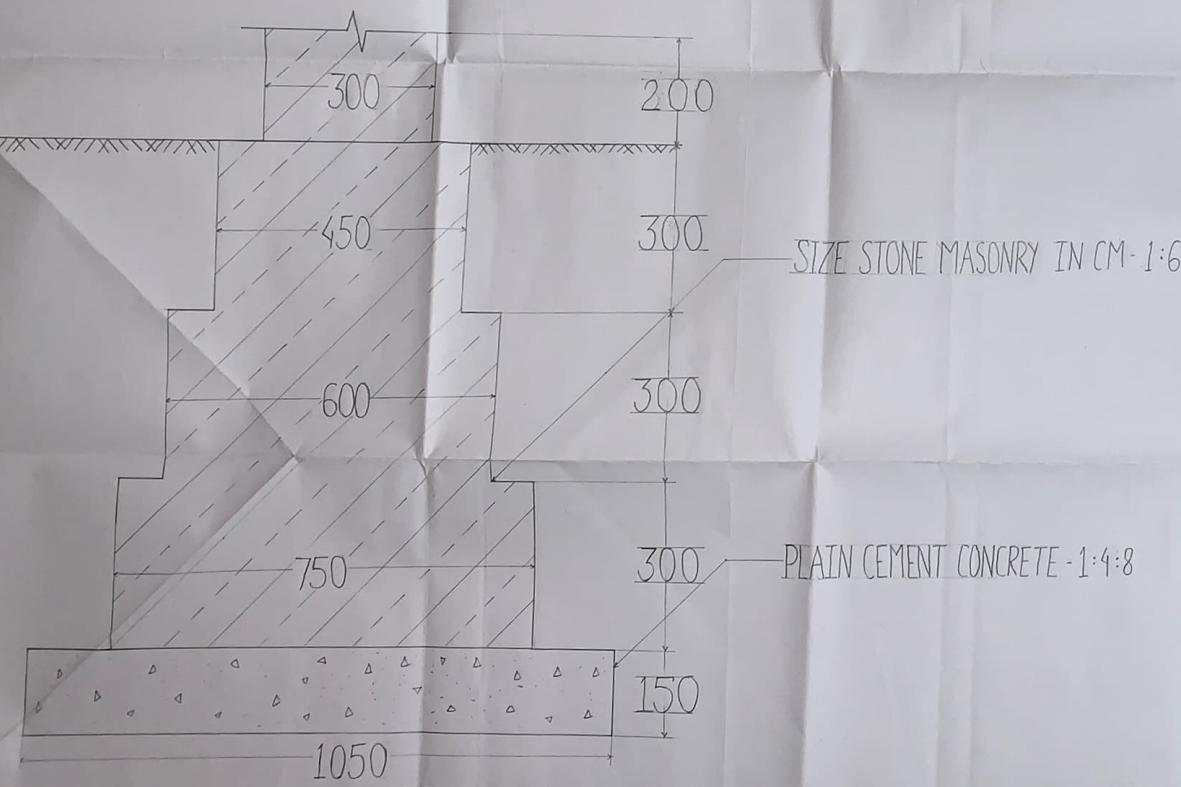


WALL FOOTING



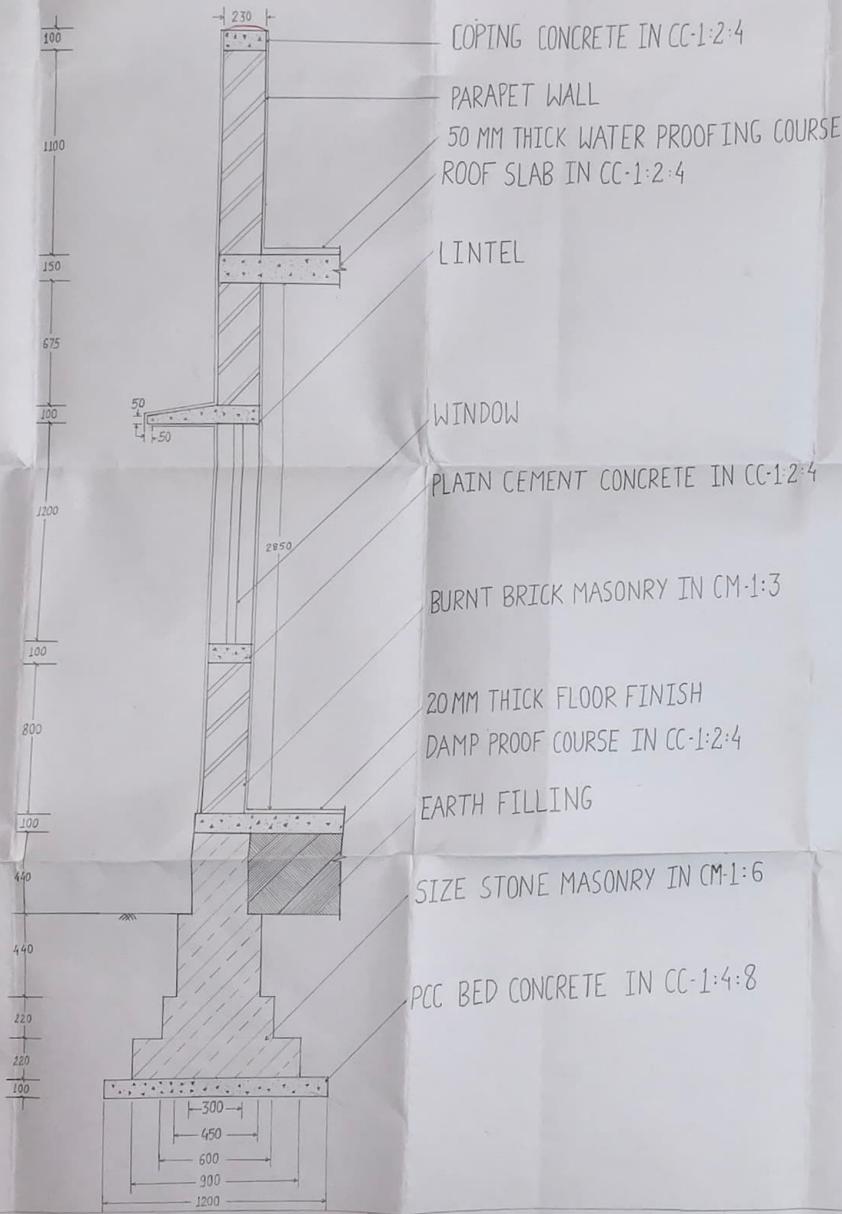
SIZE STONE MASONRY IN CM - 1:6

PLAIN CEMENT CONCRETE - 1:4:8

ALL DIMENSIONS IN MM

TITLE	WALL FOOTING
SCALE	1 : 5
DWG NO	BMS/BPD/4D/JBM20CV193/D1
DATE	01 - 06 - 2022
SIGN	 A 4/6/22

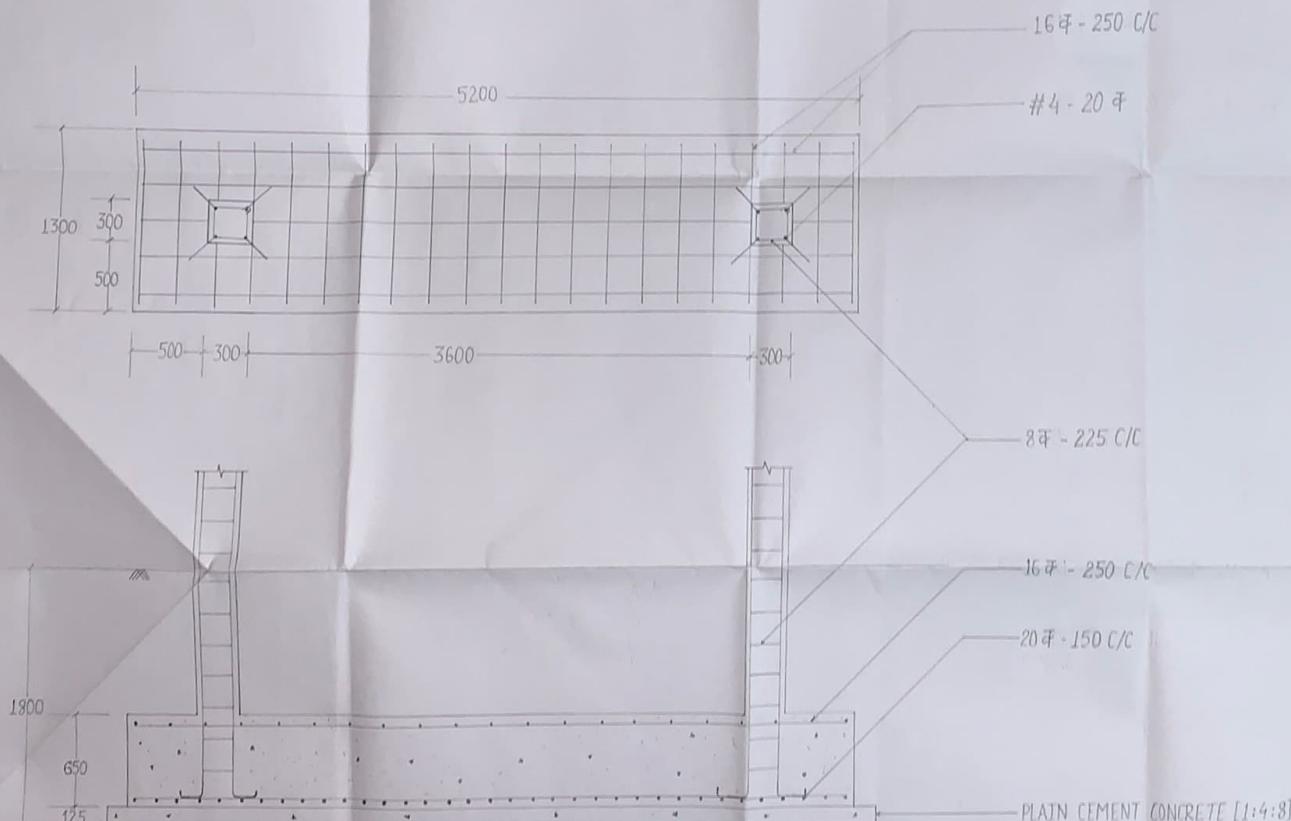
CROSS SECTION OF WALL FOOTING



ALL DIMENSIONS IN MM	
TITLE	CROSS SECTION OF WALL FOOTING
SCALE	1 : 15
DWG NO	BMS/BPD/4D/IBM20CV193/D2
DATE	04-06-2022
SIGN	

COMBINED RCC FOOTING

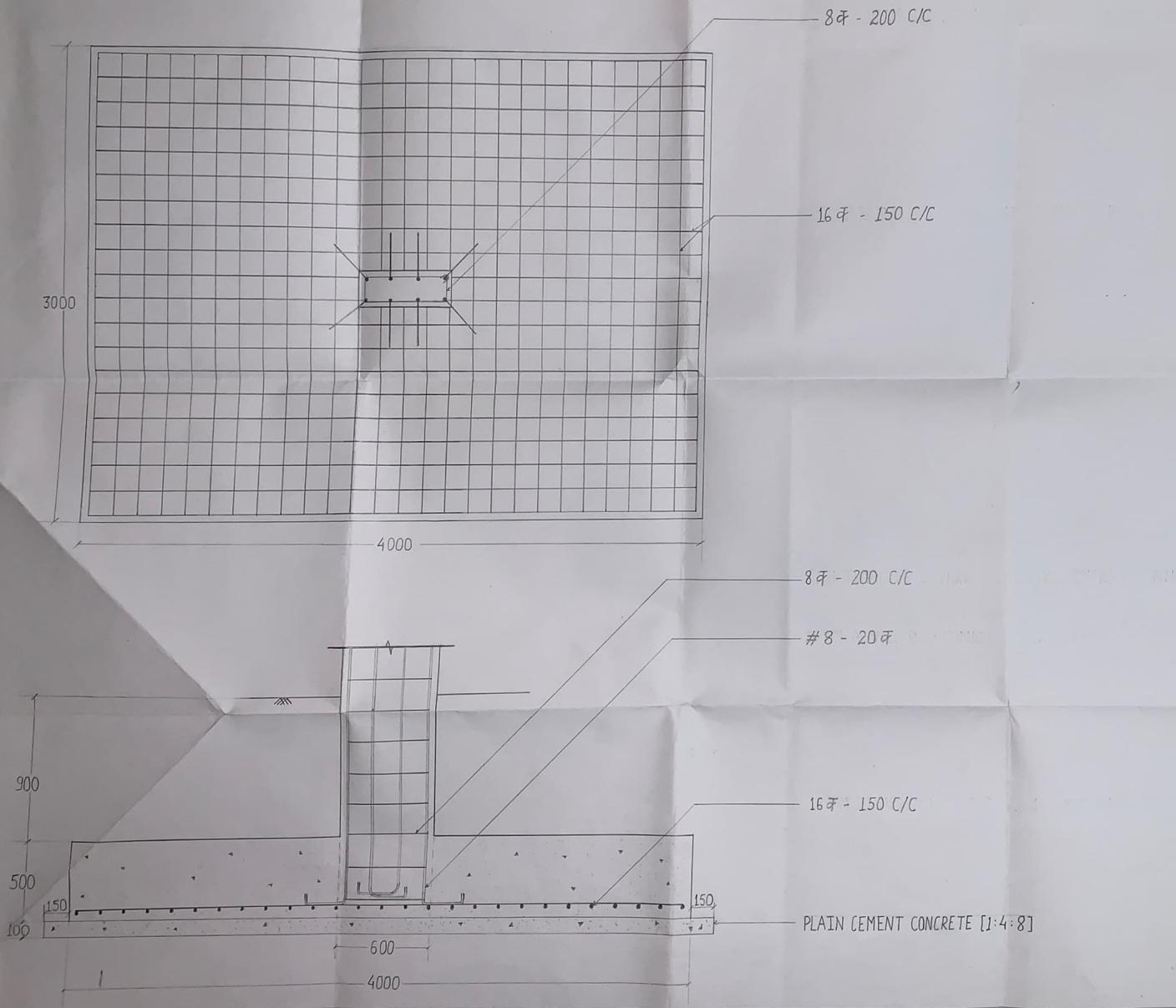
Q2 Two interior columns A and B carry some load 1000kN each with column size of 300 mm x 300 mm in section reinforced with 4 numbers of 20 mm dia HYSO bars together with 8mm dia stirrups @ 225 mm C/C Size of footing 5200 x 1300mm projections from column face is 500 mm in any direction considered. The footing slab cantilevering HYSO bars @ 150 mm C/C both ways and top mat comprises of 16 mm dia HYSO bars @ 250 mm C/C both ways. Thickness of PCC is 125 mm. Depth of foundation below ground level is 1800 mm.



