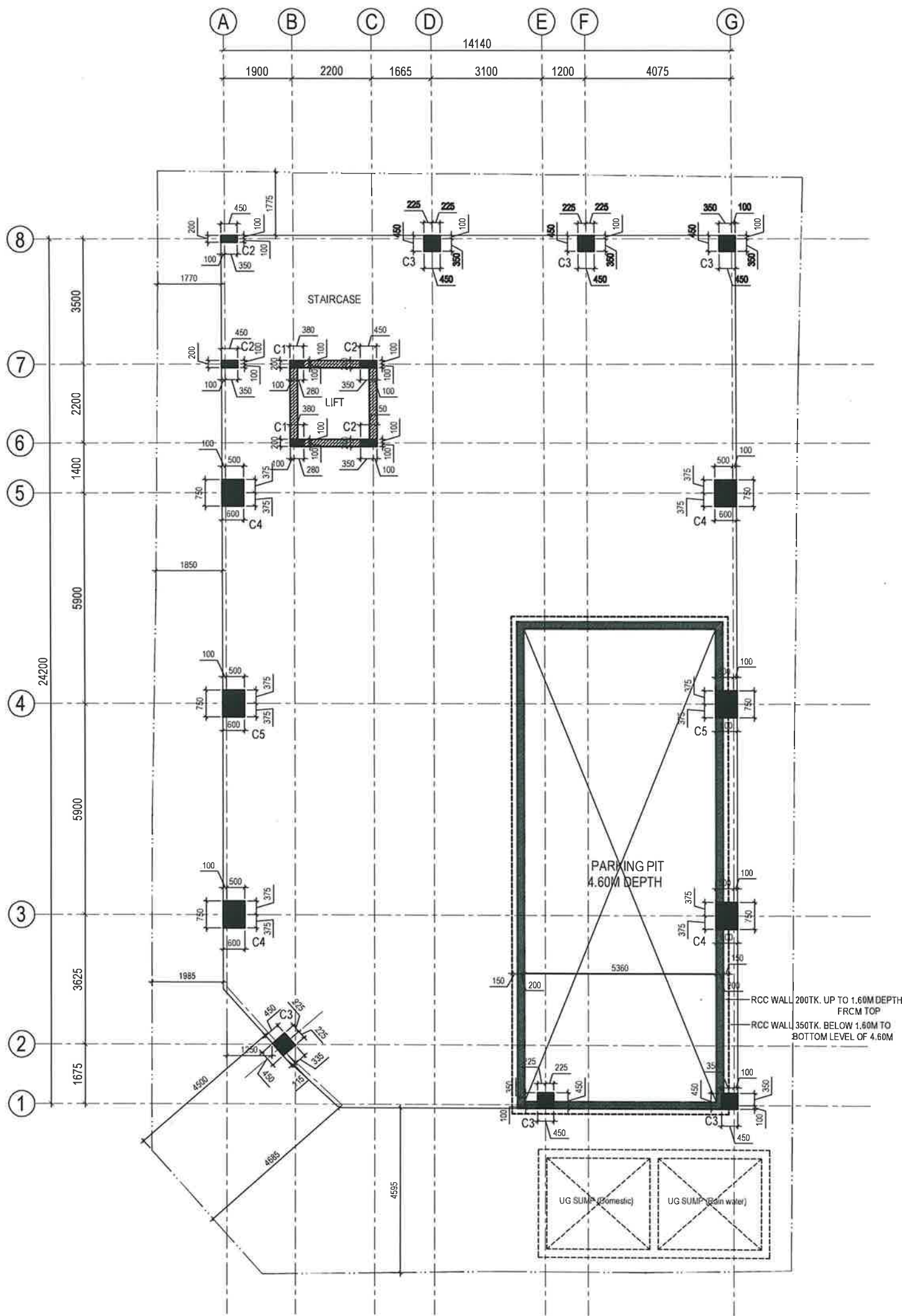




COLUMN AXIS LAYOUT

ES. KUMAR, M.Tech.- Structures
CMDA Structural Engineer-Grade-1,
Reg. No. SE/Gr-I/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamaiyur
Chengalpattu - 603 003
Cell: 98 40 44 86 13

GENERAL NOTES:

REMOVAL OF FORM WORK (SHUTTERING):

- THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 OF IS 456 : 2000
- A. VERTICAL SIDE OF SHUTTERING OF COLUMNS, WALLS AND BEAMS 24 HOURS.
- B. BOTTOM SHUTTERING OF SLABS (KEEP THE PROPS UNDER) 3 DAYS.
- C. BOTTOM SHUTTERING OF BEAMS (KEEP THE PROPS UNDER) 7 DAYS.
- D. BOTTOM PROPS TO SLAB
i) SPANNING UP TO 4.50M 7 DAYS.
ii) SPANNING OVER 4.50M 14 DAYS.
- E. BOTTOM PROPS TO BEAMS
i) SPANNING UP TO 6.00M 14 DAYS.
ii) SPANNING OVER 6.00M 21 DAYS.

LAP JOINTS FOR REINFORCEMENT BARS:

- i). AT ANY CROSS SECTION OF A MEMBER NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
- ii). LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES THE LAP LENGTH OF THE BAR FOR TENSION AND COMPRESSION MEMBERS.
- iii). DEVELOPMENT LENGTH (L_d) SHALL BE AS PER SP-34 - 1999 AND THE MINIMUM $L_d = 50d$, WHERE d = Dia. of Rod TO BE LAPPED
- iv). LAPS IN COLUMNS SHALL BE PROVIDED AT MID HEIGHT OF FLOOR AND NOT AT SLAB LEVEL.
- v). LAPS IN BEAM AND SLAB SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.
- vi). WELDING OF BARS SHALL BE DONE AS A STITCH WELD FOR 5 TIMES THE DIAMETER OF BAR AND A GAP OF 5 TIMES OF BAR AND AGAIN WELDING FOR ANOTHER 5 TIMES DIAMETER OF BAR USING ARC WELDING AND SPECIAL ELECTRODES AFTER GETTING PRIOR WRITTEN APPROVAL FROM THE STRUCTURAL CONSULTANT.
- vii). DETAILING OF REBARS SHALL CONFIRM TO SP-34 & IS 13920.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN mm.
2. ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
3. ANY DISCREPANCIES NOTICED IN THE DWG. SHALL BE BROUGHT TO OUR KNOWLEDGE IMMEDIATELY.
4. THIS DWG. SHOULD TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DWG. (LATEST REVISION).
5. GRADE OF CONCRETE SHALL CONFIRM TO IS 456 : 2000
GRADE OF CONCRETE FOR COLUMN & PILE - M30.
FOR COLUMNS C4 & C5 (600X750) ADOPT - M35.
PILE CAP, RCC WALL AND GRADE BEAM - M25.
6. "Y" DENOTES HIGH STRENGTH DEFORMED BARS OF GRADE FE 500 CONFIRMING TO IS 1786 : 2008
7. CLEAR COVER TO THE REINFORCEMENT
A. COLUMNS 40mm
B. PILE 75mm
C. PILE CAP BOTTOM - 75mm, TOP & SIDES - 50mm
D. GRADE BEAM 30 mm

DIA. OF PILE (MM)	SAFE LOAD IN COMPRESSION (T)
600 MM (P1)	1300 KN

8. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR STILT FLOOR + THREE FLOORS ABOVE ONLY
9. THE BUILDING HAS BEEN DESIGNED FOR EARTHQUAKE RESISTANCE AS PER IS 1893 (PART I) : 2002 - CODE FOR EARTHQUAKE RESISTANT DESIGN OF STRUCTURES

03	GOOD FOR CONSTRUCTION	MD	ESK	02-06-2
02	UPDATED FOR 14M HEIGHT & PT BEAM & SLAB	MD	ESK	20-05-2
01	COLUMN DETAIL UPDATED	MD	ESK	02-01-2
00	ISSUED FOR APPROVAL	MD	ESK	15-12-
REV.	DESCRIPTION	DRN.	CHK.	DATE

PROJECT NAME :

PROPOSED CONSTRUCTION OF COMMERCIAL (RETAIL) BUILDING AVAILING PREMIUM FSI AT PLOT NO 4951, OLD DOOR NO: AC-64/1, NEW DOOR NO: 254/1, AC BLOCK 4TH AVENUE & 5TH AVENUE, ANNA NAGAR, CHENNAI - 600 040. COMPRISED IN OLD S.NO: 69 Pt & 73 Pt, T.S.NO: 158 OF BLOCK NO: 1B OF NADUVAKKARAI VILLAGE, AMINJIKARAI TALUK ZONE VIII, DIVISION 103 OF GREATER CHENNAI CORPORATION.

DRAWING TITLE:

COLUMN AXIS LAYOUT

JOB NO.	DWG. NO.	REV. NO. 03	REF. CO
KA -	S-01	Date 02-06-24	

STRUCTURAL CONSULTANTS:

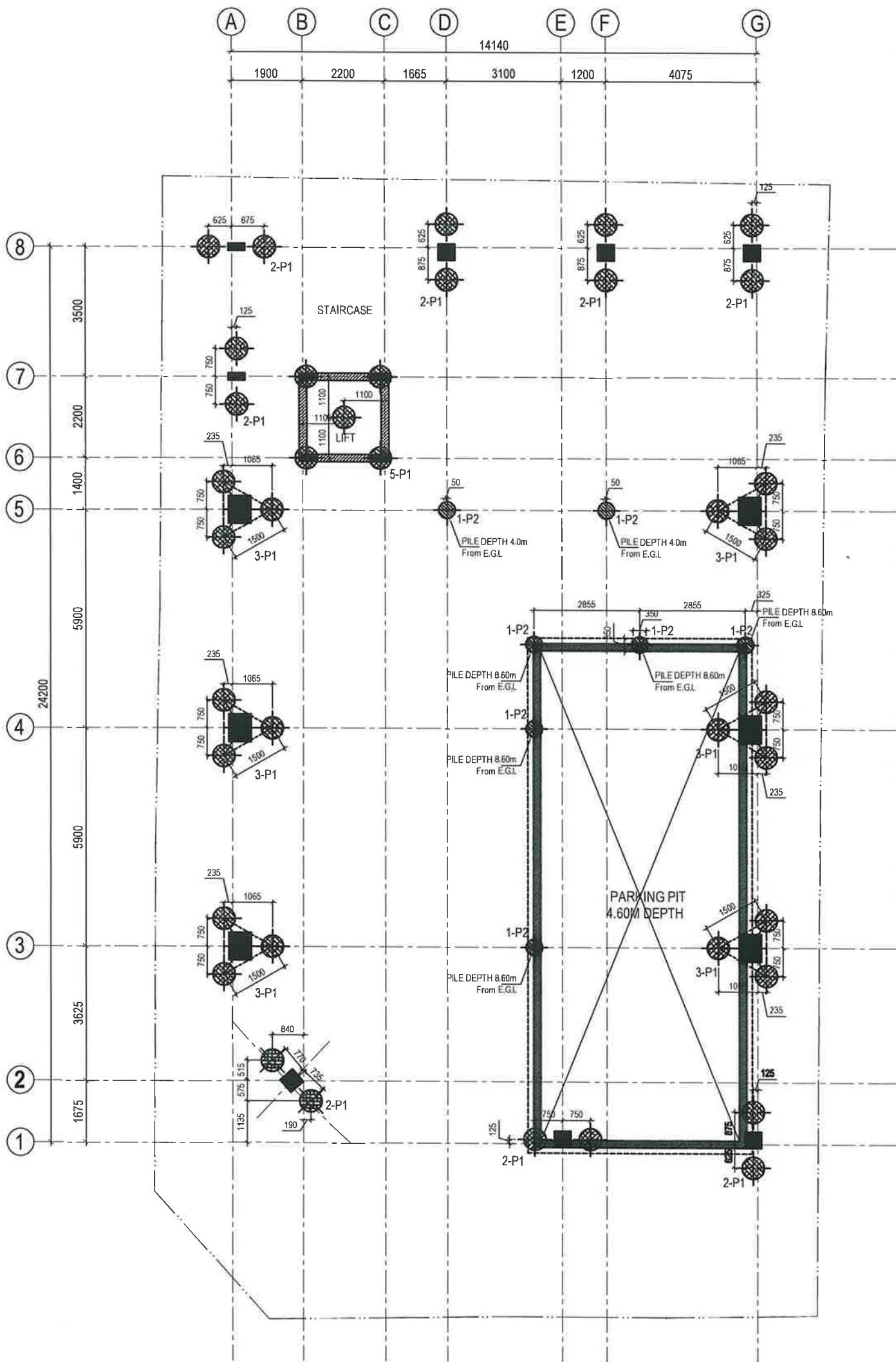


ES.KUMAR, M.Tech. (structures),
KIRTE ASSOCIATES, CIVIL & STRUCTURAL
ENGINEERING CONSULTANTS,
PLOT NO:1233, FIRST FLOOR,
FLAT NO:1B, PRIYA AJAY ARCADE,
18th MAIN ROAD, ANNA NAGAR, (WEST)
Chennai - 600 040. Mob: 98404 48613.

