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Your trusted partner for buying, selling, and managing property, ensuring hassle-free service with 100% transparency.

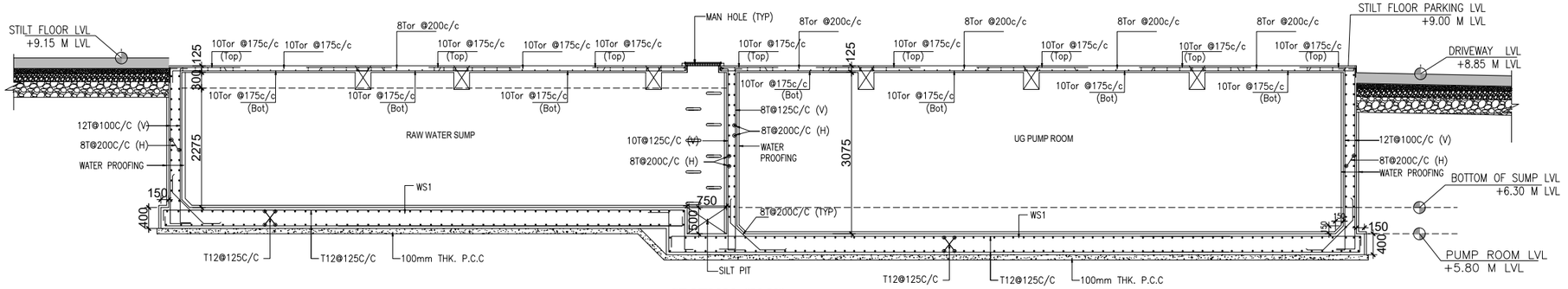
3/350/2 Mettukuppam,
OMR Thoraipakkam,
Chennai, India

hello@verified.realestate
+91 9996 12 9996
www.verified.realestate

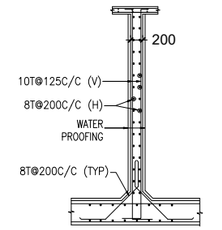
Official Property Record



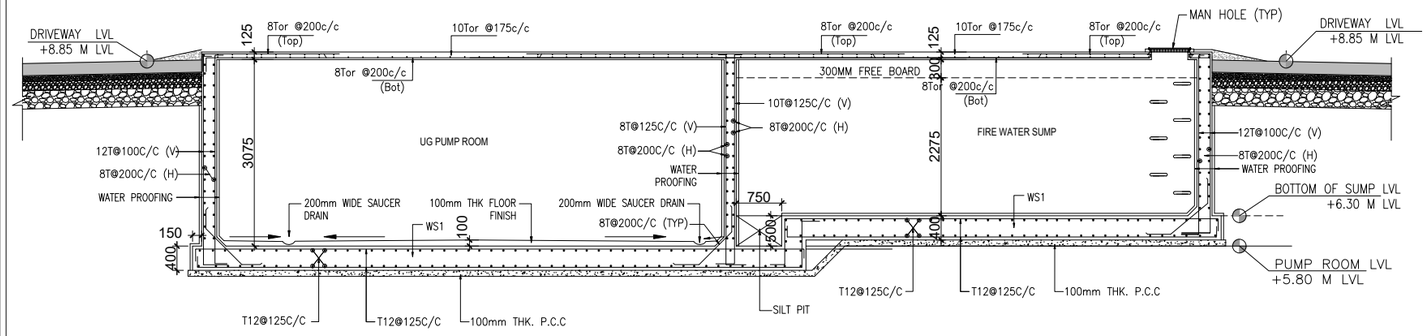
Digitally Verified Record - Powered by Verified RealEstate™



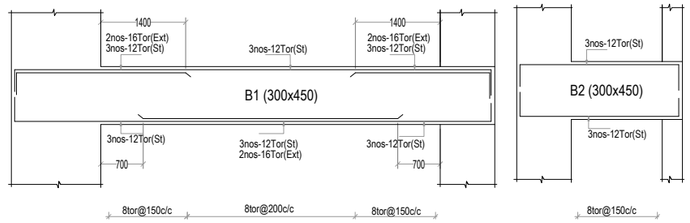

SECTION- "Y-Y"

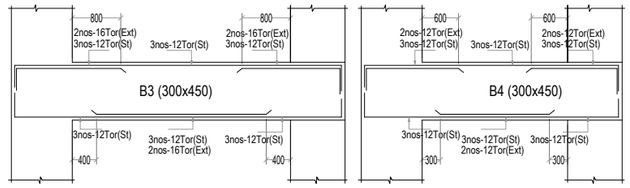


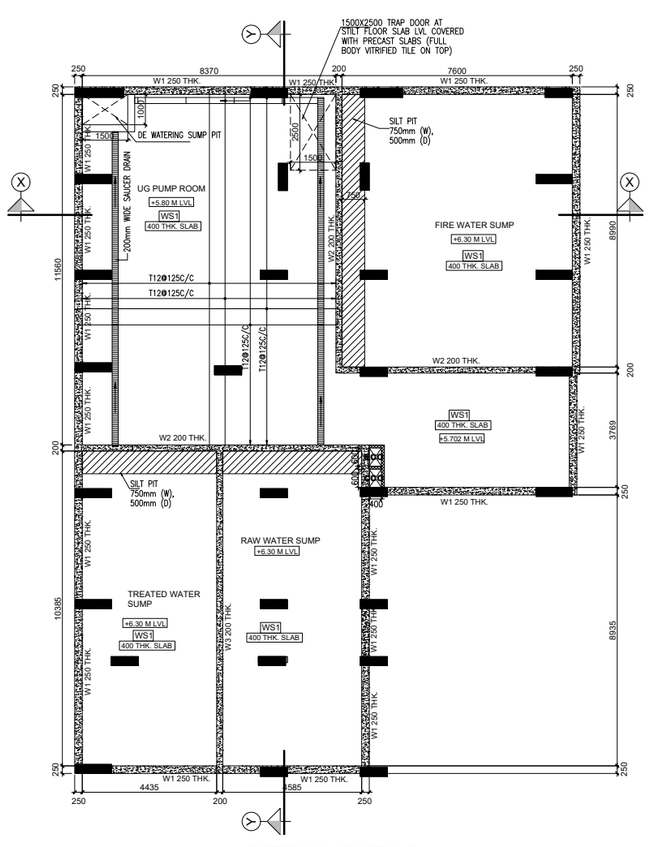

W3 WALL DETAILS



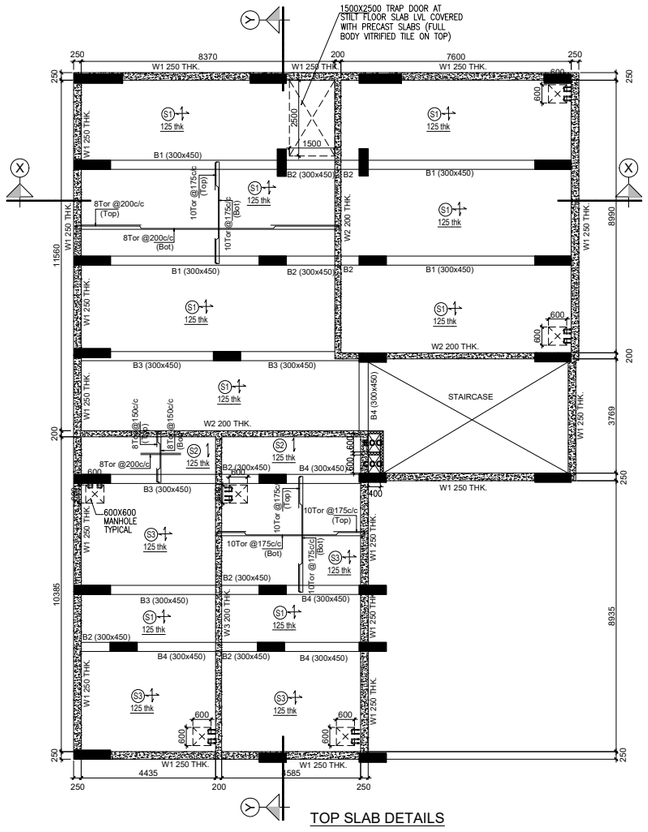

SECTION- "X-X"



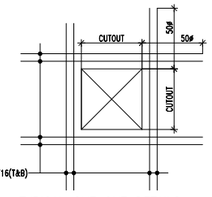



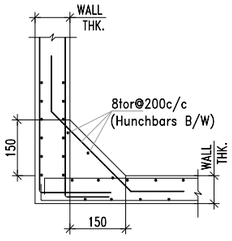

BOTTOM SLAB DETAILS



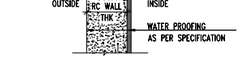

TOP SLAB DETAILS




TYPICAL CUT OUT DETAILS

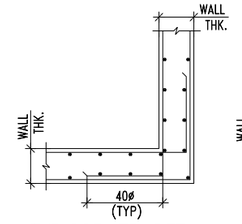



DETAIL–A
Typical detail

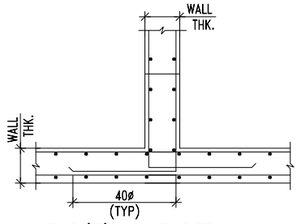



TYPICAL WATER PROOFING DETAIL FOR WALL/BASE SLAB

SUITABLE ACCOUNT TO BE TAKEN FOR WATER PROOFING THICKNESS AND CLEAR INTERNAL DIMENSIONS FOR ALL TANKS SHALL BE AS PER DRAWING.

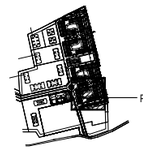



TYP.CORNER DETAIL IN PLAN




TYP.'T' JOINT DETAIL IN PLAN

KEY PLAN :-





design | interiors | engineering | construction management

C.R.Narayana Rao ( Consultants ) Private Limited

CRN
C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in


## NOTES:

1. READ THIS DRAWING ALONG WITH RELEVANT ARCHITECTURAL DRAWINGS.
2. READ THIS DRAWING ALONG WITH RELEVANT SERVICE DRAWINGS.
3. ALL DIMENSIONS ARE IN MILLIMETERS.
4. FOR EXACT DIMENSION AND LOCATION OF GRIDS REFER ARCHITCTURAL DRG.
5. FOR SETTING OUT OF THE BUILDING REFER ARCHITECTURAL DRAWING
6. THE DRAWINGS ARE ISSUED FOR CONSTRUCTION SUBJECT TO APPROVAL FROM STATUTORY AUTHORITIES
7. IF ANY DISCREPANCIES FOUND IN THE DRAWINGS SHALL BE BROUGHT TO ARHITECTS/CONSULTANTS NOTICE BEFORE EXECUTION.
8. GRADE OF CONCRETE: M30
9. GRADE OF STEEL : Fe500
10. CLEAR COVER FOR SLABS - 20mm.
    FOR BEAMS - 25mm.

