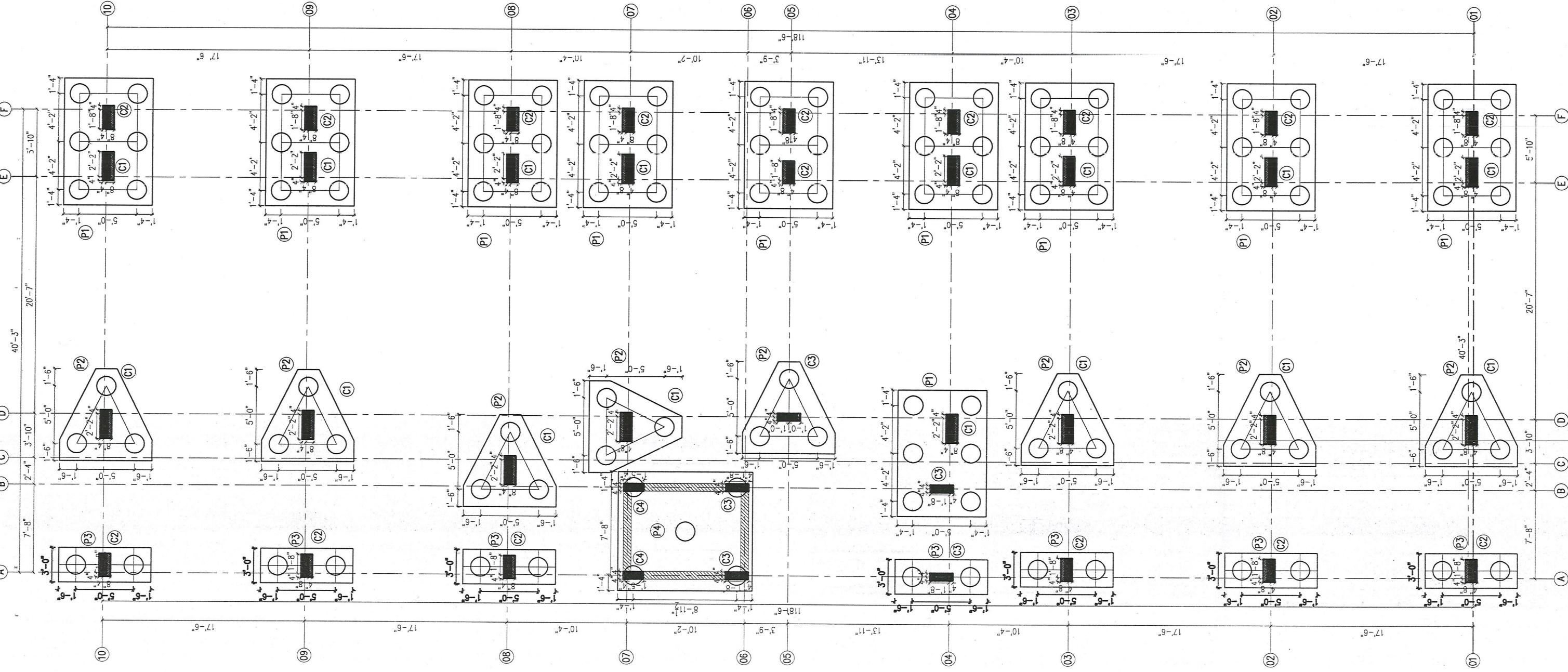




- NOTES:-
- 1) THIS DRAWING SHALL BE READ WITH RELEVANT ARCHITECTURAL DRAWINGS.
 - 2) REINFORCEMENT ROD DIAMETER ARE IN MM
 - 3) ALL DIMENSIONS SHALL BE CHECKED & VERIFIED BEFORE EXECUTION OF WORK.
 - 4) CONSTRUCTION OF BORED CAST IN SITU R.C.C PILES SHALL BE IN ACCORDANCE WITH IS: 2911 (PART -1)/SEC -II LATEST REVISION.
 - 5) CONCRETE FOR PILES : M40 MINIMUM WITH CEMENT CONTENT 400KG/CUM OF CONCRETE : SLUMP MINIMUM 100mm.
 - 6) CONCRETE FOR PILE CAP & PB : M30 MINIMUM WITH CEMENT CONTENT 300KG/CUM.
 - 7) HIGH YIELD STRENGTH DEFORMED STEEL BARS FE 415 (LATEST VERSION) SHALL BE USED.
 - 8) PILE SHOULD NOT DEVIATE MORE THAN 75mm OR D/10 (DIA OF PILE) WHICHEVER IS MORE, IN THE CASE OF SINGLE PILE IN COLUMN POSITIONAL TOLERANCE SHOULD NOT BE MORE THAN 50mm.
 - 9) CAPACITY OF ANY PILE SHALL BE NOTED AND ADEQUATE MEASURES SHALL BE TAKEN TO AVOID OVERLOADING OF PILE DURING CONSTRUCTION.
 - 10) A COMPETENT INSPECTOR SHALL BE MAINTAINED AT SITE TO RECORD NECESSARY INFORMATION DURING INSTALLATION OF PILES AND THE DATA TO BE RECORDED SHALL BE IN ACCORDANCE WITH IS: 2811 (PART -1)/SEC-II.
 - 11) COLUMNS ARE SHOWN AS — O —
 - 12) USE PLASTER FOR RECOMMENDED PROPORTIONS.
 - 13) CLEAR COVER FOR COLUMNS - 40mm, PILE - 50mm, PILE CAP - 75mm, BASE RAFT SLAB - 50mm, RC WALL - 25mm.
 - 14) MINIMUM CLEARANCE OF 25mm SHALL BE MAINTAINED AT ALL CORNERS AND JOINTS.
 - 15) STONE AGGREGATE SIZE - 20mm AND DOWN GRADE.
 - 16) USE ORDINARY PORTLAND CEMENT CONFORMING TO IS 8112 (LATEST VERSION) FOR 43 GRADE CEMENT. IS 12269 FOR 53 GRADE CEMENT.
 - 17) TOP OF PILE SHALL BE 150mm ABOVE FINISHED FLOOR LEVEL.
 - 18) PILE SHOULD PROJECT 75mm INTO THE PILE CAP CONCRETE.
 - 19) LAPPING OF VERTICAL BARS SHALL BE FULLY LAP WELDED.
 - 20) NOT MORE THAN 1/4 OF VERTICAL BARS SHALL BE LAPPED AT ANY PLACE.
 - 21) USE 18 GAUGE GI BINDING WIRE FOR BINDING TIES WITH VERTICAL BARS.
 - 22) ALL TIES SHALL BE WELDED (TACK WELD) WITH VERTICAL BARS.
 - 23) THE HELIX SHALL BE WELDED TO THE VERTICAL BARS AT THE TOP OF THE HELIX SPACED EVENLY AND ITS ENDS SHALL BE ANCHORED PROPERLY BY PROVIDING 40mm EXTRA TURNS OF THE SPIRAL PREFERABLY WITH A 135° HOOK.
 - 24) CONCRETE SHALL BE PLACED THROUGH A TREMIE PIPE OF SUFFICIENT DETERMINED CAPACITY TO FILL THE Voids ENTIRE VOLUME OF BORE WITHOUT SEPARATION OF CONCRETE.
 - 25) WHILE CONCRETING THROUGH TREMIE WHICH IS SUBSEQUENTLY WITHDRAWN, THE CONCRETE SHALL BE PLACED IN SUFFICIENT LAYERS TO PREVENT SEGREGATION OF CONCRETE.
 - 26) SUFFICIENT HEAD OF CONCRETE SHALL BE MAINTAINED TO PREVENT THE IN FLOW OF SOIL AND GROUND WATER.
 - 27) USE "BENTONITE SLURRY" FOR STABILIZE THE SOIL.
 - 28) CONCRETING OPERATIONS SHOULD NOT BE TAKEN UP WHEN THE SPECIFIC GRAVITY OF BOTTOM SLURRY IS MORE THAN 1.25.
 - 29) USE GOOD WATER FOR CONCRETE MIXING AND CURING CONFORMING TO IS 456 (LATEST REVISION).
 - 30) ALL STRUCTURAL MEMBER DESIGNED FOR SEISMIC ZONE-III.
 - 31) FOUNDATION DESIGNED FOR GF+5 UPPER FLOORS.