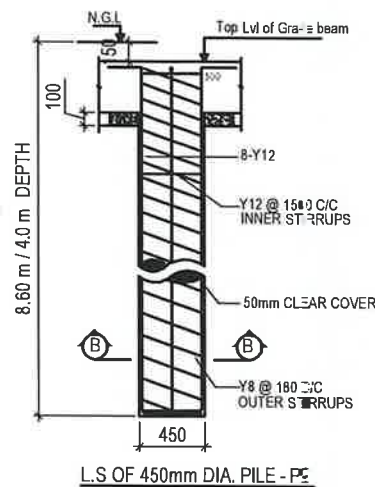
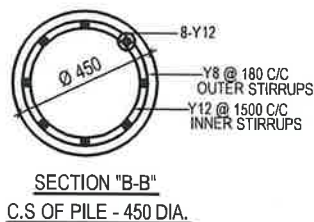
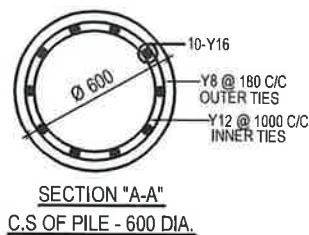
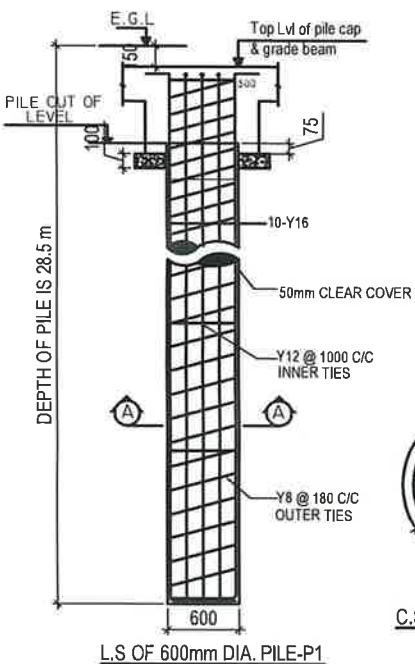
ARCHITECTS:

RJ ARCHITECTS PVT. LTD
NO.7(OLD NO.Y 81) FIRST FLOOR,
6TH STREET, Y-BLOCK, 5TH AVENUE
CHENNAI - 600 040, TELE : 4261 2003

Drawn: M.D	Designed: ES	Checked : ES.KUMAR
Scale :	As per drawing	



PILE GROUP LAYOUT



GENERAL NOTES:

REMOVAL OF FORM WORK (SHUTTERING):

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- iii). DEVELOPMENT LENGTH (L_d) SHALL BE AS PER SP: 34 - 1999 AND THE MINIMUM $L_d=50d$, WHERE d = Dia. of Rod TO BE LAPPED
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ES. KUMAR, M.Tech.- Structures
CMDA Structural Engineer-Grade-1,
Reg. No. SE/Gr-1/2024/02/1007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamaiyur
Chengalpattu - 603 003
Cell: 98 40 44 86 13

03	GOOD FOR CONSTRUCTION	MD	ESK	02-06-2
01	COLUMN DETAIL UPDATED	MD	ESK	02-01-2
00	ISSUED FOR APPROVAL	MD	ESK	15-12-
REV.	DESCRIPTION	DRN.	CHK.	DATE

PROJECT NAME :

PROPOSED CONSTRUCTION OF COMMERCIAL (RETAIL) BUILDING AVAILING PREMIUM FSI AT PLOT NO 4951, OLD DOOR NO: AC-64/1, NEW DOOR NO: 254/1, AC BLOCK 4TH AVENUE & 5TH AVENUE, ANNA NAGAR, CHENNAI - 600 040. COMPRISED IN OLD S.NO: 69 Pt & 73 Pt, T.S.NO: 158 OF BLOCK NO: 1B OF NADUVAKKARAI VILLAGE, AMINJIKARAI TALUK ZONE VIII, DIVISION 103 OF GREATER CHENNAI CORPORATION.

DRAWING TITLE:

PILE GROUP LAYOUT

JOB NO.	DWG. NO.	REV. NO. 03	REF. CO
KA -	S-02	Date 02-06-24	

STRUCTURAL CONSULTANTS:

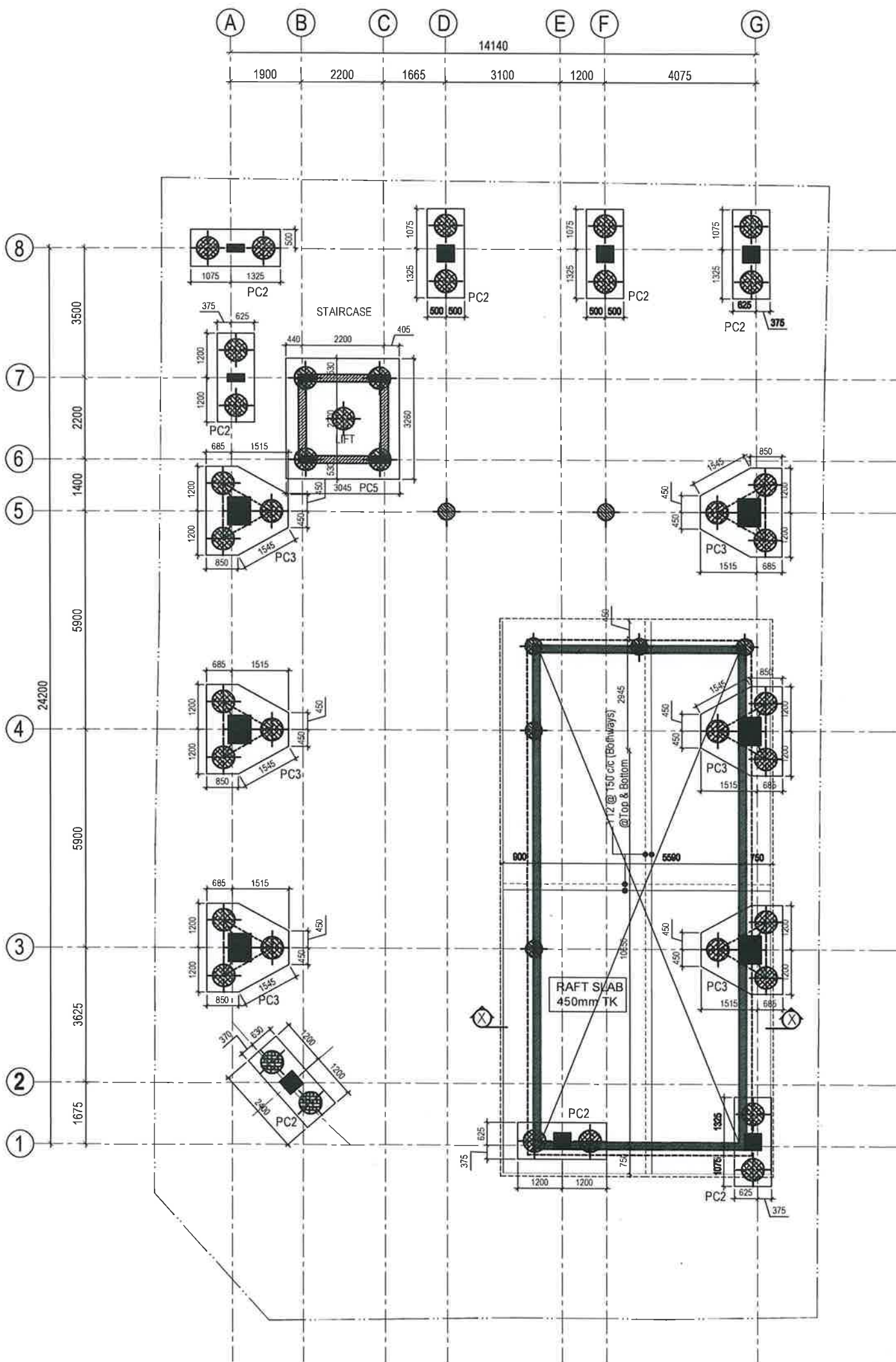


ES. KUMAR, M.Tech. (structures),
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PLOT NO:1233, FIRST FLOOR,
FLAT NO:1B, PRIYA AJAY ARCADE,
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Chennai - 600 040. Mob: 98404 48613.

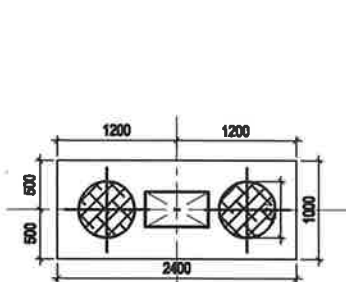
ARCHITECTS:

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6TH STREET, Y-BLOCK, 5TH AVENUE
CHENNAI - 600 040. TELE : 4261 2003

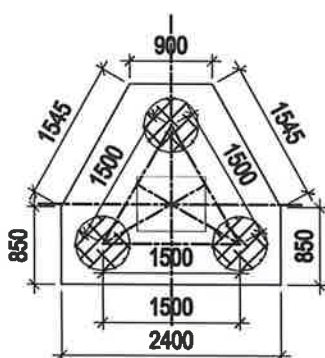
Drawn: M.D	Designed: ES	Checked : ES.KUMAR
Scale:	D.S. 1:1000	



PILE CAP LAYOUT



PC2 - LAYOUT



PC3 - LAYOUT

ES. KUMAR, M.Tech.- Structures
CMDA Structural Engineer-Grade-1,
Reg. No. SE/Gr-I/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
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D. GRADE BEAM 30mm

DIA. OF PILE (MM)	SAFE LOAD IN COMPRESSION (T)
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03	GOOD FOR CONSTRUCTION	MD	ESK	02-06-2
01	COLUMN DETAIL UPDATED	MD	ESK	02-01-2
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REV.	DESCRIPTION	DRN.	CHK.	DATE

PROJECT NAME :

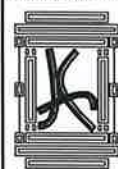
PROPOSED CONSTRUCTION OF COMMERCIAL (RETAIL) BUILDING AVAILING PREMIUM FSI AT PLOT NO 4951, OLD DOOR NO: AC-64/1, NEW DOOR NO: 254/1, AC BLOCK 4TH AVENUE & 5TH AVENUE, ANNA NAGAR, CHENNAI - 600 040. COMPRISED IN OLD S.NO: 69 Pt & 73 Pt, T.S.NO: 158 OF BLOCK NO: 1B OF NADUVAKKARAI VILLAGE, AMINJIKARAI TALUK ZONE VIII, DIVISION 103 OF GREATER CHENNAI CORPORATION.