DEVELOPMENT LENGTH OF BARS FOR Fe-500 GRADE

| | IN TENSION | | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | | M-20 | M-25 | M-30 | M-35 | M-40 | |
| 8 mm | 455 | 390 | 365 | 320 | 290 | 8 mm | 365 | 315 | 290 | 260 | 230 | |
| 10 mm | 570 | 485 | 455 | 400 | 360 | 10 mm | 455 | 390 | 365 | 320 | 290 | |
| 12 mm | 680 | 585 | 545 | 480 | 430 | 12 mm | 545 | 470 | 435 | 385 | 345 | |
| 16 mm | 910 | 780 | 725 | 640 | 575 | 16 mm | 725 | 625 | 580 | 515 | 460 | |
| 20 mm | 1135 | 975 | 910 | 800 | 715 | 20 mm | 910 | 780 | 725 | 640 | 575 | |
| 25 mm | 1420 | 1215 | 1135 | 1000 | 895 | 25 mm | 1135 | 975 | 910 | 820 | 715 | |
| 32 mm | 1815 | 1555 | 1450 | 1280 | 1145 | 32 mm | 1450 | 1245 | 1160 | 1025 | 920 | |

PROJECT :

INCOR - PHASE-III - MARBELLA [E1 & E2]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD

# 1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

incor

STRUCTURAL CONSULTANT:


ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615


TITLE :-
UG SUMP & PUMP ROOM DETAILS

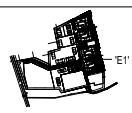
| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:100 | TEJA | VAMSHI | NAVANEETHA | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 09-12-2023 | ZA/INCOR/PH-111/MRBL/E1/ST-01 | | REV-0 |

| COLUMN No. | COLUMN SIZE a | b | UPTO 1st Floor M-40 Fe-500 |
|---|---|---|---|
| W1 | 200 | 900 | ●08 Nos 16Tor ○06 Nos 12Tor; 900; 200; 8Tor @100 c/c |
| W2 | 200 | 900 | ●18 Nos 16Tor; 900; 200; 8Tor @100 c/c |
| W3 | 200 | 900 | ●08 Nos 20Tor ○06 Nos 16Tor; 900; 200; 8Tor @100 c/c |
| W4 | 200 | 900 | ●12 Nos 20Tor ○04 Nos 16Tor; 900; 200; 8Tor @100 c/c |
| W5 | 200 | 900 | ●18 Nos 20Tor; 900; 200; 8Tor @100 c/c |
| W6 | 200 | 960 | ●18 Nos 20Tor; 960; 200; 8Tor @100 c/c |
| W7 | 200 | 1050 | ●18 Nos 20Tor; 1050; 200; 8Tor @100 c/c |
| W8 | 200 | 1050 | ●20 Nos 20Tor; 1050; 200; 8Tor @100 c/c |
| W9 | 200 | 1100 | ●18 Nos 16Tor; 1100; 200; 8Tor @100 c/c |
| W10 | 200 | 1200 | ●20 Nos 16Tor; 1200; 200; 8Tor @100 c/c |
| W11 | 200 | 1200 | ●16 Nos 20Tor; 1200; 200; 8Tor @100 c/c |
| W12 | 200 | 1200 | ●20 Nos 20Tor; 1200; 200; 8Tor @100 c/c |
| W13 | 200 | 1200 | ●22 Nos 20Tor; 1200; 200; 8Tor @100 c/c |
| W14 | 200 | 1300 | ● 16 Nos 20Tor; 1300; 200; 8Tor @100 c/c |
| W15 | 200 | 1280 | ●24 Nos 20Tor; 1280; 200; 8Tor @100 c/c |
| W16 | 200 | 1500 | ●20 Nos 20Tor; 1500; 200; 8Tor @100 c/c |

| COLUMN No. | COLUMN SIZE a | b | UPTO 1st Floor M-40 Fe-500 |
|---|---|---|---|
| W17 | 200 | 1500 | ●28 Nos 20Tor; 1500; 200; 8Tor @100 c/c |
| W18 | 200 | 1950 | ●24 Nos 25Tor; 1950; 200; 8Tor @100 c/c |
| W19 | 200 | 1510 | ●24 Nos 20Tor; 1510; 200; 8Tor @100 c/c |
| W20 | 200 | 1540 | ●20 Nos 16Tor; 1540; 200; 8Tor @100 c/c |
| W21 | 200 | 1540 | ●26 Nos 20Tor; 1540; 200; 8Tor @100 c/c |
| W22 | 200 | 1600 | ●20 Nos 16Tor; 8Tor @100 c/c; 200; 1600 |
| W23 | 200 | 1660 | ●30 Nos 20Tor; 1660; 200; 8Tor @100 c/c |
| W24 | 200 | 1700 | ●28 Nos 12Tor; 1700; 200; 8Tor @100 c/c |
| W25 | 200 | 1800 | ●26 Nos 20Tor; 1800; 200; 8Tor @100 c/c; 600; 600 |
| W26 | 200 | 3250 | ●38 Nos 20Tor; 3250; 200; 8Tor @100 c/c; 900; 900 |
| W27 | 200 | 3500 | ●42 Nos 20Tor; 3500; 200; 8Tor @100 c/c; 900; 900 |
| W28 | 200 | 1350 | ●26 Nos 20Tor; 1350; 200; 8Tor @100 c/c |

| COLUMN No. | COLUMN SIZE a | b | UPTO 1st Floor M-40 Fe-500 |
|---|---|---|---|
| W29 | 200 | 1450 | ●12 Nos 20Tor ○14 Nos 16Tor; 1450; 200; 8Tor @100 c/c |
| W30 | 200 | 1490 | ●24 Nos 16Tor; 1490; 200; 8Tor @100 c/c |
| W31 | 200 | 1950 | ●36 Nos 20Tor; 1950; 200; 8Tor @100 c/c |
| W1A | 250 | 900 | ●08 Nos 16Tor ○06 Nos 12Tor; 900; 250; 8Tor @100 c/c; 250MM WIDE UPTO STILT FLOOR LVL |
| W7A | 250 | 1050 | ●18 Nos 20Tor; 1050; 250; 8Tor @100 c/c; 250MM WIDE UPTO STILT FLOOR LVL |
| W10A | 250 | 1200 | ●20 Nos 16Tor; 1200; 250; 8Tor @100 c/c; 250MM WIDE UPTO STILT FLOOR LVL |
| W13A | 250 | 1200 | ●22 Nos 20Tor; 1200; 250; 8Tor @100 c/c; 250MM WIDE UPTO STILT FLOOR LVL |
| W21A | 250 | 1540 | ●26 Nos 20Tor; 1540; 250; 8Tor @100 c/c; 250MM WIDE UPTO STILT FLOOR LVL |

KEY PLAN :-




GOOD FOR CONSTRUCTION
DATE:16.11.2024

design | interiors | engineering | construction management
C.R.Narayana Rao ( Consultants ) Private Limited
No. 10, Karpagambal Nagar, Mylapore, Chennai-600 004.
www.crn.co.in
C R NARAYANA RAO

NOTES :-

FOUNDATIONS ARE DESIGNED FOR S+14 FLOORS
SBC IS CONSIDERED AS 40T/SQM @ 4Mts EXISTING GROUND LEVEL (AS PER SOIL REPORT)
DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
STRUCTURE IS DESIGNED FOR SEISMIC FORCES AS PER IS:1893, ZONE III
COVERING FOR MAIN REINFORCEMENT COLUMNS 40mm, FOOTING 50mm
CURING SHALL BE DONE FOR 21 DAYS.

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th,/28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE M1 x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | | | | | | IN COMPRESSION | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1585 | 1470 | 1300 |

PROJECT :
INCOR PBEL- PHASE-III - BLOCK - E1 & E2

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
# 1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

PROJECT:
INCOR PBEL- PHASE-III

STRUCTURAL CONSULTANT:

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassociates@gmail.com
P. No. 23224772, 66613497
9063322615

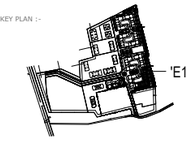
TITLE :-
COLUMN DETAILS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:160 | ANUSHA | ANUSHA | M J ALI | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV:R0 |
| | 16-11-2024 | ZA/INCOR PBEL/PH-3/MALTA/E1/ST-04 | | |