AMENDMENTS			
NO.	SCALE	DESIGN BY	DATE
JOB NO	001	DRAWN BY	
DRG NO	S01	DATE	

DRAWING TITLE:
PILE FOUNDATION LAYOUT

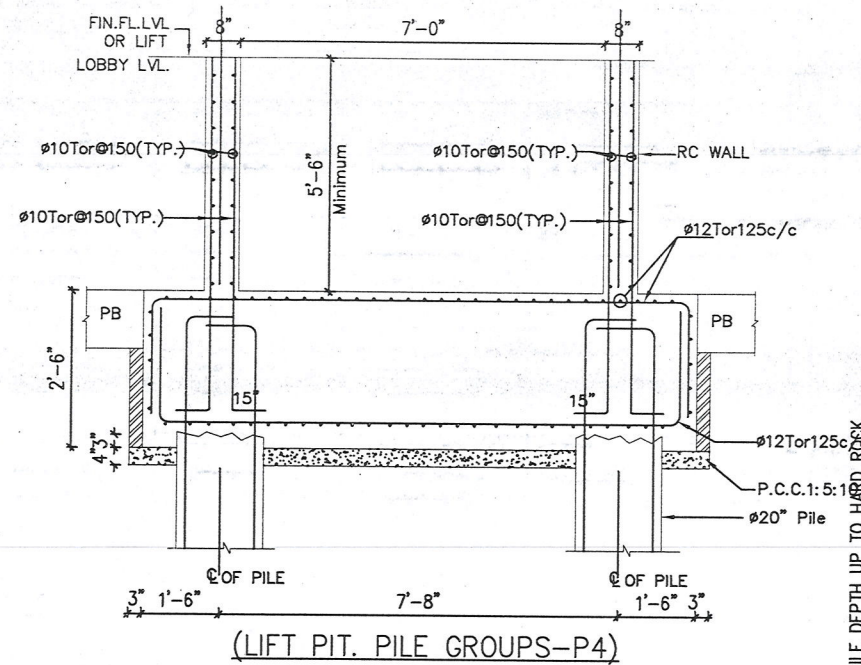
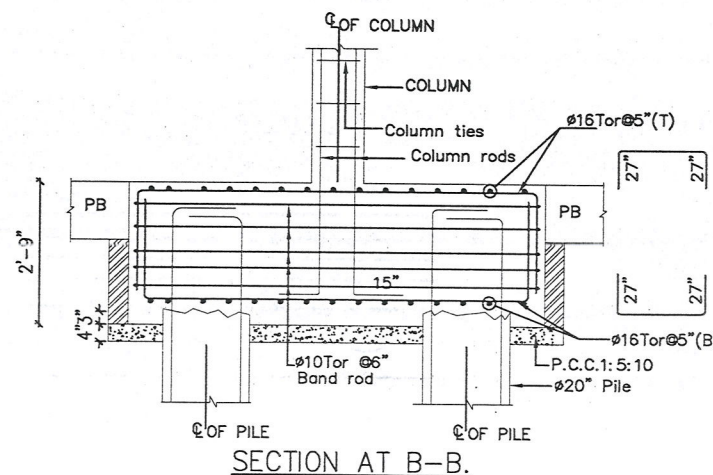
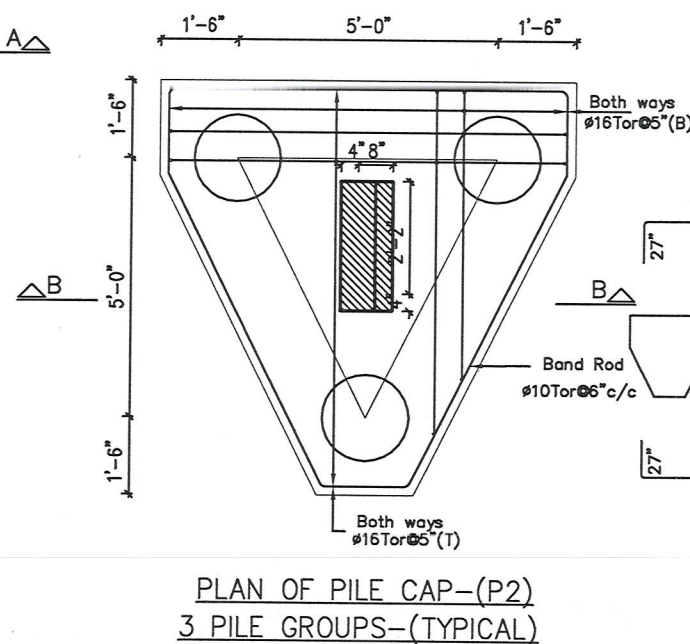
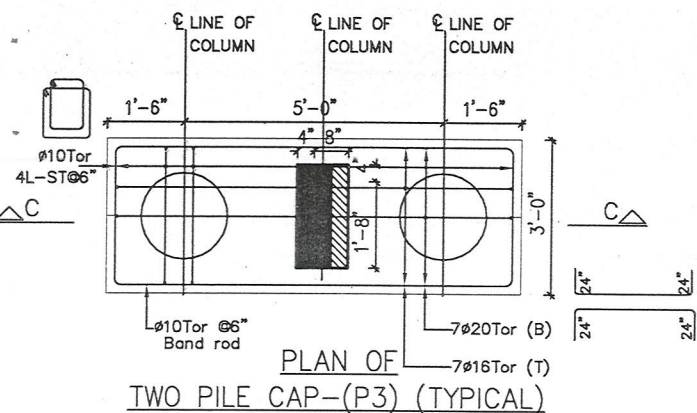
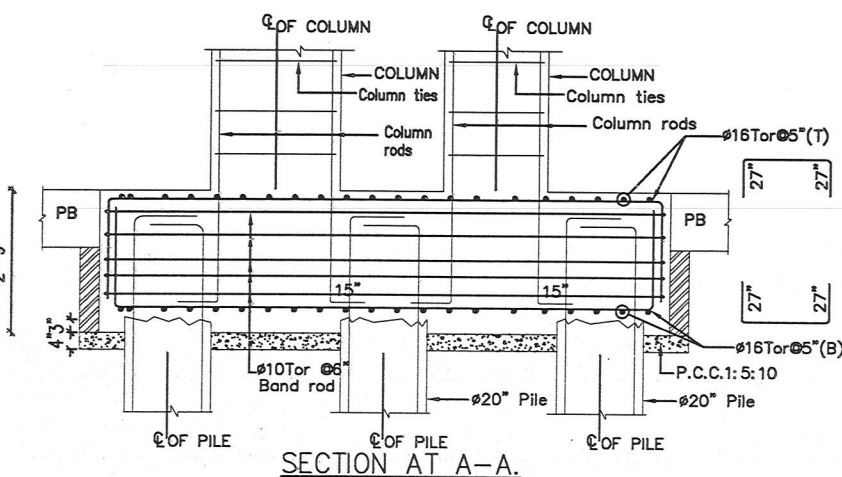
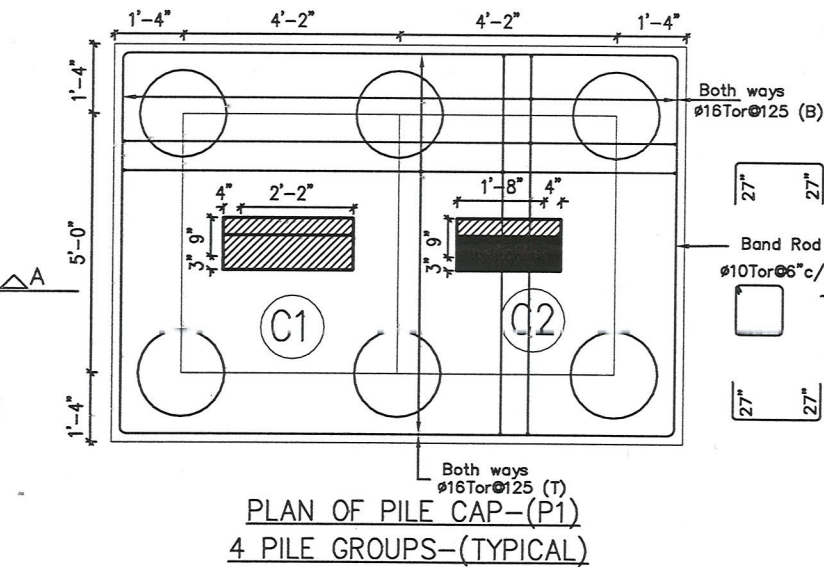
PROJECT TITLE :
THE PROPOSED CONSTRUCTION OF
STILT FLOOR + 4 FLOORS + 5TH FLOOR PART
RESIDENTIAL BUILDING (HEIGHT - 18.30M) WITH 9
DWELLING UNITS AVALING
PREMIUM FSI WITH TOD BENEFIT AT PLOT NO.47,
OLD DOOR NO.36, NEW DOOR NO.25, 10TH AVENUE,
ASHOK NAGAR,
CHENNAI COMPRISED IN R.S. NO.52, BLOCK NO.57 OF
KODAMBAKKAM(PART 2) VILLAGE, MAMBALAM TALUK

