

**DESIGN OF SEPTIC TANK WITH UPFLOW FILTER**

AREA EQUATED TO RESIDENTIAL D/U = 1368.21/50 = 27.36 SAY 28+5=33 D/U  
 NO OF USERS ASSUMING 2 FIXTURES PER TOILET :- 33X2=66 UNITS.  
 PER HOUR DISCHARGE :- 66X6=396 LPM.

**SEPTIC TANK**

SURFACE AREA NEEDED :- 396X0.92/10 = 36.432 SAY 37.00M<sup>2</sup>

**VOLUME OF SEDIMENTATION:**

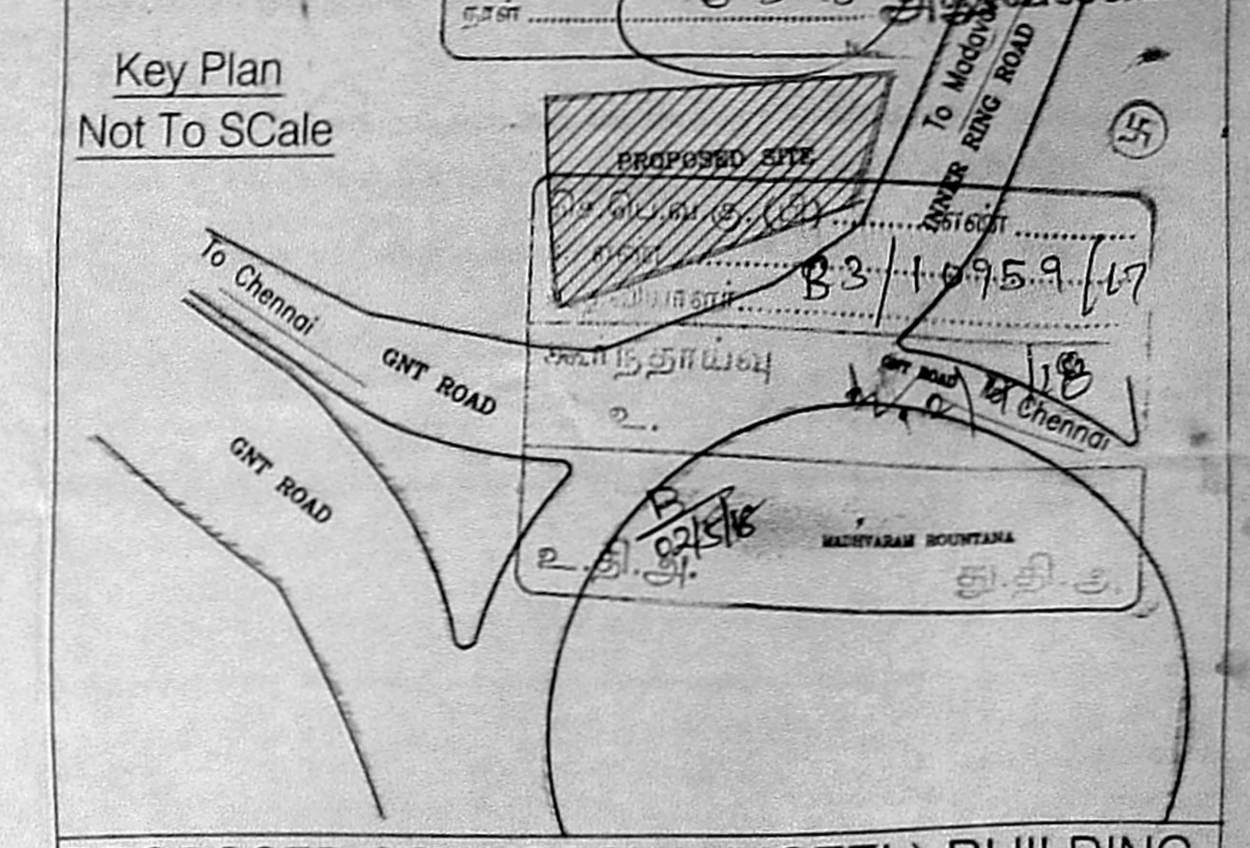
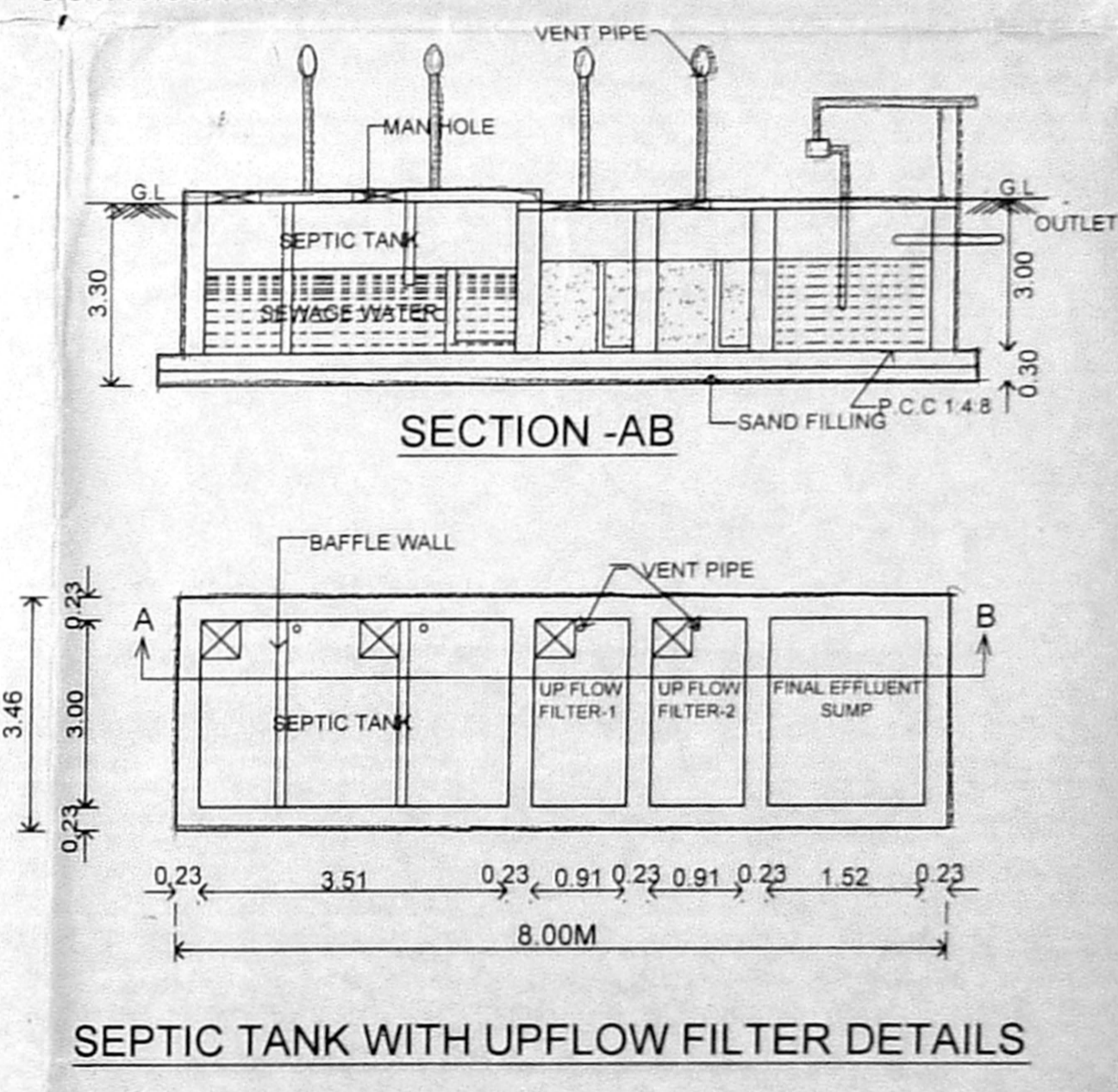
ASSUMING 0.30M DEPTH 37X0.3M = 11.10M<sup>3</sup>  
 FOR DIGESTION 500X0.032 = 16M<sup>3</sup>  
 FOR SLUDGE STORAGE 0.0002X365X23 = 1.679M<sup>3</sup>  
 FREE BOARD FOR SLUDGE 5X0.3M = 1.50M<sup>3</sup>