DRAWING TITLE:

PILE CAP LAYOUT

JOB NO.	DWG. NO.	REV. NO. 03	REF. CO
KA-	S-03	Date 02-06-24	

STRUCTURAL CONSULTANTS:

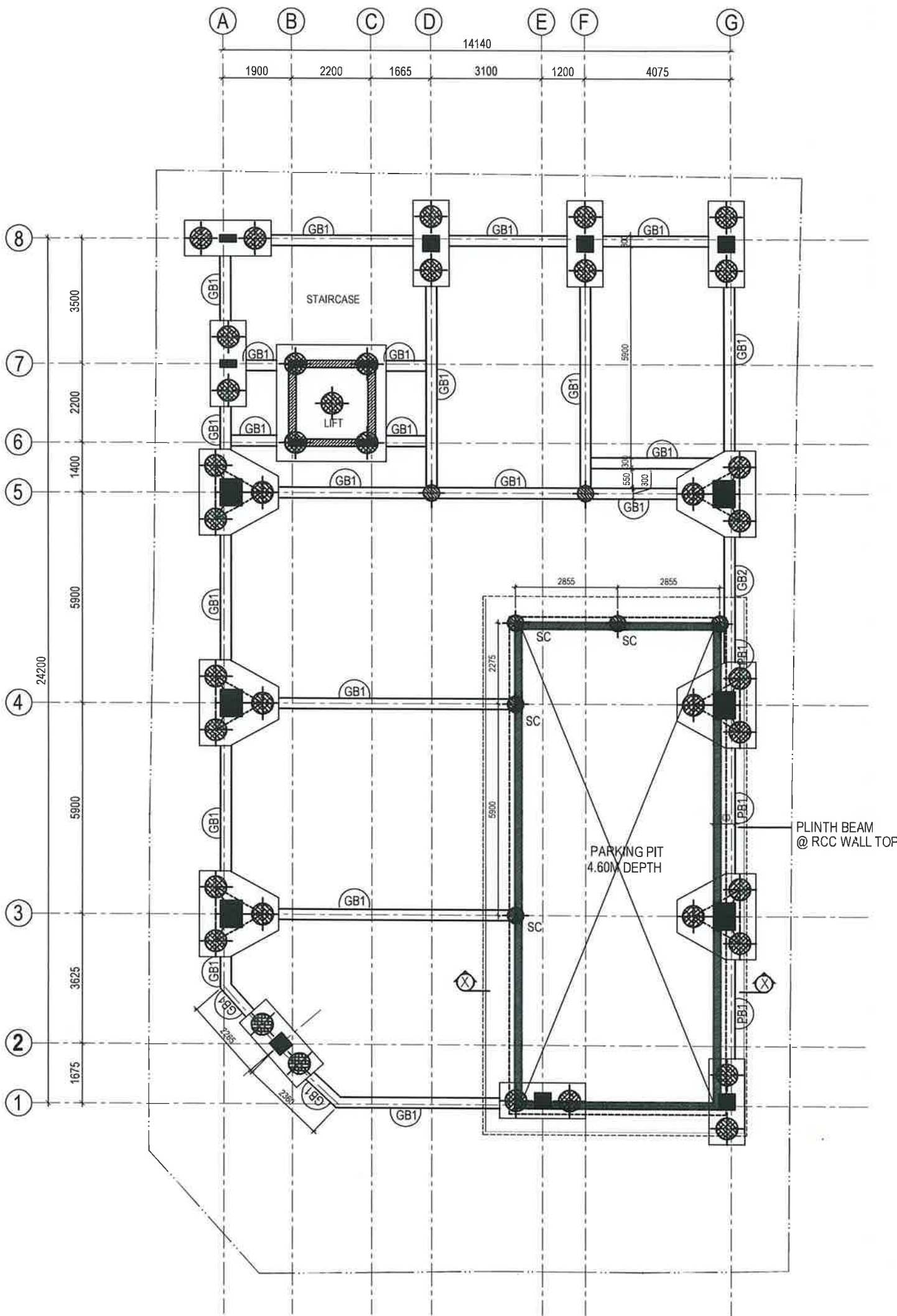


ES. KUMAR, M.Tech. (structures),
KIRTE ASSOCIATES, CIVIL & STRUCTURAL
ENGINEERING CONSULTANTS,
PLOT NO:1233, FIRST FLOOR,
FLAT NO:1B,PRIYA AJAY ARCADE,
18th MAIN ROAD, ANNA NAGAR, (WEST)
Chennai - 600 040. Mob: 98404 48613.

ARCHITECTS:

RJ ARCHITECTS PVT.LTD
NO.7(OLD NO.Y 81) FIRST FLOOR,
6TH STREET,Y-BLOCK, 5TH AVENUE
CHENNAI - 600 040, TELE : 4261 2003

Drawn: M.D	Designed: ES	Checked : ES.KUMAR
Scale:	As per notes	



GRADE BEAM LAYOUT

ES. KUMAR, M.Tech. - Structures
CMDA Structural Engineer - Grade -1,
Reg. No. SE/Gr-I/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamaiyur
Chengalpattu - 603 003
Cell: 98 40 44 86 13

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REV.	DESCRIPTION	DRN.	CHK.	DATE

PROJECT NAME :

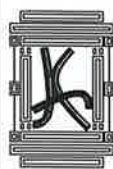
PROPOSED CONSTRUCTION OF COMMERCIAL (RETAIL)
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OLD DOOR NO: AC-64/1, NEW DOOR NO: 254/1, AC BLOCK
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COMPRISED IN OLD S.NO: 69 Pt & 73 Pt, T.S.NO: 158 OF
BLOCK NO: 1B OF NADUVAKKARAI VILLAGE, AMINJIKARAI TALUK
ZONE VIII, DIVISION 103 OF GREATER CHENNAI CORPORATION.

DRAWING TITLE:

GRADE BEAM LAYOUT

JOB NO.	DWG. NO.	REV. NO. 03	REF. CO
KA-	S-04	Date 02-06-24	

STRUCTURAL CONSULTANTS:



ES.KUMAR, M.Tech. (structures),
KIRTE ASSOCIATES, CIVIL & STRUCTURAL
ENGINEERING CONSULTANTS,
PLOT NO:1233, FIRST FLOOR,
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ARCHITECTS:

RJ ARCHITECTS PVT. LTD

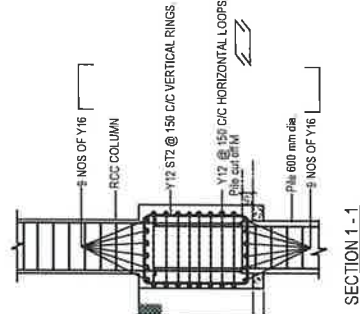
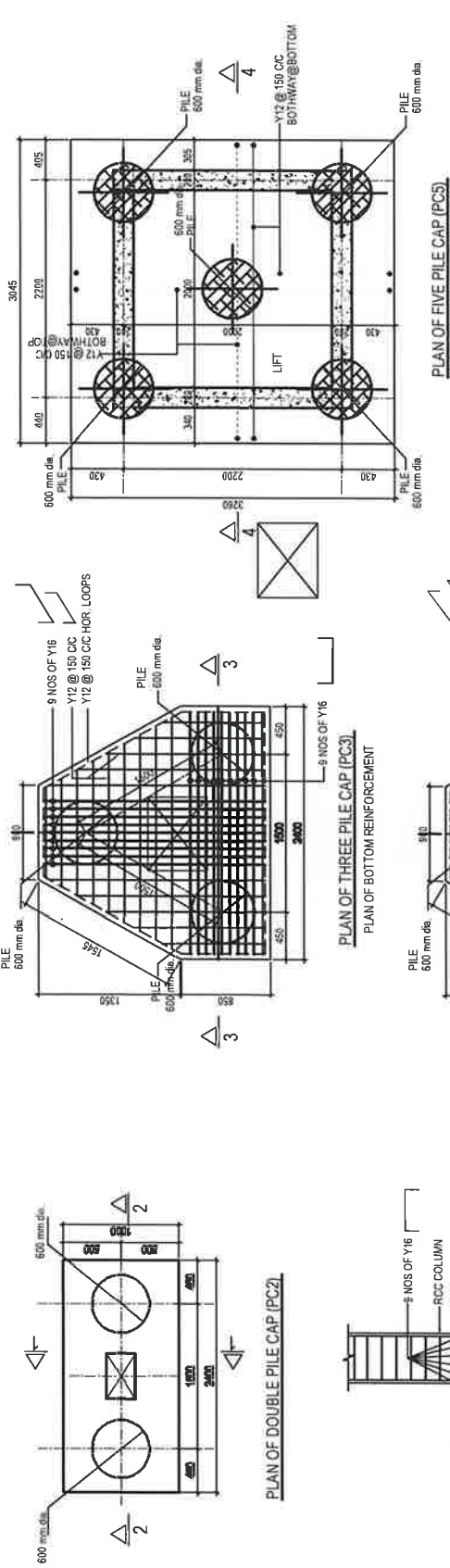
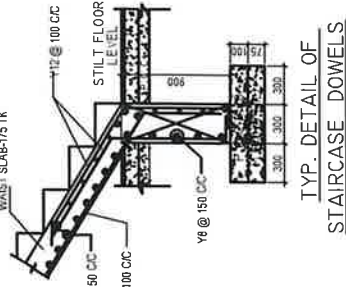
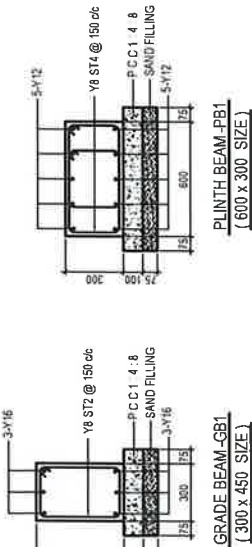
NO.7(OLD NO.Y 81) FIRST FLOOR,
6TH STREET, Y-BLOCK, 5TH AVENUE
CHENNAI - 600 040, TELE : 4261 2003

Drawn: M.D	Designed: ES	Checked : ES.KUMAR
Scale:		

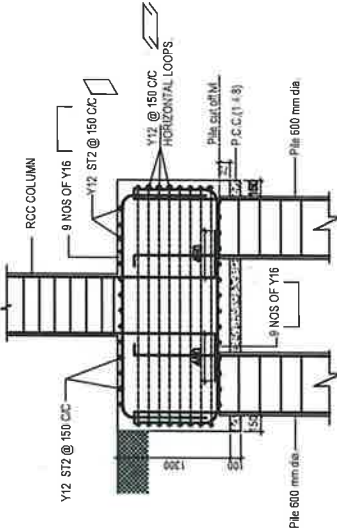
COLUMN SCHEDULE UPTO ROOF TOP LEVEL

DESCRIPTION	SIZE	REINFORCEMENT	SHAPE OF TIES
SC	350 x 350	8 NOS. OF Y12 MAIN RODS Y8 TIES @ 150 CC	TWO CLOSED
C1	200 x 380	6 NOS. OF Y16 MAIN RODS Y8 TIES @ 150 CC	ONE CLOSED ONE OPEN
C2	200 x 450	8 NOS. OF Y16 MAIN RODS Y8 TIES @ 150 CC	TWO CLOSED
C3	450 x 450	12 NOS. OF Y16 MAIN RODS Y8 TIES @ 150 CC	THREE CLOSED
C4	600 x 750	18 NOS. OF Y25 MAIN RODS Y8 TIES @ 150 CC	FOUR CLOSED ONE OPEN
C5	600 x 750	22 NOS. OF Y25 MAIN RODS Y8 TIES @ 150 CC	FOUR CLOSED ONE OPEN

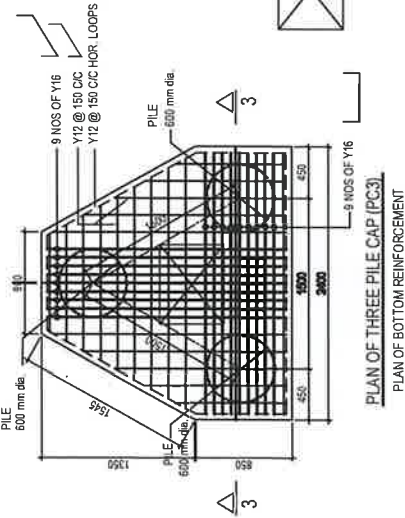
NOTE : SC - STUB COLUMN FROM BOTTOM LEVEL OF 4.60 TO 1.80 LEVEL