STRUCTURAL CONSULTANT
Er. P. RAMAN, B.E., M.E. (Struct.), MIE., C.Eng.,
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No.24, Ground Floor, CRR Puram Phase-3,
Manapakkam, Chennai - 600 125.

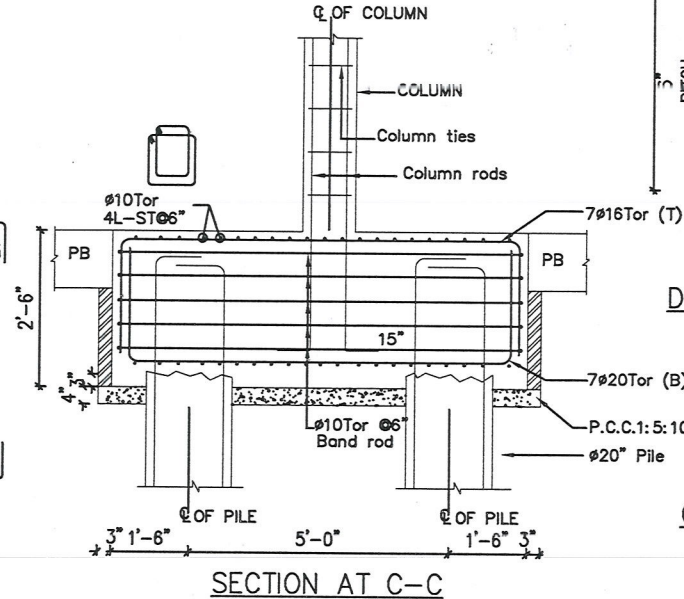
FOUNDATION LAYOUT.

SCHEDULE OF COLUMNS (GRADE-M40)

