

2.0"—

6" MIN. OF 3/4"

' ELEV.= 94.49'

<u>SEDDING OF SEPTIC TANK AND D-BOX</u>

CRUSHED STONE

HE BEDDING OF THE SEPTIC TANK AND D-BOX SHALL CONSIST OF A MINIMUM

OF 6" OF 3/4" CRUSHED STONE BELOW THEIR BASES. UPON EXCAVATING TO

SHALL BE COMPACTED PRIOR TO THE PLACEMENT OF THE CRUSHED STONE

THE CORRECT ELEVATION FOR THE SEPTIC TANK AND D-BOX, THE SOILS

BOTTOM OF LEACH FIELD ELEV. = 97.80 FEET

5.0' MINIMUM

E.S.H.G.W.T. = <86.75 FEET

D-BOX OUTLET

ACCOUNTING FOR

INVERT: 98.53',

5.5' LENGTH OF

LATERAL. FIRST 2

SHALL BE LEVEL.

OF EACH LATERAL

LEVEL

CRUSHED STONE

TE: USE MONOLITHIC TANK

ERIFY TANK DIMENSIONS DUE TO

ATIONS AMONG MANUFACTURERS

STALL D.E.P. APPROVED EFFLUENT

ISIDE THE SEPTIC TANK. INSTALL

IANUFACTURER'S INSTRUCTIONS

FILTER (A POLYLOK PL-122 OR EQUIVALENT) ON THE OUTLET PIPE

FILTER IN ACCORDANCE WITH

NOTE: THE FOUNDATION ELEVATION

S ONLY PROVIDED AS A STARTING

POINT. IT IS CRITICAL THAT GENERAL

ELEVATIONS BASED ON THE DESIGN

OF HOUSE AND, PARTICULARLY, THE

INTERIOR HOUSE PLUMBING, AND THE

SYSTEM. THE CORRECT FOUNDATION

ELEVATION(S) IS IMPORTANT DUE TO

LOCATION OF HOUSE ON LOT

SITE TOPOGRAPHY AND THE

DISPOSAL SYSTEM

ELEVATIONS OF THE SEWAGE

RELATIVE TO SEWAGE DISPOSAL

CONTRACTOR DETERMINE EXACT

SOIL EVALUATION RESULTS

0"-6" O/A SL 10YR 3/1

23"-95" C Sand, 2.5Y 5/6

Weeping Observ. at: none

Standing Water at: none

at: no mottling observed

Existing Grade Elevation = 95.00 FT.

Deep Observ. Hole - DH - #4

0"-6" O/A SL

6"-22" Bw SL

No refusal.

E.S.H.G.W.T. = > 95 inches

Greater than 5% mottling observe

22"-88" C Sand, 7.5YR 4/4

Weeping Observ. at: none

Standing Water at: none

at: no mottling observed

in. 2" pea stone

RESERVE AREA ELEVATIONS

98.82'

98.35'

98.18'

98.15'

97.50'

<86.75'

99.00'

100.00'

RESERVE AREA CONSISTS OF 15-FOOT BY 30-FOOT

LEACH FIELD (TOTAL LEACHING AREA = 450 SQ. FT.)

SEPTIC TANK OUTLET INVERT

DISTRIB. INVERTS (BEGINNING)

D-BOX OUTLET INVERT

DISTRIB. INVERTS (END)

BOTTOM OF LEACH FIELD

BREAKOUT ELEVATION

MINIMUM FINISH GRADE

E.S.H.G.W.T.

D-BOX INLET INVERT (±26' FROM

TANK TO D-BOX @1.8% AVE. SLOPE

E.S.H.G.W.T. = > 88 inches

Greater than 5% mottling observ

fine/med.

7.5YR 4/6

6"-23" Bw SL

No refusal.

Tests completed by: John M. Deline, Jr., R.S., Licensed Soil Evaluator Steve Calichman, R.S., Winchendon B.O.H. Date(s) Completed Percolation Tests:

Deep Observ. Hole - DH - #2 Existing Grade Elevation = 99.00 FT. 10YR 3/1

7.5YR 4/6 10YR 5/6

use <5 min./inch rate for design (effluent loading rate = 0.74 g.p.d./sq. ft.).

LINE(S) INVERT = 98.30'

n accordance with 310 CMR 15.240 (13), a minimum of

one inspection port shall be installed in the soil absorption

system. Inspection port shall consist of a perforated four

(4) inch diameter pipe placed vertically down into the stone

to the naturally occurring soil or sand fill beneath the stone

he pipe shall be capped with a screw type cap and

ccessible to within three (3) inches of finish grade.

EACHING FACILITY INSPECTION PORT

WASHED STONE

REMOVAL OF TOPSOIL AND SUBSOIL

FOR THE PRIMARY LEACHING FACILITY.

REMOVE TREE STUMPS/ROOTS AND TOPSOIL/SUBSOIL

WITHIN AND 5 FEET AROUND THE AREA TO BE UTILIZED

FITLE 5 LOCAL UPGRADE APPROVALS/VARIANCES REQUESTED:

DESIGN CALCULATIONS

ESTIMATED DAILY SEWAGE FLOW

Three bedrooms X 110 gallons per bedroom per day = 330 gallons per day (g.p.d.).

SEPTIC TANK REQUIREMENTS

330 gallons X 200% = 660 gallons. 310 CMR 15.223 requires minimum of 1,500 gallon tank. Use 1,500 gallon pre-cast concrete tank.

SOIL ABSORPTION SYSTEM - AREA REQUIREMENTS With a Type I soil textural class and a percolation rate of <2 min./inch: Effluent Loading Rate = 0.74 g.p.d./sq. ft. Area required = 330 g.p.d. divided by 0.74 g.p.d./sq. ft. = 446 square feet

TOTAL LEACHING AREA PROVIDED (PRIMARY) = 450 sq. ft. Leach field measuring 15 ft. wide by 30 ft. long with 6 inches of 3/4" - 1-1/2" double-washed crushed stone below the pipe inverts. There shall be three distribution lines with a 5 foot separation between each distribution line and 2.5 feet between the outside distribution lines and the edges of the leach field. Total leaching area = 15 feet X 30 feet = 450 sq. ft.

TOTAL LEACHING AREA PROVIDED (RESERVE) = 450 sq. ft. Leach field measuring 15 ft. wide by 30 ft. long with 6 inches of 3/4" - 1-1/2" double-washed crushed stone below the pipe inverts. There shall be three distribution lines with a 5 foot separation between each distribution line and 2.5 feet between the outside distribution lines and the edges of the leach field. Total leaching area = 15 feet X 30 feet = 450 sq. ft.

GENERAL NOTES

1) One 1,500 gallon pre-cast concrete septic tank with a tee on the tank inlet and an effluent filter on the outlet pipe.

2) Soil Absorption System Consists of:

the pipe inverts (total leaching area = 450 sq. ft.).

Primary Area: single leach field, 15-ft. wide by 30-ft. long with 6" of crushed stone below the pipe inverts (total leaching area = 450 sq. ft.). Reserve Area: single leach field, 15-ft. wide by 30-ft. long with 6" of crushed stone below

3) All piping, except distribution lines, are to be SCH40 PVC and shall be watertight. Distribution lines shall be SDR35 PVC sewer pipe.

4) All crushed stone used in the leaching facility shall be 3/4" - 1-1/2" in size and shall be double-washed, making it free of clay, iron, fines, and dust and have no more than 0.2% material finer than #200 sieve.

4) The installed system shall be left exposed until the agent of the Board of Health and the Design Engineer inspect it.

6) Area to be used for soil absorption system (SAS) shall be excavated to virgin ground and all topsoil/subsoil removed. If unsuitable material is found at or below the proposed elevation of the bottom of the SAS, it shall also be removed. Any fill needed to replace excavated material or create mounded system shall be clean coarse sand or fine gravel complying with 310 CMR 15.255 (3).

7) This subsurface disposal system has not been designed for a garbage disposal. Therefore, no garbage disposal units shall be installed.

8) In accordance with 310 CMR 15.004 (8), no backwash from water filtration/treatment systems shall be disposed of in the subsurface disposal system.

9) In accordance with 310 CMR15.221 (12), all system components shall be marked with magnetic marking tape or a comparable means in order to locate them once buried.

10) There are no wetlands within 100 feet of the sewage disposal system except as noted

Commonwealth of Massachusetts Town of Winchendon Board of Health

On-Site Sewage Disposal System Plan Review

nis plan has been submitted and reviewed in accordance with 310 CMR 15.00 of the State Environmental Code and is part of the application for a Disposal Works Construction Permit: Permit No. Dated: NOTE: ISSUANCE OF THIS PERMIT THIS SHALL NOT BE CONSTRUED AS A GUARANTEE OF THE PERFORMANCE OF THE SYSTEM.

APPROVING AUTHORITY SIGNATURE(S)



Existing Contours:

Percolation Test Hole

Deep Observation Hole

Water Supply Line:

PLAN FOR AN **ON-SITE SEWAGE DISPOSAL SYSTEM**

FOR A PROPOSED THREE BEDROOM DWELLING AT 340 MILL GLEN NORTH WINCHENDON, MA

APPLIC./OWNER: RON AMIDON

DELINE ENGINEERING

146 WINCHENDON ROAD, ROYALSTON, MA 01368 TEL. (978) 249 - 6214 FAX (978) 249 - 6214

Designed By: Drawn By: Checked By: **Original Plan Date:** Plan Revision #: Current Revision Date:

JMD 02/02/24 02/02/24

John M. Deline, Jr.