ALL DIMENSIONS IN MM	
TITLE	COMBINED FOOTING
SCALE	1:20
DWG NO	BMS/BPD/4D/JBM20CV193/93
DATE	08/06/2022
SIGN	

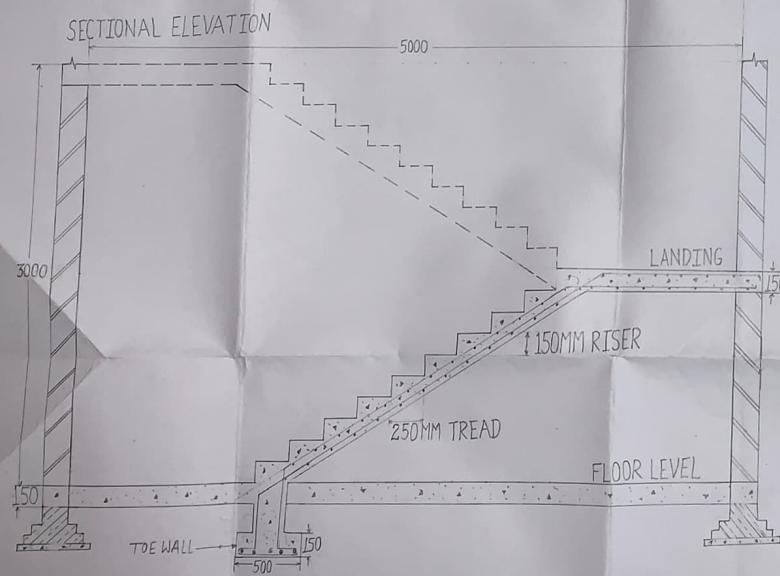
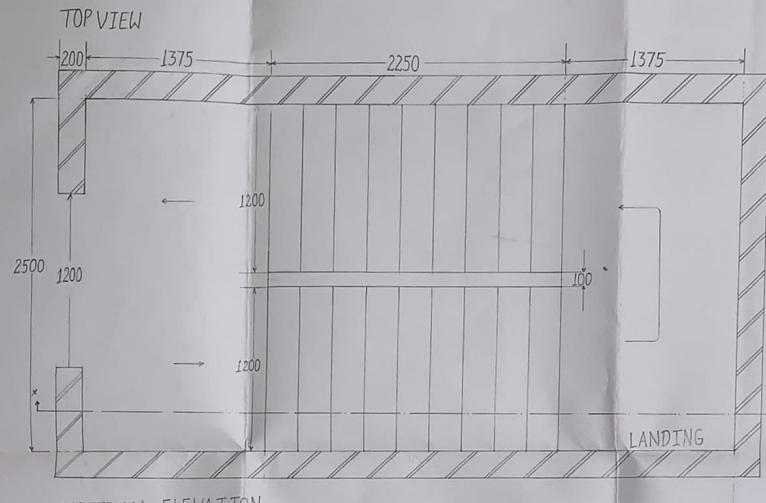
ISOLATED RCC FOOTING

1. Draw the working diagram for an isolated footing for a column size of 230mm x 600mm reinforced with 8 numbers of 20mm dia HSSD bars together with 8 mm dia stirrups @ 200 mm C/C size of footing 4000 x 3000 mm with the thickness of footing depth 500 mm. The footing mat comprises of 16 mm dia HSSD bars @ 150 mm C/C both ways. Thickness of PCC is 100 mm. Depth of foundation below Ground level is 1500 mm.



ALL DIMENSIONS IN MM	
TITLE	ISOLATED FOOTING
SCALE	1:15
DWG NO	BMS/BPD/4D/IBM20CV193/94
DATE	08/06/2022
SIGN	

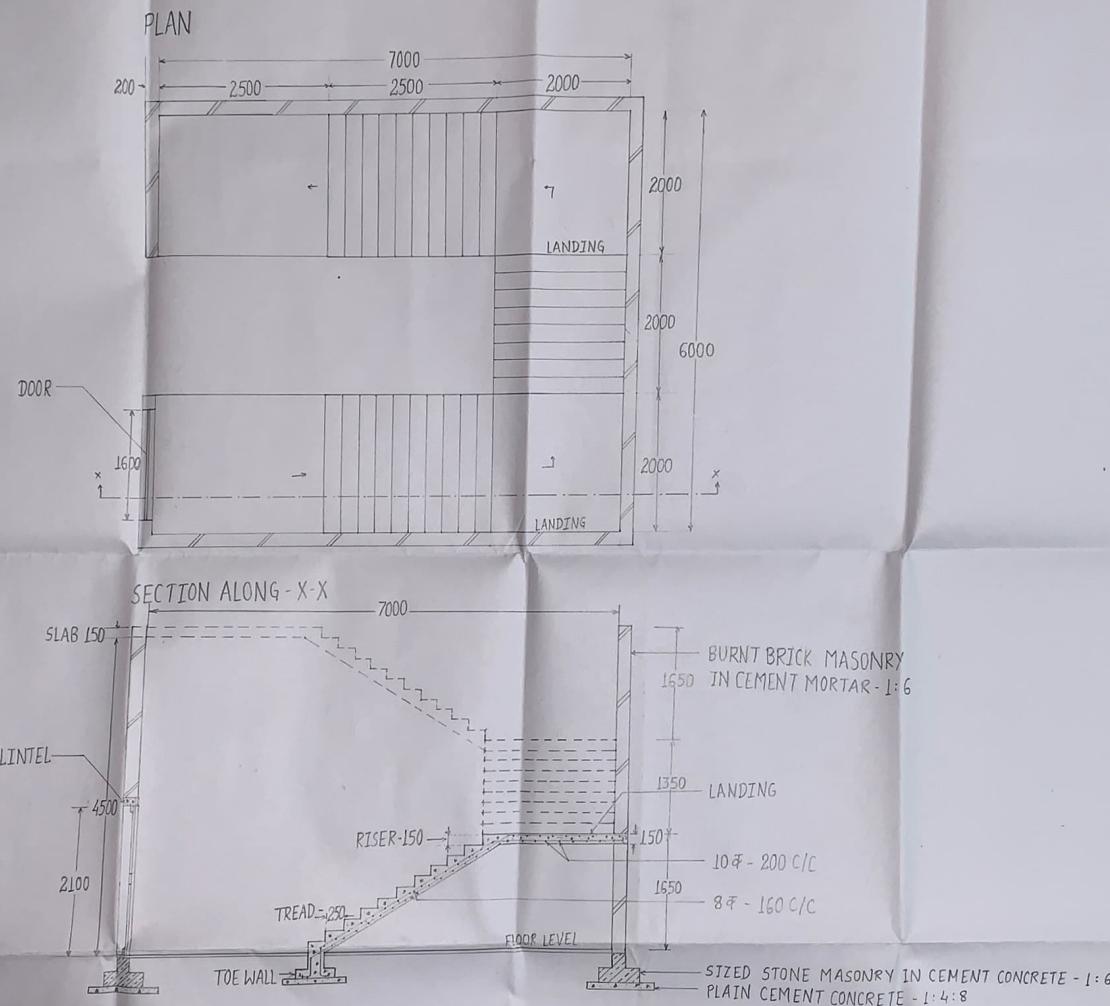
DOG LEGGED STAIRCASE



ALL DIMENSIONS IN MM	
TITLE	DOG LEGGED STAIRCASE
SCALE	1:20
DWG. NO	BMS/BPD/4D/JBM20CVJ93/D5
DATE	15/06/2022
SIGN	Chaitanya

OPEN WELL STAIRCASE

Q. The internal dimensions of a staircase room is 6m x 7m. Draw plan and sectional elevation of open well staircase taking floor to floor height as 4.5m. Assume any missing data.

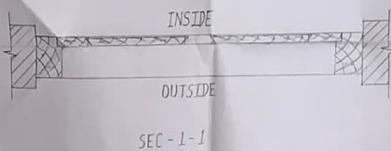
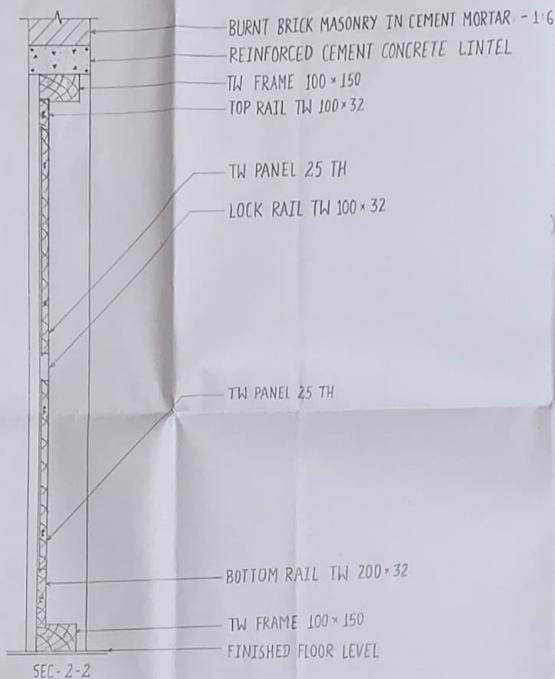
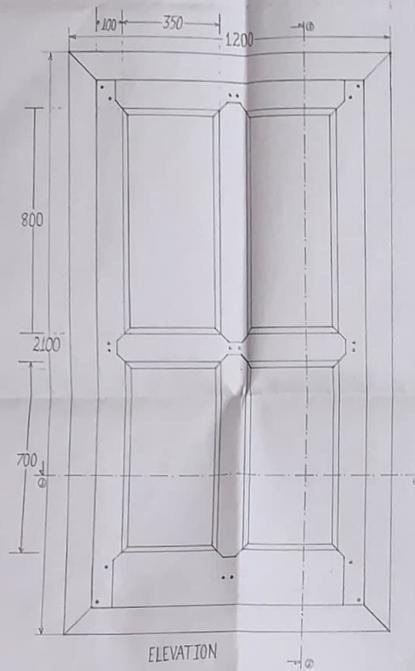