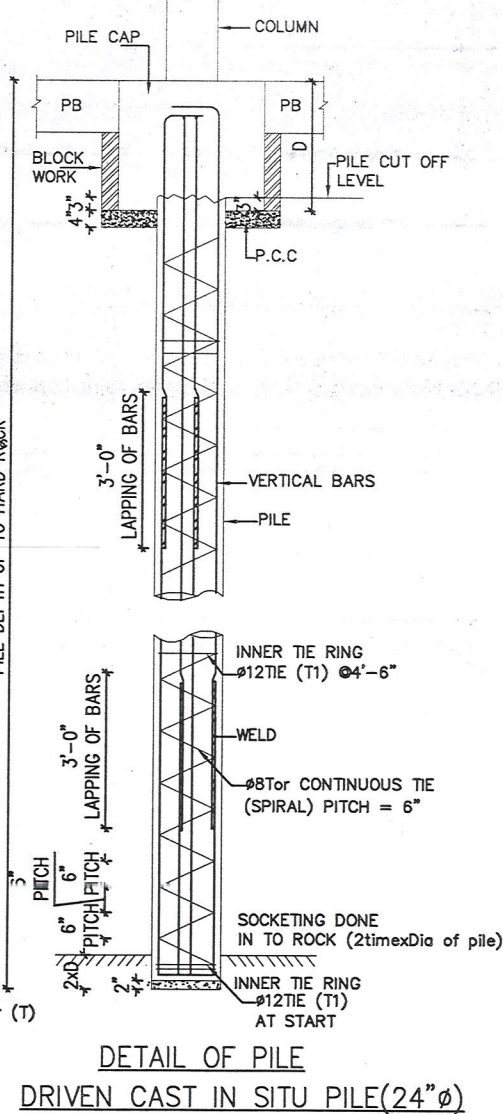
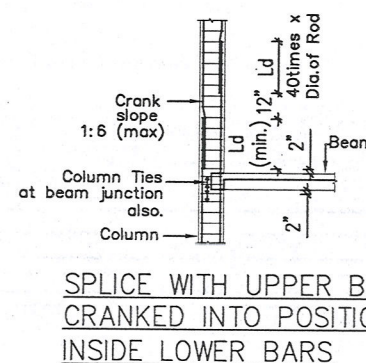
TYPE	GROUND FLOOR	1st FLOOR	2nd FLOOR	3rd FLOOR	4th FLOOR	5th FLOOR	STIRRUPS
C1	12- $\phi 20+2-\phi 16(b)$ 30"	12- $\phi 20+2-\phi 16(b)$ 30"	8- $\phi 20+4-\phi 16(b)$ 30"	14- $\phi 16$ 30"	14- $\phi 16$ 30"	14- $\phi 16$ 30"	$\phi 8$ TOR
C2	8- $\phi 20+2-\phi 16(b)$ 24"	8- $\phi 20+2-\phi 16(b)$ 24"	10- $\phi 16$ 24"	10- $\phi 16$ 24"	10- $\phi 16$ 24"	10- $\phi 16$ 24"	$\phi 8$ TOR
C3	8- $\phi 20+2-\phi 16(b)$ 24"	10- $\phi 16$ 24"	8- $\phi 16+2-\phi 12(c)$ 24"	8- $\phi 16+2-\phi 12(c)$ 24"	8- $\phi 16+2-\phi 12(c)$ 24"	8- $\phi 16+2-\phi 12(c)$ 24"	$\phi 8$ TOR
C4	10- $\phi 16$ 21"	8- $\phi 16+2-\phi 12(c)$ 21"	8- $\phi 16+2-\phi 12(c)$ 21"	8- $\phi 16+2-\phi 12(c)$ 21"	8- $\phi 16+2-\phi 12(c)$ 21"	8- $\phi 16+2-\phi 12(c)$ 21"	$\phi 8$ TOR



(LIFT PIT. PILE GROUPS-P4)

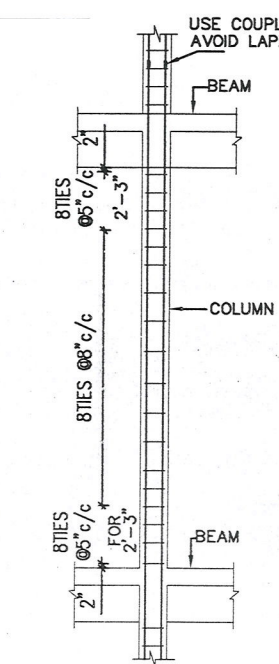


SECTION AT C-C



DETAIL OF PILE DRIVEN CAST IN SITU PILE(24"Ø)

