

Project site: 0 Washington St, Sherborn, MA 01770 (Common
SAS on Washington Street) Assessor Map#/Lot#: Map 7/Lot 49

Owner: Mary Buntin (Trustee)

Soil evaluator: Desheng Wang, Ph.D., P.E., SE 2545 Soil: Charlton-Hollis-Rock outcrop complex

BOH Agent: Mark Oram

Deep Hole #	Land use	Evaluation Date	Soil Texture	Total Depth, in	EHGW, in	Perc. Rate, MPI	Perc. Depth, in	Note
DHTP-1	Woods	11/14/2022	S.L.	108	60	10	48	
DHTP-2	Woods	11/14/2022	S.L.	168	68	13	54	
DHTP-3	Woods	11/15/2022	L.S.	120	80	9	48	
DHTP-4	Woods	11/14/2022	S.L.-L.S.	132	60	8	48	
DHTP-5	Woods	11/15/2022	S.L.-L.S.	168	54	5	48	
DHTP-6	Woods	11/15/2022	L.S.	168	61	-	-	Deep Hole Only

Note: Only the above soil evaluated will be used for SAS design. The others will be used for Stormwater design.



Commonwealth of Massachusetts
City/Town of Sherborn

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Mary Buntin (Trustee)

Owner Name

0 Washington St

Street Address

Sherborn

City

MA

State

Map 7, Lot 49

Map/Lot #

01770

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade
2. Soil Survey NRCS Websoil Survey 103C (2wzp1 - National Map Unit) Charlton-Hollis-Rock outcrop complex
Source Soil Map Unit Soil Series
- Ground Moraine
Landform
- Coarse-loamy melt-out till derived from granite, gneiss, and/or schist
Soil Parent material
3. Surficial Geological Report USGS 3402 (Quadrangle 99)
Year Published/Source Map Unit
- Thin Till – Nonsorted, nonstratified matrix of sand, some silt, and little clay containing scattered pebble, cobble, and boulder clasts
Description of Geologic Map Unit:
4. Flood Rate Insurance Map Within a regulatory floodway? ☐ Yes ☒ No
5. Within a velocity zone? ☐ Yes ☒ No
6. Within a Mapped Wetland Area? ☐ Yes ☒ No If yes, MassGIS Wetland Data Layer: Wetland Type
7. Current Water Resource Conditions (USGS): 11/14/2022 and 11/15/2022 Range: ☐ Above Normal ☒ Normal ☐ Below Normal
Month/Day/ Year
8. Other references reviewed: MA GIS Zone II, IWPA, town well and septic record
(Zone II, IWPA, Zone A, EEA Data Portal, etc.)

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

Deep Observation Hole Number: <u>DHTP 1</u>	<u>11/14/2022</u>	<u>12:16 pm</u>	<u>43°F</u>	<u>42.22814° N</u>	<u>71.38702' W</u>
Hole #	Date	Time	Weather	Latitude	Longitude

1. Land Use	Woods (e.g., woodland, agricultural field, vacant lot, etc.)	Vegetation	Surface Stones (e.g., cobbles, stones, boulders, etc.)	Slope (%)
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Description of Location: Woods

2. Soil Parent Material:	Coarse-loamy melt-out till derived from granite, gneiss, and/or schist	Ground Moraine	Top of slope
		Landform	Position on Landscape (SU, SH, BS, FS, TS, Plain)

3. Distances from:

Open Water Body	<u>100+</u> feet	Drainage Way	<u>100+</u> feet	Wetlands	<u>100+</u> feet
Property Line	<u>20+</u> feet	Drinking Water Well	<u>100+</u> feet	Other	<u>100+</u> feet

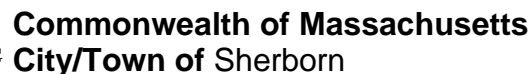
4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil/Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth to Weeping in Hole _____ Depth to Standing Water in Hole

Soil Log

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-4	Ap	S.L.	10 YR 3/2		Cnc : Dpl:					Friable	
4-24	Bw	S.L.	10 YR 6/6		Cnc : Dpl:					Friable	
24-108	C	S.L.	2.5 Y 6/4	60"	Cnc :10YR6/8 Dpl:					Friable	Stones
108+	Cr	Refusal			Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Additional Notes:EHGW at 60"

