



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Black Brook Realty - John Burns

Owner Name

Lot 1 Overdale Parkway

Street Address

Hopedale

City

MA

State

Map 6 Parcel 3

Map/Lot #

01747

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C Soil Map Unit

Montauk - loamy sand

Soil Name

moderate June 2022 infiltration rates

Soil Limitations

drumlin
Landform

Soil Parent material

3. Surficial Geological Report Available? ☐ Yes ☒ No

If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

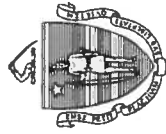
June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

Wetland Type

☒ Normal ☐ Below Normal

8. Other references reviewed:



Commonwealth of Massachusetts
City/Town of Hopedale

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.)

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-6"	Ap	SL	10YR 3/1							
6-18"	Bw	LS	2.5Y 6/8							
18-70"	C	Loamy Sand	2.5Y 6/4							

Additional Notes:
Refusal @ 70"



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: 2 7/28/22 9:00am Sunny 42-08-15 71-33-40
Hole # Date Time Weather Latitude Longitude:

1. Land Use: Residential Wooded Lot Few 3-5
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin BS
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-8"	Ap	SL	10YR3/1								
8-19"	Bw	LS	2.5 Y 6/8								
19-88"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 88"



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

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

Obs. Hole # 1

None inches

 inches

None inches

 inches

Obs. Hole # 2

None inches

 inches

None 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 _____

2. Estimated Depth to High Groundwater: 70 inches

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 A and O Horizons)?

Upper boundary: 18 inches Lower boundary: 70 inches

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

Upper boundary: inches Lower boundary: inches

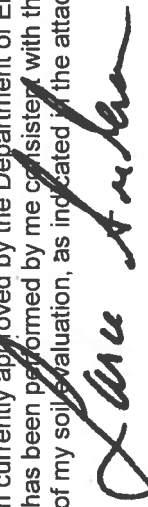


Commonwealth of Massachusetts
City/Town of Hopedale

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 ~~consistently~~ 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		7/28/2022
Lance Anderson / #27		Date
Typed or Printed Name of Soil Evaluator / License #		06/2025
Ed Caracione		Expiration Date of License
Name of Approving Authority Witness		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 Hopedale
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

Black Brook Realty Corp.

Owner Name

Lot 1 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>38"</u>		<u>43"</u>	
Start Pre-Soak	<u>11:11</u>		<u>10:55</u>	
End Pre-Soak	<u>11:26</u>		<u>11:10</u>	
Time at 12"	<u>11:26</u>		<u>11:10</u>	
Time at 9"	<u>11:32</u>		<u>11:26</u>	
Time at 6"	<u>11:40</u>		<u>11:41</u>	
Time (9"-6")	<u>8 MIN</u>		<u>15 Min</u>	
Rate (Min./Inch)	<u>3 MIN/IN</u>		<u>5 Min/inch</u>	
Test Passed:	☒		Test Passed:	☒
Test Failed:	☐		Test Failed:	☐

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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A. Facility Information

Black Brook Realty - John Burns

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MA

State

Map 6 Parcel 3

Map/Lot #

01747

Zip Code

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2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C Soil Map Unit

Montauk - loamy sand

Soil Name

moderate June 2022 infiltration rates

Soil Limitations

drumlin

Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022

Month/Day/ Year

If yes, MassGIS Wetland Data Layer:

Range: ☐ Above Normal

☒ Normal

☐ Below Normal

8. Other references reviewed:



Commonwealth of Massachusetts
City/Town of Hopedale

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.)

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-6"	Ap	SL	10YR 3/1								
6-21"	Bw	LS	2.5Y 6/8								
21-78"	C	Loamy Sand	2.5Y 6/4								

Additional Notes:
Refusal @ 78"



Commonwealth of Massachusetts
City/Town of Hopedale

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: 2 Hole # 2 Date 7/28/22 Time 9:00am Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ feet

4. Unsuitable

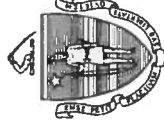
Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-6"	Ap	SL	10YR3/1								
6-26"	Bw	LS	2.5 Y 6/8								
26-77"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 77"



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

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

Obs. Hole # 1

None inches

 inches

None inches

 inches

Obs. Hole # 2

None inches

 inches

None inches

 inches

Index Well Number

Reading Date

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

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

2. Estimated Depth to High Groundwater: 77 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 26 inches

Lower boundary: 77 inches

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

Upper boundary: inches

Lower boundary: inches



Commonwealth of Massachusetts
City/Town of Hopedale

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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
Lance Anderson

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

Hopedale BOH Agent

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 Hopedale
Percolation Test
Form 12

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A. Site Information

Black Brook Realty Corp.

Owner Name

Lot 2 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>42"</u>		<u>46"</u>	
Start Pre-Soak	<u>10:18</u>		<u>9:49</u>	
End Pre-Soak	<u>Unable To Soak</u>		<u>10:04</u>	
Time at 12"			<u>10:04</u>	
Time at 9"			<u>10:07</u>	
Time at 6"			<u>10:11</u>	
Time (9"-6")			<u>4 Min</u>	
Rate (Min./Inch)	<u><2 MIN/IN</u>		<u>2 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Black Brook Realty - John Burns

Owner Name

Lot 3 Overdale Parkway

Street Address

Hopedale

City

MA

State

Map 6 Parcel 3

Map/Lot #

01747

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C Soil Map Unit

Montauk - loamy sand

Soil Name

moderate June 2022 infiltration rates

Soil Limitations

Soil Parent material
drumlin

Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

Wetland Type

☒ Normal ☐ Below Normal

8. Other references reviewed:

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.)

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-8"	Ap	SL	10YR 3/1								
8-25"	Bw	LS	2.5Y 6/8								
25-120"	C	Loamy Sand	2.5Y 6/4								

Additional Notes:
Refusal @ 120"



Commonwealth of Massachusetts
City/Town of Hopedale

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: 2 Hole # 2 Date 7/28/22 Time 9:00am Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin BS Position on Landscape (SU, SH, BS, FS, TS) BS

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-9"	Ap	SL	10YR3/1								
9-28"	Bw	LS	2.5 Y 6/8								
28-122"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 122"



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

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

Obs. Hole #1

None inches

None inches

None inches

None inches

Obs. Hole #2

None inches

None inches

None inches

None 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

2. Estimated Depth to High Groundwater: 120 inches

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 system? ☒ Yes ☐ No

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

Upper boundary: 25 inches

Lower boundary: 120 inches

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

Upper boundary: inches

Lower boundary: inches



Commonwealth of Massachusetts
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Signature of Soil Evaluator
Lance Anderson

7/28/2022

Date

Lance Anderson / #27

06/2025

Typed or Printed Name of Soil Evaluator / License #

Expiration Date of License

Ed Caracione

Name of Approving Authority Witness

Approving Authority

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Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>46"</u>		<u>54"</u>	
Start Pre-Soak	<u>8:45</u>		<u>8:44</u>	
End Pre-Soak	<u>9:00</u>		<u>8:59</u>	
Time at 12"	<u>9:00</u>		<u>8:59</u>	
Time at 9"	<u>9:15</u>		<u>10:14</u>	
Time at 6"	<u>10:04</u>		<u>12:49</u>	
Time (9"-6")	<u>49 MIN</u>		<u>155 Min</u>	
Rate (Min./Inch)	<u>17 MIN/IN</u>		<u>52 Min/inch</u>	
Test Passed:	☒		Test Passed:	☒
Test Failed:	☐		Test Failed:	☐

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



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City/Town of Hopedale

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A. Facility Information

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Map 6 Parcel 3

Map/Lot #

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Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

Montauk - loamy sand

Soil Name

moderate June 2022 infiltration rates

Soil Limitations

302C

Soil Map Unit

WSS

Source

Soil Parent material

drumlin

Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No

If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022

Month/Day/ Year

If yes, MassGIS Wetland Data Layer:

