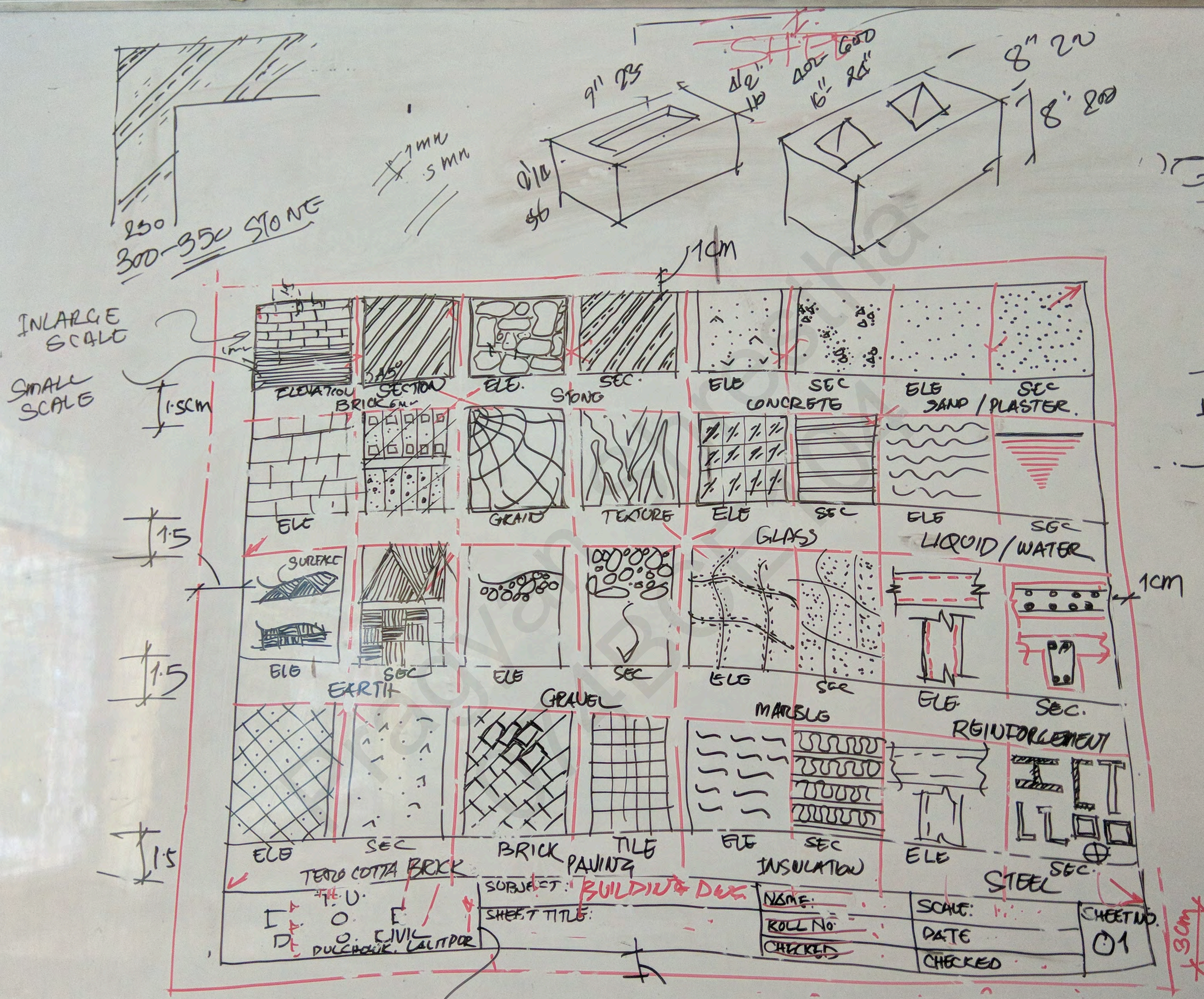
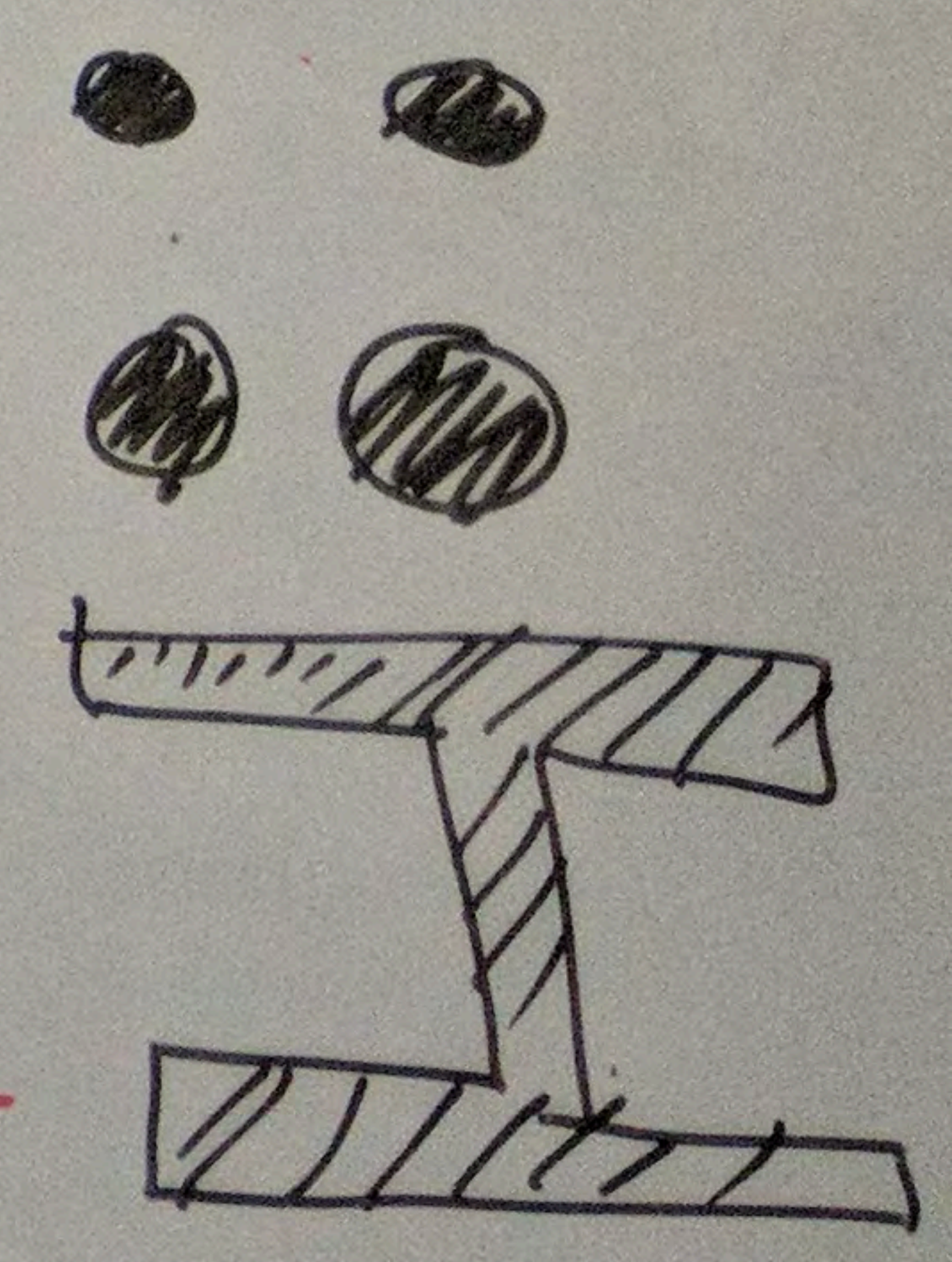


DRAWI

INTRODUCT

REF. BOOK

1. BUILDING
2. SURAJ SI
3. BLDG DR
4. THOMAS
5. JOHN M
6. HORUNG



DIFFERENT TYPES OF BUILDING METARIAL

Ch-6 Rockmass

Introduction

Properties → ① Strength — Lab test
— In-Situ Test → Geological Hammer Rebound Test

