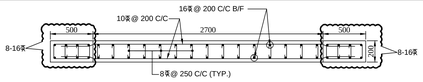
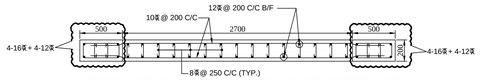
DESIGN IS BASED ON : AAC BLOCKS FOR MAS

SCHEDULE OF COLUMN FOR PODIUM AREA.

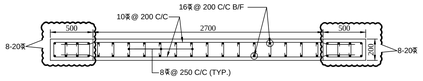
FOUNDATION TO GR. FL. ROOF (M - 30)	8-25Ø	4-32Ø+4-25Ø	8-25Ø	8-25Ø	4-32Ø+6-25Ø	6-32Ø+6-25Ø	6-32Ø+4-25Ø
FLOOR LEVEL / COL. MARKED	P1,P3,P4,P9,P10,P11, P15,P18,P26.	P2.	P5,P16,P17.	P6,P7,P8,P13,P14, P27,P28.	P19,P21,P24.	P12,P20,P22.	P23,P25.



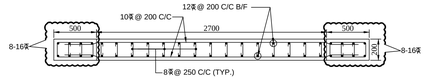
DETAIL OF SHEAR WALL AT 2ND. FL. ROOF TO 5TH. FL. ROOF
GRADE OF CONCRETE M-30
SHEAR WALL SW5.



DETAIL OF SHEAR WALL AT 8TH. FL. ROOF TO ROOF
GRADE OF CONCRETE M-25
SHEAR WALL SW5.



DETAIL OF SHEAR WALL FOUNDATION LEVEL TO 2ND. FL. ROOF
GRADE OF CONCRETE M-30
SHEAR WALL SW5.



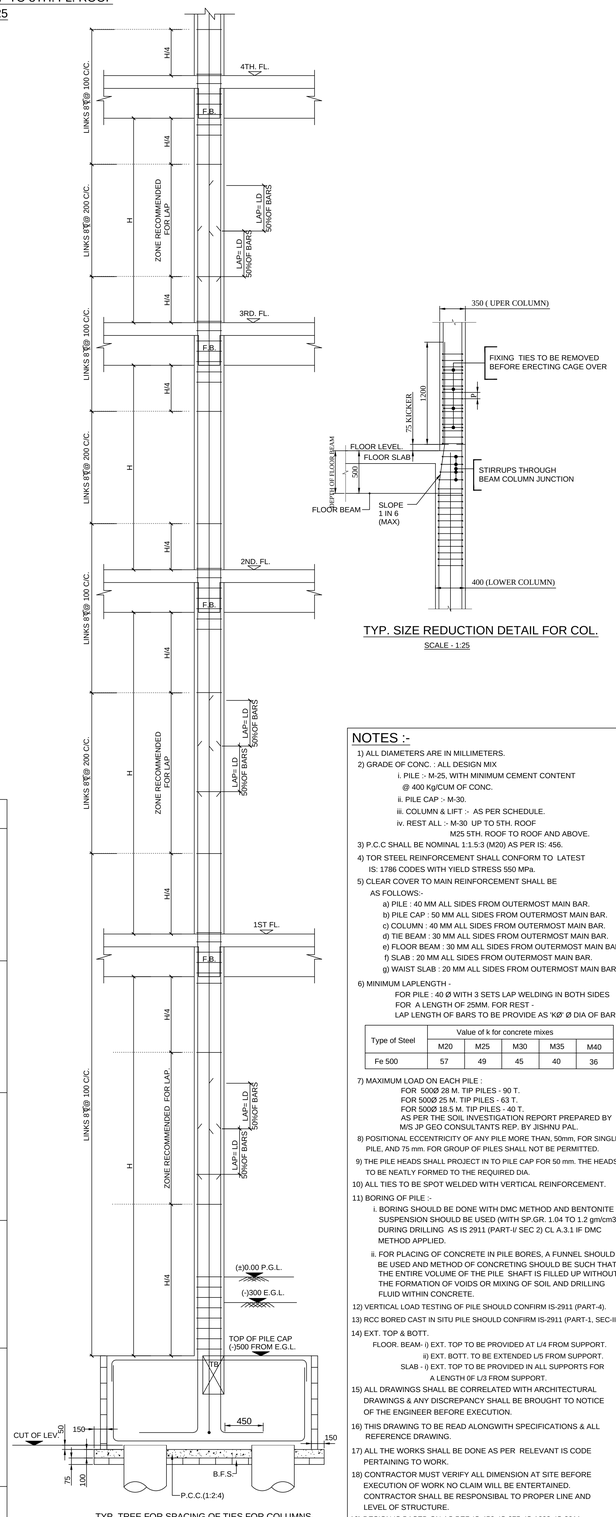
DETAIL OF SHEAR WALL AT 5TH. FL. ROOF TO 8TH. FL. ROOF
GRADE OF CONCRETE M-25
SHEAR WALL SW5.

SCHEDULE OF COLUMN FOR BLOCK- 2.

8TH. FL. ROOF TO ROOF (M - 25)	6-16Ø+6-12Ø	6-16Ø+6-12Ø	6-16Ø+6-12Ø	6-16Ø+6-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	10-16Ø+4-12Ø
5TH. FL. ROOF TO 8TH. FL. ROOF (M - 25)	6-16Ø+6-12Ø	6-16Ø+6-12Ø	12-16Ø	12-16Ø	12-16Ø	12-16Ø	12-16Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	14-16Ø
2ND FL. ROOF TO 5TH. FL. ROOF (M - 30)	6-16Ø+6-12Ø	6-16Ø+6-12Ø	4-20Ø+8-16Ø	4-20Ø+8-16Ø	4-20Ø+8-16Ø	4-20Ø+8-16Ø	12-20Ø	12-16Ø	12-16Ø	12-20Ø	6-20Ø+8-16Ø
GR. FL. ROOF TO 2ND FL. ROOF (M - 30)	12-16Ø	12-16Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	12-25Ø	12-16Ø	4-25Ø+8-20Ø	18-25Ø	14-20Ø
FOUNDATION TO GR. FL. ROOF (M - 30)	12-16Ø	12-16Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	12-25Ø	12-16Ø	4-25Ø+8-20Ø	18-25Ø	14-20Ø
FLOOR LEVEL / COL. MARKED	C1,C3,C5,C6,C10, C14,C17,C23,C24, C42 TO C51.	C12,C28.	C2,C8,C11,C13,C18,C19, C20,C22,C31 TO C35, C38,C40.	C4,C29,C41.	C9,C15,C25,C30,C39.	C7.	C16.	C21,C27.	C26.	C36.	C37.

SCHEDULE OF COLUMN FOR BLOCK- 1.

8TH. FL. ROOF TO ROOF (M - 25)	6-16Ø+6-12Ø	6-16Ø+6-12Ø	6-16Ø+6-12Ø	6-16Ø+6-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	10-16Ø+4-12Ø	6-16Ø+6-12Ø
5TH. FL. ROOF TO 8TH. FL. ROOF (M - 25)	6-16Ø+6-12Ø	6-16Ø+6-12Ø	12-16Ø	12-16Ø	12-16Ø	12-16Ø	12-16Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	8-16Ø+4-12Ø	14-16Ø	6-16Ø+6-12Ø
2ND FL. ROOF TO 5TH. FL. ROOF (M - 30)	6-16Ø+6-12Ø	6-16Ø+6-12Ø	4-20Ø+8-16Ø	4-20Ø+8-16Ø	4-20Ø+8-16Ø	4-20Ø+8-16Ø	12-20Ø	12-16Ø	12-16Ø	12-20Ø	6-20Ø+8-16Ø	6-16Ø+6-12Ø
GR. FL. ROOF TO 2ND FL. ROOF (M - 30)	12-16Ø	12-16Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	12-25Ø	12-16Ø	6-20Ø+6-16Ø	18-25Ø	14-20Ø	12-16Ø
FOUNDATION TO GR. FL. ROOF (M - 30)	12-16Ø	12-16Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	4-25Ø+8-20Ø	12-25Ø	12-16Ø	6-20Ø+6-16Ø	18-25Ø	14-20Ø	12-16Ø+3-16Ø
FLOOR LEVEL / COL. MARKED	C1,C3,C5,C6,C10, C14,C17,C23,C24, C42 TO C47,C49, C50,C51.	C12,C28.	C2,C8,C11,C13,C18,C19, C20,C22,C31 TO C35, C38,C40,C41.	C4,C29.	C7,C9,C15,C25,C30,C39.	C25.	C16.	C21,C27.	C26.	C36.	C37.	C48.



TYP. TREE FOR SPACING OF TIES FOR COLUMNS.

TYP. SIZE REDUCTION DETAIL FOR COL.

SCALE - 1:25

NOTES :-

1) ALL DIAMETERS ARE IN MILLIMETERS.
2) GRADE OF CONC. : ALL DESIGN MIX
   i. PILE :- M-25, WITH MINIMUM CEMENT CONTENT @ 400 kg/CUM OF CONC.
   ii. PILE CAP :- M-30.
   iii. COLUMN & LIFT :- AS PER SCHEDULE.
   iv. REST ALL :- M-30 UP TO 5TH. ROOF
   M25 5TH. ROOF TO ROOF AND ABOVE.
3) P.C.C SHALL BE NOMINAL 1:1.5:3 (M20) AS PER IS: 456.
4) TOR STEEL REINFORCEMENT SHALL CONFORM TO LATEST IS: 1786 CODES WITH YIELD STRESS 550 MPa.
5) CLEAR COVER TO MAIN REINFORCEMENT SHALL BE AS FOLLOWS:-
   a) PILE : 40 MM ALL SIDES FROM OUTERMOST MAIN BAR.
   b) PILE CAP : 50 MM ALL SIDES FROM OUTERMOST MAIN BAR.
   c) COLUMN : 40 MM ALL SIDES FROM OUTERMOST MAIN BAR.
   d) TIE BEAM : 30 MM ALL SIDES FROM OUTERMOST MAIN BAR.
   e) FLOOR BEAM : 30 MM ALL SIDES FROM OUTERMOST MAIN BAR.
   f) SLAB : 20 MM ALL SIDES FROM OUTERMOST MAIN BAR.
   g) WAIST SLAB : 20 MM ALL SIDES FROM OUTERMOST MAIN BAR.
6) MINIMUM LAPLENGTH -
   FOR PILE : 40 Ø WITH 3 SETS LAP WELDING IN BOTH SIDES FOR A LENGTH OF 25MM. FOR REST - LAP LENGTH OF BARS TO BE PROVIDE AS 'KØ' Ø DIA OF BAR.

Type of Steel	Value of k for concrete mixes				
	M20	M25	M30	M35	M40
Fe 500	57	49	45	40	36

7) MAXIMUM LOAD ON EACH PILE :
   FOR 500Ø 28 M. TIP PILES - 90 T.
   FOR 500Ø 25 M. TIP PILES - 63 T.
   FOR 500Ø 18.5 M. TIP PILES - 40 T.
   AS PER THE SOIL INVESTIGATION REPORT PREPARED BY M/S JP GEO CONSULTANTS REP. BY JISHNU PAL.
8) POSITIONAL ECCENTRICITY OF ANY PILE MORE THAN, 50mm. FOR SINGLE PILE, AND 75 mm. FOR GROUP OF PILES SHALL NOT BE PERMITTED.
9) THE PILE HEADS SHALL PROJECT IN TO PILE CAP FOR 50 mm. THE HEADS TO BE NEATLY FORMED TO THE REQUIRED DIA.
10) ALL TIES TO BE SPOT WELDED WITH VERTICAL REINFORCEMENT.
11) BORING OF PILE :-
   i. BORING SHOULD BE DONE WITH DMC METHOD AND BENTONITE SUSPENSION SHOULD BE USED (WITH SP.GR. 1.04 TO 1.2 gm/cm3 DURING DRILLING AS IS 2911 (PART-I/ SEC 2) CL A.3.1 IF DMC METHOD APPLIED.
   ii. FOR PLACING OF CONCRETE IN PILE BORES, A FUNNEL SHOULD BE USED AND METHOD OF CONCRETING SHOULD BE SUCH THAT THE ENTIRE VOLUME OF THE PILE SHAFT IS FILLED UP WITHOUT THE FORMATION OF VOIDS OR MIXING OF SOIL AND DRILLING FLUID WITHIN CONCRETE.
12) VERTICAL LOAD TESTING OF PILE SHOULD CONFIRM IS-2911 (PART-4).
13) RCC BORED CAST IN SITU PILE SHOULD CONFIRM IS-2911 (PART-1, SEC-III)
14) EXT. TOP & BOTT.
   FLOOR. BEAM- i) EXT. TOP TO BE PROVIDED AT L/4 FROM SUPPORT.
   ii) EXT. BOTT. TO BE EXTENDED L/5 FROM SUPPORT.
   SLAB - i) EXT. TOP TO BE PROVIDED IN ALL SUPPORTS FOR A LENGTH OF L/3 FROM SUPPORT.
15) ALL DRAWINGS SHALL BE CORRELATED WITH ARCHITECTURAL DRAWINGS & ANY DISCREPANCY SHALL BE BROUGHT TO NOTICE OF THE ENGINEER BEFORE EXECUTION.
16) THIS DRAWING TO BE READ ALONGWITH SPECIFICATIONS & ALL REFERENCE DRAWING.
17) ALL THE WORKS SHALL BE DONE AS PER RELEVANT IS CODE PERTAINING TO WORK.
18) CONTRACTOR MUST VERIFY ALL DIMENSION AT SITE BEFORE EXECUTION OF WORK NO CLAIM WILL BE ENTERTAINED. CONTRACTOR SHALL BE RESPONSIBAL TO PROPER LINE AND LEVEL OF STRUCTURE.
19) DESIGN IS BASED ON AS PER IS-456, IS-875, IS-1893, IS-2911, IS-13920 & SP-16.
20) STRUCTURAL DESIGN IS DONE FOR 'G+XI' FOR ALL BLOCKS.
21) SEISMIC ZONE CONSIDERED FOR DESIGN AS ZONE-III & SMRF.

CERTIFICATE OF OWNER

1. I ENGAGE ARCHITECT AND E.S.E DURING CONSTRUCTION
2. I SHALL FOLLOW THE INSTUCTIONS OF ARCHITECT AND E.S.E DURING CONSTRUCTION OF THE BUILDING.
3. KAMARHATI MUNICIPAL AUTHORITY WILL NOT BE RESPONSIBLE FOR STRUCTURESTABILITYOF BUILDING AND ADJOINING STRUCTURE.
4. IF ANY SUBMITTED DOCUMENT IS FOUND TO BE FAKE THE KAMARHATI MUNICIPAL AUTHORITY MAY REVOKE THE SANCTION PLAN.
5. THE CONSTUCTION OF WATER RESERVOIR EXECUTED UNDER THE GUIDENCE OF ARCHITECT & E.S.E

RITZU GHOSAL

SIGNATURE OF OWNER

CERTIFICATE OF STRUCTURAL STABILITY

WE HEARBY CERTIFY THAT THE FOUNDATION AND SUPERSTRUCTURE OF THE BUILDING PROPOSED FOR CONSTRUCTION ON PRE - 22 FEEDER ROAD, WARD NO.-10. HAVE BEEN SO DESIGNED BY MEIJIS WILL MAKE SUCH FOUNDATION AND SUPER STRUCTURE SAFE IN ALL RESPECT INCLUDING THE CONSIDERATION OF BEARING CAPACITY AND SETTLEMENT OF SOIL ETC.

RAJ KUMAR AGARWAL
COUNCIL REGISTRATION NO. CA/94/17940

SIGNATURE OF LBA
(NAME,ADDRESS AND EMPANELMENT NO.)
RAJ KUMAR AGRAWAL, ADDRESS.-8B, ROYD STREET, KOL-16
COUNCIL NO.-CA/94/17940

Kaushik Sengupta
Structural Engineer I
LIC. REG. NO.-STRCT-CLASS(I)-002

SIGNATURE OF STRUCTURAL ENGINEER

Rupak Kumar Banerjee
Geo Technical Engineer I
LIC. REG. NO.-G.T/I/3

SIGNATURE OF GEO-TECHNICAL ENGINEER

Heleena Sengupta
Structural Reviewer
LIC. REG. NO.-STRUCT-REV-002

SIGNATURE OF STRUCTURAL REVIEWER

ARCHITECT:-
RAJ AGRAWAL & ASSOCIATES
8B, ROYD STREET, 2ND FLOOR.
CALCUTTA - 16
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KOLKATA - 700033
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email : engg_forum2005@yahoo.co.in

PROJECT:-
PROPOSED G+VI (39.95 M. HT.) STORED BUILDING AT PREMISES NO.-22, FEEDER ROAD, KOLKATA-700057 ; (ALSO COMMONLY KNOWN AS 22MM FEEDER ROAD) HOLDING NO. 25/1 (FORMERLY HOLDING NO.25/2), WITHIN WARD NO. 10 OF THE KAMARHATI MUNICIPALITY IN THE DISTRICT OF NORTH 24 PARGANAS, R.S.DAG NOS. 545, 546, 548, 547, 547/1, 547/A, 547/2, 547/3, 549, 550 7 ALL RECORDED IN L.R. KHATIAN NO. 10203. MOUZA-KANAGARIA KAMARHATI, J. L. NO. 1, POLICE STATION - **BELGHORIA (FORMERLY BARANAGAR)**

TITLE : STRUCTURAL SANCTION DRAWING.

JOB NO. : 07/2023-2024

DRG. NO. : EF/S/03

DRAWN BY : PALASH

SCALE : 1:100, 1:25

DATE : 16.05.2024