# SCHEDULE OF COLUMNS

| COLUMN No. | COLUMN SIZE a | b | UP to 1 ST Slab (M-40) | UP to 2 nd Slab (M-40) | UP to 3 rd Slab (M-40) | UP to 4 rth Slab (M-35) | UP to 5 th Slab (M-35) | UP to 6 th Slab (M-35) | UP to 7 nth Slab (M-35) | UP to 8 th Slab (M-35) | UP to 9 th Slab (M-30) |
|---|---|---|---|---|---|---|---|---|---|---|---|
| W1 | 300 | 900 | 18 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 18 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 18 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 16Tor<br>4 Nos 12Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 16Tor<br>4 Nos 12Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 16Tor<br>4 Nos 12Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 16Tor<br>8 Nos 12Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 16Tor<br>8 Nos 12Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 16Tor<br>8 Nos 12Tor<br>900 / 300<br>8Tor @100 c/c |
| W2 | 300 | 900 | 10 Nos 20Tor<br>6 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>6 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>6 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 6 Nos 20Tor<br>10 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 6 Nos 20Tor<br>10 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 8 Nos 20Tor<br>10 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 16 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 16 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 16 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c |
| W3 | 300 | 900 | 18 Nos 20Tor<br>900 / 300<br>8Tor @100 c/c | 18 Nos 20Tor<br>900 / 300<br>8Tor @100 c/c | 18 Nos 20Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 20Tor<br>4 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 20Tor<br>4 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 20Tor<br>4 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>8 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>8 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>8 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c |
| W4 | 300 | 900 | 20 Nos 20Tor<br>900 / 300<br>8Tor @100 c/c | 20 Nos 20Tor<br>900 / 300<br>8Tor @100 c/c | 20 Nos 20Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 20Tor<br>6 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 20Tor<br>6 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 14 Nos 20Tor<br>6 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 8 Nos 20Tor<br>12 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 8 Nos 20Tor<br>12 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c | 8 Nos 20Tor<br>12 Nos 16Tor<br>900 / 300<br>8Tor @100 c/c |
| W5 | 300 | 1000 | 10 Nos 16Tor<br>12 Nos 12Tor<br>1000 / 300<br>8Tor @100 c/c | 12 Nos 12Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 12 Nos 12Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 12 Nos 12Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 12 Nos 12Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 12 Nos 12Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 22 Nos 12Tor<br>1000 / 300<br>8Tor @100 c/c | 22 Nos 12Tor<br>1000 / 300<br>8Tor @100 c/c | 22 Nos 12Tor<br>1000 / 300<br>8Tor @100 c/c |
| W6 | 300 | 1000 | 10 Nos 20Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 10 Nos 20Tor<br>10 Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 6 Nos 20Tor<br>14Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 6 Nos 20Tor<br>14Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 6 Nos 20Tor<br>14Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 20Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 20Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c | 20Nos 16Tor<br>1000 / 300<br>8Tor @100 c/c |
| W7 | 200 | 1000 | 12 Nos 20Tor<br>6 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 12 Nos 20Tor<br>6 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 12 Nos 20Tor<br>6 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 8Nos 20Tor<br>10 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 8Nos 20Tor<br>10 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 8Nos 20Tor<br>10 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 4 Nos 20Tor<br>14 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 4 Nos 20Tor<br>14 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c | 4 Nos 20Tor<br>14 Nos 16Tor<br>1000 / 200<br>8Tor @100 c/c |
| W8 | 300 | 1200 | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c | 8 Nos 16Tor<br>14 Nos 12Tor<br>450 / 1200 / 300<br>8Tor @100 c/c |
| W9 | 300 | 1400 | 26 Nos 12Tor<br>300 / 1400 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1400 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1400 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1400 / 300 / 300<br>8Tor @100 c/c | 24 Nos 12Tor<br>1400 / 300<br>8Tor @100 c/c | 24 Nos 12Tor<br>1400 / 300<br>8Tor @100 c/c | 24 Nos 12Tor<br>1400 / 300<br>8Tor @100 c/c | 24 Nos 12Tor<br>1400 / 300<br>8Tor @100 c/c | 24 Nos 12Tor<br>1400 / 300<br>8Tor @100 c/c |
| W10 | 300 | 1600 | 28 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 28 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 28 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 28 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c | 26 Nos 12Tor<br>300 / 1600 / 300 / 300<br>8Tor @100 c/c |
| W11 | 200 | 800 | 10 Nos 12Tor<br>8 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 10 Nos 12Tor<br>8 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 10 Nos 12Tor<br>8 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 18 Nos 12Tor<br>800 / 200<br>8Tor @100 c/c | 18 Nos 12Tor<br>800 / 200<br>8Tor @100 c/c | 18 Nos 12Tor<br>800 / 200<br>8Tor @100 c/c | 18 Nos 12Tor<br>800 / 200<br>8Tor @100 c/c | 18 Nos 12Tor<br>800 / 200<br>8Tor @100 c/c | 18 Nos 12Tor<br>800 / 200<br>8Tor @100 c/c |
| W12 | 200 | 800 | 8 Nos 16Tor<br>8 Nos 20Tor<br>800 / 200<br>8Tor @100 c/c | 8 Nos 16Tor<br>8 Nos 20Tor<br>800 / 200<br>8Tor @100 c/c | 8 Nos 16Tor<br>8 Nos 20Tor<br>800 / 200<br>8Tor @100 c/c | 12 Nos 16Tor<br>4 Nos 20Tor<br>800 / 200<br>8Tor @100 c/c | 12 Nos 16Tor<br>4 Nos 20Tor<br>800 / 200<br>8Tor @100 c/c | 12 Nos 16Tor<br>4 Nos 20Tor<br>800 / 200<br>8Tor @100 c/c | 16 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 16 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 16 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c |
| W13 | 200 | 800 | 8 Nos 20Tor<br>6 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 8 Nos 20Tor<br>6 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 8 Nos 20Tor<br>6 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 4 Nos 20Tor<br>10 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 4 Nos 20Tor<br>10 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 4 Nos 20Tor<br>10 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 14 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 14 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c | 14 Nos 16Tor<br>800 / 200<br>8Tor @100 c/c |
| W14 | 200 | 1100 | 20 Nos 20Tor<br>1100 / 200<br>8Tor @100 c/c | 20 Nos 20Tor<br>1100 / 200<br>8Tor @100 c/c | 20 Nos 20Tor<br>1100 / 200<br>8Tor @100 c/c | 12 Nos 20Tor<br>8 Nos 16Tor<br>1100 / 200<br>8Tor @100 c/c | 12 Nos 20Tor<br>8 Nos 16Tor<br>1100 / 200<br>8Tor @100 c/c | 12 Nos 20Tor<br>8 Nos 16Tor<br>1100 / 200<br>8Tor @100 c/c | 8 Nos 20Tor<br>12 Nos 16Tor<br>1100 / 200<br>8Tor @100 c/c | 8 Nos 20Tor<br>12 Nos 16Tor<br>1100 / 200<br>8Tor @100 c/c | 8 Nos 20Tor<br>12 Nos 16Tor<br>1100 / 200<br>8Tor @100 c/c |

KEY PLAN :-





design | interiors | engineering | construction management

C.R.Narayana Rao ( Consultants ) Private Limited

C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in


NOTES :-

FOUNDATIONS ARE DESIGNED FOR S+14 FLOORS
SBC IS CONSIDERED AS 50T/SQM
(SUBJECT TO BE CHANGED AS PER SITE CONDITION)
DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
STRUCTURE IS DESIGNED FOR SEISMIC FORCES AS PER IS-1893, ZONE II
COVERING FOR MAIN REINFORCEMENT COLUMNS 40mm, FOOTING 50mm
CURING SHALL BE DONE FOR 21 DAYS.

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 : 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th,/28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE M$_{20}$ x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
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18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DESCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

PROJECT :
INCOR - PHASE-III - MARBELLA [B5]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
# 1/213,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

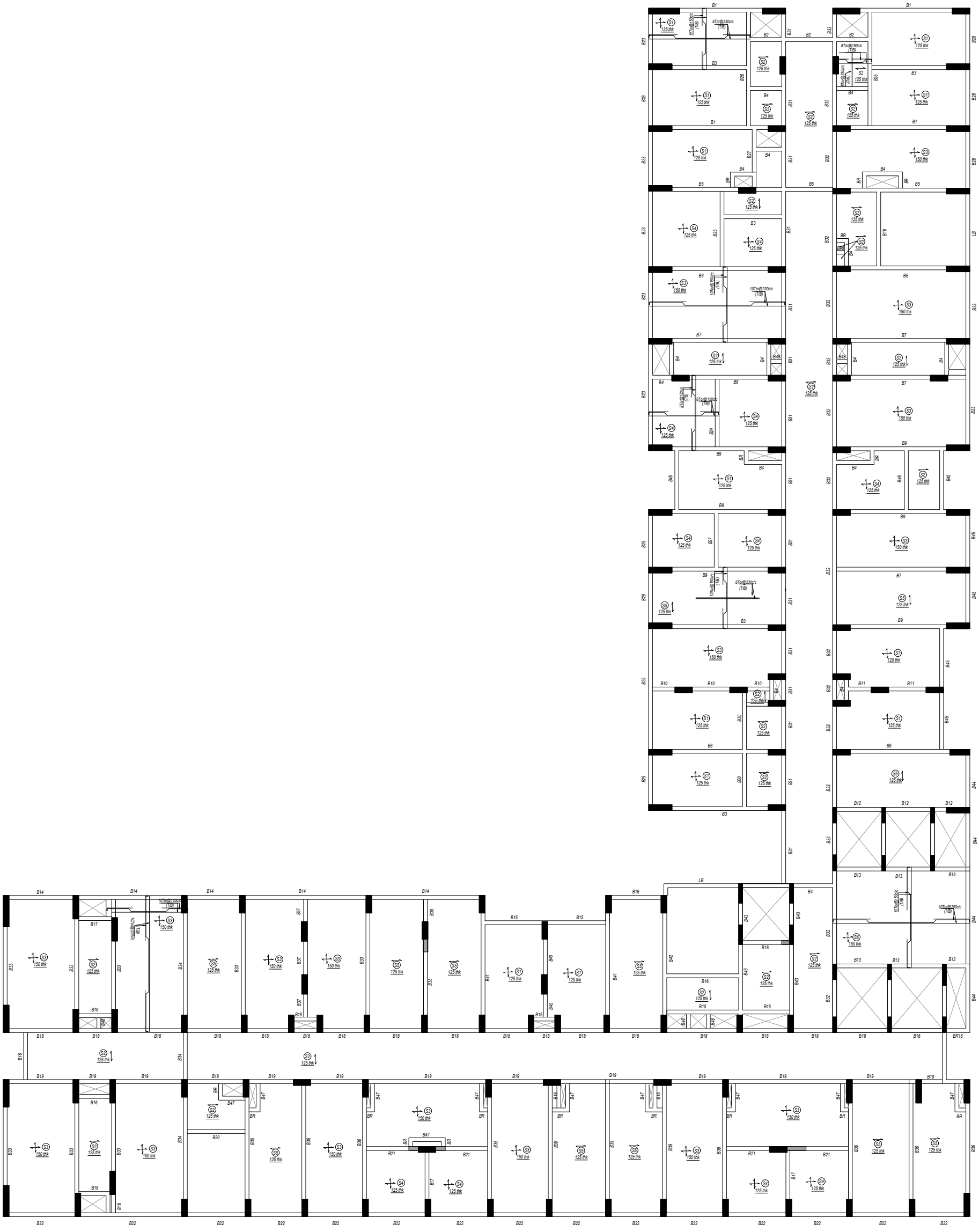
PROJECT:
INCOR - PHASE-III - MARBELLA [E1]

STRUCTURAL CONSULTANT:

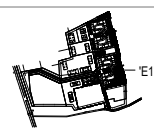

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4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615


TITLE :-
COLUMN REDUCTION DETAILS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:60 | ANUSHA | ANUSHA | AZHAR | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 22-12-2023 | ZA/INCOR/PH-111/BLOCK/E1/ST-02 | | REV-0 |




KEY PLAN :-





design | interiors | engineering | construction management

C.R.Narayana Rao ( Consultants ) Private Limited

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

C R NARAYANA RAO


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(SUBJECT TO BE CHANGED AS PER SITE CONDITION)
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CURING SHALL BE DONE FOR 21 DAYS.

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   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
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   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
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19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| | IN TENSION | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | GRADE OF CONCRETE | | | | | GRADE OF CONCRETE | | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

PROJECT :

INCOR - PHASE-III - BLOCK - E1

*FIRST FLOOR BEAMS FRAMING DETAILS*

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD

# 1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

incor

PROJECT:

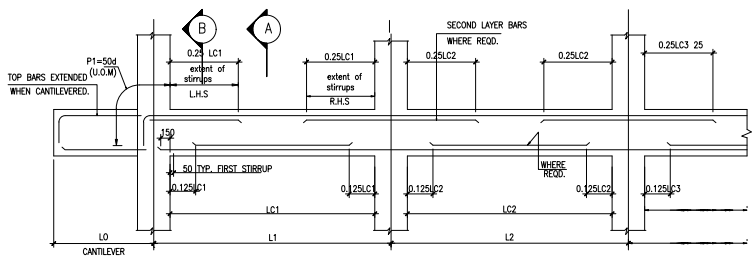
INCOR - PHASE-III - BLOCK - E1 & E2

STRUCTURAL CONSULTANT:

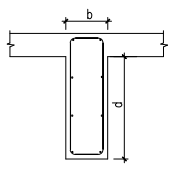

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615


TITLE :-
FIRST FLOOR FRAMING & SLAB DETAILS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:100 | ANUSHA | ANUSHA | ZAINAB | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 22-12-2023 | ZA/INCOR/PH-111/BLOCK/E1/ST-03 | | REV-0 |

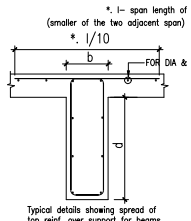



TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAMS



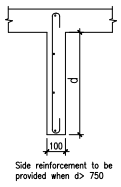

Side reinforcement to be provided when d> 750

(A) SECTION AT MID-SPAN



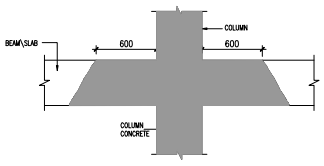

Typical details showing spread of top reinf. over support for beams having flanges on both sides unless otherwise noted.