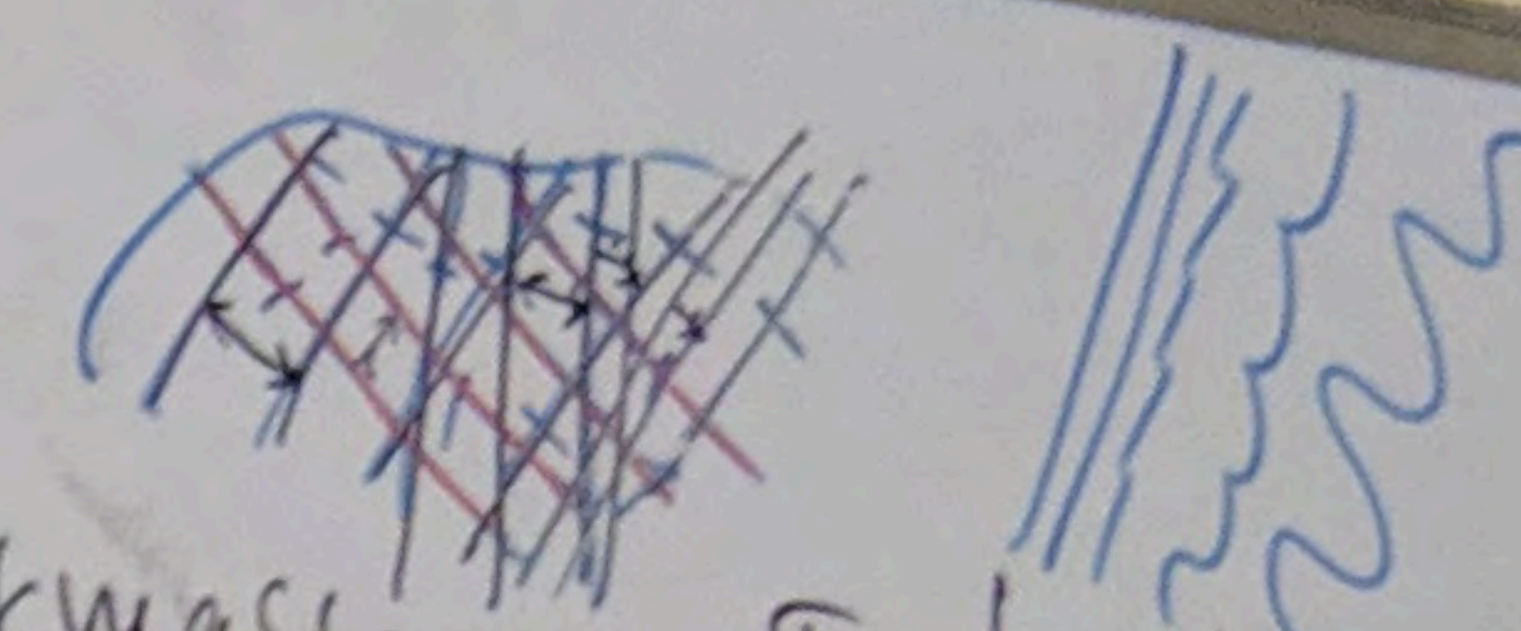
Schmidt Hammer Rebound Test

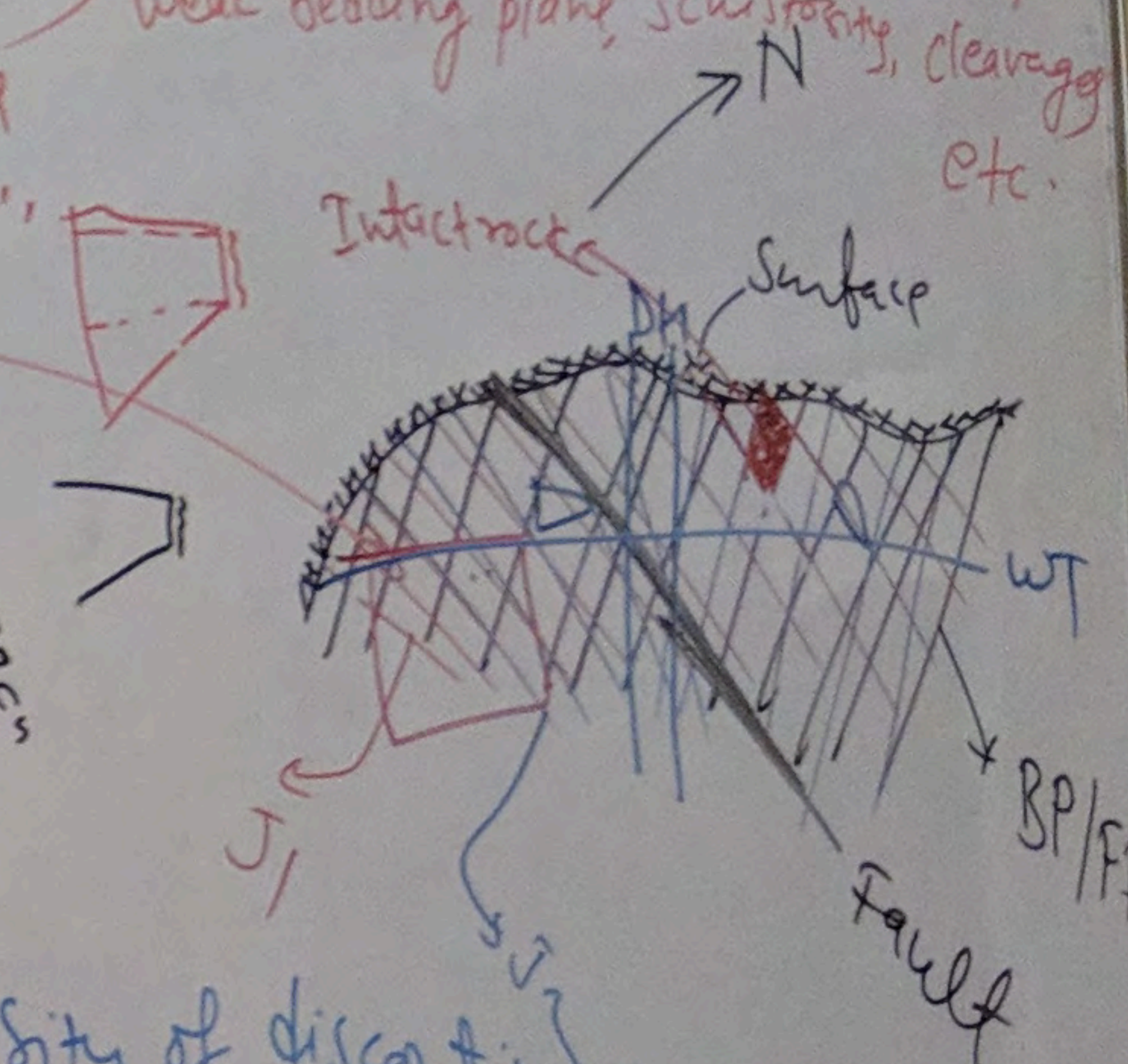
10% High value
10% lowest "

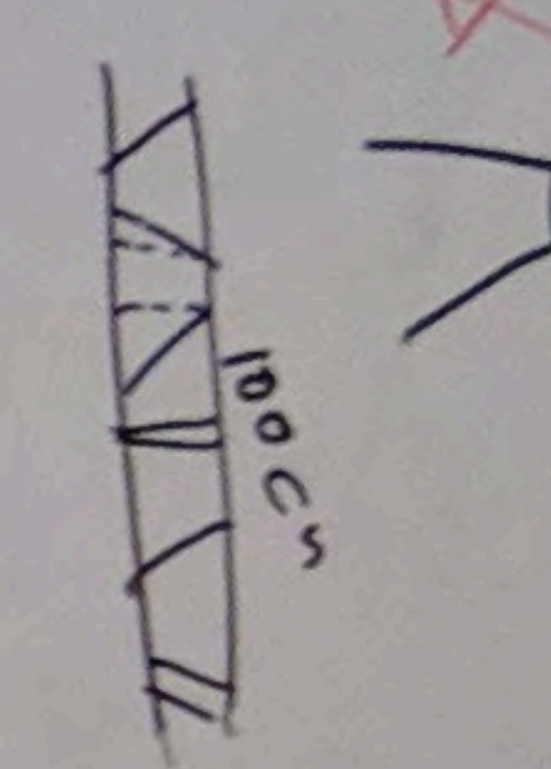
Classification systems
Rockmass classes
Application of rockmass class in underground excavation / structures

Rockmass = Intact rock + discontinuities
(rock without discontinuities) — Joint, cracks, Fractures, fault, weak bedding plane, schistosity, cleavage, etc.

Fresh — w_0
SW = w_1
MW = w_2
HW = w_3
CW = w_4
Residual soil = w_5







② Rock Quality Designation (RQD) → it is measurement of density of discontinuities in rockmass

RQD can be calculated by following methods:
ⓐ from drilled core $RQD = \frac{\Sigma \text{length of pieces of rock} > 10\,cm}{\text{Total length}} \times 100\%$
ⓑ " empirical formula @ surface, exposure $RQD = 115 - 3.3\,J_V$

20 + 10 + 40 + 2 + 9 + 2 + 2 + 5 + 5

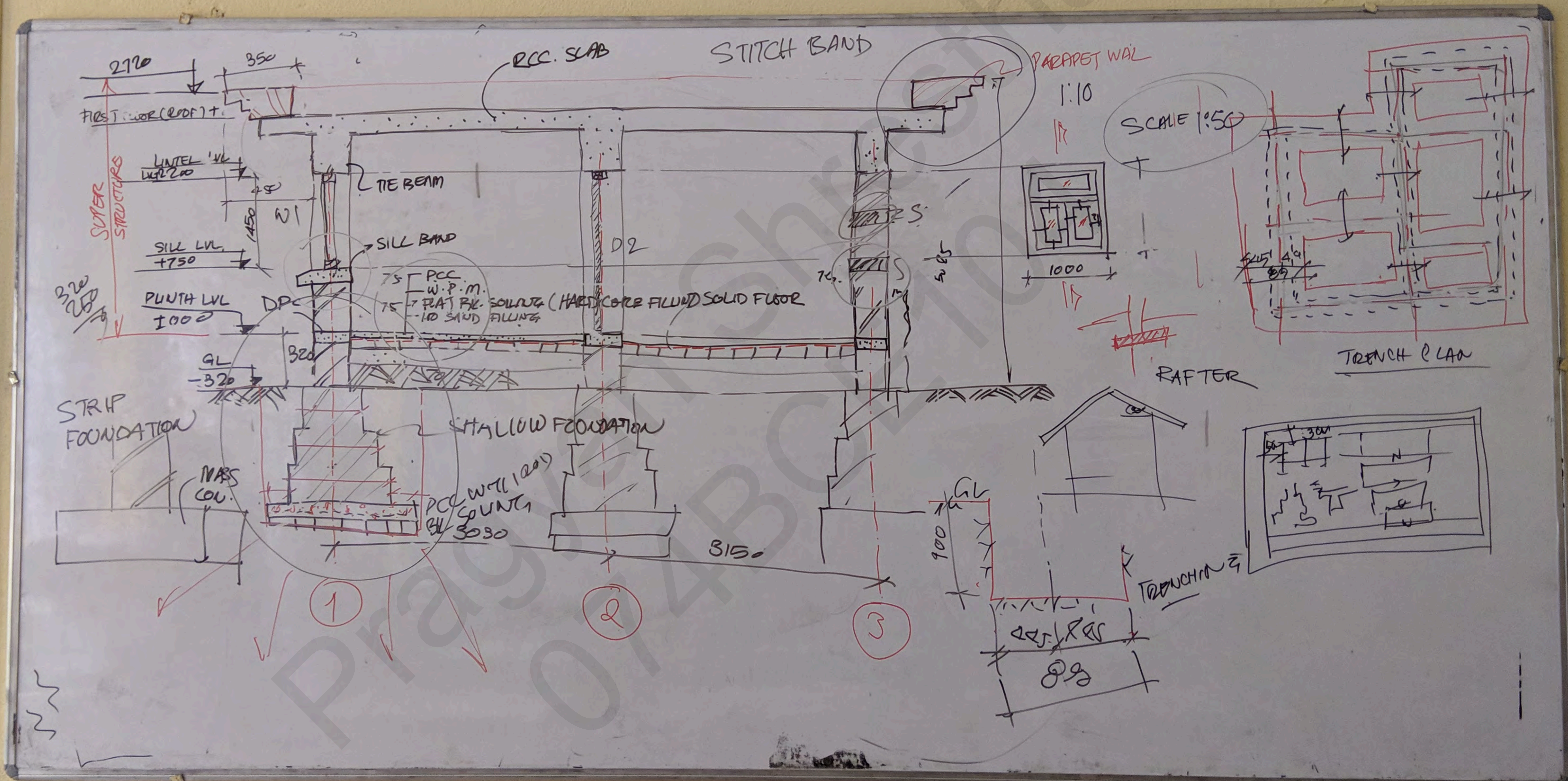
$RQD = \frac{70\,cm}{100} \times 100$ ✓

③ Spacing of discontinuities

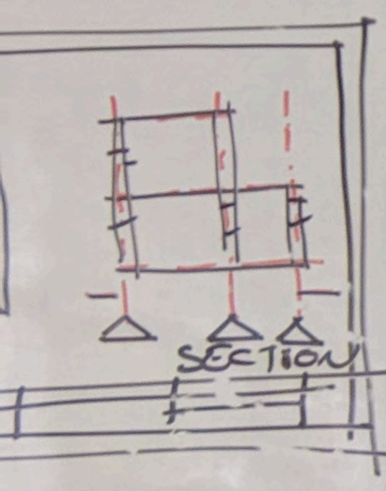
④ Condition of discontinuities
ⓐ Persistance
ⓑ Aperture
ⓒ Infilling materials
ⓓ Roughness
ⓔ Weathering