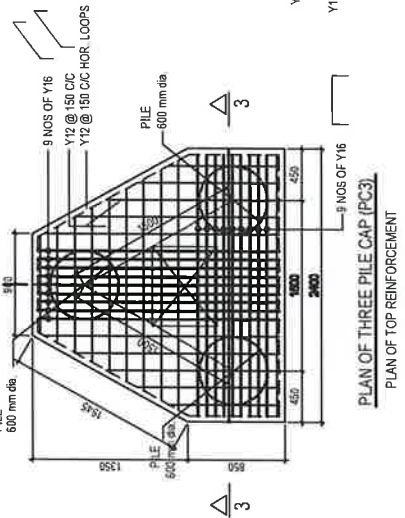
SECTION 1 - 1



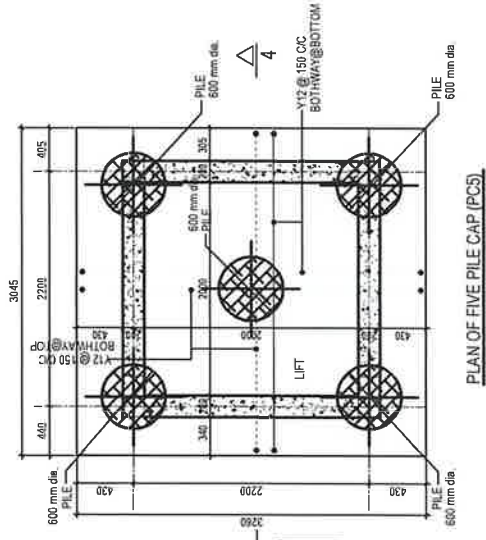
SECTION 2 - 2



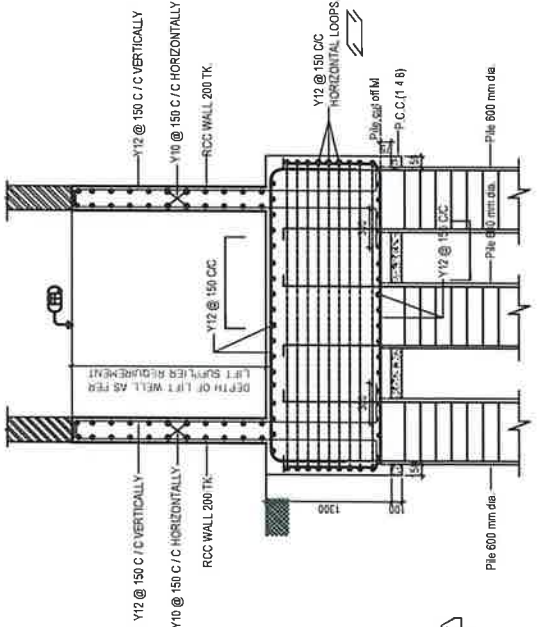
PLAN OF THREE PILE CAP (PC3)



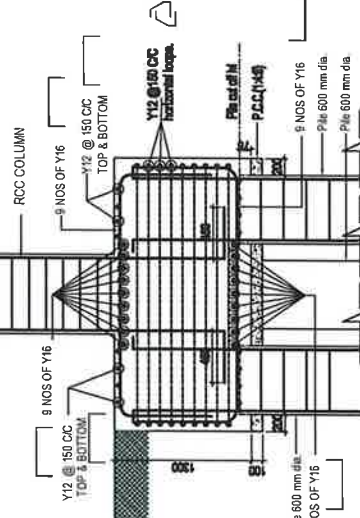
PLAN OF THREE PILE CAP (PC3)



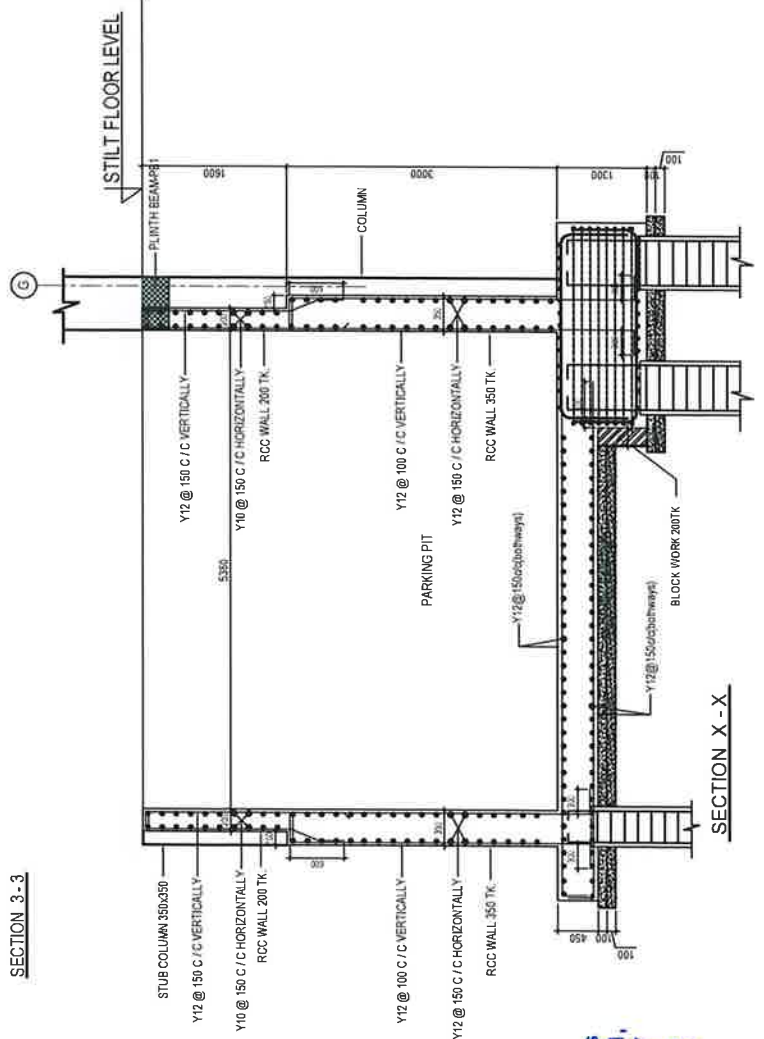
PLAN OF FIVE PILE CAP (PC5)



SECTION 4 - 4



SECTION 3 - 3



SECTION X - X

GENERAL NOTES:
1. REMOVAL OF FORM WORK (SHUTTERING) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 OF IS 456 : 2000
A. VERTICAL SIDE OF SHUTTERING OF COLUMNS, WALLS AND BEAMS _____ 24 HOURS
B. BOTTOM SHUTTERING OF SLABS (KEEP THE PROPS UNDER) _____ 3 DAYS
C. BOTTOM SHUTTERING OF BEAMS (KEEP THE PROPS UNDER) _____ 7 DAYS
D. BOTTOM PROPS TO SLAB _____ 7 DAYS
E. SPANNING UP TO 4.50M _____ 14 DAYS
F. SPANNING OVER 4.50M _____ 14 DAYS
G. SPANNING UP TO 10.0M _____ 14 DAYS
H. SPANNING OVER 10.0M _____ 21 DAYS
LAP JOINTS FOR REINFORCEMENT BARS:
i. AT ANY CROSS SECTION OF A MEMBER NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
ii. LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES THE LAP LENGTH OF THE BAR FOR TENSION AND COMPRESSION MEMBERS.
iii. DEVELOPMENT LENGTH (Ld) SHALL BE AS PER SP-34 : 1999 AND THE MINIMUM Ld=50d, WHERE d= Dia. of Rod to BE LAPPED
iv. LAPS IN COLUMNS SHALL BE PROVIDED AT MID HEIGHT OF FLOOR AND NOT AT SLAB LEVEL
v. LAPS IN BEAM AND SLAB SHALL BE PROVIDED AT THE POINT OF CONTRAFLEXURE.
vi. WELDING OF BARS SHALL BE DONE AS A STITCH WELD FOR 5 TIMES THE DIAMETER OF BAR AND A GAP OF 5 TIMES OF BAR USING ARC WELDING FOR ANOTHER 5 TIMES DIAMETER OF BAR GETTING FROM WRITER APPROVAL FROM THE STRUCTURAL CONSULTANT.
vii. DETAILING OF REBAR SHALL CONFIRM TO SP-34 & IS 13920.

GENERAL NOTES:
1. ALL DIMENSIONS ARE IN mm.
2. ONLY WRITTEN DIMENSIONS TO BE FOLLOWED.
3. ANY DISCREPANCIES NOTICED IN THE DWG. SHALL BE BROUGHT TO OUR KNOWLEDGE IMMEDIATELY.
4. THIS DWG. SHOULD TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DWGS. (LATEST REVISION).
5. GRADE OF CONCRETE SHALL CONFORM TO IS 456 : 2000 GRADE OF CONCRETE (M20) FOR ALL PARTS.
6. RCC COLUMNS SHALL BE PROVIDED WITH 4 NO. OF 12mm DIA. BARS FOR PILE CAP, RCC WALL AND GRADE BEAM - M25.
7. 2% DESIGNS HIGH STRENGTH DEFORMED BARS OF GRADE FE 500 CONFORMING TO IS 1786 : 2008
8. CLEAR COVER TO THE REINFORCEMENT
A. COLUMNS _____ 40mm
B. PILE CAP BOTTOM - 75mm, TOP & SIDES - 50mm
C. GRADE BEAM _____ 30mm
D. DIA. OF PILE (MM) SAFE LOAD IN COMPRESSION (T)
600 MM (P1) 1300 KN

8. THE BUILDING FOUNDATION HAS BEEN DESIGNED FOR STILL FLOOR + THREE FLOORS ABOVE ONLY
9. THE BUILDING HAS BEEN DESIGNED FOR EARTHQUAKE RESISTANCE AS PER IS 1893 (PART 1) : 2002 - CODE FOR EARTHQUAKE RESISTANT DESIGN OF STRUCTURES

03	GOOD FOR CONSTRUCTION	MD	ESK	02-05-24
02	UPDATED FOR 1M HEIGHT & 1FT BEAM & SLAB	MD	ESK	20-05-24
01	COLUMN AND PILE CAP DETAIL UPDATED	MD	ESK	02-05-24
00	ISSUED FOR APPROVAL	MD	ESK	15-12-23
REV	DESCRIPTION	DRN	CHK	DATE

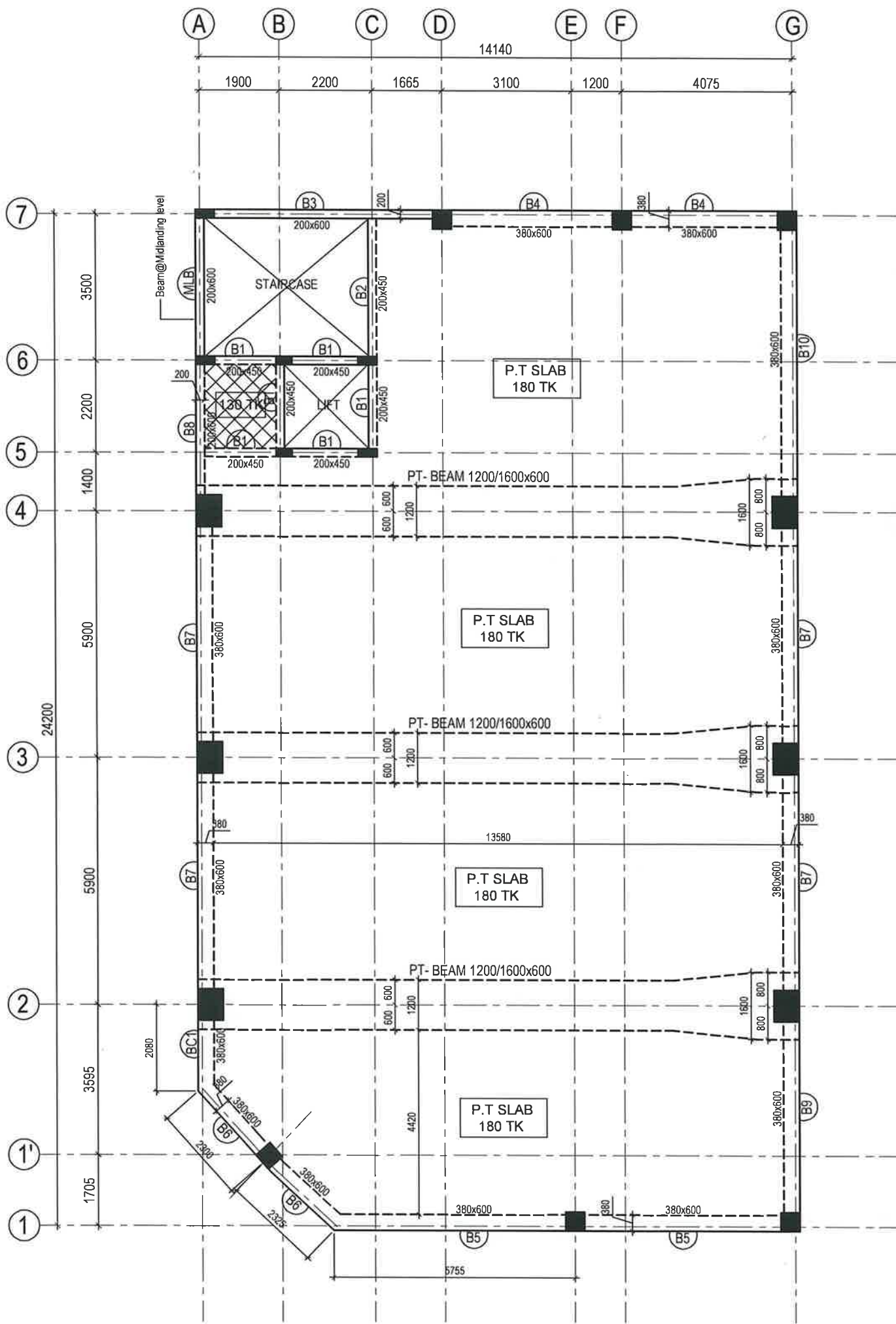
PROJ/ECT NAME :
PROPOSED CONSTRUCTION OF COMMERCIAL (RETAIL) BUILDING AVAILING PREMIUM FSI AT PLOT NO 4851, OLD DOOR NO: AC-6471, NEW DOOR NO: 25471, AC BLOCK 4TH AVENUE & 5TH AVENUE, ANNA NAGAR, CHENNAI - 600 040, COMPRISED IN OLD S NO: 69 P & 73 P, T.S NO: 158 OF BLOCK NO: 18 OF NADUVAKKARAI VILLAGE, ANNUNIKARAI TALUK, ZONE VIII, DIVISION 103 OF GREATER CHENNAI CORPORATION.