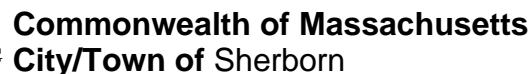


C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

71.38702' W
Longitude

- ## Soil Log

Additional Notes:EHGW at 68"



C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

71.38702' W

Longitude

- ## Woods

- Top of slope
Position on Land

- Other 100+ feet

- ☐ Bedrock

- Depth Standing Water in Hole

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-4	A	S.L.	10 YR 3/2		Cnc : Dpl:					Friable	
4-24	B	S.L.	2.5 Y 6/6		Cnc : Dpl:					Friable	
24-120+	C	L.S.	2.5 Y 6/4	80	Cnc :10 YR 5/8 Dpl:					Dense	Boulders + Stones
					Cnc : Dpl:						
					Cnc : Dpl:						
					Cnc : Dpl:						

Form 11 - Washington St - Part 1 of 2.docx



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☒ Depth to soil redoximorphic features

☐ Depth to observed standing water in observation hole

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

Obs. Hole # DHTP-1

Obs. Hole # DHTP-2

Obs. Hole # DHTP-3

60 inches

68 inches

80 inches

none inches

none inches

none inches

 inches

 inches

 inches

Index Well Number

Reading Date

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# S_c S_r OW_c OW_{max} OW_r S_h

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. 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 ☐ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: 4
inches

Lower boundary: 168
inches

c. If no, at what depth was impervious material observed?

Upper boundary:
inches

Lower boundary:
inches



Commonwealth of Massachusetts
City/Town of Sherborn

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

F. 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 required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

Desheng Wang / SE# 2545

Typed or Printed Name of Soil Evaluator / License #

Mark Oram

Name of Approving Authority Witness

12/22/2022

Date

6/30/2025

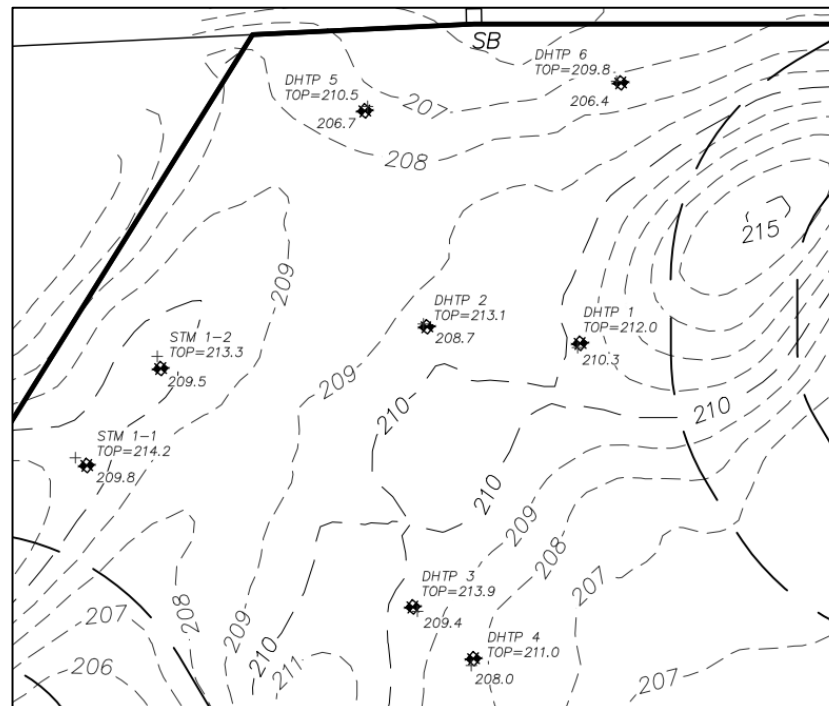
Expiration Date of License

Sherborn Board of Health

Approving Authority

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with [Percolation Test Form 12](#).

Field Diagrams: Use this area for field diagrams:





Commonwealth of Massachusetts
City/Town of Sherborn

Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

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Sherborn

City

MA

State

Map 7, Lot 49

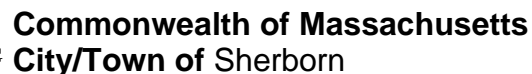
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Zip Code

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Description of Geologic Map Unit:
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5. Within a velocity zone? ☐ Yes ☒ No
6. Within a Mapped Wetland Area? ☐ Yes ☒ No If yes, MassGIS Wetland Data Layer: Wetland Type
7. Current Water Resource Conditions (USGS): 11/14/2022 and 11/15/2022 Range: ☐ Above Normal ☒ Normal ☐ Below Normal
Month/Day/ Year
8. Other references reviewed: MA GIS Zone II, IWPA, town well and septic record
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C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

