

FORM 11 - SOIL EVALUATOR FORM

No. 191091

Date: 8/31/22

Commonwealth of Massachusetts
Pepperell Massachusetts

Soil Suitability Assessment for On-Site Drainage

Performed by: Kyle Burchard, PE, GPR

Date: 8/26/22

Witnessed by:

Location Address: 81 Main Street, Pepperell, MA 01463
Applicant's Name: Marci & Marli Machado
Address: 7 Tucker Street #36, Pepperell, MA 01463
Telephone No.

New Construction [] Upgrade [] Repair []

Office Review

Published Soil Survey Available: No [] Yes [x]

Year Published Internet Publication Scale na Soil Map Unit 6A/626B

Soil Name Scarboro Mucky Fine Sandy Loam Soil Limitations Depth to restrictive features, poorly drained

Soil Name Merrimac-Urban Land Complex Soil Limitations Depth to restrictive features, excessively drained

Soil Name - Soil Limitations -

Surficial Geologic Report Available: No [x] Yes []

Year Published MASS GIS Publication Scale

Geologic Material(Map Unit) Glacial Outwash

Landform Ground Moraine

Flood Insurance Rate Map: 25017C0087E

Above 500 Year Flood Boundary No [] Yes [x]

Within 500 Year Flood Boundary No [x] Yes []

Within 100 Year Flood Boundary No [x] Yes []

Within Velocity Zone No [x] Yes []

Wetland Area:

National Wetlands Inventory Map (map unit) N/A

Wetlands Conservancy Program Map (map unit) N/A

Current Water Resource Conditions (USGS): Month August

Range: Above Normal [] Normal [] Below Normal [x]

Other Reference Reviewed USGS

Site Info.

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On-Site Review

Deep Hole #: 822-1 Date: 08/26/22 Time: 1:00 PM Weather: P.cloudy 86°
 Location (identify on site plan) See Site Plan
 Land Use Developed residential Slope (%) 7%-10% Surfaces Stones Some Stones
 (eg woodland, agricultural field, vacant lot etc...)
 Vegetation Grass
 Landform Ground Moraine
 Position on landscape See attached Sketch
 Distances from:
 Open Water Body >100 feet Drainage Way 160± feet
 Possible Wet Area >100 feet Property Line 19± feet
 Drinking Water Well >100 feet Other: _____ feet

Deep Observation Hole Log					
Hole # 822-1		NB		Surface El. 231.6	
Depth from Surface (inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (MUNSELL)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-18	A	sl	10YR 3/3	-	-
18-36	B	cs	10YR 5/8	-	50% grvl, 15% 3" cobbles/stones
36-140	C	gs, cos	10YR 6/2	-	Small roots mostly, stop @ 33" Coarse gravel strata @ 80-84" Couple small roots @ 96"

Parent Material (geologic) Glacial Outwash Depth to Bedrock: >140"
 Depth to Groundwater: Standing Water in the Hole n/a Weeping from Pit Face: n/a
 Estimated Seasonal High Groundwater in the Hole >140"
 Additional Notes Drought conditions existing made for a dusty hole of gravel/sand/some stones, with granular slumping widening base of hole for last 6 feet. No mottling, no presence of water.

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Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole _____ inches _____
- Depth weeping from side of observation hole _____ inches _____
- Depth to soil mottles * _____ inches See individual Reports
- Ground water adjustment _____ feet _____

Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment Factor _____ Adjusted Ground Water Level _____

Depth of Naturally Occuring Pervious Material

Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? Yes

If not, what is the depth of naturally occurring pervious material? _____ Feet

Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated, on the attached soil evaluation form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature  Date 8/30/22

Notes: _____

Signature