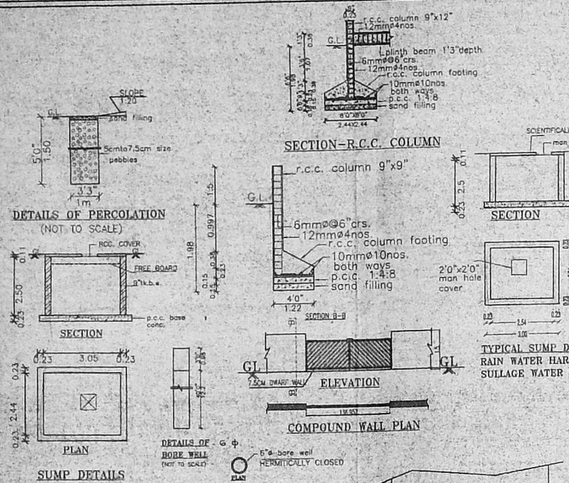
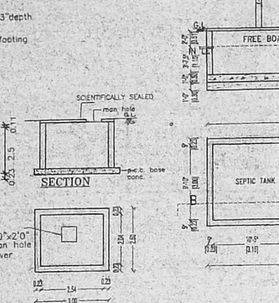
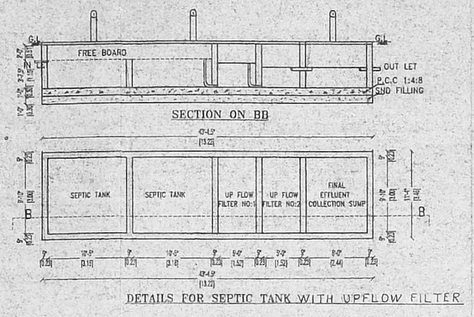






DESIGN OF SEPTIC TANK WITH UPFLOW FILTER

NO OF DWELLING UNIT = 15 NoS+2Nos. COMMERCIAL. = 17 Nos.
NO OF USERS = 17X 5 = 85 NoS.
ASSUME A STANDARD OF 2 Nos. OF FIXTURE UNIT PER DWELLING
TOTAL NO OF FIXTURE UNIT = 2 X 17 = 34 NoS.
ASSUME A PEAK FACTOR OF 6LPM/FIXTURE UNIT = 34X6=204 LPM

SEPTIC TANK

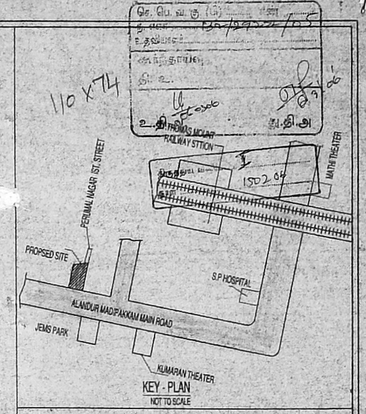
SURFACE AREA REQUIRED = $\frac{204 \times 0.92}{10}$ = $18.77M^2$
SAY $19M^2$

VOLUME OF FREE BOARD = 19.00X0.30 = $5.70M^3$
VOLUME OF SEDIMENTATION = 19.00X0.30 = $5.70M^3$
VOLUME OF DIGESTION = 85X0.032 = $2.72M^3$
VOLUME OF SLUDGE = 85X365X0.0002 = $6.21M^3$
$20.33M^3$ – SAY $21.00M^3$

DEPTH OF SEPTIC TANK 21.00/19.00 = 1.10M
PROVIDING L X B = 2.5:1
SIZE OF SEPTIC TANK = 6.40 X 3.00 X 1.10M

UDESIGN OF PFLOW FILTER

CAPACITY PEAK GRAVITY = 65 X 0.045 = $3.83M^3$
ASSUME DEPTH = 0.80M
HENCE AREA OF FINAL EFFLUENT SUMP = 3.83/0.80 = $4.79M^2$
SIZE OF FINAL EFFLUENT SUMP = 3.00X2.44X1.10M
SIZE OF UPFLOW FILTER-1 = 3.00X1.52X0.95M
SIZE OF UPFLOW FILTER-2 = 3.00X1.52X0.80M



SPECIFICATION:

1. R.C.C FRAMED STRUCTURE M20
2. BRICK WORK IN BASEMENT & SUPER STRUCTURE In C.M.1:5
3. WALLS ARE PLASTERED BY CEMENT MORTAR 1:5
4. WALLS ARE PAINTED BY CEMENT PAINT.
5. LINTEL OVER OPENING.
6. JOINERY WORK IN TEAK WOOD.
7. ROOF COVERD BY RCC SLAB.
8. ALL RCC WORK IN M20
9. WEATHERING COURSE LAID OVER RCC SLAB WITH PROPER SLOPE

AREA STATEMENT

PLOT EXTENT	SQ.FT.	SQ.MT.
AS PER DOCUMENT	8385.37	779.02
AS PER PLR	8073.00	750.00
STILT FLOOR	189.94	17.65
FIRST FLOOR	2902.84	269.68
SECOND FLOOR PLAN	3002.38	278.93
THIRD FLOOR PLAN	3002.38	278.93
FOURTH FLOOR PLAN	3002.38	278.93
TOTAL	12099.92	1124.12
F.S.I		1.499

DEPARTMENTAL STORE = 963.20 89.48

COLOUR INDEX	
PROPOSED	
ROAD	
BOUNDARY	

SHEDULE OF JOINERY

D	DOOR	1.00X2.13
D1	DOOR	0.91X2.13
D2	DOOR	0.75X2.13
W	WINDOW	1.50X1.22
W1	WINDOW	1.20X1.20
W2	WINDOW	1.00X1.20
V	VENTILATOR	0.60X0.60
R/S	ROOLING SHUTTER	2.44X2.13

SCALE :1:100 (1"=8'0")

PLAN SHOWING THE PROPOSED CONSTRUCTION OF RESIDENTIAL CUM DEPARTMENTAL STORE AT D.No.3, ALANDUR MADIPAKKAM–MAIN ROAD IN S.No. AS PER DOC.–88/2B PART AND 89/1PART AS PER PATTA 88/2B1C & 89/1C OF ULLAGARAM VILLAGE TAMBARAM TALUK, KANCHEEPURAM DISTRICT. 10 X 74
CHENNAI-

1. Shreedevi
2. Shreepriya G

OWNER SIGNATURE

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LICENSED SURVEYOR