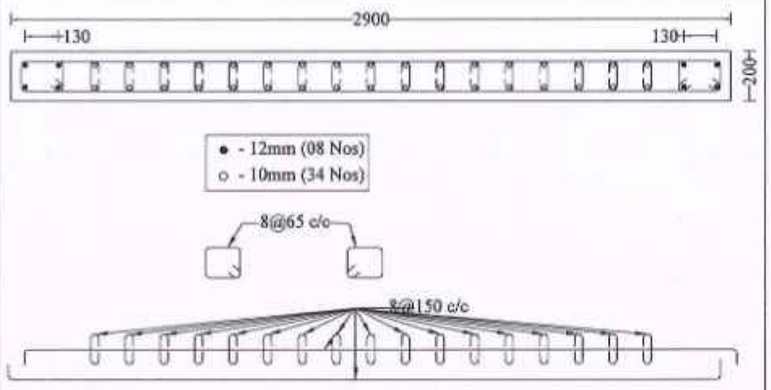
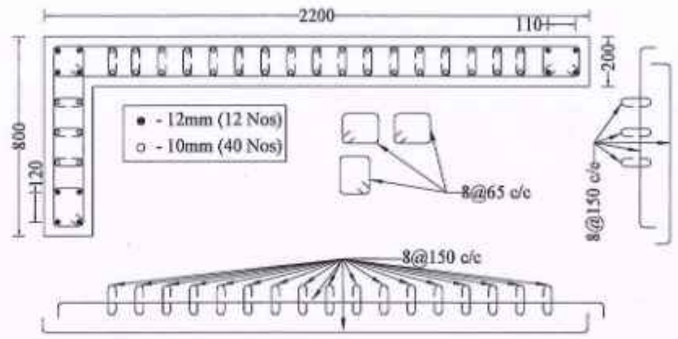
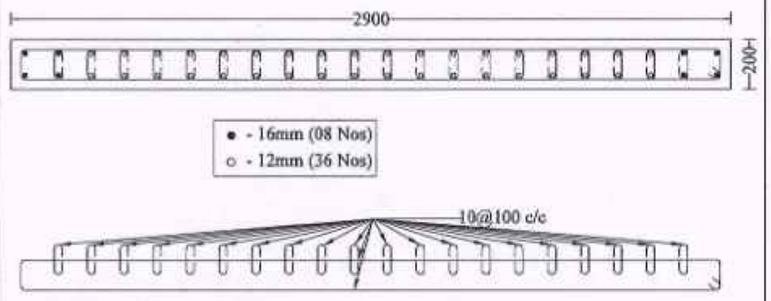
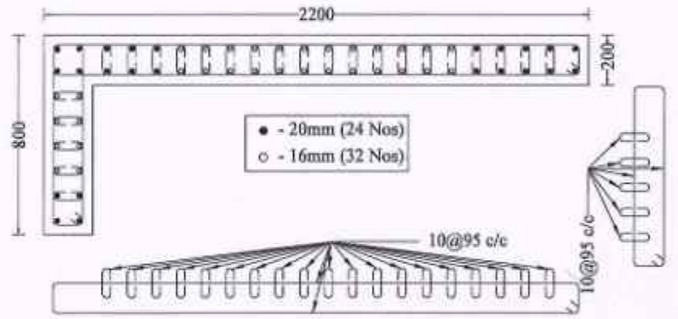
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

SHEAR WALL DETAILS-2

Curtailments Levels	SW4 (02 Nos)	SW6 (02 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)		
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)		

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI, CHENNAI-600 005

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-2.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/12.

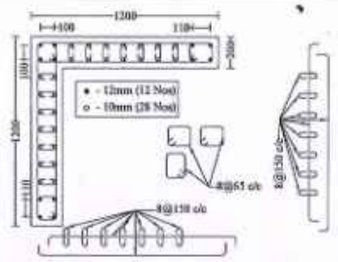
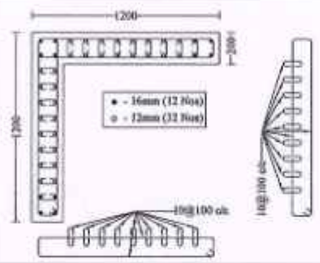
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

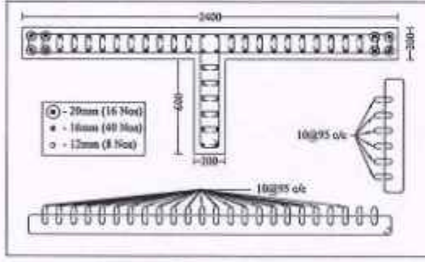
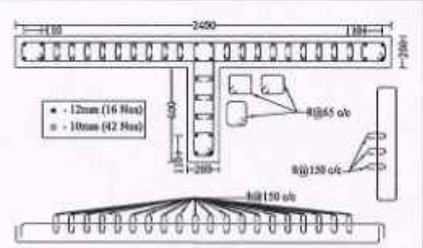
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

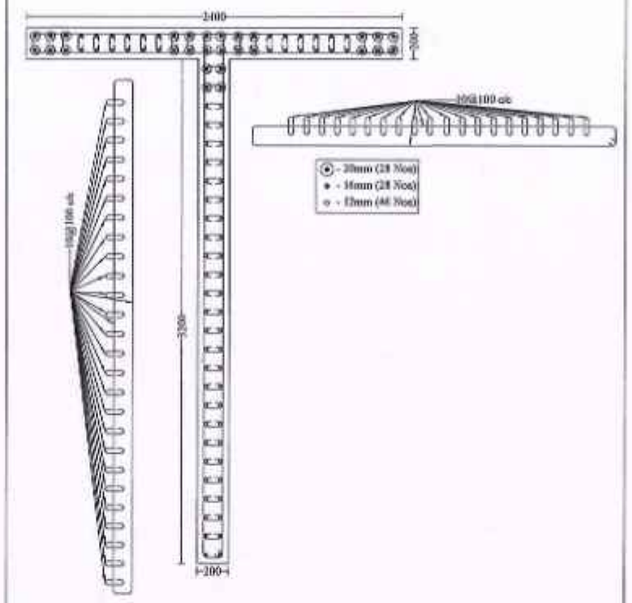
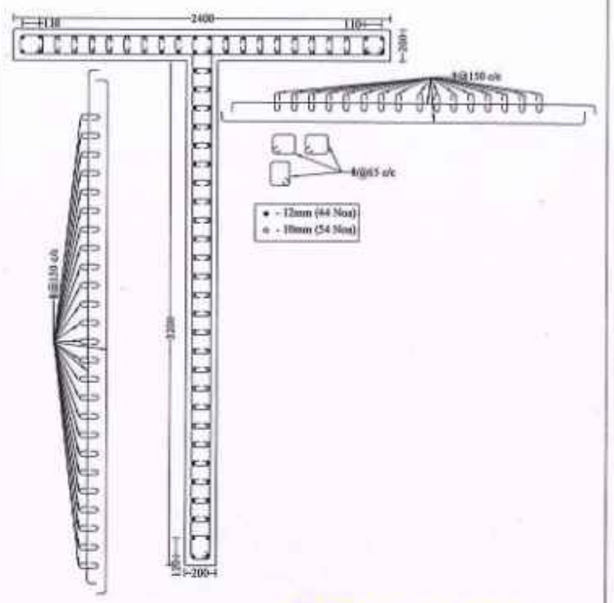
SHEAR WALL DETAILS-3

Curtailments Levels	SW7 (02 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)	
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)	

SW5 (02 Nos)

Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)	Above 4th Floor level (Bar Curtailment at mid height of 5th floor)
	

SW8 (02 Nos)

Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)	Above 4th Floor level (Bar Curtailment at mid height of 5th floor)
	

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
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7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-3.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/13.

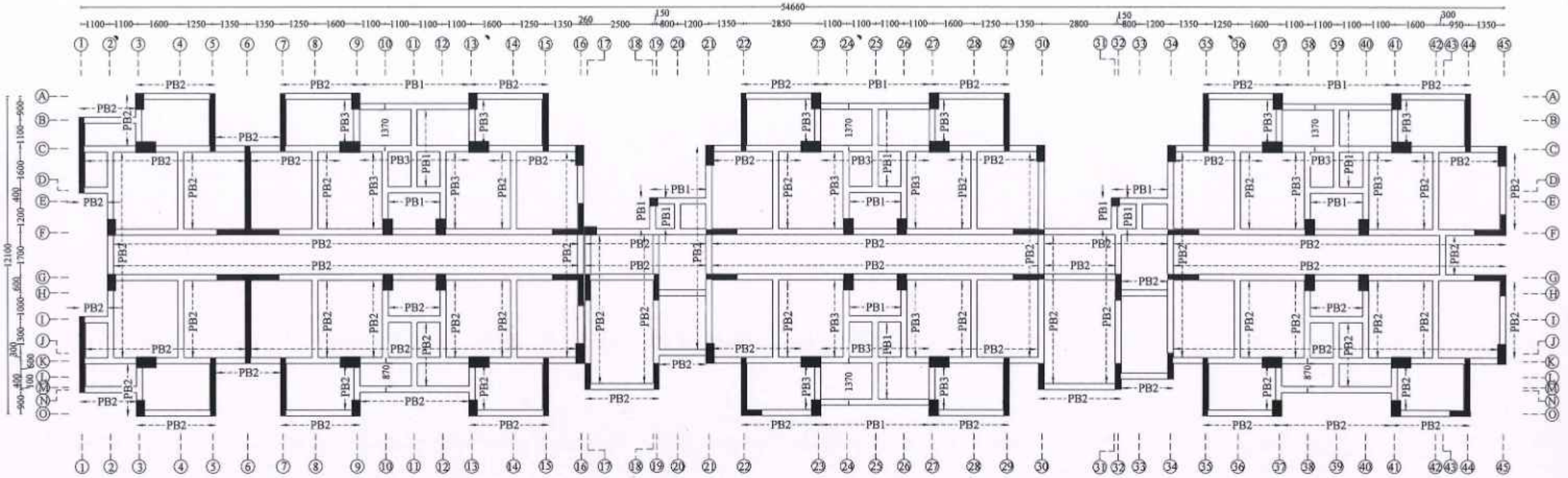
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLINTH BEAM LAYOUT



TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
PLINTH BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/14.

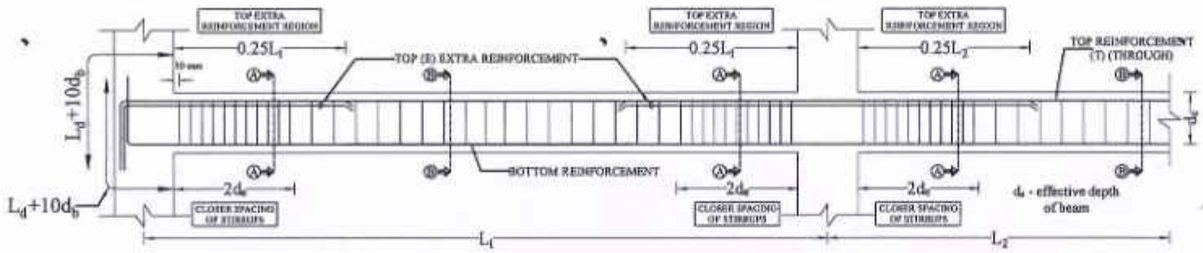
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



PLINTH BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	PB1 230 x 350	3#12; 350; 2L-#8@75mm c/c for 700mm length from column face; 3#12; 230	3#12; 350; 2L-#8@150 mm c/c; 3#12; 230
2.	PB2 230 x 450	2#16; 450; 2L-#8@75mm c/c for 900mm length from column face; 2#16; 230	2#16; 450; 2L-#8@150 mm c/c; 2#16; 230
3.	PB3 230 x 550	2#16; 550; 2L-#8@75mm c/c for 1100mm length from column face; 2#16; 230	2#16; 550; 2L-#8@150 mm c/c; 2#16; 230

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TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

18/06/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLINTH BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/15.

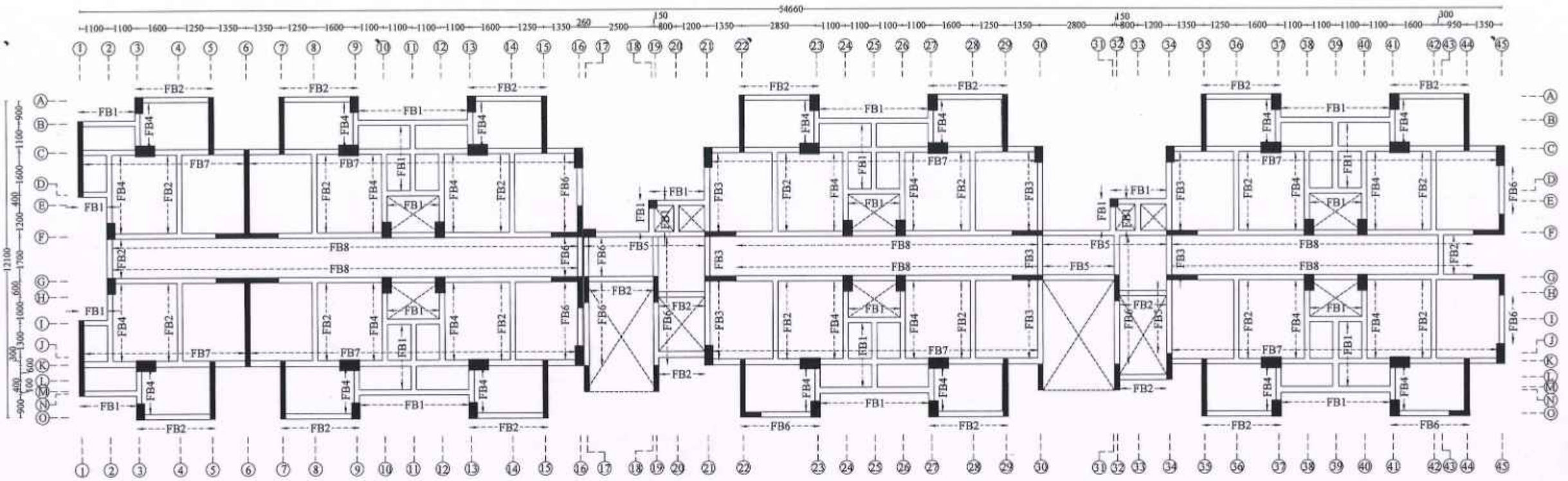
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PARTIAL STILT & 1st FLOOR BEAM LAYOUT



TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

18/06/25

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
PARTIAL STILT & 1st FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/16.

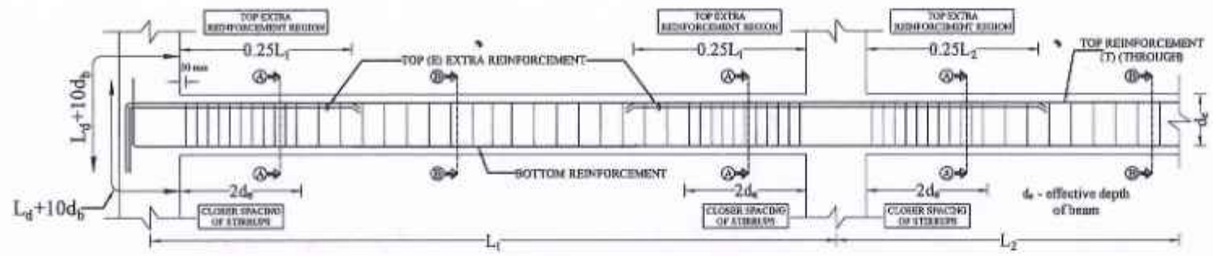
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



P.S & 1st FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16 2L-#8@75mm c/c for 700mm length from column face 2#16 350 200	2#16 2L-#8@100 mm c/c 2#16 350 200
2.	FB2 200 x 550	2#16 2L-#8@75mm c/c for 1100mm length from column face 2#16 350 200	2#16 2L-#8@150 mm c/c 2#16 350 200
3.	FB3 200 x 550	2#16(T)+2#12(E) 2L-#10@75mm c/c for 1100mm length from column face 2#16 550 200	2#16(T) 2L-#10@125 mm c/c 2#16 550 200
4.	FB4 200 x 550	2#16(T)+2#12(E) 2L-#10@75mm c/c for 1100mm length from column face 2#16+2#12 550 200	2#16(T) 2L-#10@125 mm c/c 2#16+2#12 550 200
5.	FB5 200 x 550	2#16(T)+2#16(E) 2L-#10@75mm c/c for 1100mm length from column face 4#16 550 200	2#16(T) 2L-#10@125 mm c/c 4#16 550 200
6.	FB6 200 x 550	2#20(T)+2#16(E) 2L-#10@75mm c/c for 1100mm length from column face 2#20+2#16 550 200	2#20(T) 2L-#10@125 mm c/c 2#20+2#16 550 200
7.	FB7 200 x 600	2#16(T)+2#16(E) 2L-#10@75mm c/c for 1200mm length from column face 2#16+2#12 600 200	2#16(T) 2L-#10@150 mm c/c 2#16+2#12 600 200
8.	FB8 200 x 600	2#20(T)+2#16(E) 2L-#10@75mm c/c for 1200mm length from column face 2#16+2#12 600 200	2#20(T) 2L-#10@150 mm c/c 2#16+2#12 600 200

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PARTIAL STILT & 1st FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/17.

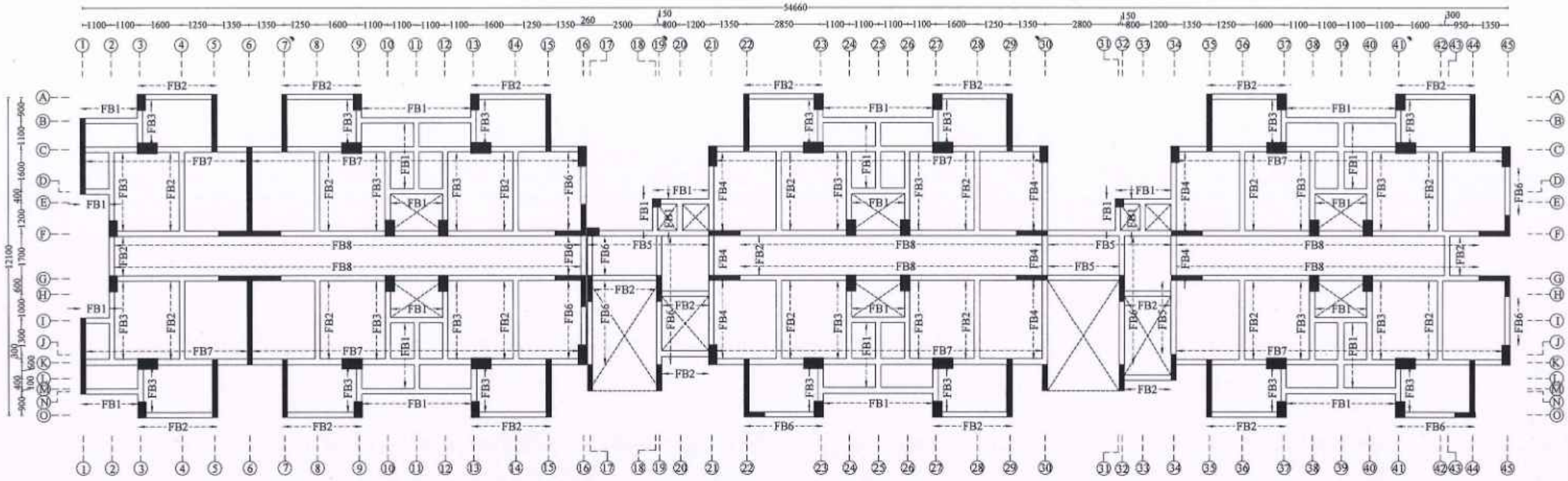
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

2nd TO 6th FLOOR BEAM LAYOUT



TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY-CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/18.

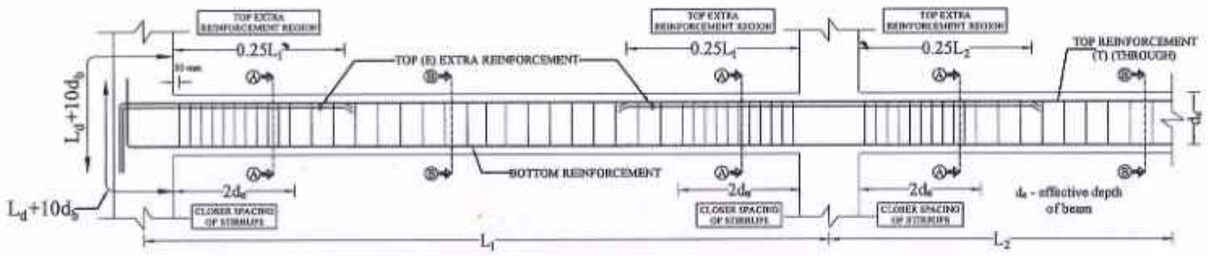
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



2nd TO 6th FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16 2L-#8@75mm c/c for 700mm length from column face 350 2#16 200	2#16 2L-#8@125 mm c/c 350 2#16 200
2.	FB2 200 x 550	2#16 2L-#8@75mm c/c for 1100mm length from column face 550 2#16 200	2#16 2L-#8@150 mm c/c 550 2#16 200
3.	FB3 200 x 550	2#16(T)+2#12(E) 2L-#10@75mm c/c for 1100mm length from column face 550 2#16+2#12 200	2#16(T) 2L-#10@125 mm c/c 550 2#16+2#12 200
4.	FB4 200 x 550	4#16 2L-#10@75mm c/c for 1100mm length from column face 550 2#16+2#12 200	4#16 2L-#10@100 mm c/c 550 2#16+2#12 200
5.	FB5 200 x 550	2#20(T)+2#16(E) 2L-#10@75mm c/c for 1100mm length from column face 550 4#16 200	2#20(T) 2L-#10@120 mm c/c 550 4#16 200

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB6 200 x 550	2#20(T)+2#16(E) 2L-#10@75mm c/c for 1100mm length from column face 550 2#20+2#16 200	2#20(T) 2L-#10@125 mm c/c 550 2#20+2#16 200
7.	FB7 200 x 600	2#20(T)+2#16(E) 2L-#10@75mm c/c for 1200mm length from column face 600 2#16+2#12 200	2#20(T) 2L-#10@150 mm c/c 600 2#16+2#12 200
8.	FB8 200 x 600	2#20(T)+2#16(E) 2L-#8@75mm c/c for 1200mm length from column face 600 2#16+2#12 200	2#20(T) 2L-#8@120 mm c/c 600 2#16+2#12 200

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/19.

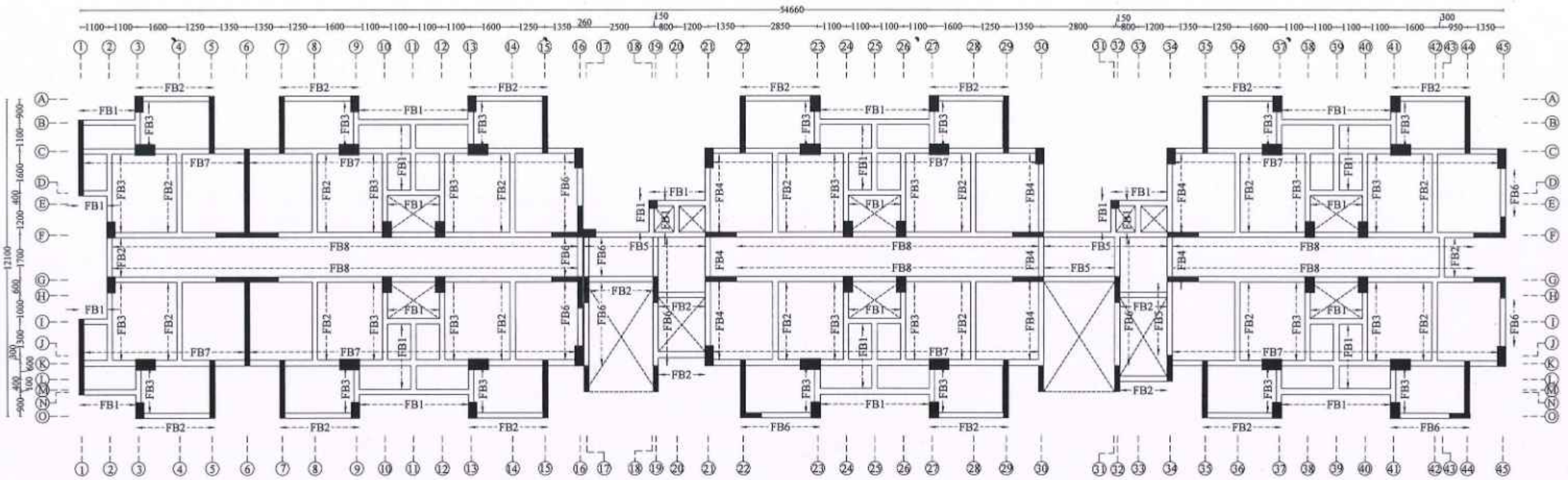
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

7th TO 10th FLOOR BEAM LAYOUT



TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
7th TO 10th FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/20.

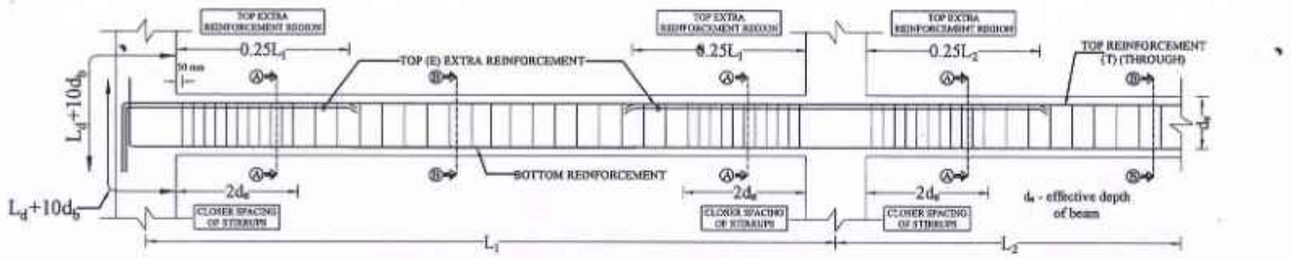
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

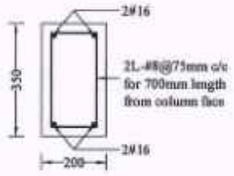
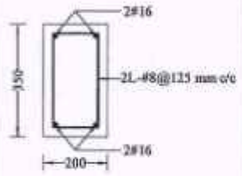
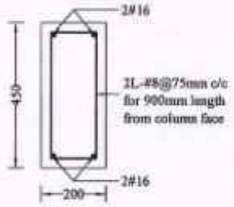
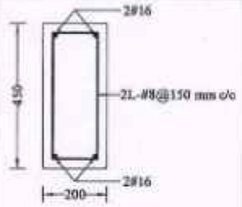
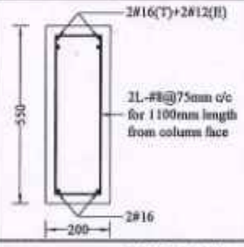
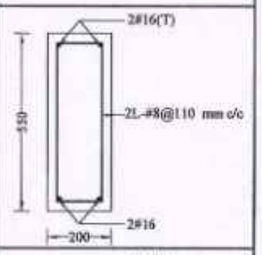
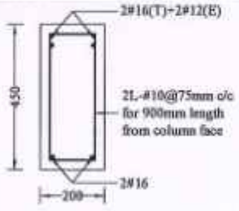
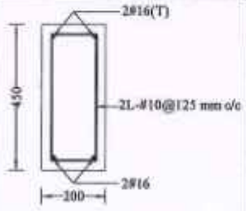
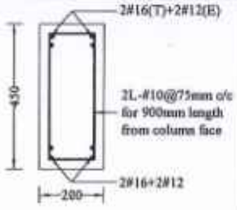
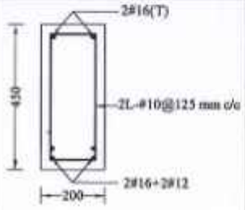
sd.xxxx 16.06.2025
Chief Engineer

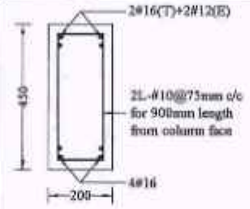
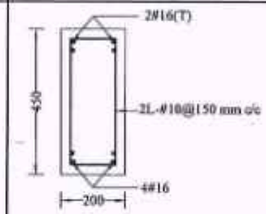
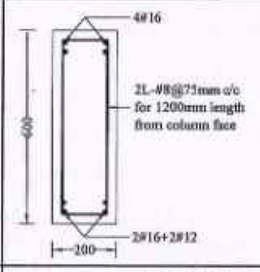
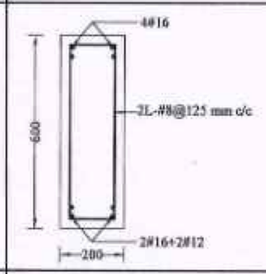
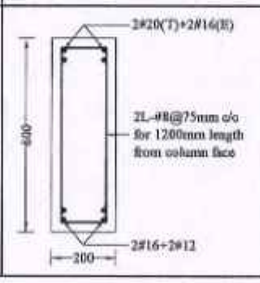
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



7th TO 10th FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350		
2.	FB2 200 x 450		
3.	FB3 200 x 550		
4.	FB4 200 x 450		
5.	FB5 200 x 450		

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB6 200 x 450		
7.	FB7 200 x 600		
8.	FB8 200 x 600		

NOTE :

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3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
7th TO 10th FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/21.

REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

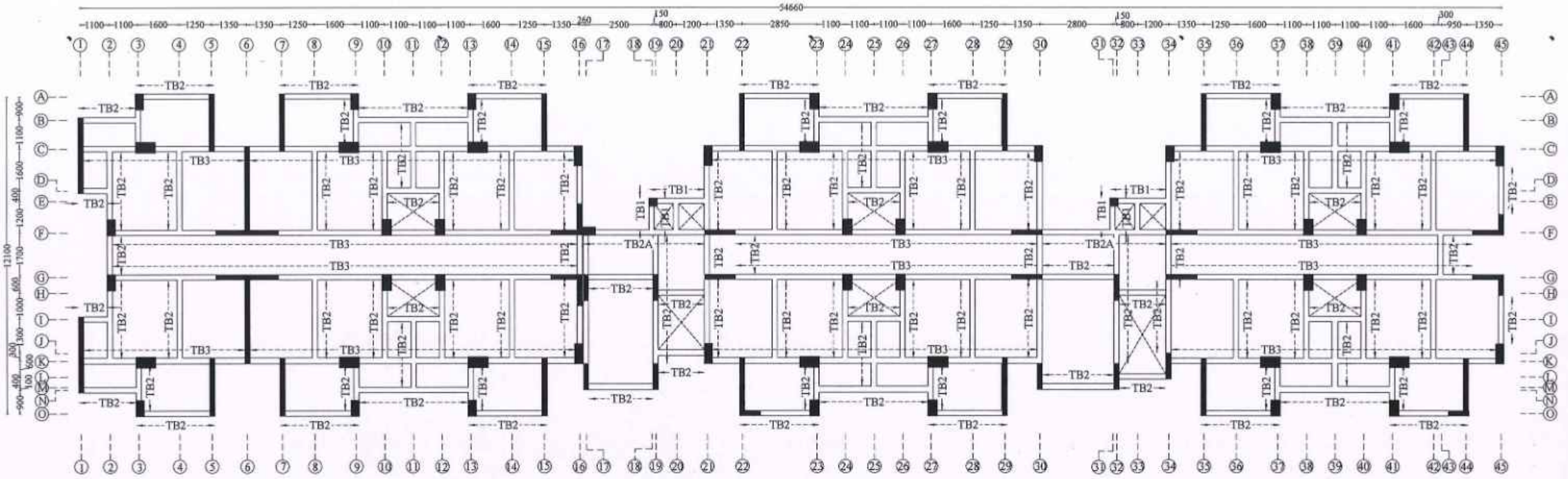
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005

18/06/25

TERRACE FLOOR BEAM LAYOUT



TRUE COPY

18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/22.

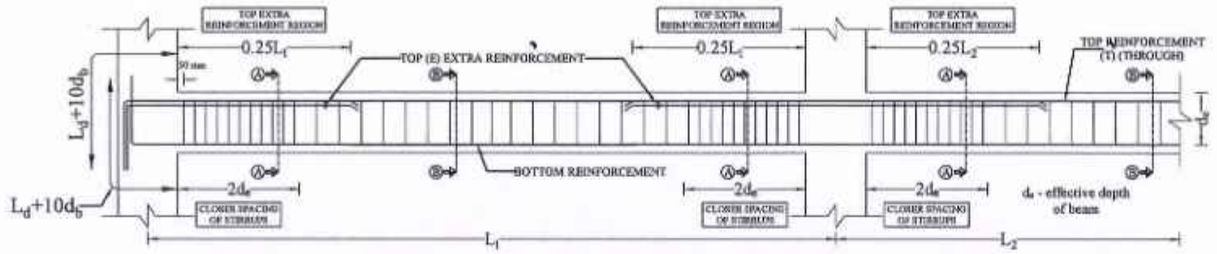
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



TERRACE FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
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2.	TB2 200 x 450	2#16 450 2L-#8@75mm c/c for 900mm length from column face 2#16 200	2#16 450 2L-#8@125 mm c/c 2#16 200
3.	TB2A 200 x 450	2#16 450 2L-#8@95 mm c/c 2#16 200	2#16 450 2L-#8@95 mm c/c 2#16 200
4.	TB3 200 x 600	2#16(T)+2#12(E) 600 2L-#8@75mm c/c for 1200mm length from column face 2#16 200	2#16(T) 600 2L-#8@125 mm c/c 2#16 200

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    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

18/06/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/23.

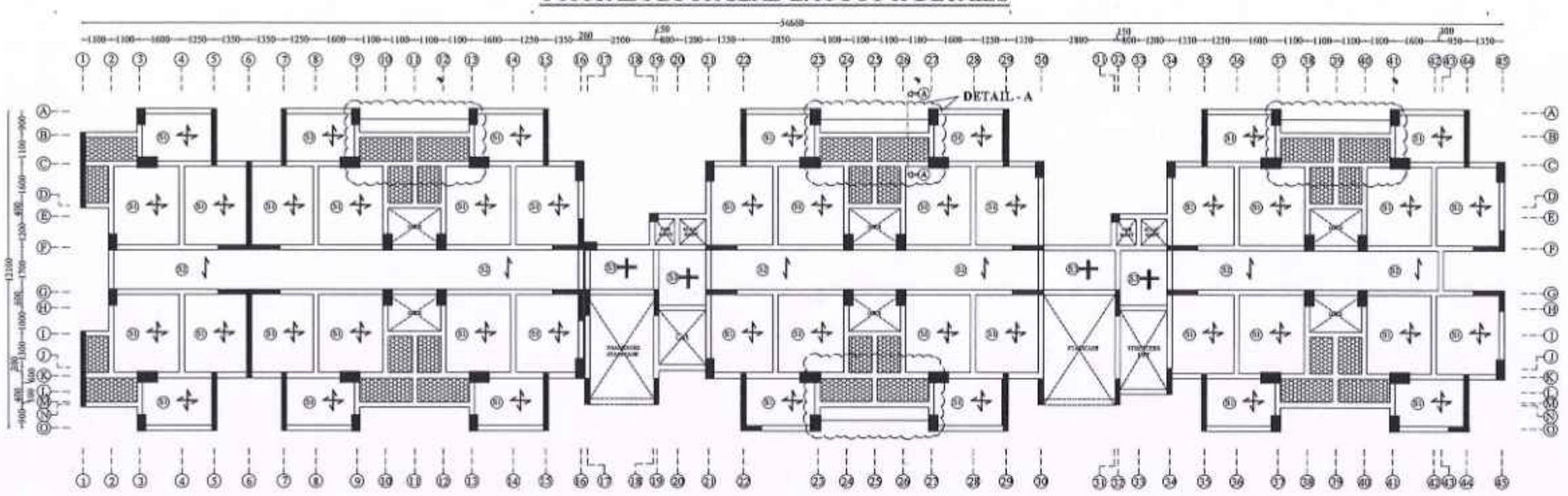
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 16.06.2025
Chief Engineer

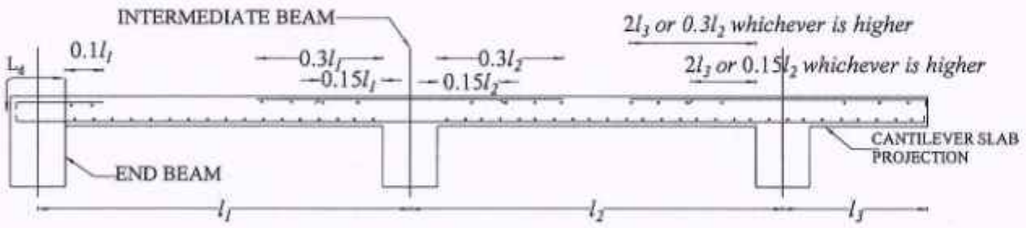
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL FLOOR SLAB LAYOUT & DETAILS

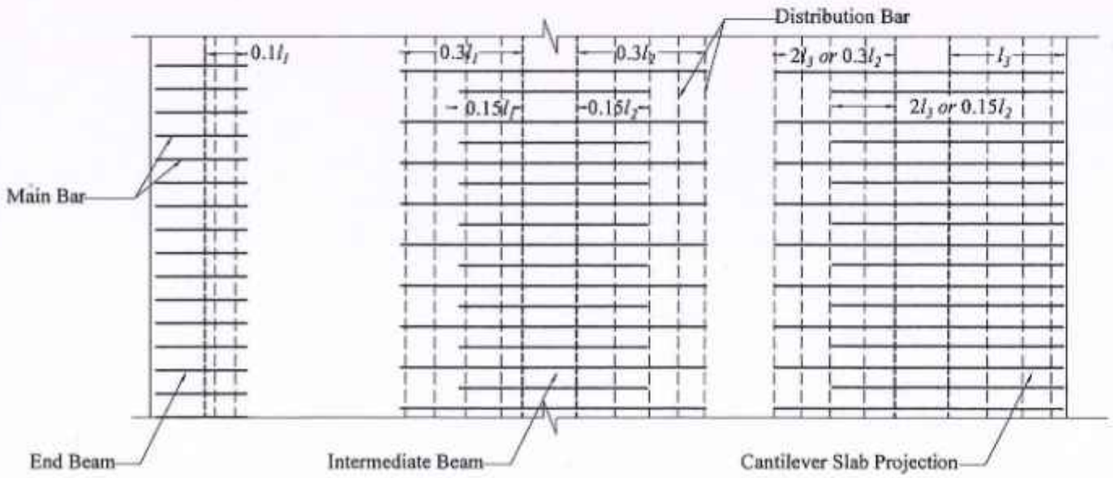


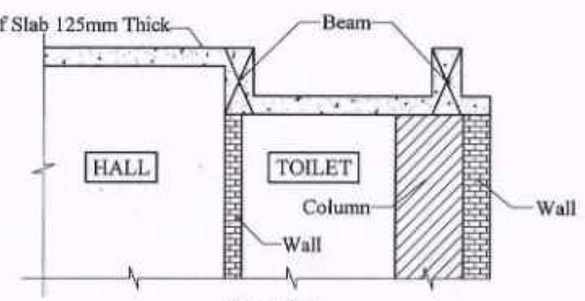
SLAB SUNKEN BY 200mm

SLAB REINFORCEMENT DETAILS									
Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	(S1)		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	(S2)		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	(S3)		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--



TYPICAL SLAB REINFORCEMENT DETAILS





DETAIL A
SECTION ON (A) - (A)
(For Stilt Floor)

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STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 0

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION ,
Dn No.51, ZONE V.

TITLE:
TYPICAL FLOOR SLAB LAYOUT & DETAILS..

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/24.

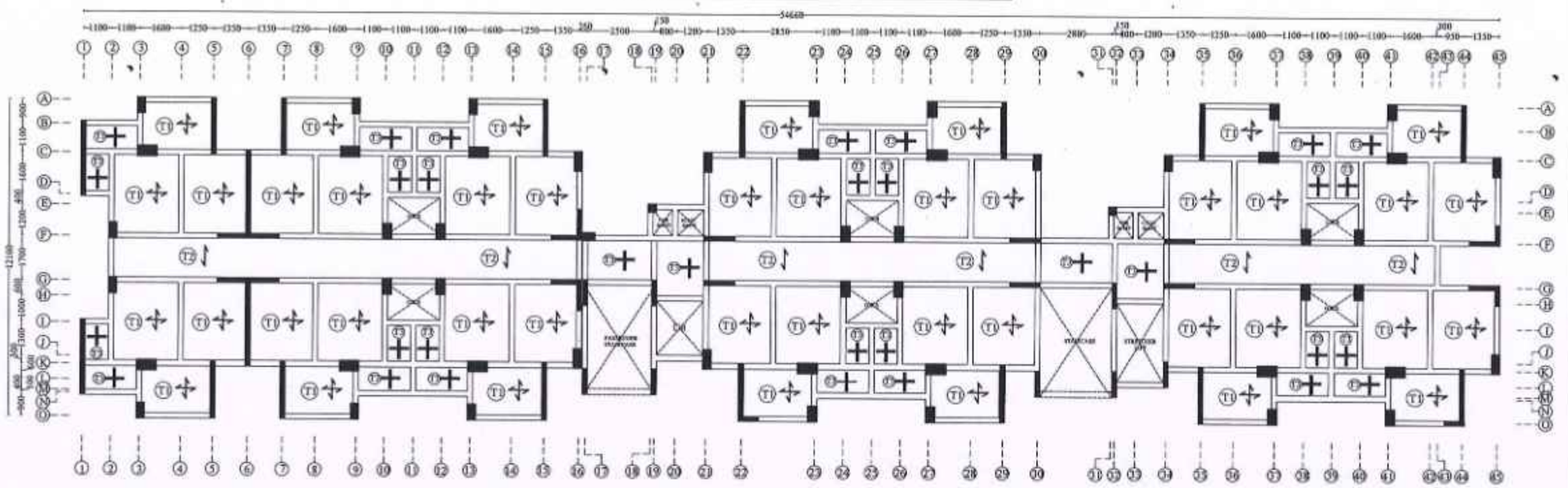
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

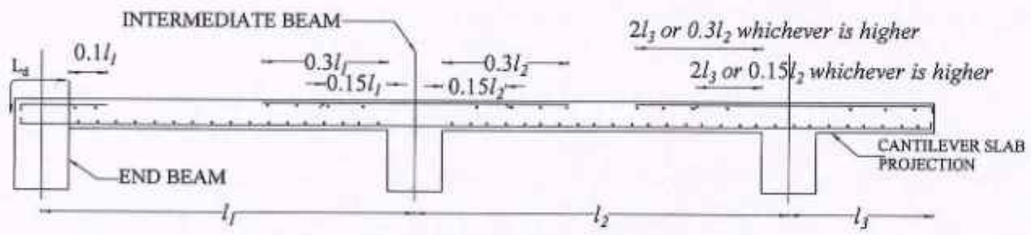
sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

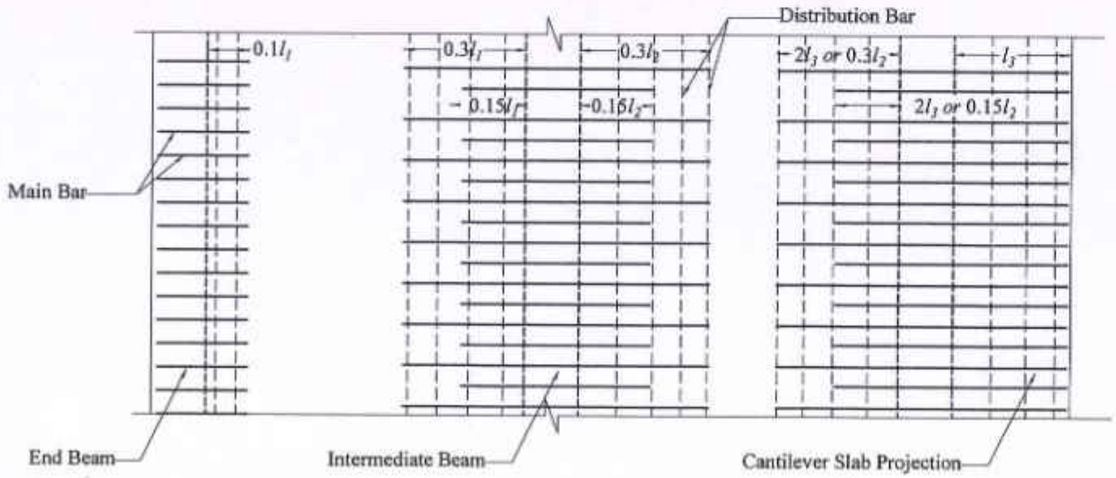
TERRACE FLOOR SLAB LAYOUT & DETAILS



SLAB REINFORCEMENT DETAILS									
Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	T1		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	T2		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	T3		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#10 @ 150 c/c	--



TYPICAL SLAB REINFORCEMENT DETAILS



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18/06/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 0

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR SLAB LAYOUT & DETAILS..

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/25.

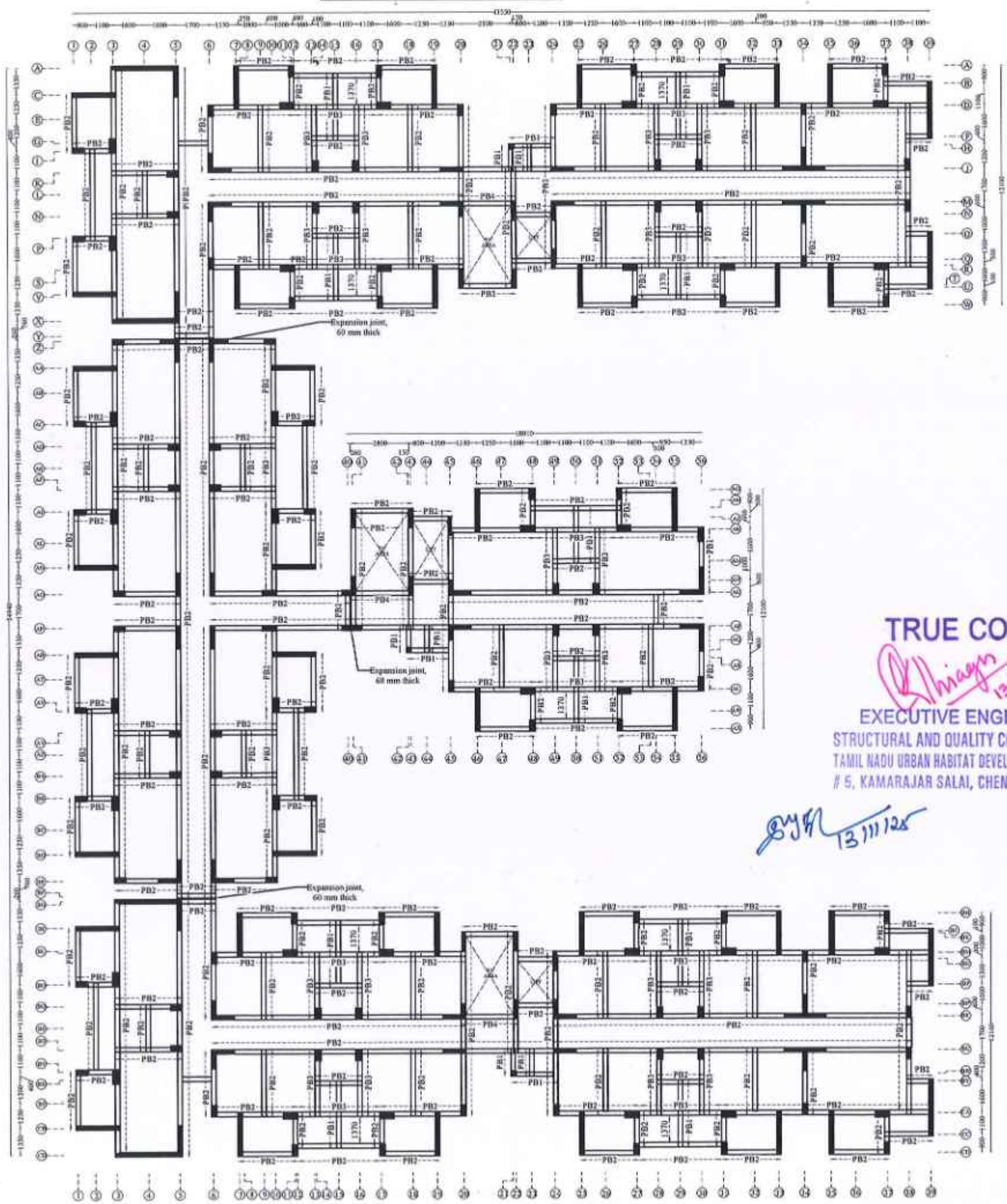
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 16.06.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLINTH BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLINTH BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/15.

REVISION NO.:

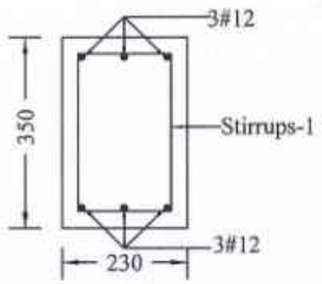
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

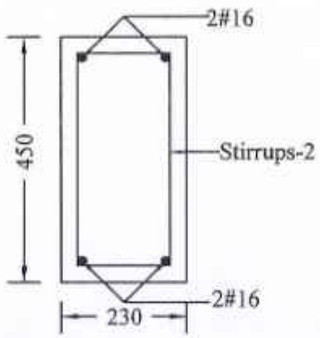
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLINTH BEAM DETAILS

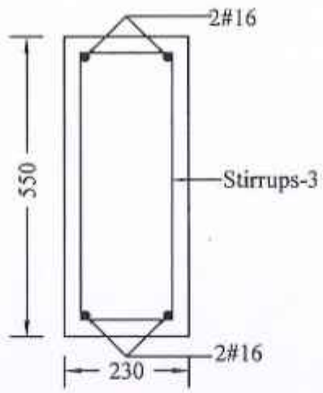
PB1
(230 x 350)



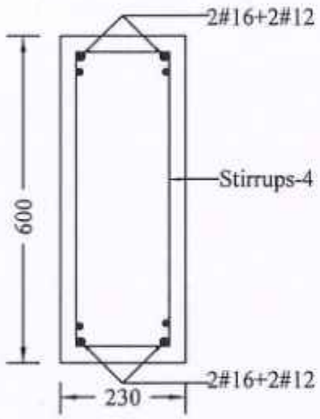
PB2
(230 x 450)



PB3
(230 x 550)



PB4
(230 x 600)



NOTE:

1. **Stirrups-1 :** 2 Legged # 8 mm stirrups at 75 mm c/c for 700 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
2. **Stirrups-2 :** 2 Legged # 8 mm stirrups at 100 mm c/c for 900 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
3. **Stirrups-3 :** 2 Legged # 8 mm stirrups at 100 mm c/c for 1100 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.
4. **Stirrups-4 :** 2 Legged # 8 mm stirrups at 100 mm c/c for 1200 mm length on all sides near Beam - Column junctions and the rest at 125 mm c/c.

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13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLINTH BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/16.

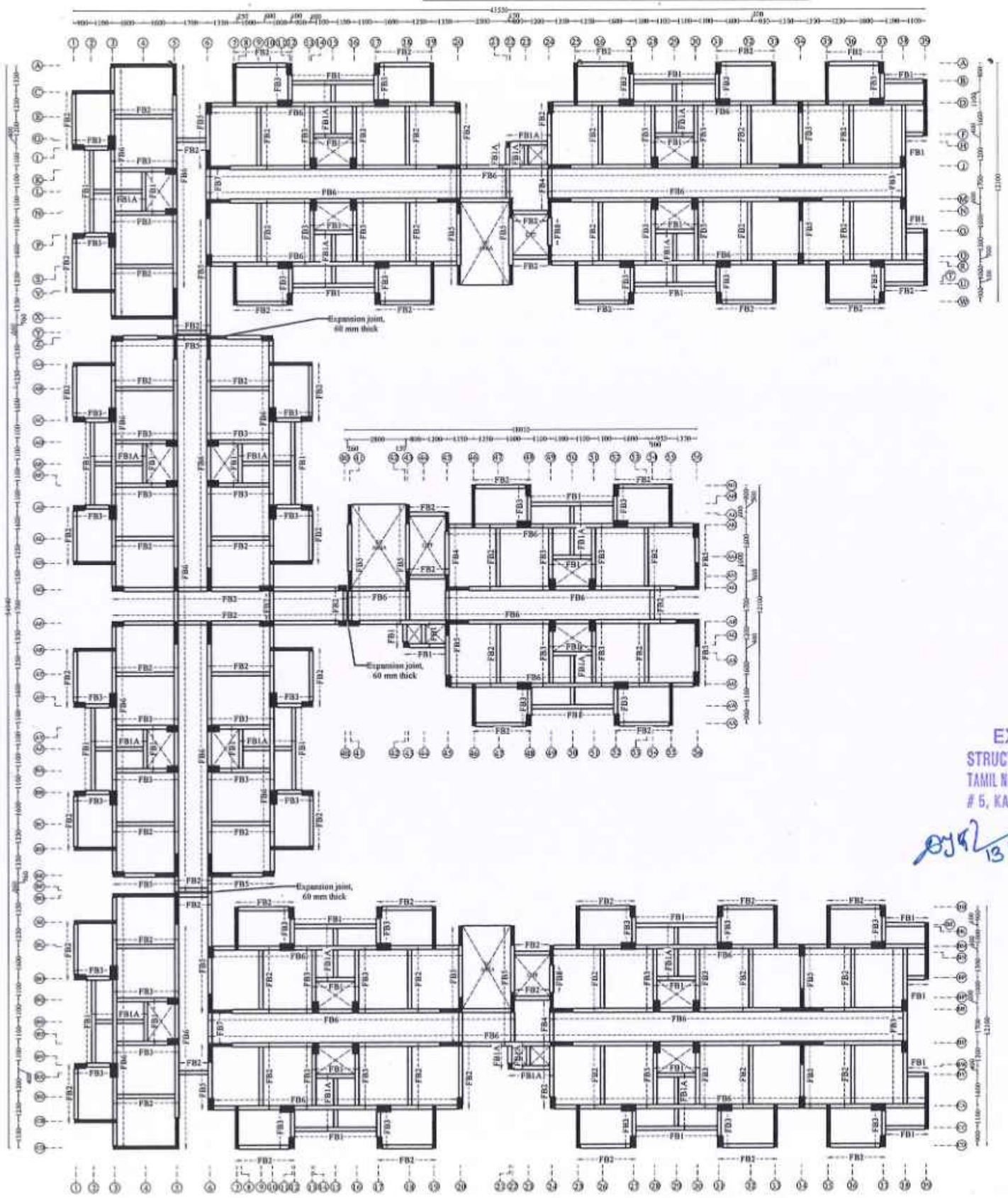
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

STILT & FIRST FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
STILT & FIRST FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/17.

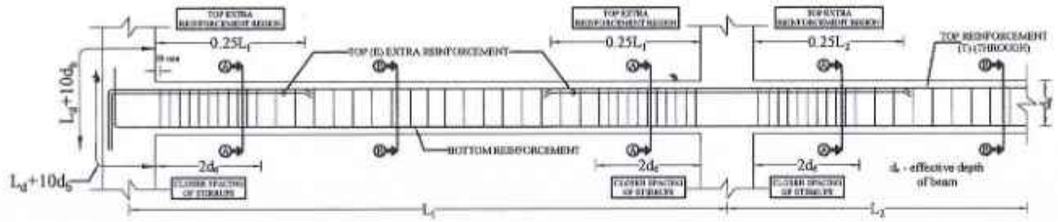
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



STILT & FIRST FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16(T) 2L-#8@75mm c/c for 700mm length from column face 2#16 350 200	2#16(T) 2L-#8@125 mm c/c 2#16 350 200
2.	FB1A 200 x 350	2#16(T) 2L-#8@75mm c/c for 700mm length from column face 2#16 350 200	2#16(T) 2L-#8@95 mm c/c 2#16 350 200
3.	FB2 200 x 550	2#16(T) 2L-#8@75mm c/c for 1100mm length from column face 2#16 550 200	2#16(T) 2L-#8@150 mm c/c 2#16 550 200
4.	FB3 200 x 550	2#16(T) 2L-#10@75mm c/c for 1100mm length from column face 2#16 550 200	2#16(T) 2L-#10@130 mm c/c 2#16 550 200
5.	FB4 200 x 550	2#16(T)+2#12(E) 2L-#8@75mm c/c for 1100mm length from column face 2#16 550 200	2#16(T) 2L-#8@125 mm c/c 2#16 550 200
6.	FB5 200 x 550	2#20(T)+2#16(E) 2L-#10@75mm c/c for 1100mm length from column face 2#20+2#16 550 200	2#20(T) 2L-#10@125 mm c/c 2#20+2#16 550 200
7.	FB6 200 x 600	4#16 2L-#10@95mm c/c for 1200mm length from column face 4#16 600 200	4#16 2L-#10@120 mm c/c 4#16 600 200
8.	FB7 300 x 500	2#16(T)+2#16(E) 2L-#10@100mm c/c 4#16 500 300	2#16(T) 2L-#10@100 mm c/c 4#16 500 300
9.	FB8 200 x 550	2#16(T)+2#12(E) 2L-#10@75mm c/c for 1100mm length from column face 2#16+2#12 550 200	2#16(T) 2L-#10@95 mm c/c 2#16+2#12 550 300

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
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6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
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    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer at once for review.
18. Ground water quality has to be confirmed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
STILT & FIRST FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/18.

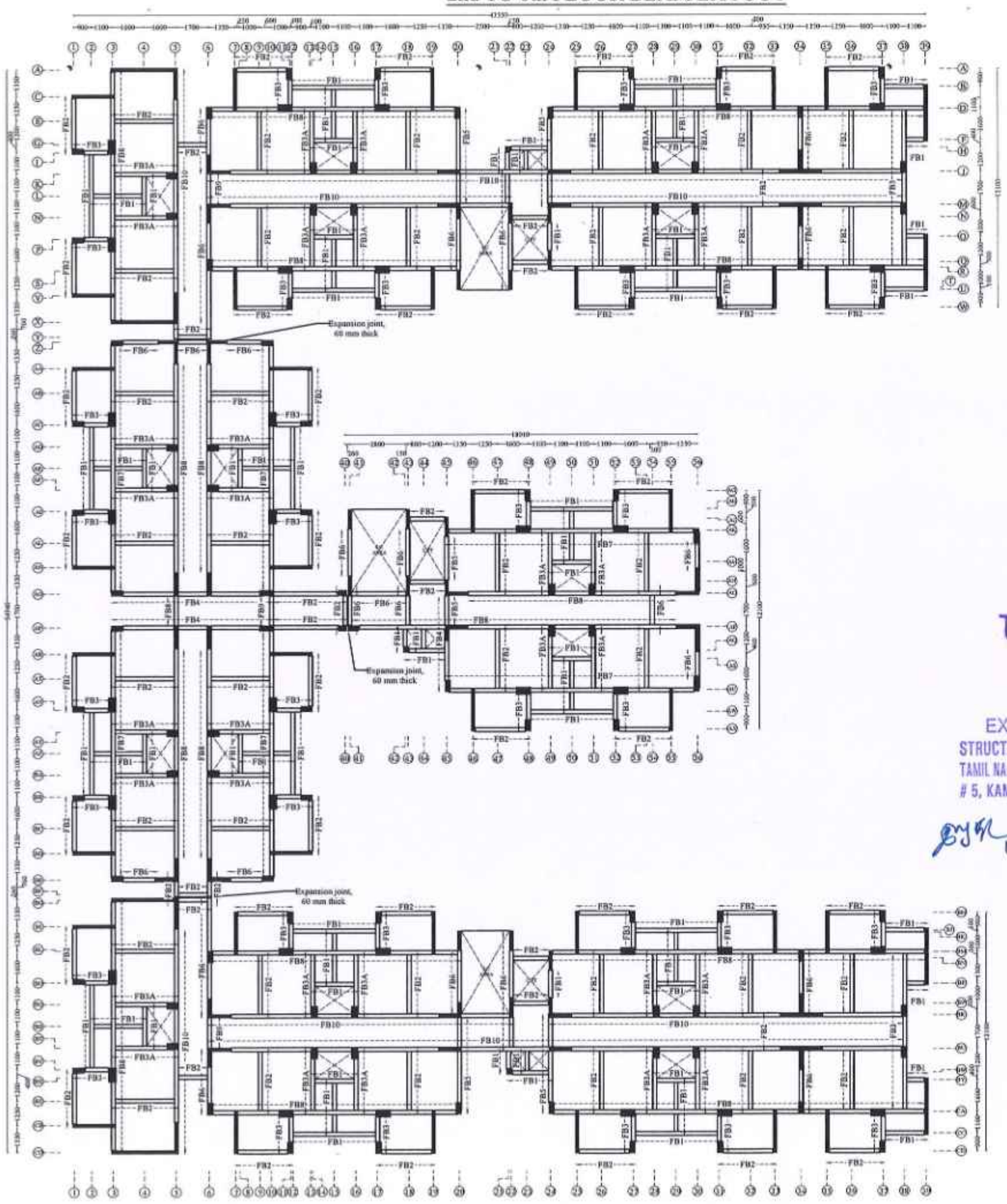
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

2nd TO 6th FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
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14. Cut lintels to be provided in all floors.
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STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/19.

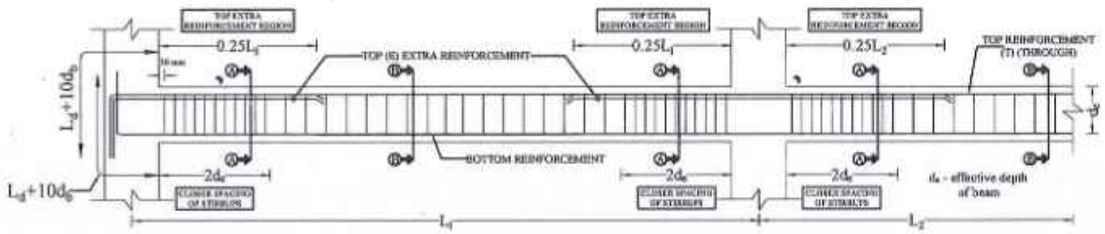
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

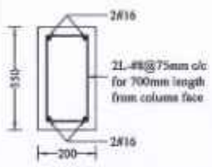
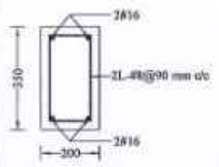
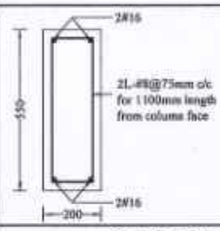
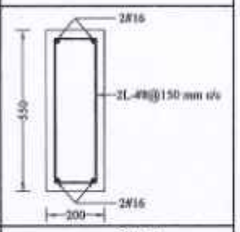
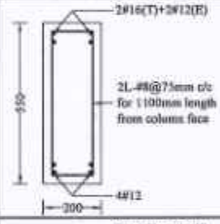
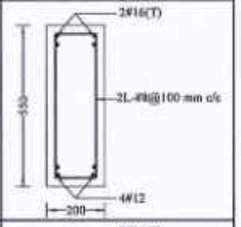
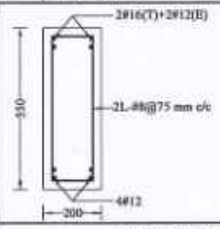
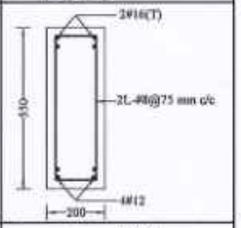
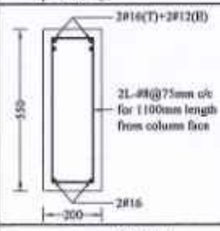
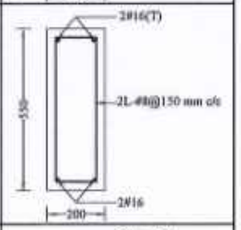
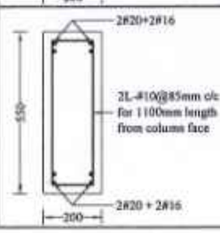
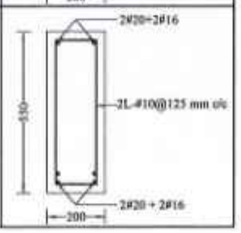
sd.xxxx 13.11.2025
Chief Engineer

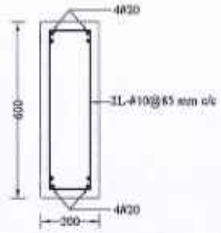
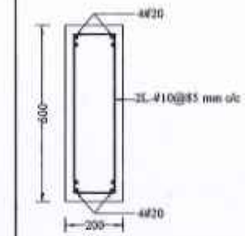
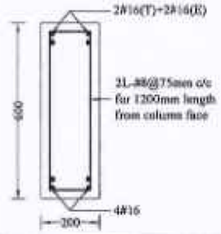
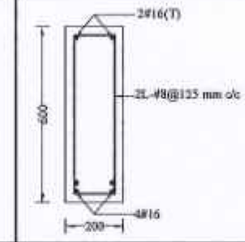
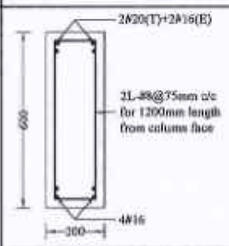
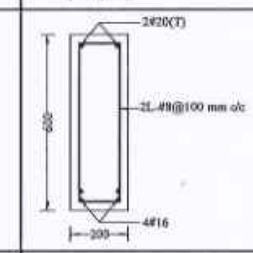
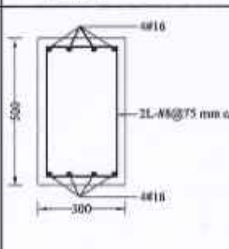
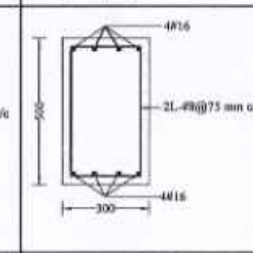
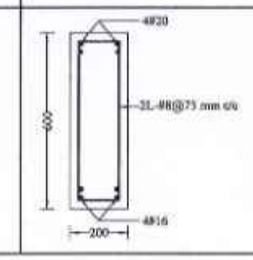
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



2nd TO 6th FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350		
2.	FB2 200 x 550		
3.	FB3 200 x 550		
4.	FB3A 200 x 550		
5.	FB4 200 x 550		
6.	FB5 200 x 550		

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
7.	FB6 200 x 500		
8.	FB7 200 x 600		
9.	FB8 200 x 600		
10.	FB9 300 x 500		
11.	FB10 200 x 600		

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STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

NOTE :

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2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
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7. Structure is designed for (PS+11) floors only.
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    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/20.