(B) SECTION AT SUPPORT




Side reinforcement to be provided when d> 750

TYP. SECTION FOR 100THK BEAMS




TYPICAL DETAIL OF BEAM-COLUMN OR SLAB -COLUMN JUNCTION *

(* – WHERE GRADE OF CONCRETE FOR COLUMN IS GREATER THAN 1.4 TIMES THAT OF BEAM\SLAB).

NOTES:

1. HIGHER STRENGTH CONCRETE IN THE FLOOR IN THE REGION OF COLUMN BE PLACED BEFORE THE LOWER STRENGTH CONCRETE IN THE REMAINDER OF THE FLOOR IS PLACED. ALSO THE LOWER STRENGTH CONCRETE SHOULD BE PLACED WHILE THE HIGH STRENGTH CONCRETE IS STILL PLASTIC.

## IST SLAB BEAM DETAILS

| | B1 4NO. | B2 3NO. | B3 4NO. |
|---|---|---|---|
| SPAN | COL. 4200 COL. | COL. 1600 COL. 2400 COL. 1600 COL. | COL. 3800 COL. |
| TOP REINF. | 2T16+2T16 2T16 2T20+2T16; 1050 1050 | 2T12 2T12 2T12 | 2T16+2T16 |
| BOT REINF. | 2T16+2T16 | 2T12 2T12 2T12 | 2T12+2T16 |
| STIRRUPS | T8@100/T8@100/T12@100C/C | T8@100C/C T8@100C/C T8@100C/C | T10@100C/C |
| SIZE | 200x450 | 200x450 **200x450** **200x450** | 200x450 |

| | B4 13NO. | B5 3NO. | B6 3NO. |
|---|---|---|---|
| SPAN | COL. 1680 COL. | COL. 3390 COL. 3910 COL. 4900 COL. | COL. 4900 COL. |
| TOP REINF. | 2T12 | 2T16 2T20+2T16 2T16 2T16+2T16 2T16 2T16+2T16; 845 980 980 1225 1225 | 2T16+2T16 2T16 2T20+2T16; 1225 1225; 615 615 |
| BOT REINF. | 2T12 | 2T16+2T16 2T16+2T16 2T16+2T16 | 2T16+2T12 |
| STIRRUPS | T8@100C/C | T10@100C/C T10@100C/C T8@100C/C | T8@100/10T@100C/C |
| SIZE | | 200x450 200x450 | 200x450 |

| | B7 4NO. | B8 1NO. | B9 7NO. | B10 3NO. |
|---|---|---|---|---|
| SPAN | COL. 4900 COL. | COL. 3960 COL. | COL. 4900 COL. | COL. 1140 COL. 1400 COL. 1150 COL. |
| TOP REINF. | 2T12+2T16 2T12 2T12+2T16; 1225 1225; 615 615 | 2T16+2T16 2T12 2T12+2T16; 990 990; 495 495 | 2T20+2T16 2T16 2T20+2T16; 1225 1225 | 2T16+2T16 2T16+2T16 2T16+2T16 |
| BOT REINF. | 2T12+2T12 | 2T16+2T12 | 2T16+2T16 | 2T16+2T16 2T16+2T16 2T16+2T16 |
| STIRRUPS | T10@100/T8@150/T8@100C/C | T10@100/T8@100C/C | T8@100/T10@100C/C | T10@100C/C T10@100C/C T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 200x450 200x450 |

| | B11 2NO. | B12 3NO. |
|---|---|---|
| SPAN | COL. 1160 COL. 1900 COL. | COL. 2300 COL. 2300 COL. 598 COL. |
| TOP REINF. | 2T16 2T16+2T16 2T16 2T16+2T16; 290 475 475 | 2T16 2T16 2T16+2T16; 575 |
| BOT REINF. | 2T12+2T16 2T16+2T16 | 2T16 2T16 2T16 |
| STIRRUPS | T10@100C/C T10@100C/C | T8@100C/C T8@100C/C T8@100C/C |
| SIZE | 200x450 200x450 | 200x450 200x450 200x450 |

| | B13 6NO. | B14 5NO. |
|---|---|---|
| SPAN | COL. 2300 COL. 2300 COL. 1600 COL. | COL. 3257 COL. 5235 COL. 2665 COL. 6160 COL. 5480 |
| TOP REINF. | 2T16 2T16 2T16+2T16 2T16+2T16; 575 | 2T16 2T12+2T16 2T16; 815 1310; 655 655; 670 1540 1540; 770 770; 1460 1460 |
| BOT REINF. | 2T16 2T16 2T16 | 2T16 2T16+2T12 2T16 2T16+2T12 2T16 |
| STIRRUPS | T8@100C/C T8@100C/C T8@100C/C | T8@100C/C T8@100/T8@150/T8@100C/C T8@100C/C T8@100/T8@150/T8@100C/C T8@100/T8@150/T8@100C/C |
| SIZE | 200x450 200x450 200x450 | 200x450 200x450 200x450 200x450 200x450 |

| | B15 4NO. | B16 11NO. | B17 3NO. |
|---|---|---|---|
| SPAN | COL. 2905 COL. 2955 COL. | COL. 2520 COL. | 1680 COL. |
| TOP REINF. | 2T16 2T16 | 2T16 | 2T16+2T16 |
| BOT REINF. | 2T16 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 200x450 | 200x450 | 200x450 |

| | B18 18NO. |
|---|---|
| SPAN | COL. 3257 COL. 1680 COL. 3255 COL. 2765 COL. 2100 COL. 1160 COL. 2100 COL. 2640 COL. 2640 COL. |
| TOP REINF. | 2T12+2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16; 820 |
| BOT REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 |
| STIRRUPS | T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 |

| | B19 13NO. |
|---|---|
| SPAN | COL. 2200 COL. 1060 COL. 2200 COL. 2620 COL. 3750 COL. 2300 COL. 2000 COL. 2600 COL. 2600 COL. 1200 COL. |
| TOP REINF. | 2T16 2T16 2T16 2T16 2T12+2T16 2T16 2T16 2T16 2T16 2T12+2T16 2T12+2T16; 940 575 650 |
| BOT REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 |
| STIRRUPS | T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 |

| | B19 13NO. |
|---|---|
| SPAN | COL. 3257 COL. 1580 COL. 3360 COL. 2850 COL. 2260 COL. 2640 COL. 5980 COL. 2640 COL. 4746 COL. |
| TOP REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 2T20+2T16 2T16 2T20+2T16 2T16 2T20+2T16 2T16 2T25+2T16; 660 1495 1495 660 660 1190 1190 |
| BOT REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 |
| STIRRUPS | 2L-T8@125C/C 2L-T8@125C/C 2L-T8@150C/C 2L-T8@150C/C 2L-T8@125C/C 2L-T8@125C/C 2L-T10@125C/C 2L-T8@125C/C 4L-T10@175C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 |

| | B20 1NO. | B21 4NO. |
|---|---|---|
| SPAN | COL. 2165 COL. 6020 COL. 3240 COL. 2160 COL. | COL. 2950 COL. | COL. 2643 COL. 2638 COL. |
| TOP REINF. | 2T25+2T16 2T16 2T20+2T16 2T16 2T20+2T16 2T16 2T16; 545 545 1505 1505 810 | 2T16 | 2T16 2T16+2T16 2T16; 660 660 |
| BOT REINF. | 2T16 2T16 2T16 2T16 | 2T16 | 2T16 2T16 |
| STIRRUPS | 2L-T10@150C/C 2L-T10@150C/C 2L-T8@200C/C 2L-T10@150C/C | T8@150C/C | 2L-T8@150C/C 2L-T10@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 | 200x450 | 200x450 200x450 |

| | B22 15NO. |
|---|---|
| SPAN | COL. 3360 COL. 5137 COL. 2950 COL. 2599 COL. 2798 COL. 2890 COL. 2890 COL. 2700 COL. 2720 COL. |
| TOP REINF. | 2T16 2T12+2T16 2T16 2T12+2T16 1T12+2T16 2T16 2T16 2T16 2T16 2T16 2T16; 840 1290 1290 745 745 650 |
| BOT REINF. | 2T16 2T16+2T12 2T16 2T16 2T16 2T16 2T16 2T16 2T16; 645 645 |
| STIRRUPS | T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 |

| | |
|---|---|
| SPAN | COL. 2505 COL. 2876 COL. 2930 COL. 2970 COL. 2900 COL. 2500 COL. |
| TOP REINF. | 2T16 2T16 2T16 2T16 2T16 |
| BOT REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 |
| STIRRUPS | T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C T8@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 |

| | B23 8NO. | B24 1NO. |
|---|---|---|
| SPAN | COL. 5435 COL. 3360 COL. 3850 COL. 2750 COL. 2860 COL. 2540 COL. | COL. 3455 COL. |
| TOP REINF. | 2T12+2T16 2T16 2T12+2T16 2T16 2T16 2T16 2T16 2T16 2T16; 1360 1360 840; 680 680 | 2T12 |
| BOT REINF. | 2T16+2T12 2T16 2T16 2T16 2T16 2T16 | 2T12 |
| STIRRUPS | 2L-T8@150C/C 2L-T8@150C/C 2L-T8@150C/C 2L-T8@150C/C 2L-T8@150C/C 2L-T8@150C/C | T8@200C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 | 200x450 |

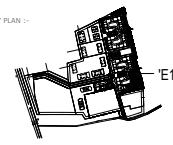
| | B25 1NO. | B26 2NO. | B27 2NO. | B28 3NO. |
|---|---|---|---|---|
| SPAN | COL. 3850 COL. | COL. 5800 COL. | COL. 2740 COL. | COL. 2890 COL. 2860 COL. 2540 COL. |
| TOP REINF. | 2T16 2T16; 480 480 | 2T12+2T16 2T12 2T12+2T16; 2900 2900; 1450 1450 | 2T16 | 2T16 2T16 2T16 |
| BOT REINF. | 2T16+2T12 | 2T12+2T16 | 2T16 | 2T16 2T16 2T16 |
| STIRRUPS | T8@175C/C | 2L-T8@175C/C | 2L-T8@125C/C | 2L-T8@175C/C 2L-T8@175C/C 2L-T8@175C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 200x450 200x450 |

| | B29 4NO. | B30 2NO. |
|---|---|---|
| SPAN | COL. 2520 COL. 6160 COL. 2540 COL. 2640 COL. | COL. 2720 COL. 2980 COL. |
| TOP REINF. | 2T16 1T12+2T16 2T16 1T12+2T16 2T16 2T16; 630 1540 1540 635; 770 770 | 2T16 2T16 |
| BOT REINF. | 2T16 2T16+2T12 2T16 2T16 | 2T16 2T16 |
| STIRRUPS | 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C | 2L-T8@125C/C 2L-T8@125C/C |
| SIZE | 200x450 200x450 200x450 200x450 | 200x450 200x450 |

| | B31 15NO. |
|---|---|
| SPAN | COL. 3708 COL. 2520 COL. 2200 COL. 1060 COL. 2200 COL. 2640 COL. 2640 COL. 2905 COL. 3355 COL. |
| TOP REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 |
| BOT REINF. | 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 2T16 |
| STIRRUPS | 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 200x450 |

| | |
|---|---|
| SPAN | COL. 1580 COL. 3360 COL. 3850 COL. 2850 COL. 2630 COL. 2170 COL. |
| TOP REINF. | 2T16 2T16 2T12+2T16 2T16 2T12+2T16 2T16 2T16 1T12+2T16 2T16 1T12+2T16; 840 965 965 720; 480 480; 660 545 545; 270 270 |
| BOT REINF. | 2T16 2T16 2T16+2T12 2T16 2T16 2T16+1T12 |
| STIRRUPS | 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C 2L-T8@100C/C |
| SIZE | 200x450 200x450 200x450 200x450 200x450 200x450 |

KEY PLAN :-




DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

NOTES :-

FOUNDATIONS ARE DESIGNED FOR S+14 FLOORS
SBC IS CONSIDERED AS 50T/SQM
(SUBJECT TO BE CHANGED AS PER SITE CONDITION)
DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
STRUCTURE IS DESIGNED FOR SEISMIC FORCES AS PER IS:1893, ZONE II
COVERING FOR MAIN REINFORCEMENT COLUMNS 40mm, FOOTING 50mm
CURING SHALL BE DONE FOR 21 DAYS.

