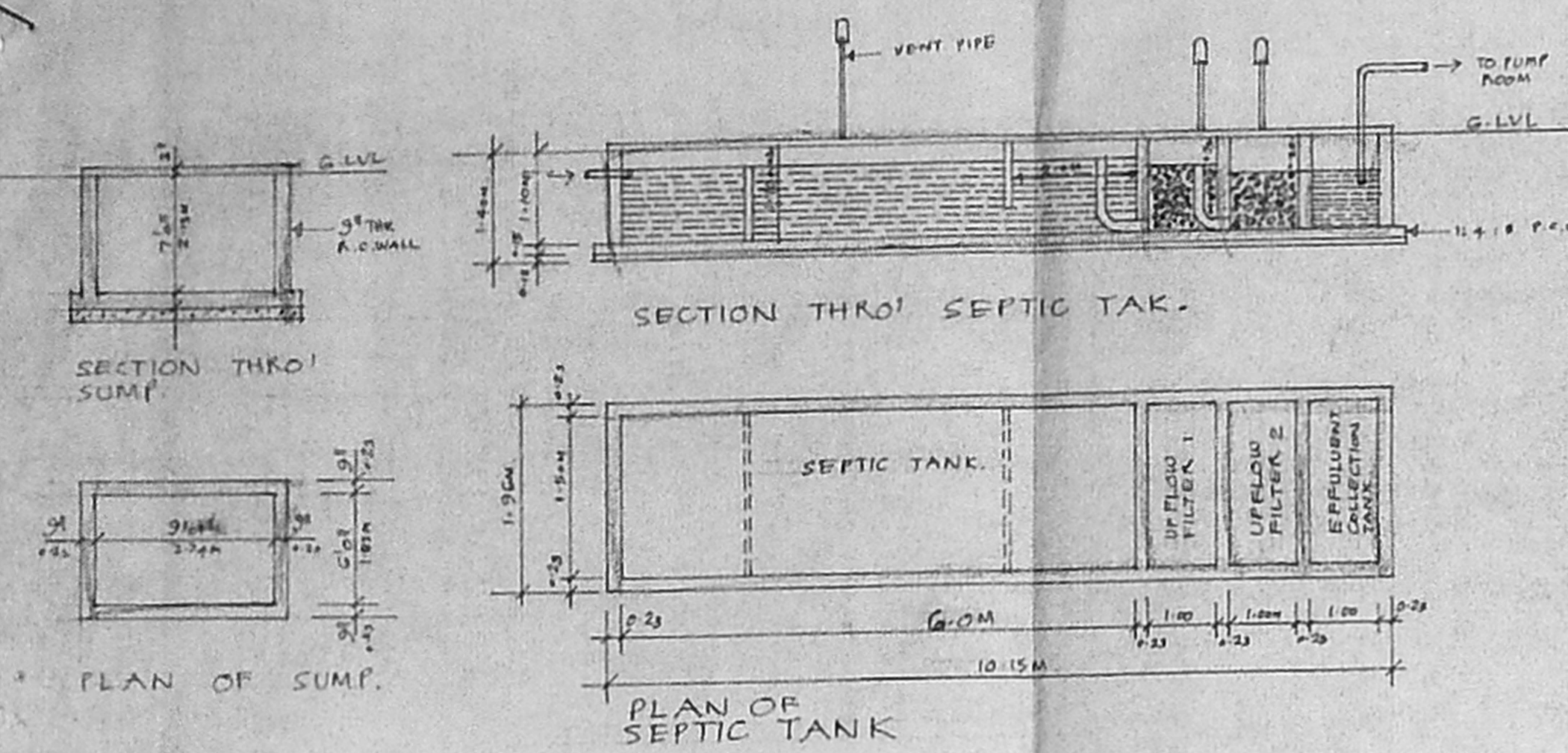
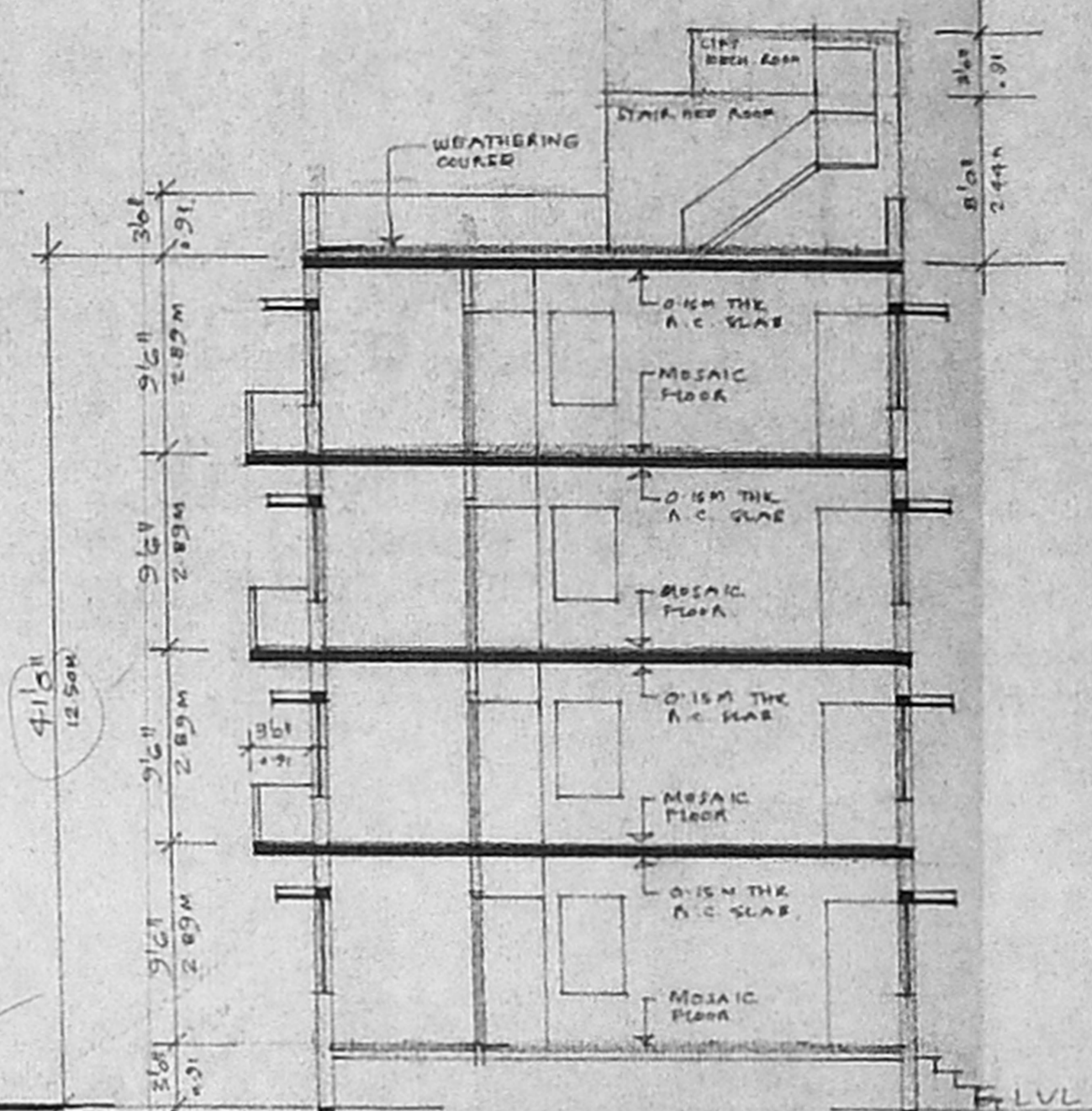
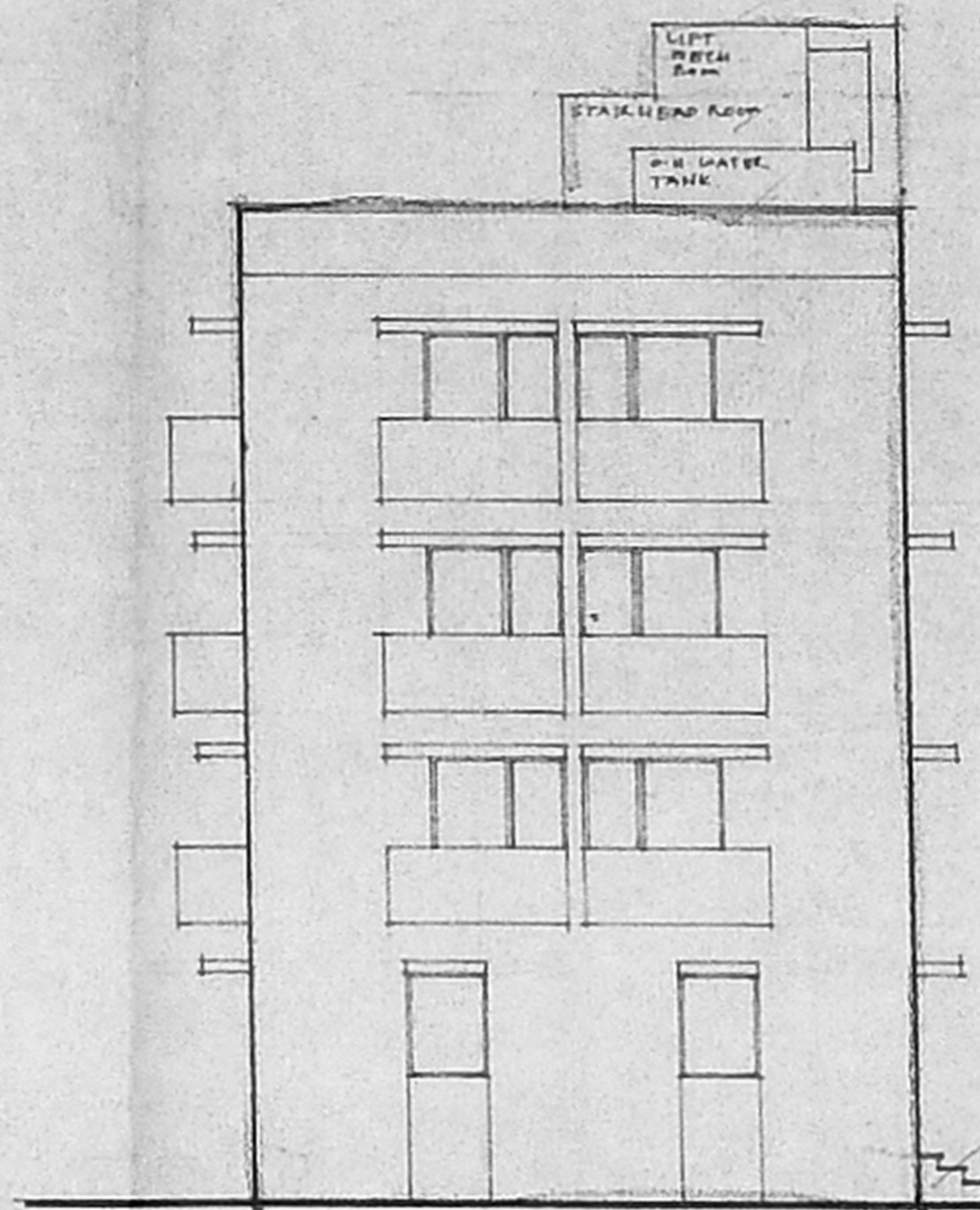
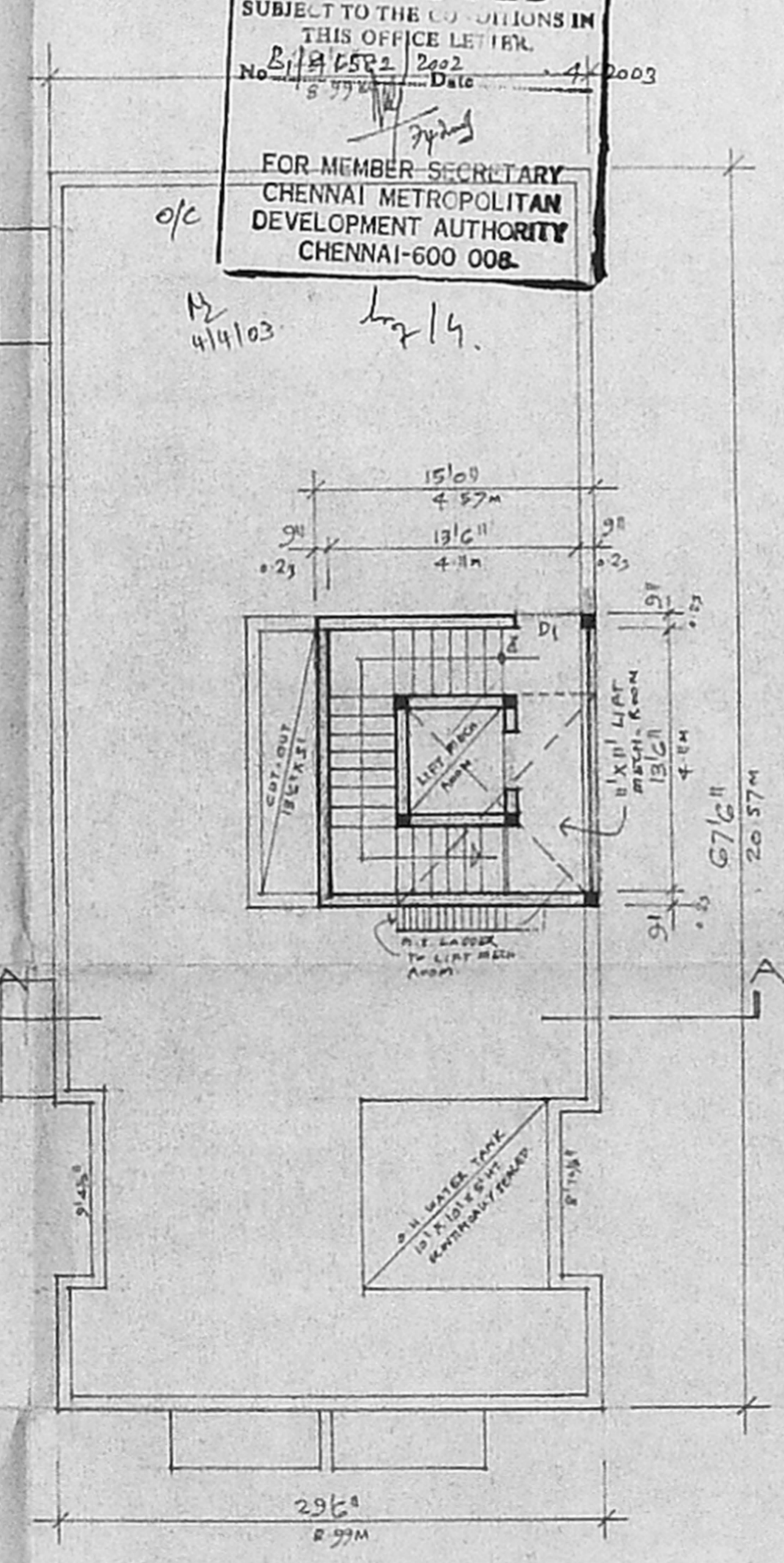
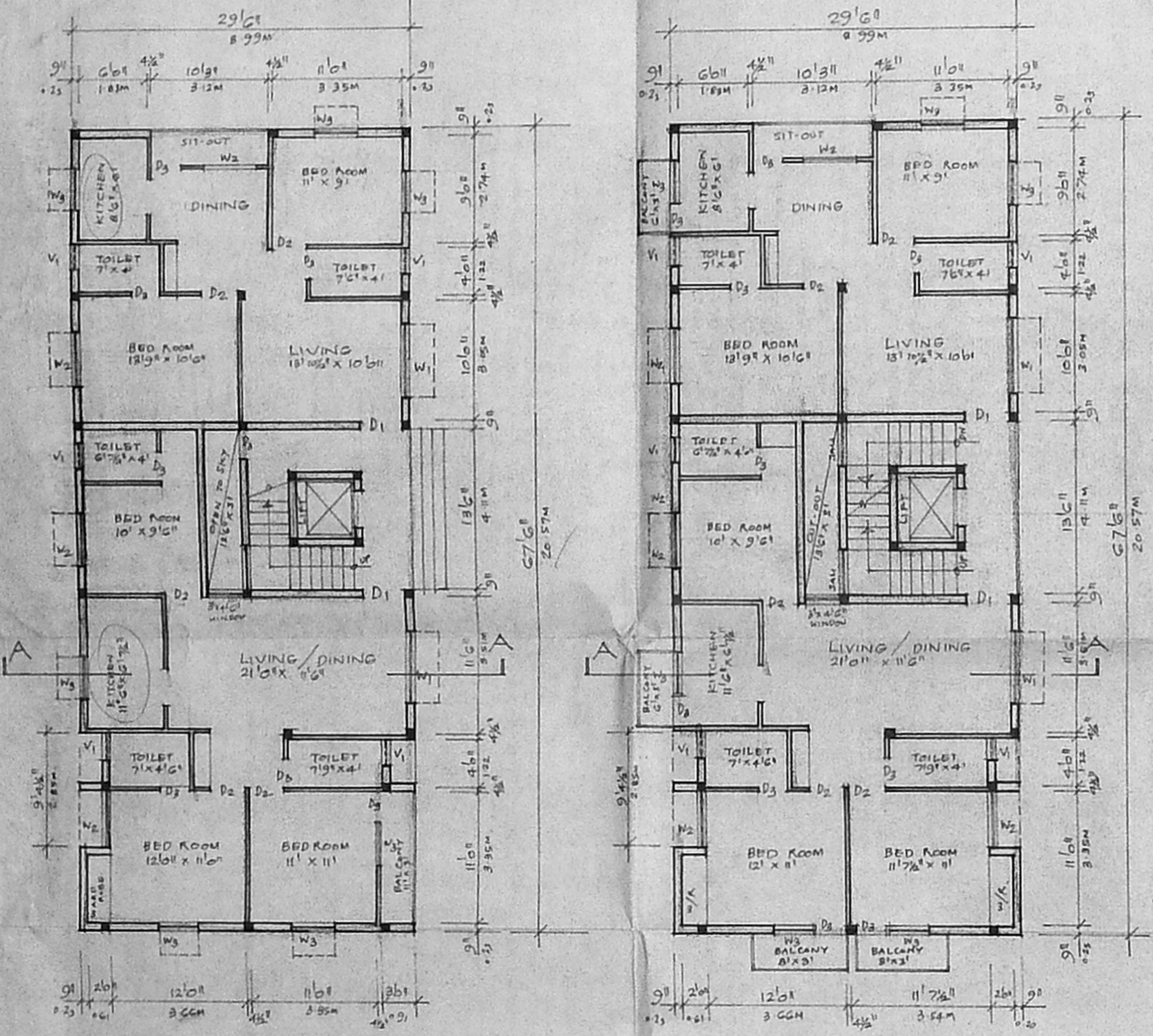


DESIGN OF SEPTIC TANK WITH UPFLOW FILTER FOR 8 DWELLINGS.

NO OF FLATS OR DWELLINGS : 8  
 ASSUMING 5 PERSONS PER FLAT } 8 X 5 = 40.  
 NO OF PERSONS }  
 NO OF USERS : 40.  
 ASSUMING 2 FIXTURES PER FLAT : 8 X 2 = 16 UNITS  
 PER HOUR DISCHARGE : 16 X 6 = 96 LPM.  
 SEPTIC TANK SURFACE AREA NEEDED :  $\frac{96 \times 0.92}{10} = 8.832$  SAY = 9.0 m<sup>2</sup>  
 VOLUME OF SEDIMENTATION ASSUMING 0.3M DEPTH FOR DEGESTION :  $9 \times 0.3 \times 3 = 2.7$  m<sup>3</sup>  
 FOR SLUDGE STORAGE :  $40 \times 0.032 = 1.28$  m<sup>3</sup>  
 FREE BOARD FOR SLUDGE :  $3 \times 0.3 = 2.70$  m<sup>3</sup>  
 DEPTH =  $\frac{VOLUME}{SURFACE AREA} = \frac{10}{9} = 1.1$  M.

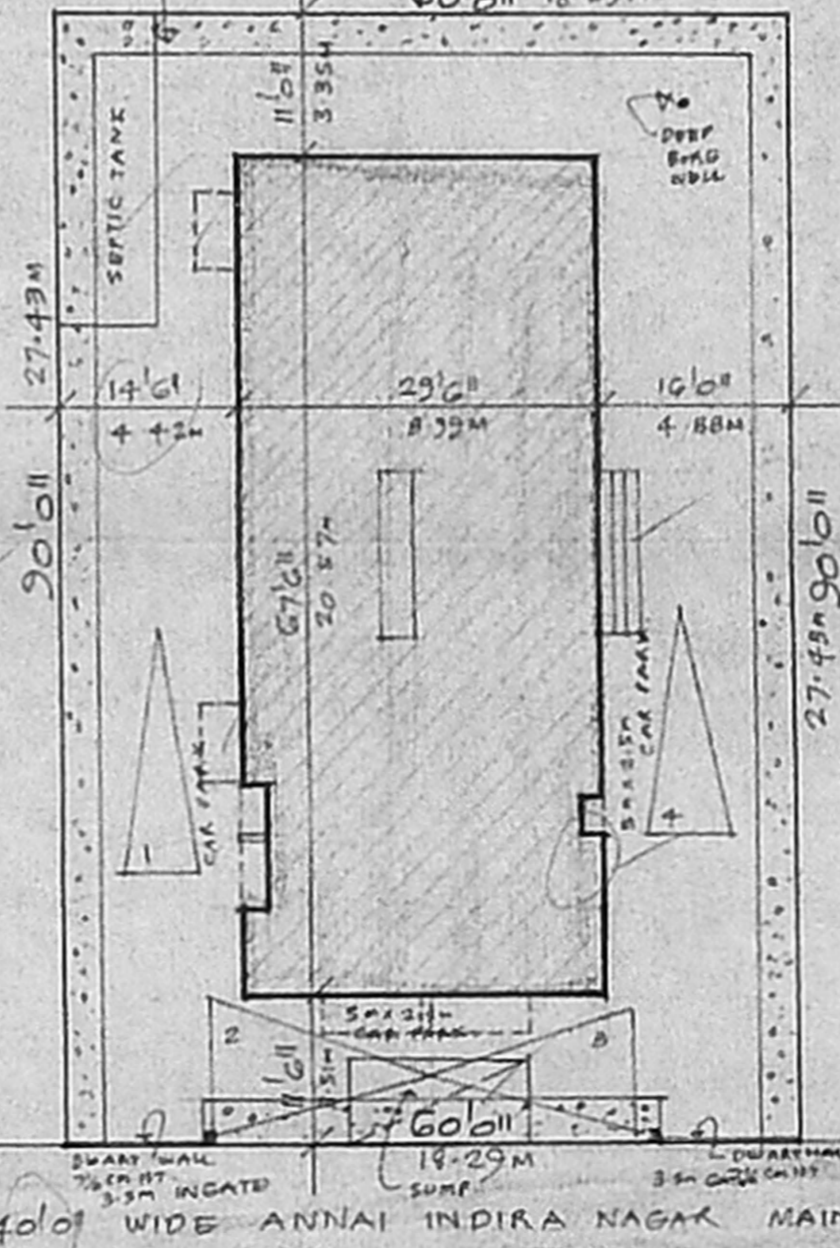


OFFICE COPY  
 Planning Permit No. B/SPL/364/150/2003  
**APPROVED**  
 SUBJECT TO THE CONDITIONS IN THIS OFFICE LETTER.  
 B/SPL/364/150/2003  
 No. 59924 Date 4/2003  
 FOR MEMBER SECRETARY  
 CHENNAI METROPOLITAN DEVELOPMENT AUTHORITY  
 CHENNAI-600 008.



FRONT ELEVATION. SCALE 1/8" = 1'0" (1:100)

SECTION A-A SCALE 1/8" = 1'0" (1:100)



SITE PLAN. SCALE 1/8" = 1'0" (1:100)

UPFLOW FILTER  
 LIQUID DEPTH OF SEPTIC TANK : 1.1 M  
 VOLUME :  $40 \times 0.045 = 1.8$  m<sup>3</sup>  
 UPFLOW FILTER DEPTH ALLOWING 0.3M FREE BOARD :  $1.1 - 0.3 = 0.8$  M.  
 AREA NEEDED :  $\frac{1.8}{0.8} = 2.25$  SAY 3 m<sup>2</sup>  
 SIZE OF UP FLOW FILTER :  $1.5 \times 1.0$  M  
 UPFLOW FILTER NO 1 :  $1.5 \times 1.0 \times 0.95$  M  
 UPFLOW FILTER NO 2 :  $1.5 \times 1.0 \times 0.95$  M

STATEMENT OF BUILT UP AREA

GROUND FLOOR AREA	CMDA (B)/M <sup>2</sup> No. 1
FIRST FLOOR AREA	C. No. 188-74 m <sup>2</sup> B/14152/1-2
SECOND FLOOR AREA	Asst. 188-74 m <sup>2</sup>
THIRD FLOOR AREA	Scrutiny 188-74 m <sup>2</sup> M. 25/3/03.
TOTAL AREA	759.15 m <sup>2</sup>
PLOT AREA	502.31 m <sup>2</sup> AP/10/200.
	500. m <sup>2</sup> AS PER DATA.
FSI	1:478. COVERAGE

SCHEDULE OF JOINERY.

D <sub>1</sub>	3'6" x 7'0"	T.W. FLUSH DOOR
D <sub>2</sub>	3'6" x 7'0"	T.W. FLUSH DOOR
D <sub>3</sub>	2'6" x 7'0"	T.W. PANELLLED DOOR
W <sub>1</sub>	6'0" x 4'0"	T.W. GLAZED WINDOW
W <sub>2</sub>	4'0" x 4'0"	T.W. GLAZED WINDOW
W <sub>3</sub>	3'0" x 4'0"	T.W. GLAZED WINDOW
V <sub>1</sub>	2'0" x 2'0"	A.C. JALI

PROPOSED RESIDENTIAL BUILDING AT PLOT NO. G.  
 S. NO. 281/13 OF THORAIPAKKAM VILLAGE, TAMBARAM TALUK.  
 ANNAI INDIRA NAGAR.  
 APPD. LAY-OUT BY PPD/LO/29/89.

Signature of Owner: *E. Shyamalingam*  
 Signature of Licensed Surveyor: *G. B. Naragani*  
 Er. G. B. NARAGANI  
 CLASS LICENSED SURVEYOR  
 No. 836/2002-2003,  
 CORPORATION OF CHENNAI  
 101, (81) Usman Rd., 424 1190