C.S. OF PILE - P1 TO P3



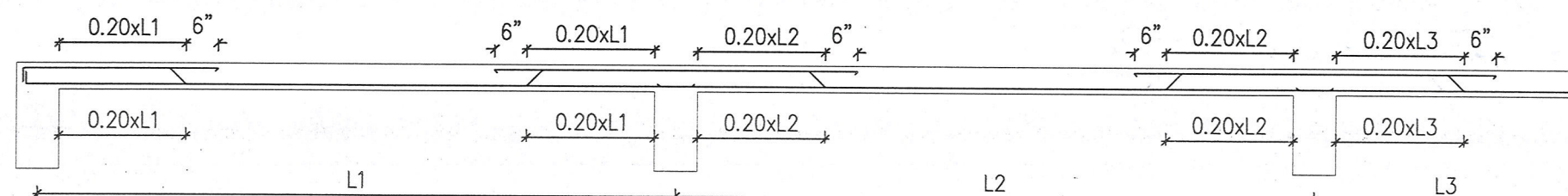
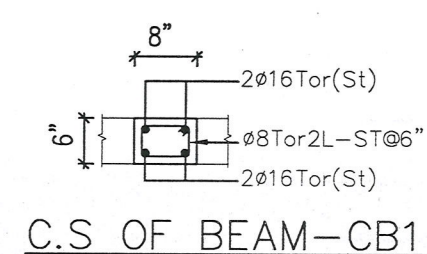
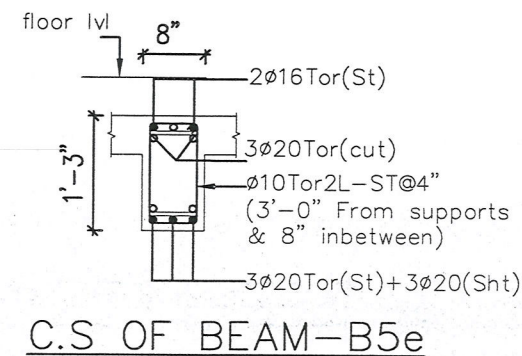
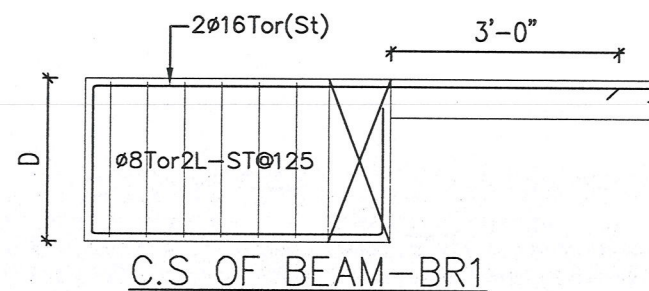
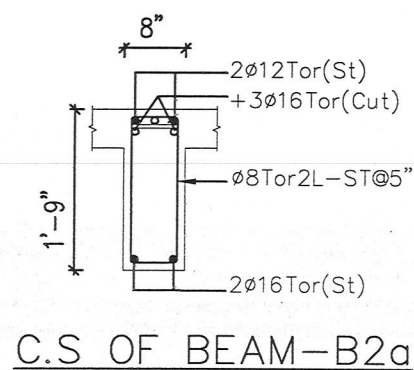
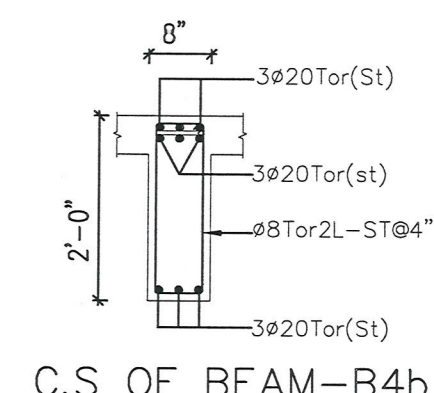
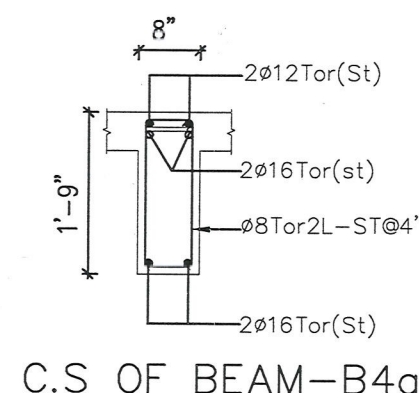
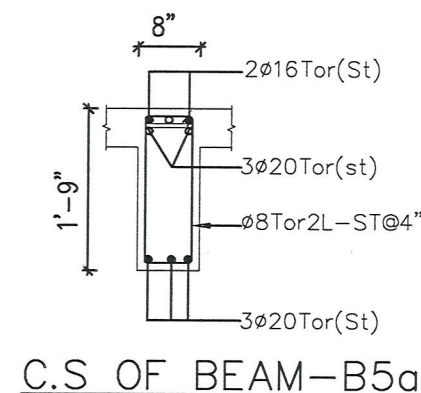
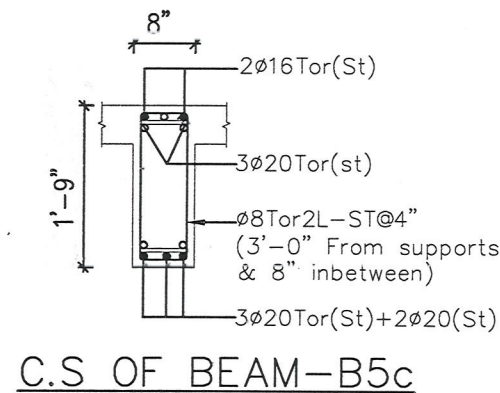
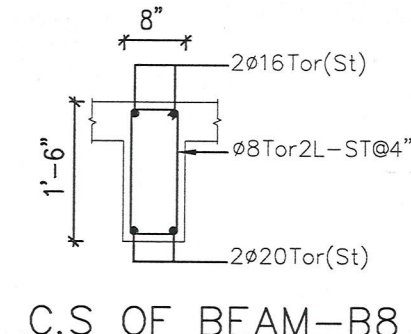
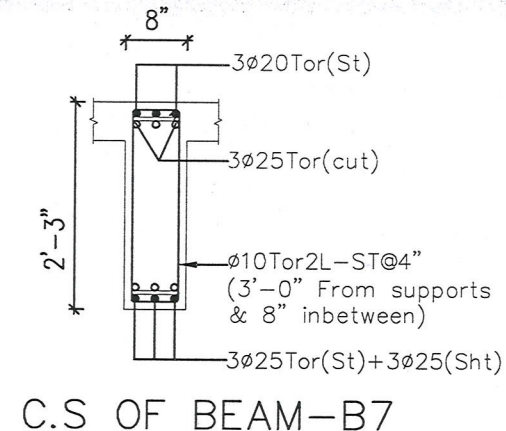
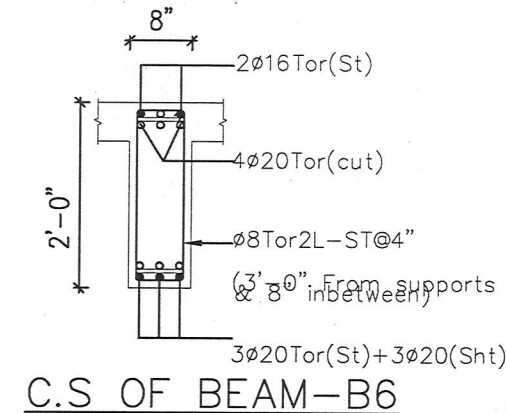
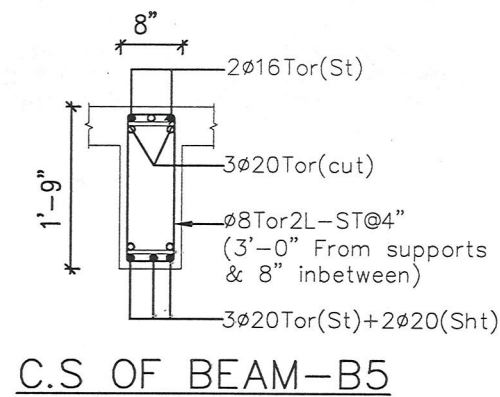
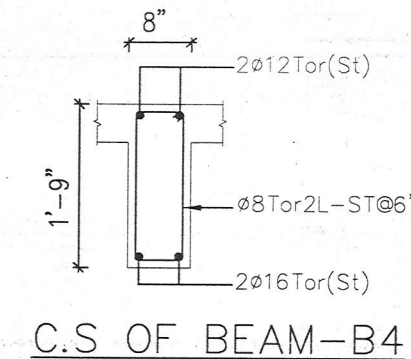
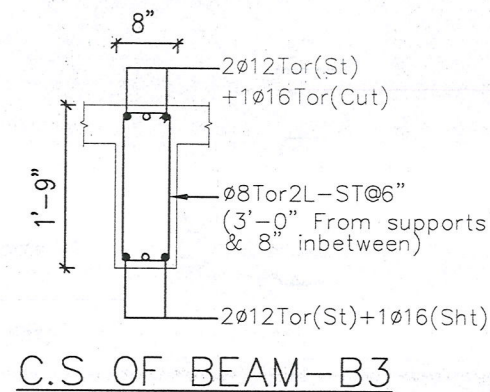
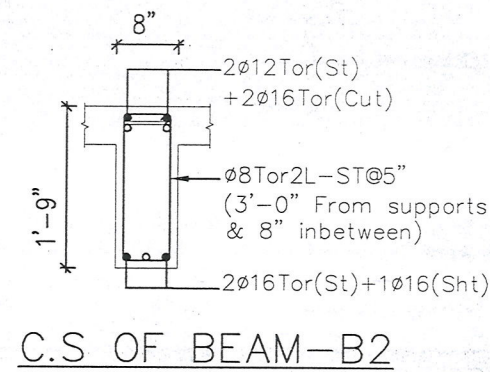
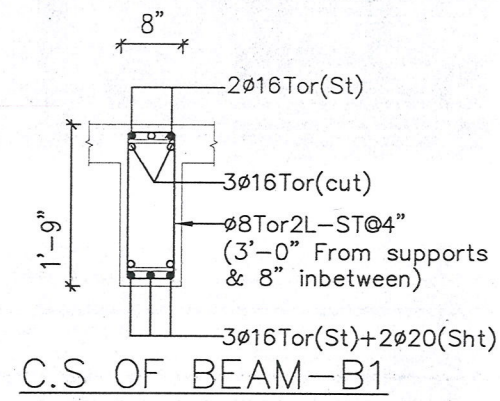
TYPICAL TIES ARRANGEMENT IN COLUMN