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFORMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE M5 x R5 THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

PROJECT :
INCOR - PHASE-III - MARBELLA [E1]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
F-1,212,THAIYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

incor

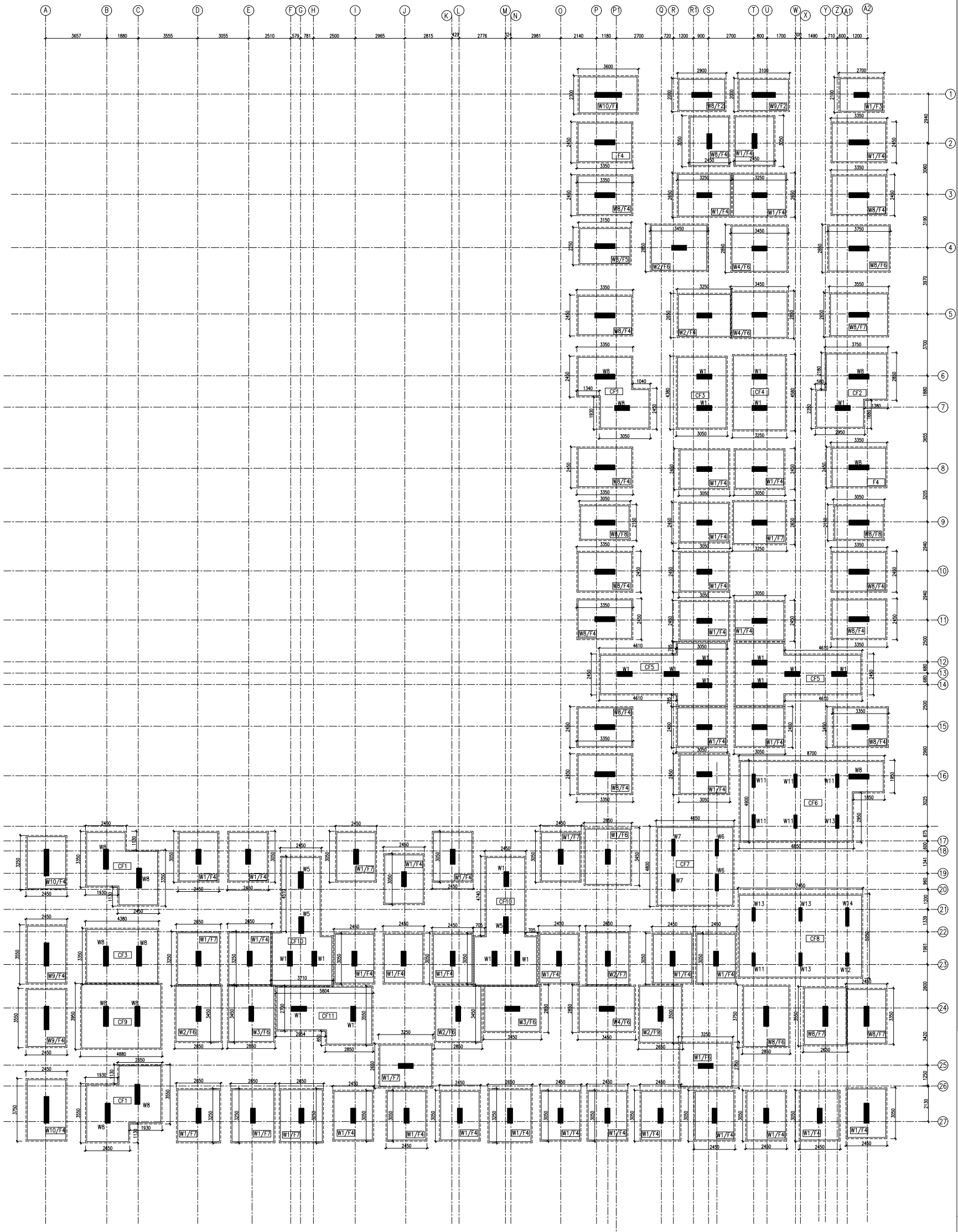
PROJECT: INCOR - PHASE-III - MARBELLA [E1]

STRUCTURAL CONSULTANT:

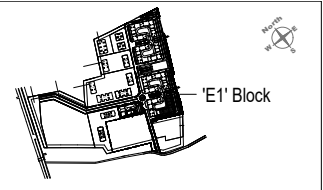
ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS
4th, Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassociates@gmail.com
P. No. 23224772, 66613497
9063322615

TITLE :-
FIRST FLOOR BEAM DETAILS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:150 | ANUSHA | ANUSHA | ZAINAB | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 22-12-2023 | ZA/INCOR/PH-111/BLOCK/E1/ST-04 | | REV-0 |




KEY PLAN :-





design | interiors | engineering | construction management

C.R.Narayana Rao ( Consultants ) Private Limited

CRN
C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

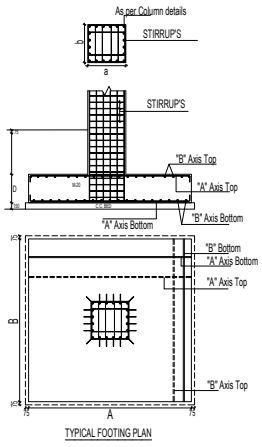

NOTES :-

FOUNDATIONS ARE DESIGNED FOR S+14 FLOORS
SBC IS CONSIDERED AS 50T/SQM
(SUBJECT TO BE CHANGED AS PER SITE CONDITION)
DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
STRUCTURE IS DESIGNED FOR SEISMIC FORCES AS PER IS:1893, ZONE II
COVERING FOR MAIN REINFORCEMENT COLUMNS 40mm, FOOTING 50mm
CURING SHALL BE DONE FOR 21 DAYS.

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   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
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   FOOTINGS : 50mm
   COLUMNS : 40mm
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12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MI x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
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18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

## SCHEDULE OF FOOTINGS

| FOOTINGS NO | FOOTING SIZE A | B | D | REINFORCEMENT BOTTOM ALONG 'A' AXIS | BOTTOM ALONG 'B' AXIS | TOP ALONG 'A' AXIS | TOP ALONG 'B' AXIS | SIDE REINFORCEMENT | Grade of Concrete for Footings |
|---|---|---|---|---|---|---|---|---|---|
| F1 | AS PER PLAN | | 900 | 16or @ 150 c/c(bot) | 16or @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| F2 | AS PER PLAN | | 750 | 12or @ 100 c/c(bot) | 12or @ 100 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| F3 | AS PER PLAN | | 775 | 16tor @ 75 c/c(bot) | 16tor @ 75 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| F4 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| F5 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| F6 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 10tor @ 200 c/c | 10tor @ 200 c/c | 12tor @ 100 c/c | M-30 Fe-500 |
| F7 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 10tor @ 200 c/c | 10tor @ 200 c/c | 12tor @ 100 c/c | M-30 Fe-500 |
| F8 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| F9 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 10tor @ 200 c/c | 10tor @ 200 c/c | 12tor @ 100 c/c | M-30 Fe-500 |
| F10 | AS PER PLAN | | 1000 | 16tor @ 135 c/c(bot) | 16tor @ 135 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF1 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 12tor @ 100 c/c | M-30 Fe-500 |
| CF2 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 12tor @ 100 c/c | M-30 Fe-500 |
| CF3 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | 16tor @ 125 c/c(top) | 16tor @ 125 c/c(top) | 12tor @ 100 c/c | M-30 Fe-500 |
| CF4 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 12tor @ 100 c/c | M-30 Fe-500 |
| CF5 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF6 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF7 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF8 | AS PER PLAN | | 700 | 12tor @ 100 c/c(bot) | 12tor @ 100c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF9 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF10 | AS PER PLAN | | 900 | 16tor @ 150 c/c(bot) | 16tor @ 150 c/c(bot) | ----- | ----- | 12tor @ 100 c/c | M-30 Fe-500 |
| CF11 | AS PER PLAN | | 1100 | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 16tor @ 125 c/c(bot) | 12tor @ 100 c/c | M-30 Fe-500 |




DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | GRADE OF CONCRETE | | | | | IN COMPRESSION | GRADE OF CONCRETE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

PROJECT :
INCOR - PHASE-III - BLOCK - E1 & E2

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
# 1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