DRAWING TITLE: FOUNDATION DETAILS	
JOB NO. 24-05	REV. NO. 03
DATE: 02-05-24	RE: CODE

STRUCTURAL CONSULTANTS:
ES. KUMAR, M.Tech. (Structures)
KITE ASSOCIATES, CIVIL & STRUCTURAL ENGINEERING CONSULTANTS,
PLOT NO: 123, 1ST FLOOR,
10th MAIN ROAD, ANNA NAGAR (WEST)
CHENNAI - 600 040. MOBS: 9404 48113

ARCHITECTS:
R.J. ARCHITECTS PVT. LTD.
10th MAIN ROAD, ANNA NAGAR
5TH STREET V BLOCK 5TH AVENUE
CHENNAI - 600 040 TELE : 481 2003
Designed ES Checked ES KUMAR
Drawn M.D

ES. KUMAR, M.Tech. - Structures
CMDA Structural Engineer - Grade -1,
Reg. No. SE/Gr-1/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamalaiyur
Chengalpattu - 603 003
Cell : 98 40 44 86 13



BEAM SCHEDULE

SL.NO.	NAME	SIZE
01.	B1	200 x 450
02.	B2	200 x 450
03.	B3	200 x 600
04.	B4	380 x 600
05.	B5	380 x 600
06.	B6	380 x 600
07.	B7	380 x 600
08.	B8	200 x 600
09.	B9	380 x 600
10.	B10	380 x 600
11.	BC1	380 x 600
12.	MLB	200 x 450

STILT FLOOR ROOF BEAM LAYOUT

ES. KUMAR, M.Tech. - Structures
CMDA Structural Engineer-Grade-1,
Reg. No. SE/Gr-1/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamaiyur
Chengalpattu - 603 003
Cell: 98 40 44 86 13

LEGEND

 = SUNKEN BY 250

NOTES:

FOR P.T BEAM & SLAB DETAIL, REFER UCON DWGS.

GENERAL NOTES:

REMOVAL OF FORM WORK (SHUTTERING):

THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 OF IS456 : 2000

- A. VERTICAL SIDE OF SHUTTERING OF COLUMNS, WALLS AND & BEAMS 24 HOURS.
- B. BOTTOM SHUTTERING OF SLABS (KEEP THE PROPS UNDER) 3 DAYS.
- C. BOTTOM SHUTTERING OF BEAMS (KEEP THE PROPS UNDER) 7 DAYS.
- D. BOTTOM PROPS TO SLAB
i) SPANNING UP TO 4.50M 7 DAYS.
ii) SPANNING OVER 4.50M 14 DAYS.
- E. BOTTOM PROPS TO BEAMS
i) SPANNING UP TO 6.00M 14 DAYS.
ii) SPANNING OVER 6.00M 21 DAYS.

LAP JOINTS FOR REINFORCEMENT BARS:

- i). AT ANY CROSS SECTION OF A MEMBER NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
- ii). LAPS SHALL BE STAGGERED WITH A MINIMUM CENTRE TO CENTRE DISTANCE OF 1.3 TIMES THE LAP LENGTH OF THE BAR FOR TENSION AND COMPRESSION MEMBERS.
- iii). DEVELOPMENT LENGTH (Ld) SHALL BE AS PER SP: 34 - 1999 AND THE MINIMUM Ld=50d, WHERE d= Dia. of Rod TO BE LAPPED
- iv). LAPS IN COLUMNS SHALL BE PROVIDED AT MID HEIGHT OF FLOOR AND NOT AT SLAB LEVEL.
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- vii). DETAILING OF REBARS SHALL CONFIRM TO SP-34 & IS 13920.

GENERAL NOTES:

- ALL DIMENSIONS ARE IN mm.
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- ANY DISCREPANCIES NOTICED IN THE DWG. SHALL BE BROUGHT TO OUR KNOWLEDGE IMMEDIATELY.
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GRADE OF CONCRETE FOR COLUMN , BEAM AND SLAB - M25
- "Y" DENOTES HIGH STRENGTH DEFORMED BARS OF GRADE Fe 500 CONFIRMING TO IS 1786 : 2008
- CLEAR COVER TO THE REINFORCEMENT
A. COLUMNS 40mm
B. ROOF BEAM 30mm
C. ROOF SLAB 20 mm
- DEPTH OF BEAM IS INCLUSIVE OF SLAB THICKNESS

00	ISSUED FOR APPROVAL	MD	ESK	15-06-24
REV.	DESCRIPTION	DRN.	CHK.	DATE

PROJECT NAME :
PROPOSED CONSTRUCTION OF STILT FLOOR(MECHANIZED PIT PUZZLE PARKING) + 3 FLOORS COMMERCIAL (RETAIL) BUILDING (14.00M HEIGHT) AT PLOT NO 4951, OLD DOOR NO: AC-64/1, NEW DOOR NO: 254/1, AC BLOCK 4TH AVENUE & 5TH AVENUE, ANNA NAGAR, CHENNAI - 600 040 COMPRISED IN OLD S.NO: 69 Pt & 73 Pt & 74Pt, T.S.NO: 158 OF BLOCK NO: 1B OF NADUVAKKARAI VILLAGE WITHIN THE OF GREATER CHENNAI CORPORATION.

DRAWING TITLE:

STILT FLOOR ROOF BEAM LAYOUT

JOB NO.	DWG. NO.	REV. NO. 00	REF. CO
KA -	S-06	Date 15-06-24	

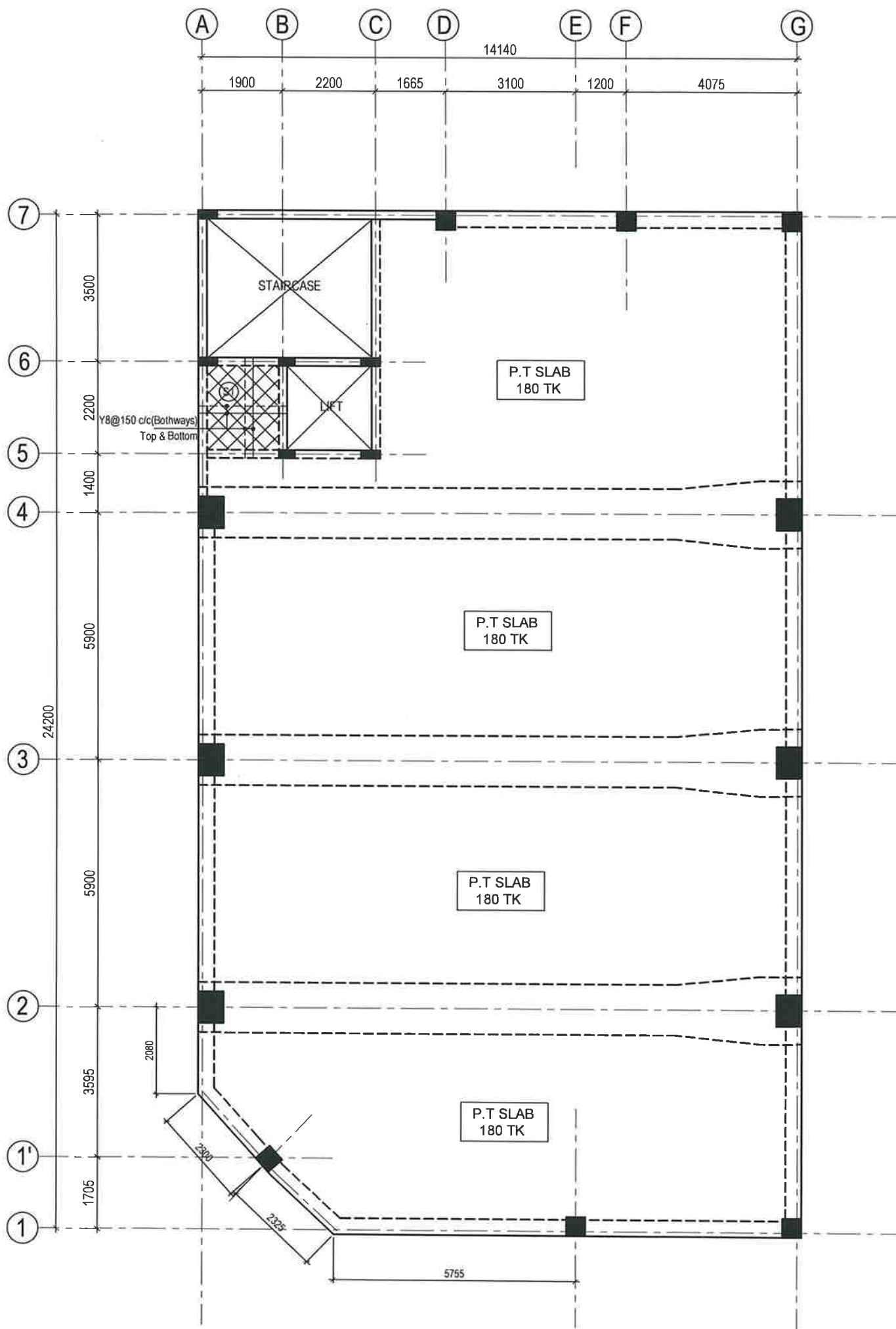
STRUCTURAL CONSULTANTS:

 **ES. KUMAR, M.Tech. (structures),**
KIRTE ASSOCIATES, CIVIL & STRUCTURAL
ENGINEERING CONSULTANTS,
PLOT NO:1233, FIRST FLOOR,
FLAT NO:1B, PRIYA AJAY ARCADE,
18th MAIN ROAD, ANNA NAGAR, (WEST)
Chennai - 600 040. Mob: 98404 48613.

ARCHITECTS:

RJ ARCHITECTS PVT. LTD.
NO.7(OLD NO.Y 81) FIRST FLOOR,
6TH STREET, Y-BLOCK, 5TH AVENUE
CHENNAI - 600 040. TELE : 4261 2003

Drawn: M.D	Designed: ES	Checked : ES.KUMAR
Date: 15-06-24	By: ES. KUMAR	

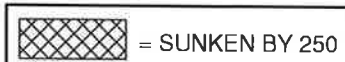


SLAB SCHEDULE

S.NO.	NAME	THICK
01.	S1	130

ES. KUMAR, M.Tech. - Structures
CMDA Structural Engineer-Grade-1,
Reg. No. SE/Gr-1/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamaiyur
Chengalpattu - 603 003
Cell: 98 40 44 86 13

LEGEND



NOTES:

FOR P.T BEAM & SLAB DETAIL, REFER UCON DWGS.