NOTES FOR BORED CAST IN SITU PILE:
1) THIS DRAWING SHALL BE READ WITH RELEVANT ARCHITECTURAL DRAWINGS.
2) REINFORCEMENT ROD DIAMETER ARE IN MM.
3) ALL DIMENSIONS SHALL BE CHECKED & VERIFIED BEFORE COMMENCEMENT OF WORK.
4) DESIGN AND CONSTRUCTION OF BORED CAST IN SITU P.C.C. PILES SHALL BE IN ACCORDANCE WITH IS: 2911 PART - I & IS: 456 LATEST REVISION.
5) CONCRETE FOR PILES: M40 MINIMUM WITH CEMENT CONTENT 400KG/CUM OF CONCRETE (30MPa MINIMUM) - 100mm MAX-100mm.
6) CONCRETE FOR PILE CAP: M40 MINIMUM WITH CEMENT CONTENT 300KG/CUM.
7) 50% MINIMUM YIELD STRENGTH DEFORMED STEEL BARS FE 500 GRADE CONFORMING TO IS: 1786-1973.
8) PILE CLEAN WATER FROM ACCESS AND OTHER IMPURITIES.
9) PILES SHOULD NOT DEVIATE MORE THAN 75mm OR 0.1% DIA OF PILE WHICHEVER IS MORE IN THE CASE OF SINGLE PILE IN COLUMN POSITIONAL TOLERANCE SHOULD NOT BE MORE THAN 40mm.
10) DEVIATION FROM THE DESIGNED LOCATION OR ALIGNMENT, LOAD CAPACITY OF ANY PILE SHALL BE NOTED AND NECESSARY MEASURES SHALL BE TAKEN BEFORE CONCRETING OF PILE CAP.
11) A COMPETENT INSPECTOR SHALL BE MAINTAINED AT SITE TO RECORD NECESSARY INFORMATION DURING INSTALLATION OF PILES AND THE DATA TO BE RECORDED SHALL BE IN ACCORDANCE WITH IS: 2911 (PART - I / IS: 456-1).
12) PILES ARE SHOWN AS -
13) USE PLASTER IN RECOMMENDED PROPORTIONS.
14) CLEAR COVER FOR COLUMNS: 40mm, PILE: 50mm, PILE CAP: 75mm, BASE PART SLAB: 40mm, RC WALL: 25mm.
15) STONE AGGREGATE AND SAND CONFORMING TO IS: 303 STONE AGGREGATE SIZE: 20mm AND DOWN GRADE.
16) REINFORCEMENT: - FOR STEEL FOR AS AND ABOVE CONCRETING TO IS: 1786 (PART - I) IS: 456-1.
17) PILE SHOULD PROJECT 75mm INTO THE PILE CAP CONCRETE.
18) LAPPING OF VERTICAL BARS SHALL BE FULLY LAP WELDED.
19) LAPPING OF VERTICAL BARS SHALL BE STAGGERED.
20) USE 18 GAUGE Q.L. BINDING WIRE FOR BRIDGING TIES WITH VERTICAL BARS BENDING SHALL BE PROTECT.
21) ALL TIES SHALL BE WELDED (TACK WELD) WITH VERTICAL BARS. SPIRAL TIES SHALL BE REGULAR FORMATION WITH THE TURNS OF THE HELI SPACED EXACTLY AND ITS ENDS SHALL BE ANCHORED PROPERLY BY PROVIDING 40mm EXTRA TURNS OF THE SPIRAL PREPARELY WITH A 135° HOOK.
22) CONCRETE SHALL BE PLACED THROUGH A TREMIE PIPE OF DIAMETER NOT LESS THAN 150mm SO AS TO FILL THE ENTIRE VOLUME OF BORE WITHOUT THE FORMATION OF VOIDS WHILE CONCRETING THROUGH TREMIE WHICH IS SUBSEQUENTLY WITHDRAWN. THE CONCRETE SHALL BE PLACED IN SUFFICIENT QUANTITY TO ENSURE THAT DURING WITHDRAWAL OF TIE A SUFFICIENT HEAD OF CONCRETE IS MAINTAINED TO PREVENT THE IN FLOW OF SOIL AND GROUND WATER.
23) USE 'BENTONITE SLURRY' FOR STABILISE THE SOIL.
24) CONCRETING OPERATIONS SHOULD NOT BE TAKEN UP WHEN THE SPECIFIC GRAVITY OF BOTTOM SLURRY IS MORE THAN 1.25.
25) USE GOOD WATER FOR CONCRETE MIXING AND CURING CONFORMING TO IS: 456 (LATEST REVISION).
26) FOUNDATION DESIGNED FOR 0+4 UPPER FLOORS.

NO.	AMENDMENTS	BY	DATE
SCALE	1:100	DESIGN BY	-
JOB NO	001	DRAWN BY	-
DRG NO	502	DATE	-

DRAWING TITLE:
PILE FOUNDATION LAYOUT
PROJECT TITLE:
THE PROPOSED CONSTRUCTION OF
STILL FLOOR + 4 FLOORS + 5TH FLOOR PART RESIDENTIAL
BUILDING (HEIGHT: 18.30M) WITH 9 DWELLING UNITS
AVAILING PREMIUM FSI WITH TOD BENEFIT AT PLOT
NO.47, OLD DOOR NO.38, NEW DOOR NO.25, 10TH
AVENUE, ASHOK NAGAR, CHENNAI COMPRISED IN R.S.
NO.52, BLOCK NO.57 OF KODAMBAKKAM (PART 2) VILLAGE,
MAMBALAM TALUK

STRUCTURAL CONSULTANT
Er. P. RAMAN, B.E (Civil), M.E (Struct.), MIE., C.Eng.,
Registered Structural Engineer Grade-1(SE)
CMDA Reg. No.: SE/GR-1/2024/02/006
No.24, Ground Floor, CRR Puram Phase-3,
Manapakkam, Chennai - 600 125.