ALL DIMENSIONS IN MM

TITLE	OPEN WELL STAIRCASE
SCALE	1:40
DWG NO	BMS/BPD/4D/JBM20CVJ93/86
DATE	15/06/2022
SIGN	

TW FULLY PANELLLED DOOR

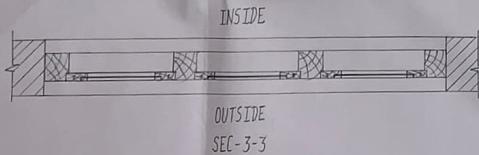
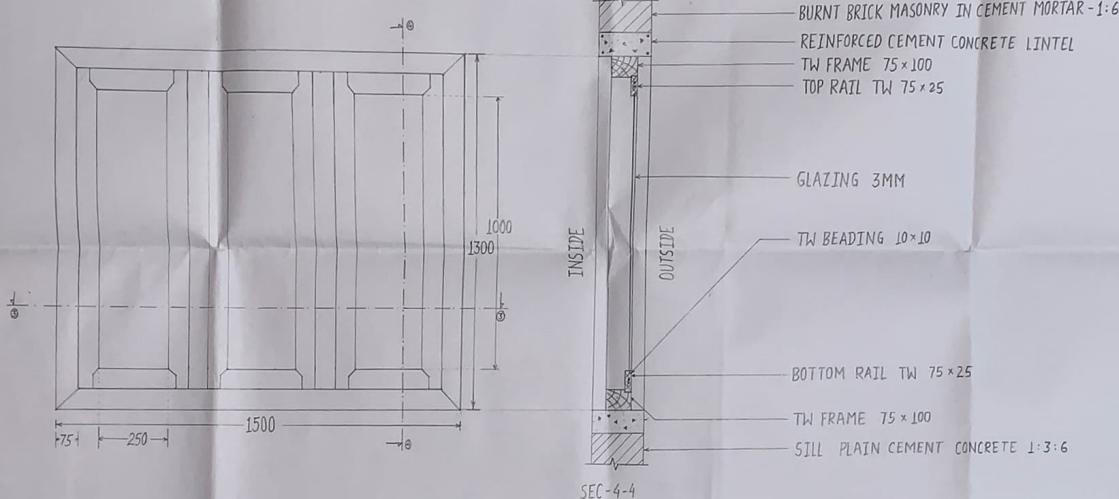
& Draw the front elevation and sectional plan view of a fully four panelled single shutter door of 1200x2100
TEAK WOOD (TW)

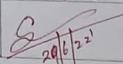


TITLE	FULLY PANELLLED DOOR
SCALE	1:10
DWG NO	BMS/BPD/4D/1BM20CVJ93/D7
DATE	22/06/2022
SIGN	

TW FULLY GLAZED WINDOW

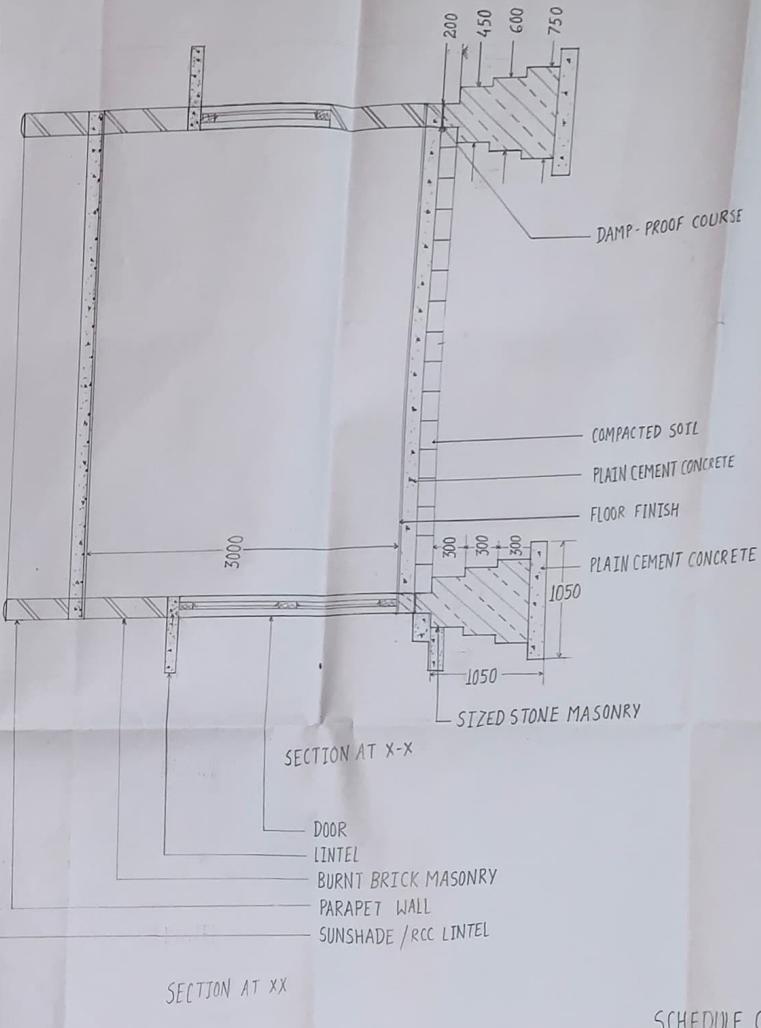
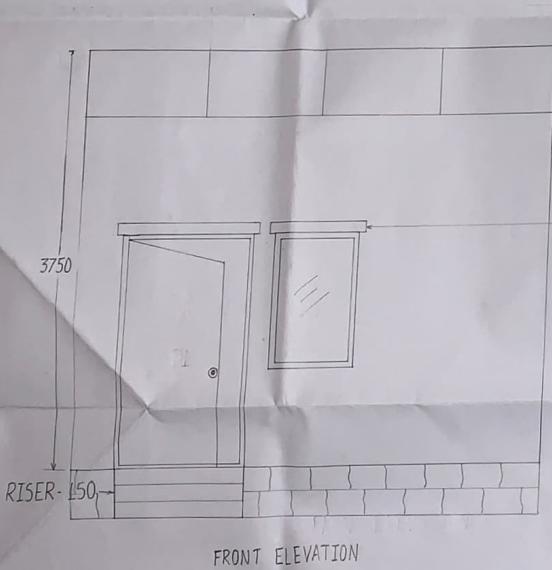
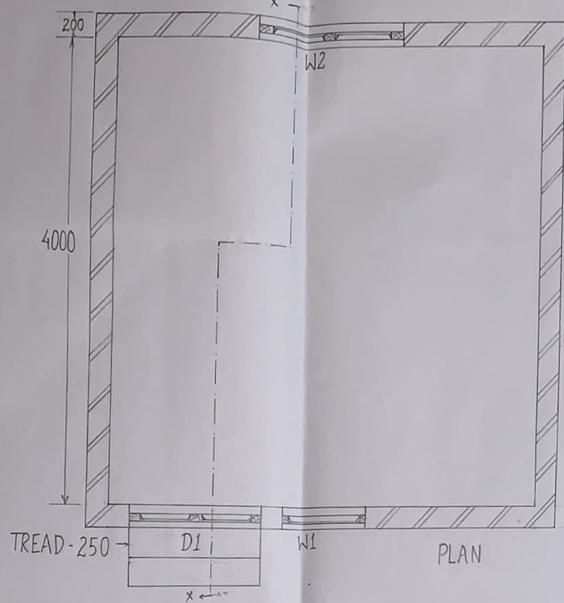
Q. Draw the front elevation and sectional plan view of glazed triple shutter window of 1500 x 1300