GENERAL NOTES:

REMOVAL OF FORM WORK (SHUTTERING):

- THE FOLLOWING MINIMUM PERIOD (AFTER FINAL POUR) SHALL BE ALLOWED BEFORE REMOVAL OF SHUTTERING AS PER CLAUSE 11.3.1 OF IS456 : 2000
- A. VERTICAL SIDE OF SHUTTERING OF COLUMNS, WALLS AND BEAMS ----- 24 HOURS.
- B. BOTTOM SHUTTERING OF SLABS (KEEP THE PROPS UNDER) ----- 3 DAYS.
- C. BOTTOM SHUTTERING OF BEAMS (KEEP THE PROPS UNDER) ----- 7 DAYS.
- D. BOTTOM PROPS TO SLAB
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ii) SPANNING OVER 4.50M ----- 14 DAYS.
- E. BOTTOM PROPS TO BEAMS
i) SPANNING UP TO 6.00M ----- 14 DAYS.
ii) SPANNING OVER 6.00M ----- 21 DAYS.

LAP JOINTS FOR REINFORCEMENT BARS:

- i). AT ANY CROSS SECTION OF A MEMBER NOT MORE THAN 50% OF THE BARS SHALL BE LAPPED.
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- iii). DEVELOPMENT LENGTH (L_d) SHALL BE AS PER SP: 34 - 1999 AND THE MINIMUM $L_d = 50d$, WHERE d = Dia. of Rod TO BE LAPPED
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- vii). DETAILING OF REBARS SHALL CONFIRM TO SP-34 & IS 13920.

GENERAL NOTES:

1. ALL DIMENSIONS ARE IN mm.
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3. ANY DISCREPANCIES NOTICED IN THE DWG. SHALL BE BROUGHT TO OUR KNOWLEDGE IMMEDIATELY.
4. THIS DWG. SHOULD TO BE READ IN CONJUNCTION WITH THE ARCHITECTURAL DWG. (LATEST REVISION).
5. GRADE OF CONCRETE SHALL CONFIRM TO IS 456 : 2000
GRADE OF CONCRETE FOR COLUMN, BEAM AND SLAB - M25
6. "Y" DENOTES HIGH STRENGTH DEFORMED BARS OF GRADE Fe 500 CONFIRMING TO IS 1786 : 2008
7. CLEAR COVER TO THE REINFORCEMENT
A. COLUMNS ----- 40mm
B. ROOF BEAM ----- 30mm
C. ROOF SLAB ----- 20 mm
8. DEPTH OF BEAM IS INCLUSIVE OF SLAB THICKNESS

REV.	DESCRIPTION	MD	ESK	15-06-
00	ISSUED FOR APPROVAL	DRN.	CHK.	DATE

PROJECT NAME :
PROPOSED CONSTRUCTION OF STILT FLOOR(MECHANIZED PIT PUZZLE PARKING) + 3 FLOORS COMMERCIAL (RETAIL) BUILDING (14.00M HEIGHT) AT PLOT NO 4951, OLD DOOR NO: AC-64/1, NEW DOOR NO: 254/1, AC BLOCK 4TH AVENUE & 5TH AVENUE, ANNA NAGAR, CHENNAI - 600 040 COMPRISED IN OLD S.NO: 69 Pt & 73 Pt & 74Pt, T.S.NO: 158 OF BLOCK NO: 1B OF NADUVAKKARAI VILLAGE WITHIN THE OF GREATER CHENNAI CORPORATION.

DRAWING TITLE:

STILT FLOOR ROOF SLAB LAYOUT

JOB NO.	DWG. NO.	REV. NO. 00	REF. CO
KA-	S-07	Date 15-06-24	

STRUCTURAL CONSULTANTS:



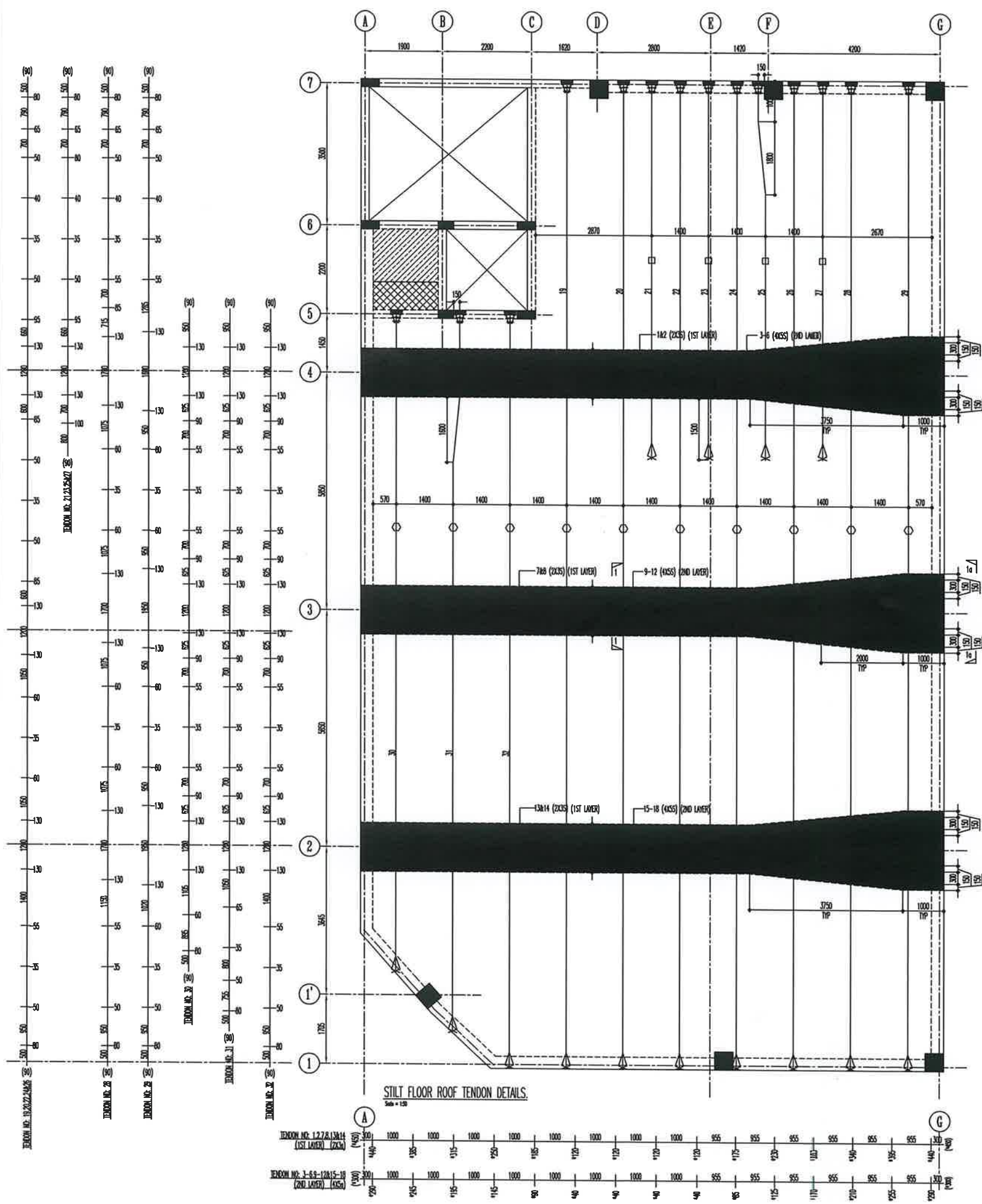
ES. KUMAR, M.Tech. (structures),
KIRTE ASSOCIATES, CIVIL & STRUCTURAL
ENGINEERING CONSULTANTS,
PLOT NO:1233, FIRST FLOOR,
FLAT NO:1B, PRIYA AJAY ARCADE,
18th MAIN ROAD, ANNA NAGAR, (WEST)
Chennai - 600 040. Mob: 98404 48613.

ARCHITECTS:

RJ ARCHITECTS PVT. LTD.

NO.7(OLD NO.Y 81) FIRST FLOOR,
6TH STREET,Y- BLOCK, 5TH AVENUE
CHENNAI - 600 040.TELE : 4261 2003

Drawn: M.D	Designed: ES	Checked : ES.KUMAR
Scale: -	Date: 15-06-2024	



LEGEND:

- TWO STRAND SLAB TENDON
- THREE STRAND SLAB TENDON
- FIVE STRAND SLAB TENDON
- ▲— STRESSING END
- △— DEAD END

NOTES:

UNLESS OTHERWISE SHOWN:

- 1) USE 0.5" OR 12.7mm STRAND.
- 2) ALL SPACING SHOULD BE 1 IN 8/10.
- 3) ALL TENDON PROFILE SPACING NOT SHOWN TO BE 1000.
- 4) ALL TENDON PROFILE ARE MEASURED FROM SOFFIT OF SLAB/BEAM TO SOFFIT OF DUCTS.
- 5) () DENOTES TENDON PROFILE MEASURED FROM SOFFIT OF SLAB/BEAM TO C.G. OF DUCTS.
- 6) DEAD END & LIVE END CAN BE INTERCHANGED AS PER SITE CONDITION FOR STRESSING FEASIBILITY.

C	REVIEWED AS PER LATEST STRUCTURAL ENG.	JACKSON	RAJ	SHAN
B	PROFILES ADDED	14-05-24	SHAN	SHAN
A	ISSUE FOR APPROVAL	14-05-24	SHAN	SHAN
Rev.	DESCRIPTION	DATE	DESIGNED	CHECKED
01		01-07-25	SHAN	SHAN
02		14-05-24	SHAN	SHAN
03		05-05-24	SHAN	SHAN
04		05-05-24	SHAN	SHAN
05		05-05-24	SHAN	SHAN
06		05-05-24	SHAN	SHAN
07		05-05-24	SHAN	SHAN
08		05-05-24	SHAN	SHAN
09		05-05-24	SHAN	SHAN
10		05-05-24	SHAN	SHAN
11		05-05-24	SHAN	SHAN
12		05-05-24	SHAN	SHAN
13		05-05-24	SHAN	SHAN
14		05-05-24	SHAN	SHAN
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19		05-05-24	SHAN	SHAN
20		05-05-24	SHAN	SHAN
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28		05-05-24	SHAN	SHAN
29		05-05-24	SHAN	SHAN
30		05-05-24	SHAN	SHAN

CLIENT: MR. ASIF ALI

ARCHITECT: M/S. RJ ARCHITECTS

CONSULTANT: M/S. KIRTE ASSOCIATES

PT SPECULATIVE: UCON STRUCTURAL SYSTEMS PRIVATE LIMITED

UCON No.45, 5th Street, Padmanabha Nagar, Adyar, Chennai-600 025, INDIA. Tel:+91 (44) 24488001/2/3 Fax:+91 (44) 2448 8004 E-Mail: ucon@ucon.com www.ucon.co.in

PROJECT TITLE: PROPOSED COMMERCIAL BUILDING AT AC-64 SHANTI COLONY ANNA NAGAR FOR MR.ASIF ALI

DRAWING TITLE: POST-TENSIONED STILT FLOOR ROOF TENDON DETAILS.