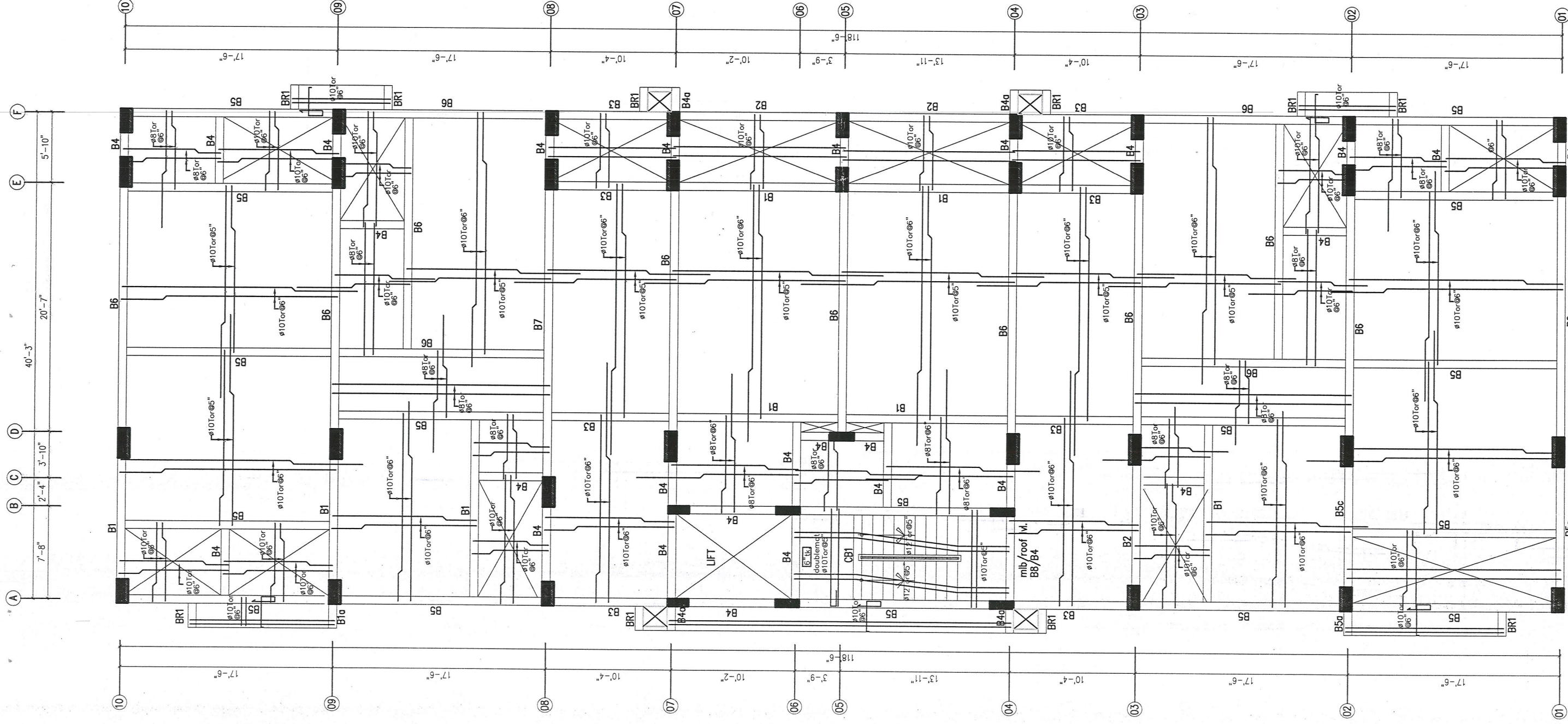
- NOTES FOR BORED CAST IN SITU PILE:
- THIS DRAWING SHALL BE READ WITH RELEVANT ARCHITECTURAL DRAWINGS.
 - REINFORCEMENT ROD DIAMETER ARE IN MM.
 - ALL DIMENSIONS SHALL BE CHECKED & VERIFIED BEFORE EXECUTION OF WORK.
 - DESIGN AND CONSTRUCTION OF BORED CAST IN SITU R.C.C PILES SHALL BE IN ACCORDANCE WITH IS: 2911 (PART -1/SEC -II) LATEST REVISION.
 - CONCRETE FOR PILES: M40 MINIMUM WITH CEMENT CONTENT 400KG/CUM OF CONCRETE: SLUMP MINIMUM -100mm MAX-180mm.
 - CONCRETE FOR PILECAP & COLUMN: M30 MINIMUM WITH CEMENT CONTENT 360KG/CUM.
 - HIGH YIELD STRENGTH DEFORMED STEEL BARS FE 550 GRADE CONFORMING TO IS: 1786-1973.
 - USE CLEAN WATER FREE FROM ACIDS AND OTHER IMPURITIES.
 - PILE SHOULD NOT DEVIATE MORE THAN 75mm OR D/10 (DIA OF PILE) WHICHEVER IS MORE. IN THE CASE OF SINGLE PILE IN COLUMN POSITIONAL TOLERANCE SHOULD NOT BE MORE THAN 50mm.
 - ANY DEVIATION FROM THE DESIGNED LOCATION OR ALIGNMENT, LOAD CAPACITY OF ANY PILE SHALL BE NOTED AND ADEQUATE MEASURES SHALL BE TAKEN BEFORE CONCRETING OF PILE CAP.
 - A COMPETENT INSPECTOR SHALL BE MAINTAINED AT SITE TO RECORD NECESSARY INFORMATION DURING INSTALLATION OF PILES AND THE DATA TO BE RECORDED SHALL BE IN ACCORDANCE WITH IS: 2911 (PART -1/SEC-II).
 - COLUMNS ARE SHOWN AS—□ PILES ARE SHOWN AS—○
 - USE PLASTISIZER IN RECOMMENDED PROPORTIONS.
 - CLEAR COVER FOR COLUMNS -40mm, PILE -50mm, PILE CAP-75mm, BASE RAFT SLAB-50mm, RC WALL -25mm.
 - STONE AGGREGATE AND SAND CONFORMING TO IS 383 STONE AGGREGATE SIZE -20mm AND DOWN GRADE.
 - USE ORDINARY PORTLAND CEMENT CONFORMING TO IS 8112 (LATEST VERSION) FOR 43 GRADE CEMENT. IS 12269 FOR 53 GRADE CEMENT.
 - REINFORCEMENT: TOR STEEL FOR Ø6 AND ABOVE CONFORMING TO IS 1786 FY-500.
 - PILE SHOULD PROJECT 75mm INTO THE PILE CAP CONCRETE.
 - LAPPING OF VERTICAL BARS SHALL BE FULLY LAP WELDED.
 - LAPPING OF VERTICAL BARS SHALL BE STAGGERED.
 - NOT MORE 1/3 OF VERTICAL BARS SHALL BE LAPPED AT ANY PLACE.
 - USE 18 GAUGE G.I. BINDING WIRE FOR BINDING TIES WITH VERTICAL BARS BINDING SHALL BE PERFECT.
 - ALL TIES SHALL BE WELDED (TACK WELD) WITH VERTICAL BARS. SPIRAL TIES SHALL BE REGULAR FORMATION WITH THE TURNS OF THE HELI SPACED EVENLY AND ITS ENDS SHALL BE ANCHORED PROPERLY BY PROVIDING 40mm EXTRA TURNS OF THE SPIRAL PREFERABLY WITH A 135° HOOK.
 - CONCRETE SHALL BE PLACED THROUGH A TREMIE PIPE OF DIAMETER NOT LESS THAN 150mm SO AS TO FILL THE ENTIRE VOLUME OF BORE WITHOUT THE FORMATION OF VOIDS WHILE CONCRETING THROUGH TREMIE WHICH IS SUBSEQUENTLY WITHDRAWN. THE CONCRETE SHALL BE PLACED IN SUFFICIENT QUANTITY TO ENSURE THAT DURING WITHDRAWN OF TUBE A SUFFICIENT HEAD OF CONCRETE IS MAINTAINED TO PREVENT THE IN FLOW OF SOIL AND GROUND WATER.
 - USE "BENTONITE SLURRY" FOR STABILIZE THE SOIL.
 - CONCRETING OPERATIONS SHOULD NOT BE TAKEN UP WHEN THE SPECIFIC GRAVITY OF BOTTOM SLURRY IS MORE THAN 1.20.
 - USE GOOD WATER FOR CONCRETE MIXING AND CURING CONFORMING TO IS 456 (LATEST REVISION).
 - ALL STRUCTURAL MEMBER DESIGNED FOR SEISMIC ZONE-III.
 - FOUNDATION DESIGNED FOR G+4 UPPER FLOORS.