Wetland Type

☒ Normal ☐ Below Normal

Range: ☐ Above Normal ☒ Below Normal

8. Other references reviewed:



Commonwealth of Massachusetts
City/Town of Hopedale

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) None

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ feet

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

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-9"	Ap	SL	10YR 3/1								
9-27"	Bw	LS	2.5Y 6/8								
27-119"	C	Loamy Sand	2.5Y 6/4								

Additional Notes:
Refusal @ 119"

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: 2 Hole # 7/28/22 Date 9:00am Time Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5 Slope (%)

1. Land Use: Residential Wooded Lot Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%)

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-8"	Ap	SL	10YR3/1								
8-30"	Bw	LS	2.5 Y 6/8								
30-117"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 117"



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

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

Obs. Hole # 1

None inches

 inches

None inches

 inches

Obs. Hole # 2

None inches

 inches

None 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

2. Estimated Depth to High Groundwater: 117 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 30 inches

Lower boundary: 117 inches

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

Upper boundary: inches

Lower boundary: inches



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 on the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator
Lance Anderson

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

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 Hopedale
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

Black Brook Realty Corp.

Owner Name

Lot 3 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u>	<u>AM</u>	<u>7/28/22</u>	<u>AM</u>
	Date	Time	Date	Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>48"</u>		<u>46"</u>	
Start Pre-Soak	<u>10:22</u>		<u>10:34</u>	
End Pre-Soak	<u>10:37</u>		<u>10:49</u>	
Time at 12"	<u>10:37</u>		<u>10:49</u>	
Time at 9"	<u>11:27</u>		<u>11:38</u>	
Time at 6"	<u>12:18</u>		<u>1:04pm</u>	
Time (9"-6")	<u>51 MIN</u>		<u>86 Min</u>	
Rate (Min./Inch)	<u>17 MIN/IN</u>		<u>29 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Black Brook Realty - John Burns

Owner Name

Lot 5 Overdale Parkway

Street Address

Hopedale

City

MA

State

Map 6 Parcel 3

Map/Lot #

01747

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source

302C
Soil Map Unit

Montauk - loamy sand

Soil Name

moderate June 2022 infiltration rates

Soil Limitations

drumlin

Landform

Soil Parent material

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal

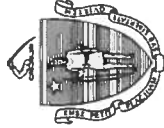
☒ Normal

☐ Below Normal

Wetland Type

If yes, MassGIS Wetland Data Layer:

8. Other references reviewed:



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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 71-33-40 Longitude: 3-5%

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) Latitude 42-08-15 Slope (%) 71-33-40

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ feet

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

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-9"	Ap	SL	10YR 3/1								
9-29"	Bw	LS	2.5Y 6/8								
29-117"	C	Loamy Sand	2.5Y 6/4								

Additional Notes:
Refusal @ 117"



Commonwealth of Massachusetts
City/Town of Hopedale

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: 2 Hole # 7/28/22 9:00am Sunny 42-08-15 71-33-40
Date Time Weather Latitude Longitude:

1. Land Use: Residential Wooded Lot Few 3-5
(e.g., woodland, agricultural field, vacant lot, etc.) Vegetation Surface Stones (e.g., cobbles, stones, boulders, etc.) Slope (%)

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin BS
Landform Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-8"	Ap	SL	10YR3/1								
8-25"	Bw	LS	2.5 Y 6/8								
25-121"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 121"



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

D. Determination of High Groundwater Elevation

1. Method Used:

☒ Depth observed standing water in observation hole

☐ Depth weeping from side of observation hole

☒ Depth to soil redoximorphic features (mottles)

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

Obs. Hole # 1

None inches

 inches

None inches

 inches

Obs. Hole # 2

None inches

 inches

None inches

 inches

Index Well Number

Reading Date

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

Obs. Hole/Well#

S_c

S_r

OW_c

OW_{max}

OW_r

S_h

2. Estimated Depth to High Groundwater: 117 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary:

29 inches

Lower boundary:

117 inches

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

Upper boundary:

 inches

Lower boundary:

 inches



Commonwealth of Massachusetts
City/Town of Hopedale

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

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

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 Hopedale
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

Black Brook Realty Corp.

