

Soil Logs

Observation Hole #1						
Elevation (Feet)	Perk Rate = 30 m.p.i. @ 26"-44"	Soil Depth (inches)	Soil Horizon	Soil Texture	Soil Color	Soil Motting
12.0		0-12	Fill			
11.0		12-17	A	Loamy Sand	10 YR 3/2	None
10.6		17-26	B	Loamy Sand	10 YR 5/8	None
9.8		26-57	C	Loam*	2.5 Y 5/4	None
7.3		57	R			Sieve

* See attached sieve analysis results

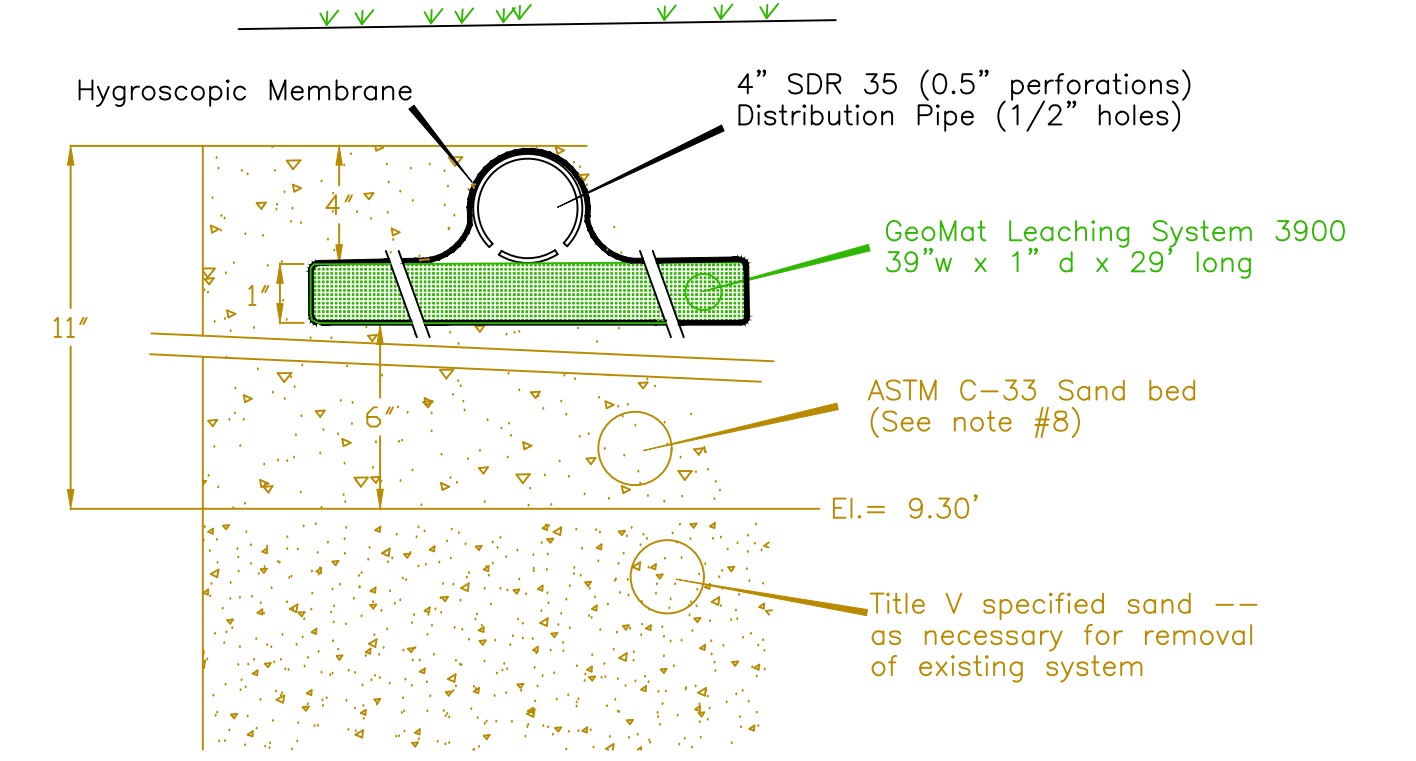
Calculations:

- 2 bedrooms, no disposal
- Est. Day Flow (EDF) = # B.R. x 110 G/Day
EDF = 220 Gallons per Day
310 CMR 15.203(2), min. Design = 330 G/Day
- Perk rate = 30 min/inch, Class II soil (Loam in TP#1, C horizon).
GeoMat loading rate with 6" ASTM C33 sand under, Class II soil, 30 m.p.i. perk rate = 0.67 G/D/s.f.
- Septic Tank - 2 X EDF with 1,500 G minimum
220 X 2 = 440 Gallons - 1,500 Gallon (minimum allowable)
- Soil Absorption System (SAS)
GeoMat size required = EDF/Loading rate
(330 G)/(0.67 G/s.f.) = 492 s.f.
GeoMat Leaching System 3900 (1'Dx39'W) = 3.42 s.f./l.f.
492 s.f./3.42 s.f./l.f. = 144 l.f. (required)
use 5 rows, each 1'd x 39'w x 29' l (145 l.f. provided)
Minimum sand bed = 330 G/D, with perk rate of 30 m.p.i., Class II soils = 600 s.f. (required)
Use sand bed 19'7" w x 31' l = 607 s.f. (provided)

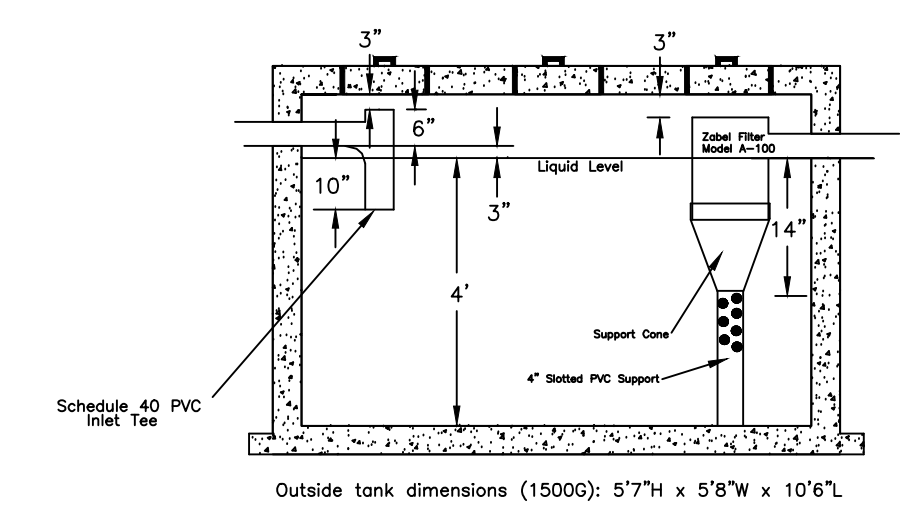
Proposed:

- 1,500 gallon septic tank (monolithic, extended base)
- Distribution box
- 607 s.f. sand bed (ASTM C-33 sand) - 19'7" w x 31' l x 6" d
145 l.f. GeoMat Leaching System 3900, five (5) rows each 39" w x 1' d x 29'

SAS Detail
(not to scale)



Tank Detail
Not to scale



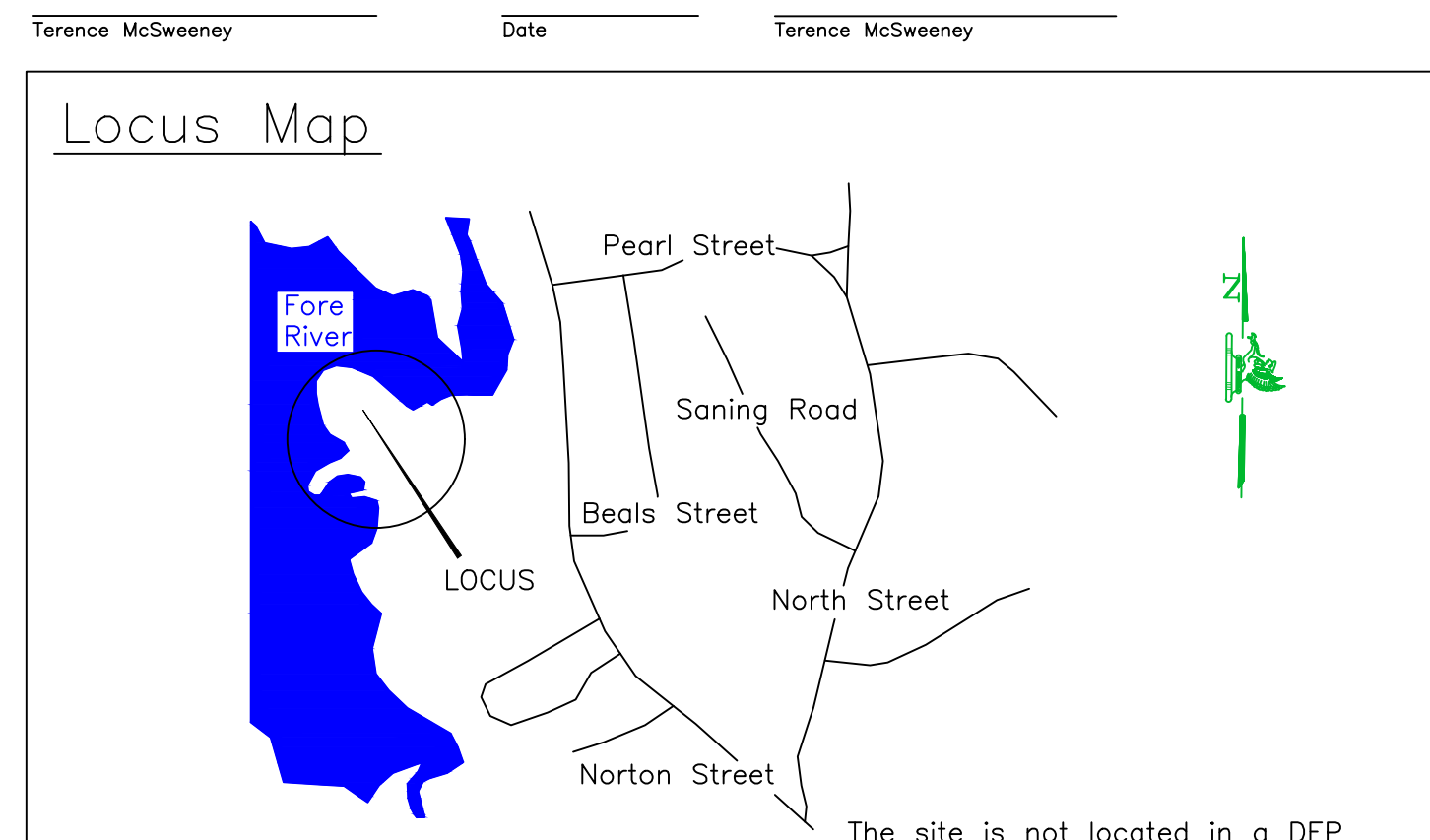
Notes:

- On 5/19/2023 soil tests were made, as shown here, by Terence McSweeney, a Massachusetts Department of Environmental Protection (DEP) approved Soils Evaluator, with D. McCormack observing for the Board of Health. The log of this tests is as follows, with location as OH-1 on this plan.
- All stone to be washed free of iron, fines, and dust. All "structures" to be precast concrete. All pipes to be P.V.C. Schedule 40, laid true to line and grade. All "structures" under pavement to be H-20 loading with cast iron covers and frames, set to grade, on all manholes.
- The existing SAS is to be abandoned and disposed of to the satisfaction of the health authority.
- It is the responsibility of the home owner to advise the site engineer of the location of all house plumbing prior to construction of the system.
- No part of the proposed system shall be buried greater than 3' below the surface of the ground.
- All work to conform to these plans, Title 5 of the Environmental Code (310 CMR 15.00 et. seq.) and any additional requirements of the Weymouth Board of Health.
- House plumbing to be set to the grades specified on this plan, as necessary, with a pipe slope minimum of 0.01.
- GeoMat Leaching System to be placed on 6" bed of ASTM C-33 sand. These materials must meet the following sieve specifications:
 - 3/8" sieve 100% passing
 - #4 sieve 95 - 100% passing
 - #8 sieve 85 - 100% passing
 - #16 sieve 50 - 85% passing
 - #30 sieve 25 - 60% passing
 - #50 sieve 10-30% passing
 - #100 sieve 2-10% passing
- Results of sieve analysis submitted to Board of Health for approval prior to installation.
- Property line information as depicted on this plan is to be used for Title V purposes only.

VARIANCES/DIVERGENCES REQUESTED:

- 310 CMR 15.405(1)(f), SAS setback to salt marsh
Proposed: 33' Required: 50'
- 310 CMR 15.405(1)(i), Perc test
Allow the use of a sieve analysis in place of perc test data

I certify that in the fall of 1997 I was approved by the Mass. Department of Environmental Protection as a Soils Evaluator and that the soils analysis contained herein was performed by me, consistent with the training, expertise, and experience described in 310 CMR 15.018(2).



Lot Data:
Deed: 8.404/127 - 8/18/1989
Weymouth Assessors 128/9 - 87,900 s.f.
Reference Plan:
E.W. Branch, C.E., 1/14/1991

The site is not located in a DEP approved Zone II, nor is it located within a Zone A as defined in 310 CMR 22.00.
Portions of the site are located within the 100 year flood boundary

	Proposed Septic System 67R Norton Street Weymouth, Massachusetts (Page 1 of 2)	Job Reference: Norton 67R Scale: As Noted Date: 6/12/2023 Drawn By: T McS Checked By: C McS
	745 Winter Street, Hanson, MA 02341 Thomas F. McSweeney 1894-1977 Brian McSweeney 1929-2015 Terence K. McSweeney 781-826-4571 Colin T. McSweeney 781-570-9381	Revisions: _____ _____ _____