NO.	AMENDMENTS	BY	DATE
SCALE	1:100	DESIGN BY	-
JOB NO	001	DRAWN BY	-
DRG NO	S04	DATE	-

DRAWING TITLE:
RCC DETAILS OF BEAM C.S.

PROJECT TITLE :
THE PROPOSED CONSTRUCTION OF
STILT FLOOR + 4 FLOORS + 5TH FLOOR PART
RESIDENTIAL BUILDING (HEIGHT- 18.30M) WITH 9
DWELLING UNITS AVAILING
PREMIUM FSI WITH TOD BENEFIT AT PLOT NO.A47,
OLD DOOR NO.36, NEW DOOR NO.25, 10TH AVENUE,
ASHOK NAGAR,
CHENNAI COMPRISED IN R.S. NO.52, BLOCK NO.57 OF
KODAMBAKKAM(PART 2) VILLAGE, MAMBALAM TALUK

STRUCTURAL CONSULTANT
Er. P. RAMAN, B.E (CIVIL), M.E (Struct), MIE., C.Eng.,
Registered Structural Engineer Grade-1(SE)
CMDA Reg. No.: SE/GR1/2024/02/006
No.24, Ground Floor, CRR Puram Phase-3,
Manapakkam, Chennai - 600 125.



- NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETRES.
 2. THIS DRG SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL DRAWING.
 3. ALL DIMENSIONS SHALL BE CHECKED AND VERIFIED BY THE CONTRACTOR.
 4. CONCRETE MIX :- M30 (CEMENT CONTENT-360KG/M3)
 5. CONTRACTOR / CLIENT SHALL SEND US CUBE TEST RESULTS TO SUBSTANTIATE THE CONCRETE MIX GRADE.
 6. IF READY MIXED CONCRETE IS BEING USED, CLIENT/CONTRACTOR SHALL CAST CONCRETE CUBES INDEPENDENTLY AT SITE AND SEND LAB RESULTS THUS OBTAINED TO US.
 7. MINIMUM WATER CEMENT RATIO : 0.50.
 8. REINFORCEMENT SHALL BE PROVIDED AS PER DETAIL FOR STEEL FOR #8MM & ABOVE CONFORMING TO IS 1786 (LATEST REVISION)
 9. CLEAR CONCRETE COVER TO MAIN BARS :-
FOR SLAB - 20MM, FOR BEAM - 25MM
 10. MINIMUM STRENGTH OF CONCRETE SHALL BE 30MPA
 11. STONE AGGREGATES AND SAND CONFORMING TO IS 3826 (LATEST REVISION)
 12. STONE AGGREGATES SIZE - 20MM AND DOWN GRADE
 13. USE GOOD WATER FOR CONCRETE MIXING AND CURING
 14. CONCRETE SHALL BE CAST IN 455 (LATEST REVISION)
 15. USE ORDINARY PORTLAND CEMENT CONFORMING TO IS 8112 (LATEST REVISION) FOR 43 GRADE CEMENT & IS 12269 FOR 53 GRADE CEMENT.
 16. THE CENTERING AND SHUTTLING TO SUPPORT STRUCTURAL CONCRETE SHALL BE SUFFICIENTLY STRONG AND RIGIDLY BRACED. HORIZONTAL TIES SHALL BE PROVIDED AT EVERY 1.5M HEIGHT.
 17. THE STABILITY OF SUPPORTS AND STRENGTH OF THE CENTERING AND FORMWORK SHOULD BE ENSURED BY THE CONTRACTOR AND SITE ENGINEER BEFORE PLACING CONCRETE.

AMENDMENTS			
NO.	BY	DATE	
SCALE 1:100	DESIGN BY		
JOB NO 001	DRAWN BY		
DRG NO S03	DATE		

DRAWING TITLE:
SLAB BEAM LAYOUT.

PROJECT TITLE :
THE PROPOSED CONSTRUCTION OF
STILT FLOOR + 4 FLOORS + 5TH FLOOR PART
RESIDENTIAL BUILDING (HEIGHT- 18.30M) WITH 9
DWELLING UNITS AVALING
PREMIUM FSI WITH TOD BENEFIT AT PLOT NO A47,
OLD DOOR NO.36, NEW DOOR NO.25, 10TH AVENUE,
ASHOK NAGAR,
CHENNAI COMPRISED IN R.S. NO.52, BLOCK NO.57 OF
KODAMBAKKAM(PART 2) VILLAGE, MAMBALAM TALUK

STRUCTURAL CONSULTANT
Er. P. PAMAN, B.E., MIE (Struct), MIE, C.Eng.,
Registered Structural Engineer Grade-1(SE)
CMDA Reg. No.: SE/GR-1, 2024/02/006
N.24, Ground Floor, CRR Puram Phase-3,
Manapakkam, Chennai - 600 125.

SLAB BEAM LAYOUT
ALL SLAB THICKNESS IS 5" UNLESS SPECIFIED.