incor

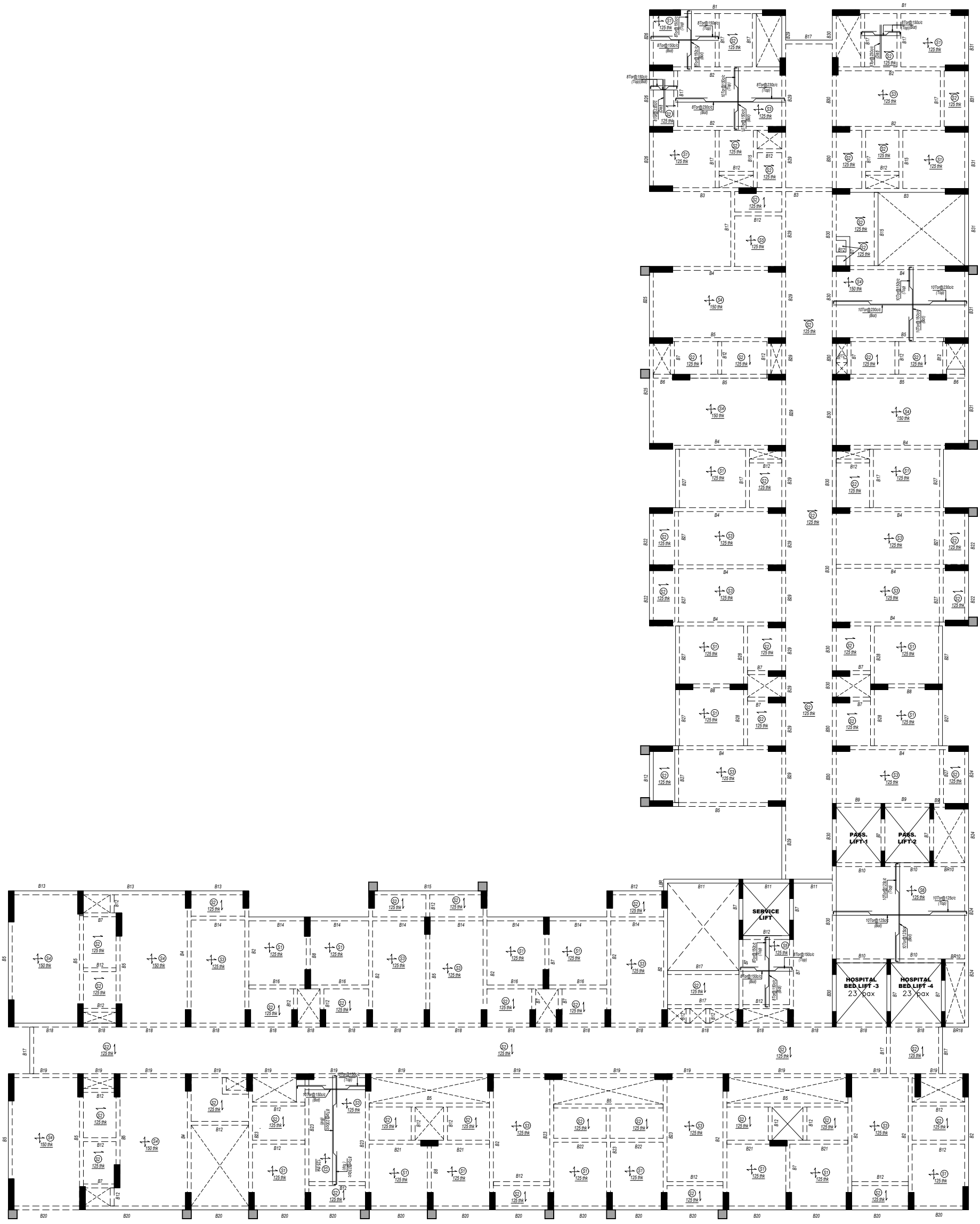
PROJECT:
INCOR - PHASE-III - BLOCK - E1

STRUCTURAL CONSULTANT:


ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615


TITLE :-
COLUMN CENTER LINE PLAN, FOOTING LAYOUT & SCHEDULE OF FOOTINGS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:160 | ANUSHA | ANUSHA | AZHAR | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 22-12-2023 | ZA/INCOR/PH-111/BLOCK/E1/ST-01 | | REV-0 |




KEY PLAN :-




design | interiors | engineering | construction management
C.R.Narayana Rao ( Consultants ) Private Limited
C R NARAYANA RAO
No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in

NOTES :-

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   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MI x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

PROJECT :
INCOR - PHASE-III - BLOCK - E1

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
# 1/212, THAIYUR VILLAGE,RAJIV GANDHI SALAI, OMR, KELAMBAKKAM, CHENNAI 603103.

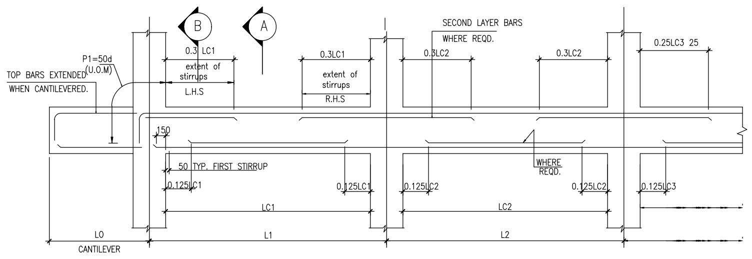
PROJECT:
INCOR - PHASE-III - BLOCK - E1
*TYPICAL SLAB BEAMS FRAMING DETAILS*

STRUCTURAL CONSULTANT:

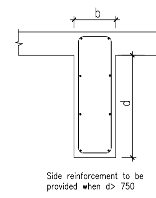
ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615

TITLE :-
TYPICAL SLAB FRAMING & BEAM DETAILS

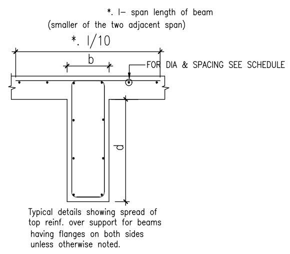
| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:100 | ANUSHA | ANUSHA | ZAINAB | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 22-12-2023 | ZA/INCOR/PH-111/BLOCK/E1/ST-05 | | REV-0 |



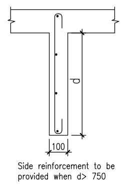

TYPICAL ARRANGEMENT OF REINFORCEMENT IN BEAMS



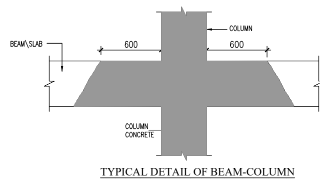

(A) SECTION AT MID-SPAN




(B) SECTION AT SUPPORT




TYP. SECTION FOR 100THK BEAMS




TYPICAL DETAIL OF BEAM-COLUMN OR SLAB -COLUMN JUNCTION *

(* – WHERE GRADE OF CONCRETE FOR COLUMN IS GREATER THAN 1.4 TIMES THAT OF BEAM\SLAB).

NOTES:

1. HIGHER STRENGTH CONCRETE IN THE FLOOR IN THE REGION OF COLUMN BE PLACED BEFORE THE LOWER STRENGTH CONCRETE IN THE REMAINDER OF THE FLOOR IS PLACED. ALSO THE LOWER STRENGTH CONCRETE SHOULD BE PLACED WHILE THE HIGH STRENGTH CONCRETE IS STILL PLASTIC.

## TYPICAL BEAM DETAILS

**B1 2NO.**

| | COL. – COL. |
|---|---|
| SPAN | 4600 |
| TOP REINF. | 2T20+2T20, 2T20 |
| | 1150, 575, 575 |
| BOT REINF. | 2T20+2T16 |
| STIRRUPS | T15@100/T8@100/T10@100C/C |
| SIZE | 200x600 |

**B2 14NO.**

| | COL. – COL. |
|---|---|
| SPAN | 5600 |
| TOP REINF. | 2T20+2T16, 2T16, 2T20+2T16 |
| | 1400, 1400, 700, 700 |
| BOT REINF. | 2T16+2T16 |
| STIRRUPS | T10@100/T8@150/T10@100C/C |
| SIZE | 200x450 |

**B3 3NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|
| SPAN | 3130 | 3910 | 4600 |
| TOP REINF. | 2T20+2T16, 2T16, 2T20+2T16 | 2T16, 2T20+2T16 | 2T16, 2T20+2T16 |
| | 785, 785, 390, 390 | 980, 980, 490, 490 | 1150, 1150, 580, 580 |
| BOT REINF. | 2T16+2T16 | 2T16+2T12 | 2T16+2T12 |
| STIRRUPS | T10@100C/C | T10@100C/C | T10@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

**B4 14NO.**

| | COL. – COL. |
|---|---|
| SPAN | 4600 |
| TOP REINF. | 2T20+2T16, 2T16, 2T20+2T16 |
| | 1150, 1150, 575, 575 |
| BOT REINF. | 2T16+2T12 |
| STIRRUPS | T8@100C/C |
| SIZE | 200x450 |

**B5 15NO.**

| | COL. – COL. |
|---|---|
| SPAN | 4760 |
| TOP REINF. | 2T16+2T16, 2T16, 2T16+2T16 |
| | 1190, 1190, 595, 595 |
| BOT REINF. | 2T16+2T12 |
| STIRRUPS | T10@100/T8@150/T10@100C/C |
| SIZE | 200x450 |

**B6 2NO.**

| | COL. – COL. |
|---|---|
| SPAN | 930 |
| TOP REINF. | 2T12 |
| BOT REINF. | 2T12 |
| STIRRUPS | T8@100C/C |
| SIZE | 200x450 |

**B7 18NO.**

| | COL. – COL. |
|---|---|
| SPAN | 3300 |
| TOP REINF. | 2T16+2T16 |
| BOT REINF. | 2T16+2T16 |
| STIRRUPS | T8@100C/C |
| SIZE | 200x450 |

**B8 4NO.**

| | COL. – COL. |
|---|---|
| SPAN | 2584 |
| TOP REINF. | 2T20+2T16 |
| BOT REINF. | 2T20+2T16 |
| STIRRUPS | T8@100C/C |
| SIZE | |

**B9 3NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|
| SPAN | 2300 | 2300 | 1600 |
| TOP REINF. | 2T16 | 2T16 | 2T16+2T16 |
| | | 575 | |
| BOT REINF. | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

**B10 4NO.**

| | COL. – COL. | COL. – COL. | COL. – BEAM |
|---|---|---|---|
| SPAN | 4250 | 2900 | 1600 |
| TOP REINF. | 2T16 | 2T16, 2T20+2T16 | 2T20+2T16 |
| | | 725 | |
| BOT REINF. | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T10@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

| | | |
|---|---|---|
| SIZE | 200x450 | 200x450 |

**B11 3NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|
| SPAN | 3870 | 2800 | 2000 |
| TOP REINF. | 2T12+2T16, 2T16, 2T12+2T16 | 2T16, 2T12+2T16 | 2T16 |
| | 970, 970, 700 | 700, 500 | |
| BOT REINF. | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T10@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

**B12 40NO.**

| | COL. – COL. |
|---|---|
| SPAN | 1680 |
| TOP REINF. | 2T16 |
| BOT REINF. | 2T16 |
| STIRRUPS | T8@100C/C |
| SIZE | 200x450 |

**B13 3NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|
| SPAN | 3457 | 5335 | 2765 |
| TOP REINF. | 2T16, 2T12+2T16 | 2T16, 2T12+2T16 | 2T16 |
| | 865, 1335 | 1335, 690 | |
| BOT REINF. | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

**B14 8NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|---|---|---|---|---|
| SPAN | 2765 | 2980 | 2980 | 2715 | 2715 | 2955 | 2955 | 2719 |
| TOP REINF. | 2T16 | 2T16, 2T12+2T16 | 2T16 | 2T16 | 2T16 | 2T16, 2T12+2T16 | 2T16 | 2T16 |
| | | 745 | 745 | | | 740 | 740 | |
| BOT REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 |

**B15 4NO.**

| | COL. – COL. |
|---|---|
| SPAN | 5680 |
| TOP REINF. | 2T12+2T16, 2T16, 2T12+2T16 |
| | 1420, 1420, 710, 710 |
| BOT REINF. | 2T16+2T12 |
| STIRRUPS | T8@100/150/100C/C |
| SIZE | 200x450 |

**B16 4NO.**

| | COL. – COL. | COL. – COL. |
|---|---|---|
| SPAN | 2980 | 2980 |
| TOP REINF. | 2T16, 2T20+2T16 | 2T16 |
| | 745 | 745 |
| BOT REINF. | 2T16 | 2T16 |
| STIRRUPS | T8/10@100C/C | T8/10@100C/C |
| SIZE | 200x450 | 200x450 |

**B17 14NO.**

| | COL. – COL. |
|---|---|
| SPAN | 3670 |
| TOP REINF. | 2T16 |
| BOT REINF. | 2T16 |
| STIRRUPS | T8@100C/C |
| SIZE | |

**B18 18NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|---|---|---|---|---|---|
| SPAN | 3457 | 1680 | 3455 | 2765 | 2300 | 1160 | 2300 | 2728 | 2740 |
| TOP REINF. | 2T16+2T16, 2T16 | 2T16, 2T12+2T16 | 2T16 | 2T16 | 2T16 | 2T16, 2T12+2T16 | 2T16 | 2T16 | 2T16 |
| | 865 | 420 | 865 | | | 290 | 575 | | |
| BOT REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 |

| | – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – |
|---|---|---|---|---|---|---|---|---|---|---|
| SPAN | 2300 | 1160 | 2300 | 2720 | 3670 | 600 | 2000 | 2780 | 2480 | 1340 |
| TOP REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16, 2T12+2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| | | | | | 920 | 745 | | | | |
| BOT REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 |

**B19 13NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – |
|---|---|---|---|---|---|---|---|---|---|
| SPAN | 3457 | 1680 | 3460 | 2950 | 2258 | 2899 | 6183 | 2898 | 4746 |
| TOP REINF. | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T16 | 2T16, 2T12+2T16 | 2T16, 2T16+2T16 | 2T16, 2T16+2T16 | 2T16, 2T16+2T16 | 2T16, 2T16+2T16 |
| | 865, 865 | 420 | 420, 865 | | 565 | 725, 725 | 1545, 1545, 575, 575 | 725, 725 | 1190, 570 |
| BOT REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16+2T12 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 |

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|---|
| SPAN | 2878 | 6218 | 2900 | 2261 |
| TOP REINF. | 2T16+2T16, 2T16 | 2T16+2T16, 2T16 | 2T16+2T16, 2T16 | 2T12+2T16, 2T16 |
| | 720, 720 | 1555, 1555, 780, 780 | 725, 725 | 570, 650, 650 |
| BOT REINF. | 2T16 | 2T16+2T12 | 2T16 | 2T16+2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T10@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 |

**B20 15NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – |
|---|---|---|---|---|---|---|---|---|---|
| SPAN | 3457 | 5340 | 2950 | 2699 | 2899 | 2991 | 2900 | 2720 | 2705 |
| TOP REINF. | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T16+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16, 2T12+2T16 |
| | 865, 865 | 1335, 1335, 670, 670 | 740, 740 | 675, 675 | 725, 725 | 745, 745 | 725, 725 | 680, 680 | 680, 680 |
| BOT REINF. | 2T16 | 2T16+2T12 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 |

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|---|---|
| SPAN | 2876 | 3030 | 2990 | 2900 | 2655 |
| TOP REINF. | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T16 | 2T12+2T16, 2T12+2T16 | 2T12+2T16 |
| | 720, 720 | 760, 760 | 750, 750 | 725, 725 | 665, 665 |
| BOT REINF. | 2T16 | 2T16 | 2T16 | 2T16 | |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T10@100C/C | |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | |

**B21 4NO.**

| | COL. – COL. | COL. – COL. |
|---|---|---|
| SPAN | 2200 | 2160 |
| TOP REINF. | 2T16, 2T20+2T16 | 2T16 |
| | 550 | 540 |
| BOT REINF. | 2T16+2T12 | 2T16+2T12 |
| STIRRUPS | T10@100C/C | T10@100C/C |
| SIZE | 200x450 | 200x450 |

**B22 6NO.**

| | COL. – COL. | COL. – COL. |
|---|---|---|
| SPAN | 2720 | 2905 |
| TOP REINF. | 2T16 | 2T16 |
| BOT REINF. | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 |

**B23 6NO.**

| | COL. – COL. |
|---|---|
| SPAN | 5600 |
| TOP REINF. | 3T20+2T16, 2T16, 2T20+2T16 |
| | 1400, 1400 |
| BOT REINF. | 2T16+2T16 |
| STIRRUPS | T10/T8/T10@100/100/100C/C |
| SIZE | 200x450 |

**24 4NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|
| SPAN | 3500 | 4750 | 2854 |
| TOP REINF. | 2T16 | 2T16, 2T12+2T16 | 2T16 |
| | | 1890 | 720 |
| BOT REINF. | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

**B25 2NO.**

| | COL. – COL. | COL. – COL. |
|---|---|---|
| SPAN | 5335 | 3460 |
| TOP REINF. | 2T12+2T16, 2T16, 2T12+2T16 | 2T16, 2T12+2T16 |
| | 1335, 1335 | 865, 865 |
| BOT REINF. | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 |

**B26 3NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|
| SPAN | 2950 | 2860 | 2740 |
| TOP REINF. | 2T16 | 2T16 | 2T16, 2T12+2T16 |
| | | | 685 |
| BOT REINF. | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 |

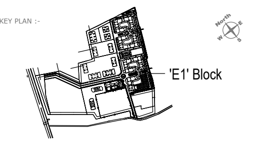
**B27 12NO.**

| | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. | COL. – COL. |
|---|---|---|---|---|---|---|
| SPAN | 2720 | 2980 | 2980 | 2740 | 2740 | 3005 |
| TOP REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| BOT REINF. | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 | 200x450 |

**B28 4NO.**

| | COL. – COL. | COL. – COL. |
|---|---|---|
| SPAN | 2980 | 2980 |
| TOP REINF. | 2T16, 2T16+2T16 | 2T16 |
| | 745 | 745 |
| BOT REINF. | 2T16 | 2T16 |
| STIRRUPS | T8@100C/C | T8@100C/C |
| SIZE | 200x450 | 200x450 |

KEY PLAN :-





design | interiors | engineering | construction management

C.R.Narayana Rao ( Consultants ) Private Limited

CRN
C R NARAYANA RAO

No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in


NOTES :-

FOUNDATIONS ARE DESIGNED FOR S+14 FLOORS
SBC IS CONSIDERED AS 50T/SQM
(SUBJECT TO BE CHANGED AS PER SITE CONDITION)
DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
STRUCTURE IS DESIGNED FOR SEISMIC FORCES AS PER IS:1893, ZONE II
COVERING FOR MAIN REINFORCEMENT COLUMNS 40mm, FOOTING 50mm
CURING SHALL BE DONE FOR 21 DAYS.

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
5. ALL BARS OF DIAMETER BELOW 16 mm SHOULD BE Fe 415
6. REINFORCEMENT SHALL BE HIGH STRENGTH.
   DEFORMED BARS OF GRADE Fe 550 & Fe 415
   CONFIRMING TO IS : 1786 - 1985.
7. CLEAR COVER TO REINFORCEMENT AS FOLLOWS :
   FOOTINGS : 50mm
   COLUMNS : 40mm
8. LAP LENGTH OF BARS FOR TENSION & COMPRESSION AS FOLLOWS :
9. LAPS SHALL BE STAGGERED
10. LAPPING AT COLUMN BEAM JUNCTIONS SHALL BE AVOIDED
11. WORK SHALL BE IN ACCORDANCE WITH IS : 456 LATEST PRINT
12. WHERE CEMENT CONSUMPTION IS GREATER THAN 100 BAGS CUBES TEST ARE TO BE DONE THERE SHALL BE ONE SET OF 3 CUBES PER EVERY 20 Cu. M. OF CEMENT CONCRETE OR PART OF THERE OF USED AT SITE AND SHALL BE TESTED ON 7th./28th. DAY
13. AT JUNCTION OF TWO ELEMENTS OF DIFFERENT CONCRETE MI x ES THE COMMON CONCRETE SHALL BE DONE WITH RICHER MIX
14. CONCRETE SHALL BE MACHINE MIXED AND VIBRATED
15. MAXIMUM WATER CEMENT RATIO USED SHALL BE LIMITED TO 0.50 FOR SLAB, BEAMS, COLUMNS.
16. CHIPPING OF ANY STRUCTURAL CONCRETE ELEMENTS SHALL NOT BE DONE ANY CIRCUMSTANCES UNLESS WITH THE SPECIAL PERMISSION OF CONSULTANTS
17. ALL COVER SHALL BE ENSURED BY PRECAST COVER BLOCKS MADE UP C.M. 1 : 1
18. DONOT SCALE THE DRAWING FOLLOW WRITTEN DIMENSIONS ONLY
19. ANY DISCRIPANCY SHALL BE BROUGHT TO THE NOTICE OF THE CONSULTANTS

DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

PROJECT :

INCOR - PHASE-III - MARBELLA [E1]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
# 1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
OMR, KELAMBAKKAM,
CHENNAI 603103.

incor

PROJECT: INCOR - PHASE-III - MARBELLA [E1]

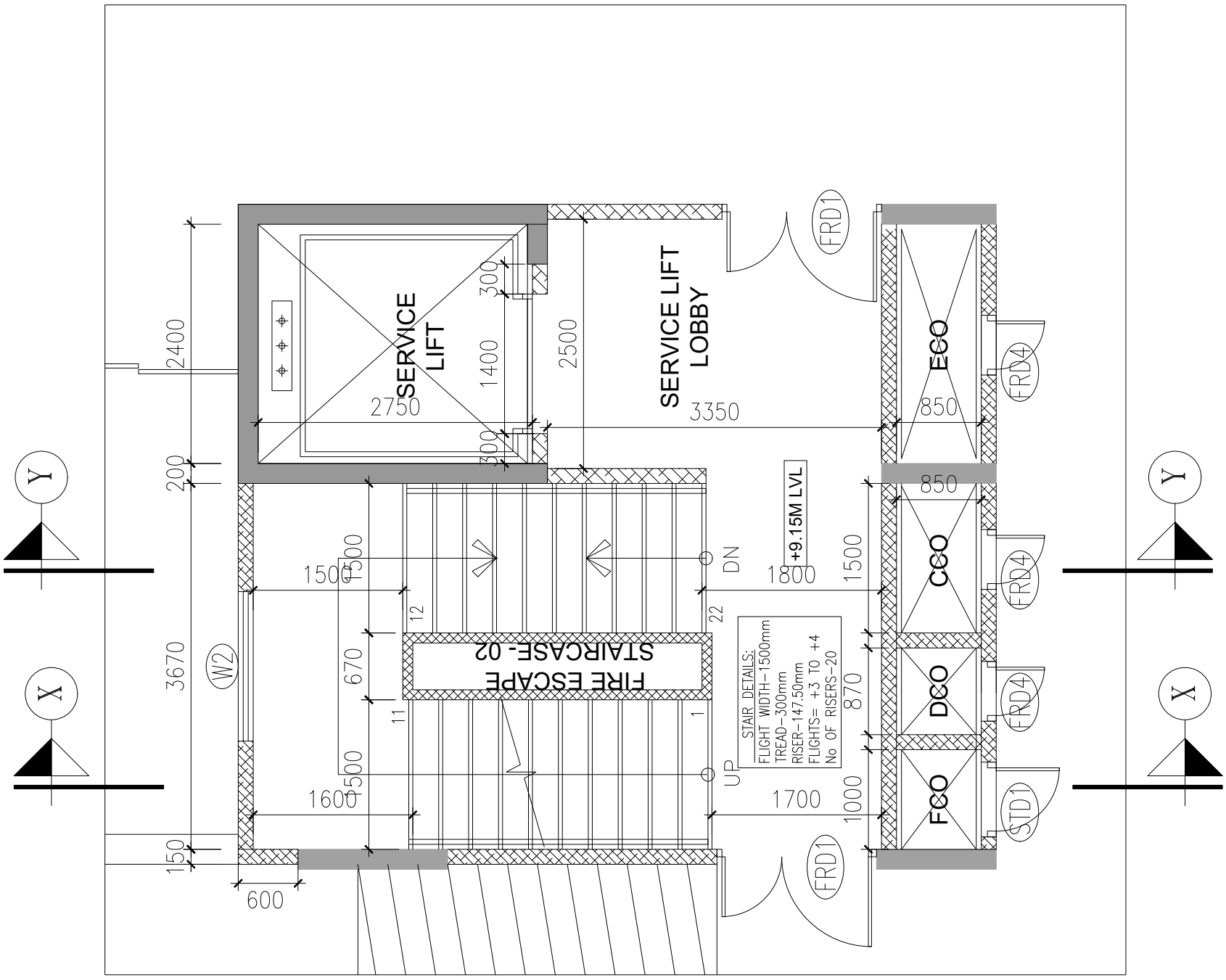
# TYPICAL FLOOR BEAM SCHEDULE

STRUCTURAL CONSULTANT:

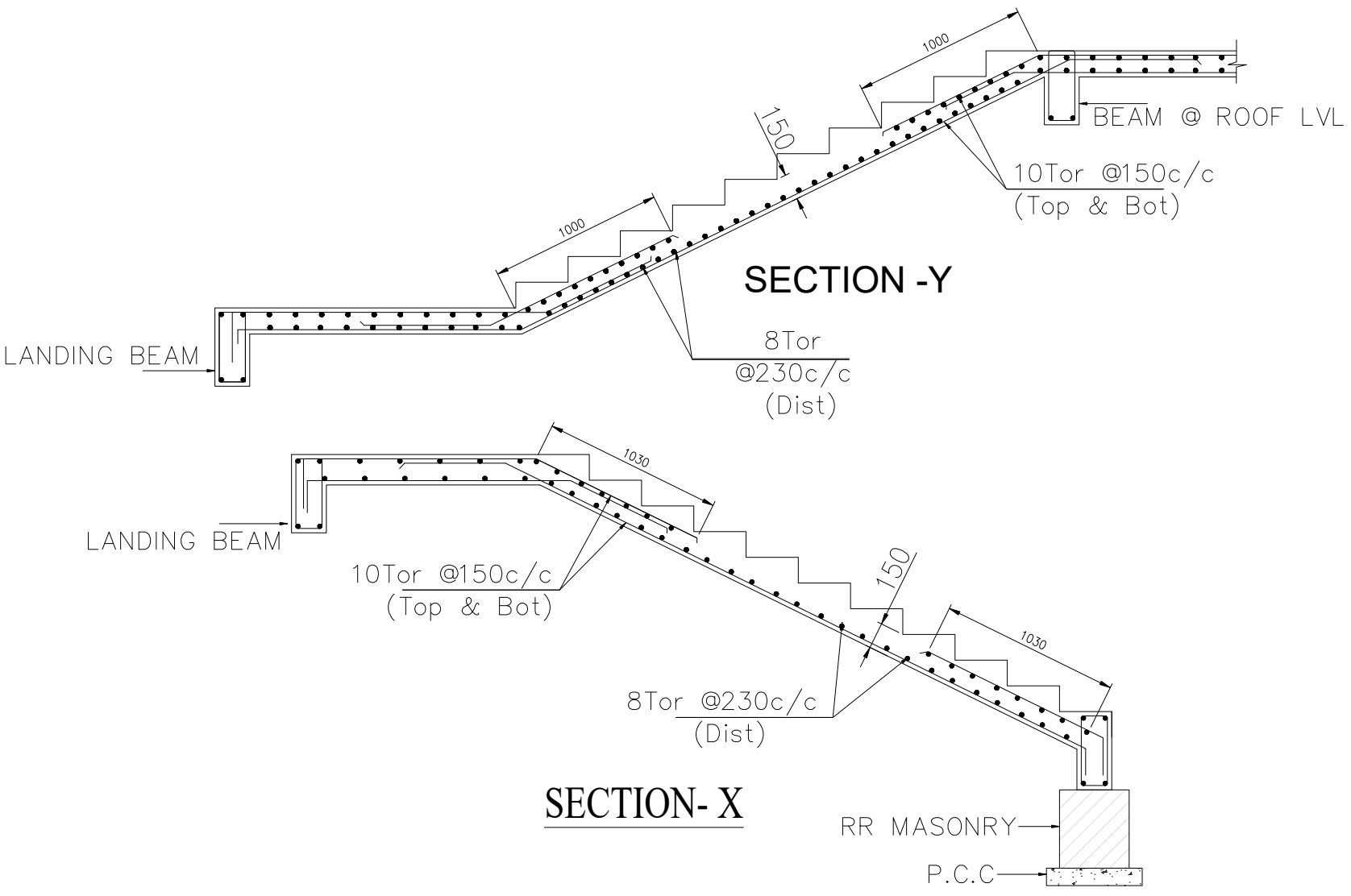

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
9063322615


TITLE :-
COLUMN CENTER LINE PLAN, FOOTING LAYOUT & SCHEDULE OF FOOTINGS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:150 | ANUSHA | ANUSHA | ZAINAB | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |
| | 22-12-2023 | ZA/INCOR/PH-111/BLOCK/E1/ST-06 | | REV-0 |

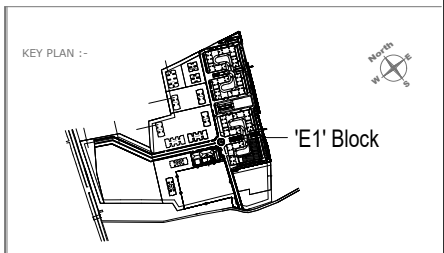



## STAIRCASE -02




## SECTION- X

## STAIRCASE -02




design | interiors | engineering | construction management
C.R.Narayana Rao ( Consultants ) Private Limited
No. 10, Karpagambal Nagar,
Mylapore, Chennai-600 004.
India.
www.crn.co.in
C R NARAYANA RAO

NOTES :-

FOUNDATIONS ARE DESIGNED FOR S+14 FLOORS
SBC IS CONSIDERED AS 50T/SQM
(SUBJECT TO BE CHANGED AS PER SITE CONDITION)
DO NOT SCALE THE DRG. FOLLOW WRITTEN DIMENSIONS ONLY
STRUCTURE IS DESIGNED FOR SEISMIC FORCES AS PER IS:1893, ZONE II
COVERING FOR MAIN REINFORCEMENT COLUMNS 40mm, FOOTING 50mm
CURING SHALL BE DONE FOR 21 DAYS.

1. GRADE OF CONCRETE MIX SHALL BE AS FOLLOWS :
   * FOOTINGS M30
   with minimum cement content of 320Kg/Cum
   * COLUMNS
   *M40
   with minimum cement content of 340 Kg/Cum
2. GRADE OF CEMENT
   ULTRA TECH /AMBUJA / BIRLA /CORMANDAL
3. PEDESTAL HEIGHT MINIMUM 300mm & MAXIMUM 3 TIMES LEAST LATERAL DIMENSION.
4. ALL MAIN BARS DIAMETER 16mm & ABOVE SHOULD BE Fe 550
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DEVELOPMENT LENGTH OF BARS FOR Fe-550 GRADE

| IN TENSION | | | | | | IN COMPRESSION | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GRADE OF CONCRETE | | | | | | GRADE OF CONCRETE | | | | | |
| DIA | M-20 | M-25 | M-30 | M-35 | M-40 | DIA | M-20 | M-25 | M-30 | M-35 | M-40 |
| 8 mm | 572 | 495 | 460 | 410 | 365 | 8 mm | 460 | 400 | 370 | 330 | 295 |
| 10 mm | 715 | 616 | 575 | 510 | 455 | 10 mm | 575 | 500 | 460 | 410 | 365 |
| 12 mm | 860 | 740 | 690 | 625 | 550 | 12 mm | 690 | 590 | 550 | 485 | 440 |
| 16 mm | 1145 | 980 | 920 | 810 | 730 | 16 mm | 920 | 790 | 740 | 650 | 585 |
| 20 mm | 1435 | 1230 | 1150 | 1015 | 910 | 20 mm | 1150 | 990 | 920 | 810 | 730 |
| 25 mm | 1790 | 1535 | 1430 | 1270 | 1130 | 25 mm | 1430 | 1230 | 1145 | 1015 | 905 |
| 32 mm | 2295 | 1965 | 1840 | 1620 | 1450 | 32 mm | 1840 | 1580 | 1470 | 1300 | 1160 |

PROJECT :
INCOR - PHASE-III - MARBELLA [B5]

CLIENT:
INCOR CHENNAI PROJECTS TWO PVT. LTD
# 1/212,THAIYUR VILLAGE,RAJIV GANDHI SALAI,
ORR, KELAMBAKKAM,
CHENNAI 603103.

PROJECT:
INCOR - PHASE-III - MARBELLA [B5]

STRUCTURAL CONSULTANT:

ZAKI & ASSOCIATES
STRUCTURAL ENGINEERS.
4th. Floor Anasuya Commercial Complex
Liberty Junction, Himayathnagar, Hyd.29
Zakiassocaites@gmail.com
P. No. 23224772, 66613497
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TITLE :-
COLUMN CENTER LINE PLAN, FOOTING LAYOUT & SCHEDULE OF FOOTINGS

| SCALE: | DEALT: | CHECKED: | DRAWN: | APPROVED: |
|---|---|---|---|---|
| 1:50 | ANUSHA | ANUSHA | ZAINAB | ZAKI AHMED |
| JOB NO: | DATE: | DRG NO: | | REV: |

# Our services go beyond

## Buying & Selling Services

Property Buying Assistance, Property Selling Support, Market Price Analysis, Owner Outreach and Negotiation.

## Legal & Documentation Services

Certified EC, Patta, legal opinions, property verification, due diligence, litigation solutions, and legal heir certificates.

## Property Development & Approvals

Building plan approvals, construction, layout and sub-division approvals, zone conversion, and occupancy certification.

## NRI & Investment Services

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Demolition, Vaasthu checks, regularization of unauthorized buildings, and office space solutions.

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Guideline Value, Apartment Composite Value, Stamp Duty & Registration Fees Calculator, Building Value Calculator, Capital Gains Calculator, Area Unit Converter, Length Unit Converter

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Encumbrance Certificate (EC) Search, Find Your SRO, Temple Property Check, WAQF Property Check, View Patta/Chitta, View FMB, Patta Analyzer, EC Analyzer

## Zoning & Land Use Analysis

Land Use Zone Finder, CRZ Zone Check, Aquifer Zone Check, CBA Check, EWS Check, Road Width Check, Proposed Road Widening Check, FSI Calculator

## Property Documentation & Workflow Tools

Forms & Templates, Document Generator, Document Translation, Dictionary

## Vastu & Property Management Tools

Home Vastu Shastra, Plot Vastu Shastra, Property Management

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# Verified RealEstate™

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