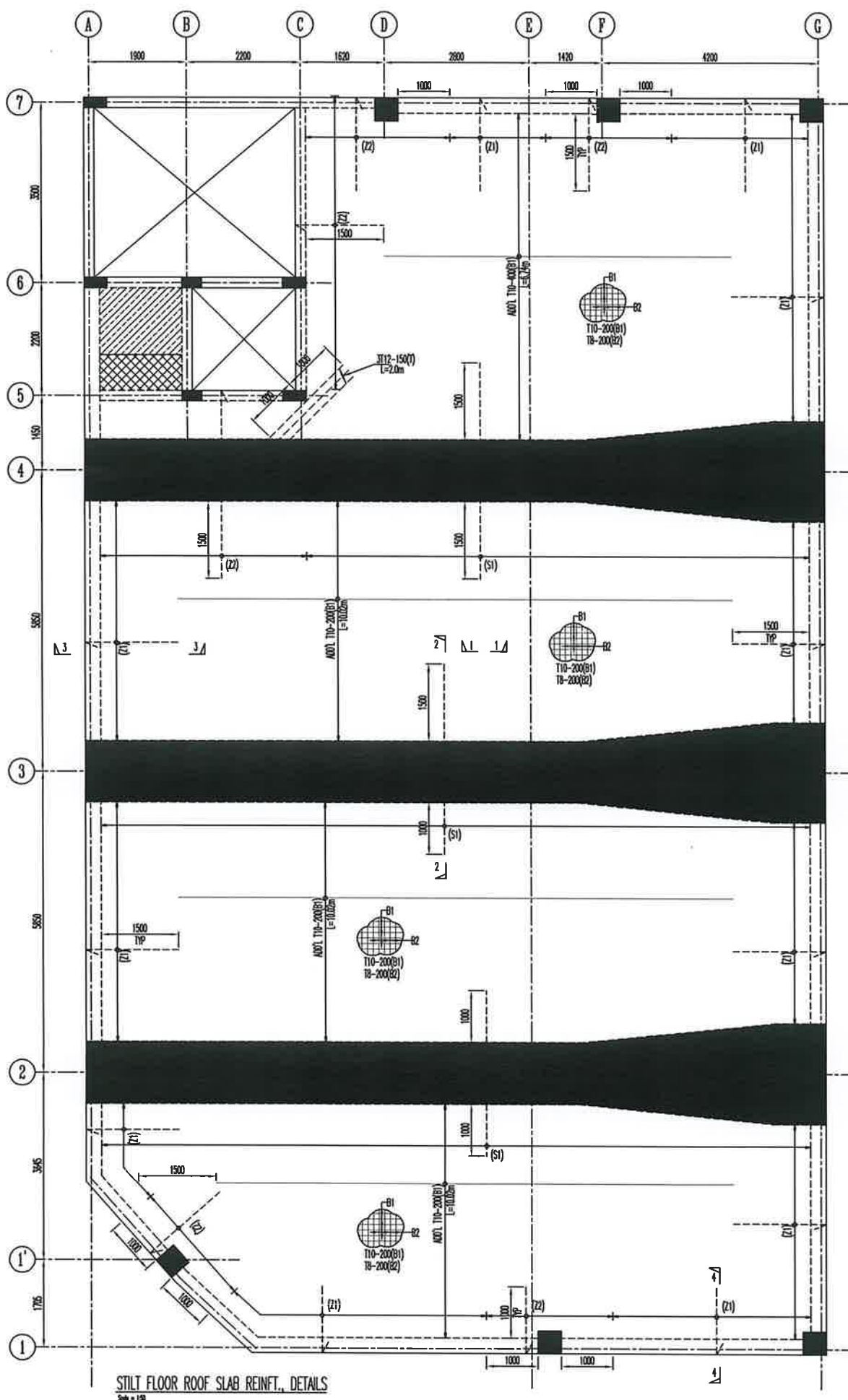
DESIGNED:	CHECKED:	REVIEWED:
RAJ	SHAN	SHAN
DATE:	E-MAIL:	APPROVED:
05-05-2024	ucon@ucon.com	SHAN

DRAWING NO: UCON/240194/SD/1-P1

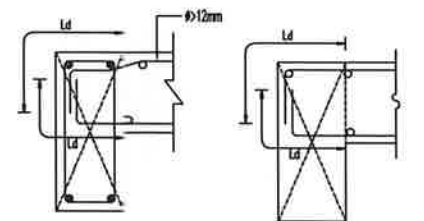
REVISION: C

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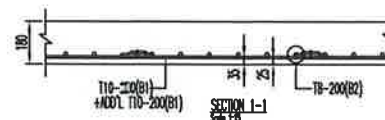
ES. KUMAR, M.Tech.- Structures
CMDA Structural Engineer-Grade-1,
Reg. No SE/Gr-I/2024/02/007
97-B/1, Dr. Abdul Kalam Street,
Ramakrishna Nagar, Melamalaiyur
Chengalpattu - 603 003
Cell : 98 40 44 86 13



STILT FLOOR ROOF SLAB REINFT., DETAILS
Scale = 1/20



TYP. END ANCHORAGE DETAIL
(FOR # OF TOP BAR GREATER THAN 12mm)
Scale = 1/20



TYP. END ANCHORAGE DETAIL (REFER NOTES)
Scale = 1/20

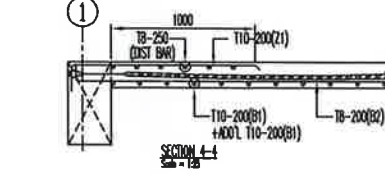
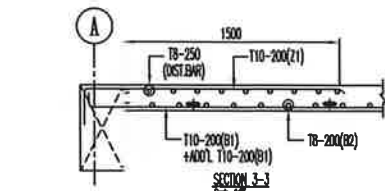
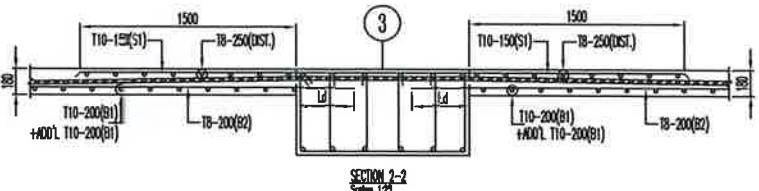


TABLE-1 ("TOP REINFT. DETAILS")

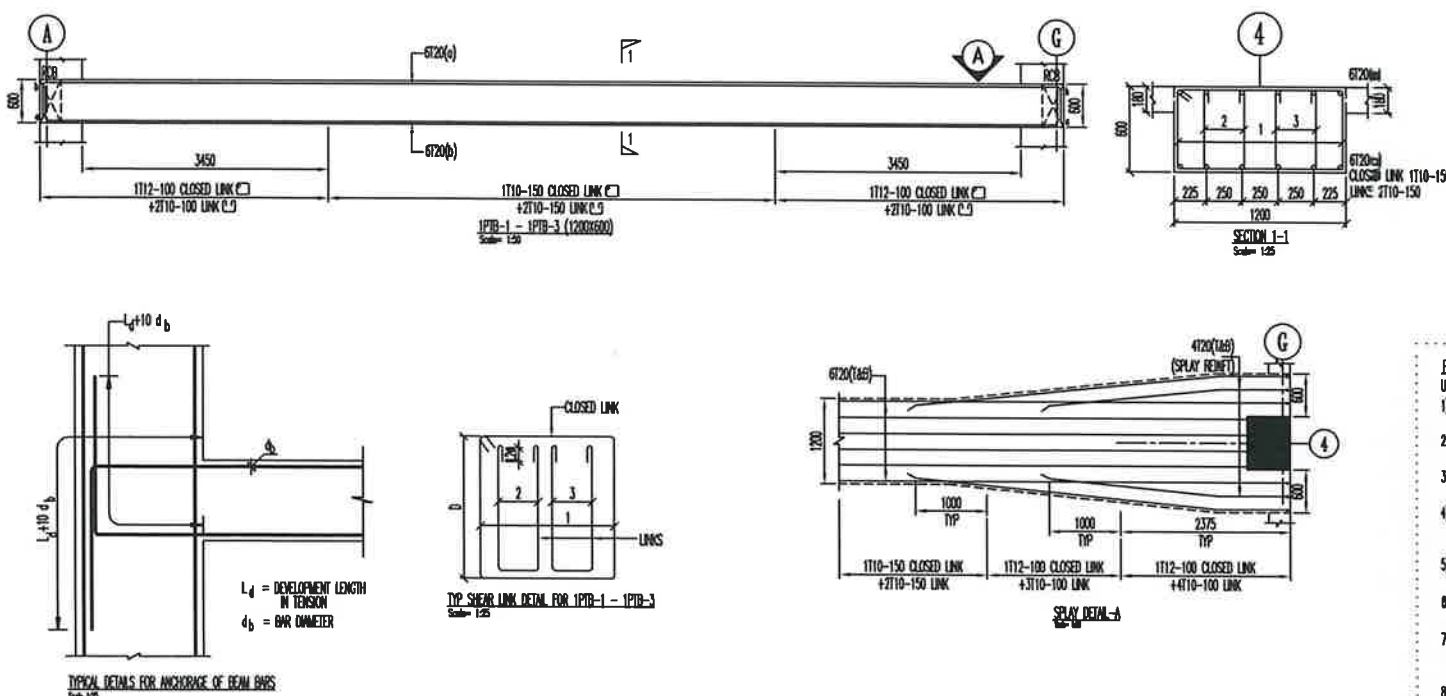
SL.NO.	TYPE	MAIN BAR	DISTRIBUTION BAR
1	Z1	T10-200	TB-250
2	Z2	T12-200	T12-200
3	S1	T10-150	TB-250

- NOTES:
UNLESS OTHERWISE SHOWN,
1) ALL DIMENSIONS ARE IN MM
2) ALL SLAB BOTTOM BARS SHOWN TO BE FOR
a) 180mm SLAB THICK T10-200(B1) & TB-200(B2)
3) CONCRETE CLEAR COVER FOR SLABS:
TOP: 25mm TO THE NEAREST REINFT.
BTM: 25mm TO THE NEAREST REINFT.
4) GRADE OF STEEL = Fe500
5) ALL LAPPING LENGTH SHOULD BE MINIMUM 600mm (OR) 50x OF BAR FOR
M35 GRADE OF CONCRETE & Fe500 GRADE OF STEEL WHICHEVER IS GREATER.
AND LAPS SHOULD BE KEPT STAGGERED.
6) ALL SLAB TOP MAIN BARS SHOULD BE EXTENDED 1000mm INTO RC AREA
WHENEVER APPLICABLE.
7) DEVELOPMENT LENGTH SHOULD BE MINIMUM 600mm (OR) 50x OF BAR FOR
M35 GRADE OF CONCRETE & Fe500 GRADE OF STEEL WHICHEVER IS GREATER.
8) TOP BAR SHOULD BE LAPPED AT MID SPAN & BOTTOM BARS SHALL BE
LAPPED AT ONE FOURTH OF SPAN DISTANCE FROM SUPPORT.
9) ALL HOOKS, BENDS & LAPS SHALL CONFORM TO IS2502:1963 & IS13920:2016

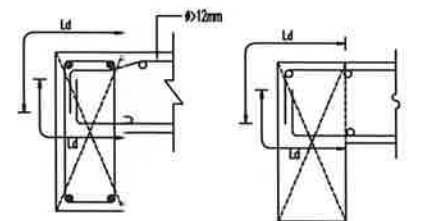
- LEGENDS:
B1 - REPRESENT FIRST LAYER OF REINFT. FROM BOTTOM
B2 - REPRESENT SECOND LAYER OF REINFT. FROM BOTTOM
--- DENOTES TOP BAR
--- DENOTES BOTTOM BAR
T10-200
C/C DIST. BETWEEN BARS
DIAMETER OF BAR
GRADE OF STEEL Fe500

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Chengalpattu - 603 003.
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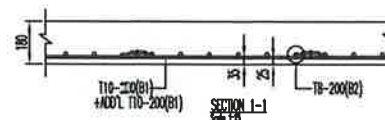
STILT FLOOR ROOF PT BEAM REINFT., DETAILS
Scale = 1/20



STILT FLOOR ROOF SLAB REINFT., DETAILS
Scale = 1/20



TYP. END ANCHORAGE DETAIL
(FOR # OF TOP BAR GREATER THAN 12mm)
Scale = 1/20



TYP. END ANCHORAGE DETAIL (REFER NOTES)
Scale = 1/20

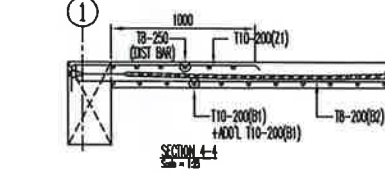
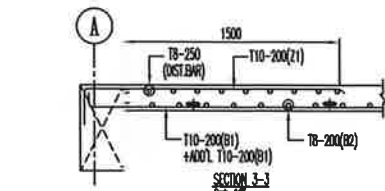
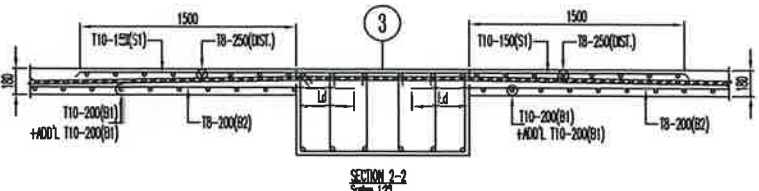


TABLE-1 ("TOP REINFT. DETAILS")

SL.NO.	TYPE	MAIN BAR	DISTRIBUTION BAR
1	Z1	T10-200	TB-250
2	Z2	T12-200	T12-200
3	S1	T10-150	TB-250

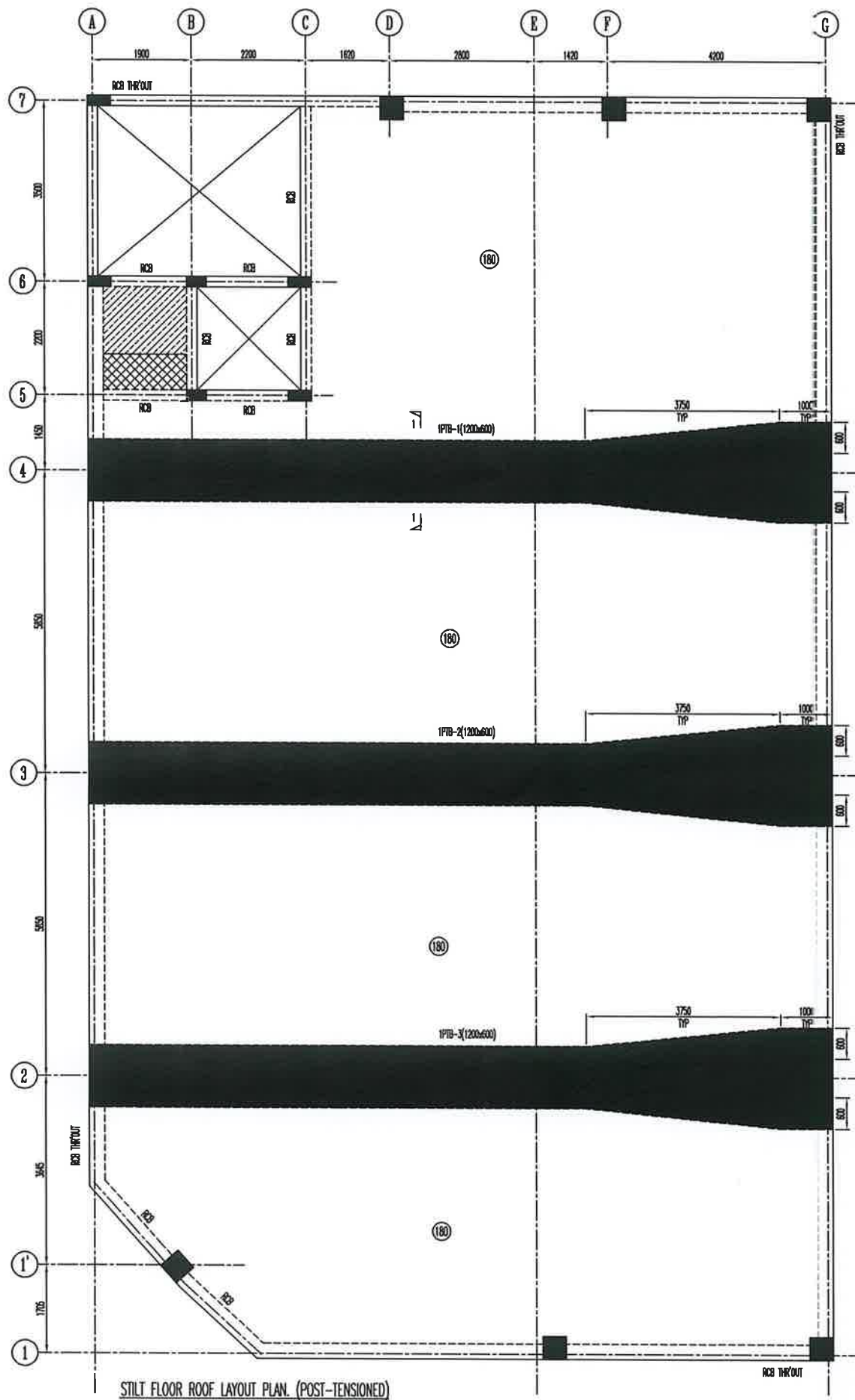
- NOTES:
UNLESS OTHERWISE SHOWN,
1) ALL DIMENSIONS ARE IN MM
2) ALL SLAB BOTTOM BARS SHOWN TO BE FOR
a) 180mm SLAB THICK T10-200(B1) & TB-200(B2)
3) CONCRETE CLEAR COVER FOR SLABS:
TOP: 25mm TO THE NEAREST REINFT.
BTM: 25mm TO THE NEAREST REINFT.
4) GRADE OF STEEL = Fe500
5) ALL LAPPING LENGTH SHOULD BE MINIMUM 600mm (OR) 50x OF BAR FOR
M35 GRADE OF CONCRETE & Fe500 GRADE OF STEEL WHICHEVER IS GREATER.
AND LAPS SHOULD BE KEPT STAGGERED.
6) ALL SLAB TOP MAIN BARS SHOULD BE EXTENDED 1000mm INTO RC AREA
WHENEVER APPLICABLE.
7) DEVELOPMENT LENGTH SHOULD BE MINIMUM 600mm (OR) 50x OF BAR FOR
M35 GRADE OF CONCRETE & Fe500 GRADE OF STEEL WHICHEVER IS GREATER.
8) TOP BAR SHOULD BE LAPPED AT MID SPAN & BOTTOM BARS SHALL BE
LAPPED AT ONE FOURTH OF SPAN DISTANCE FROM SUPPORT.
9) ALL HOOKS, BENDS & LAPS SHALL CONFORM TO IS2502:1963 & IS13920:2016

- LEGENDS:
B1 - REPRESENT FIRST LAYER OF REINFT. FROM BOTTOM
B2 - REPRESENT SECOND LAYER OF REINFT. FROM BOTTOM
--- DENOTES TOP BAR
--- DENOTES BOTTOM BAR
T10-200
C/C DIST. BETWEEN BARS
DIAMETER OF BAR
GRADE OF STEEL Fe500

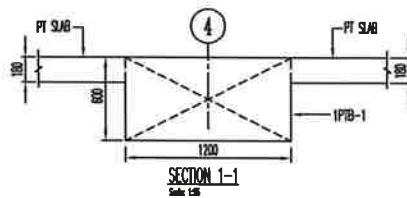
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B	REVISED AS PER LATEST STRUCTURAL DING	JANISH	SHAM	SHAM
A	ISSUE FOR APPROVAL	JANISH	SHAM	SHAM
Rev.	DESCRIPTION	DATE	APPROVED	REVIEWED
01	MR. ASIF ALI			
ARCHITECT:	M/S. RJ ARCHITECTS			
CONSULTING:	M/S. KIRTE ASSOCIATES			
PT SPECIALIST:	UCON STRUCTURAL SYSTEMS PRIVATE LIMITED			
PROJECT TITLE:	PROPOSED COMMERCIAL BUILDING AT AC-64 SHANMUKH COLONY ANNA NAGAR FOR MR. ASIF ALI			
DRAWING TITLE:	POST-TENSIONED STILT FLOOR ROOF PT BEAM & PT SLAB REINFT., DETAILS			
DRAWN:	DESIGNED:	CHECKED:	REVIEWED:	
JANISH	SHAM	SHAM	SHAM	
SCALE:	DATE:	E-MAIL:	APPROVED:	
1:50	08-05-2024	es.kumar@rjarchitects.com	SHAM	
DRAWING NO:	UCON/240194/SD/1-02			
REVISION:	B			

- PT BEAM NOTES:
UNLESS OTHERWISE SHOWN,
1) SHEAR LINKS DIMENSIONS TO MAINTAIN AS SHOWN IN THE SECTION TO AVOID CLASHING WITH TENDONS.
2) MAINTAIN A GAP OF 25mm BETWEEN VERTICAL LAYERS OF REINFORCEMENT.
3) COLUMN TO FIRST SHEAR LINK DISTANCE SHALL BE MAINTAINED MAX. 50mm.
4) TOP BARS SHOULD BE LAPPED AT MIDSPAN & BOTTOM BARS SHALL BE LAPPED AT ONE FOURTH OF SPAN DISTANCE FROM SUPPORT.
5) DEVELOPMENT LENGTH SHOULD BE 50 TIMES DIA OF BAR FOR M35 GRADE OF CONCRETE.
6) ALL HOOKS, BENDS & LAPS SHALL CONFORM TO IS2502:1963 & IS13920:2016
7) ALL LAPPING LENGTH SHALL BE 50x OF BAR FOR M35 GRADE OF CONCRETE AND LAPS SHOULD BE KEPT STAGGERED.
8) CONCRETE COVER FOR BEAMS:
TOP: 40mm TO THE NEAREST LINKS
BTM: 30mm TO THE NEAREST LINKS.



STILT FLOOR ROOF LAYOUT PLAN. (POST-TENSIONED)
Scale: 1/8"



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NOTES:

UNLESS OTHERWISE SHOWN,

1) ALL DIMENSIONS ARE IN MM

2) POST-TENSIONED SLAB TO BE 180 THK.

3) GRADE OF CONCRETE = M25, GRADE OF STEEL = Fe500

4) LOADINGS:

LL = 5.0 kN/m²

SLL = 2.0 kN/m²

TOTAL= 7.0 kN/m²

5) SHADDED AREAS, FRAMING NOT SHOWN AS PT BEAM & EDGE BEAMS TO BE DESIGNED AS R.C. BY STRUCTURAL CONSULTANT.

6) FOR COLUMN SIZES & LAYOUT REFER STRUCTURAL CONSULTANT DRAWING.

7) THIS DRAWING HAS TO BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL AND RELATED STRUCTURAL DRAWING.

8) IT HAS TO BE ENSURED THAT AT ANY CASE THE TOTAL CONSTRUCTION LOADS DOES NOT EXCEED THE SPECIFIED DESIGN LOADS.

9) SUFFICIENT SUPPORTS (IF REQUIRED) HAS TO BE MAINTAINED BELOW THIS FLOOR WHILE CONCRETING UPPER SLABS.

10) LEGENDS:-

100MM STRESSING POCKET

(THIS AREA HAS TO BE CONCRETED AFTER STRESSING.)

1 SUMMARY OF PT BEAM SIZES:-

BEAM MARK.	BEAM SIZES.	
	W	D
1PTB-1 - 1PTB-3	1200	600

C1 - COLUMN SIZES REVISED 600x400



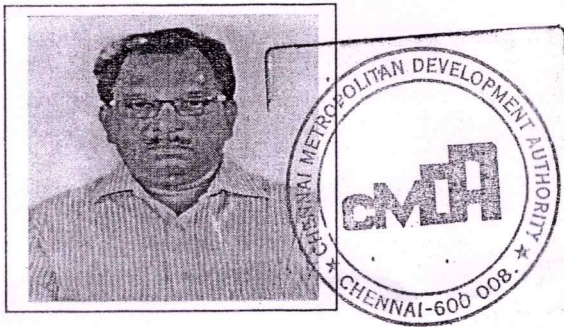
CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY
'ThalamuthuNatarajan Building', No.1, Gandhi Irwin Road,
Egmore, Chennai-600 008.

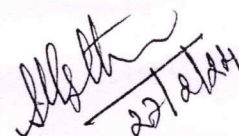
PROFESSIONAL REGISTRATION CERTIFICATE

This is to certify that the **Thiru. E.S. KUMAR** has enrolled as **Registered Structural Engineer Grade-I (SE)** with Chennai Metropolitan Development Authority (CMDA) who has the qualification of **M.Tech.,(Structural Engg.)** and experience in the relevant field for **27years**.

He has been given the Registration No.**SE/GR-I/2024/02/007** on **27.02.2024**. He shall be required to comply with the duties and responsibilities prescribed by the Government of Tamil Nadu in Part-V, "Registration of Professionals", Tamil Nadu Combined Development and Building Rules, 2019 approved vide G.O.(Ms) No.18 MAWS (MA1) Dept. dated 04.02.2019.

This Registration is valid upto **26.02.2029**.




(A. MEGANATHAN)
Superintendent