

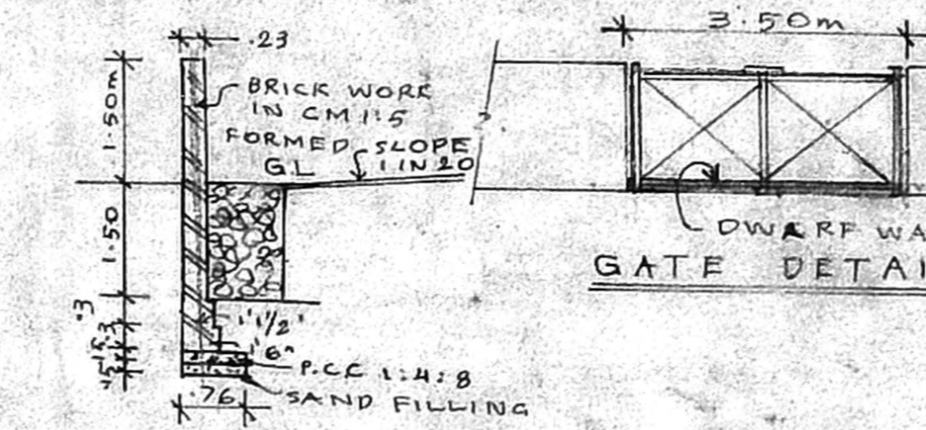
OFFICE COPY

DESIGN OF SEPTIC TANK WITH UPFLOW FILTER FOR 8 DWELLING

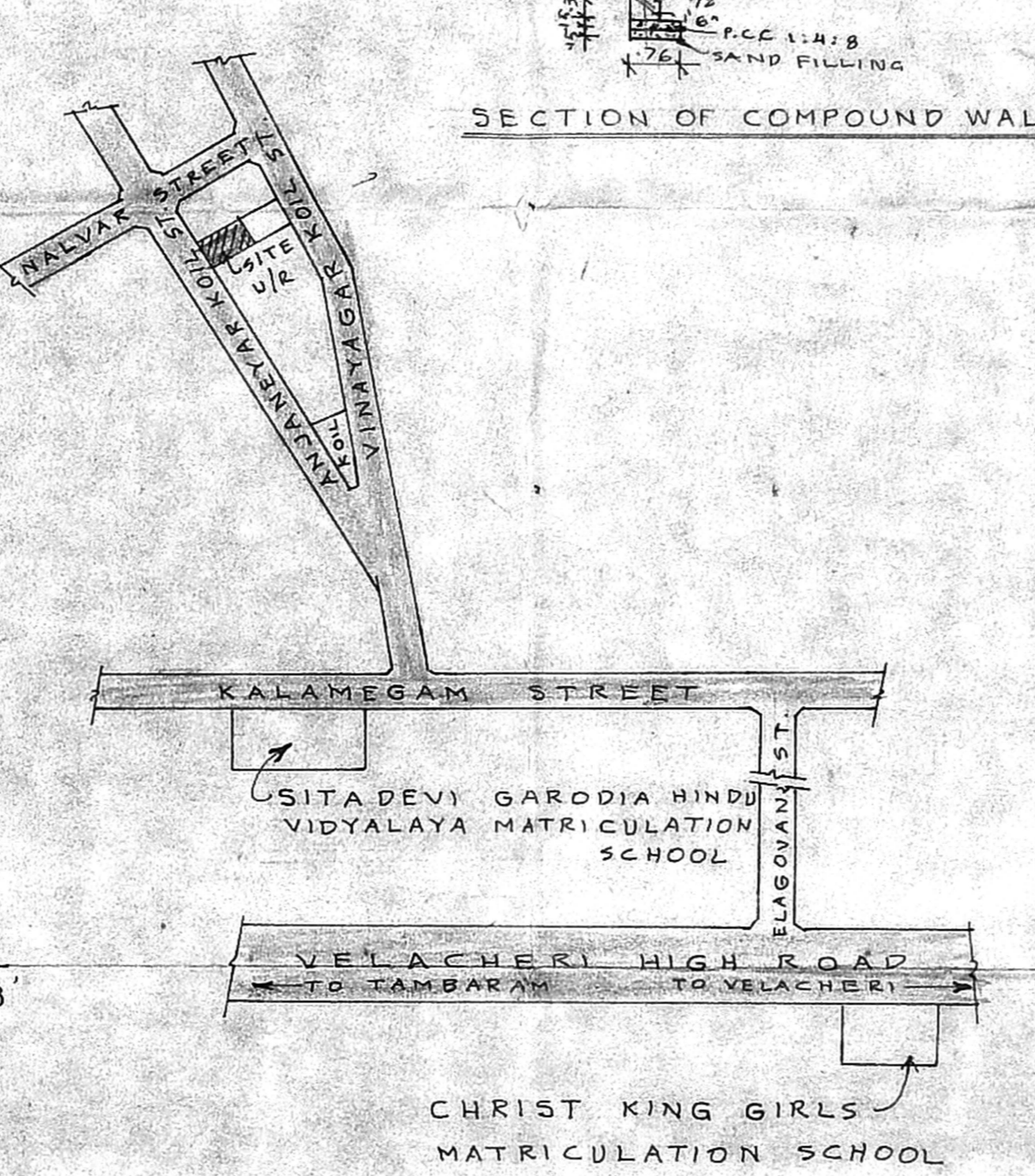
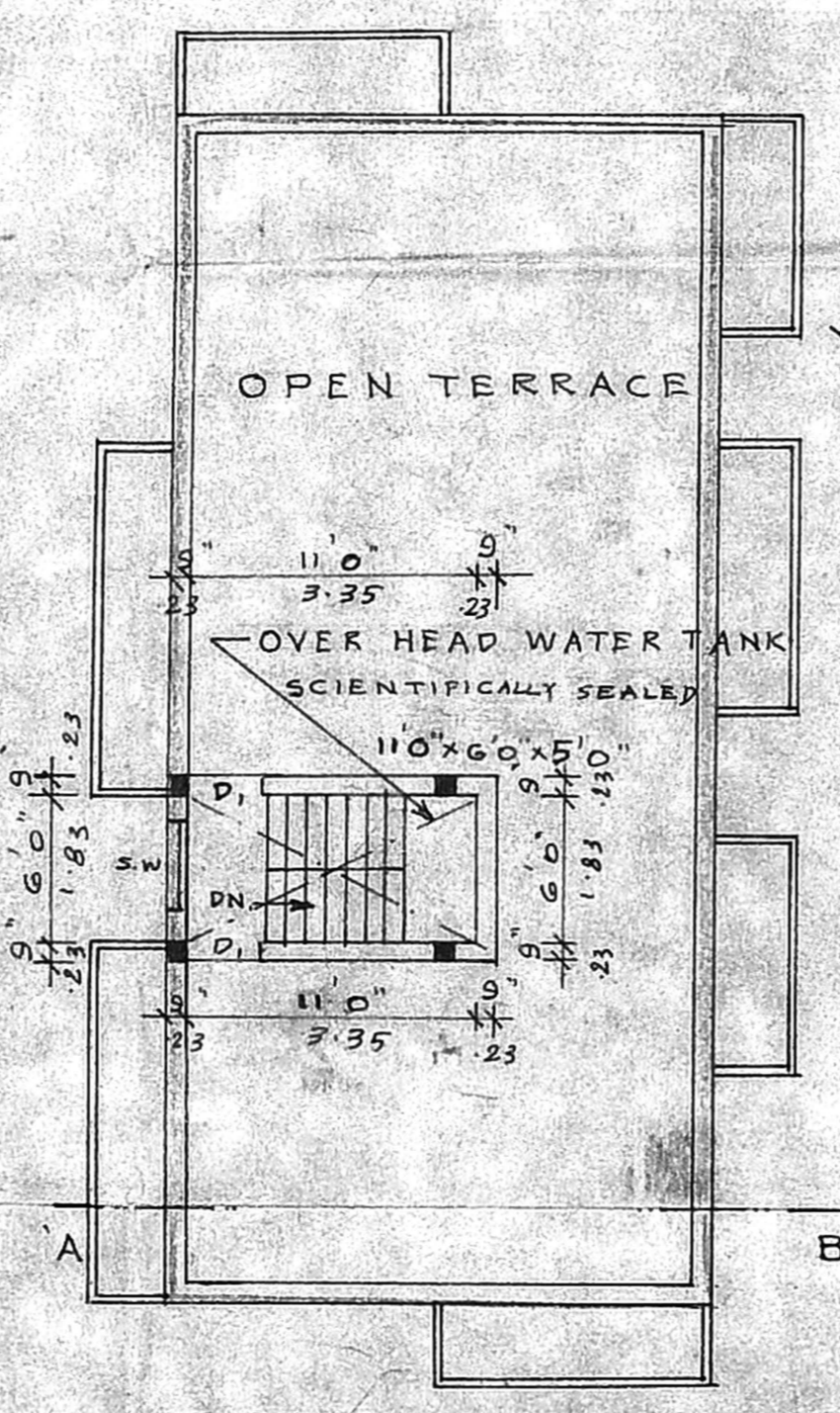
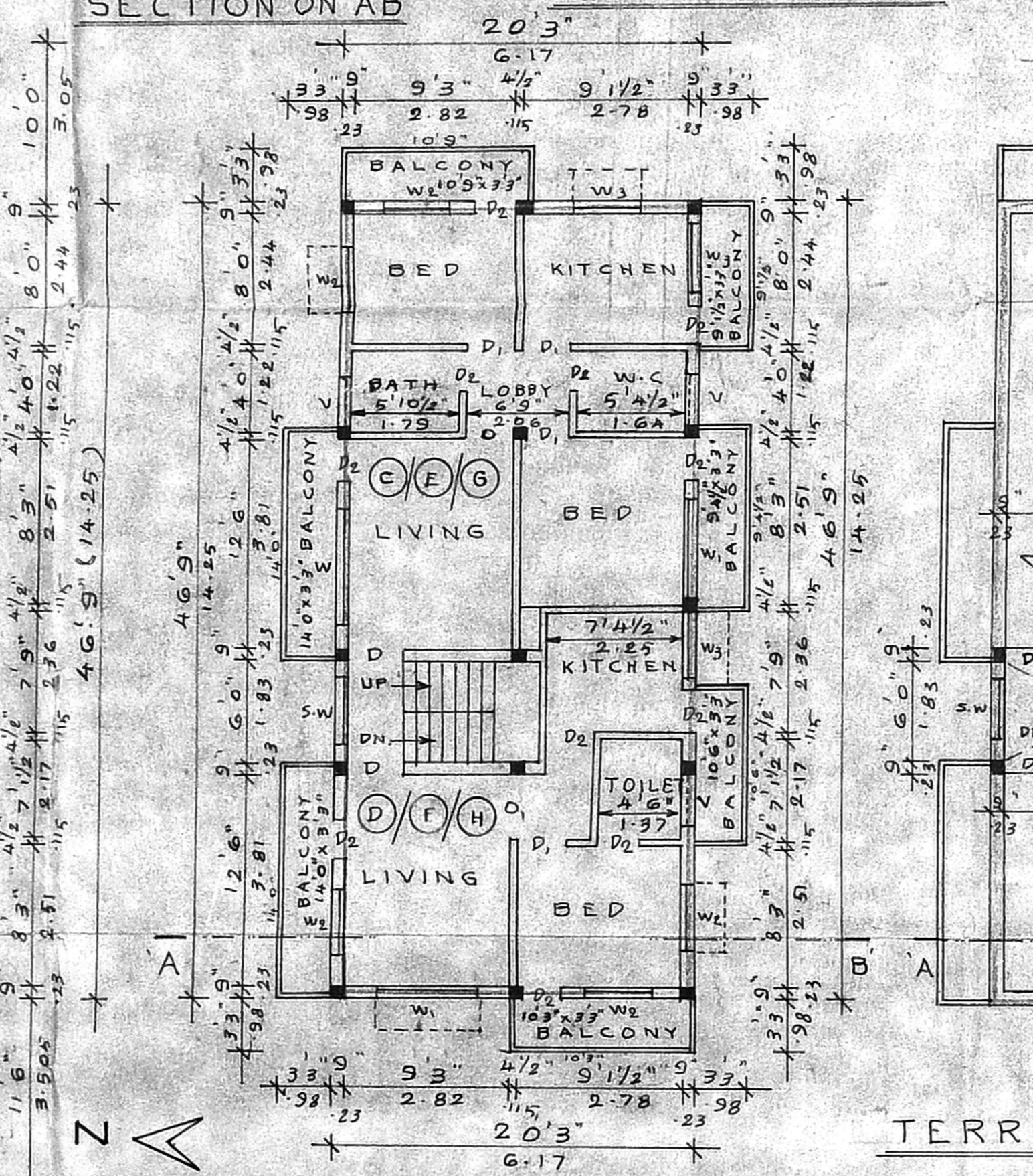
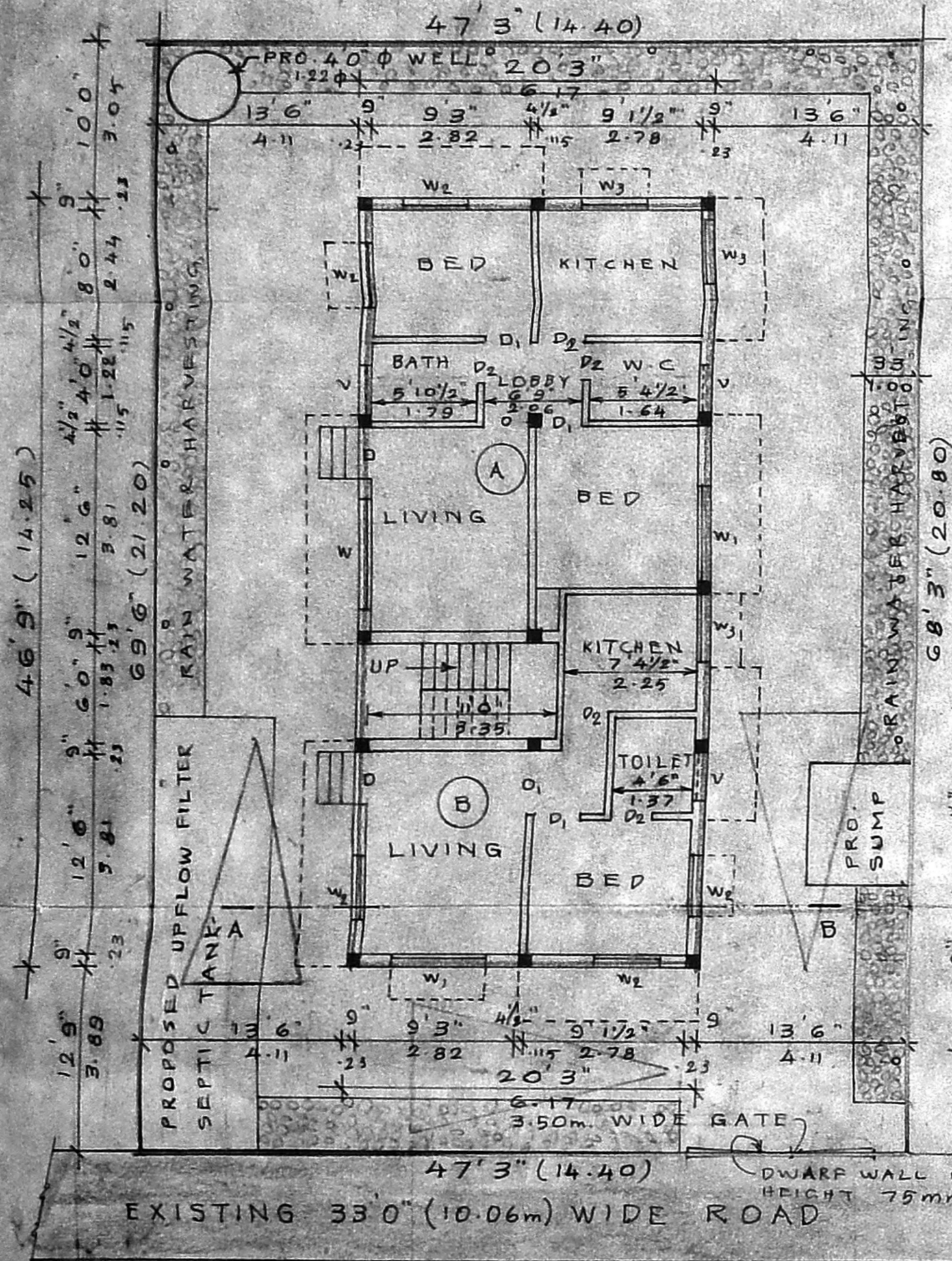
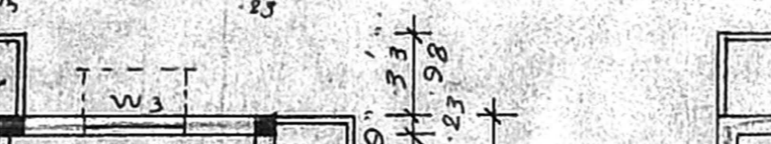
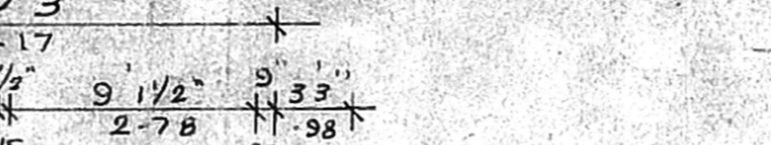
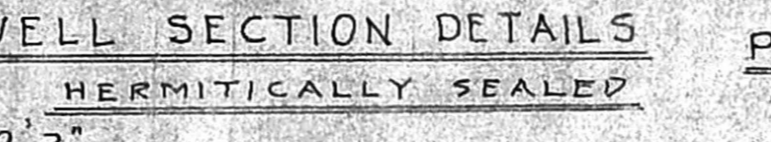
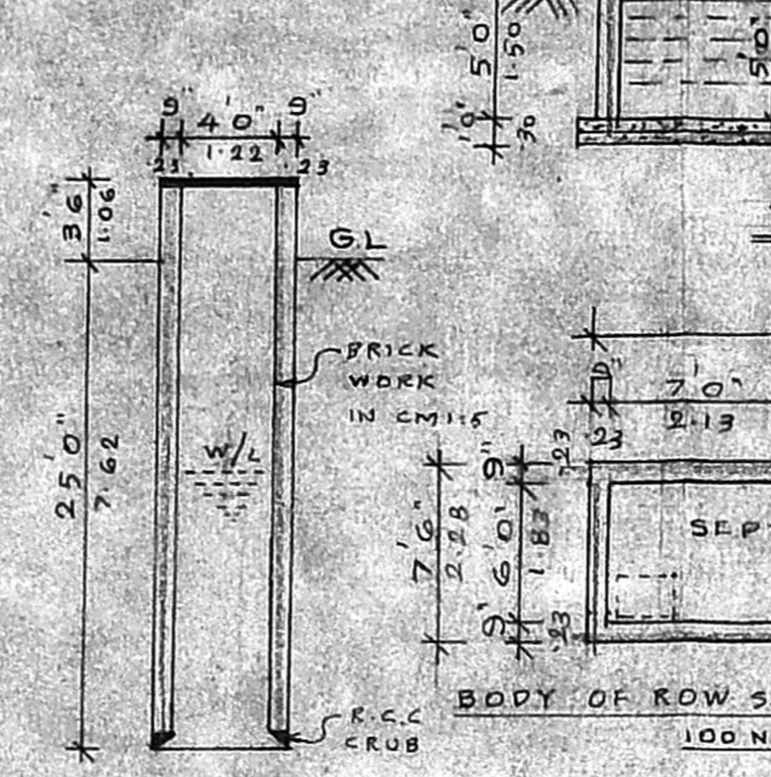
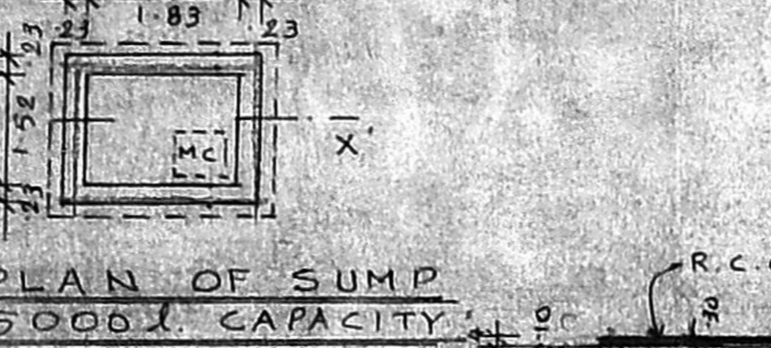
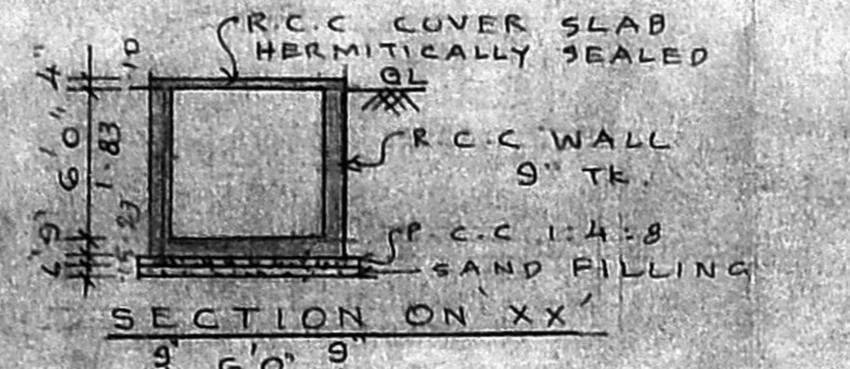
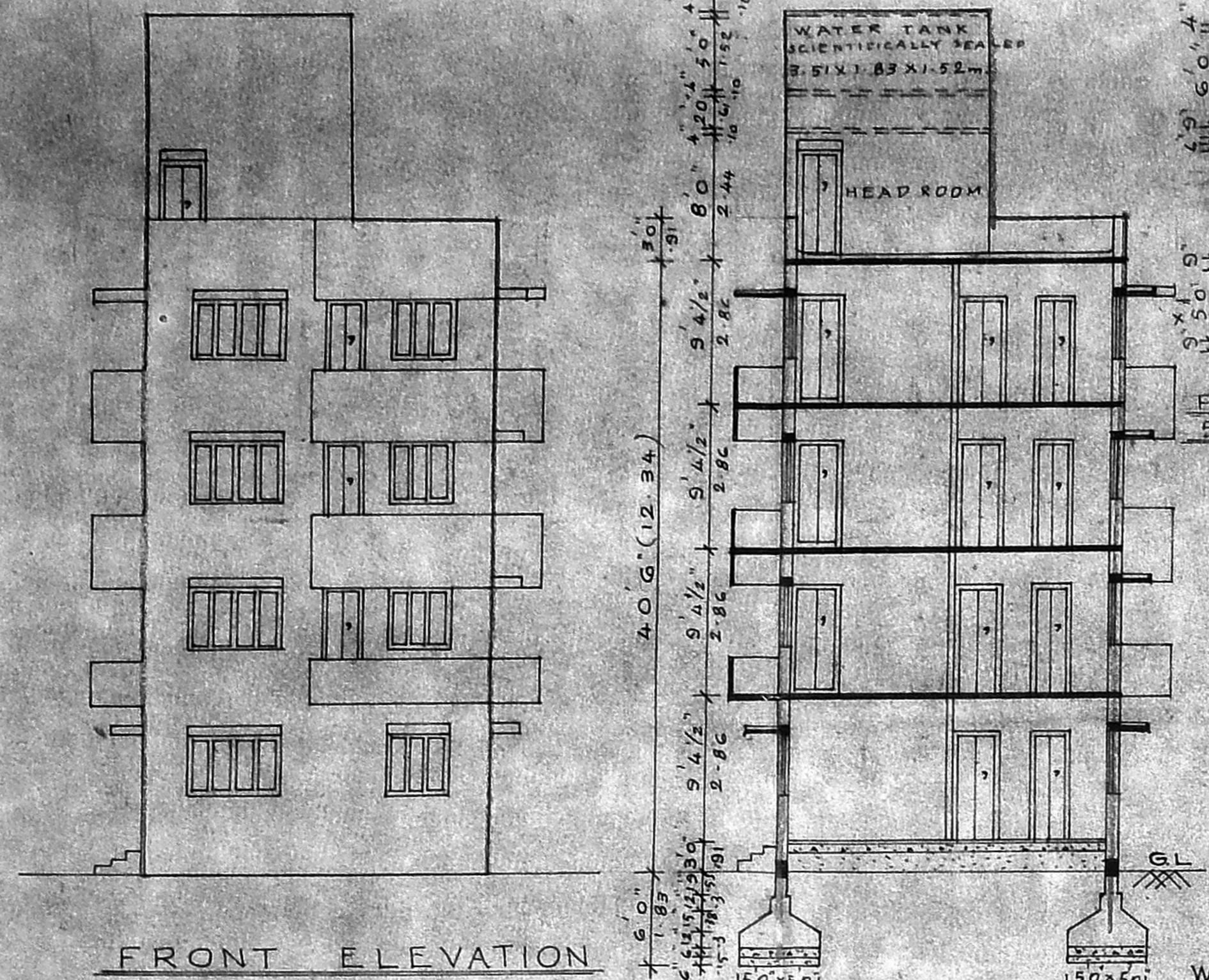
NO OF FLATS OR DWELLING - 8  
 ASSUMING 5 PERSONS PER FLAT  
 THEREFORE NO OF PERSONS = 8 x 5 = 40  
 NO OF USERS = 40  
 ASSUMING 2 FIXTURES PER FLAT = 8 x 2 = 16 UNITS  
 PER HOUR DISCHARGE = 16 x 6 = 96 LPM  
 SEPTIC TANK  
 SURFACE AREA NEEDED =  $\frac{96 \times 0.92}{10} = 8.83 \text{ m}^2$  SAY  
 VOLUME OF SEDIMENTATION =  $8.90 \times 0.30 = 2.67$   
 FOR DIGESTION =  $40 \times 0.032 = 1.28$   
 FOR SLUDGE STORAGE =  $0.0002 \times 365 \times 40 = 2.92$   
 FREE BOARD FOR SLUDGE =  $8.90 \times 0.30 = 2.67$   
 9.54 m<sup>3</sup>  
 DEPTH =  $\frac{\text{VOLUME}}{\text{AREA}} = \frac{10.00}{8.90} = 1.12$  SAY 1.50m  
 SIZE OF SEPTIC TANK = 1.83 x 4.87 x 1.50m

Planning Permit No. B Spl. No. 1251/20  
**APPROVED**  
 SUBJECT TO THE CONDITIONS IN S.C.O. BASIS OR FOR BETTER.  
 FOR MEMBER SECRETARY  
 CHENNAI METROPOLITAN  
 DEVELOPMENT AUTHORITY  
 CHENNAI-600 008.

RAIN WATER HARVESTING  
 SCALE 1" = 40' (1:50)



UPFLOW FILTER  
 LIQUID DEPTH OF SEPTIC TANK = 1.50m  
 VOLUME = 40 x 0.45 = 1.80 CU.M.  
 UPFLOW FILTER DEPTH ALLOWING 0.30m FREE BOARD = 1.50 - 0.30 = 1.20m  
 AREA NEEDED =  $\frac{1.80}{1.20} = 1.50 \text{ m}^2$   
 SAY 2.00m<sup>2</sup>  
 SIZE OF UPFLOW FILTER = 1.83 x 1.10  
 UPFLOW FILTER NO. 1 = 1.83 x 0.91  
 UPFLOW FILTER NO. 2 = 1.83 x 0.91



FLAT WISE AREA DETAILS:

| FLAT                               | AREA IN SQ. FT. | SQ. M           |
|------------------------------------|-----------------|-----------------|
| FLAT (A) IN G.F.                   | 536.97          | 49.88           |
| FLAT (B) IN G.F.                   | 409.72          | 38.06           |
| TYPICAL FLOOR IN FLAT - (C)(E)(G)  | 677.53          | 62.94 (3 FLATS) |
| F.F., S.F. & T.F. FLAT - (D)(F)(H) | 522.66          | 48.56 (3 FLATS) |

PROPOSED CONSTRUCTION OF RESIDENTIAL FLAT AT PLOT NO:17, DOOR NO. NEW NO:33 OLD NO:11 OF ANJANEYAR KOIL STREET IN S.NO:333/1A1A, T.S.NO:31, WARD NO:6 BLOCK NO:25 OF SELAIYUR VILLAGE, EAST TAMBARAM, CHENNAI.

- SPECIFICATIONS:
- BRICK WORK IN CM 1:6
  - R.C.C. ROOF SLAB 4" TH IN CC 1:2:4
  - PLASTERING WITH CM 1:4, 12mm TK.
  - CEILING PLASTERING WITH CM 1:3, 10mm TK.
  - P.C.C 1:4:8
  - R.C.C. PLINTH BEAM 9"x15" IN CC 1:2:4
  - WEATHERING COURSE WITH BRICK-JELLY LIME CONCRETE OVER THAT OF PRESSED TILES

SCHEDULE OF JOINERIES:

|                   |               |             |
|-------------------|---------------|-------------|
| D-DOOR            | - 33' x 7'0"  | 0.98 x 2.13 |
| D-DOOR            | - 3'0" x 7'0" | 0.91 x 2.13 |
| U2-DOOR           | - 2'6" x 7'0" | 0.76 x 2.13 |
| G.D. GRILL DOOR   | - 3'3" x 7'0" | 0.98 x 2.13 |
| W-WINDOW          | - 7'0" x 4'0" | 2.13 x 1.22 |
| W1-WINDOW         | - 6'0" x 4'0" | 1.83 x 1.22 |
| W2-WINDOW         | - 4'0" x 4'0" | 1.22 x 1.22 |
| W3-WINDOW         | - 4'0" x 3'0" | 1.22 x 0.91 |
| G.W. GRILL WINDOW | - 4'0" x 6'0" | 1.22 x 1.83 |
| V-VENTILATOR      | - 3'0" x 2'0" | 0.91 x 0.61 |

AREA STATEMENT:

| AREA IN SQ. FT.         | SQ. M          |
|-------------------------|----------------|
| PLOT AREA               | 3251.00 302.00 |
| PROPOSED BUILT UP AREA: |                |
| GROUND FLOOR            | 946.69 87.95   |
| FIRST FLOOR             | 1200.19 111.50 |
| SECOND FLOOR            | 1200.19 111.50 |
| THIRD FLOOR             | 1200.19 111.50 |
| TOTAL BUILT UP AREA     | 4547.26 422.44 |
| PLOT COVERAGE           | 36.92%         |
| F.S.I                   | 1.40           |

COLOUR INDEX:

|               |               |
|---------------|---------------|
| PROPOSED WORK | [Shaded Box]  |
| EXISTING ROAD | [Grey Box]    |
| SITE BOUNDARY | [Dashed Line] |

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OWNER  
 LICENSED SURVEYOR