DEPTH =  $\frac{VOLUME}{VOLUME} = \frac{7}{5} = 1.40M$

SIZE OF SEPTIC TANK 8.00X3.00X3.00  
 UPFLOW FILTER  
 LIQUID DEPTH OF SEPTIC TANK = 3.00M

UPFLOW FILTER DEPTH ALLOWING 0.32M FREE BOARD 1.4 - 0.3 = 1.10M  
 AREA NEEDED =  $\frac{1.10}{1.10} = 1.0M$

SIZE OF UPFLOW FILTER 1.50X1.50  
 UPFLOW NO.-1 = 0.91X1.50X1.36M  
 UPFLOW NO.-2 = 0.91X1.50X1.36M



**PROPOSED COMMERCIAL (HOTEL) BUILDING AT GNT ROAD AND INNER RING ROAD, MADHAVARAM, CHENNAI COMPRISING OLD S.NOS. 797/1A, 797/1B1, 800/1A2 PART NEW S.NO. 27/4, 28/4 AND 29, WARD C, BLOCK NO.21, OF MADHAVARAM VILLAGE, MADHAVARAM TALUK, GREATER CHENNAI CORPORATION, ZONE - 3, DIVISION - 33**

- SPECIFICATIONS:**
- BUILDING - RCC framed structure. RCC walls for basement precast beams, slabs and columns for the superstructure all in M25-M35 mix.
  - WALLS - wall brick wall for non-bearing partitions screwing STC 52.
  - PLASTERING - Internal plastering in CM 1:3 for all walls & ceiling. External plastering only in selected places.
  - FINISHES - a. floor finishes - Granite / Marble / Vitrified tile. b. Glazing - Single glazing with bay windows for all rooms.
  - DOORS - 12mm Clear Glass Doors with frame work for main doors and AL framed PUPB paneled doors for toilets.
  - WEATHERING COURSE - Standard water proofing with brick sily lime concrete laid to slope finished with 1 course of machine pressed terracotta tiles.
  - PAVEMENT - Open joint concrete blocks for drive ways and ramp over sand cushion.
  - RAINWATER HARVEST - Perimeter storm water drain as well as individual rainwater percolating pits along the drive way at regular intervals.

**AREA STATEMENT DETAILS**

PLOT EXTENT:-  
 AS PER DOC. : 1106.31 SQ.M  
 AS PER PATTA : 1216.00 SQ.M  
 AS PER SITE : 1105.27 SQ.M

FLOOR	FSI AREA in SQ.M
FIRST FLOOR	347.64
SECOND FLOOR	340.19
THIRD FLOOR	340.19
FOURTH FLOOR	340.19
TOTAL	1368.21

F.S.I =  $\frac{1368.21}{1105.27} = 1.238$

TWO WHEELER PARKING PROVIDED - 30 NOS.  
 CAR PARKING PROVIDED - 19 NOS.

**COLOR INDEX**

PROPOSED [Symbol]  
 ROAD [Symbol]  
 BOUNDARY [Symbol]

OWNER'S SIGNATURE

LICENCE SURVEYOR

SCALE 1:100