⑤ Groundwater condition

⑥ Orientation of discontinuities

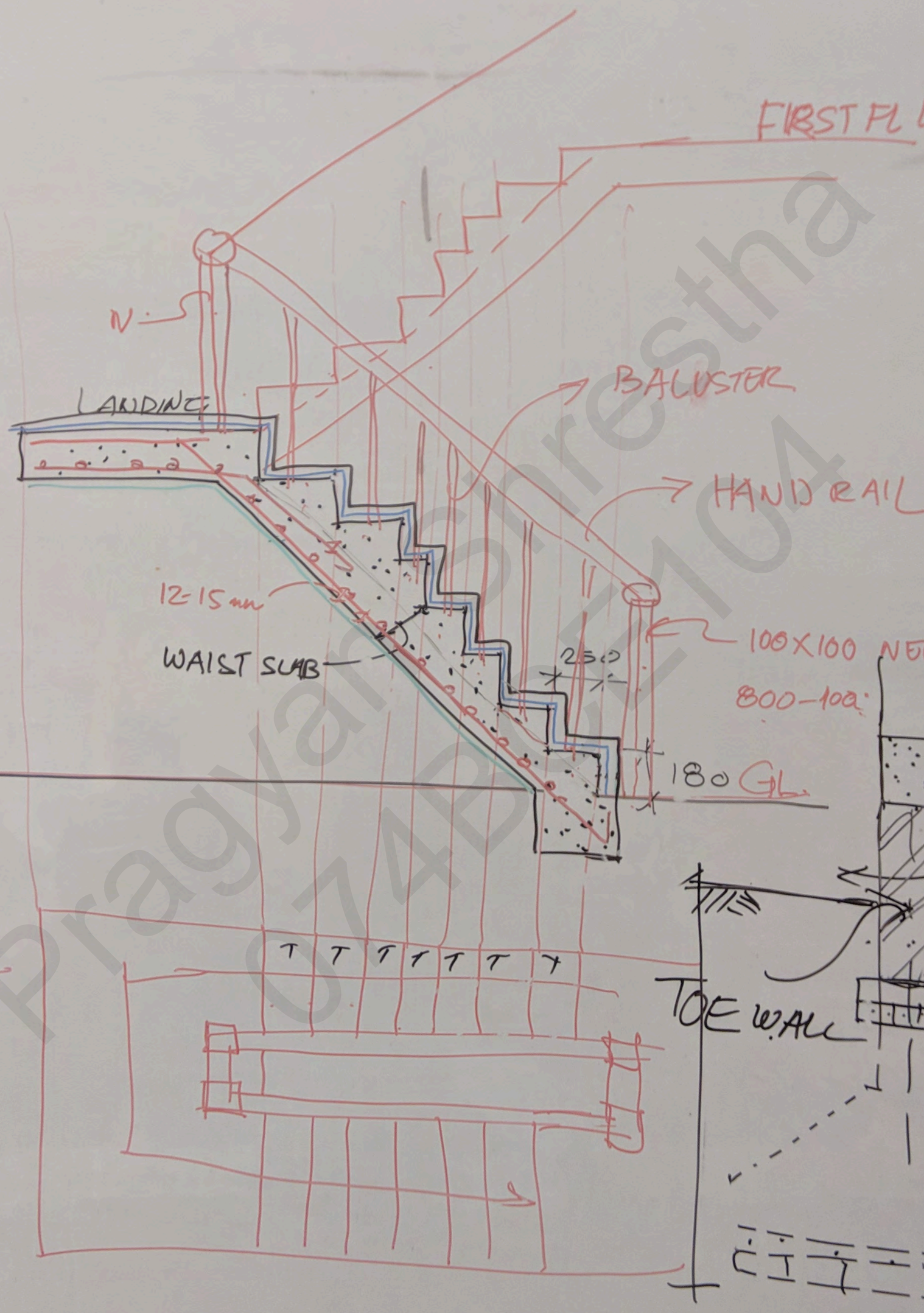

STITCH BAND
RCC. SLAB
PARAPET WAL
1:10
SCALE 1:50
TIE BEAM
SILL BAND
LINTEL LVL
SILL LVL
+750
PLINTH LVL
1000
DPC
GL
-320
SUPER STRUCTURE
PCC
W.P.M.
FLAT BK. SOLING (HARD CORE FILLED) SOLID FLOOR
SAND FILLING
D2
W1
1000
RAFTER
TRENCH PLAN
STRIP FOUNDATION
MASS CON.
SHALLOW FOUNDATION
PCC WITH
3150
1
2
3
GL
900
TRENCHING

g legged



NOSING

FIRST FL LVL.