Owner Name

Lot 5 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>56"</u>		<u>44"</u>	
Start Pre-Soak	<u>9:35</u>		<u>9:20</u>	
End Pre-Soak	<u>9:40</u>		<u>9:35</u>	
Time at 12"	<u>9:40</u>		<u>9:35</u>	
Time at 9"	<u>10:06</u>		<u>10:11</u>	
Time at 6"	<u>11:14</u>		<u>11:09</u>	
Time (9"-6")	<u>69 MIN</u>		<u>62 Min</u>	
Rate (Min./Inch)	<u>23 MIN/IN</u>		<u>21 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Black Brook Realty - John Burns

Owner Name

Lot 6 Overdale Parkway

Street Address

Hopedale

City

MA

State

Map 6 Parcel 3

Map/Lot #

01747

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C Soil Map Unit

Montauk - loamy sand

moderate June 2022 infiltration rates

Soil Name

Soil Limitations

drumlin

Landform

Soil Parent material

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

Wetland Type

If yes, MassGIS Wetland Data Layer:

8. Other references reviewed:

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) None

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ feet

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

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-9"	Ap	SL	10YR 3/1								
9-28"	Bw	LS	2.5Y 6/8								
208-109"	C	Loamy Sand	2.5Y 6/4								

Additional Notes:
Refusal @ 109"

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: 2 Hole # 2 Date 7/28/22 Time 9:00am Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-10"	Ap	SL	10YR3/1								
10-28"	Bw	LS	2.5 Y 6/8								
28-124"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
No refusal



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

D. Determination of High Groundwater Elevation

1. Method Used:

☒ Depth observed standing water in observation hole

Obs. Hole #1
None inches

Obs. Hole #2
None inches

☐ Depth weeping from side of observation hole

 inches

 inches

☒ Depth to soil redoximorphic features (mottles)

None inches

None inches

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

 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

2. Estimated Depth to High Groundwater: 109 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 28 inches

Lower boundary: 109 inches

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

Upper boundary: inches

Lower boundary: inches



Commonwealth of Massachusetts
City/Town of Hopedale

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
Lance Anderson

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

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 Hopedale
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

Black Brook Realty Corp.

Owner Name

Lot 6 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>52"</u>		<u>47"</u>	
Start Pre-Soak	<u>8:45</u>		<u>8:44</u>	
End Pre-Soak	<u>9:02</u>		<u>8:59</u>	
Time at 12"	<u>9:02</u>		<u>8:59</u>	
Time at 9"	<u>9:49</u>		<u>9:19</u>	
Time at 6"	<u>11:00</u>		<u>9:40</u>	
Time (9"-6")	<u>71 MIN</u>		<u>21 Min</u>	
Rate (Min./Inch)	<u>24 MIN/IN</u>		<u>7 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Ricardo Lima

Owner Name

Lot 7 Overdale Parkway

Map 6 Parcel 4

Street Address

Map/Lot #

Hopedale

MA

01747

City

State

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS
Source

302C

Soil Map Unit

Montauk - loamy sand

moderate June 2022 infiltration rates

Soil Name

Soil Limitations

drumlin

Landform

Soil Parent material

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

Wetland Type

☒ Normal ☐ Below Normal

8. Other references reviewed:

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.)

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ feet

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

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-9"	Ap	SL	10YR 3/1							
9-24"	Bw	LS	2.5Y 6/8							
24-88"	C	Loamy Sand	2.5Y 6/4	60"	5 Y 5/8					

Additional Notes:
Refusal @ 88"



Commonwealth of Massachusetts
City/Town of Hopedale

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: 2 Hole # 7/28/22 Date 9:00am Time Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-10"	Ap	SL	10YR3/1								
10-27"	Bw	LS	2.5 Y 6/8								
27-88"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 88"



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

D. Determination of High Groundwater Elevation

1. Method Used:

☒ Depth observed standing water in observation hole

☐ Depth weeping from side of observation hole

☒ Depth to soil redoximorphic features (mottles)

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

Obs. Hole # 1

None inches

 inches

60" inches

 inches

Obs. Hole # 2

None inches

 inches

None 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

2. Estimated Depth to High Groundwater: 60 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 27 inches

Lower boundary: 88 inches

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

Upper boundary: inches

Lower boundary: inches



Commonwealth of Massachusetts
City/Town of Hopedale

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
Lance Anderson

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

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 Hopedale
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

Ricardo Lima

Owner Name

Lot 7 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>38"</u>		<u>43"</u>	
Start Pre-Soak	<u>11:11</u>		<u>10:55</u>	
End Pre-Soak	<u>11:26</u>		<u>11:10</u>	
Time at 12"	<u>11:26</u>		<u>11:10</u>	
Time at 9"	<u>11:32</u>		<u>11:26</u>	
Time at 6"	<u>11:40</u>		<u>11:41</u>	
Time (9"-6")	<u>8 MIN</u>		<u>15 Min</u>	
Rate (Min./Inch)	<u>3 MIN/IN</u>		<u>5 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Ricardo Lima

Owner Name

Lot 8 Overdale Parkway

Street Address

Hopedale

City

MA

State

Map 6 Parcel 4

Map/Lot #

01747

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C

Soil Map Unit

Montauk - loamy sand

Soil Name

moderate June 2022 infiltration rates

Soil Limitations

drumlin

Landform

Soil Parent material

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source

Map Unit

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

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

Wetland Type

☒ Normal ☐ Below Normal

8. Other references reviewed:



Commonwealth of Massachusetts
City/Town of Hopedale

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.)

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other _____ feet

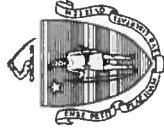
4. Unsuitable Materials Present: ☐ Yes ☒ No If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-6"	Ap	SL	10YR 3/1								
6-25"	Bw	LS	2.5Y 6/8								
25-122"	C	Loamy Sand	2.5Y 6/4	88"	5 Y 5/8						

Additional Notes:
Refusal @ 122"



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: 2 Hole # 2 Date 7/28/22 Time 9:00am Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlins BS Position on Landscape (SU, SH, BS, FS, TS) BS

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit _____ Depth 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			
0-9"	Ap	SL	10YR3/1								
9-26"	Bw	LS	2.5 Y 6/8								
26-100"	C	Loamy Sand	2.5 Y 6/3								

Additional Notes:
Refusal @ 100"



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

D. Determination of High Groundwater Elevation

1. Method Used:

☒ Depth observed standing water in observation hole

Obs. Hole # 2

None inches

☐ Depth weeping from side of observation hole

None inches

☒ Depth to soil redoximorphic features (mottles)

None inches

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

None 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 _____

2. Estimated Depth to High Groundwater: 88" inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 26 inches

Lower boundary: 100 inches

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

Upper boundary: _____ inches

Lower boundary: _____ inches



Commonwealth of Massachusetts
City/Town of Hopedale

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

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

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 Hopedale
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

Ricardo Lima

Owner Name

Lot 8 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u> Date	<u>AM</u> Time	<u>7/28/22</u> Date	<u>AM</u> Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>38"</u>		<u>43"</u>	
Start Pre-Soak	<u>11:11</u>		<u>10:55</u>	
End Pre-Soak	<u>11:26</u>		<u>11:10</u>	
Time at 12"	<u>11:26</u>		<u>11:10</u>	
Time at 9"	<u>11:32</u>		<u>11:26</u>	
Time at 6"	<u>11:40</u>		<u>11:41</u>	
Time (9"-6")	<u>8 MIN</u>		<u>15 Min</u>	
Rate (Min./Inch)	<u>3 MIN/IN</u>		<u>5 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Ricardo Lima

Owner Name

Lot 9 Overdale Parkway

Map 6 Parcel 4

Street Address

Map/Lot #

Hopedale

MA

01747

City

State

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C Soil Map Unit

Montauk - loamy sand

moderate June 2022 infiltration rates

Soil Name

Soil Limitations

Soil Parent material
drumlin

Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source Map Unit

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

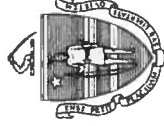
☒ Normal ☐ Below Normal

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal

8. Other references reviewed:



Commonwealth of Massachusetts
City/Town of Hopedale

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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) Wetlands >100 feet Other Bedrock

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS) BS

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet
Property Line >30 feet Drinking Water Well >100 feet Other Bedrock

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

5. Groundwater Observed: ☐ Yes ☒ No If yes: _____ Depth Weeping from Pit _____ Depth 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			
0-8"	Ap	SL	10YR 3/1								
8-24"	Bw	LS	2.5Y 6/8								
24-84"	C	Loamy Sand	2.5Y 6/4								

Additional Notes:
Refusal @ 84"

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: 2 Hole # 7/28/22 Date 9:00am Time Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit 108" Depth 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			
0-7"	Ap	SL	10YR3/1								
7-23"	Bw	LS	2.5 Y 6/8								
23-75"	C	Loamy Sand	2.5 Y 6/4								

Additional Notes:
Refusal @ 75"



Commonwealth of Massachusetts
City/Town of Hopedale

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

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

Obs. Hole #1

None inches

 inches

None inches

 inches

Obs. Hole #2

None inches

 inches

None 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

2. Estimated Depth to High Groundwater: 75 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 23 inches

Lower boundary: 75 inches

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

Upper boundary: inches

Lower boundary: inches



Commonwealth of Massachusetts
City/Town of Hopedale

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

Lance Anderson / #27

Typed or Printed Name of Soil Evaluator / License #

Ed Caracione

Name of Approving Authority Witness

7/28/2022

Date

06/2025

Expiration Date of License

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 Hopedale
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

Ricardo Lima

Owner Name

Lot 9 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u>	<u>AM</u>	<u>7/28/22</u>	<u>AM</u>
	Date	Time	Date	Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>50"</u>		<u>44"</u>	
Start Pre-Soak	<u>10:11</u>		<u>10:20</u>	
End Pre-Soak	<u>10:26</u>		<u>10:35</u>	
Time at 12"	<u>10:26</u>		<u>10:35</u>	
Time at 9"	<u>10:36</u>		<u>10:50</u>	
Time at 6"	<u>10:54</u>		<u>11:11</u>	
Time (9"-6")	<u>18 MIN</u>		<u>21 Min</u>	
Rate (Min./Inch)	<u>6 MIN/IN</u>		<u>7 Min/inch</u>	
	Test Passed: ☒		Test Passed: ☒	
	Test Failed: ☐		Test Failed: ☐	

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments:



Commonwealth of Massachusetts
City/Town of Hopedale

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

A. Facility Information

Ricardo Lima

Owner Name

Lot 10 Overdale Parkway

Map 6 Parcel 4

Street Address

Map/Lot #

Hopedale

MA

01747

City

State

Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair

2. Soil Survey Available? ☒ Yes ☐ No If yes:

WSS Source 302C Soil Map Unit

Montauk - loamy sand

moderate June 2022 infiltration rates

Soil Name

Soil Limitations

drumlin

Soil Parent material

Landform

3. Surficial Geological Report Available? ☐ Yes ☒ No If yes:

Year Published/Source Map Unit

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:

7. Current Water Resource Conditions (USGS):

June 2022
Month/Day/ Year

Range: ☐ Above Normal ☒ Normal ☐ Below Normal

Wetland Type

☒ Normal ☐ Below Normal

8. Other references reviewed:



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: 1 Hole # 7/28/22 Date 9:00am Time Sun Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5% Slope (%)

1. Land Use Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.)

Description of Location: _____

2. Soil Parent Material: Loamy Sand drumlin Landform BS Position on Landscape (SU, SH, BS, FS, TS)

3. Distances from: Open Water Body >200 feet Drainage Way >200 feet Wetlands >100 feet

Property Line >30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit 48" Depth 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			
0-11"	Ap	SL	10YR 3/1								
11-29"	Bw	LS	2.5Y 6/8								
29-105"	C	Loamy Sand	5 Y 7/4								

Additional Notes:
Refusal @ 105" water found at 48 inches in nearby shallow well

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: 2 Hole # 2 Date 7/28/22 Time 9:00am Sunny Weather 42-08-15 Latitude 71-33-40 Longitude: 3-5

1. Land Use: Residential (e.g., woodland, agricultural field, vacant lot, etc.) Wooded Lot Vegetation Few Surface Stones (e.g., cobbles, stones, boulders, etc.) 3-5 Slope (%) 3-5

Description of Location: _____

2. Soil Parent Material: Loamy Sand Drumlins BS Position on Landscape (SU, SH, BS, FS, TS) BS

3. Distances from: Open Water Body >100 feet Drainage Way >100 feet Wetlands >100 feet
Property Line 30 feet Drinking Water Well >100 feet Other _____ 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 Weeping from Pit 48" Depth 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			
0-8"	Ap	SL	10YR3/1								
8-29"	Bw	LS	2.5 Y 6/8								
29-139"	C	Loamy Sand	5 Y 7/4								

Additional Notes:
Refusal @ 139" water found at 48 inches in nearby shallow well



Commonwealth of Massachusetts
City/Town of Hopedale

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

D. Determination of High Groundwater Elevation

1. Method Used:

- ☒ Depth observed standing water in observation hole
- ☐ Depth weeping from side of observation hole
- ☒ Depth to soil redoximorphic features (mottles)
- ☐ Depth to adjusted seasonal high groundwater (S_h) (USGS methodology)

Obs. Hole # 1

None inches

 inches

None inches

 inches

Obs. Hole # 2

None inches

 inches

None 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

2. Estimated Depth to High Groundwater: 48 inches

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 system? absorption

☒ Yes ☐ No

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

Upper boundary: 29 inches

Lower boundary: 105 inches

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

Upper boundary: inches

Lower boundary: inches



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
Lance Anderson

7/28/2022
Date

Lance Anderson / #27

06/2025

Typed or Printed Name of Soil Evaluator / License #
Ed Caracione

Expiration Date of License

Name of Approving Authority Witness

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 Hopedale
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

Ricardo Lima

Owner Name

Lot 10 Overdale Parkway

Street Address or Lot #

Hopedale

City/Town

MA

State

01747

Zip Code

Lance Anderson

Contact Person (if different from Owner)

1-508-381-3212

Telephone Number

B. Test Results

	<u>7/28/2022</u>	<u>AM</u>	<u>7/28/22</u>	<u>AM</u>
	Date	Time	Date	Time
Observation Hole #	<u>1</u>		<u>2</u>	
Depth of Perc	<u>48"</u>		<u>62"</u>	
Start Pre-Soak	<u>8:40</u>		<u>9:16</u>	
End Pre-Soak	<u>8:55</u>		<u>9:31</u>	
Time at 12"	<u>8:55</u>		<u>9:31</u>	
Time at 9"	<u>9:17</u>		<u>9:44</u>	
Time at 6"	<u>9:54</u>		<u>10:01</u>	
Time (9"-6")	<u>37 MIN</u>		<u>17 Min</u>	
Rate (Min./Inch)	<u>13 MIN/IN</u>		<u>6 Min/inch</u>	
Test Passed:	☒		Test Passed:	☒
Test Failed:	☐		Test Failed:	☐

Lance Anderson

Test Performed By:

Ed Carcione

Board of Health Witness

Comments: