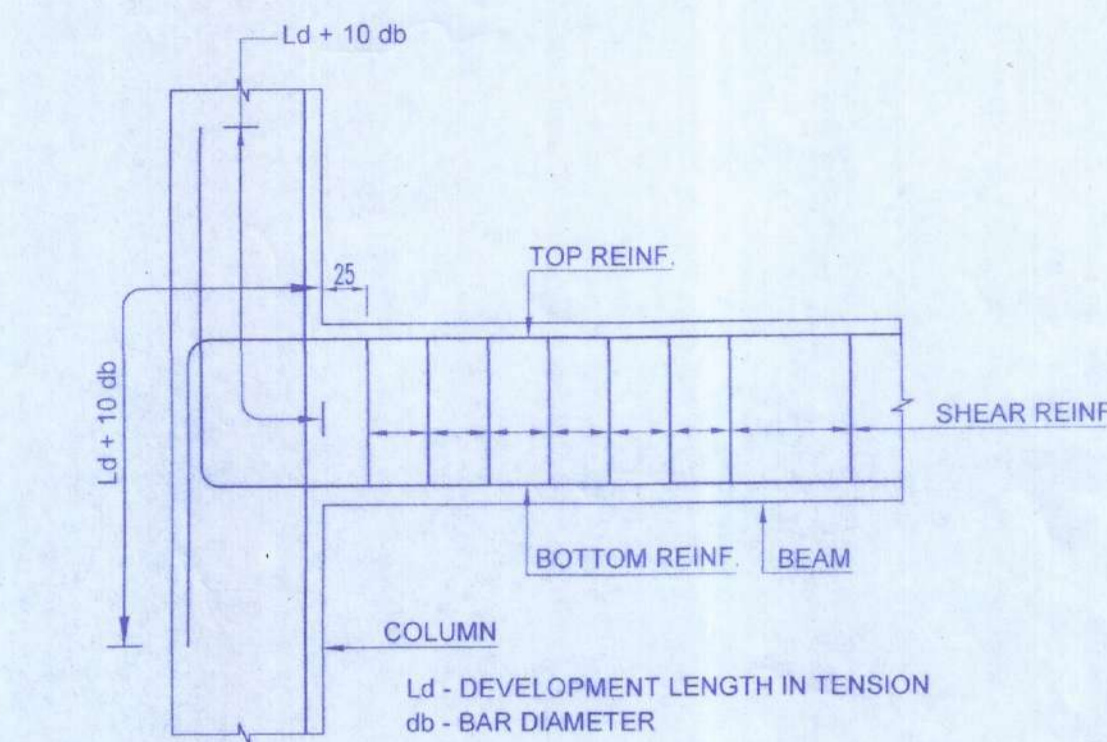
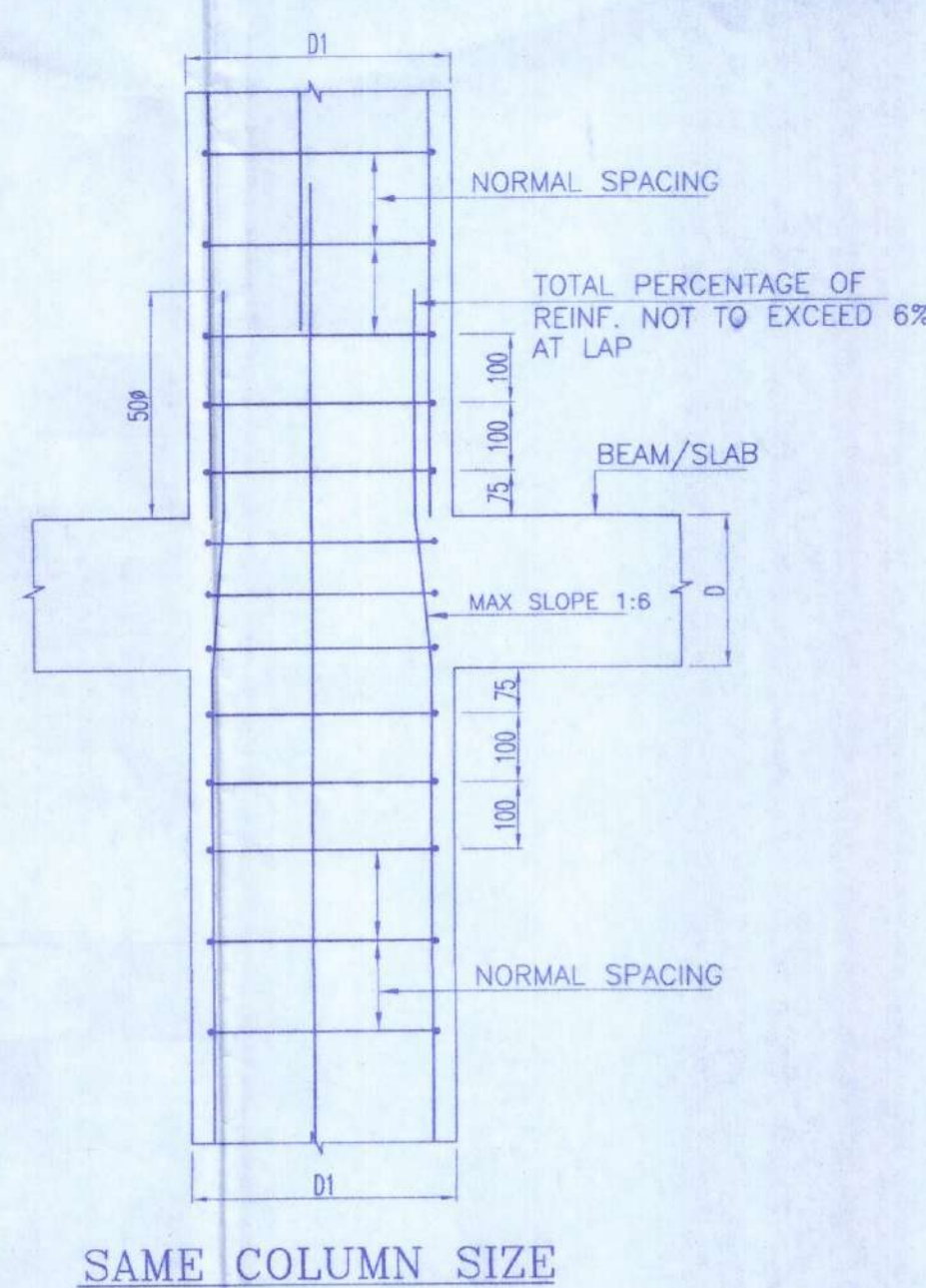


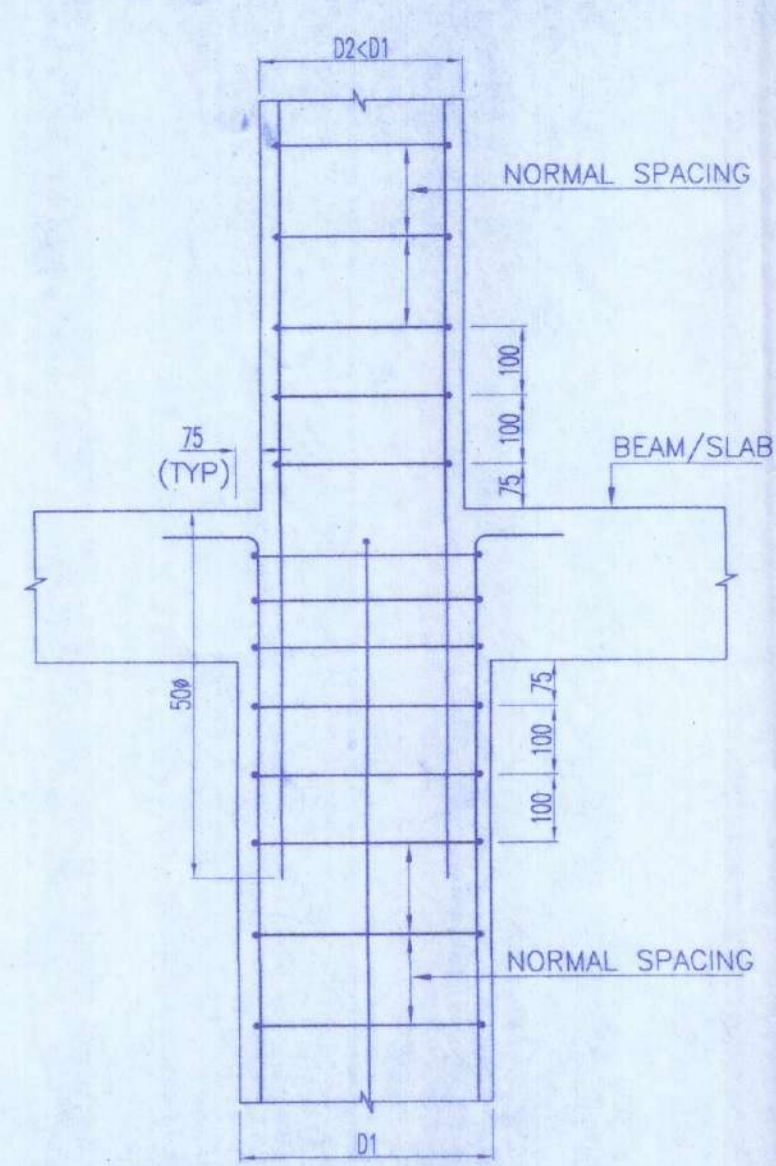
BEAM REINFORCEMENT



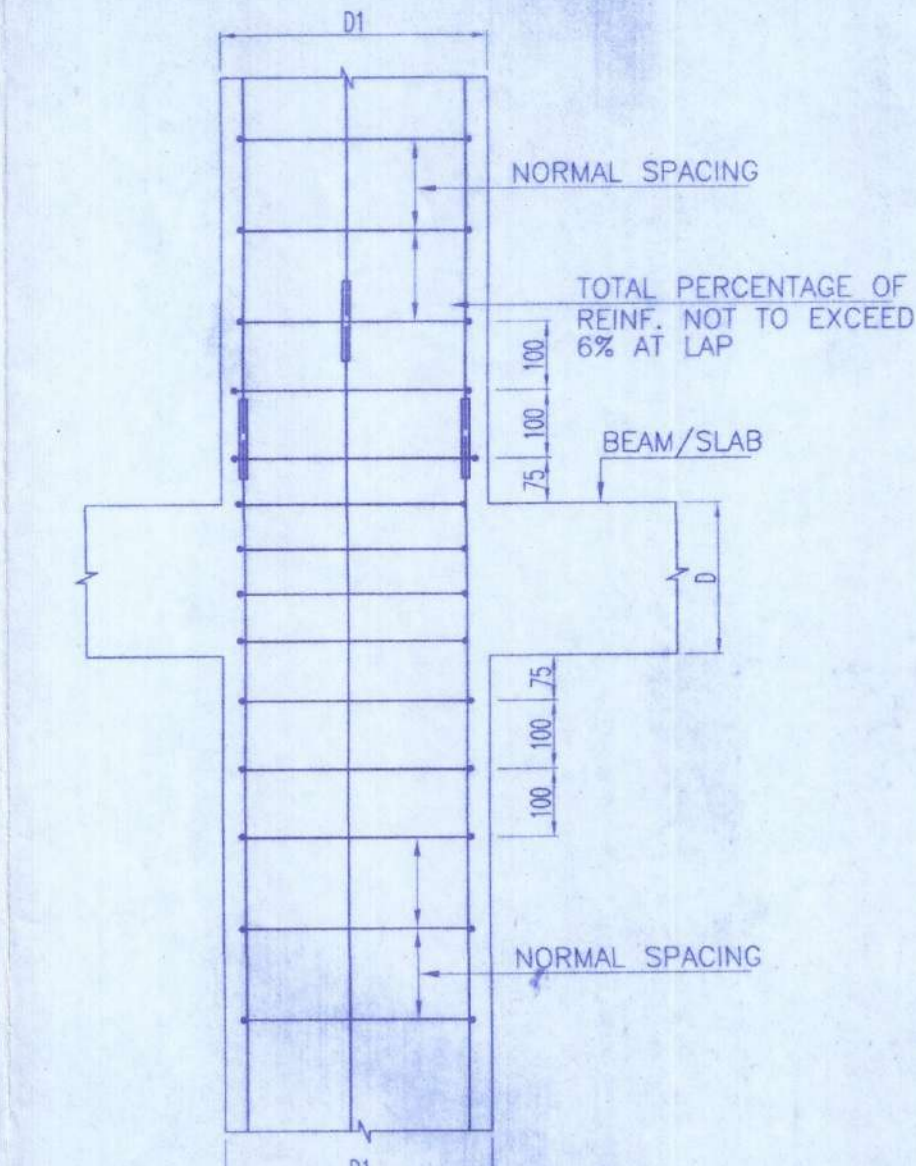
ANCHORAGE OF BEAM BARS IN AN EXTERNAL JOINT



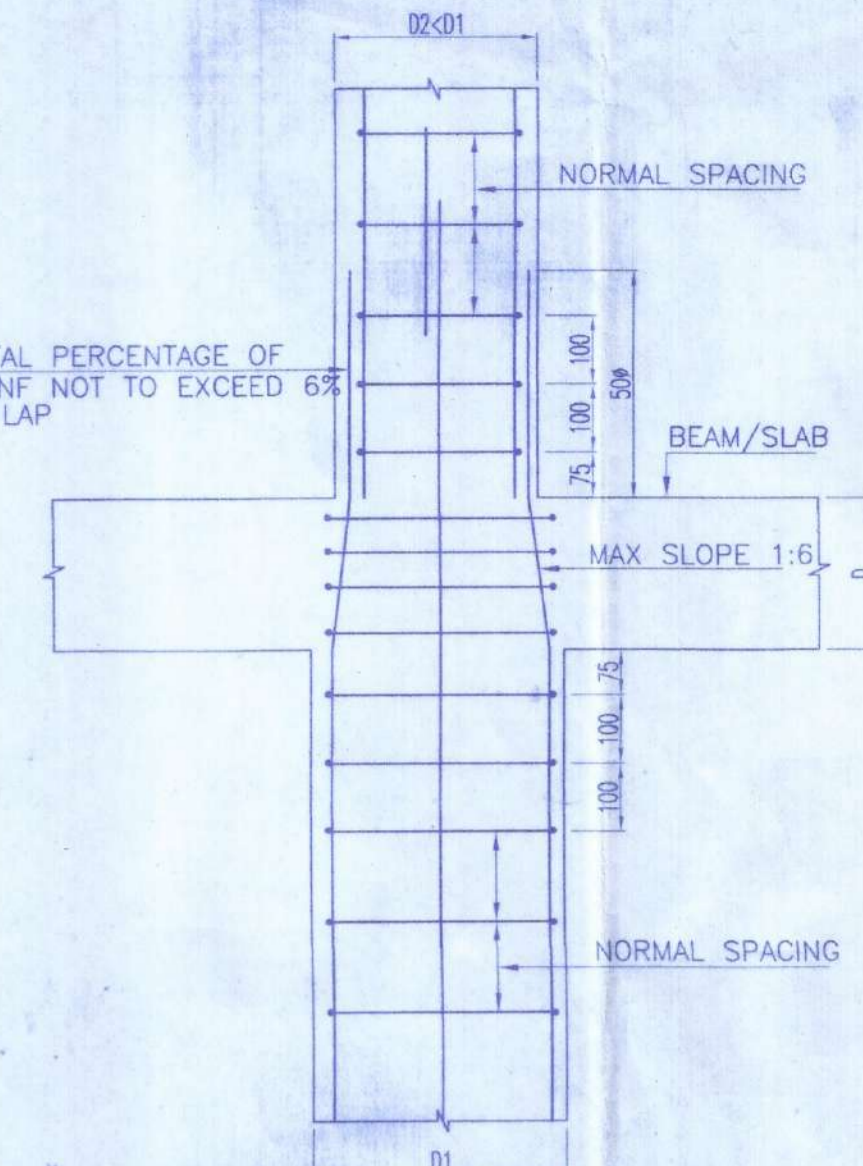
SAME COLUMN SIZE



REDUCING COLUMN SIZE
SPlicing AT THE FLOOR LEVEL WHEN THE
RELATIVE DISPLACEMENT OF COLUMN FACES
IS MORE THAN 75 MM.



MECHANICAL SPlicing DETAIL
(FOR Y25 AND ABOVE)



REDUCING COLUMN SIZE
TYPICAL COLUMN SPlicing DETAIL
AT FLOOR LEVEL

1. GENERAL

- 1.1 ALL DIMENSIONS ARE IN S.I UNITS.
- 1.2 WORK TO FIGURED DIMENSIONS AND DO NOT SCALE THE DRAWING.
- 1.3 ALL STRUCTURAL DRAWINGS SHALL BE READ IN CONJUNCTION WITH RELEVANT ARCHITECTURAL AND SERVICE DRAWINGS.
- 1.4 ANY DISCREPANCY IN THE DRAWING SHALL BE BROUGHT TO THE NOTICE OF CONSULTANTS BEFORE COMMENCING THE WORK.
- 1.5 THE 0.00 LEVEL OF THE PROJECT REFERS TO ARCHITECTURAL DRAWING.
- 1.6 AAC BRICK USED AS BRICK WORK.

2. DESIGN CRITERIA

- STANDARDS AND LOADS
- 2.1 THE CONCRETE DESIGN IS BASED ON IS: 456-2000.
 - 2.2 LOADS ARE BASED ON IS : 875
 - 2.3 WIND LOADS ARE BASED ON IS:875 PART III AND ARE AS FOLLOWS:
BASIC WIND SPEED 50 M/SEC
 - 2.4 SEISMIC LOAD
ZONE : III
ZONE FACTOR : 0.16
IMPORTANCE FACTOR : 1.20

3. CONCRETE

- 3.1 GRADE OF CONCRETE M25 FOR ALL.
- 3.2 MAXIMUM SIZE OF AGGREGATE SHALL PREFERABLY BE 20mm AND SHALL BE GRADED
- 3.3 PLAIN CEMENT CONCRETE SHALL HAVE CUBE STRENGTH OF 15 N/mm² AT 28 DAYS.
- 3.4 ALL CONCRETE SHALL BE OF DESIGN MIX AND ARE TO BE OBTAINED FROM REPUTED TESTING LABORATORIES AND APPROVED BY CONSULTANTS, THE MATERIALS THAT ARE PROPOSED TO BE USED IN THE PROJECT SHALL BE TESTED AND TEST CERTIFICATE FURNISHED BEFORE USE OF MATERIAL AT SITE.
- 3.5 PILE CONCRETE:
a) SLUMP VALUE FOR PILE CONCRETE SHOULD BE 150-180MM AS PER IS 2911-(PART I / SEC I)-2010 AS PER CLAUSE 7.3.2 PAGE 7.
b) MINIMUM GRADE OF CONCRETE M25 & MINIMUM CEMENT CONTENT 400 KG/CUM. AS PER CLAUSE 7.3.3 OF IS 2911-(PART I / SEC I)-2010 PAGE 7.

4. REINFORCING STEEL

- 4.1 ALL REINFORCING STEEL SHALL CONFIRM TO IS:1786-2008 HAVING MIN. YIELD STRENGTH OF 500 N/mm² DENOTED AS --- 1 35.

5. SOIL DATA

- 1) PILE CAPACITY BOTTOM FOR 600MM DIA. PILE.

6. CONCRETE NOMINAL COVER FROM OUTMOST REINFORCEMENT

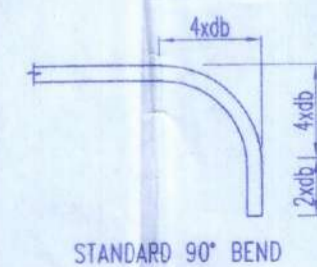
- 6.1 CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH 75MM.
PILE - 50MM
PILE CAP - 75MM
BEAM - 30MM
COLUMNS - 40MM
SLAB - 20MM
- 6.3 COVER BLOCKS (CONCRETE) OF APPROVED MAKE SHALL BE USED IN CONCRETE.

7. EXCAVATION

- 7.1 100TH BLINDING SHALL BE PROVIDED UNDER RAFT, INDEPENDENT AND COMBINED FOOTINGS.
- 7.2 EXCAVATION SHALL BE DONE BEYOND THE FOOTING/BASEMENT AS INDICATED IN THE DRAWINGS.
- 7.3 LOOSE POCKETS OF ENCOUNTERED SHALL BE REMOVED AND FILLED WITH PLUMB CONCRETE.
- 7.4 A LEVELING COURSE OF CONCRETE SHALL BE LAID USING P.C.C 1:2:4 PRIOR TO FOUNDATION S REQUIRED.
- 7.5 FOUNDATION SHALL BE LAID BELOW TOP WEAK ZONE IN WEATHERED ROCK STRATA.

8. DEVELOPMENT AND ANCHORAGE LENGTHS

- 8.1 DEVELOPMENT LENGTH (Ld) FOR REINFORCEMENT STEEL BARS SHALL BE
1) M25, Fe500-48.5D
(D IS DIA OF THE BAR)
(GENERALLY 50D FOLLOWED FOR SITE CONVENIENCE)



STANDARD 90° BEND

- 8.2 LAPS FOR REINFORCEMENT IN COMPRESSION SHALL BE ACCOUNTED ONLY AS STRAIGHT LENGTHS AND NO HOOKS OR BENDS ARE ACCOUNTED FOR COMPRESSION LAPS OR ANCHORAGES.
- 8.3 STANDARD HOOKS OR BENDS SHALL BE PROVIDED WHERE NECESSARY IN TENSION REINFORCEMENTS IN BEAMS, COLUMNS, SLABS, ETC.
- 8.4 MECHANICAL ANCHORAGES OF APPROVED MANUFACTURERS SHALL BE USED FOR COLUMN SPlicES FOR 25mm DIA AND ABOVE AND ARE TO BE AS PER DESIGN DRAWINGS AND SHALL HAVE YIELD STRENGTH OF 125% MORE THAN GRADE OF MAIN STEEL.
- 8.5 LAPS SHALL BE STAGGERED AS INDICATED IN DRAWINGS.

9. WATER PROOFING

- 9.1 WATER PROOFING SHALL BE DONE FOR : SUMP TANKS, OVERHEAD TANK, BASEMENT WALLS, TOILET SLABS, TERRACE, AS PER SPECIFICATIONS.

10. CURING

- 10.1 CURING COMPOUNDS SHALL BE USED FOR ALL VERTICAL ELEMENTS PROVIDED IT IS PIGMENTED.
- 10.2 CURING BY WATER SHALL BE DONE FOR THE OTHER ELEMENTS FOR A MINIMUM PERIOD OF 7 DAYS

11. DESHUTTERING TIME

- 11.1 TYPE OF FORM WORK FOR :
MINIMUM PERIOD BEFORE STRIKING (EXCLUDING THE DAY OF CASTING)
a. SLABS UPTO 4.5M : 7 DAYS
OVER 4.5M : 14 DAYS
b. BEAMS UPTO 6.0M : 14 DAYS
OVER 6.0M : 21 DAYS
c. WALL/BEAM/COLUMN VERTICAL FACES : 1 DAY
- 11.2 SHUTTERING CAN BE RELEASED EARLIER THAN SPECIFIED ABOVE PROVIDED THE PROPS ARE RETAINED AT REASONABLE SPACINGS AND CONCRETE ATTAINS THE FULL STRENGTH AT THE TIME OF DESHUTTERING AS PER IS 456 - 2000. DE SHUTTERING SHALL BE DONE BY PROVIDING DAMPENING MATERIAL BELOW IN ORDER TO REDUCE THE IMPACT AT THE LOWER LEVEL.
- 11.3 SIMPLY SUPPORTED AND CONTINUOUS SPANS SHALL BE DESHUTTERED FROM MID SPAN TOWARDS SUPPORTS. CANTILEVERS SHALL BE DESHUTTERED FROM FREE END TOWARDS SUPPORTS.
- 11.4 SLAB/BEAMS SHALL BE PROPPED UNTIL THE NEXT LEVEL SLAB IS CAST AND DESHUTTERED.

12. CONSTRUCTION JOINTS

- 12.1 SLABS : AT MIDDLE ONE THIRD OF THE SPAN.
- 12.2 BEAMS : AT MIDDLE ONE THIRD OF THE SPAN. IF ANY CROSS BEAMS ARE LOCATED IN THIS REGION THE JOINT SHALL BE LOCATED TWO TIMES THE WIDTH OF THE BEAM AWAY FROM THE BEAM.
- 12.3 RETAINING WALL : AT THE JUNCTION OF THE WALL AND FOOTING WITH A KEY JOINT AND AT MIDDLE OF VERTICAL SPAN. VERTICAL JOINTS TO BE AVOIDED.
- 12.4 RAFT SLAB : AT MIDDLE ONE THIRD OF THE SPAN.
- 12.5 CONSTRUCTION JOINTS SHALL BE STRAIGHT
- 12.6 CANTILEVERS : CONSTRUCTION JOINT SHALL NOT BE PROVIDED IN CANTILEVERS.

13. ADMIXTURE

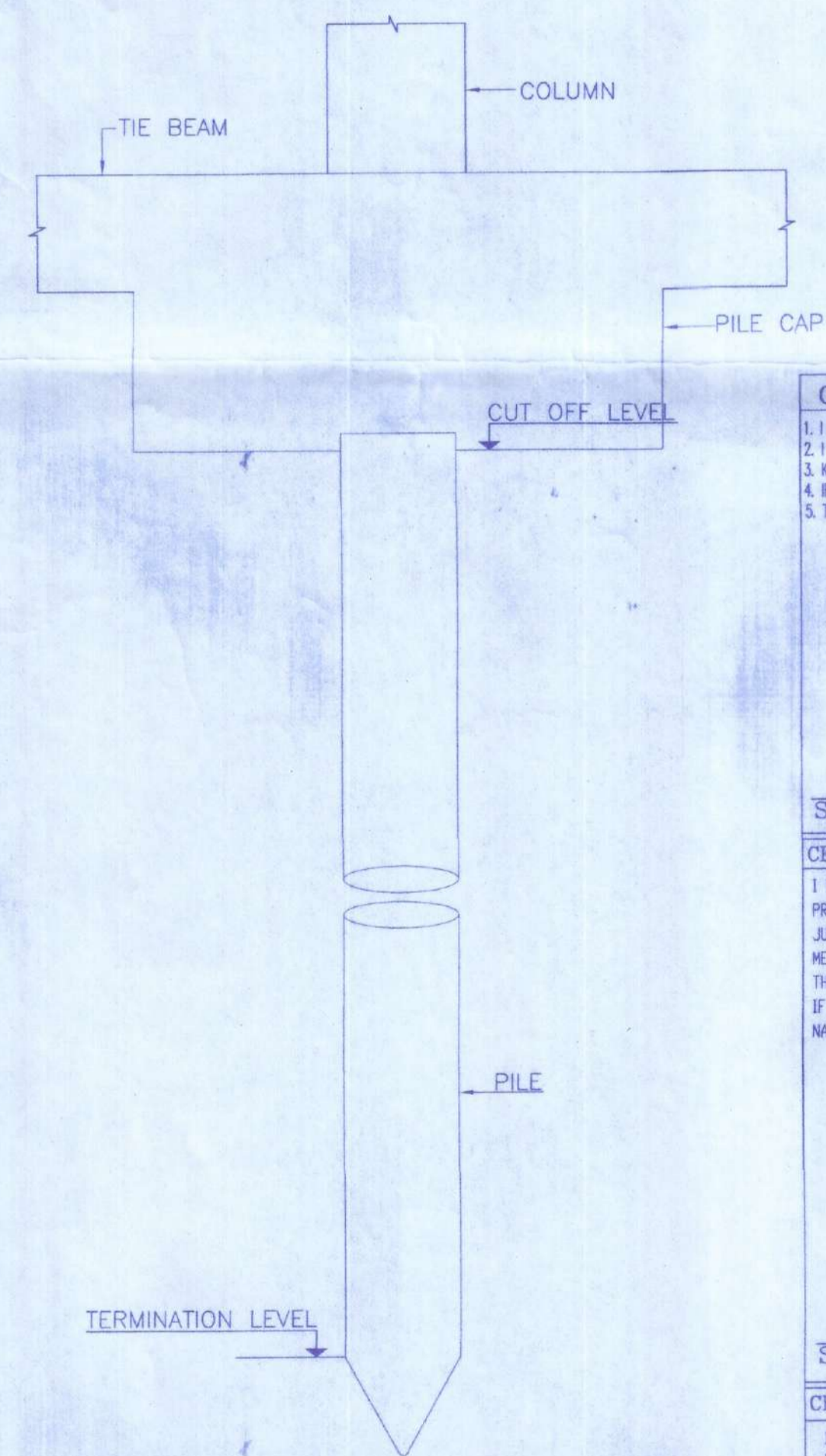
- 13.1 CONCRETE ADMIXTURES OF APPROVED MAKE SHALL BE USED TO IMPROVE WORKABILITY AND STRENGTH AS PER TENDER SPECIFICATIONS.
- 13.2 CONCRETE ADMIXTURES OF APPROVED MAKE SHALL BE USED FOR WATER PROOFING AS PER TENDER SPECIFICATIONS.

14. CONSULTANTS APPROVAL

- 14.1 CONSULTANTS SHALL APPROVE THE CONCRETING SURFACE AFTER INSPECTION AND REMEDIAL MEASURES IF ANY TO BE DONE BEFORE ANY PLASTERING WORK IS TAKEN UP ON CONCRETE SURFACE. HOWEVER THIS DOES NOT DEVOLVE THE CONTRACTOR OF HIS RESPONSIBILITY FOR GETTING THE REQUIRED STRENGTH OF CONCRETE.

15. CAMBER FOR CANTILEVERS

- FOR UP TO 1.5M CANTILEVERS --- 10MM
- FROM 1.5M TO 2.5M CANTILEVERS -- 15MM



TYPICAL SECTION OF PILE

CERTIFICATE OF GEO-TECHNICAL ENGINEER

WE DO HEREBY CERTIFY THAT THE FOUNDATION AND SUPER STRUCTURE OF THE BUILDING PROPOSED FOR CONSTRUCTION AT HOLDING NO. 222, MAHARAJGALA, WARD NO. 28, UNDER THE JURISDICTION OF RAJAPUR SONARPUR MUNICIPALITY HAVE BEEN PERSONALLY INSPECTED AND SO DESIGN BY ME/US WILL MAKE SUCH FOUNDATION AND SUPERSTRUCTURE SAFE IN ALL RESPECT INCLUDING THE FOUNDATION BEARING CAPACITY AND SETTLEMENT OF SOIL AND OTHER CONDITIONS, IF ANY, REFERING TO ALL STIPULATIONS OF ALL RELEVANT IS CODE OF PRACTICE AND NATIONAL BUILDING CODE.

ALOK ROY
Enlisted Geotechnical Engineer
Rajpur-Sonarpur Municipality
No.- 008/ G.T. Eng., Class-I

SIGNATURE OF GEO-TECHNICAL ENGINEER

WE DO HEREBY CERTIFY THAT THE BUILDING SITE PROPOSED FOR CONSTRUCTION AT HOLDING NO. 125, UTTAR KUMRAHALI, WARD NO. 27, UNDER THE JURISDICTION OF RAJAPUR SONARPUR MUNICIPALITY HAVE BEEN VISITED BY ME/US AND ALL THE DESIGN DRAWINGS SPECIFY THE DRAWING NUMBER, SERIAL NO., SOIL TEST REPORT AND LOAD TEST RESULTS FOR FOUNDATION AND SUPERSTRUCTURE HAVE BEEN DULY REVIEWED CONFORMING TO STIPULATIONS OF ALL LATEST RELEVANT IS CODE OF PRACTICE AND NATIONAL BUILDING CODE AND IT IS FOUND THAT EVERYTHING IS COMPLETELY IN ORDER AND THE PROPOSED FOUNDATION AND STRUCTURE ARE SAFE IN ALL RESPECT.

MANOJ KANTI MAJUMDAR
B.Sc. (Hons), B.C.E., F.I.E.C. Eng.,
Ml Struct. E (Lond) M.A.S.C.E. (USA)
ESE-13101
The Calcutta Municipal Corporation

SIGNATURE OF STRUCTURAL REVIEWER

TYPE OF DRAWING :- SANCTION DRAWING

TITLE :- GENERAL NOTES

PROJECT
REVISED PLAN OF B+G+XI STORED (39.95 MT. HT.) RESIDENTIAL BUILDING AT HOLDING NO-125 UNDER WARD NO.-27, UTTAR KUMRAHALI ROAD SITUATED WITHIN THE LIMIT OF RAJAPUR-SONARPUR MUNICIPALITY COMPRISED IN R.S. & L.R. DAG. NO.- 9, R.S. KHATIAN NO.- 1239, L.R. KHATIAN NOS.-432 & 1214/1 UNDER MOUZA - KUMRAHALI, J.L. NO.-48, P.S.-SONARPUR, DIST.- 24 PARGANAS (S). SANCTION PLAN NO. 2192/CB/27/32 DATED-30/03/2015.

ARCHITECT
RAJ AGRAWAL & ASSOCIATES
8B, ROYD STREET, CALCUTTA-16

STRUCTURAL CONSULTANT :-
ADROIT CONSULTANT
10/3, PANCHANANTALA ROAD
KOLKATA 700029

APPROVED BY:- MM DRG NO.-KUMRAHALI ROAD / MS/ ST-01
DRAWN BY:- SM SCALE:- N.T.S DATE:- 22.09.2022

NAME OF OWNER
Sanyalson Associates
Consultant Pvt. Ltd.
CONSULTANT PLANNER & STRUCTURAL ENGINEERS
P-157 - KANUNGO PARK - KOLKATA-84



APPROVAL OF S.A.E

OFFICE USE

Structural plan as submitted by the structural Engineer have been kept with record of the Rajpur-Sonarpur Municipality without Verification No. deviation from the submitted structural plan should be made at the time of erection without submitting fresh structural plan along with design calculations and stability certificate in the prescribed form necessary steps should be taken for the safety of the adjoining premises public private properties and safety of human life during construction

CERTIFICATE OF OWNER

1. I SHALL ENGAGE ARCHITECT AND ESE DURING CONSTRUCTION
2. I SHALL FOLLOW THE INSTRUCTIONS OF ARCHITECT AND ESE DURING CONSTRUCTION OF THE BUILDING.
3. K.M.C AUTHORITY WILL NOT BE RESPONSIBLE FOR STRUCTURAL STABILITY OF BUILDING AND ADJOINING STRUCTURE.
4. IF ANY SUBMITTED DOCUMENT IS FOUND TO BE FAKE THE K.M.C AUTHORITY MAY REVOKE THE SANCTION PLAN.
5. THE CONSTRUCTION OF WATER RESERVOIR AND SEPTIC TANK EXECUTED UNDER THE GUIDANCE OF ARCHITECT & ESE

For Lugherman Wood Pvt. Ltd.
Bijay Bedia
Director

SIGNATURE OF OWNER

CERTIFICATE OF STRUCTURAL ENGINEER

WE DO HEREBY CERTIFY THAT THE FOUNDATION AND SUPER STRUCTURE OF THE BUILDING PROPOSED FOR CONSTRUCTION AT HOLDING NO. 222, MAHARAJGALA, WARD NO. 28, UNDER THE JURISDICTION OF RAJAPUR SONARPUR MUNICIPALITY HAVE BEEN PERSONALLY INSPECTED AND SO DESIGN BY ME/US WILL MAKE SUCH FOUNDATION AND SUPERSTRUCTURE SAFE IN ALL RESPECT INCLUDING THE FOUNDATION BEARING CAPACITY AND SETTLEMENT OF SOIL AND OTHER CONDITIONS, IF ANY, CONFORMING TO ALL STIPULATIONS OF ALL RELEVANT IS CODE OF PRACTICE AND NATIONAL BUILDING CODE.

Mainak Majumdar
B.C.E., M.C.E. (Struct)
ESE-1527 of K.M.C
STRV/NKDA/10/00020
STRV/NKDA/14/00001

SIGNATURE OF STRUCTURAL ENGINEER

CERTIFICATE OF ARCHITECT

WE DO HEREBY CERTIFY THAT PLANS, ELEVATIONS AND SECTIONS AND OTHER STRUCTURAL DETAILS OF THE PROPOSED BUILDINGS ON HOLDING NO. 222 MAHARAJGALA, WARD NO. 28, UNDER THE JURISDICTION OF RAJAPUR SONARPUR MUNICIPALITY HAVE BEEN PREPARED IN CONFORMING WITH ALL RELEVANT PROVISIONS UNDER THE WEST BENGAL MUNICIPAL BUILDING RULES 2007. THIS ALSO TO CERTIFY THAT RELEVANT NO OBJECTION CERTIFICATES FROM THE RESPECTIVE AUTHORITIES SUCH AS FIRE AND EMERGENCY SERVICE DEPARTMENT, AIRPORT AUTHORITY, POLLUTION CONTROL BOARD, TELECOMMUNICATION DEPARTMENT ETC. AS APPLICABLE IN THIS REGARD, ARE ALSO ENCLOSED WITH THE APPLICATIONS FOR SEEKING APPROVAL OF THE PLAN TO CONSTRUCT/RECONSTRUCT/ADDITION TO ALTERATION OF THE BUILDING ON THE SAID HOLDING.

Rajkumar Agarwal
Architect
Member of Council of
Architecture CA / 94 / 17940

SIGNATURE OF ARCHITECT

Stacking of building materials on / beside the public roads is illegal, and the Municipality may confiscate those materials as per rule.

রাস্তার উপর বাড়ী তৈরীর মাল মশলা কখনই রাখা যাবে না। যদি রাখা হয় তাহলে পৌরসভা ঐ মাল মশলা বাজেয়াপ্ত করতে পারবে।

Transfer of occupancy right of any flat of the building before the receipt of completion certificate is illegal.

সমাপ্তি শংসাপত্র প্রাপ্তির পূর্বে বাড়ীর কোন ফ্ল্যাট বা অংশ হস্তান্তর বেআইনী।

Written information in the prescribed form is to be submitted 7 days before the commencement of construction-work as per sanctioned plan.

নির্দিষ্ট ফর্ম ভুক্ত করায় ৭ দিন আগে পৌরসভাকে লিখিত করে বিবিতভাবে জানাতে হবে।

Any deviation from the sanctioned plan is illegal, and hence punishable under the act.

অনুমোদিত প্লান মফর্মে বিচ্যুতি সম্পূর্ণ বেআইনী এবং শাস্তিব্যবহৃত্য অপরাধ।

Written information is to be submitted to this office after post or full completion of construction-work.

নির্দিষ্ট ফর্ম সম্পূর্ণ/আংশিক/সমাপ্তি হইয়াছে হলে পৌরসভাকে লিখিতভাবে জানাতে হবে।