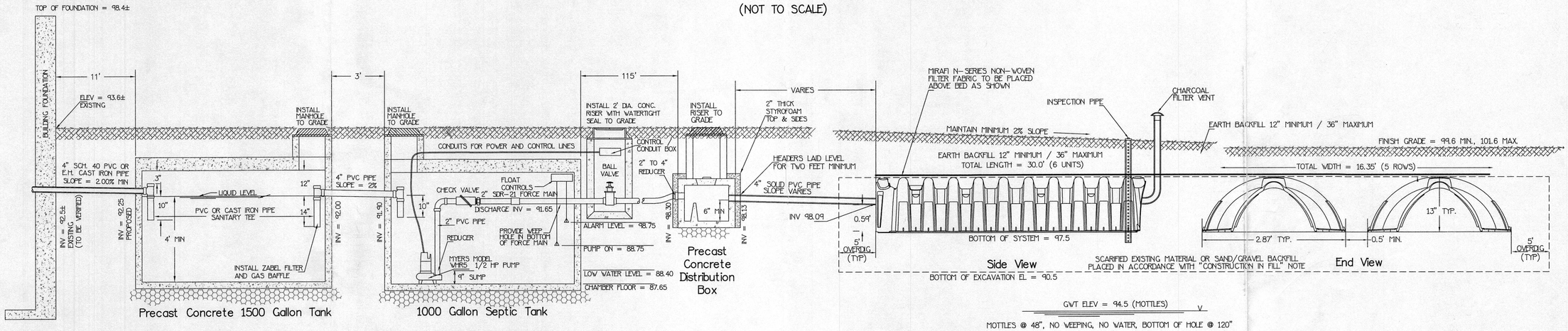
Cross–Section Through Septic System

(NOT TO SCALE)

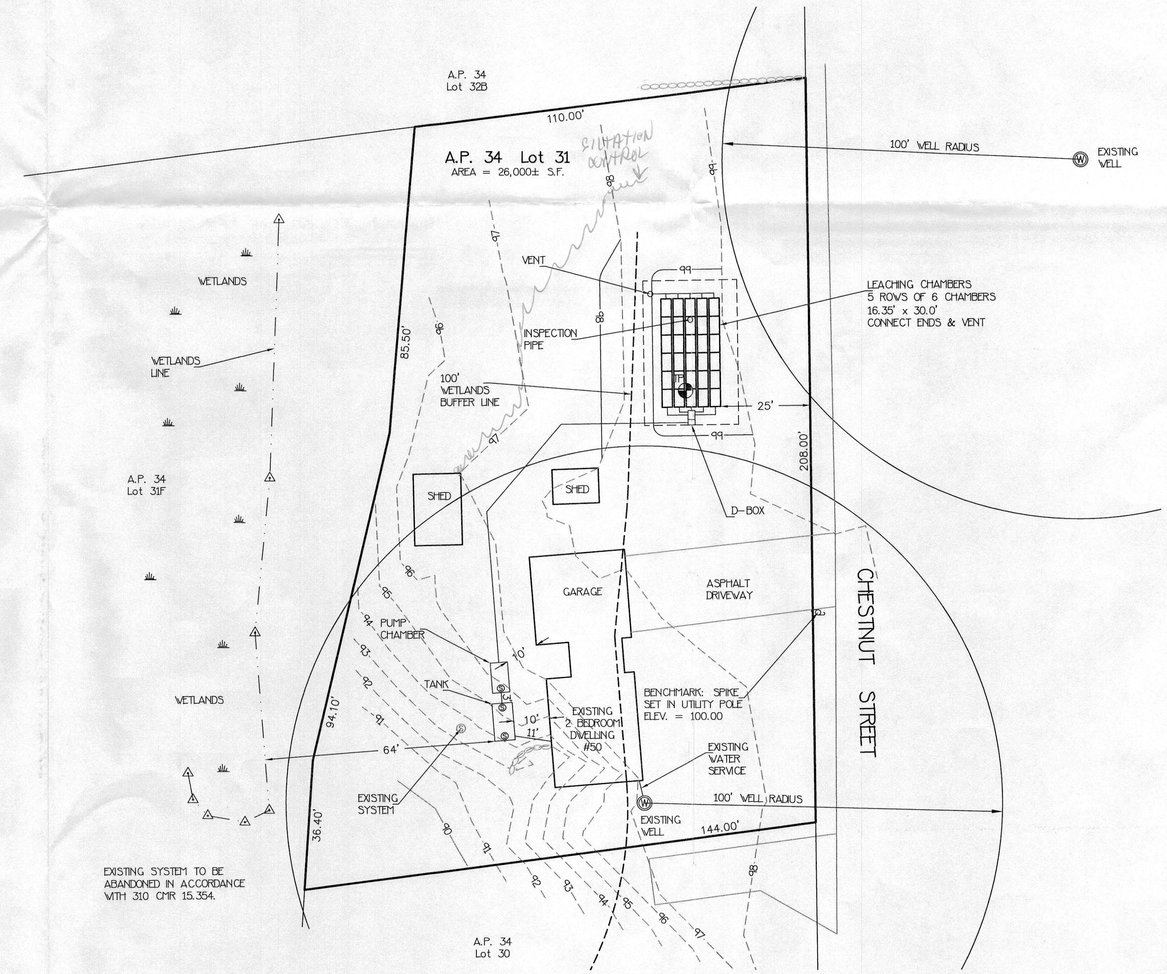


Typical Open Bottom Leaching Chambers

NOTE: EXISTING INVERT ELEVATION WAS DETERMINED FROM BEST AVAILABLE DATA. EXISTING ELEVATIONS TO BE VERIFIED IN FIELD BY CONTRACTOR PRIOR TO THE START OF CONSTRUCTION.

NOTE: SEPTIC TANK, PUMP CHAMBER AND D–BOX TO BE INSTALLED ON MINIMUM 6" COMPACTED CRUSHED STONE BASE.

NOTE: DISCHARGE FROM A WATER TREATMENT SYSTEM (SOFTENER) IS NOT ALLOWED INTO THIS SEPTIC SYSTEM.



EXISTING SYSTEM TO BE ABANDONED IN ACCORDANCE WITH 310 CMR 15.354.

GRAPHIC SCALE

20 0 10 20 40 80

(IN FEET)

1 inch = 20 ft.

Legend

- SOIL TEST PIT
- EXISTING CONTOUR
- PROPOSED CONTOUR
- STONE WALL

Requested Variances

1. REDUCTION IN VERTICAL SEPARATION FROM BASE OF LEACHING FIELD TO SEASONAL HIGH WATER TABLE FROM 4' TO 3' IN ACCORDANCE WITH 310 CMR 15.405 (1) (h).
2. USE SIEVE ANALYSIS IN LIEU OF PERCOLATION TESTING TO DETERMINE RATE DUE TO SATURATED SOIL IN ACCORDANCE WITH 310 CMR 15.405 (1) (i).

Design Data

Average Daily Sewage Flow (gallons)

EXISTING 2 BEDROOM DWELLING
DESIGN FOR 3 BEDROOM DWELLING @ 110 GPD PER BEDROOM = 330 GPD

Septic Tank Sizing (gallons)

200% AVERAGE DAILY FLOW = 2 (330) = 660 GALLONS
3 BEDROOM HOME REQUIRES 1500 GALLON TANK (MINIMUM)

Leaching Area Calculation

SOIL CLASS: CLASS I (LOAMY SAND)

UNABLE TO PERC DUE TO SATURATION
DESIGN FOR 8 MPI PER SIEVE ANALYSIS

Required Minimum Leaching Area:

ADF = 330 GPD / 0.66 GPD / SF = 500 SF X 1.25 PER BOH REGULATIONS = 625 SF MINIMUM
TRY: OPEN BOTTOM LEACHING CHAMBERS
625 SF / 4.80 SF/LF OF CHAMBER = 131 LF OF CHAMBERS
5 ROWS OF 6 CHAMBERS @ 5.0 LF EACH = 150 LF OF CHAMBERS

DESIGN = 150 LF > REQUIRED = 131 LF OK

APPROVED
REHOBOTH BOARD OF HEALTH
Karl Ekman
10/7/20

Septic System Repair Plan

A.P. 34 Lot 31

50 Chestnut Street, Rehoboth, Massachusetts

RECEIVED
OCT 02 2020
R20-71
Board of Health

PREPARED FOR

Matthew Ferreira

50 Chestnut Street, Rehoboth, Massachusetts 02769

PREPARED BY

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COMMONWEALTH OF MASSACHUSETTS
ROBERT M. BERUBE
CIVIL
NO. 35909
REGISTERED PROFESSIONAL ENGINEER

Date: September 3, 2019 Scale: 1" = 20'

Sheet 1 of 2

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