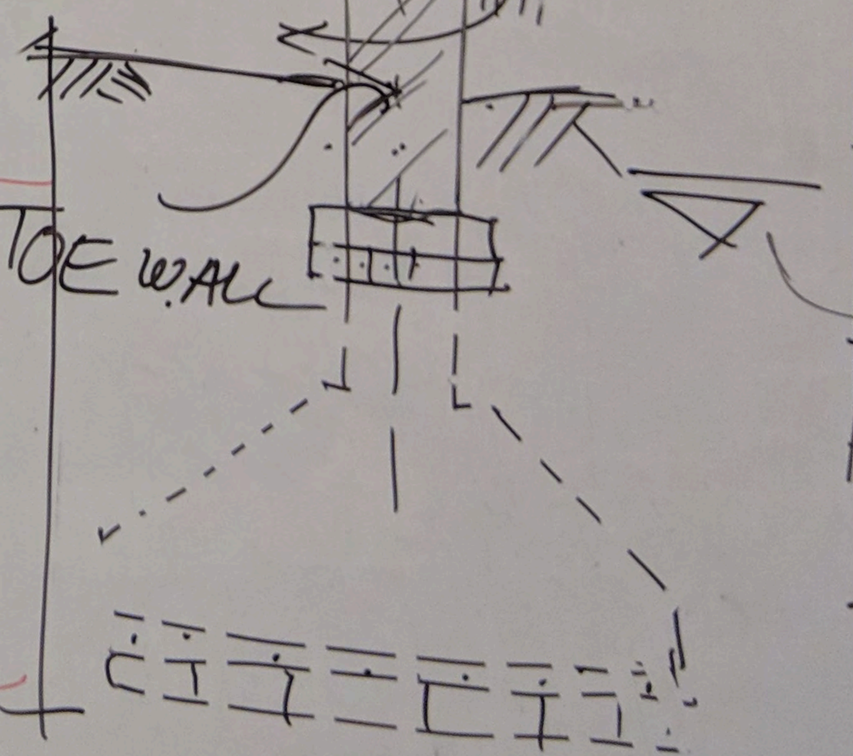


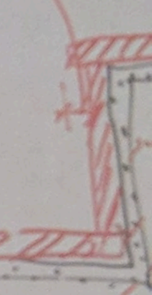
BALUSTER

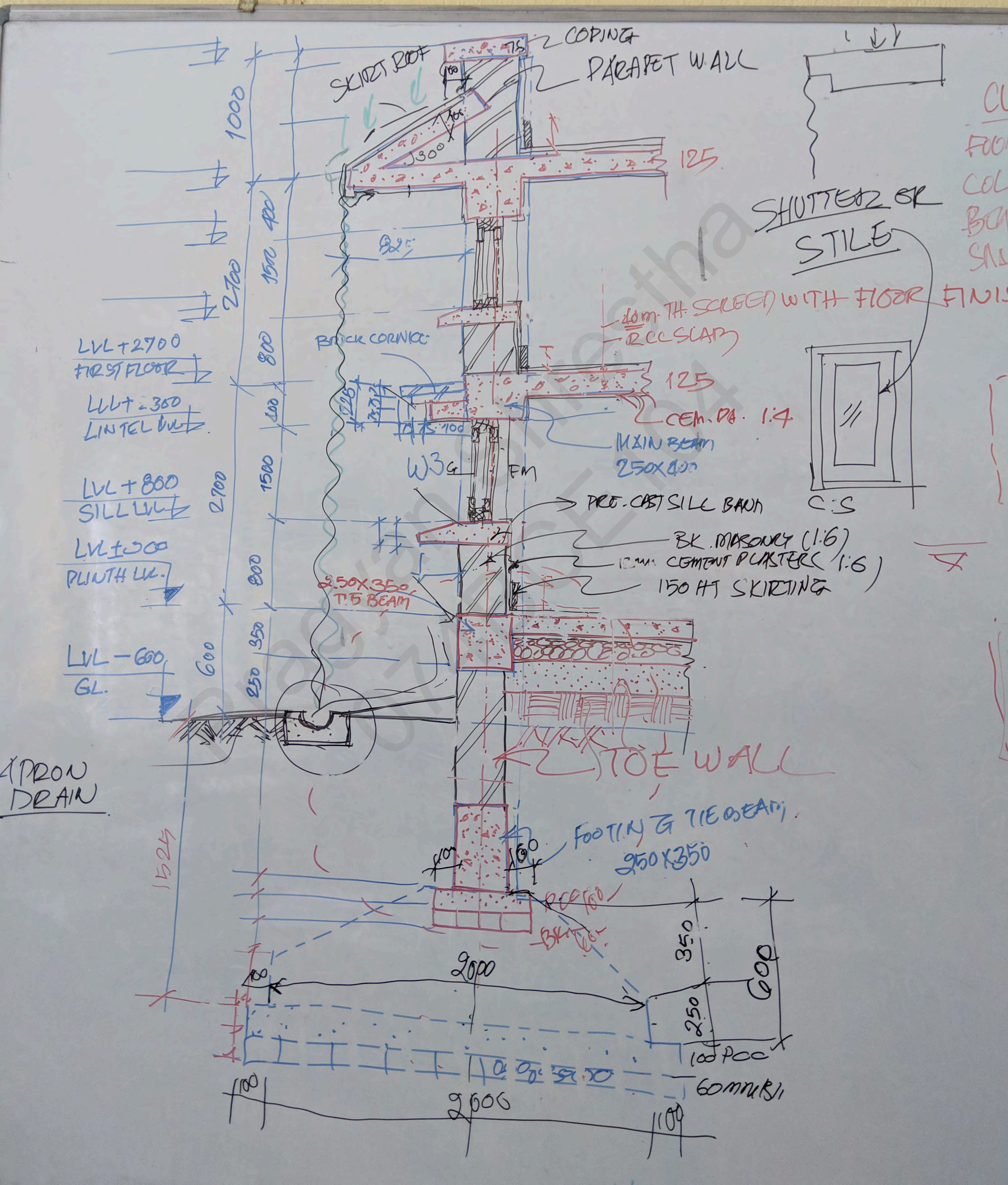
HANDRAIL (SS, MS, TIMBER

100X100 NEWEL POST

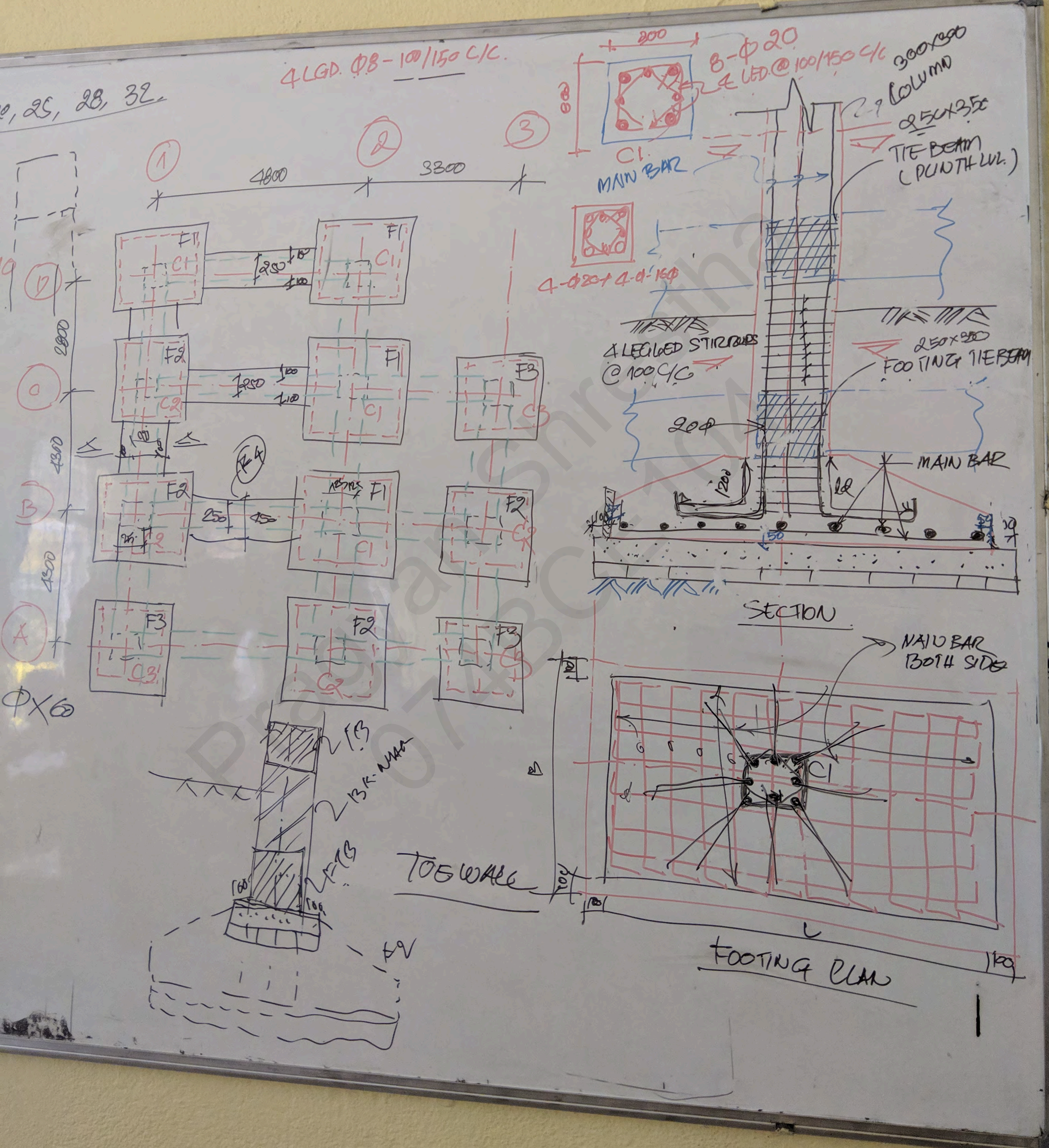
800-100







COPING
PARAPET WALL
SKIRT ROOF
1000
2700
400
1500
825
125
SHUTTER OR
STILE
40m TH SCREED WITH FLOOR FINIS
RCC SLAB
BRICK CORNICE
LVL +2700
FIRST FLOOR
125
CEM. PA. 1:4
LVL +2300
LINTEL LVL
MAIN BEAM
250X400
W3
FM
C:S
LVL +800
SILL LVL
2700
800
PRE-CAST SILL BAND
BK. MASONRY (1:6)
CEMENT PLASTER (1:6)
150 HT SKIRTING
LVL ±000
PLINTH LVL.
250X350
T.B BEAM
LVL −600
GL.
600
350
250
APRON
DRAIN
TOE WALL
1524
FOOTING G TIE BEAM
250X350
100
PCC 100
2000
350
600
250
100 PCC
60mm RBL
100
2000
100



, 25, 28, 32.
4LGD. Φ8-100/150 C/C.
1
2
3
4800
3300
F1
C1
250
100
F2
C2
F3
C3
2800
4300
D
C
B
A
F4
250
450
ΦX60
200
8-Φ20
4 LGD.@ 100/150 C/C
C1.
MAIN BAR
4-Φ20+4-Φ16Φ
300X300
COLUMN
250X350
TIE BEAM
(PLINTH LVL.)
4 LEGGED STIRRUPS
@ 100 C/C
250X350
FOOTING TIEBEAM
20Φ
1200
MAIN BAR
50
SECTION
MAIN BAR
BOTH SIDE
C1
L
100
FOOTING PLAN
TOE WALL
100

WORKING DRAWING

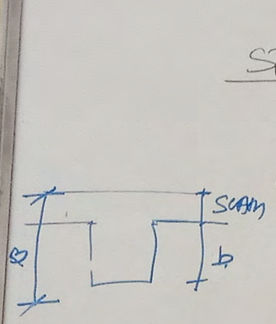
STRUCTURE PARTS

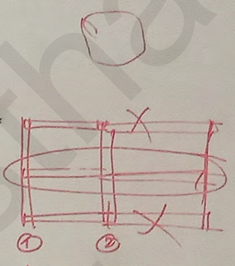
SCALE 1:50

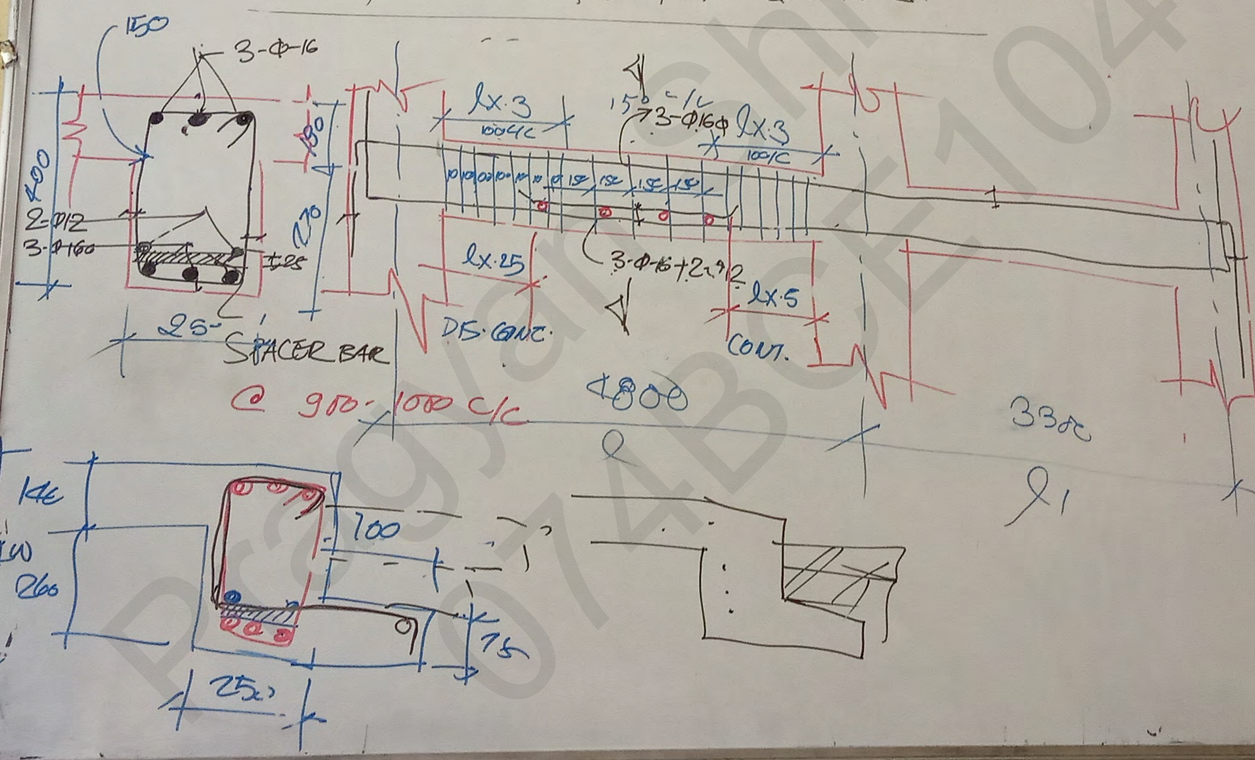
1.) TRENCH PLAN
2.) FOUNDATION PLAN & SECTIONS
3.) COLUMN PLAN & DETAILS 1:20, (1:10)
4.) LONGITUDINAL BEAM & DETAILS
5.) SLAB PLAN & SECTION DETAILS
6.) STAIR-CASE PLAN & DETAILS

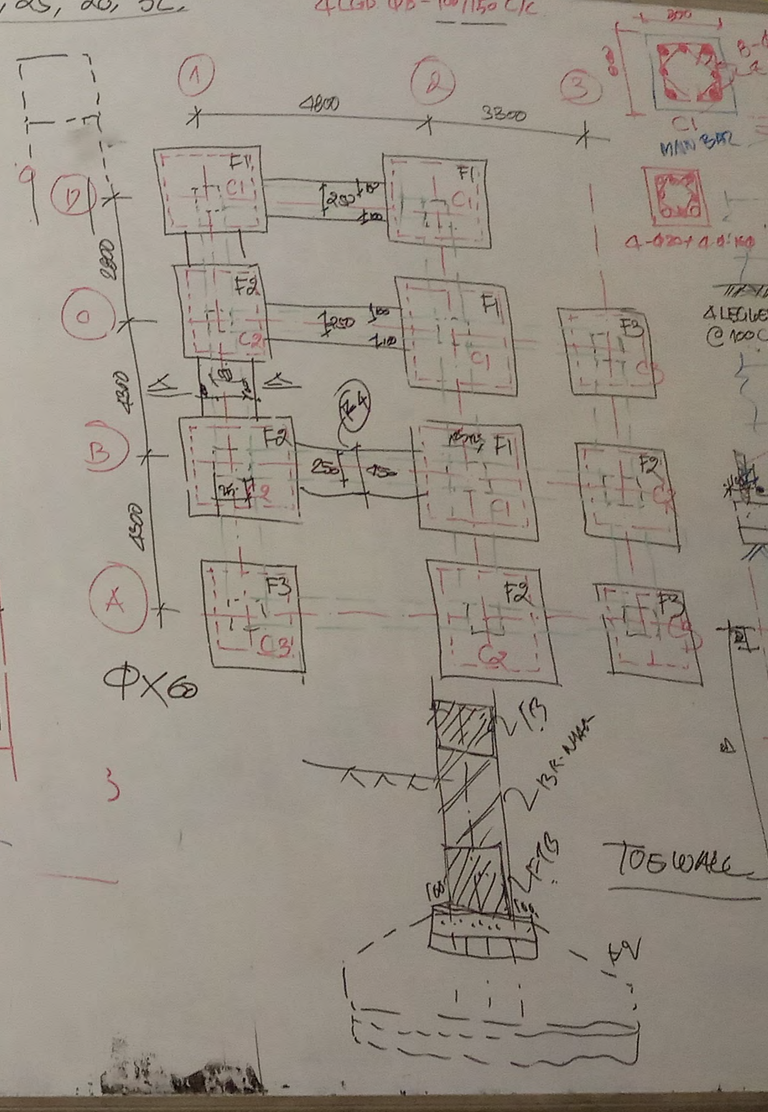
ROD SIZE Φ
(4TS, 6, 7, 8, 10, 12, 16, 20, 25, 28, 32.

4 LEGD Φ8 - 100/150 C/C







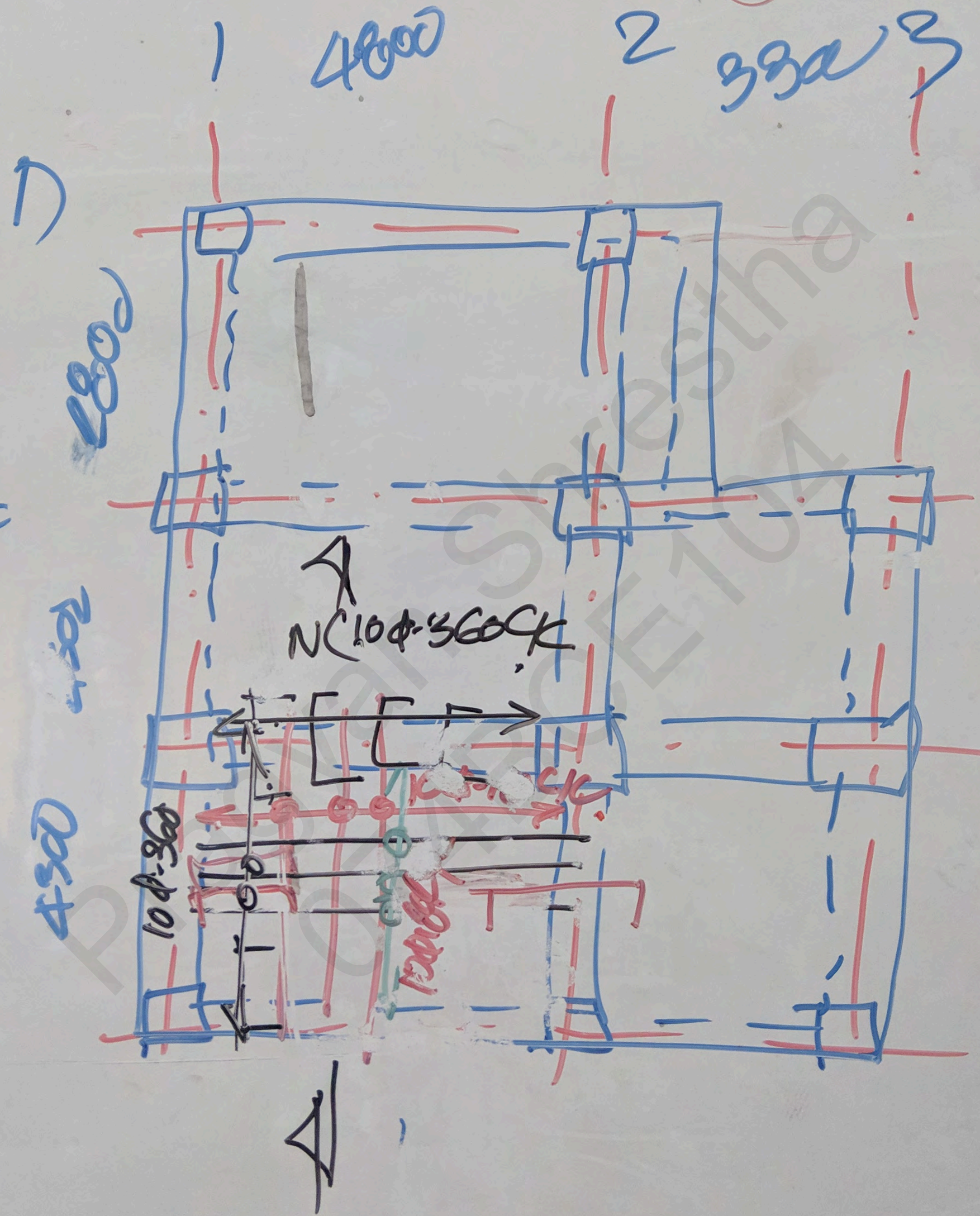


2019/06/27 15:30

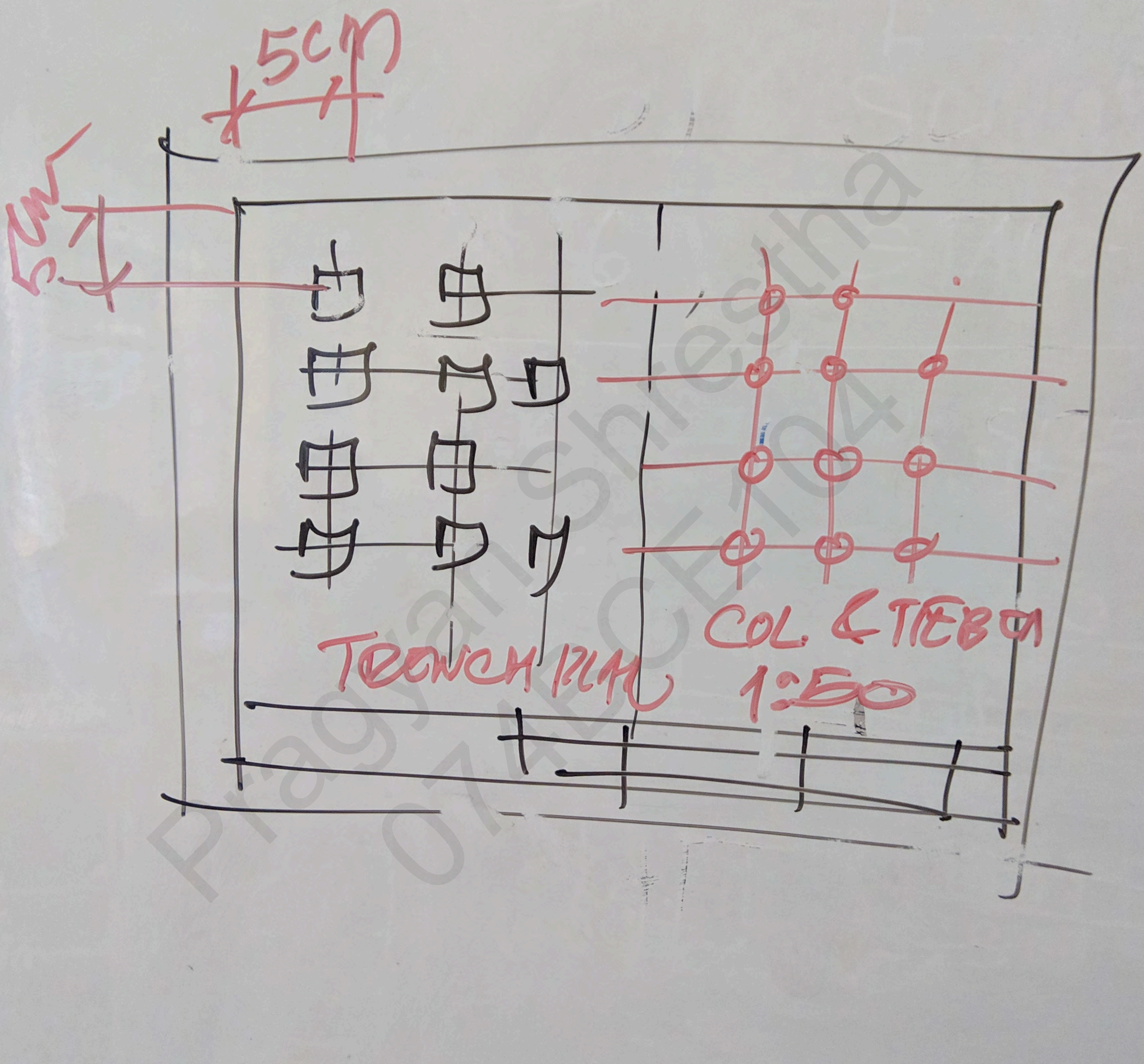
DRAWING

ROD SIZE ϕ

4.75, 6, 7, 8, 10, 1



SUPPORT SIGN = NEGATIVE



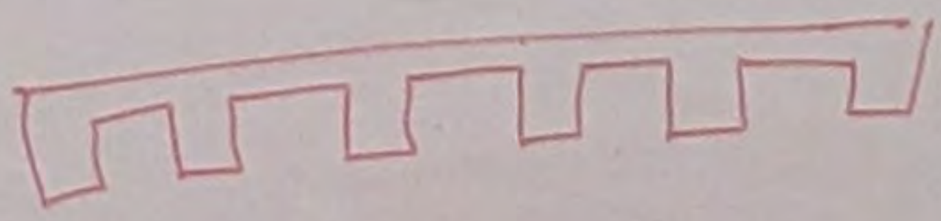
SLAB

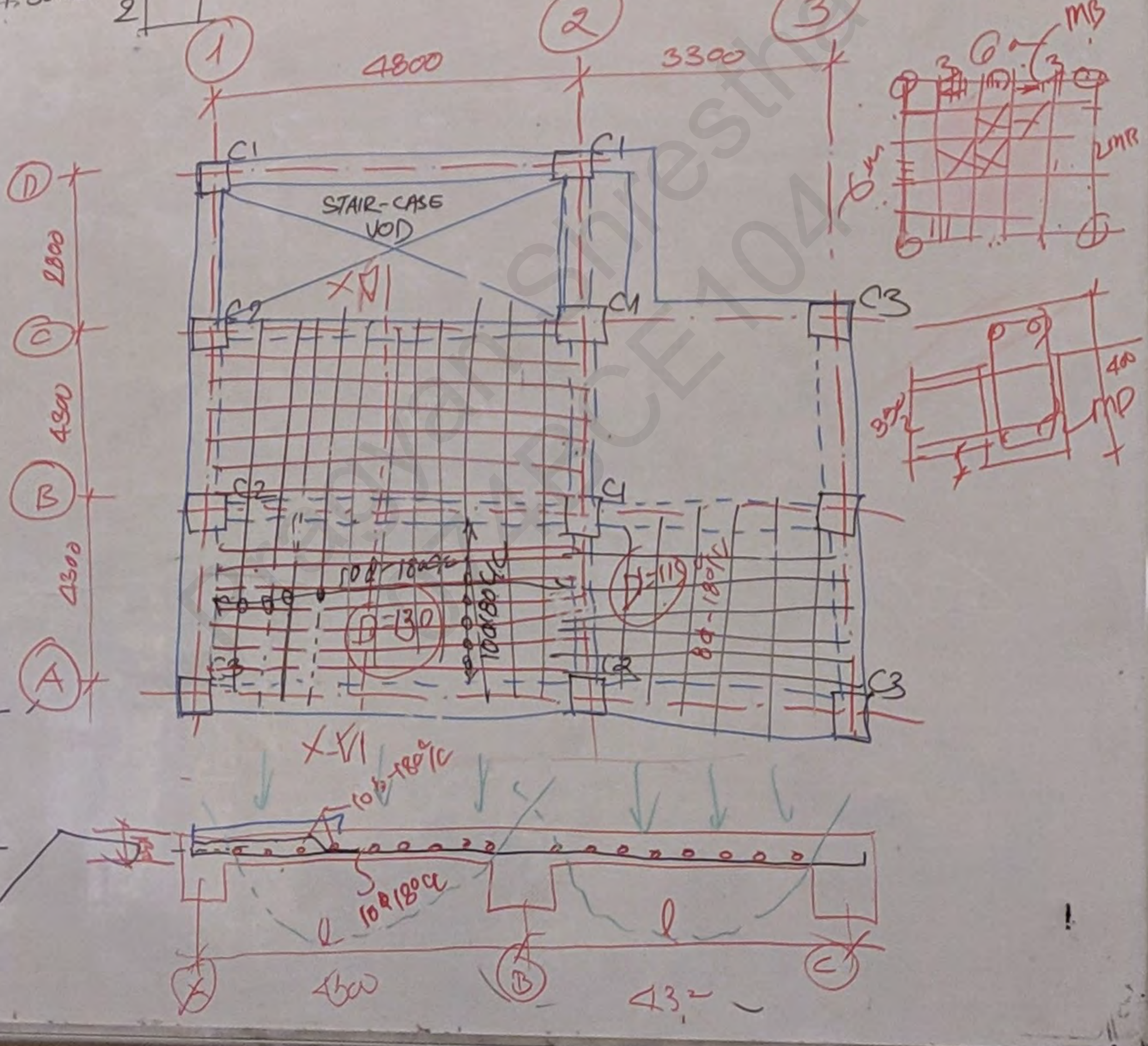
RT SPAN : MAIN BAR

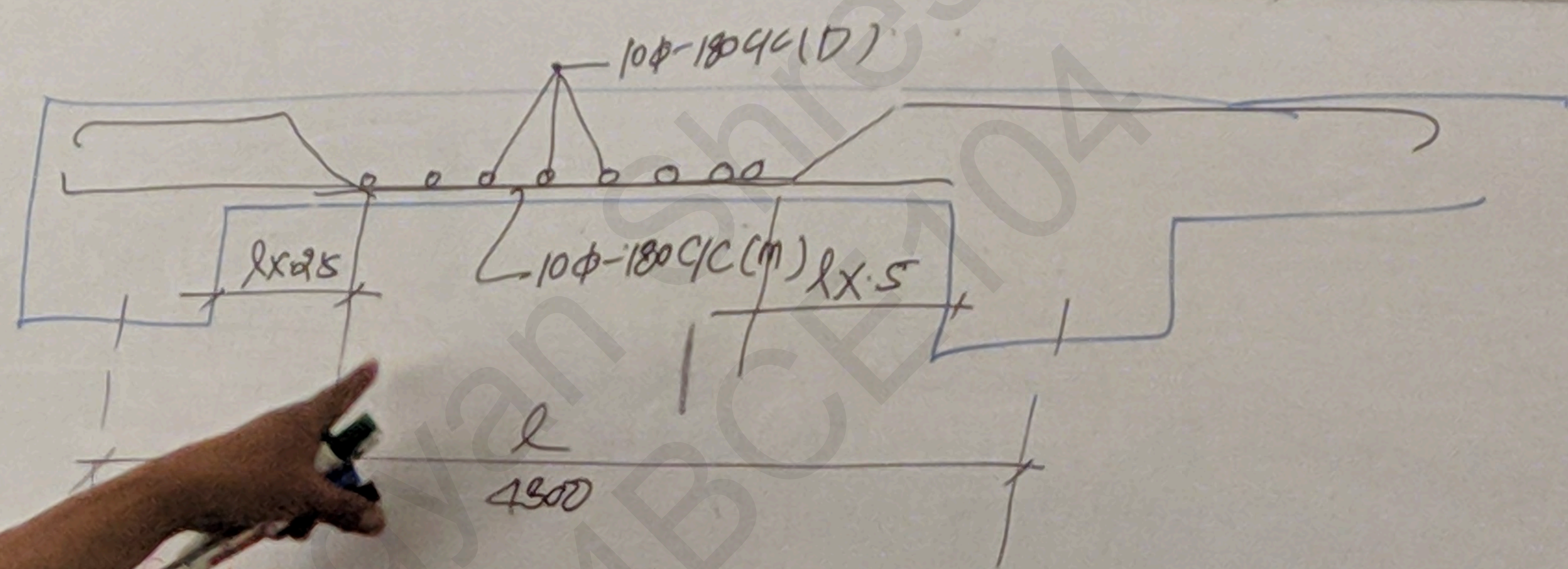
G SPAN : DISTRIBUTION BAR

WAY SLAB - 1

WAY SLAB -







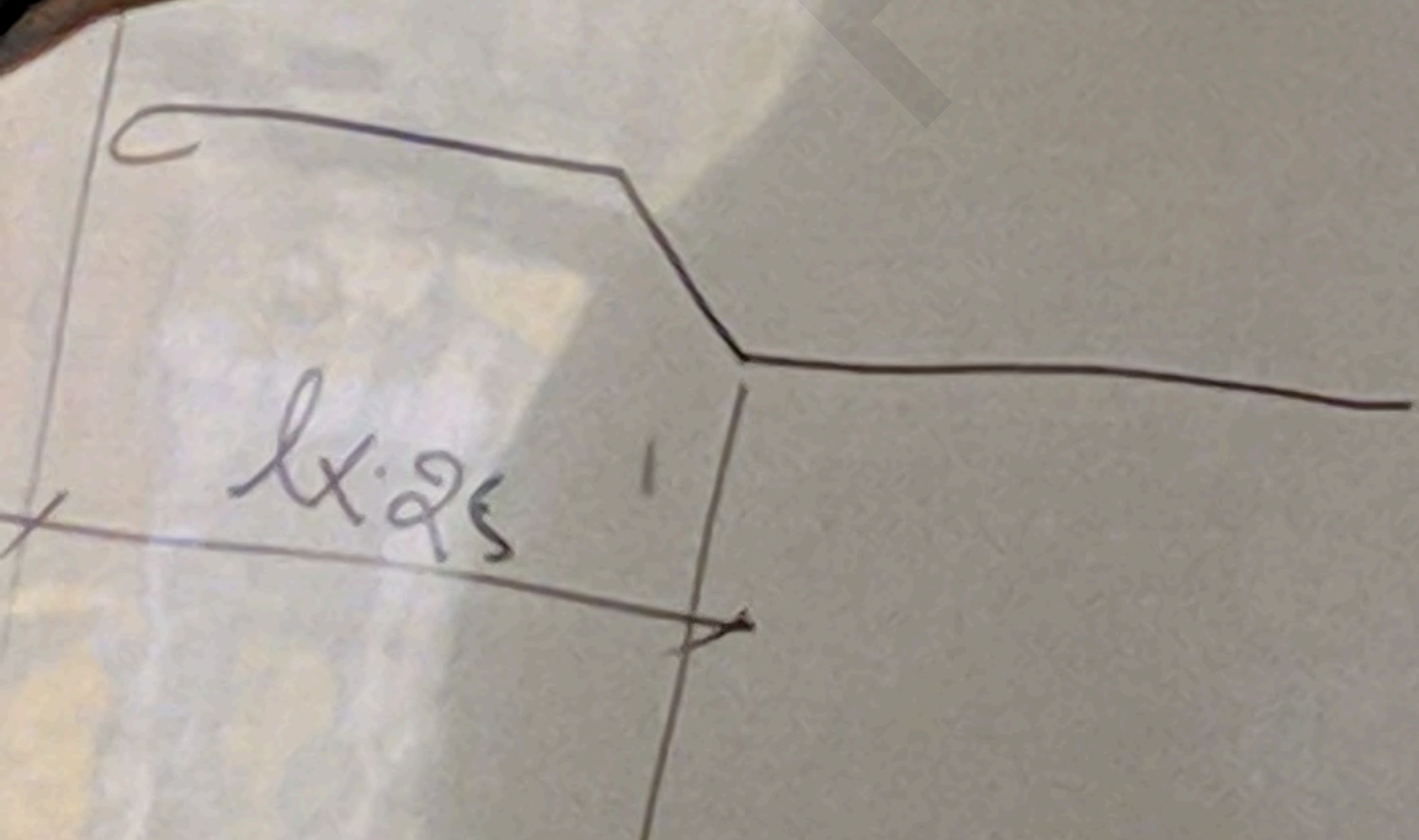
ON DETAILS — SECTION FOOTING
— FOOTING PLAN
— " SECTION : F2

1:30

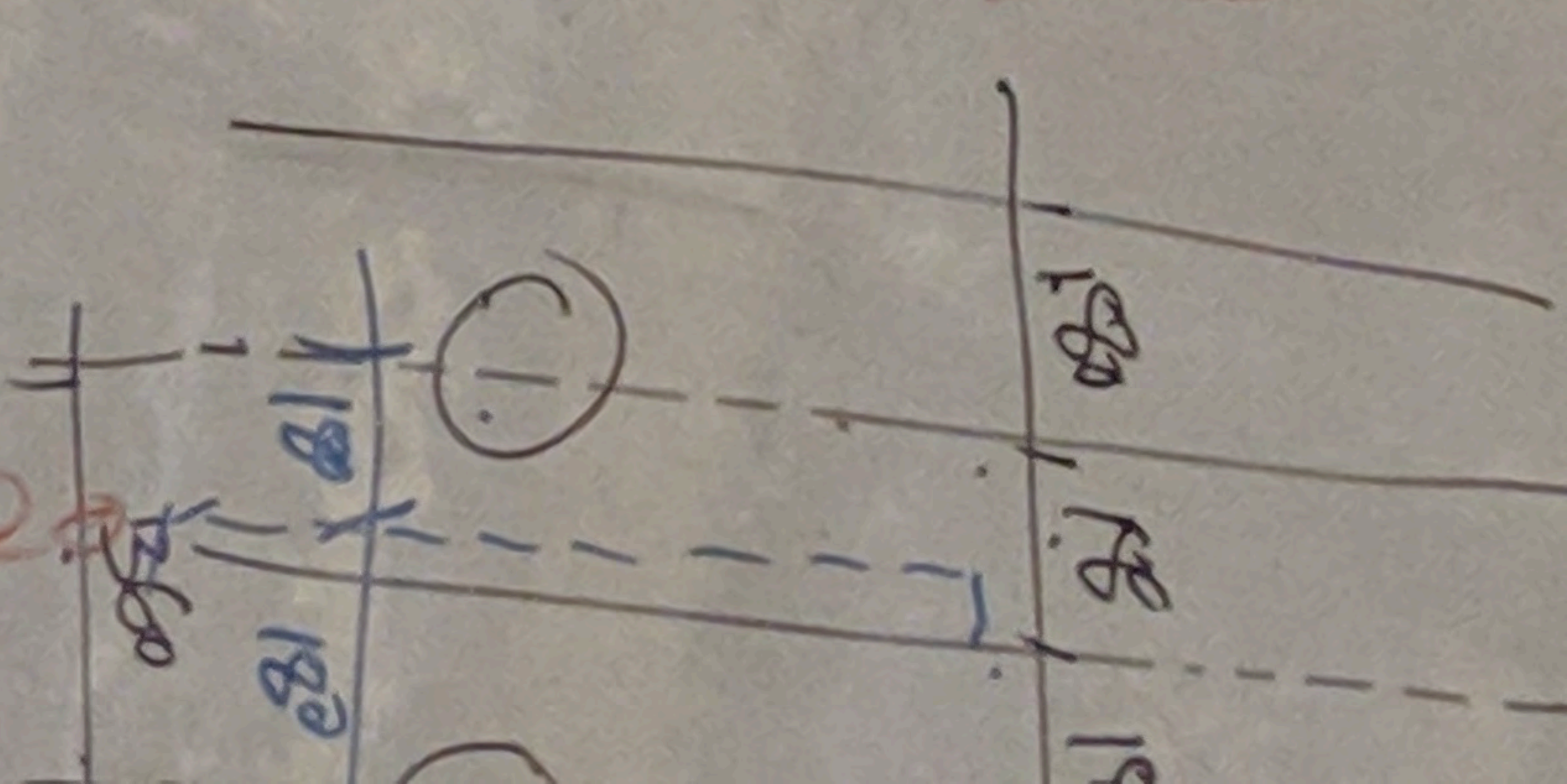
— COLUMN PLAN (C_1, C_2 C_3) → 1:10

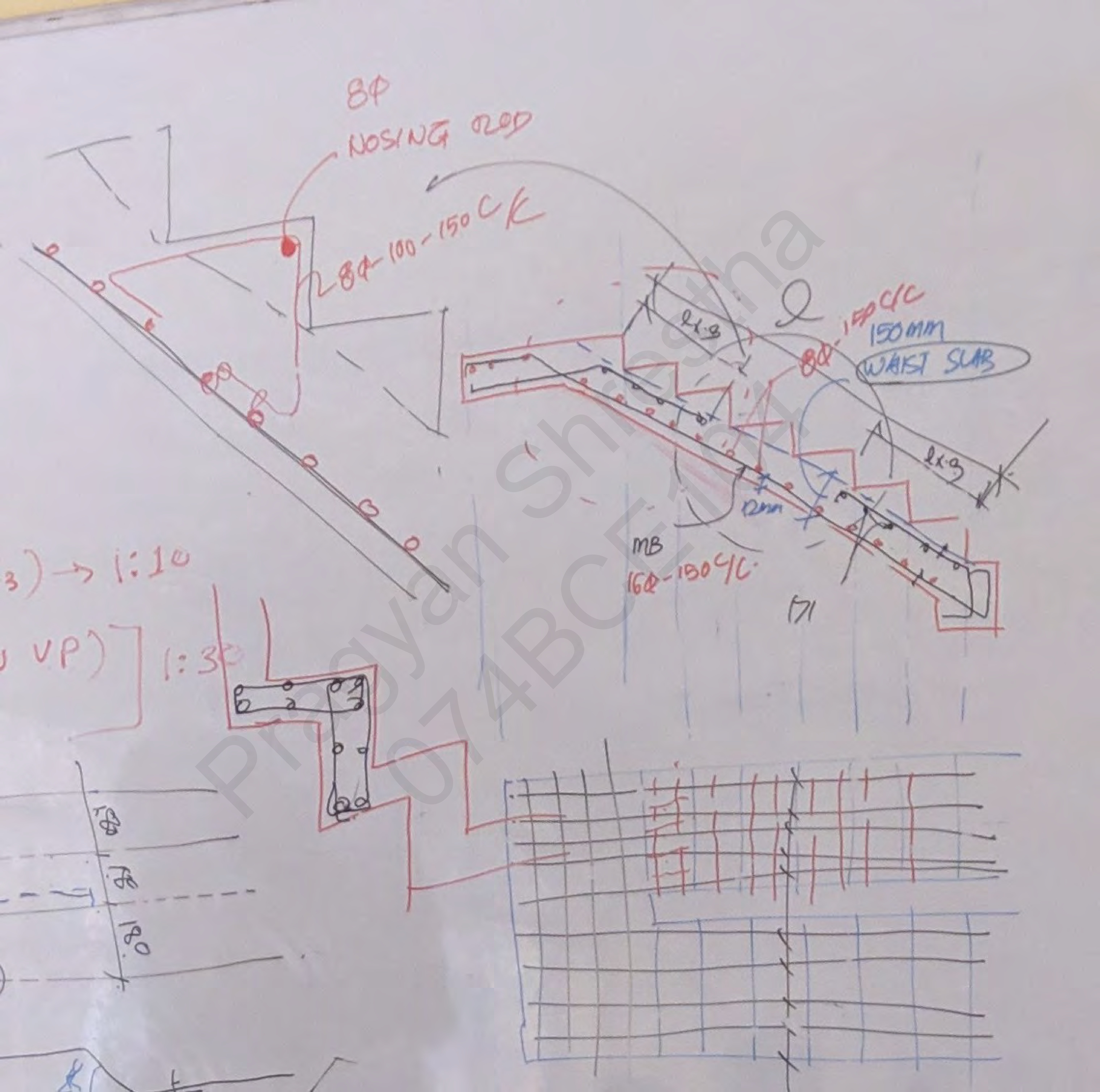
— STAIR PLAN (BLOW UP)
— SECTION m-m

1:



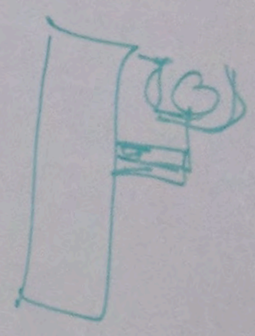
(5) - SLAB PLAN (1:50)
- SLAB SECTION — FRAME 1-F2 — 1:20
- SLAB [SUPPORT SECTION / MID] 1:10
- BEAM





ELECTRICAL LEGENDS

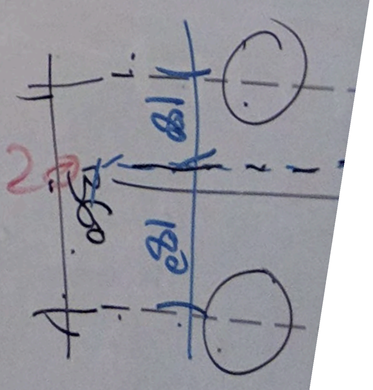
1. — MAIN DISTRIBUTION BOARD
2. — SUB " "
3. — ONE GANG / GANG SWITCH
4. — TWO WAY SWITCH
5. — TUBE LIGHT
6. — WALL BRACKET
7. — DOME LIGHT
8. — TELEPHONE
9. — 16 AMP. 3 PIN POWER SOCKET
10. — DECORATNE (JHUMER) LIGHT
11. — CONDUIT CONCELLED INSIDE SLAB
12. 1 L2 — LIGHT CIRCUIT #1, SWITCH #2
13. — TV.



LAN L1, 2 C3

AN (BLOW

m-m 1:10



1:2

TO

=1:20

27

1:1

CALCULATE THE PERMISSIBLE HEIGHT OF A BLDG WITH 2M SETBACK & 9 M RIGHT OF WAY

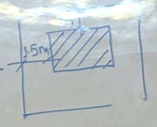
CALCULATE THE PERMISSIBLE TOTAL NO. OF FLOORS FOR A RESIDENTIAL BLDG BUILT IN A SITE OF 12 ANNA THE GROUND COVERAGE IS 45% OF THE TOTAL SITE AREA

GIVEN / FAR = 1.5
PLOT AREA = 180 sq. m.
Max^m ground coverage = 50% OF PLOT AREA

PERMISIBLE BUILT UP AREA = 2H = HT. OF BLDG
a = WIDTH OF ROAD (ROW)
b = SET BACK

BY-LAWS

① SET BACK
- 1.5 M FROM ROAD EDGE & OTHERS SITE

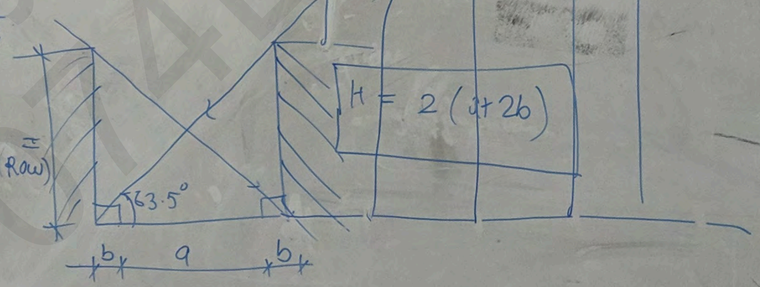


② GROUND COVERAGE (%)
- AREA COVERED BY BUILT UP SPACE IN G.F
- 60% / 40% / 80% etc

③ ROW (RIGHT OF WAY)
- DISTANCE FROM CENTRE OF ROAD / RIVER / HIGHWAY ETC.
- DEPENDS UP ON ZONE

④ FAR (FLOOR AREA RATIO) = TOTAL FLOOR AREA OF BLDG / TOTAL " " PLOT (SITE)
(VARY ACCORDING TO ZONE)

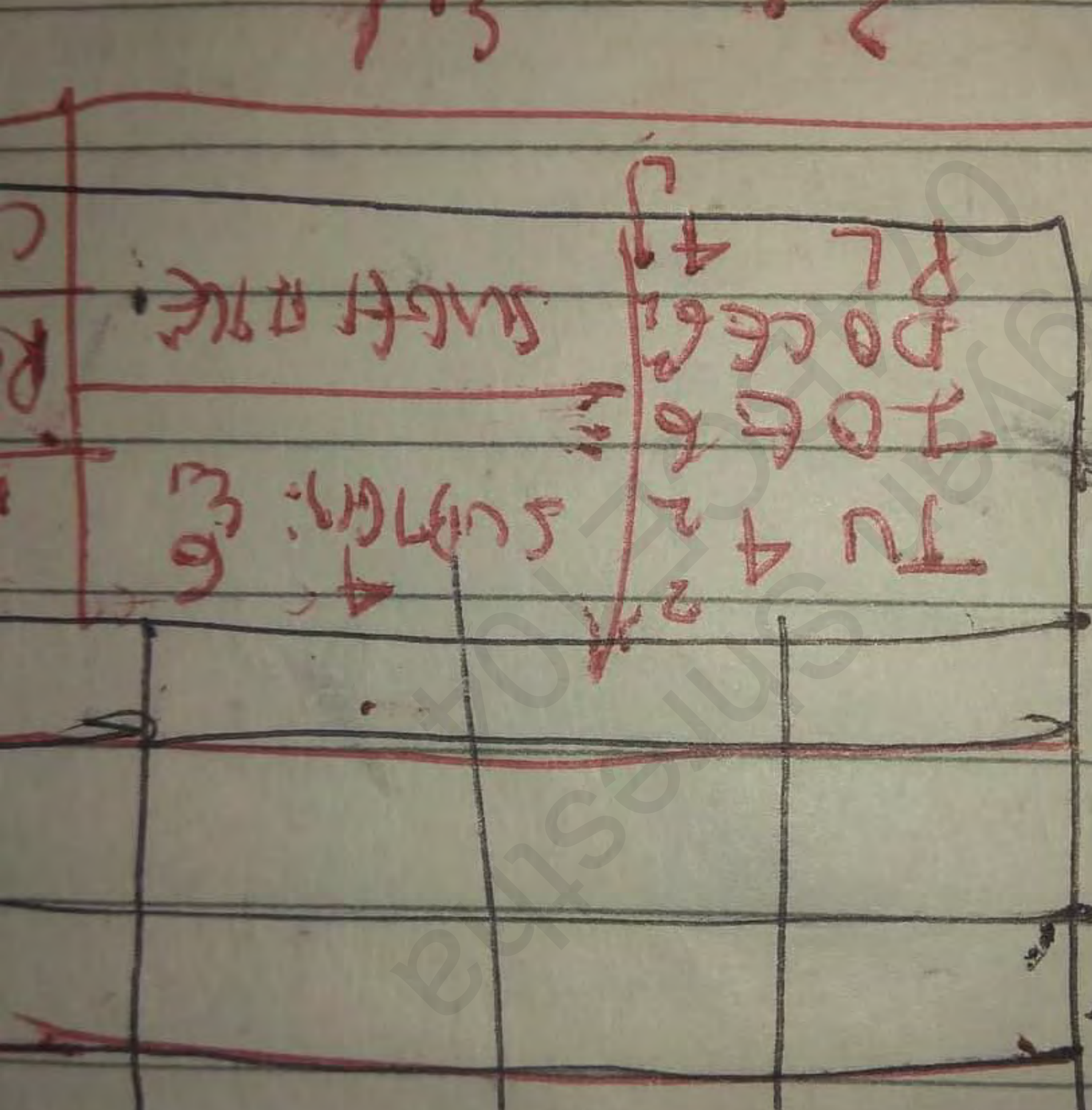
⑤ LIGHT PLANE

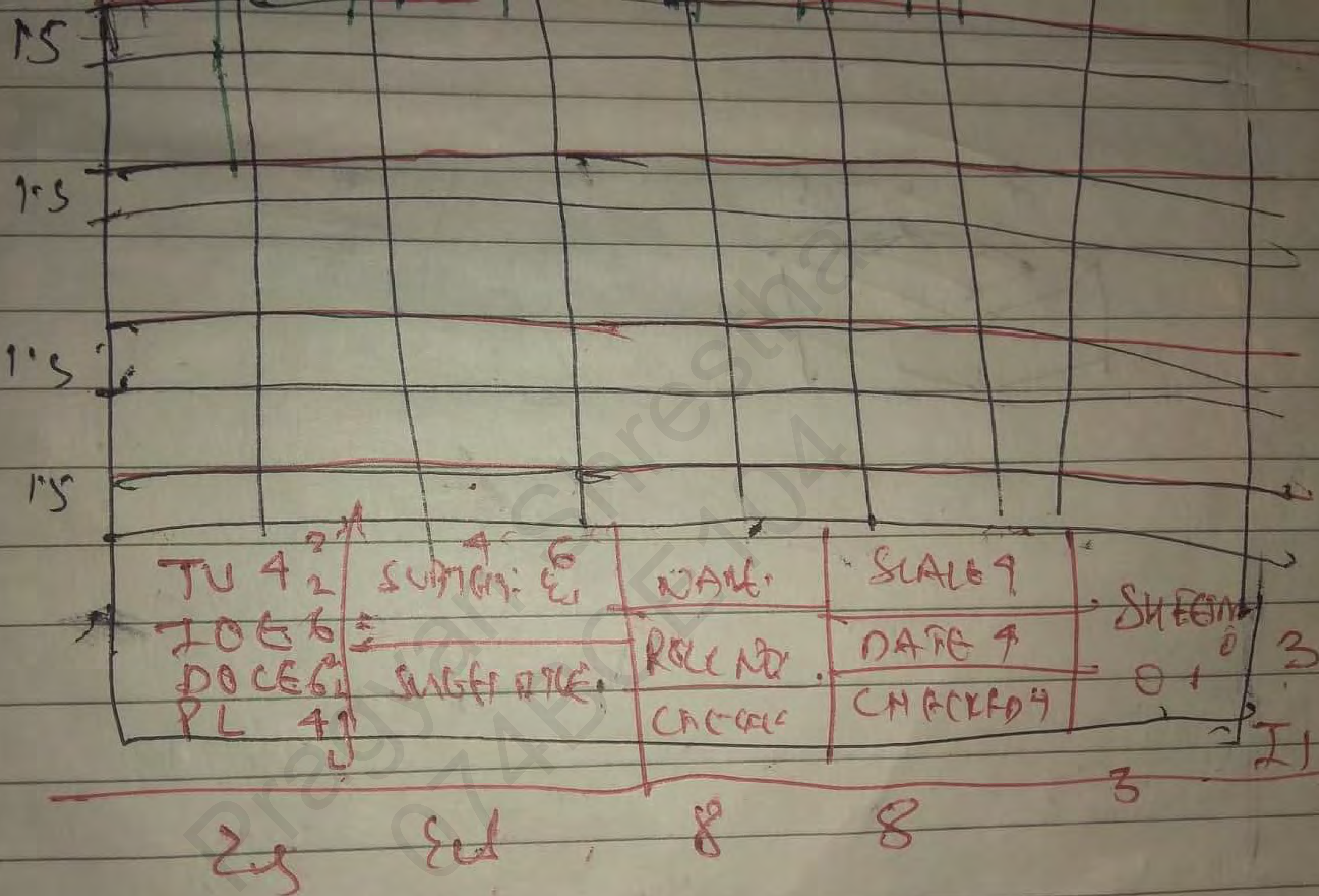


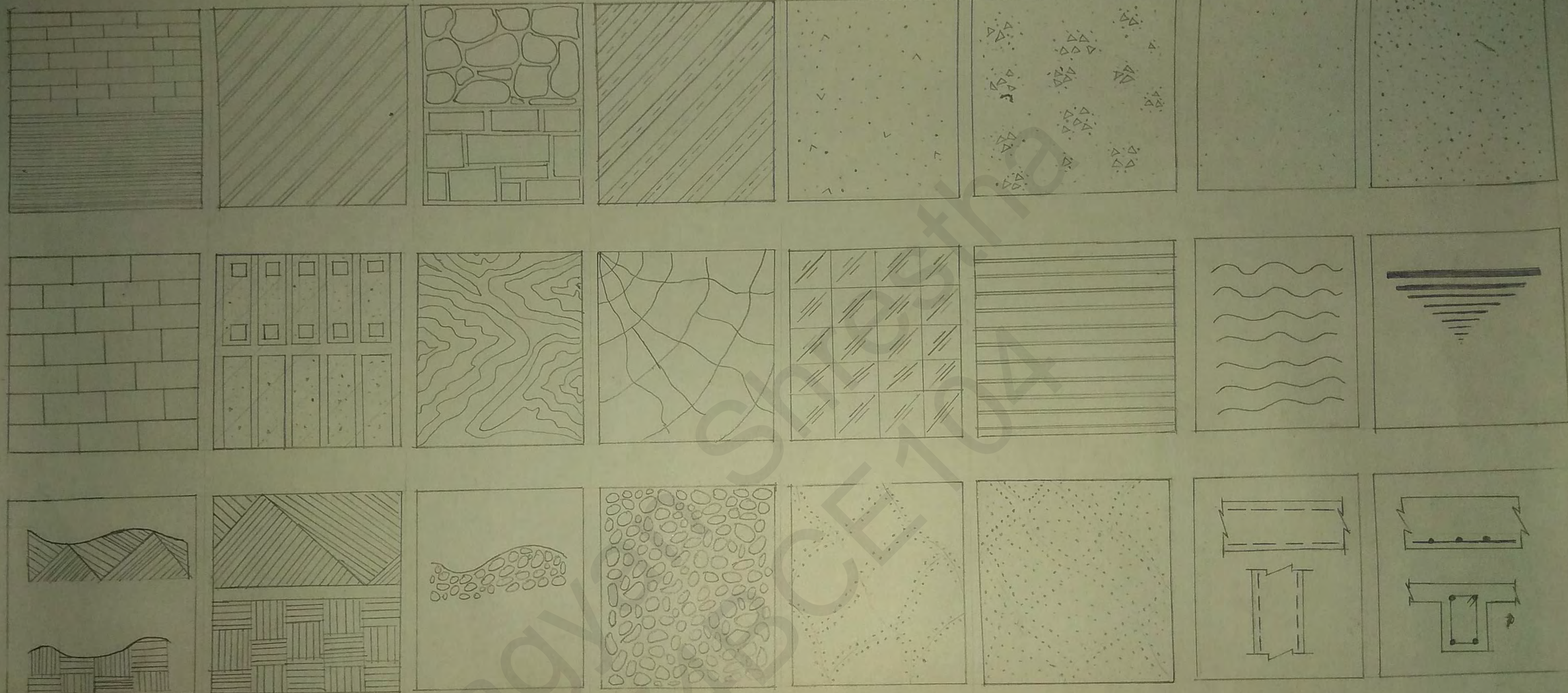
RECENT UPDATES AFTER EARTHQUAKE

- MIN^M COLUMN SIZE = 12" x 12"
- " ROAD WIDTH = 6M
- DOUBLE TIE BEAM MANDATORY (SILL/LINTEL WALL BANDS)
- MIN^M SET BACK 1.5M FROM NEIGHBOUR SITE
- BOUNDARY WALL HT. UP TO 4'-0" ONLY
- 30% OPEN SPACE FOR - RESIDENTS
  50% " " " - PUBLIC BLG
- MIN^M PLOT SIZE = 4 AANA
  [FRONT FACE - 20'-0"]

i.e. 1 / 1.3 / 1.5 (NUMBERS)




1.5
1.5
1.5
1.5
TU 4
IOE 6
DOCE 6
PL 4
NAME
ROLL NO.
SCALE
DATE
CHECKED
8
8
3



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