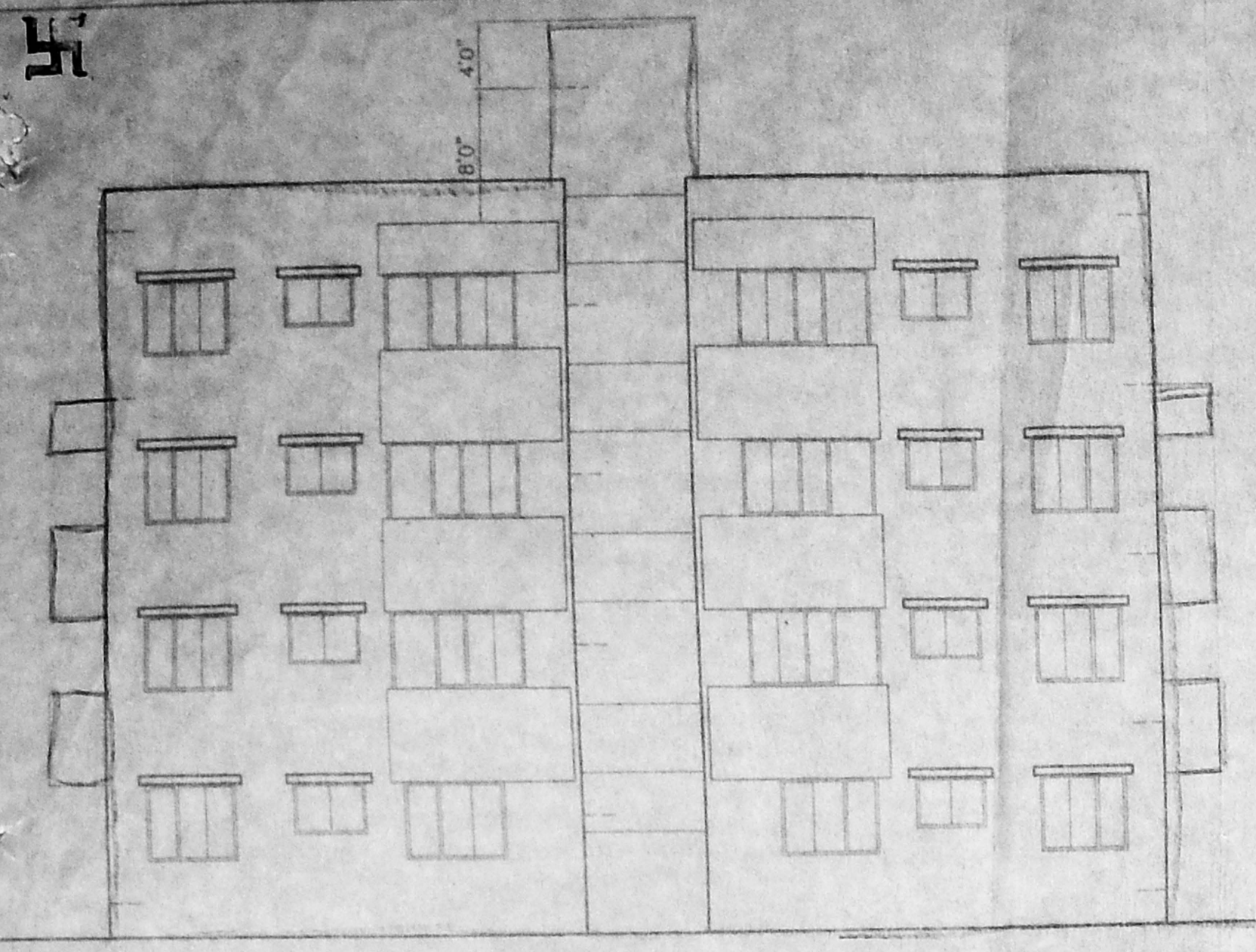


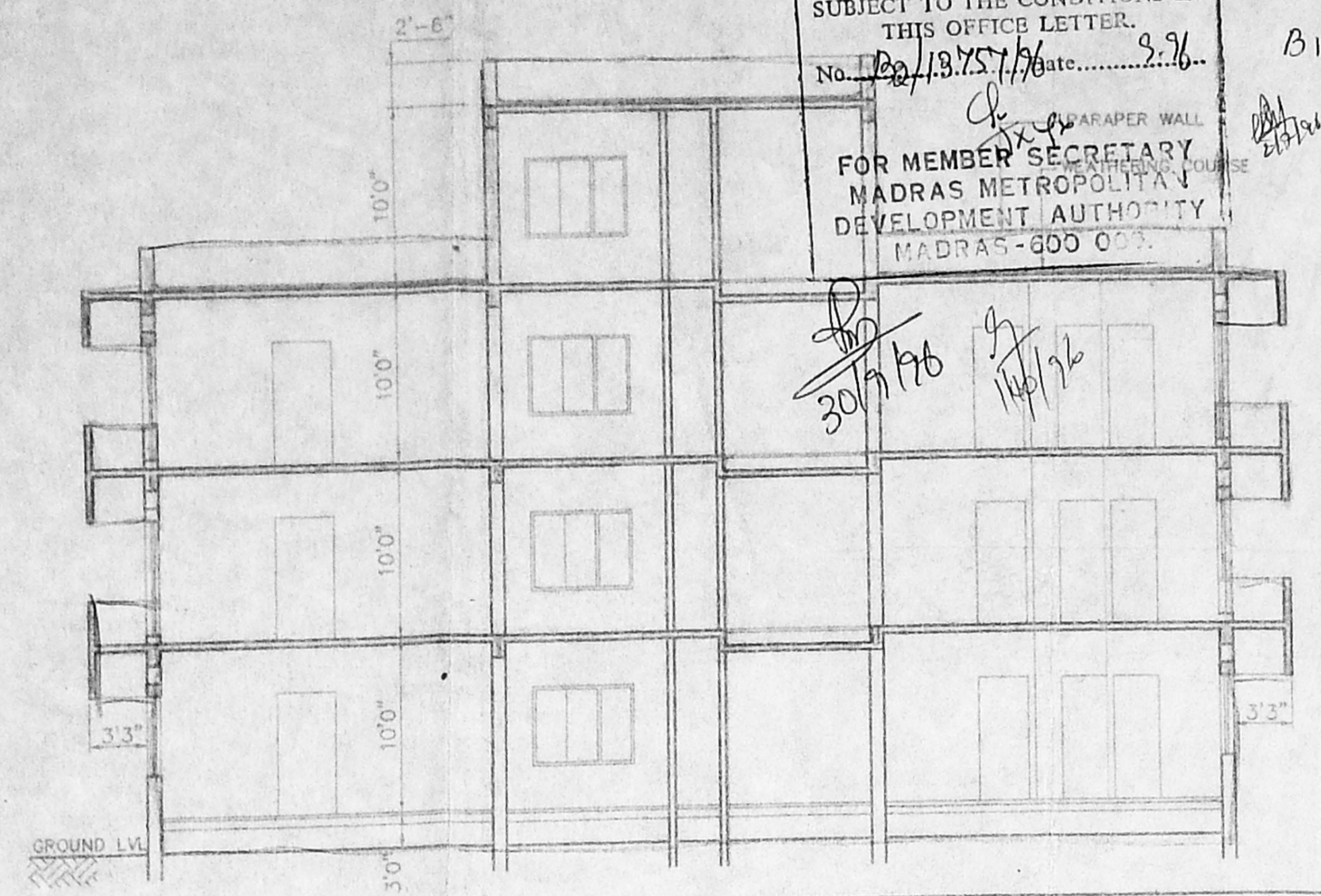
B/23713/448/A/B/76

Planning Permit No.
APPROVED
 SUBJECT TO THE CONDITIONS IN THIS OFFICE LETTER.
 No. B/13757/96 Date: 2.7.96
 FOR MEMBER SECRETARY
 MADRAS METROPOLITAN
 DEVELOPMENT AUTHORITY
 MADRAS-600 091

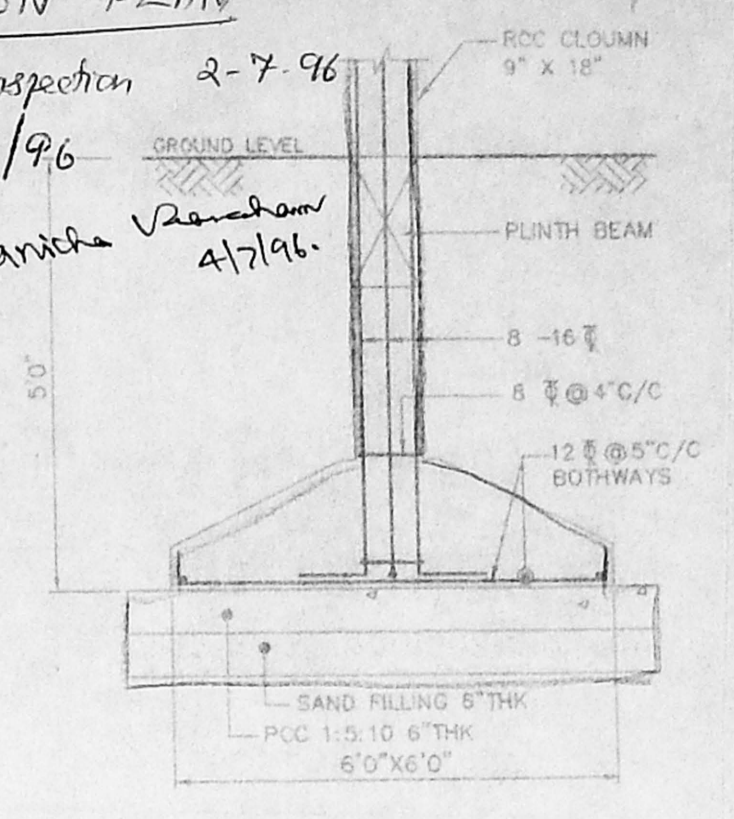
INSPECTION PLAN
 Date of Inspection 2-7-96
 B/13757/96
 M. V. Ramana
 4/7/96