TITLE	FULLY GLAZED WINDOW
SCALE	1 : 10
DWG. NO.	BMS/BPD/4D/1BM20CV193/D8
DATE	22/06/2022
SIGN	 A

PLAN OF A ROOM

Q. Draw a plan, elevation and sectional elevation of room 4000 x 4000 (internal dimensions)



SECTION AT XX

SCHEDULE OF OPENINGS (ALL DIMENSIONS ARE IN MM)

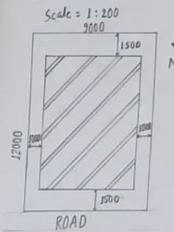
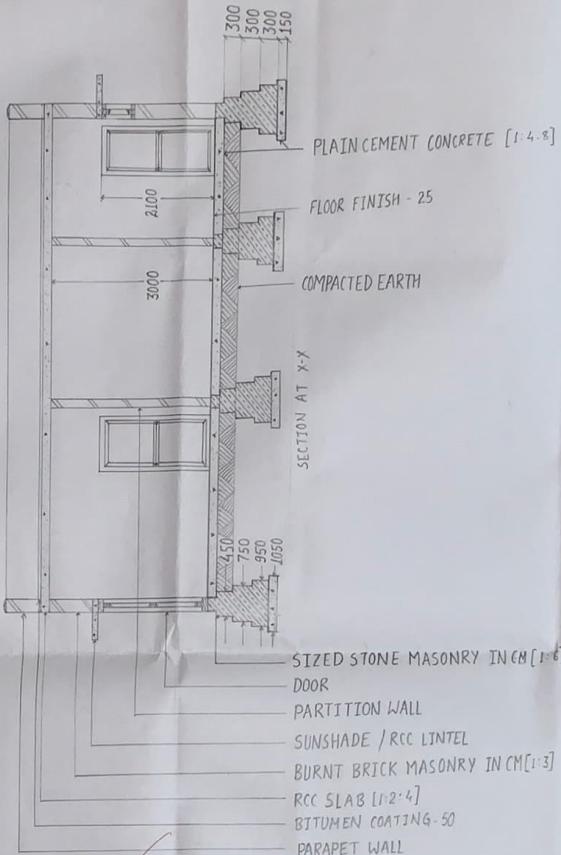
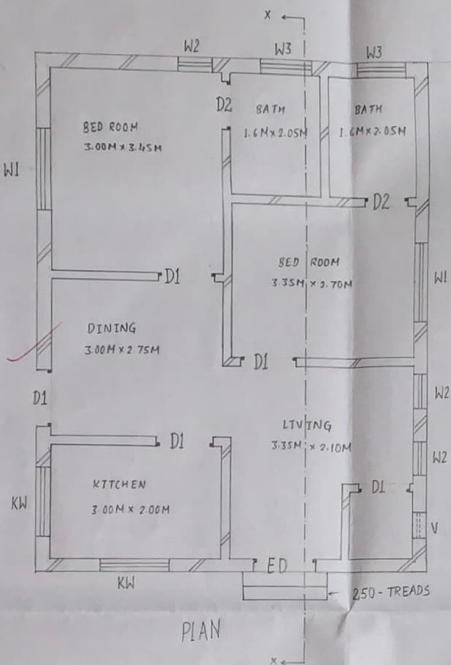
DOOR	D1	2100 x 1200
WINDOW	W1	1200 x 800

W2 1200 x 1400

TITLE	PLAN OF A ROOM
SCALE	1 : 25
DWG NO	BMS/BPD/4D/JBM20CV193/D9
DATE	13/07/2022
SIGN	

DESIGN OF A RESIDENTIAL BUILDING [2-BHK]

Q. Develop plan, elevation and sectional elevation of given 2 BHK residential building to the scale
Also give the detailed schedule of openings.

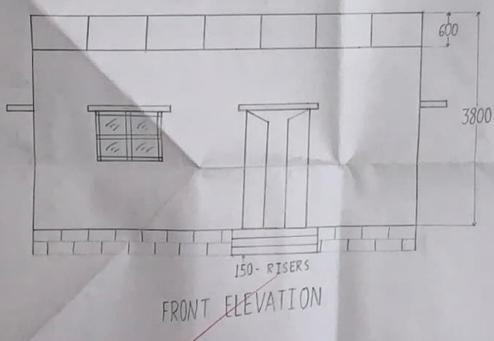


SCHEDULE OF OPENINGS

Symbol	Designation	Dimensions
ED	Entrance Door	1.1m x 2.1m
D1	Door	1.0m x 2.1m
D2	Door	0.8m x 2.1m
W1	Window	1.4m x 1.5m
W2	Window	0.6m x 1.5m
W3	Window	0.9m x 0.6m
KW	Kitchen Window	1.8m x 0.9m
V	Ventilator	0.45m x 0.3m

Area Statement:

- Plot Area = $9 \times 12 = 108 \text{ m}^2$
- Built-up Area = $7 \times 9 = 63 \text{ m}^2$
- Carpel Area = $(3 \times 3.45) + 2(1.6 \times 2.05) + (3.35 \times 2.7) + (3 \times 2.75) + (3 \times 2) + (1.8 \times 1.2) + (3.35 \times 2.1) + (2 \times 1.1) = 50.88 \text{ m}^2$
- FAR = $\frac{\text{Built-up Area}}{\text{Plot Area}} = \frac{63}{108} = 0.58 < 0.75$ (permitted)



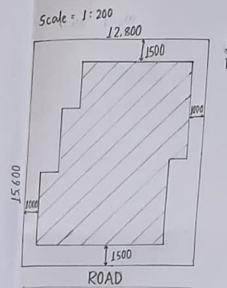
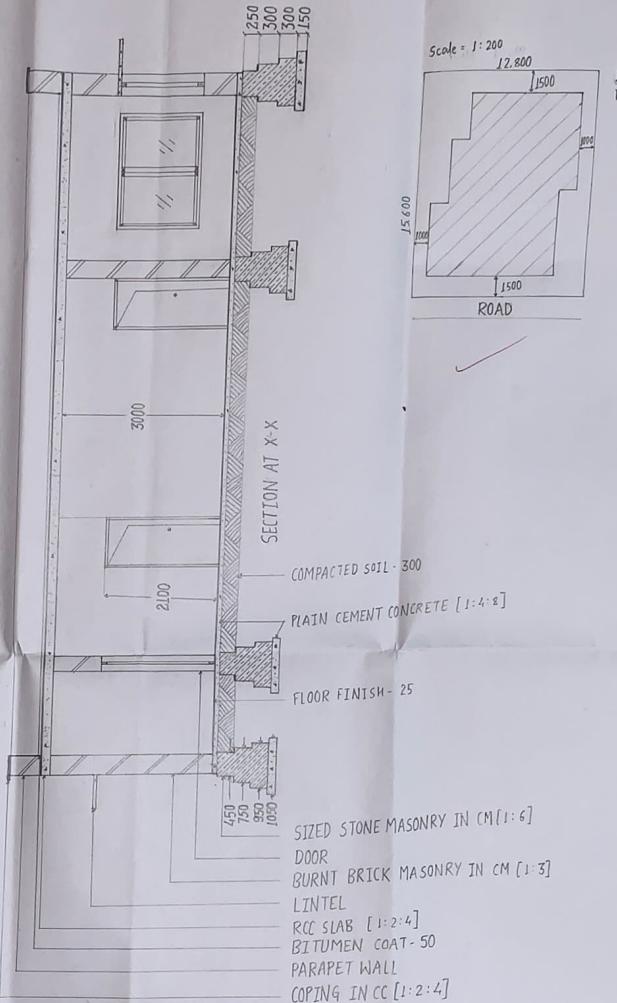
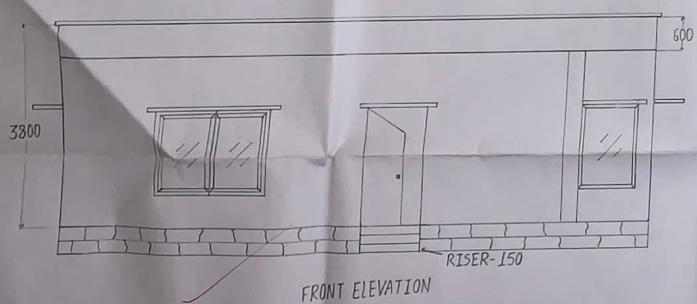
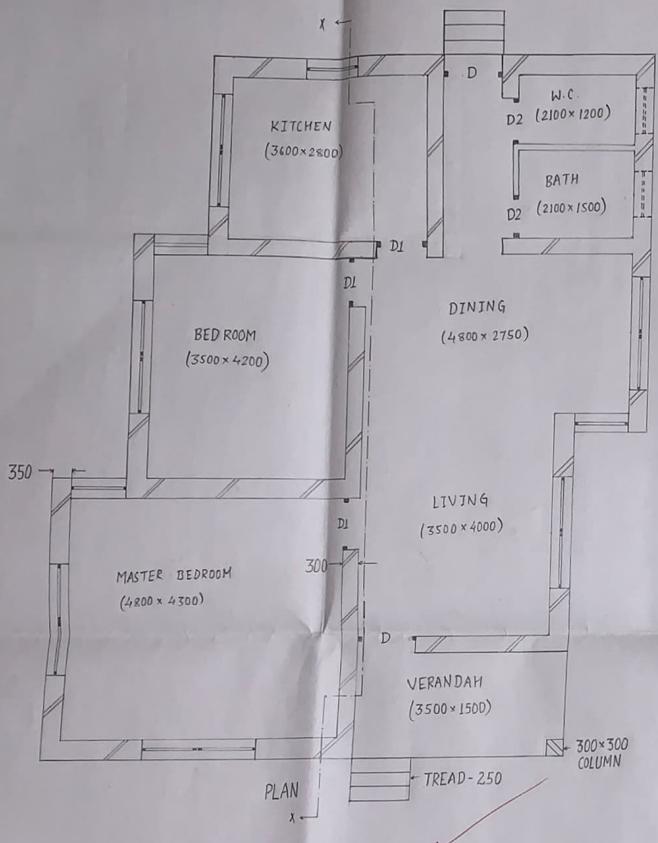
ALL DIMENSIONS ARE IN MM

TITLE	2-BHK
SCALE	1 : 50
DWG NO	BMS/BPD/4D/JBM20CV193/D10
DATE	20/07/2022
SIGN	

DESIGN OF A RESIDENTIAL BUILDING

Q. Develop your own plan, elevation and sectional elevation of 2 BHK residential building to the scale.
Also give the detailed schedule openings.

Bubble Diagram:



SCHEDULE OF OPENINGS

Symbol	Designation	Dimension
D	MAIN DOOR	1000 x 2100
D1	DOOR	900 x 2100
D2	DOOR	800 x 2100
W	WINDOW	1000 x 1500
W1	WINDOW	2000 x 1500
V	VENTILATOR	800 x 500

Area Statement

- ① Plot Area = $(15.6 \times 12.8) = 199.68 \approx 200 \text{ m}^2$
- ② Builtup Area = $(1.3 \times 5) + (1.3 \times 9.35) + (12.45 \times 6.75) + (1.3 \times 6.6) = 111.27 \approx 111 \text{ m}^2$
- ③ Carpet Area = $(3.6 \times 2.8) + (2.1 \times 1.2) + (2.1 \times 1.5) + (1 \times 3.45) + (3.5 \times 4.2) + (4.8 \times 2.75) + (4 \times 4.3) + (3.5 \times 4) + (3.5 \times 1.5) = 86.99 \approx 87 \text{ m}^2$

$$\textcircled{4} \text{ Floor Area Ratio (FAR)} = \frac{\text{Builtup Area}}{\text{Plot Area}} = \frac{111}{200} = 0.555$$

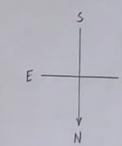
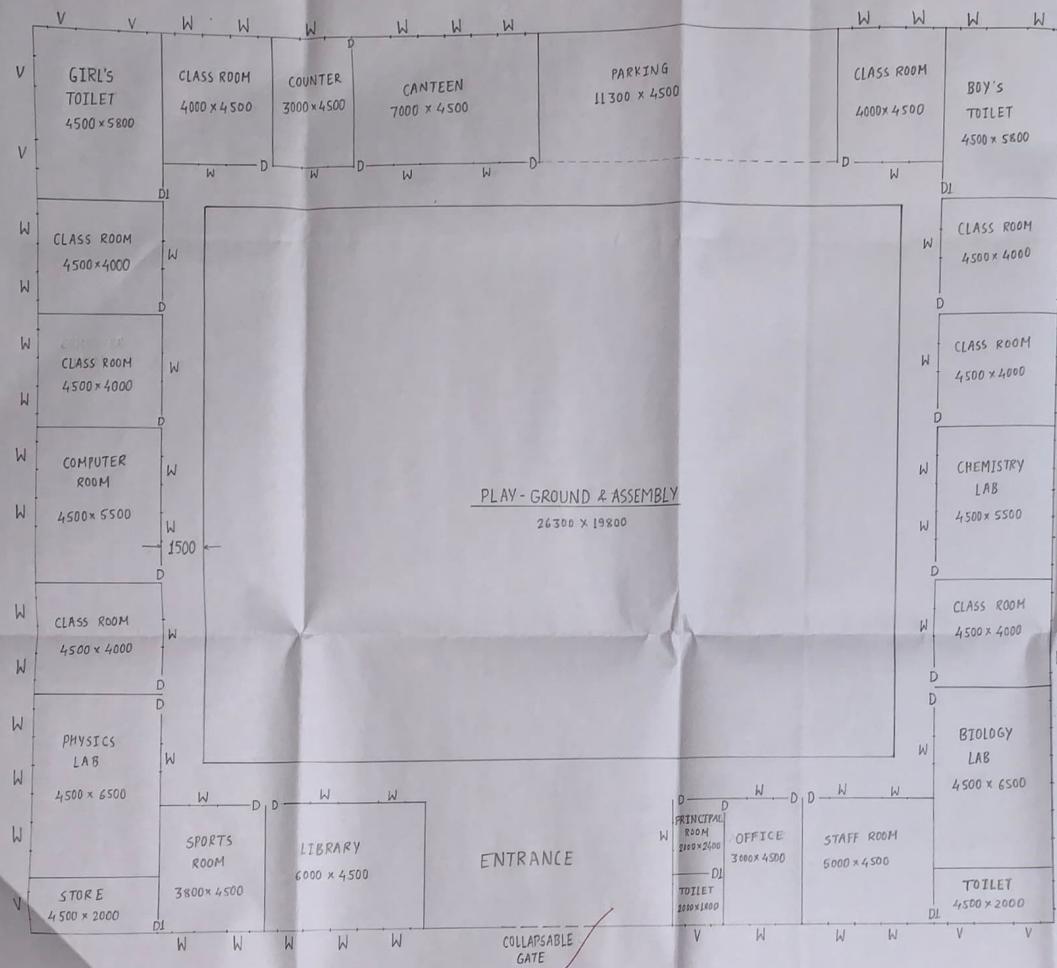
is less than 0.75 and permitted.

ALL DIMENSIONS ARE IN MM

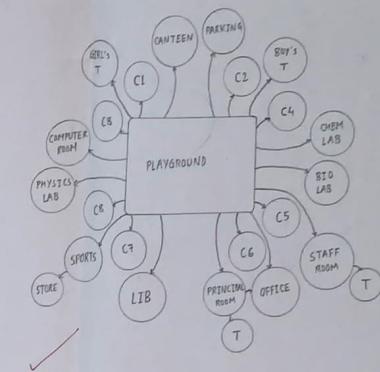
TITLE	2 BHK
SCALE	1 : 50
DWG NO	BMS/BPD/4D/18M20CV193/D11
DATE	20/07/2022
SIGN	

Q. Design a layout for College Building

COLLEGE BUILDING PLAN



BUBBLE DIAGRAM

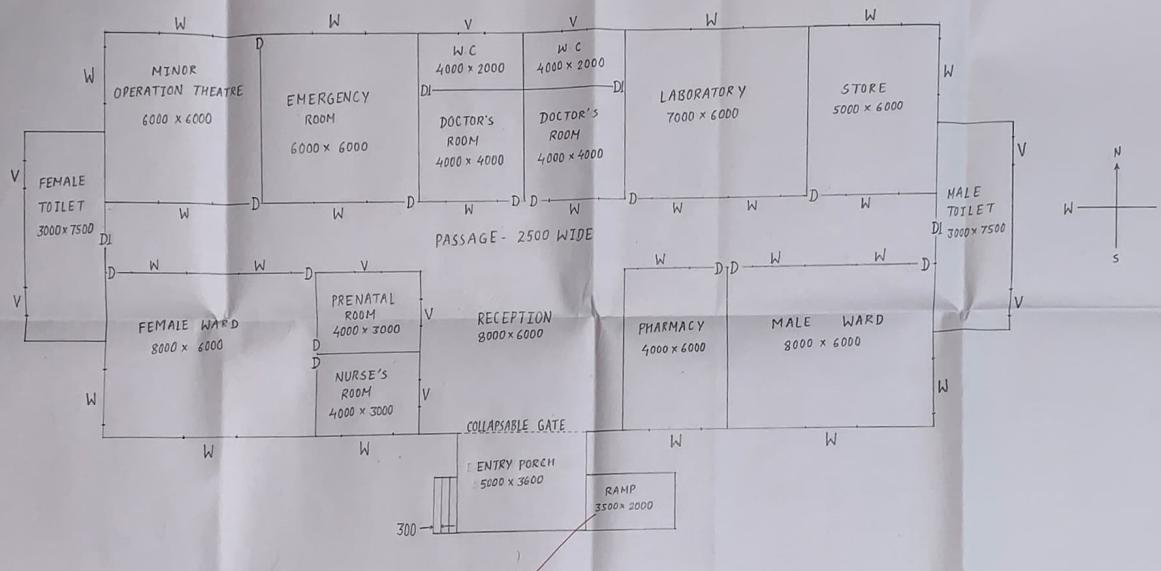


SCHEDULE OF OPENINGS		
Symbol	Designation	Dimensions
D	DOOR	1000×2100
DI	DOOR	800×2100
W	WINDOW	1000×1500
V	VENTILATOR	1000×500

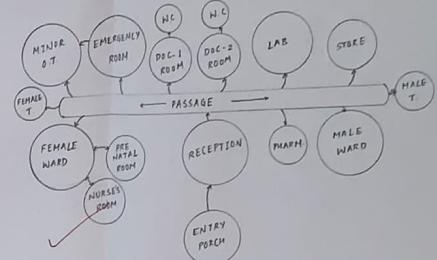
ALL DIMENSIONS ARE IN MM	
TITLE	COLLEGE PLAN
SCALE	1 : 100
DWG NO	BMS/BPD/4D/IBM20CVI93/D12
DATE	04/08/2022
SIGN	A*

PRIMARY HEALTH CENTRE - PLAN

Q Develop a bubble diagram and a line diagram for Primary Health Centre.



BUBBLE DIAGRAM



SCHEDULE OF OPENINGS

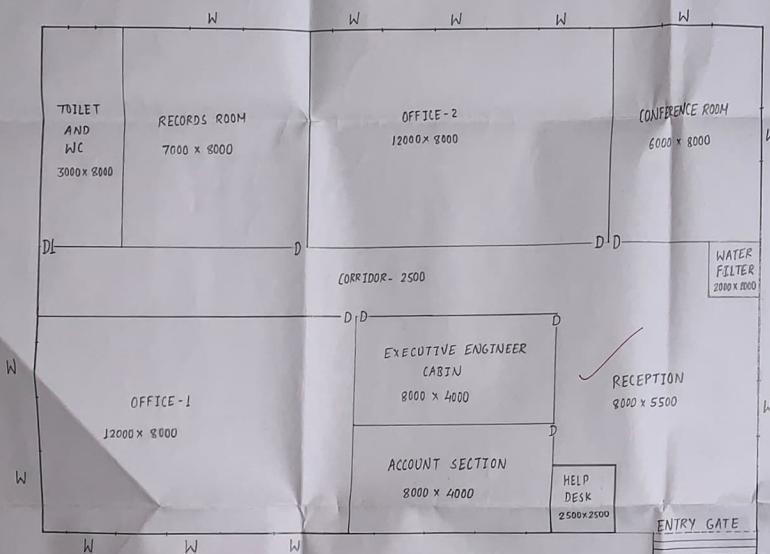
Symbol	Designation	Dimensions
D	Door	1200 x 2100
DI	Door	900 x 2100
W	Window	2000 x 1500
V	Ventilator	1000 x 500

ALL DIMENSIONS ARE IN MM

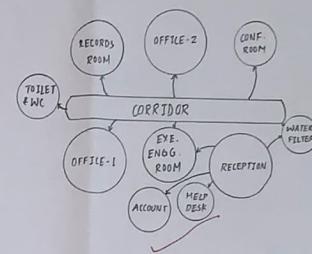
TITLE	PHC - PLAN
SCALE	1:100
DWG NO	BMS/BPD/4D/1BM20CV193/DJ3
DATE	04/08/2022
SIGN	ABHIPRA A1

OFFICE FOR EXECUTIVE ENGINEER

Q. Develop bubble diagram and line diagram for an office building for consulting Civil Engineer.



BUBBLE DIAGRAM



SCHEDULE OF OPENINGS

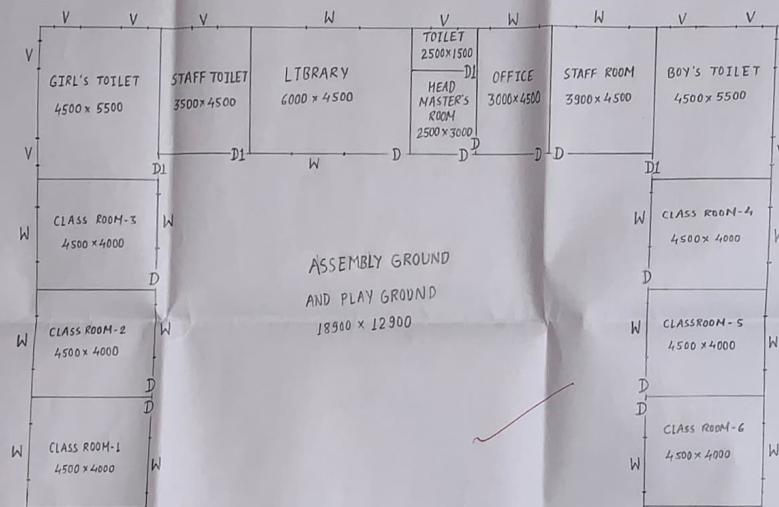
Symbol	Designation	Dimensions
D	Door	1200 x 2100
D1	Door	800 x 2100
W	Window	2000 x 1500
V	Ventilator	1000 x 500

ALL DIMENSIONS ARE IN MM

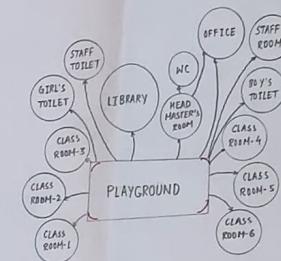
TITLE	OFFICE PLAN
SCALE	1:100
DWG NO	BMS/BPD/4D/JBM20CV193/D14
DATE	04/08/2022
SIGN	

SCHOOL BUILDING - PLAN

Q. Develop a plan for a school building for a rural area with strength of 300 students.



BUBBLE DIAGRAM



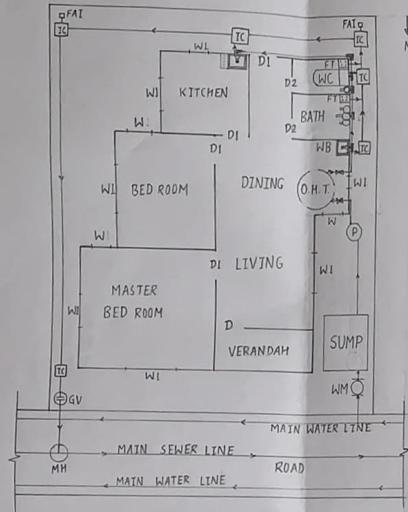
SCHEDULE OF OPENINGS

Symbol	Description	Dimensions
D	Door	1200x2100
DI	Door	900x2100
W	Window	2000x1500
V	Ventilator	1000x500

ALL DIMENSIONS ARE IN MM

TITLE	SCHOOL PLAN
SCALE	1 : 100
DWG NO	BMS/BPP/4D/JBM20CVJ93/DJS
DATE	04/08/2022
SIGN	ABHISHEK (Signature)

WATER SUPPLY, SANITARY AND ELECTRICAL LAYOUT PLAN



WATER SUPPLY

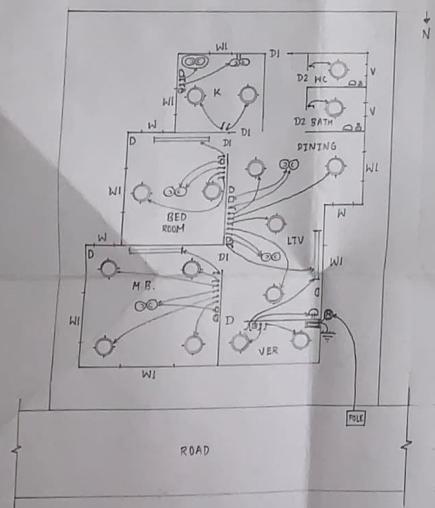
Symbol	Description
(O.H.T)	OVER HEAD TANK
WM	WATER METER
(P)	PUMP
(S)	STOP VALVE
(EJ)	ELBOW JOINT
(TJ)	TEE JOINT
(BC)	BIB COCK
(MT)	MIXER TAP
(WB)	WASH BASIN
(KS)	KITCHEN SINK
(T)	TAP

SANITARY

Symbol	Description
FT	FLOOR TRAP
IC	INSPECTION CHAMBER
(ICFAI)	IC WITH FRESH AIR INLET
(WC)	WATER CLOSET
(GV)	GATE VALVE
(MH)	MAN HOLE

ELECTRICAL

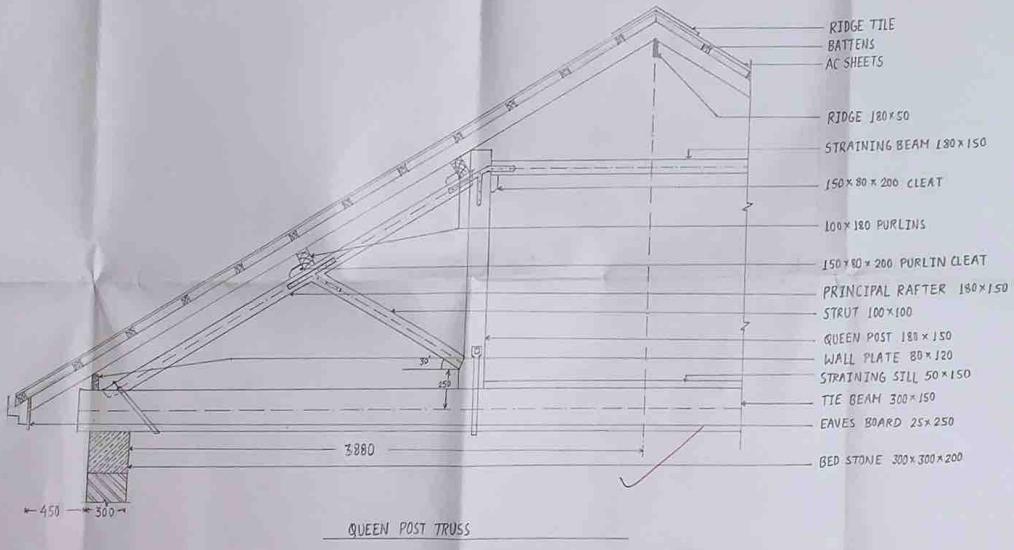
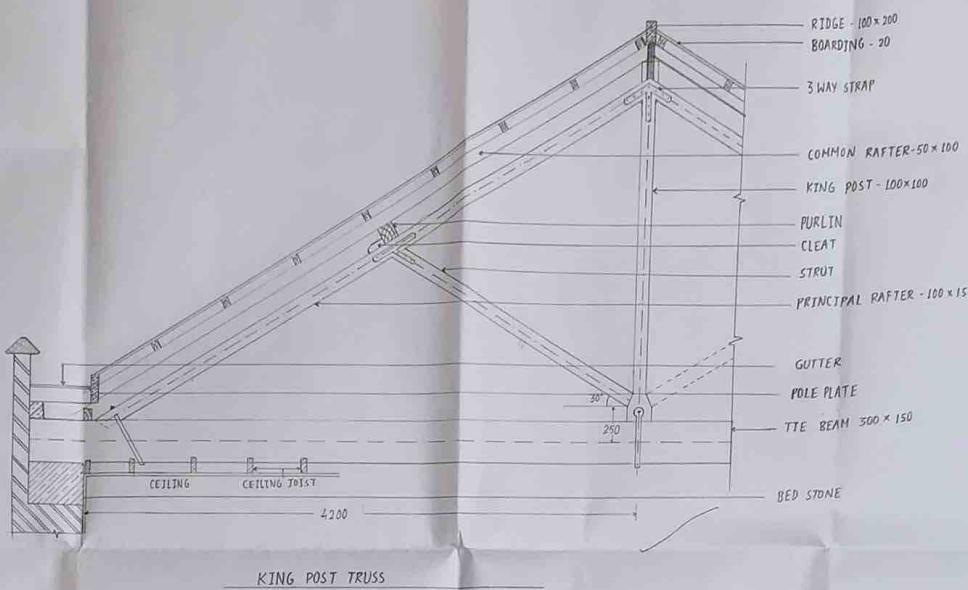
Symbol	Description
(M)	METER
(MF)	MAIN FUSE BOARD
(SW)	ONE WAY SWITCH
(TW)	TWO WAY SWITCH
(EF)	EXHAUST FAN
(CF)	CEILING FAN
(WMF)	WALL MOUNTED FAN
(FL)	FLUORESCENT LAMP
(CL)	CEILING MOUNTED LIGHT
(IS)	GA INDEPENDENT SOCKET
(PP)	POWER PLUG
(FR)	FAN REGULATOR
(BPB)	BELL PUSH AND BELL



<u>TITLE</u>	PLUMBING AND ELECTRICAL LAYOUT
<u>SCALE</u>	1: 100
<u>DWG NO</u>	BMS/BPD/4D/IBM20CV193/D16
<u>DATE</u>	03/09/2022
<u>SIGN</u>	

TRUSS - WOODEN

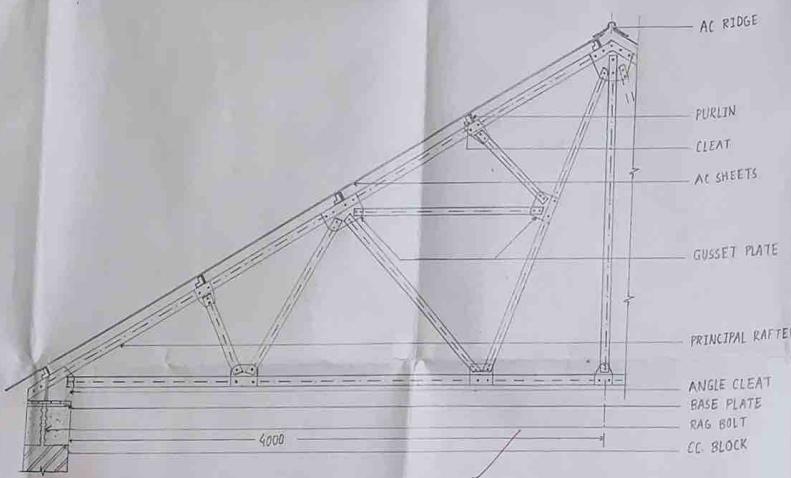
Q. Draw to a suitable scale the elevation of a King Post Truss and Queen Post Truss



ALL DIMENSIONS ARE IN MM	
TITLE	TRUSS-WOODEN
SCALE	1:20
DWG NO	BMS/8PD/4D/1BM20CVJ93/D17
DATE	24/08/2022
SIGN	ABP (A)

STEEL ROOF TRUSS

Q. Draw to a scale of 1:20 the elevation of a steel truss for a clear span of 8m



Dimensions !

TITLE	STEEL TRUSS
SCALE	1:20
DWG NO	BMS/BPD/4D/ JBM20CV193/D18
DATE	04/08/2022
SIGN	 A