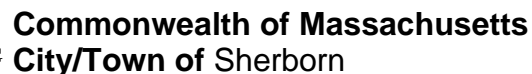
1. Land Use	Woods (e.g., woodland, agricultural field, vacant lot, etc.)	Vegetation	Surface Stones (e.g., cobbles, stones, boulders, etc.)	Slope (%)
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3. Distances from:	Open Water Body	<u>100+</u> feet	Drainage Way	<u>100+</u> feet	Wetlands	<u>100+</u> feet
	Property Line	<u>20+</u> feet	Drinking Water Well	<u>100+</u> feet	Other	<u>100+</u> feet

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth to Weeping in Hole _____ Depth to Standing Water in Hole

Depth (in)	Soil Horizon /Layer	Soil Texture (USDA)	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features			Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
				Depth	Color	Percent	Gravel	Cobbles & Stones			
0-4	A	S.L.	10 YR 3/2		Cnc : Dpl:					Friable	
4-24	Bw	S.L.	2.5 Y 6/6		Cnc : Dpl:					Friable	Boulders
24-132+	C	S.L.-L.S.	2.5 Y 6/4	60	Cnc :10 YR 6/8 Dpl: 2.5 Y 7/2					Friable	Stones
					Cnc : Dpl:						
					Cnc : Dpl:						
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Form 11 - Washington St - Part 2 of 2.docx



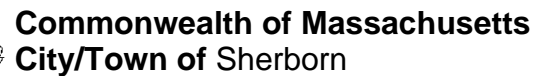
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71.38702' W

Longitude

- ## Soil Log

Additional Notes:EHGW at 54"



C. On-Site Review (minimum of two holes required at every proposed primary and reserve disposal area)

Longitude

- ## Soil Log

Additional Notes: EHGW at 61"



Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

D. Determination of High Groundwater Elevation

1. Method Used (Choose one):

☒ Depth to soil redoximorphic features

☐ Depth to observed standing water in observation hole

☐ Depth to adjusted seasonal high groundwater (S_h)
(USGS methodology)

Obs. Hole # DHTP-4

Obs. Hole # DHTP-5

Obs. Hole # DHTP-6

60 inches

54 inches

61 inches

none inches

none inches

none inches

 inches

 inches

 inches

Index Well Number

Reading Date

$$S_h = S_c - [S_r \times (OW_c - OW_{max}) / OW_r]$$

Obs. Hole/Well# S_c S_r OW_c OW_{max} OW_r S_h

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

a. 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 ☐ No

b. If yes, at what depth was it observed (exclude O, A, and E Horizons)?

Upper boundary: 4
inches

Lower boundary: 168
inches

c. If no, at what depth was impervious material observed?

Upper boundary:
inches

Lower boundary:
inches



Commonwealth of Massachusetts
City/Town of Sherborn

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Typed or Printed Name of Soil Evaluator / License #

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Name of Approving Authority Witness

12/22/2022

Date

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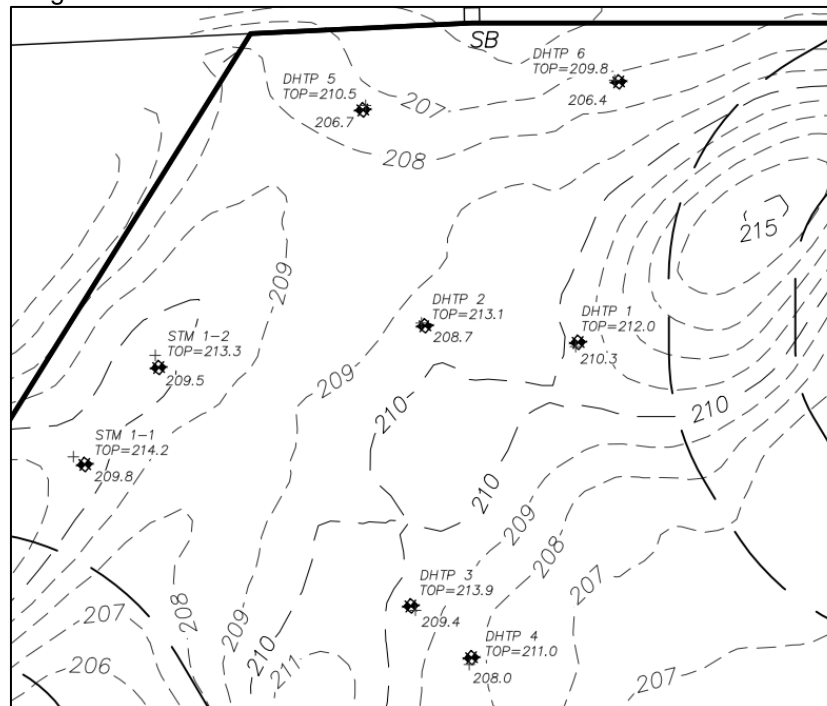
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Sherborn Board of Health

Approving Authority

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Field Diagrams: Use this area for field diagrams:





Commonwealth of Massachusetts
City/Town of Sherborn
Percolation Test
Form 12

Percolation test results must be submitted with the Soil Suitability Assessment for On-site Sewage Disposal. DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with the local Board of Health to determine the form they use.

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



A. Site Information

Mary Buntin (Trustee)

Owner Name

0 Washington St (Map 7, Lot 49)

Street Address or Lot #

Sherborn

City/Town

MA

State

01770

Zip Code

Bob Murchison

Contact Person (if different from Owner)

(617) 308-1961

Telephone Number

B. Test Results

	11/14/2022 Date	12:16 pm Time	11/14/2022 Date	9:53 am Time
Observation Hole #	DHTP 1		DHTP 2	
Depth of Perc	48"		54"	
Start Pre-Soak	12:16 pm		9:53 am	
End Pre-Soak	12:31 pm		10:08 am	
Time at 12"	12:31 pm		10:09 am	
Time at 9"	12:54 pm		10:43 am	
Time at 6"	1:24 pm		11:21 am	
Time (9"-6")	30 Min		38 Min	
Rate (Min./Inch)	10		13	
	Test Passed:	<input checked="" type="checkbox"/>	Test Passed:	<input checked="" type="checkbox"/>
	Test Failed:	<input type="checkbox"/>	Test Failed:	<input type="checkbox"/>

Desheng Wang

Test Performed By:

Mark Oram

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Sherborn
Percolation Test
Form 12

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A. Site Information

Mary Buntin (Trustee)

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0 Washington St (Map 7, Lot 49)

Street Address or Lot #

Sherborn

City/Town

MA

State

01770

Zip Code

Bob Murchison

Contact Person (if different from Owner)

(617) 308-1961

Telephone Number

B. Test Results

	11/15/2022 Date	9:40 am Time	11/14/2022 Date	2:13 pm Time
Observation Hole #	DHTP 3		DHTP 4	
Depth of Perc	48"		48"	
Start Pre-Soak	9:40 am		2:13 pm	
End Pre-Soak	9:55 am		2:28 pm	
Time at 12"	9:55 am		2:28 pm	
Time at 9"	10:13 am		2:45 pm	
Time at 6"	10:40 am		3:09 pm	
Time (9"-6")	27 Min		24 Min	
Rate (Min./Inch)	9		8	
	Test Passed: <input checked="" type="checkbox"/>		Test Passed: <input checked="" type="checkbox"/>	
	Test Failed: <input type="checkbox"/>		Test Failed: <input type="checkbox"/>	

Desheng Wang

Test Performed By:

Mark Oram

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Sherborn
Percolation Test
Form 12

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A. Site Information

Mary Buntin (Trustee)

Owner Name

0 Washington St (Map 7, Lot 49)

Street Address or Lot #

Sherborn

City/Town

MA

State

01770

Zip Code

Bob Murchison

Contact Person (if different from Owner)

(617) 308-1961

Telephone Number

B. Test Results

	11/15/2022 Date	11:08 am Time	Date	Time
Observation Hole #	DHTP 5			
Depth of Perc	48"			
Start Pre-Soak	11:08 am			
End Pre-Soak	11:23 am			
Time at 12"	11:23 am			
Time at 9"	11:36 am			
Time at 6"	11:49 am			
Time (9"-6")	13 Min			
Rate (Min./Inch)	5			
	Test Passed: <input checked="" type="checkbox"/>		Test Passed: <input type="checkbox"/>	
	Test Failed: <input type="checkbox"/>		Test Failed: <input type="checkbox"/>	

Desheng Wang

Test Performed By:

Mark Oram

Board of Health Witness

Comments: