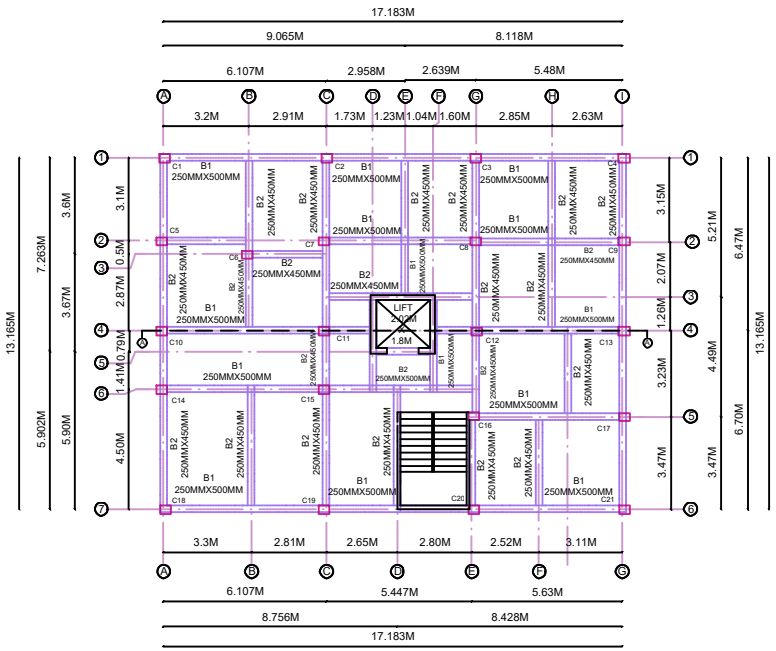
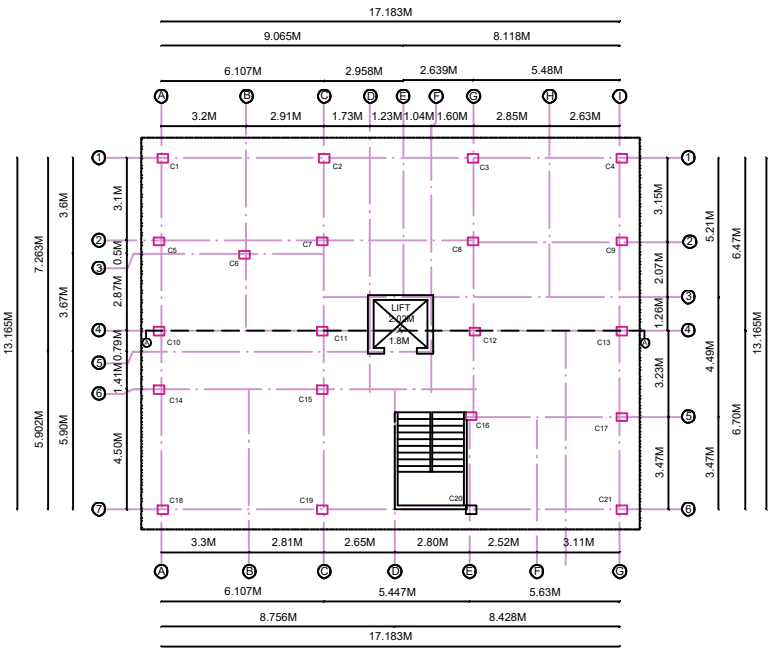
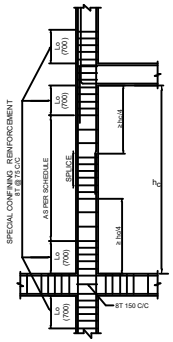


BEAM AND COLUMN LAYOUT



BEAM AND COLUMN LAYOUT



d= LARGEST LATERAL DIMENSIONS OF MEMBER.
b=LEAST LATERAL DIMENSION OF COLUMN.

COLUMN AND JOINT DETAILING

PROJECT

PROPOSED CONSTRUCTION OF G+4 RESIDENTIAL APARTMENT BUILDING OF SRI NIRMAL KUMAR PATRA, S/O-LATE SHIVNARAYAN PATRA,DEVELOPED BY BHANJA REAL ESTATE PVT. LTD.' DIRECTORS.-1)SMT. ALPANA BHANJA,W/O-SRI SAKTIBRATA BHANJA, 2)SRI SAKTIBRATA BHANJA, S/O-LATE SAROJ KUMAR BHANJA OF INDA, P.O.-INDA, BHANJAPARA, P.S.-KHARAGPUR TOWN, MOUZA-INDA, J.L. NO.-232, R.S. PLOT NO.-232(PART), L.R. PLOT NO.-3573(P), KHATIAN NO.- 1058, DIST.-PASCHIM MEDINIPUR.

NOTES—

1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ARCHITECTURAL DRAWING. MENTIONED.
2. ALL DIMENSIONS ARE IN MILLIMETRES AND LEVELS ARE IN METRES UNLESS OTHERWISE
3. DO NOT SCALE THE DRAWING, ONLY FIGURED DIMENSIONS TO BE FOLLOWED, IF ANY DOUBT, ASK FOR CLARIFICATION.
4. ALL LEVELS ARE TO BE FIXED WITH RESPECT TO BENCHMARK ESTABLISHED AT SITE.
5. FINISHED GROUND LEVEL TO BE CONSIDERED AS (a)0.00m. LEV. WHICH IS CONSIDERED AS EXISTING AVERAGE G.L. AT SITE.
6. IF ANY CHANGE OCCURS IN F.G.L. WITH RESPECT TO E.G.L., THEN THE LEVEL WILL BE CHANGED ACCORDINGLY.
7. REINFORCEMENTS ARE TO BE OF GRADE Fe 500D TMT BARS CONFORMING TO IS:1786 .
8. ALL STRUCTURAL CONCRETE TO BE OF M-25 GRADE (MIXED M/C).
9. CLEAR COVER TO REINFORCEMENTS TO BE KEPT AS FOLLOWS:–
   a) BEAM–25MM (Total), b) COLUMNS–40MM, c) R.C.C. WALL– 20 MM
   d) SLAB–20MM, e) PILE – 50MM.
10. LAP LENGTH SHOULD NOT BE LESS THAN 50 X DIA OF LESSER DIA BAR EXCEPT OTHERWISE MENTIONED.
11. LAPPING OF REINFORCEMENTS SHOULD BE STAGGERED AND NOT MORE THAN 50% SHOULD BE LAPPED AT A SECTION.
12. ALL MIN STEEL SHALL BE ANCHORED TO SUPPORT WITH SUITABLE DEVELOPMENT LENGTH (40xDIA OF BAR) EXCEPT OTHERWISE MENTIONED.
13. ALL WORKS ARE TO BE CARRIED OUT AS PER TECHNICAL SPECIFICATIONS, NIT SPECIFICATION & RELEVANT IS CODES.
14. LAPPING OF BARS SHOULD BE AVOIDED IN THE MAXIMUM TENSION ZONES.
15. HOOK LENGTH OF STIRRUP AND LINK SHOULD BE 65mm (MINIMUM).
16. REINFORCEMENTS DETAILING OF ALL STRUCTURAL MEMBERS MUST CONFORM TO IS–13920:2016.
17. NET SAFE BEARING CAPACITY OF SOIL IS– 12.7 T/M2.

ALL DIMENSIONS ARE IN M ,UNLESS OTHER WISE NOTED
ONLY WRITTEN DIMENSIONS SHOULD BE STRICTLY FOLLOWED

NOTES/SPECIFICATION

ALL PLASTER WORK SHOULD BE DONE BY SAND-CEMENT MORTER
1. IN INTERNAL WALL 1.6 MIX. 19 M.M. THK.
2. IN EXTERNAL WALL 1.5 MIX. 12 M.M. THK.

CEMENT MORTER

both the foundation
een made considering
ore made under the
n load and the moments
ness of Indian Standard
hat it is safe and
adhered to during the

SIGNATURE OF STRUCTURAL ENGINEER

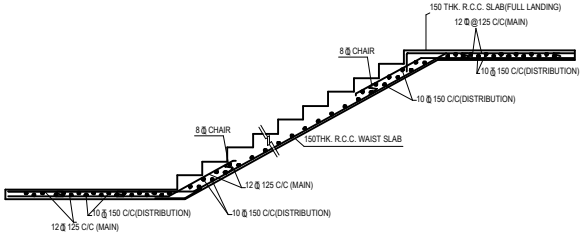
Project at Plot No. -3573(P)
West Bengal
the plans and drawings
ding the Fire Protection
ill be held responsible if
ny violation of provisions
Code is found in any of
submitted to the

SIGNATURE OF ARCHITECT

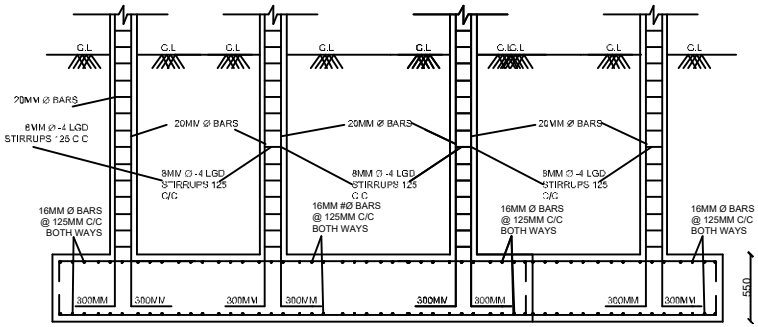
CERTIFICATE OF GEO-TECHNICAL ENGINEER:-

I certify that the comprehensive Geo-Technical report on soil investigation has been prepared by me for Design and Calculation of the foundation by analyzing the soil sample for estimating the bearing capacity of the soil on which foundation of the structure will be constructed.
I shall also check the Nature of the soil after excavation at site so that foundation is extended up to appropriate depth that has been proposed in the Geo-Technical report.

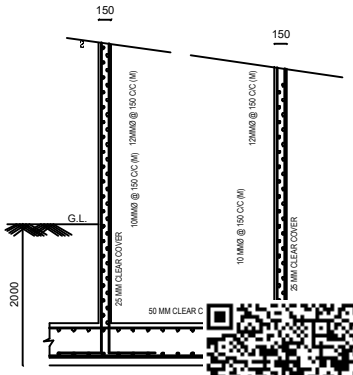
SIGNATURE OF GEO-TECHNICAL ENGINEER



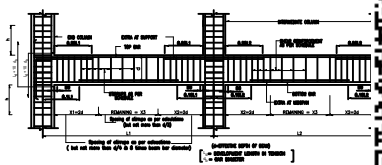
STAIRCASE SECTION



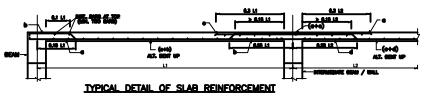
TYPICAL RAFT SECTION (A-A')



DETAILS OF LI



TYPICAL DETAIL OF BEAM (LONGITUDINAL S



TYPICAL DETAIL OF SLAB REINFORCEMENT

SCHEDULE OF FLOOR BEAM/TIE BEAM

BEAM MKD.	BEAM SIZE	SUPPORT TOP	SUPPORT BOTTOM	SPAN TOP	SPAN BOTTOM	STIRRUP
B1	250 X 500	4-16Ø ALL TGH. + 2-16Ø EXTRA	2-16Ø ALL TGH.	4-16Ø ALL TGH.	4-16Ø ALL TGH. + 2-16Ø EXTRA	8L-8Ø @100 C/C AT SUPPORT, 2L-8Ø @125 C/C AT SPAN
B2	250 X 450	2-16Ø ALL TGH. + 2-16Ø EXTRA	2-16Ø ALL TGH.	2-16Ø ALL TGH.	2-16Ø ALL TGH. + 2-16Ø EXTRA	2L-8Ø @100 C/C AT SUPPORT, 2L-8Ø @125 C/C AT SPAN

SCHEDULE OF SLAB

SLAB MKD.	SLAB THK.	REINFORCEMENT LONG SPAN(BOT.)	LONG SPAN(EXTRA TOP)	SHORT SPAN(BOT.)	SHORT SPAN(EXTRA TOP)
S1	125	8Ø 125 C/C ALL TGH	8Ø 125 C/C (TOP)	8Ø 125 C/C ALL TGH	8Ø 125 C/C (TOP)

SCHEDULE OF FOUNDATION

FOUNDATION	FOOTING TYPE	THIKNESS D	DEPTH FROM GL H	REINFORCEMENT AT TOP LONGER DIR.	REINFORCEMENT AT TOP SHORTER DIR.	REINFORCEMENT AT BOTTOM LONGER DIR.(R2)	REINFORCEMENT AT BOTTOM SHORTER DIR.(R1)
F1	FULL RAFT	550	2000	12T@100C/C	12T@100C/C	12T@100C/C	12T@100C/C

COLUMN REINFORCEMENT DETAILS

COLUMN MKD.	UP TO ROOF LEVEL REINFORCEMENT	UP TO ROOF LEVEL SHAPE OF BAR	NO. OF COL.
C1,C2,C3,C4,C5, C6,C7,C8,C9,C10, C11,C12,C13,C14, C15,C16,C17,C18, C19,C20,C21	450, 25, 20, 20, 20