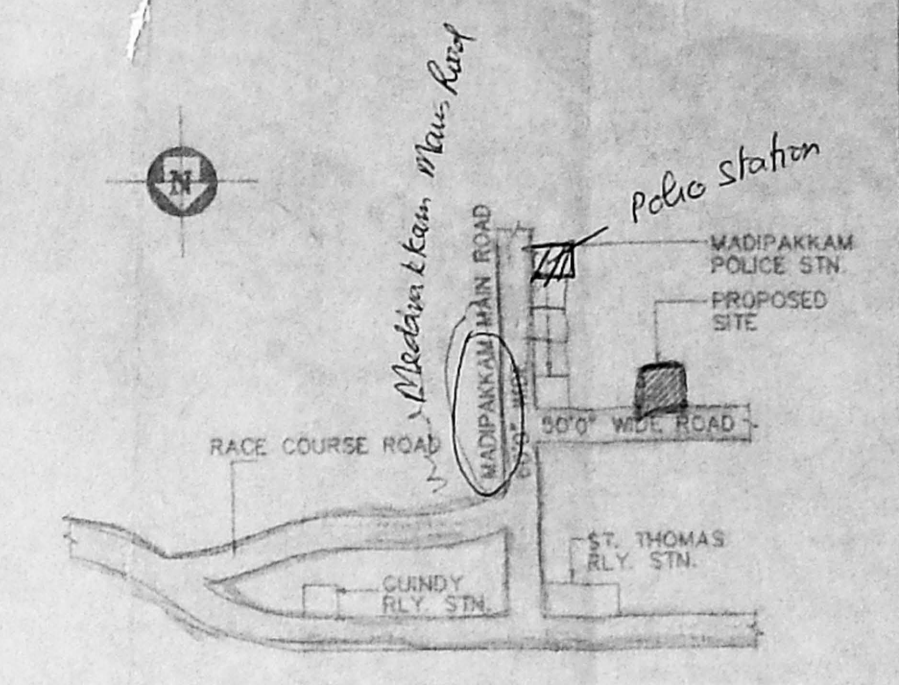
FRONT ELEVATION



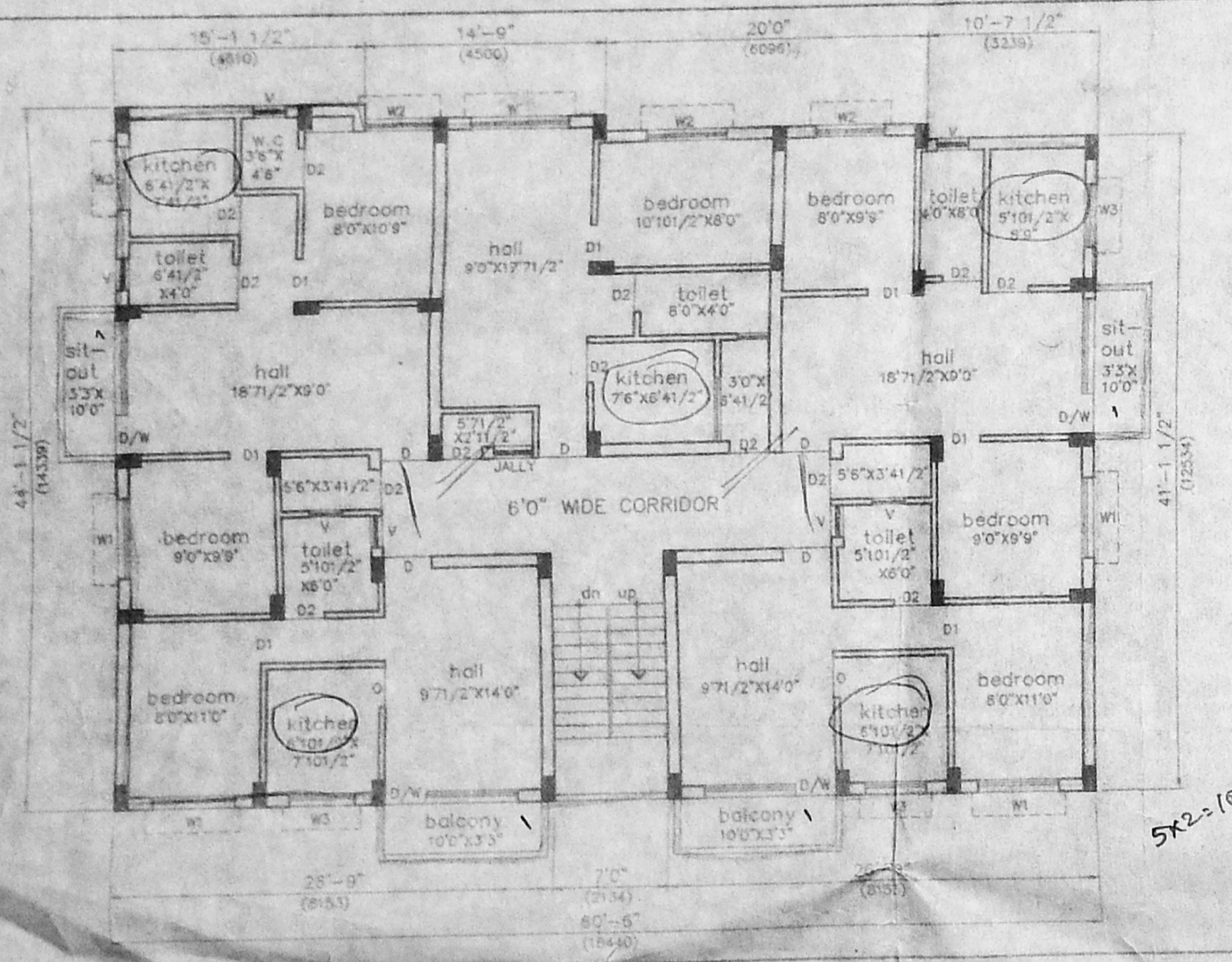
SECTION "A-A"



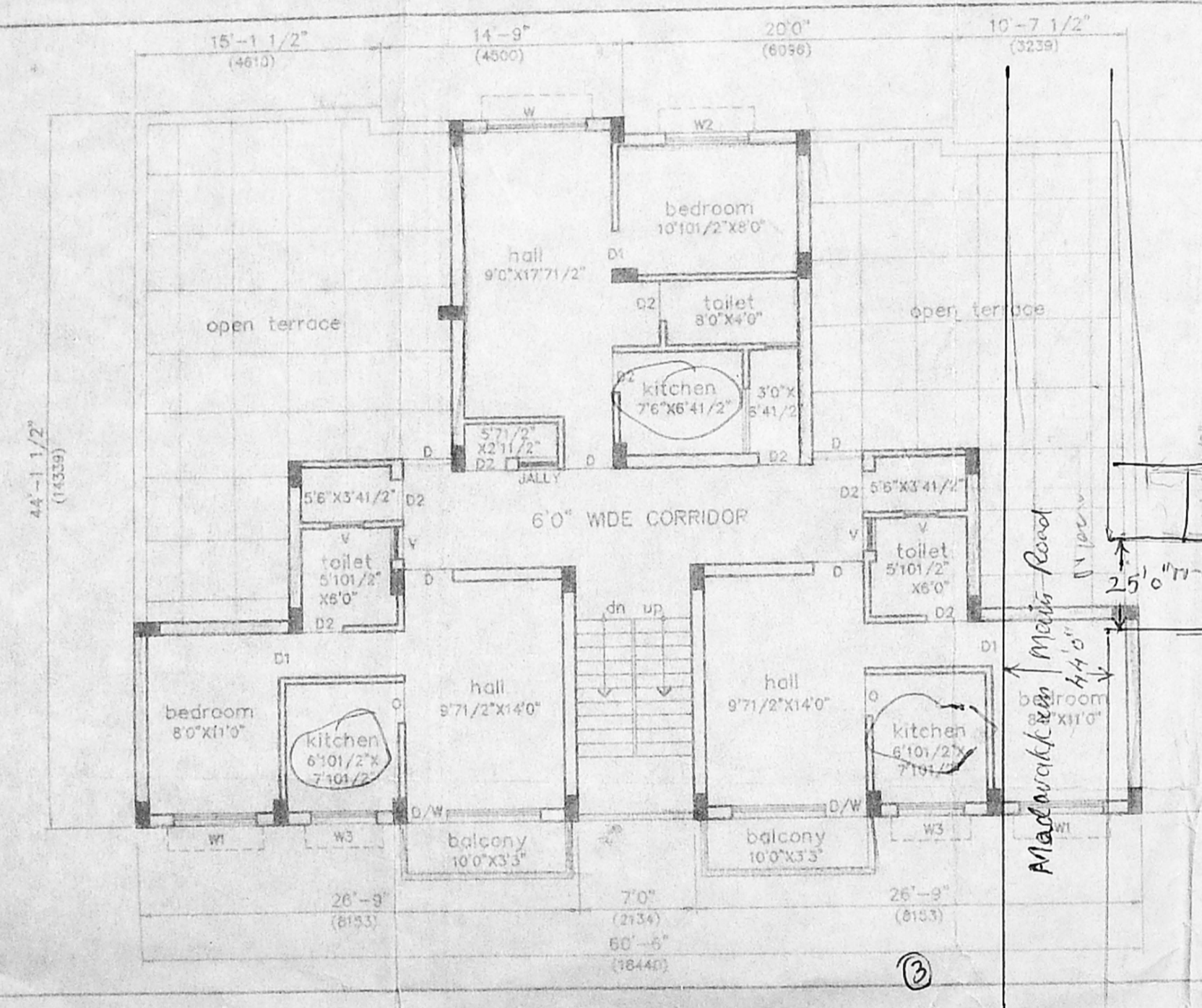
TYP FOUNDATION DETAIL



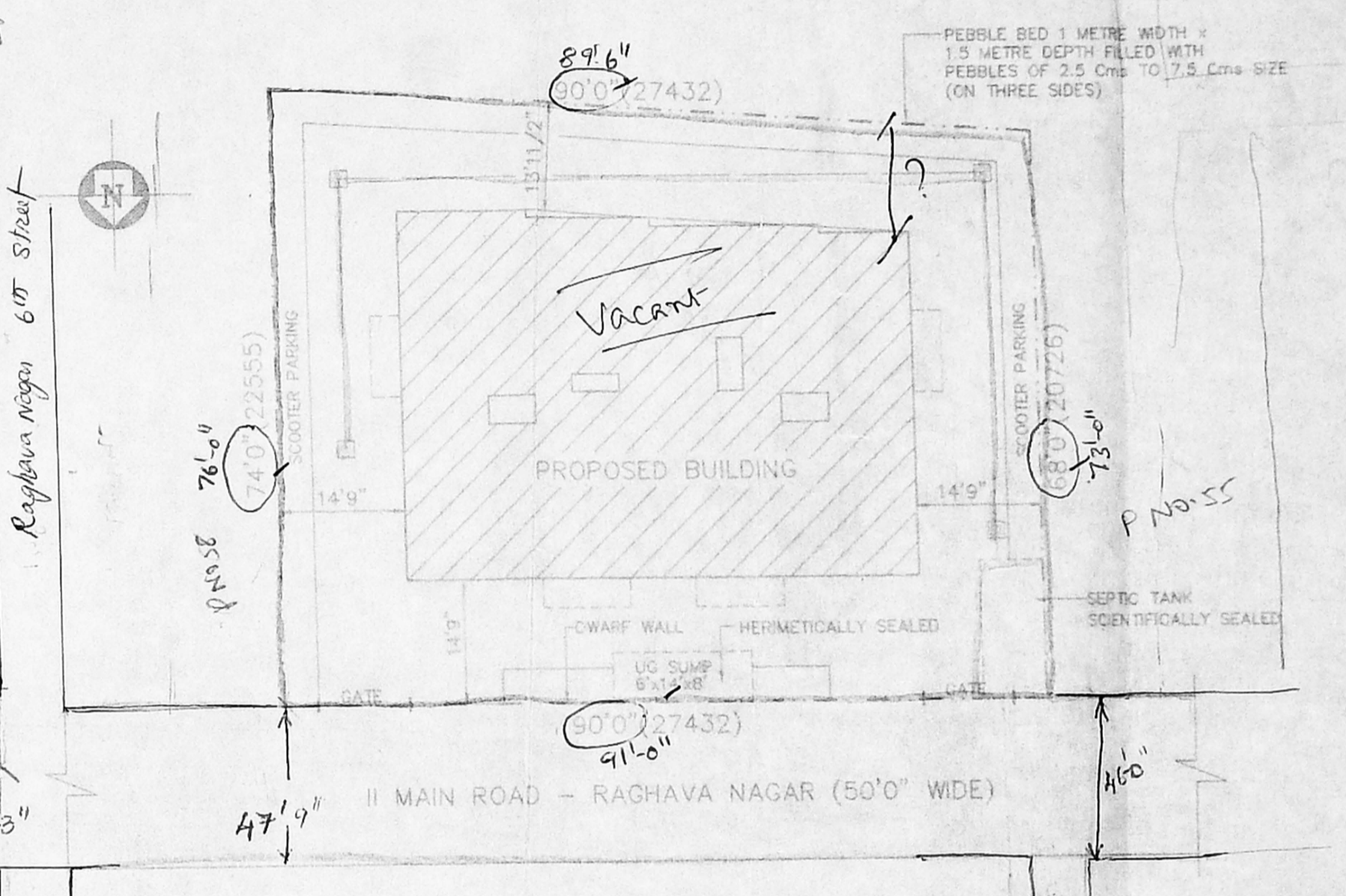
KEY PLAN



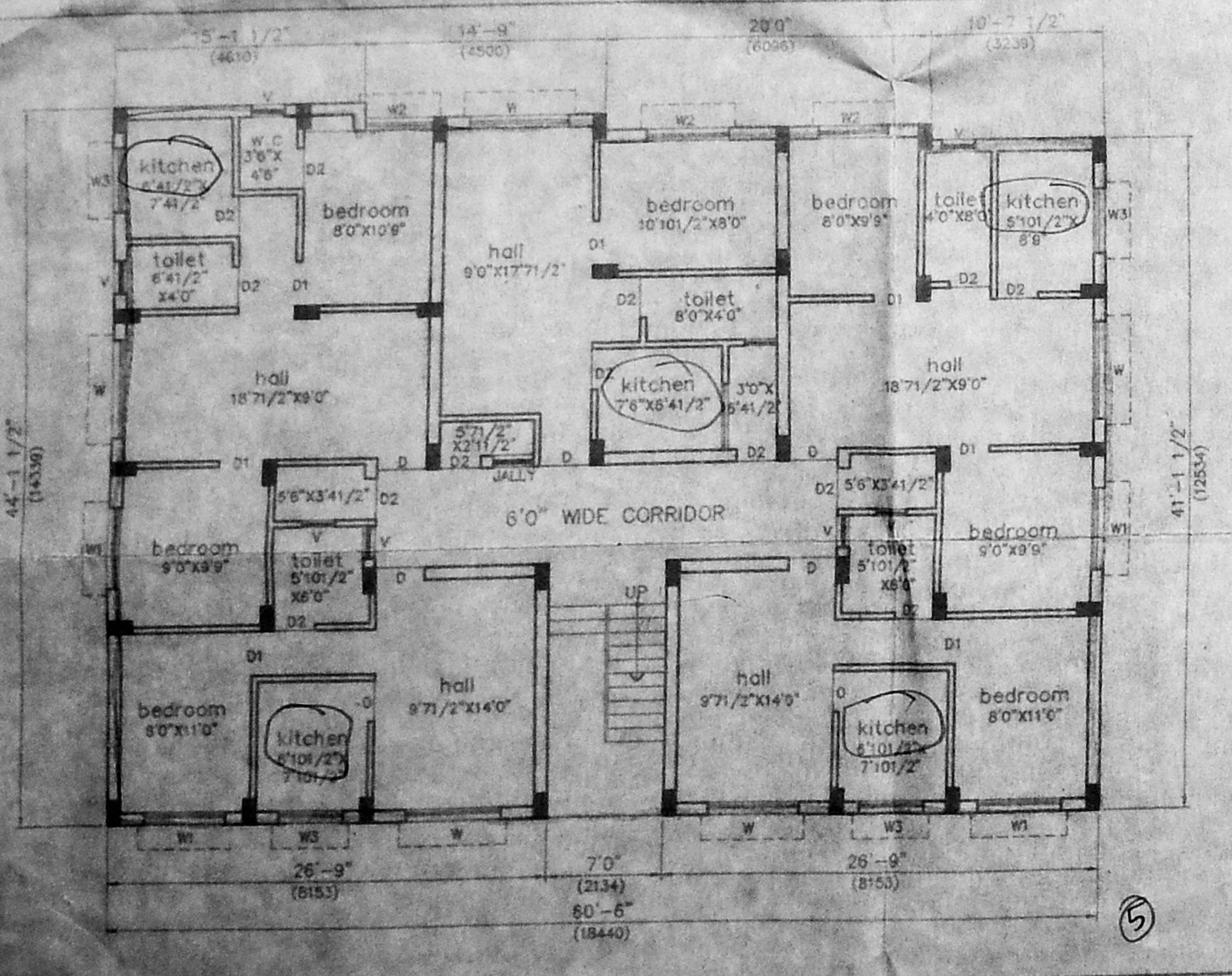
TYP FLOOR PLAN (FIRST FLOOR & SECOND FLOOR)



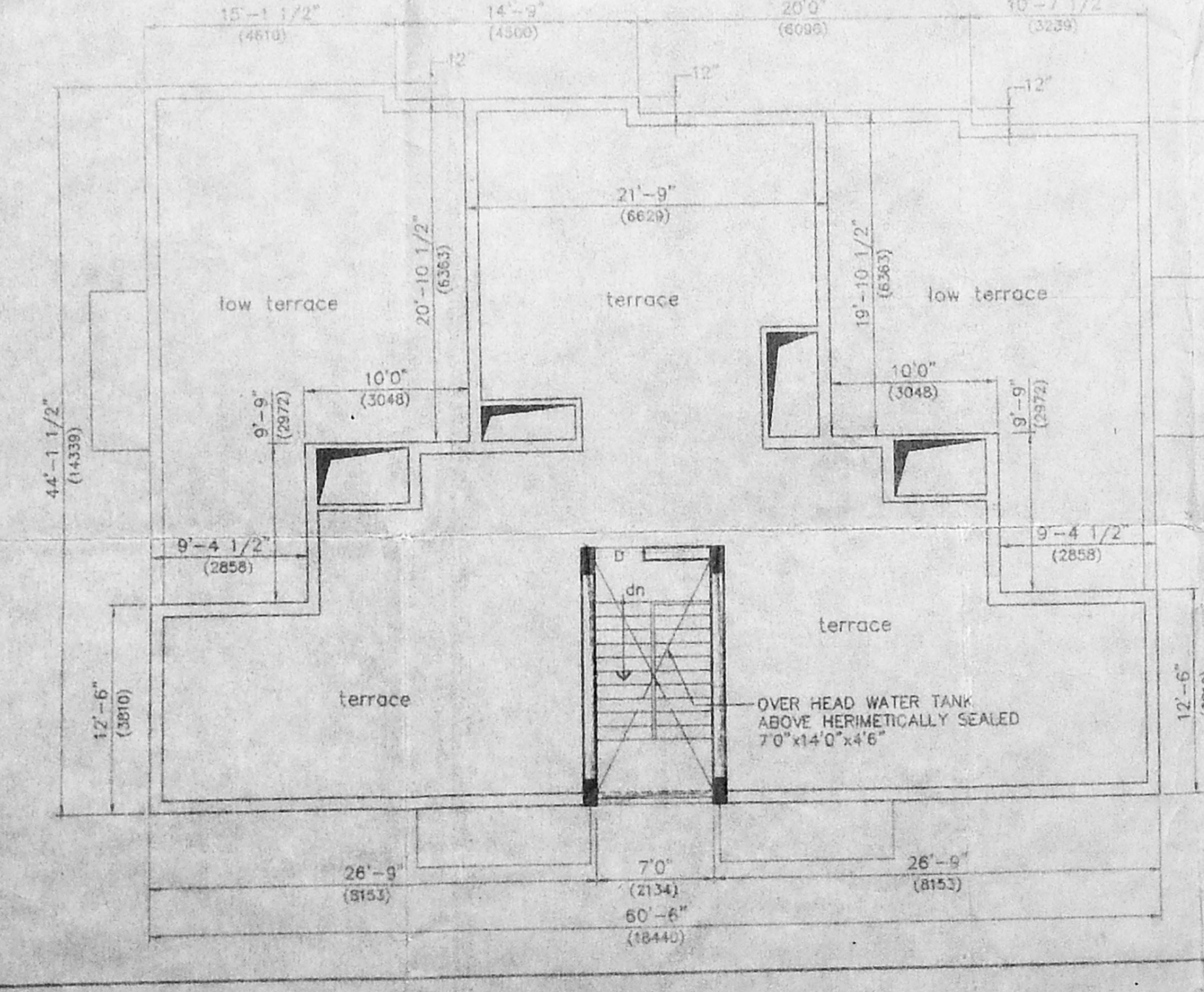
THIRD FLOOR PLAN



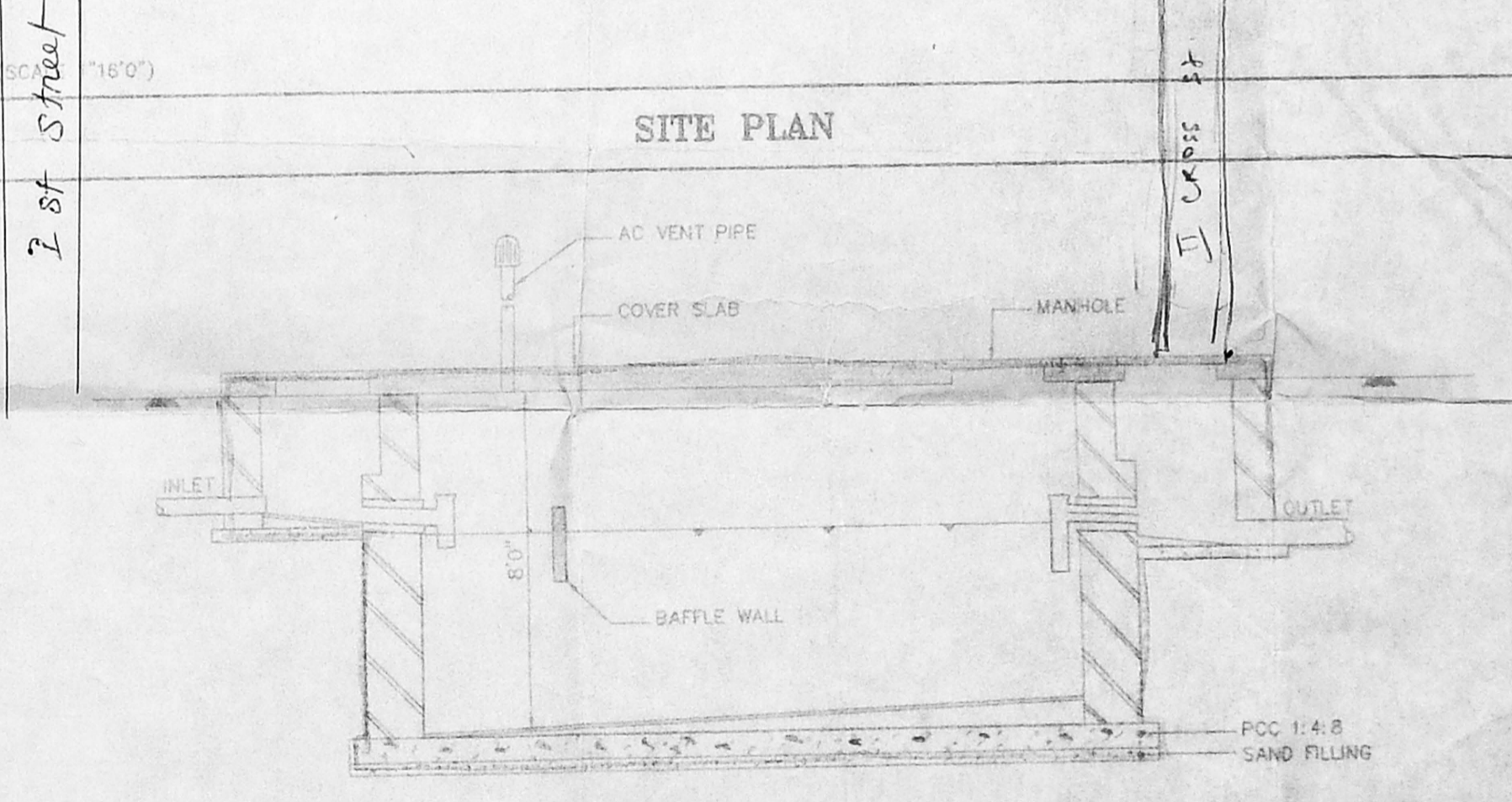
SITE PLAN



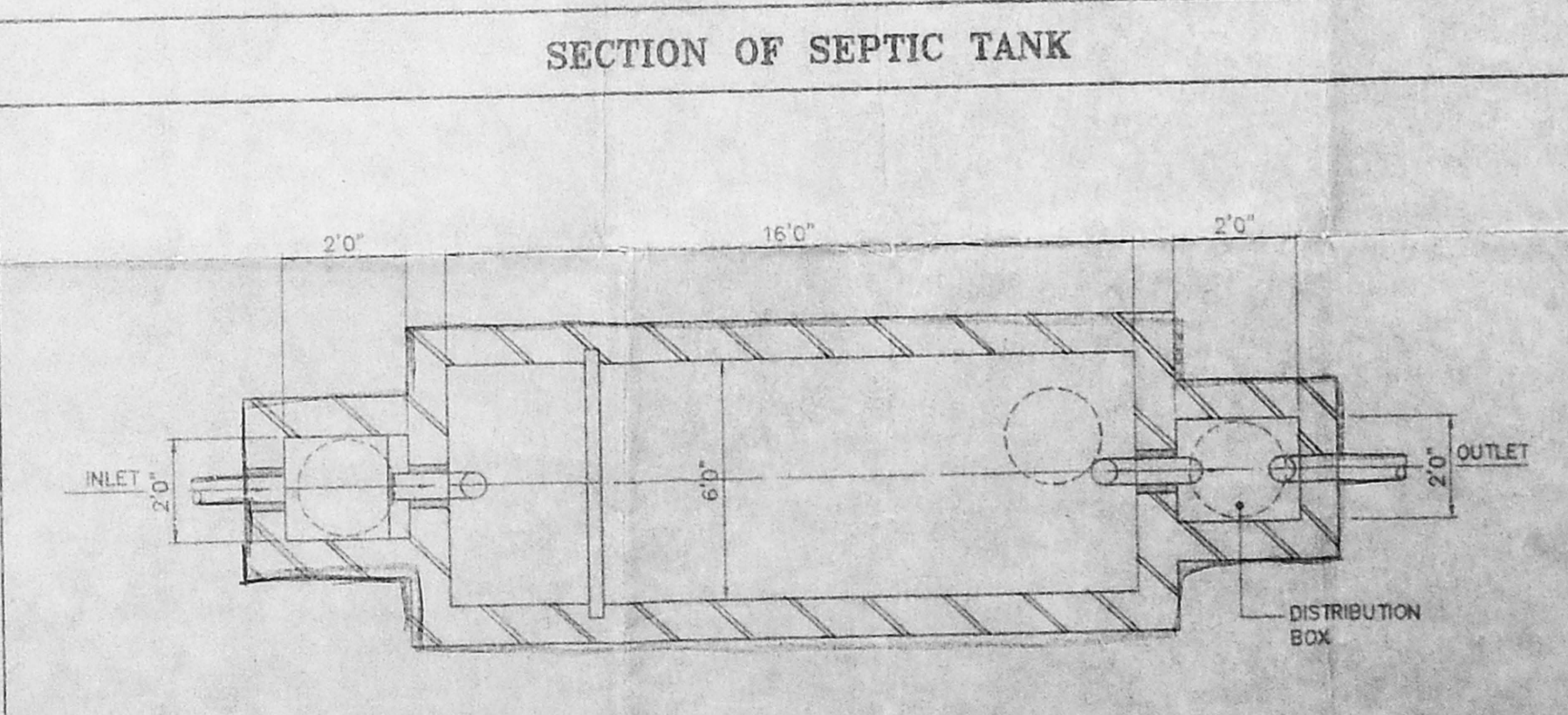
GROUND FLOOR PLAN



TERRACE FLOOR PLAN



SECTION OF SEPTIC TANK



PLAN OF SEPTIC TANK

PLAN SHOWING THE PROPOSED BUILDING AT PLOT NO. 56 & 57
 2nd MAIN ROAD, RAGHVA NAGAR
 IN S.No.7
 MADIPAKKAM, MADRAS 600 091.
 MOOVARASAMPATTU VILLAGE

SPECIFICATION

FOUNDATION : FOR COLUMNS IN RCC FOOTING IN 1:2:4 OVER PCC 1:5:10
 9" BRICK WORK IN C.M 1:6 OVER PLINTH BEAM
 BASEMENT AND SUPERSTRUCTURE BRICK WORK IN C.M 1:6
 RCC WORK 1:2:4 USING 0.8% STEEL AS PER MDSS
 ALL JOINERY WORK TO BE DONE AND PAINTED WITH BEST ENAMEL PAINT
 ALL INTERNAL & EXTERNAL PLASTERING IN 1:4
 WEATHERING COURSE BRICK JELLY CONCRETE
 LIME 1:2 LAD TO STOVE AVE. 3" THK TOP FINISHED WITH PRESSED TILES IN C.M 1:3

AREA STATEMENT

PLOT AREA	: 6391 Sq.Ft.	594 Sq.M.
GROUND FLOOR AREA	: 2514 Sq.Ft.	234 Sq.M.
FIRST FLOOR AREA	: 2844 Sq.Ft.	246 Sq.M.
SECOND FLOOR AREA	: 2844 Sq.Ft.	246 Sq.M.
THIRD FLOOR AREA	: 1609 Sq.Ft.	150 Sq.M.
TOTAL BUILT UP AREA	: 9411 Sq.Ft.	876 Sq.M.
PLOT COVERAGE	: 41%	
F.S.I	: 1.47	
PARKING	: SCOOTER PARKING	

SCHEDULE OF JOINERY

MKD	DESCRIPTION	WIDTH	HEIGHT
D	DOOR	3'0"	7'0"
D1	DOOR	2'9"	7'0"
D2	DOOR	2'6"	7'0"
D/W	DOOR CUM WINDOW	7'0"	7'0"
W	WINDOW	6'0"	4'6"
W1	WINDOW	5'0"	4'6"
W2	WINDOW	4'3"	4'6"
W3	WINDOW	4'0"	3'0"
O	OPENING	2'9"	7'0"
V	VENTILATOR	2'0"	2'6"

NOTES
 1. ALL DIMENSIONS ARE IN FEET & INCHES AND BRACKET DIMENSIONS INDICATE IN MILLIMETRES
 2. SCALE 1"=8'0" (1:100)

REFERENCE

PROPOSED WORK
 ROAD
 BOUNDARY LINE
 SEWER LINE

OWNER

V. Ramana

LICENSED SURVEYOR

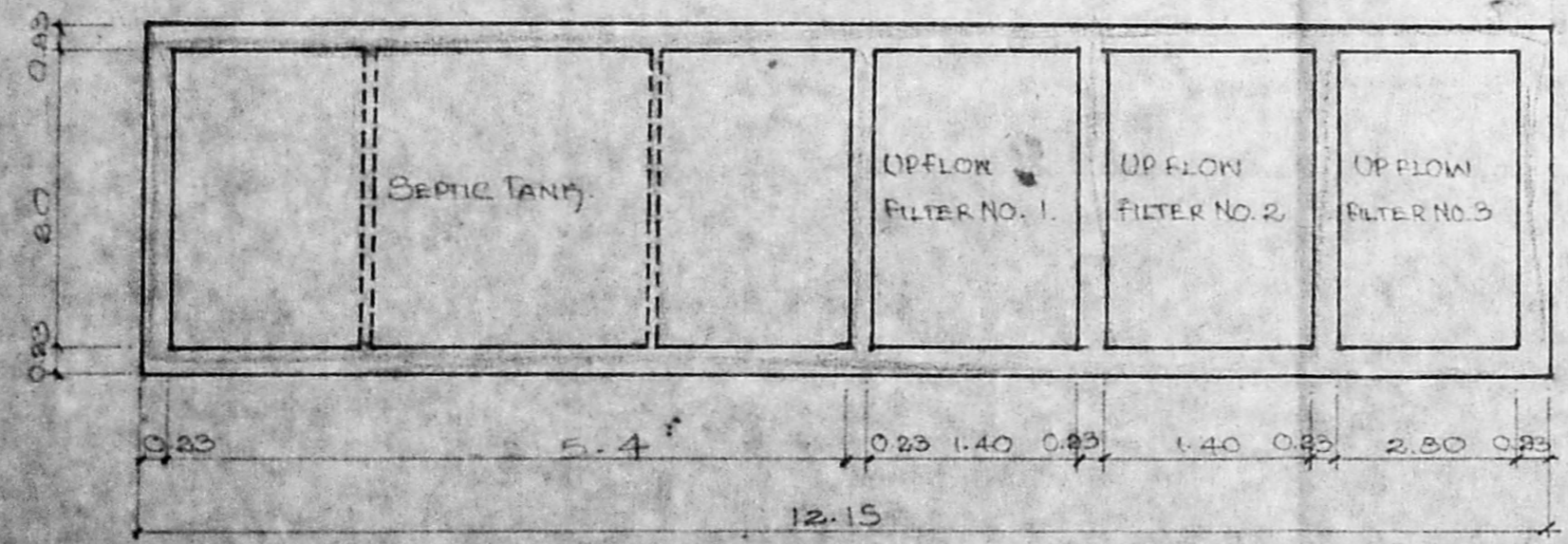
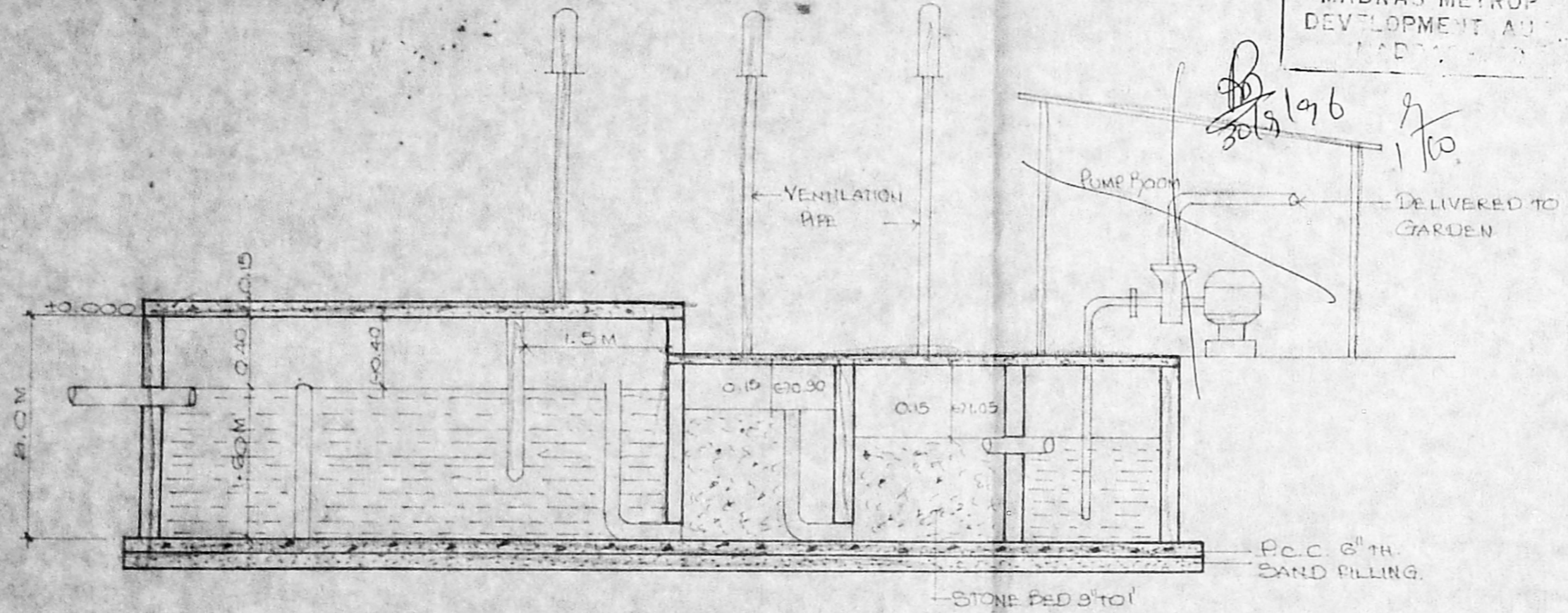
M. K. Venugopal
M. K. VENUGOPAL, Rtd. A.S. by
 CORPORATION OF MADRAS
 Civil & Sanitary Engineering Consultant
 Licensed Surveyor, Class-I No. 128
 Licensed Plumber, Class-I Metro Water
 Beverage No. Water Supply No.
 8, Hindustan Street, Anna Nagar, Madras 600 091
 Madras at Cooperative Girls' High School
 MADRAS-600091