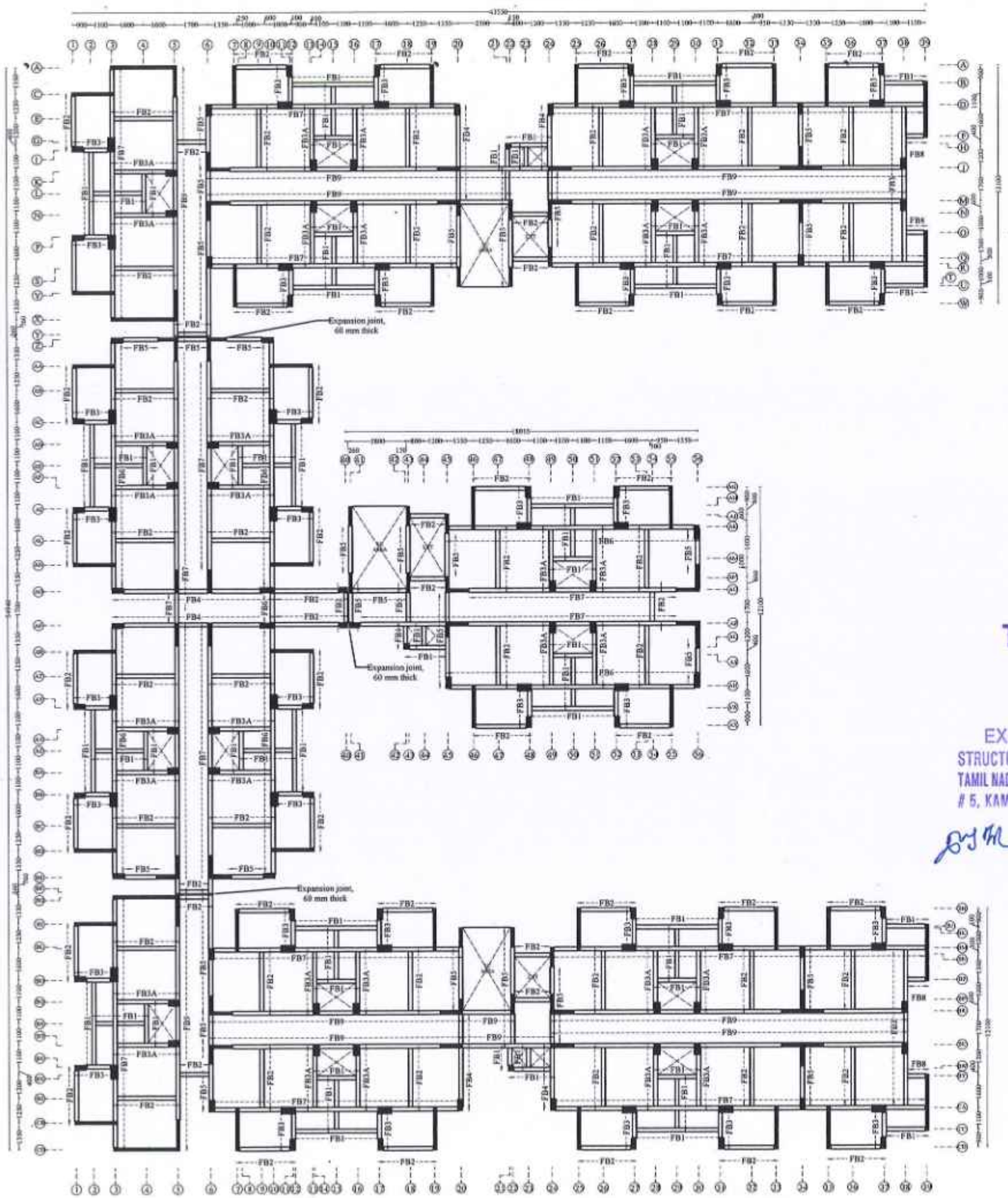
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

7th TO 10th FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
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STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
7th TO 10th FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

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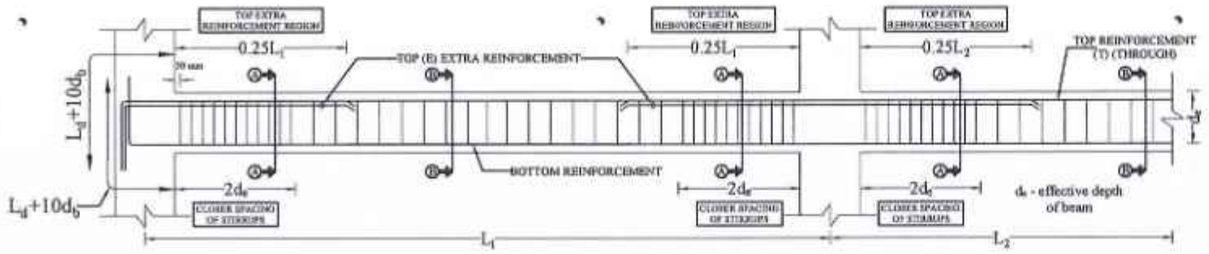
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



7th TO 10th FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16 350 2L-#8@95 mm c/c 2#16 200	2#16 350 2L-#8@95 mm c/c 2#16 200
2.	FB2 200 x 450	2#16 450 2L-#8@95mm c/c for 900mm length from column face 2#16 200	2#16 450 2L-#8@150 mm c/c 2#16 200
3.	FB3 200 x 550	2#16(T)+2#12(E) 550 2L-#8@75mm c/c for 1100mm length from column face 2#16 200	2#16(T) 550 2L-#8@120 mm c/c 2#16 200
4.	FB3A 200 x 550	2#16(T)+2#12(E) 550 2L-#8@75 mm c/c 2#16 200	2#16(T) 550 2L-#8@75 mm c/c 2#16 200
5.	FB4 200 x 450	2#16(T)+2#12(E) 450 2L-#8@75mm c/c for 900mm length from column face 2#16 200	2#16(T) 450 2L-#8@150 mm c/c 2#16 200

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB5 200 x 450	2#16(T)+2#12(B) 450 2L-#10@75mm c/c for 900mm length from column face 2#16 + 2#12 200	2#16(T) 450 2L-#10@125 mm c/c 2#16 + 2#12 200
7.	FB6 200 x 600	4#16 600 2L-#8@75mm c/c for 1200mm length from column face 2#16 + 2#12 200	4#16 600 2L-#8@100 mm c/c 2#16 + 2#12 200
8.	FB7 200 x 600	2#20(T)+2#16(E) 600 2L-#10@75mm c/c for 1200mm length from column face 2#16 + 2#12 200	2#20(T) 600 2L-#10@125 mm c/c 2#16 + 2#12 200
9.	FB8 200 x 350	2#16(T)+2#12(E) 350 2L-#8@75 mm c/c 2#16 200	2#16(T) 350 2L-#8@75 mm c/c 2#16 200
10.	FB9 200 x 600	4#20 600 2L-#10@75mm c/c for 1200mm length from column face 2#16 + 2#12 200	4#20 600 2L-#10@100 mm c/c 2#16 + 2#12 200

NOTE :

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11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc, unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
7th TO 6th FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/22.

REVISION NO.:

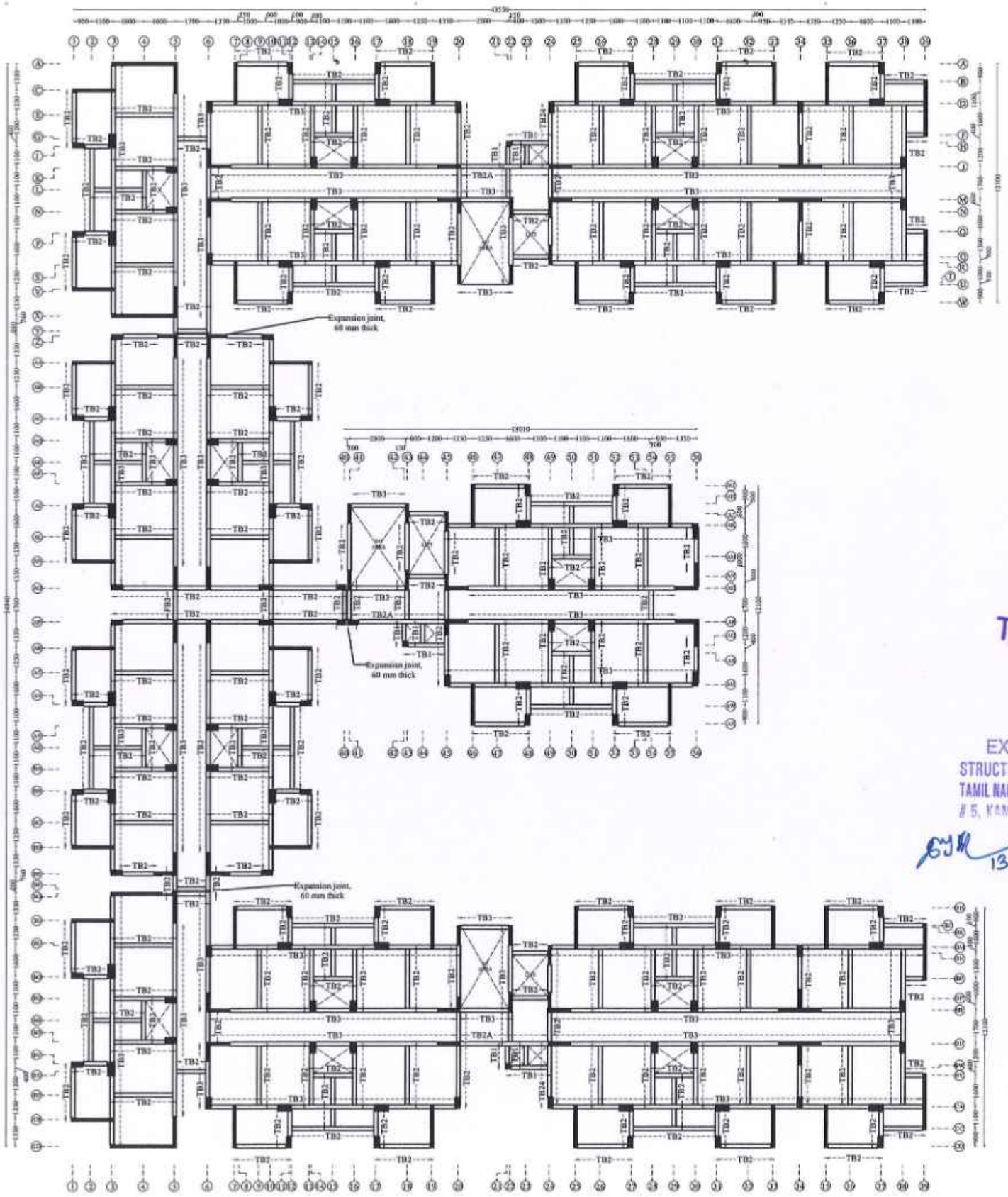
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR BEAM LAYOUT



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

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STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/23.

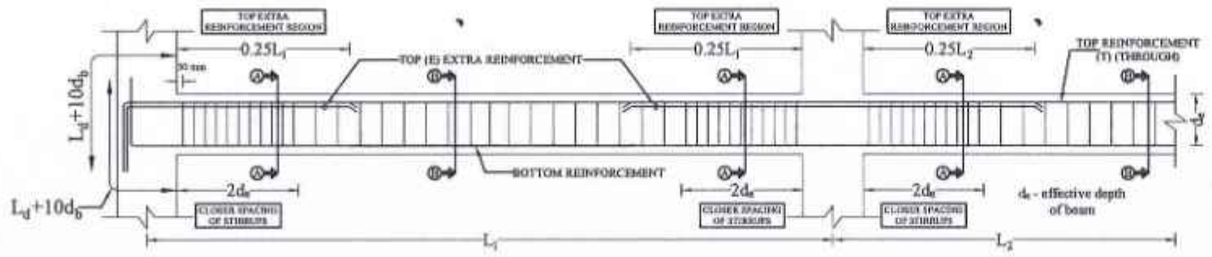
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

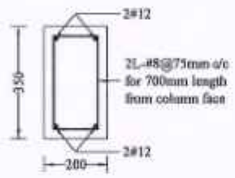
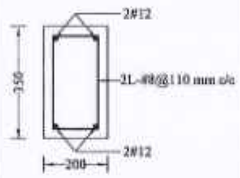
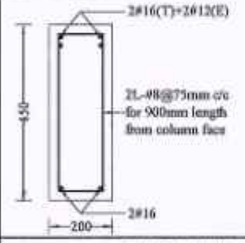
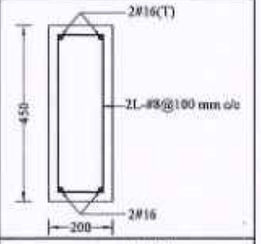
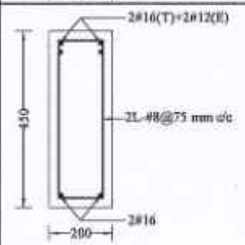
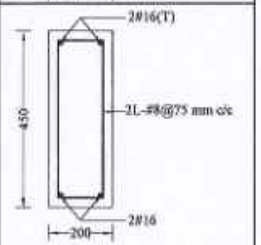
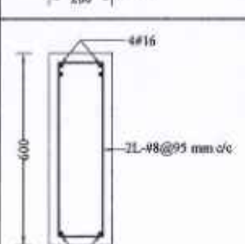
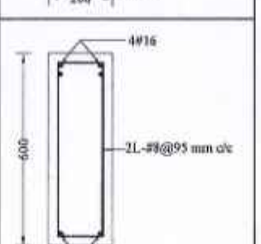
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



TERRACE FLOOR BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	TB1 200 x 350		
2.	TB2 200 x 450		
3.	TB2A 200 x 450		
4.	TB3 200 x 600		

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

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2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS 13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/24.

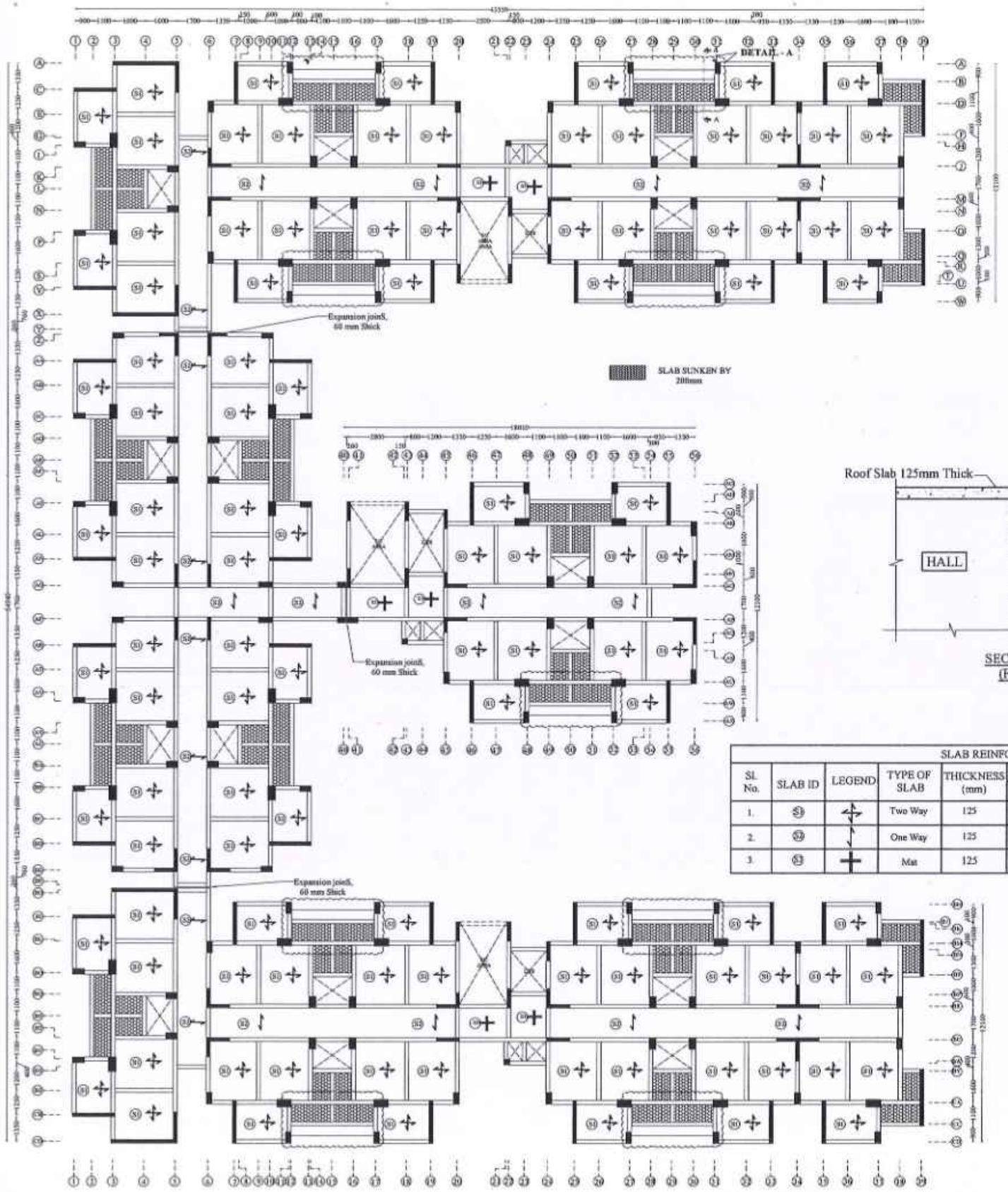
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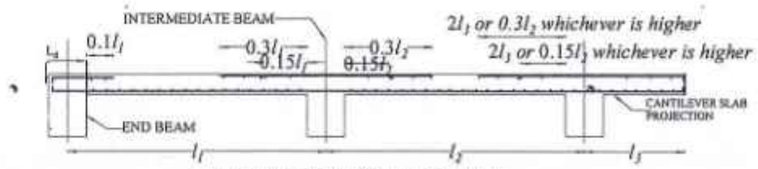
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

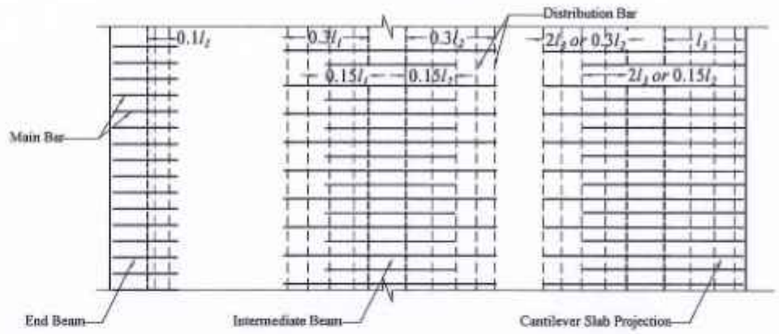
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

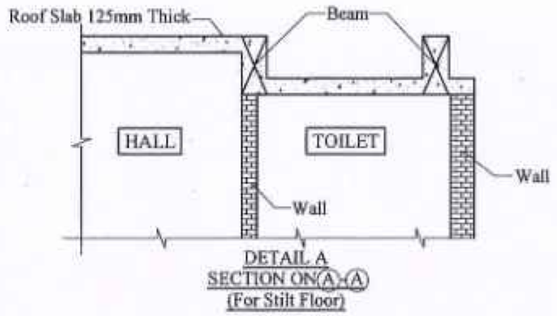
TYPICAL FLOOR SLAB LAYOUT & DETAILS





TYPICAL SLAB REINFORCEMENT DETAILS





DETAIL A
SECTION ON (A)-(A)
(For Stilt Floor)

SLAB REINFORCEMENT DETAILS

Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	S1		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	S2		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	S3		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TYPICAL FLOOR SLAB LAYOUT & DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/25.

REVISION NO.:

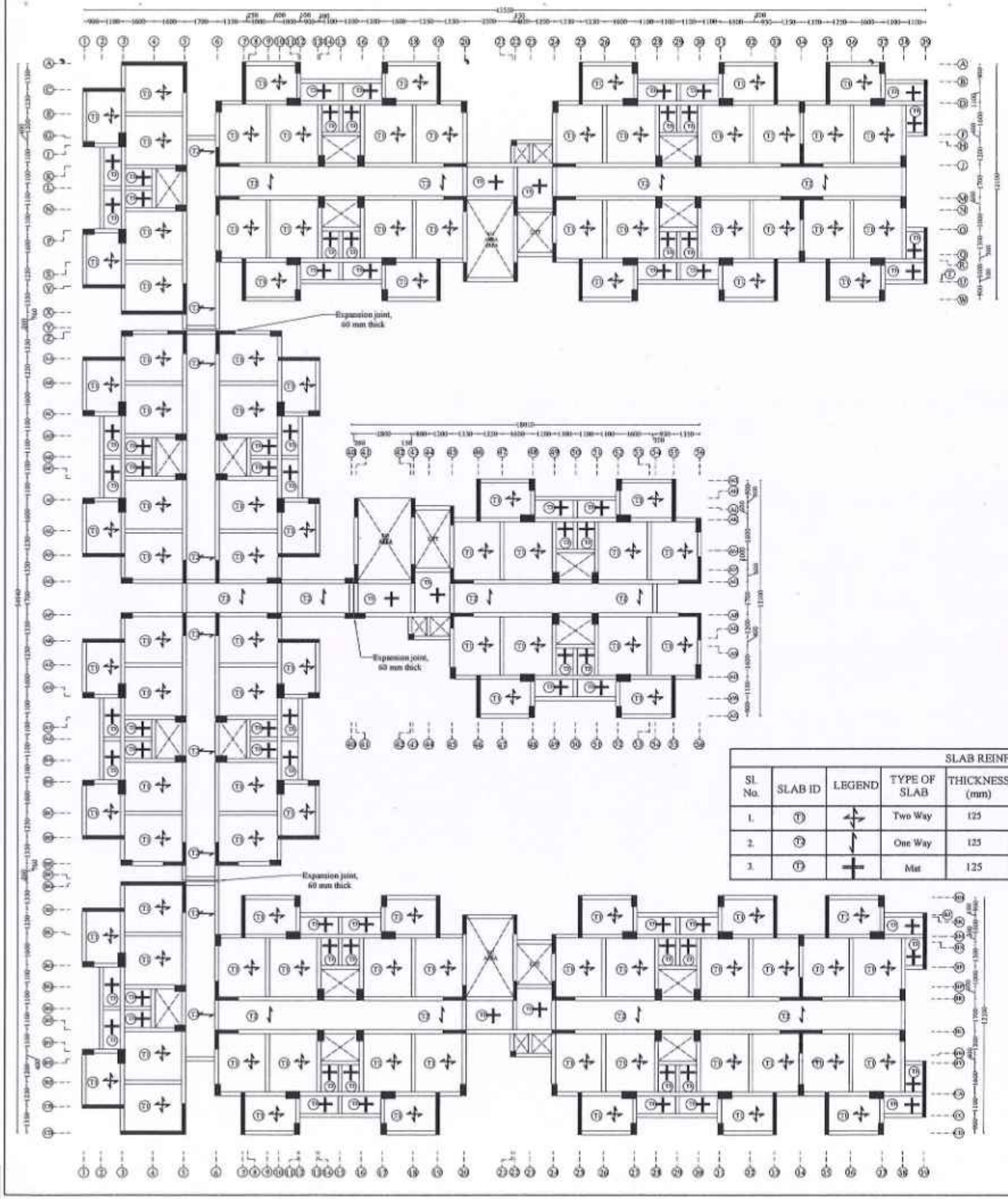
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

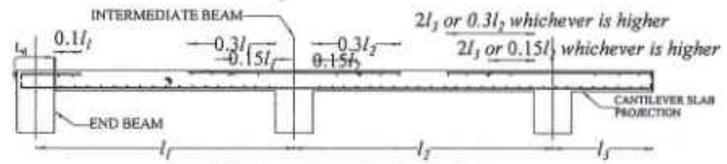
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

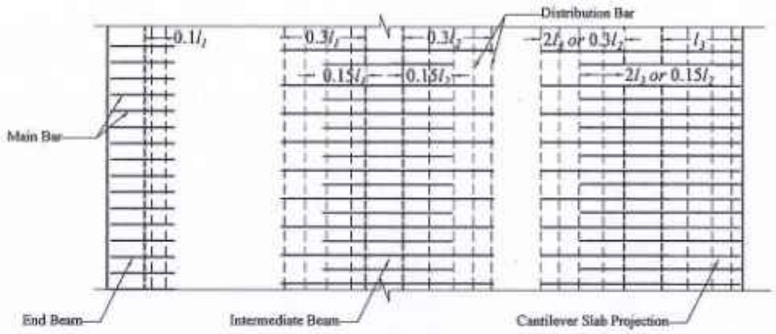
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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

TERRACE FLOOR SLAB LAYOUT & DETAILS





TYPICAL SLAB REINFORCEMENT DETAILS



NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

SLAB REINFORCEMENT DETAILS

Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	T1		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	T2		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	T3		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--

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5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR SLAB LAYOUT & DETAILS.

TYPE DESIGN NO.:

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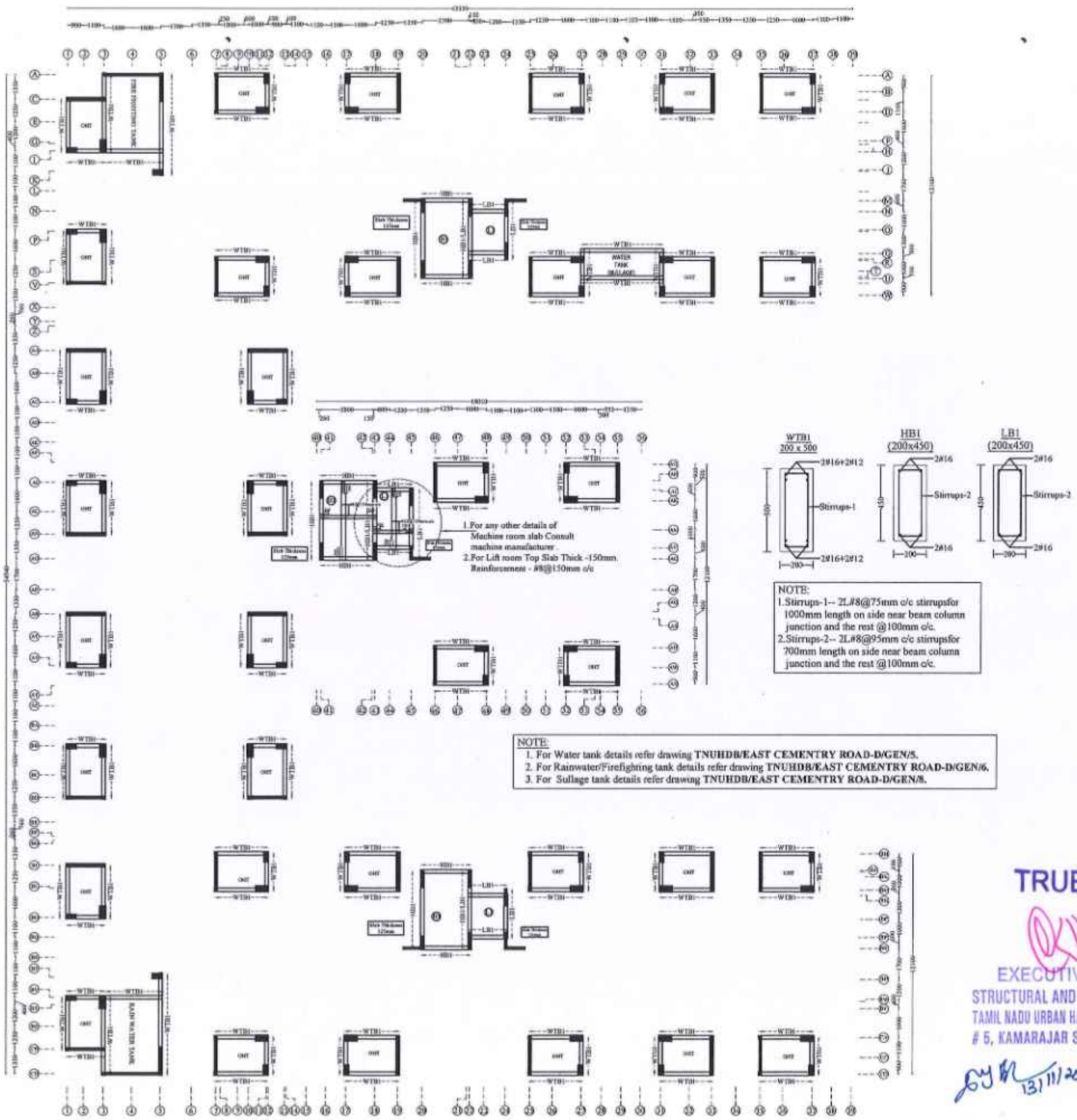
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

BEAM LAYOUT & DETAILS OF OHT & SULLAGE/ RAIN WATER /FIRE FIGHTING TANK



NOTE:
1.Stirrups-1-- 2L.#8@75mm c/c stirrupsfor 1000mm length on side near beam column junction and the rest @100mm c/c.
2.Stirrups-2-- 2L.#8@95mm c/c stirrupsfor 700mm length on side near beam column junction and the rest @100mm c/c.

NOTE:
1. For Water tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/5.**
2. For Rainwater/Firefighting tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/6.**
3. For Sullage tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/8.**

NOTE:

1.All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
BEAM LAYOUT & DETAILS OF OHT & SULLAGE/ RAIN WATER /FIREFIGHTING TANK

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-A/27.

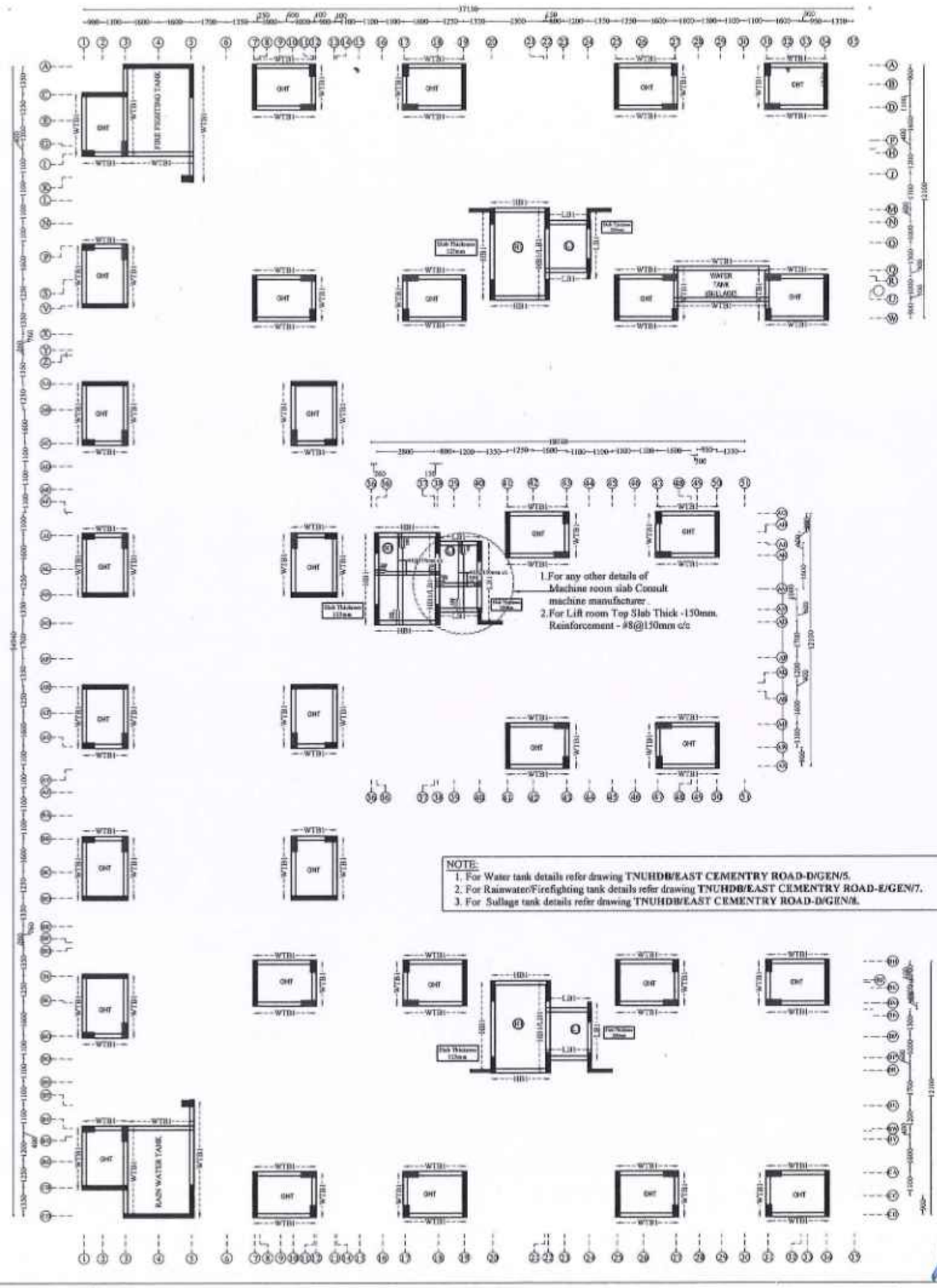
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

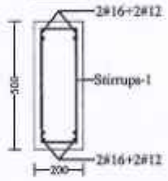
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

HEAD ROOM & LIFT ROOM & WATER TANK BEAM LAYOUT & HEAD ROOM & LIFT ROOM SLAB DETAILS

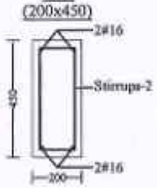


NOTE:
1. For Water tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/5.**
2. For Rainwater/Firefighting tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-E/GEN/7.**
3. For Sullage tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/8.**

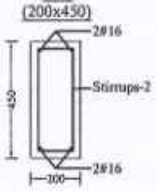
WTB1
200 x 500



HB1
(200x450)



LB1
(200x450)



NOTE:
1.Stirrups-1-- 2L#8@75mm c/c stirrupsfor 1000mm length on side near beam column junction and the rest @100mm c/c.
2.Stirrups-1-- 2L#8@95mm c/c stirrupsfor 700mm length on side near beam column junction and the rest @125mm c/c.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

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6.Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7.Structure is designed for (PS+11) floors only.
8.Design of the structure carried out with Limit State Method.
9.Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10.Analysis of the structure done with **ETABS**.
11.Clear cover for reinforcement are as follows:
(a) Pile & Pile Cap - 60 mm
(b) Column/Shear wall - 40 mm
(c) Floor and roof beam - 30 mm
(d) Slab - 25 mm
(e) Water Tank Walls & Slab - 30 mm
12.Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13.All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14.Cut lintels to be provided in all floors.
15.Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16.Anchorage of column bars into the footings shall not be less than 50 Ø.
17.Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
HEAD ROOM & LIFT ROOM & WATER TANK BEAM LAYOUT & HEAD ROOM & LIFT ROOM SLAB DETAILS

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-B&C/27.

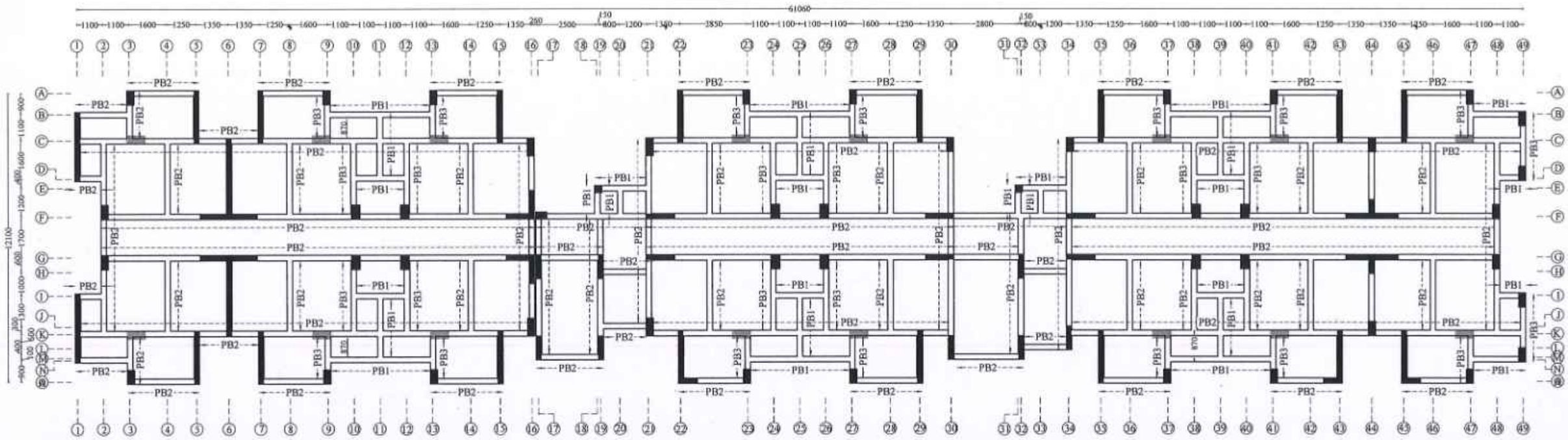
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

PLINTH BEAM LAYOUT



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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
PLINTH BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/14.

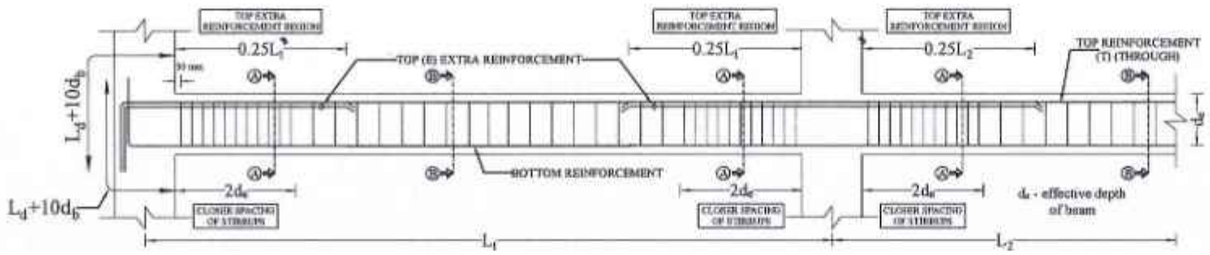
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



PLINTH BEAM DETAILS

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	PB1 230 x 350	3#12; 2L-#8@75mm c/c for 700mm length from column face; 350; 3#12; 230	3#12; 2L-#8@125 mm c/c; 350; 3#12; 230
2.	PB2 230 x 450	2#16; 2L-#8@75mm c/c for 900mm length from column face; 450; 2#16; 230	2#16; 2L-#8@150 mm c/c; 450; 2#16; 230
3.	PB3 230 x 550	2#16; 2L-#8@75mm c/c for 1100mm length from column face; 550; 2#16; 230	2#16; 2L-#8@125 mm c/c; 550; 2#16; 230

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13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

NOTE :

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2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008, unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
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    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PLINTH BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/15

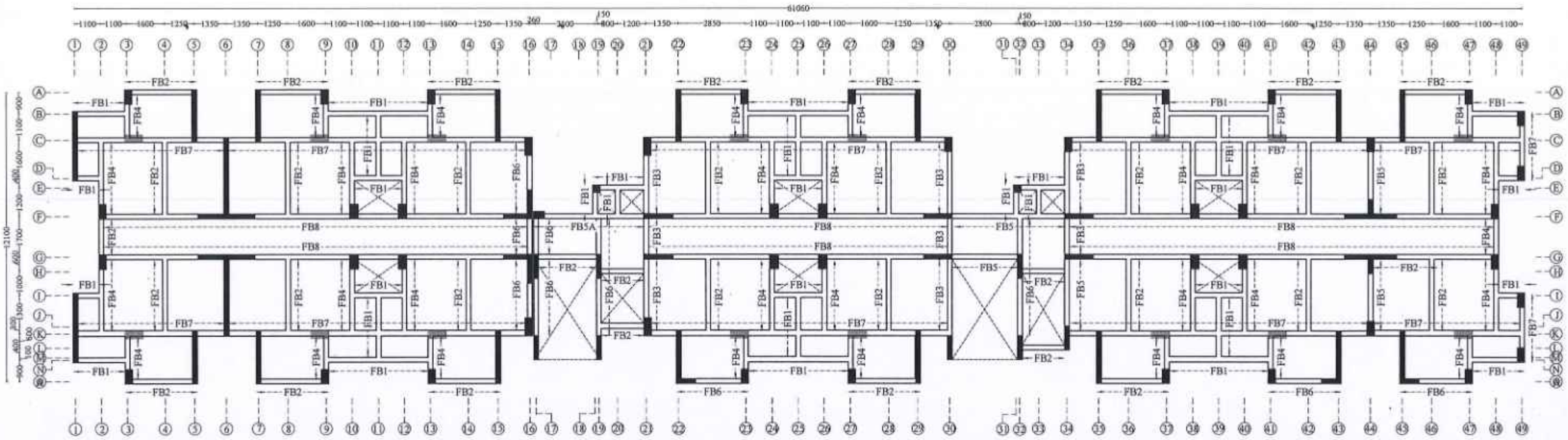
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

STILT & 1st FLOOR BEAM LAYOUT



TRUE COPY

13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
#.5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
STILT & 1st FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/16.

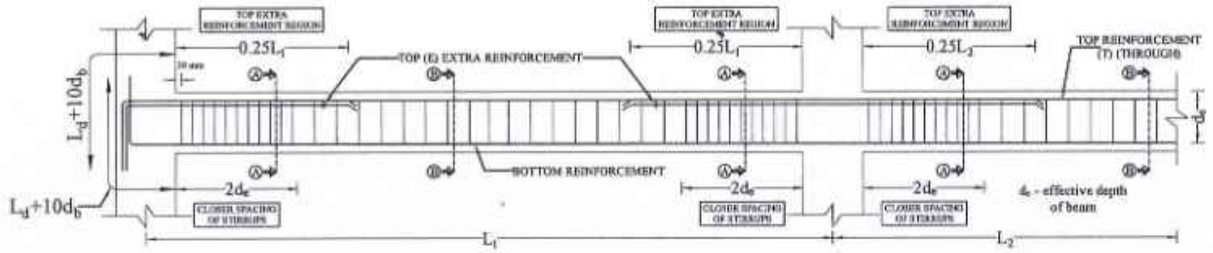
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



STILT & 1st FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16(T)+2#12(E); 2L-#8@75mm c/c; 2#16; 350; 200	2#16; 2L-#8@75 mm c/c; 2#16; 350; 200
2.	FB2 200 x 550	2#16; 2L-#8@75mm c/c for 1100mm length from column face; 2#16; 550; 200	2#16; 2L-#8@150 mm c/c; 2#16; 550; 200
3.	FB3 200 x 550	2#16(T)+2#12(E); 2L-#10@75mm c/c for 1100mm length from column face; 2#16; 550; 200	2#16(T); 2L-#10@100 mm c/c; 2#16; 550; 200
4.	FB4 200 x 550	2#16(T)+2#12(E); 2L-#10@75mm c/c for 1100mm length from column face; 2#16+2#12; 550; 200	2#16(T); 2L-#10@150 mm c/c; 2#16+2#12; 550; 200
5.	FB5 200 x 550	4#16(T); 2L-#8@75mm c/c; 4#16; 550; 200	4#16(T); 2L-#8@75 mm c/c; 4#16; 550; 200

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB5A 200 x 550	4#16(T); 2L-#10@75mm c/c; 4#16; 550; 200	4#16(T); 2L-#10@75 mm c/c; 4#16; 550; 200
7.	FB6 200 x 550	2#20(T)+2#16(E); 2L-#10@100mm c/c; 2#20+2#16; 550; 200	2#20(T); 2L-#10@100 mm c/c; 2#20+2#16; 550; 200
8.	FB7 200 x 600	2#16(T)+2#16(E); 2L-#10@75mm c/c for 1200mm length from column face; 2#16+2#12; 600; 200	2#16(T); 2L-#10@100 mm c/c; 2#16+2#12; 600; 200
9.	FB8 200 x 600	2#20(T)+2#16(E); 2L-#10@75mm c/c for 1200mm length from column face; 2#16+2#12; 600; 200	2#20(T); 2L-#10@125 mm c/c; 2#16+2#12; 600; 200

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
STILT & 1st FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/17

REVISION NO.:

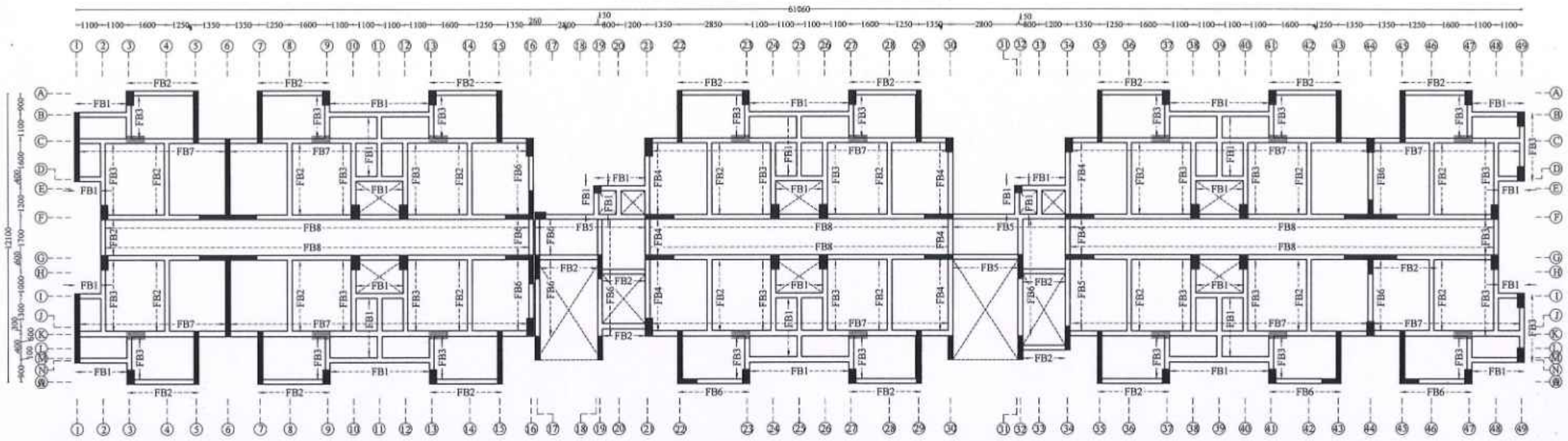
Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

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13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

2nd TO 6th FLOOR BEAM LAYOUT



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13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
2nd TO 6th FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/18.

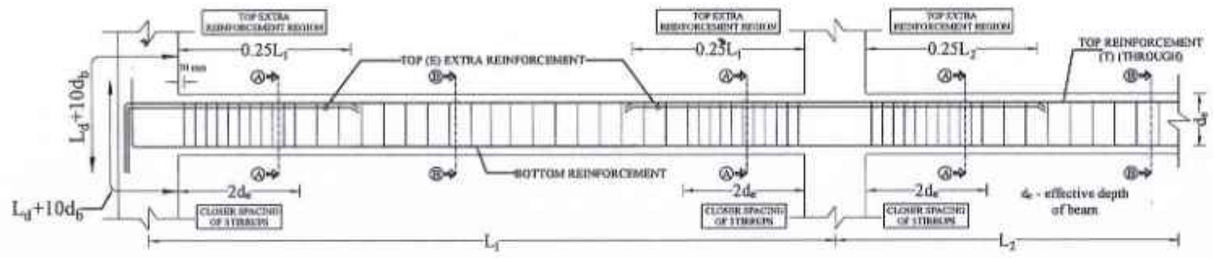
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



2nd TO 6th FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350	2#16(T)+2#12(E); 2L-#10@75mm c/c for 700mm length from column face; 350; 2#16; 200	2#16; 2L-#10@100 mm c/c; 350; 2#16; 200
2.	FB2 200 x 550	2#16; 2L-#8@100mm c/c for 1100mm length from column face; 550; 2#16; 200	2#16; 2L-#8@150 mm c/c; 550; 2#16; 200
3.	FB3 200 x 550	2#16(T)+2#12(E); 2L-#8@75mm c/c for 1100mm length from column face; 550; 2#16+2#12; 200	2#16(T); 2L-#8@90 mm c/c; 550; 2#16+2#12; 200
4.	FB4 200 x 550	4#16; 2L-#10@75mm c/c for 1100mm length from column face; 550; 2#16+2#12; 200	4#16; 2L-#10@100 mm c/c; 550; 2#16+2#12; 200
5.	FB5 200 x 550	2#20(T)+2#16(E); 2L-#10@85mm c/c; 550; 4#16; 200	2#20(T); 2L-#10@85 mm c/c; 550; 4#16; 200

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB6 200 x 550	2#20(T)+2#16(E); 2L-#8@75mm c/c for 1100mm length from column face; 550; 2#20+2#16; 200	2#20(T); 2L-#8@90 mm c/c; 550; 2#20+2#16; 200
7.	FB7 200 x 600	2#20(T)+2#16(E); 2L-#10@75mm c/c for 1200mm length from column face; 600; 2#16+2#12; 200	2#20(T); 2L-#10@100 mm c/c; 600; 2#16+2#12; 200
8.	FB8 200 x 600	4#20(T); 2L-#10@100mm c/c for 1200mm length from column face; 600; 4#16; 200	4#20(T); 2L-#10@130 mm c/c; 600; 4#16; 200

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
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4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
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7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
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21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PARTIAL STILT & 1st FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/19

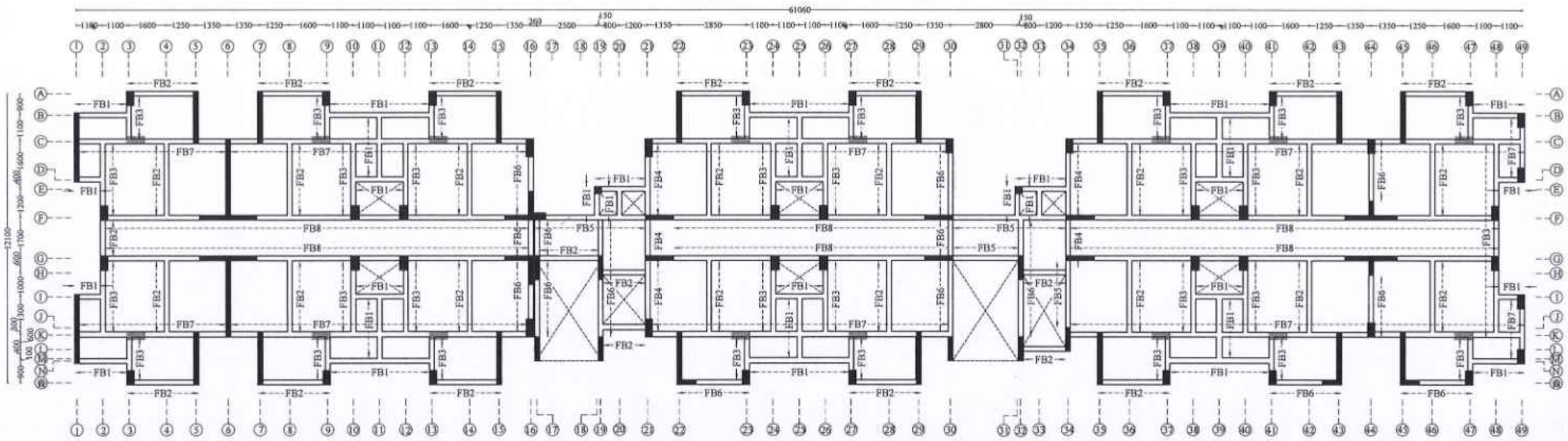
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

7th TO 10th FLOOR BEAM LAYOUT



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13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
7th TO 10th FLOOR BEAM LAYOUT

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/20.

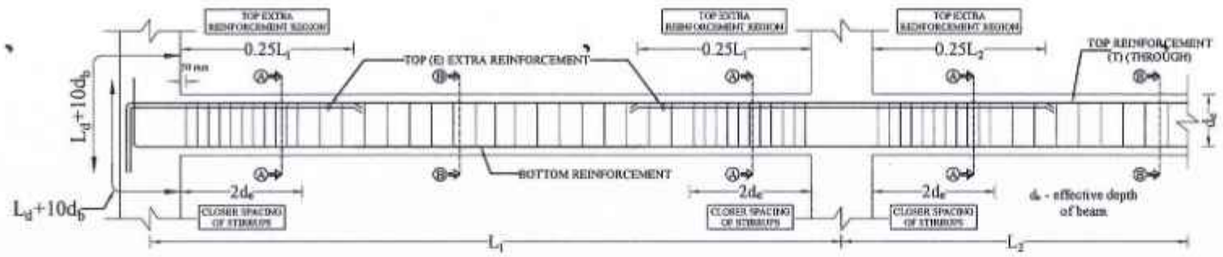
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

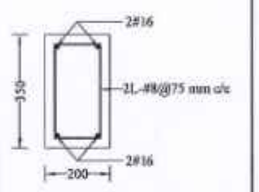
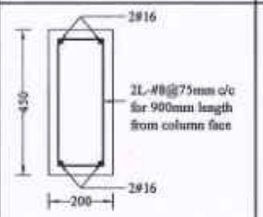
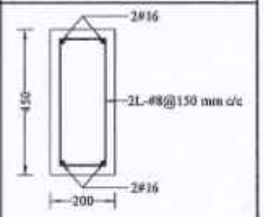
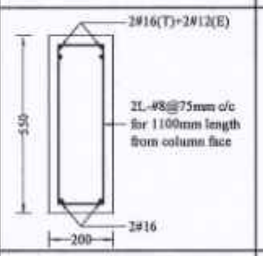
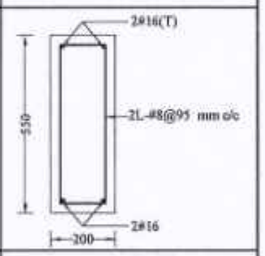
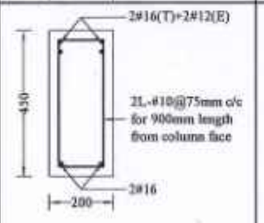
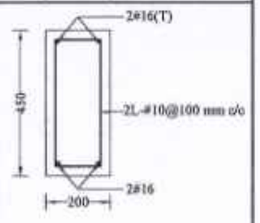
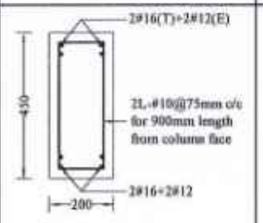
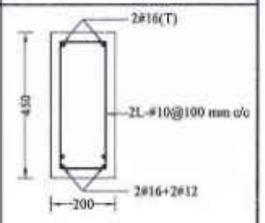
sd.xxxx 13.11.2025
Chief Engineer

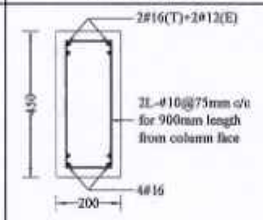
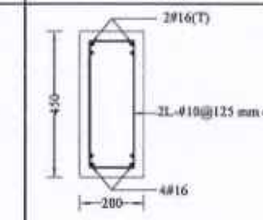
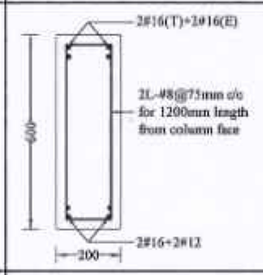
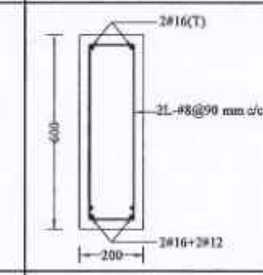
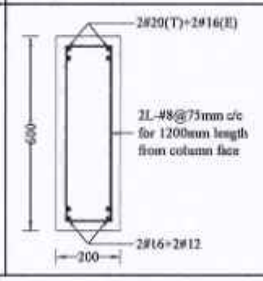
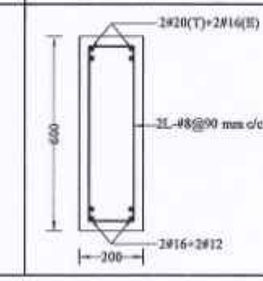
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



7th TO 10th FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	FB1 200 x 350		
2.	FB2 200 x 450		
3.	FB3 200 x 550		
4.	FB4 200 x 450		
5.	FB5 200 x 450		

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
6.	FB6 200 x 450		
7.	FB7 200 x 600		
8.	FB8 200 x 600		

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

NOTE :

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
PARTIAL STILT & 1st FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/21

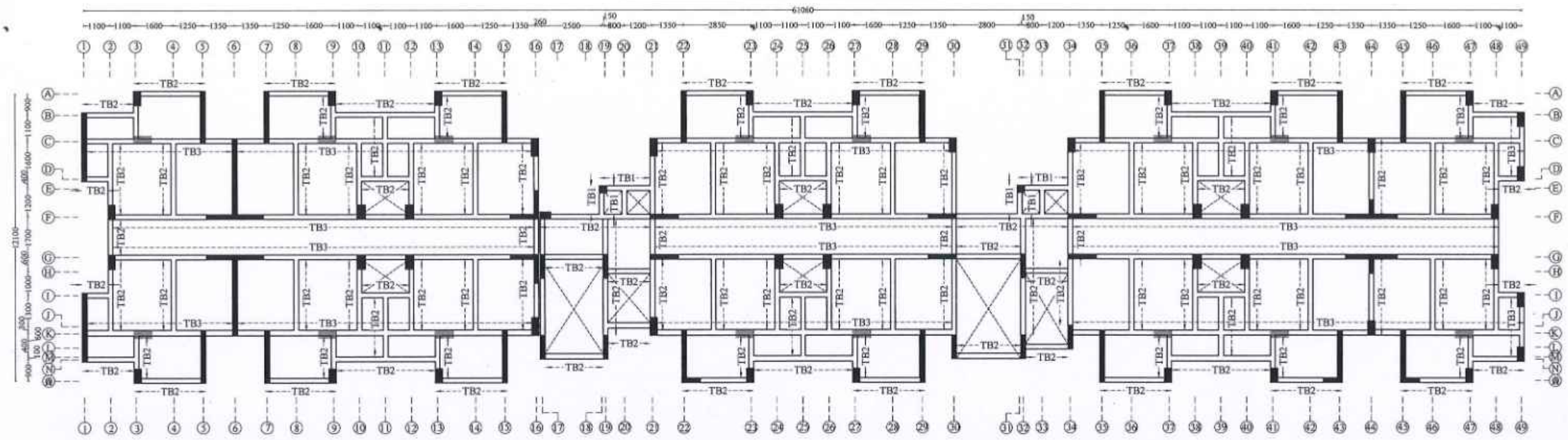
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR BEAM LAYOUT



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13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM LAYOUT.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/22.

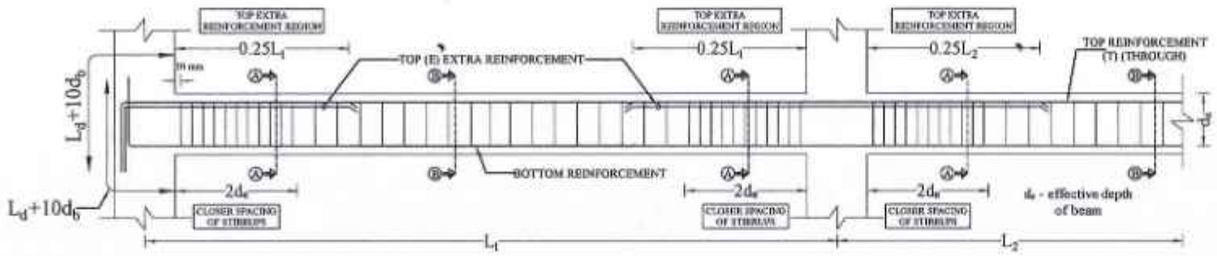
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

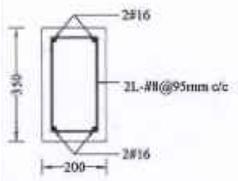
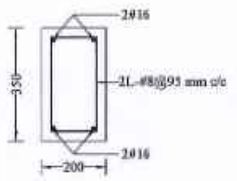
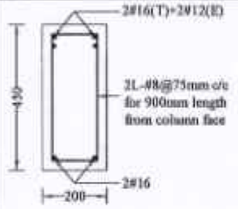
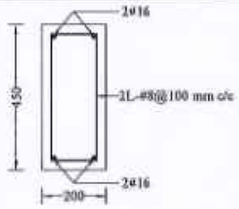
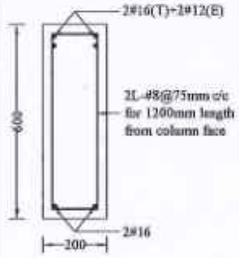
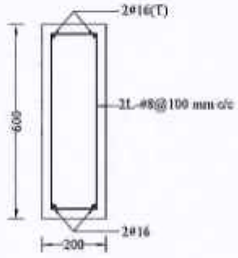
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL CURTAILMENT & STIRRUPS DETAILS



TERRACE FLOOR BEAM DETAILS.

Sl. No	Beam Notation & Size (mm x mm)	SECTION ALONG A-A (SUPPORT)	SECTION ALONG B-B (SPAN)
1.	TB1 200 x 350		
2.	TB2 200 x 450		
3.	TB3 200 x 600		

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

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9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer stonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,costing etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR BEAM DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/23

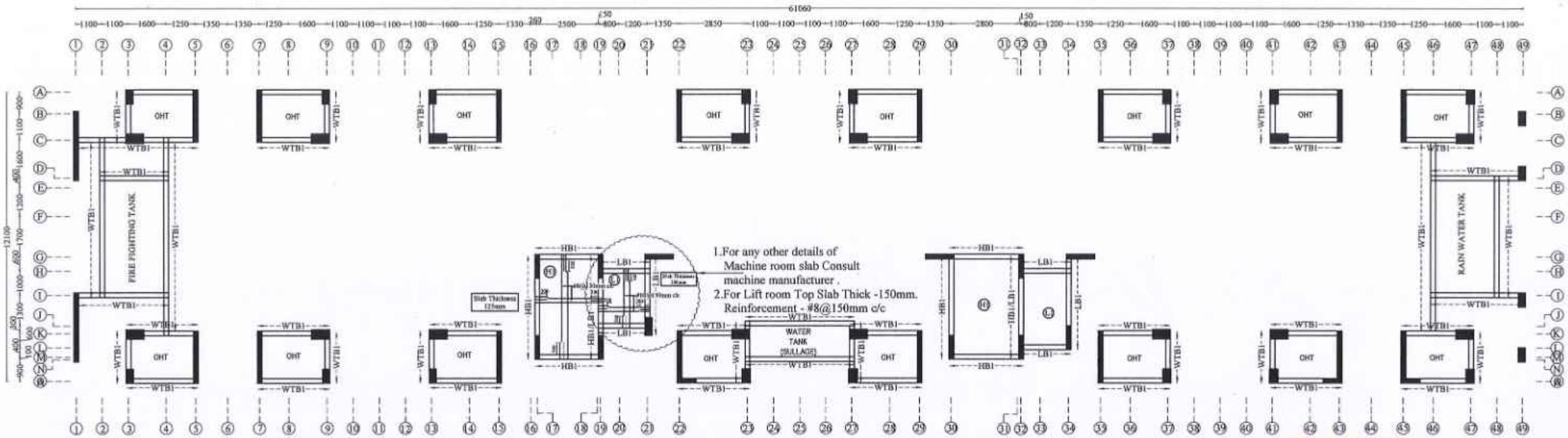
REVISION NO.:

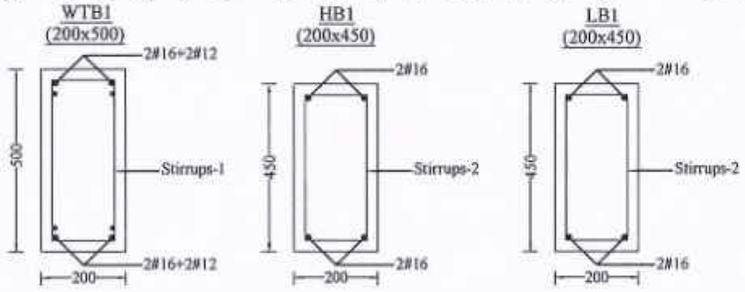
Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

HEAD ROOM & LIFT ROOM & WATER TANK BEAM LAYOUT & HEAD ROOM & LIFT ROOM SLAB DETAILS





NOTE
1. For Water tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/5.**
2. For Rainwater/Firefighting tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/6.**
3. For Sullage tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/8.**

NOTE :
1. Stirrups-1-- 2L-8mm Stirrups @ 75mm c/c for 1000 mm length on all side near beam column junction and the rest @ 100mm c/c.
2. Stirrups-2-- 2L-8mm Stirrups @ 95mm c/c for 700 mm length on all side near beam column junction and the rest @ 125mm c/c.

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EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
#5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
HEAD ROOM & LIFT ROOM & WATER TANK BEAM LAYOUT & HEAD ROOM & LIFT ROOM SLAB DETAILS

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/24

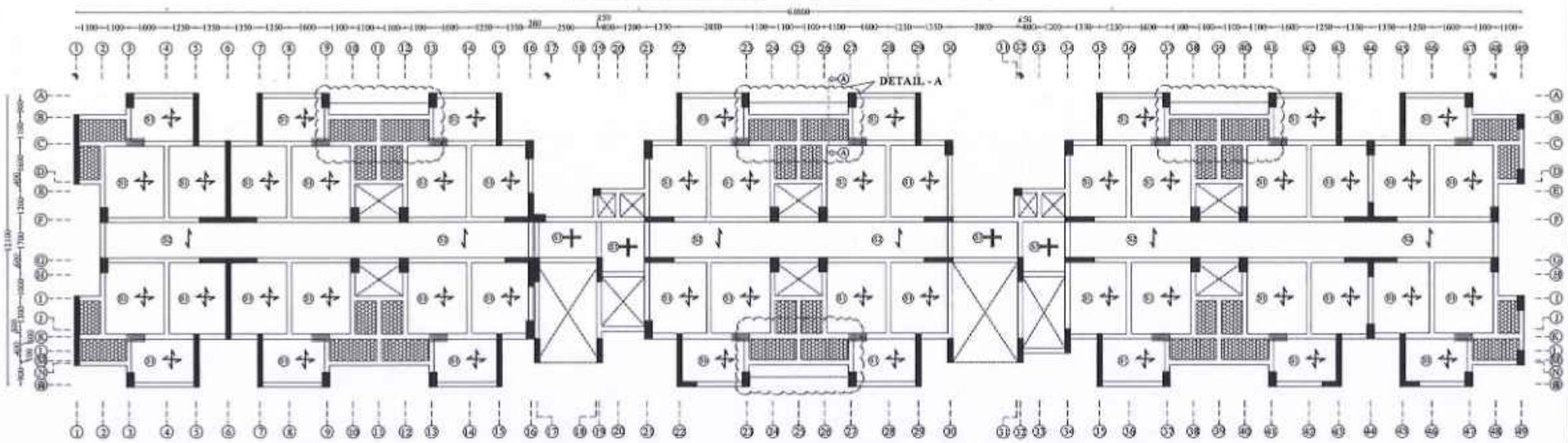
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

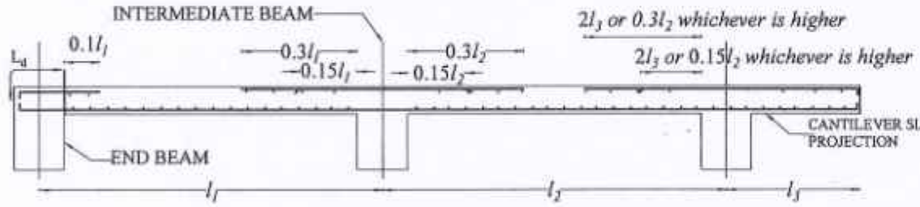
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TYPICAL FLOOR SLAB LAYOUT & DETAILS

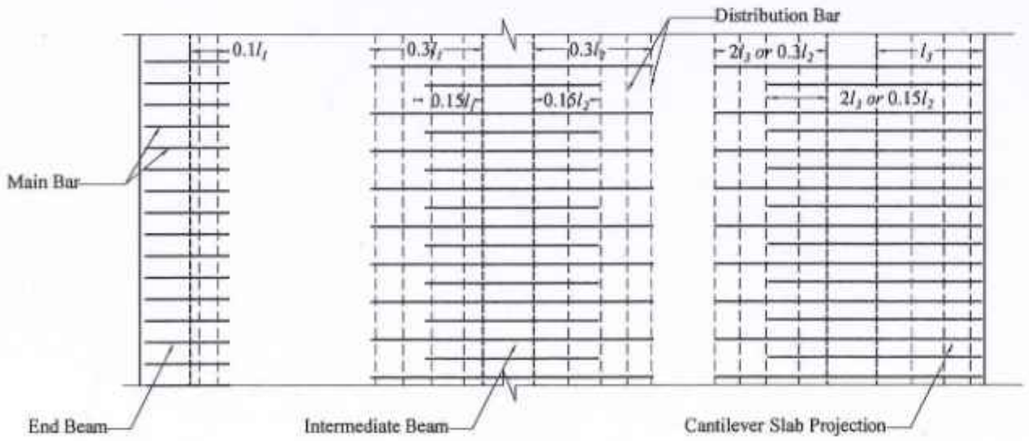


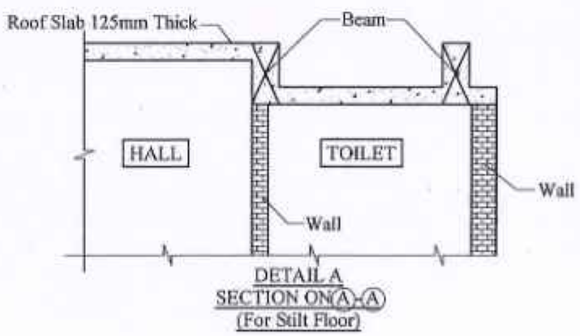
SLAB SUNKEN BY 200mm

SLAB REINFORCEMENT DETAILS									
Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	S1		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	S2		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	S3		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--



TYPICAL SLAB REINFORCEMENT DETAILS





DETAIL A
SECTION ON (A)-(A)
(For Stilt Floor)

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STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION ,
Dn No.51, ZONE V.

TITLE:
TYPICAL FLOOR SLAB LAYOUT & DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/25.

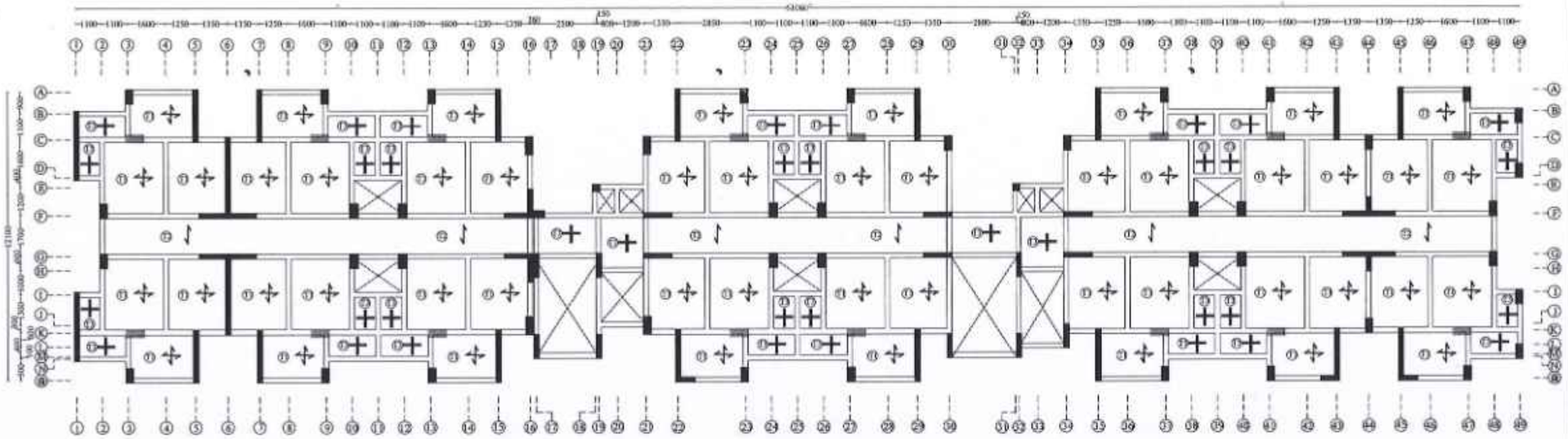
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

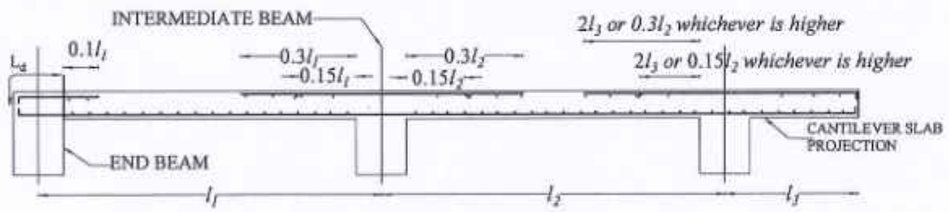
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TERRACE FLOOR SLAB LAYOUT & DETAILS

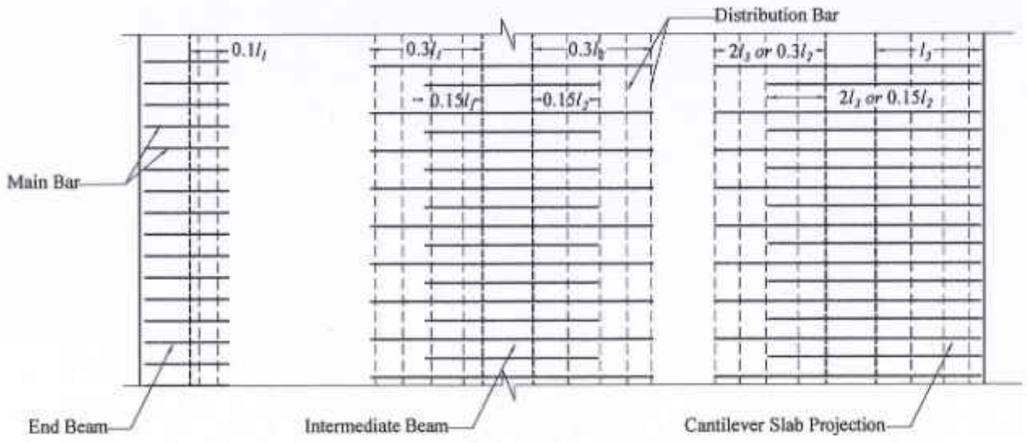


SLAB REINFORCEMENT DETAILS

Sl. No.	SLAB ID	LEGEND	TYPE OF SLAB	THICKNESS (mm)	Bottom Reinforcement		Top Reinforcement		
					Shorter Span	Longer Span	Shorter Span	Longer Span	Distribution bar wherever required
1.	T1		Two Way	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 230 c/c
2.	T2		One Way	125	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 150 c/c	#8 @ 230 c/c	#8 @ 230 c/c
3.	T1		Mat	125	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	#8 @ 150 c/c	--



TYPICAL SLAB REINFORCEMENT DETAILS



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13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE:

1. All the Dimensions are in mm.
2. M30 Concrete and Fe500D grade steel shall be adopted.
3. Clear cover to slab is 25mm.
4. Crank point distances are as shown.
5. "-------" denotes extra rods to be provided at top.
6. The bottom shorter direction bar / main bars should be placed at bottom most of layer & Top main bar should be placed at top most of layer.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
TERRACE FLOOR SLAB LAYOUT & DETAILS.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/26.

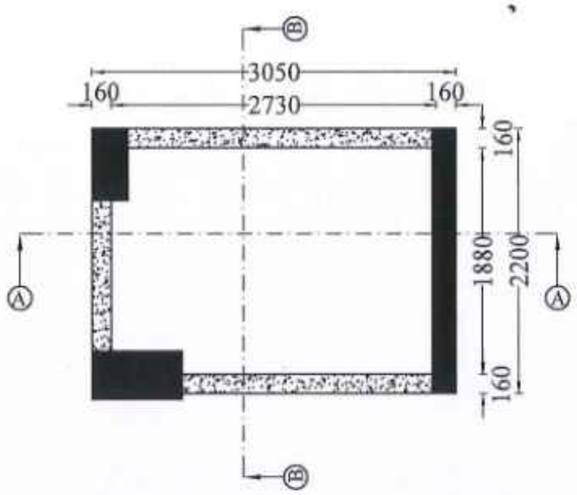
REVISION NO.:

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

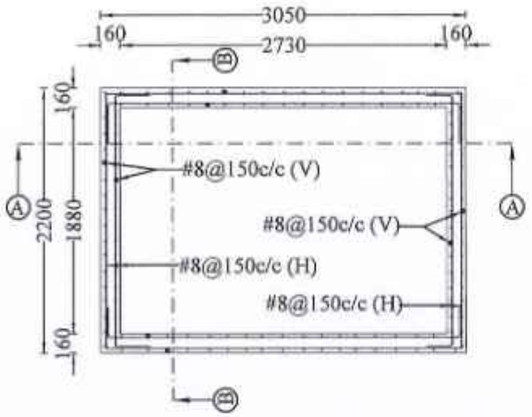
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

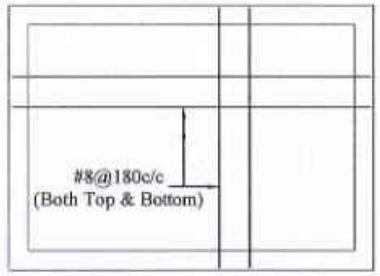
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS OF OVER HEAD TANK



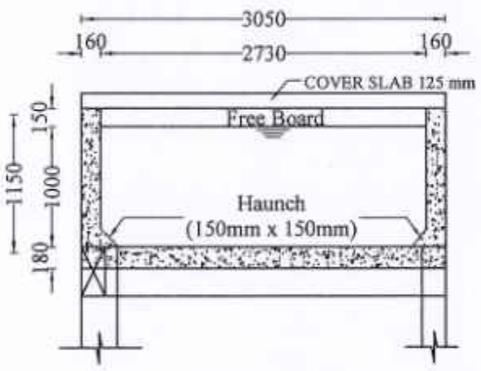
TYPICAL LAYOUT OF WALL



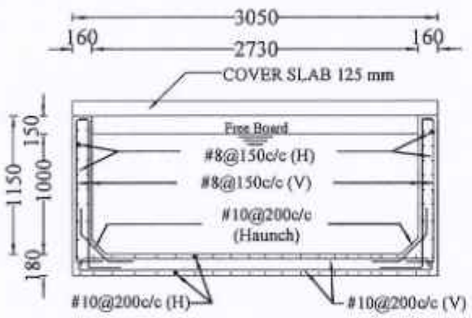
TYPICAL REINFORCEMENT OF WALL



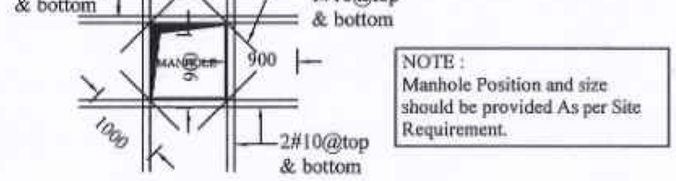
COVER SLAB DETAILS



SECTION A-A

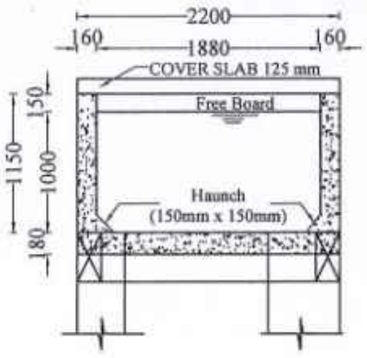


SECTION A-A

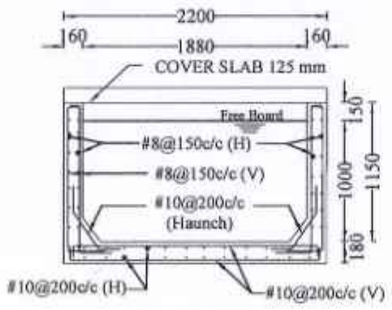


ADDITIONAL REINFORCEMENT DETAILS AROUND MANHOLE OPENING

NOTE :
Manhole Position and size should be provided As per Site Requirement.



SECTION B-B



SECTION B-B

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13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS:456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. Design of the Tank structure carried out with Working stress Method and Limit state method for Cover slab.
6. Clear cover for reinforcement are as follows:
   (a) Water Tank Walls & Base Slab - 30 mm
   (b) Cover Slab - 25 mm

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMETRY ROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETILS OF OVER HEAD TANK.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMETRY ROAD-D/GEN/5.

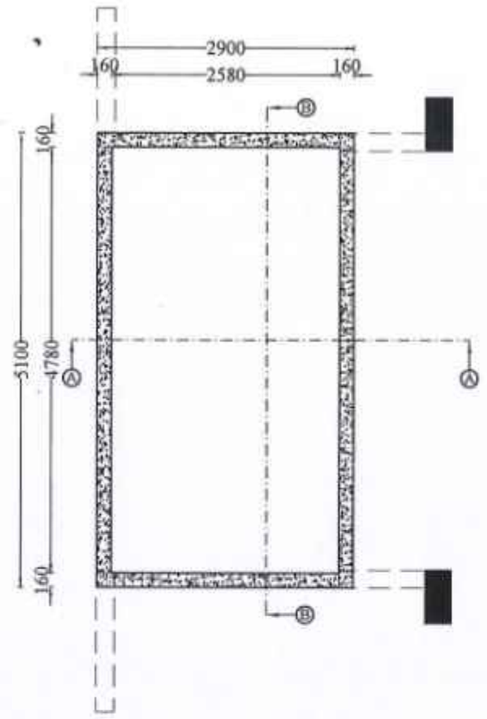
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

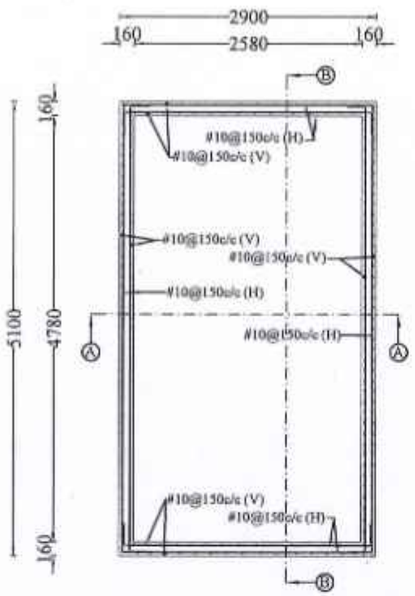
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

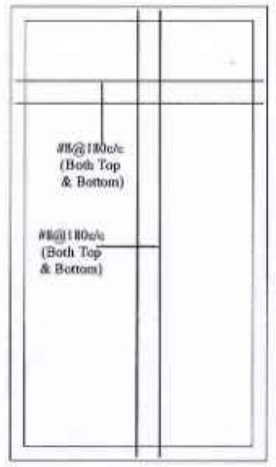
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS OF RAIN WATER TANK/ FIRE FIGHTING TANK - 2.5 X 4.7



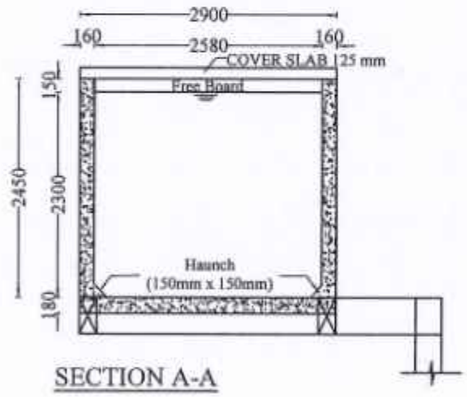
TYPICAL LAYOUT OF WALL



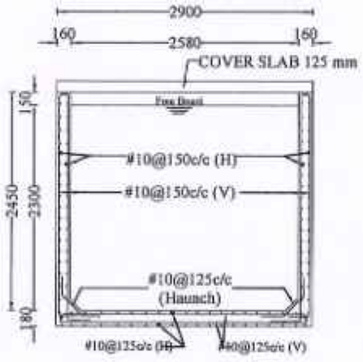
TYPICAL REINFORCEMENT OF WALL



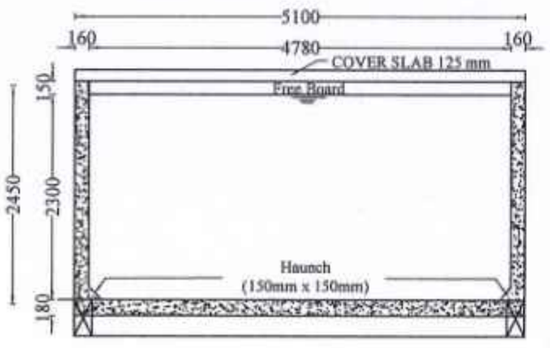
COVER SLAB DETAILS



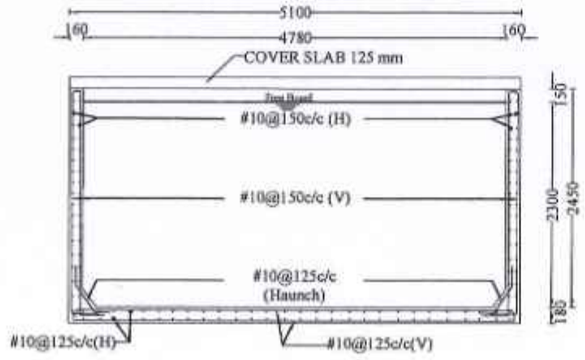
SECTION A-A



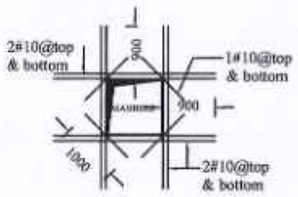
SECTION A-A



SECTION B-B



SECTION B-B



ADDITIONAL REINFORCEMENT DETAILS AROUND MANHOLE OPENING

NOTE :
Manhole Position and size should be provided As per Site Requirement.

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13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS:456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. Design of the Tank structure carried out with Working stress Method and Limit state method for Cover slab.
6. Clear cover for reinforcement are as follows:
   (a) Water Tank Walls & Base Slab - 30 mm
   (b) Cover Slab - 25 mm

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMETRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS OF FIRE FIGHTING TANK/RAIN WATER TANK - 2.5 X 4.7

TYPE DESIGN NO.: /2024

DWG.NO.: TNUHDB/EAST CEMETRY ROAD-D/GEN/6.

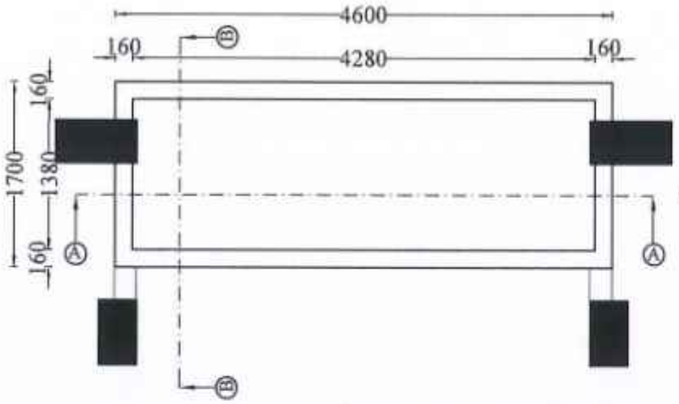
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

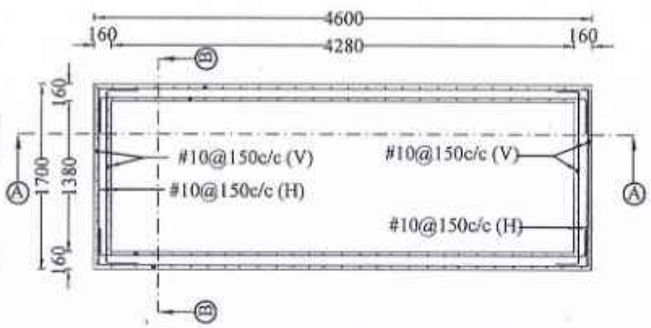
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

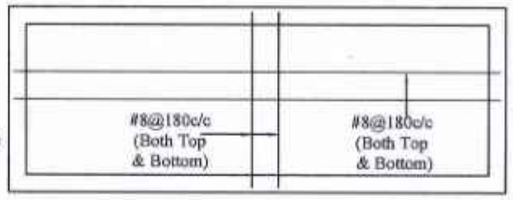
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS OF SULLAGE TANK - 4.2 X 1.3



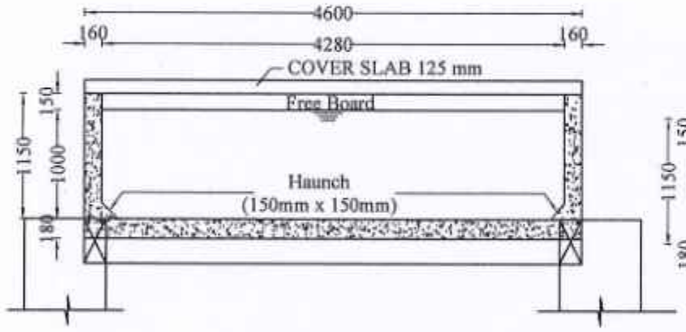
TYPICAL LAYOUT OF WALL



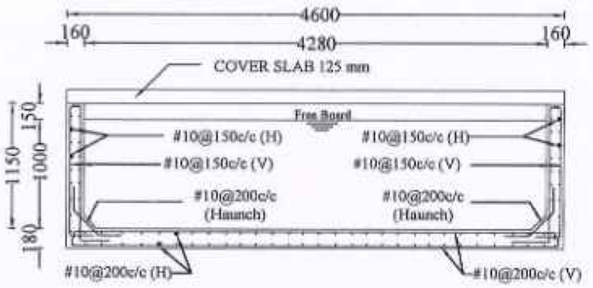
TYPICAL REINFORCEMENT OF WALL



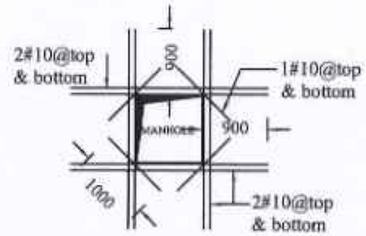
COVER SLAB DETAILS



SECTION A-A

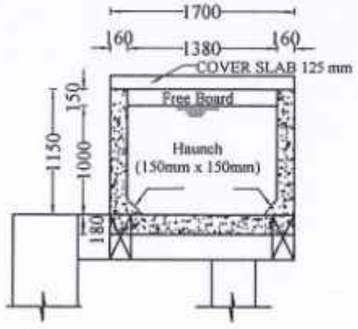


SECTION A-A

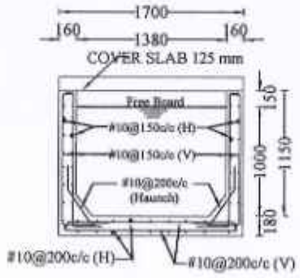


ADDITIONAL REINFORCEMENT DETAILS AROUND MANHOLE OPENING

NOTE :
Manhole Position and size should be provided As per Site Requirement.



SECTION B-B



SECTION B-B

TRUE COPY

13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in cõnjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS:456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. Design of the Tank structure carried out with Working stress Method and Limit state method for Cover slab.
6. Clear cover for reinforcement are as follows:
   (a) Water Tank Walls & Base Slab - 30 mm
   (b) Cover Slab - 25 mm

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMETRY ROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS SULLAGE TANK

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMETRY ROAD-D/GEN/08.

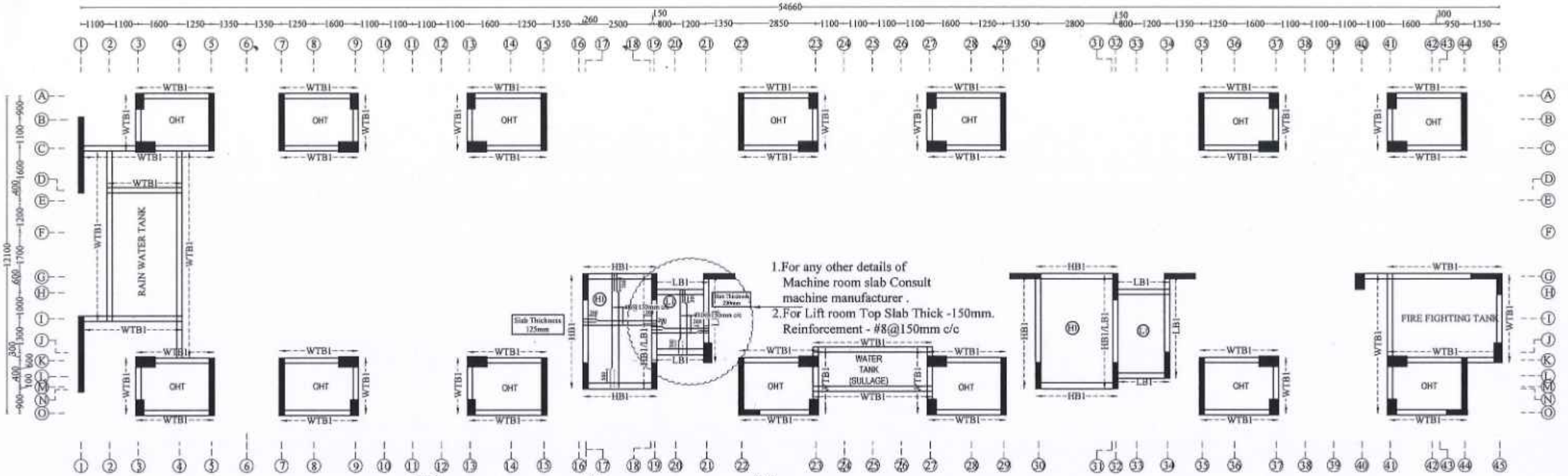
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

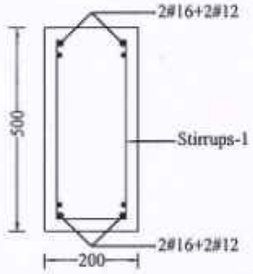
STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

HEAD ROOM & LIFT ROOM & WATER TANK BEAM LAYOUT & HEAD ROOM & LIFT ROOM SLAB DETAILS

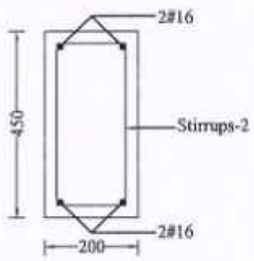


1.For any other details of Machine room slab Consult machine manufacturer .
2.For Lift room Top Slab Thick -150mm. Reinforcement - #8@150mm c/c

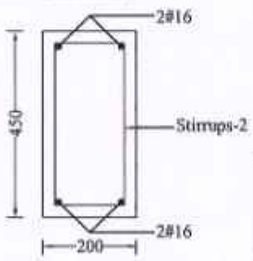
WTB1 (200x500)



HB1 (200x450)



LB1 (200x450)



NOTE :
1. Stirrups-1-- 2L#8mm Stirrups @ 75mm c/c for 1000 mm length on all side near beam column junction and the rest @ 100mm c/c.
2. Stirrups-2 -- 2L#8mm Stirrups @ 95mm c/c for 700 mm length on all side near beam column junction and the rest @ 125mm c/c.

NOTE:
1. For Water tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/5.**
2. For Rainwater tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/6.**
3. For Firefighting tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-E/GEN/7.**
4. For Sullage tank details refer drawing **TNUHDB/EAST CEMENTRY ROAD-D/GEN/8.**

NOTE :

1.All the dimensions are in mm unless noted otherwise.
2.All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3.All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4.All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5.The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6.Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7.Structure is designed for (PS+11) floors only.
8.Design of the structure carried out with Limit State Method.
9.Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10.Analysis of the structure done with **ETABS**.
11.Clear cover for reinforcement are as follows:
(a) Pile & Pile Cap - 60 mm
(b) Column/Shear wall - 40 mm
(c) Floor and roof beam - 30 mm
(d) Slab - 25 mm
(e) Water Tank Walls & Slab - 30 mm
12.Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13.All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14.Cut lintels to be provided in all floors.
15.Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16.Anchorage of column bars into the footings shall not be less than 50 Ø.
17.Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18.Ground water quality has to be conformed for suitability to construction work.
19.The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20.Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21.The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
HEAD ROOM & LIFT ROOM & WATER TANK BEAM LAYOUT & HEAD ROOM & LIFT ROOM SLAB DETAILS

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-E/27.

REVISION NO.:

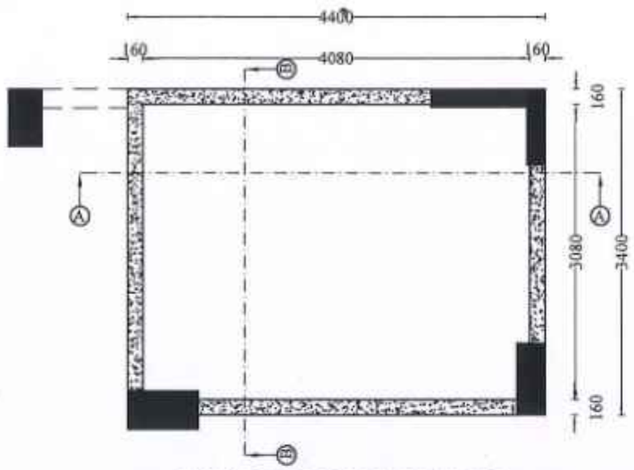
TRUE COPY
13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

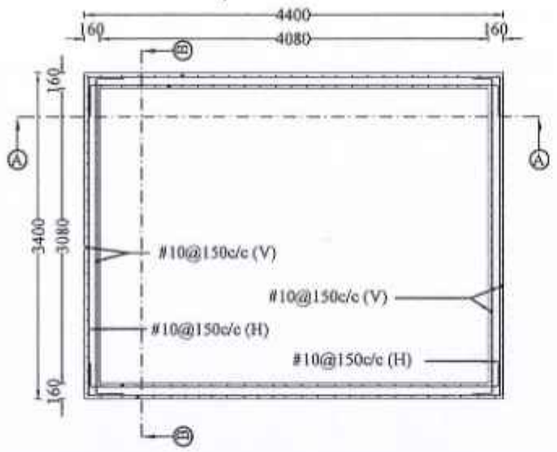
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

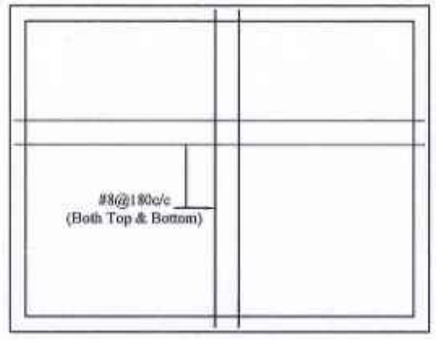
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS OF FIRE FIGHTING TANK - 3.00 X 4.00



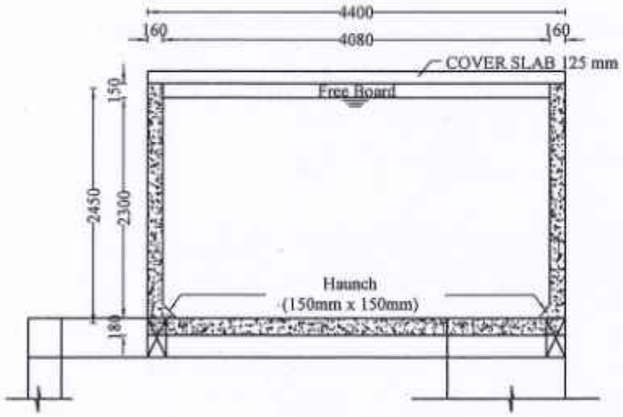
TYPICAL LAYOUT OF WALL



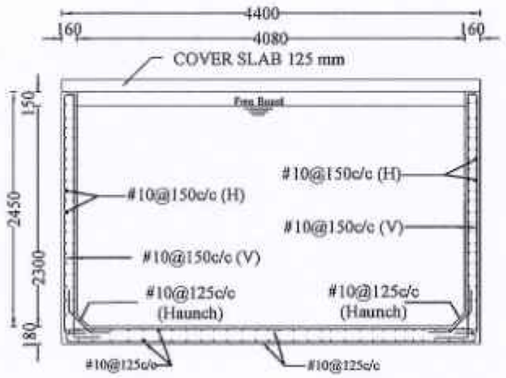
TYPICAL REINFORCEMENT OF WALL



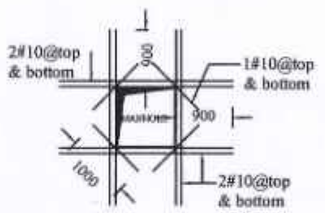
COVER SLAB DETAILS



SECTION A-A

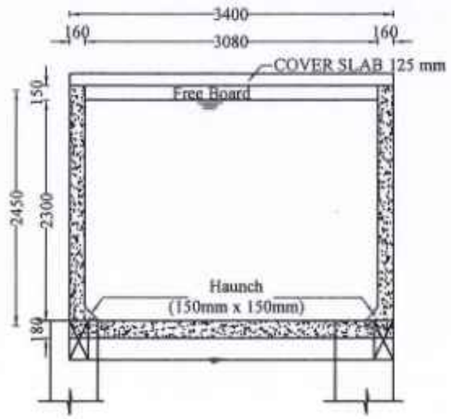


SECTION A-A

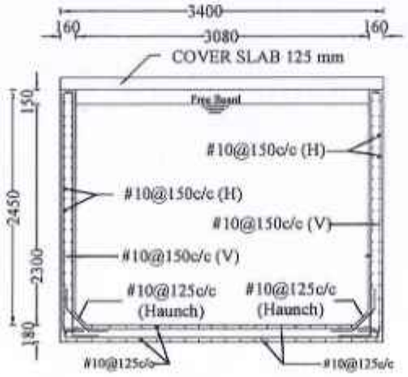


ADDITIONAL REINFORCEMENT DETAILS AROUND MANHOLE OPENING

NOTE :
Manhole Position and size should be provided As per Site Requirement.



SECTION B-B



SECTION B-B

TRUE COPY
13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.
13/11/25

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS:456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. Design of the Tank structure carried out with Working stress Method and Limit state method for Cover slab.
6. Clear cover for reinforcement are as follows:
   (a) Water Tank Walls & Base Slab - 30 mm
   (b) Cover Slab - 25 mm

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMETRY ROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
GENERAL ARRANGEMENT & TYPICAL REINFORCEMENT DETAILS OF FIRE FIGHTING TANK/RAIN WATER TANK - 3.00 X 4.00

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMETRY ROAD-E/GEN/7.

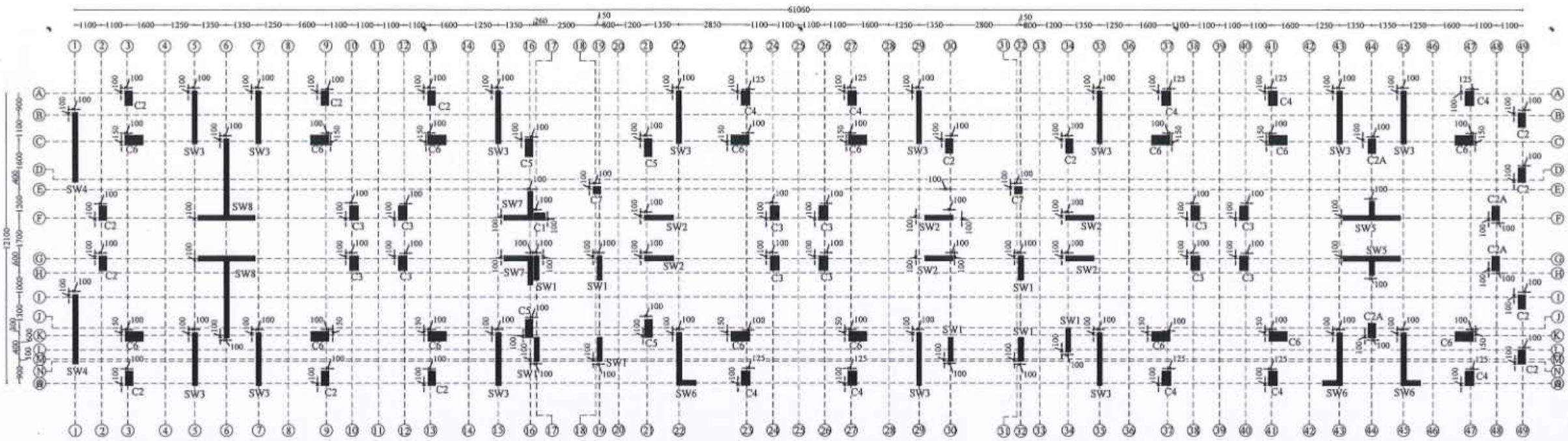
REVISION NO.:

Assistant Engineer	**Asst. Exe. Engineer**
Executive Engineer	**SE - North II**

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - UPTO STILT FLOOR



TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

13/11/25

NOTE :

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4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc,. unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT - UPTO STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/08.

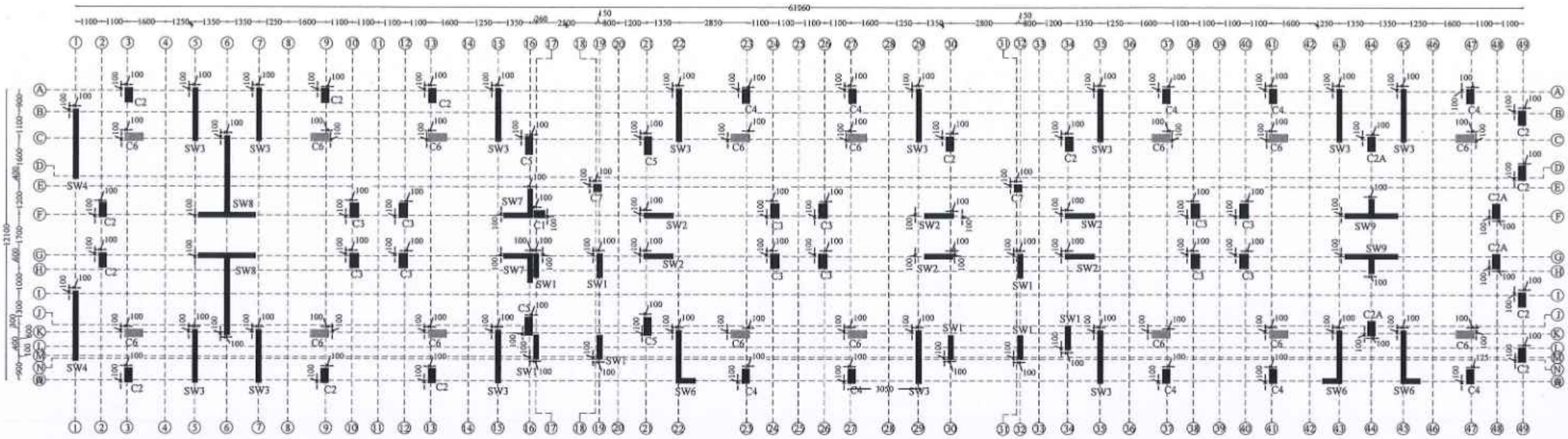
REVISION NO.:R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

COLUMN & SHEAR WALL LAYOUT - ABOVE STILT FLOOR



TRUE COPY

13/11/25

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

NOTE :

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4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (**PS+11**) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
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15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
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18. Ground water quality has to be conformed for suitability to construction work.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
COLUMN & SHEAR WALL LAYOUT - ABOVE STILT FLOOR.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/09.

REVISION NO.:R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

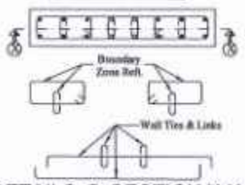
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

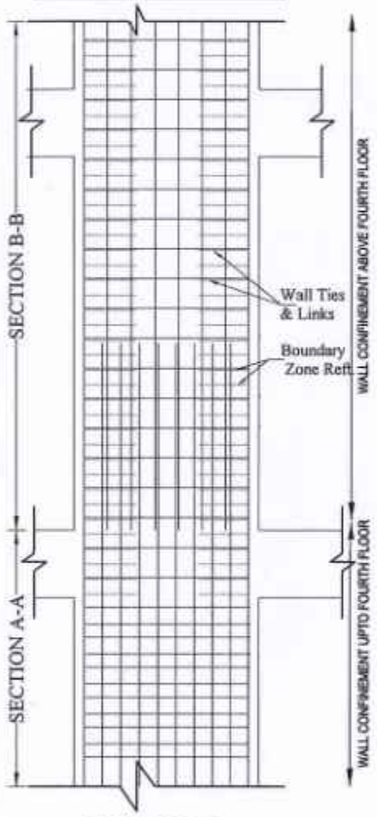
SHEAR WALL DETAILS-1

TYPICAL SHEAR WALL CONFINING REINFORCEMENT DETAILS

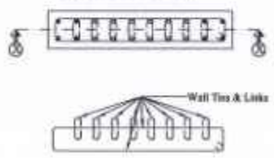
SECTION B-B

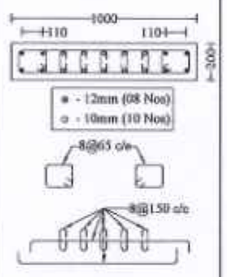
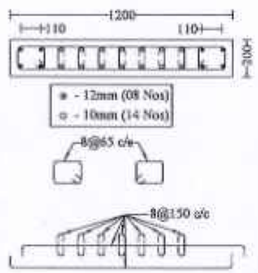
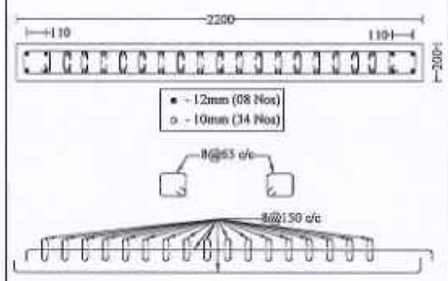
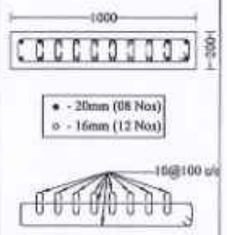
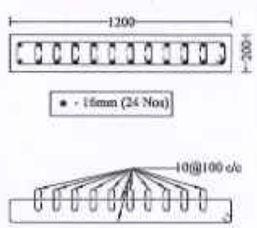
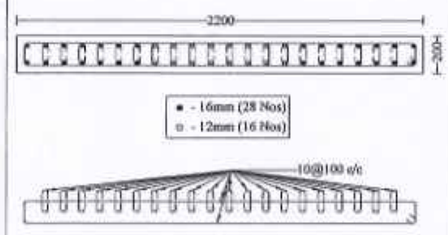


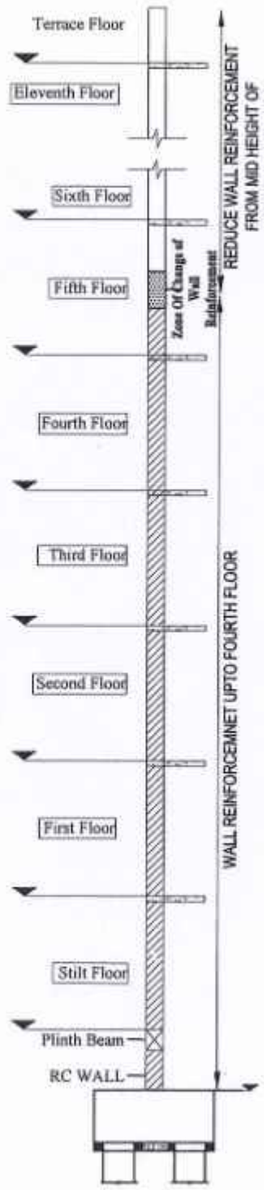
DETAILS @ SECTION X-X



SECTION A-A



Curtailments Levels	SW1 (08 Nos)	SW2 (06 Nos)	SW3 (13 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)			
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)			



NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of M30 grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of Fe500D grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
10. Analysis of the structure done with **ETABS**.
11. Clear cover for reinforcement are as follows:
    (a) Pile & Pile Cap - 60 mm
    (b) Column/Shear wall - 40 mm
    (c) Floor and roof beam - 30 mm
    (d) Slab - 25 mm
    (e) Water Tank Walls & Slab - 30 mm
12. Design mix report should be got approved by the Anna University/IIT Madras/PWD.
13. All PCC works should be carried out with PCC 1:4:8 conforming IS: 456 - 2000.
14. Cut lintels to be provided in all floors.
15. Lapping of column bars shall be midway between slabs and staggered with lap length not less than 50 Ø.
16. Anchorage of column bars into the footings shall not be less than 50 Ø.
17. Field Engineers should ensure that the soil at the recommended founding depth is in conformity to the soil characteristic detailed in the soil test report. If any variation in soil strata is encountered at the recommended foundation depth, then the same should be informed to the Chief Engineer atonce for review.
18. Ground water quality has to be conformed for suitability to construction work.
19. The ground water / soil to be tested for chlorides & sulphate and remedial measures if any should be taken accordingly.
20. Dimensions and levels are to unfinished surface excluding finishes,coating etc., unless noted otherwise. The dimension should be checked with type design drawing.
21. The Recommendations of the Soil Report prepared by ANNA UNIVERSITY Job No:SM&FE291/Consultancy/2024, Dt: 24.05.2024, & Job No:SM&FE291(a)/Consultancy/2024 , Dt: 30.08.2024 should be followed scrupulously.

STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD, CHENNAI CORPORATION ,Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-1.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/11.

REVISION NO.:R1

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

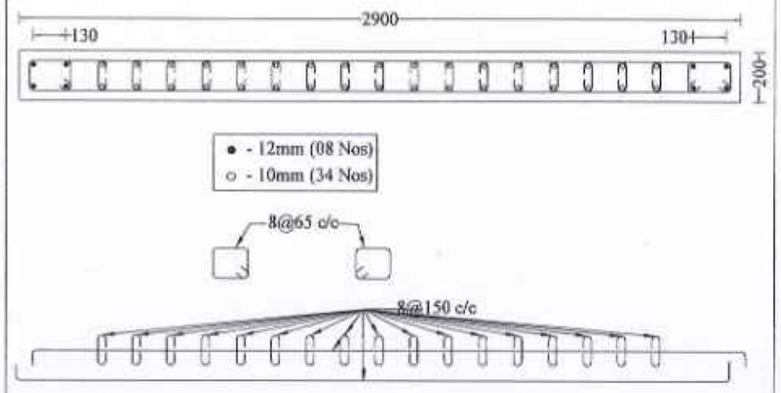
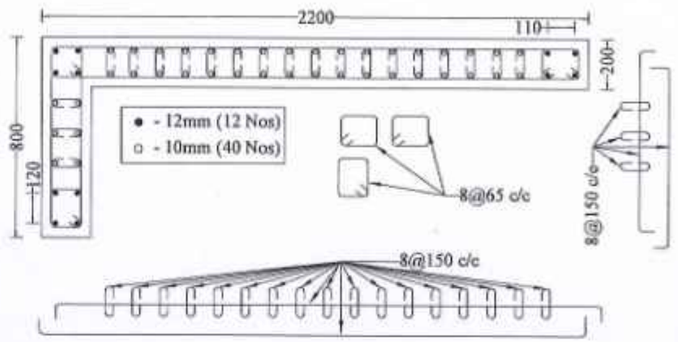
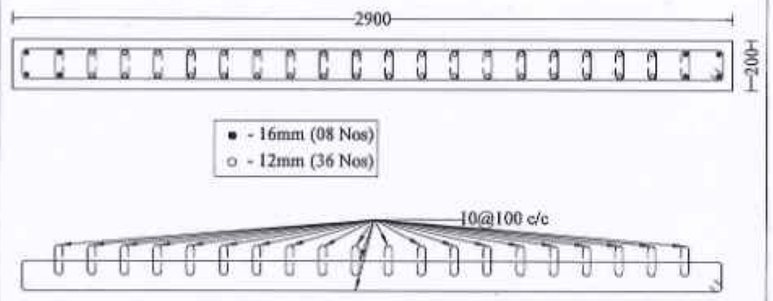
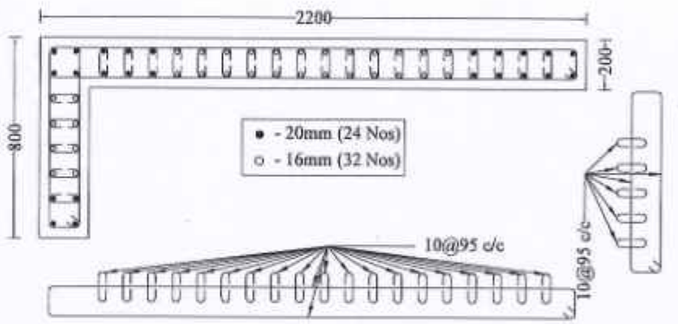
sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

TRUE COPY
13/11/25
EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

SHEAR WALL DETAILS-2

Curtailments Levels	SW4 (02 Nos)	SW6 (03 Nos)
Above 4th Floor level (Bar Curtailment at mid height of 5th floor)		
Upto 4th Floor level (Bar Curtailment at mid height of 5th floor)		

NOTE :

1. All the dimensions are in mm unless noted otherwise.
2. All structural drawings shall be read in conjunction with the relevant Architectural drawings.
3. All the RCC works shall be as per design mix of **M30** grade, conforming to IS: 456 - 2000.
4. All the reinforcement shall be of **Fe500D** grade conforming to IS 1786 - 2008 unless noted otherwise.
5. The structure is designed for seismic zone III as per IS 1893:2016 and detailed as per IS13920:2016.
6. Flyash bricks has been considered for masonry work in sub structure and AAC blocks has been considered for masonry work in super structure.
7. Structure is designed for (PS+11) floors only.
8. Design of the structure carried out with Limit State Method.
9. Bored Cast-in-situ piles of 600 mm diameter shall be adopted with the minimum length of pile of 23 m to 27 m from the Existing Ground Level (EGL) & The axial capacity of pile is 1600 KN and the lateral capacity is 138.1 KN for 600mm diameter Piles (Fixed) as recommended in Soil Report.
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STRUCTURAL DETAILS

PROJECT:
CONSTRUCTION OF 1500 NOS OF (PS+11) TENEMENTS AT EAST CEMENTRYROAD,CHENNAI CORPORATION , Dn No.51, ZONE V.

TITLE:
SHEAR WALL DETAILS-2.

TYPE DESIGN NO.:

DWG.NO.: TNUHDB/EAST CEMENTRY ROAD-D/12.

REVISION NO.:R1

TRUE COPY

EXECUTIVE ENGINEER
STRUCTURAL AND QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
5, KAMARAJAR SALAI, CHENNAI-600 005.

13/11/25

Assistant Engineer	Asst. Exe. Engineer
Executive Engineer	SE - North II

sd.xxxx 13.11.2025
Chief Engineer

STRUCTURAL & QUALITY CONTROL CELL
TAMIL NADU URBAN HABITAT DEVELOPMENT BOARD
NO.5, KAMARAJAR SALAI
CHENNAI - 600 005.

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

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+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.