PLAN SHOWING THE PROPOSED RESIDENTIAL BUILDING AT
 PLOT NO. 568 57 2nd MAIN ROAD, RAGHYA NAGAR
 IN S. NO. 7 MADIPAKKAM, MADRAS 600 091.
 MOOVARA SAMPATTO VILLAGE

B/23713/448/96/13/13

DESIGN OF SEPTIC TANK & UP FLOW FILTERS FOR BLOCK 1A2

Planning Permit No.
APPROVED
 SUBJECT TO THE CONDITIONS IN
 THIS OFFICE LETTER.
 No. B2/13757/96 Date 9.9.96
 FOR MEMBER SECRETARY
 MADRAS METROPOLITAN
 DEVELOPMENT AUTHORITY
 MADRAS



DETAIL OF SEPTIC TANK (SCALE 1:75)

NO. OF DWELLINGS = 13 NOS.
 NO. OF USERS = 13x5 = 30 PERSONS.
 RATE OF WATER SUPPLY IS = 150 LPH/DAY
 THEN FLOW OF SEWAGE PER DAY = 30x150 = 13500 LITRES
 DETENTION PERIOD IS = 18 hrs.
 ∴ TANK CAPACITY = $\frac{13500 \times 18}{24} = 10125$ LITRES

THE TANK IS TO BE CLEANED EVERY YEAR, SO SLUDGE STORAGE CAPACITY AT THE RATE OF 15 LITRES PER PERSON PER YEAR.
 = 30x15 = 1350
 TOTAL TANK CAPACITY = 10125 + 1350 = 11475 LITRES

WITH PROVISION FOR FUTURE EXPANSION, LET THE TOTAL TANK CAPACITY BE 15,000 LITRES (OR) 15 M³.

PROVIDE TWO UNITS OF SEPTIC TANK, EACH HAVING A CAPACITY OF 15 M³.
 DEPTH OF LIQUID AS = 1.60 M.
 ∴ PLAN AREA OF THE TANK = $\frac{15}{1.60} = 9.4$

THE RATIO OF LENGTH TO WIDTH OF TANK BE, 3
 LENGTH x BREADTH = 9.4 M²
 BREADTH OF TANK = $\sqrt{9.4/3} = 1.8$ M
 LENGTH OF TANK = 1.8x3 = 5.4 M
 FREE BOARD OF THE TANK = 0.40 M.
 ∴ TOTAL DEPTH OF THE TANK = 1.60 + 0.40 = 2.0 M.

∴ PROVIDE TWO SEPTIC TANK EACH OF THE SIZE 13.5 x 2 x 2 M.

UP FLOW FILTERS:

DISCHARGE FOR 500 PERSONS = 75000 LITRES.
 VOLUME = 500x0.045 = 22.5 M³
 DEPTH = 1.1 - 0.30 = 0.80 M.
 PLAN AREA REQUIRED = $\frac{22.5}{0.80} = 28$ M²

∴ SIZE OF THE UP FLOW FILTERS = 2.8 x 1.4 x 1.1

UP FLOW FILTER NO. ① = 1.4 x 0.9 x 0.8
 UP FLOW FILTER NO. ② = 1.4 x 0.9 x 0.8

OWNER
K. S. Venugopal

V. P. Prasad

LICENSED SURVEYOR
W. P. Prasad
 F- K VENUGOPAL, Rtd. A.E.E.
 CORPORATION OF MADRAS
 Civil & Sanitary Engineering Consultant
 Licensed Surveyor, Class-I No: 320
 Licensed Plumber, Class-I Metro Water
 Sewerage No. Water Supply No.
 3, Neulakandan Street, Nungambakkam (Lake Area)
 Backside of Corporation Girls Higher Secondary School
 MADRAS - 600 034.