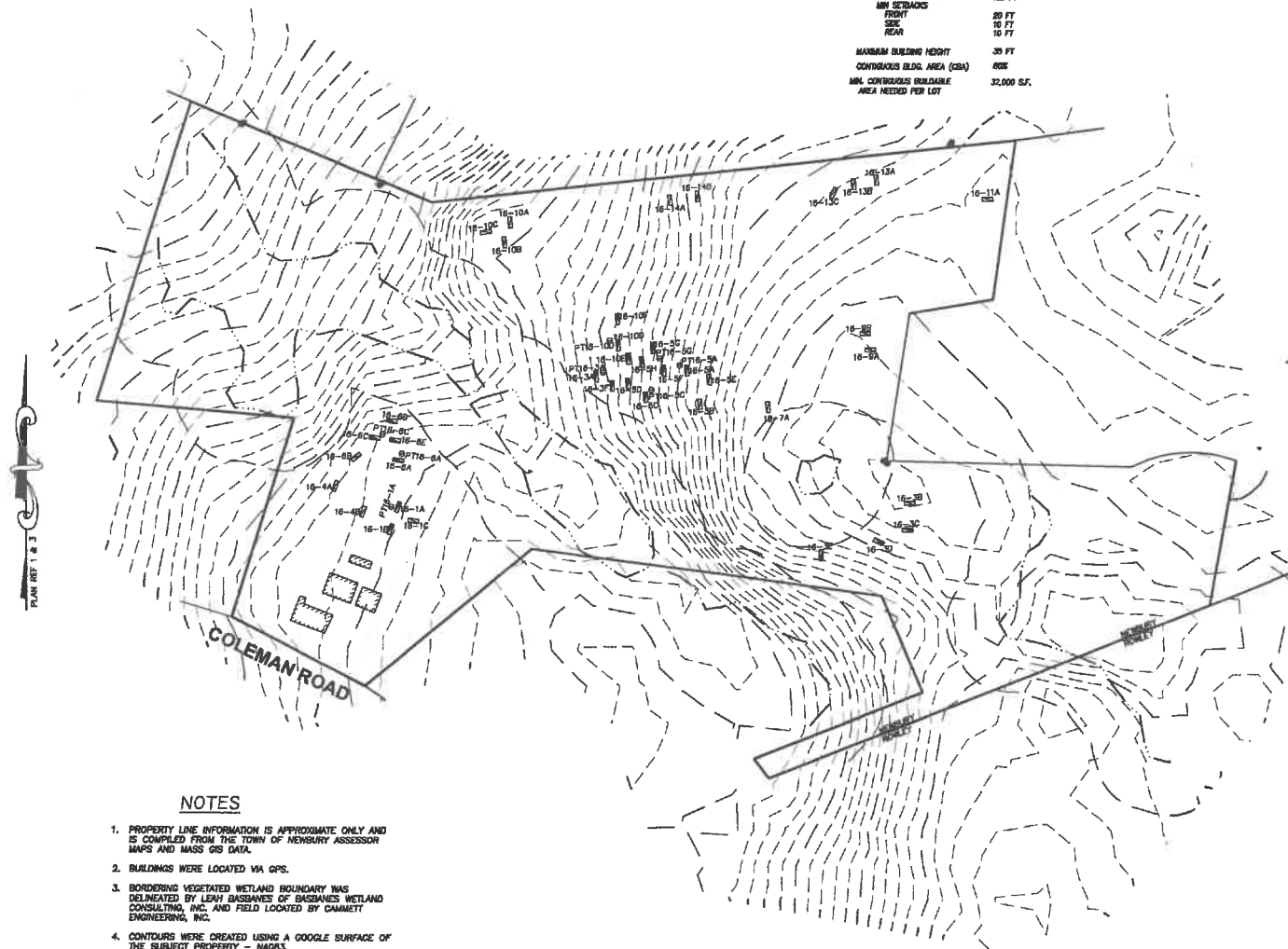


15 Coleman

ZONING REQUIREMENTS

DISTRICT	AGRICULTURAL - RESIDENTIAL (R-AG)
MIN LOT AREA	40,000 SF
MIN LOT FRONTAGE	125 FT
MIN SETBACKS	
FRONT	20 FT
SIDE	10 FT
REAR	10 FT
MAXIMUM BUILDING HEIGHT	30 FT
CONTIGUOUS BLDG. AREA (CBA)	ROS
MIN. CONTIGUOUS BUILDABLE AREA NEEDED PER LOT	32,000 S.F.



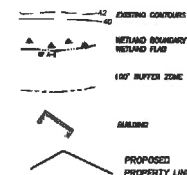
NOTES

1. PROPERTY LINE INFORMATION IS APPROXIMATE ONLY AND IS COMPILED FROM THE TOWN OF NEWBURY ASSESSOR MAPS AND MASS GIS DATA.
2. BUILDINGS WERE LOCATED VIA GPS.
3. BORDERING VEGETATED WETLAND BOUNDARY WAS DELINEATED BY LEWY BASSAWES OF BASSAWES WETLAND CONSULTING, INC. AND FIELD LOCATED BY CAMMETT ENGINEERING, INC.
4. CONTOURS WERE CREATED USING A GOOGLE SURFACE OF THE SUBJECT PROPERTY - NAD83.
5. THE PROPERTY DOES NOT FALL WITHIN AN AREA OF CRITICAL ENVIRONMENTAL CONCERN, NOR WITHIN A PRIORITY HABITAT OF RARE SPECIES OR WILDLIFE.

SCALE: 1"=100'



LEGEND:



207 ELM STREET, AMESBURY, MA
Phone: (978) 958-2157 Fax: (978) 958-0428
CONSULTING ENGINEERS &
LAND SURVEYORS SINCE 1975
Visit us on the WEB at www.cammitt.com

Sheet Title:

Test Pit Locations

Project Title:

Woodbury
Family Trust
Coleman Road
Byfield, MA 01922

Engineer & Owner:

Mark Woodbury
17 Coleman Road
Byfield, MA 01922

REVISION			
NO.	DATE	DESCRIPTION	BY

Date:

PROJECT: W. CAMMETT
FIELD: M. MATHIAS A. BLO
DESIGN: --
DRAWN: E. FREDETTE
CHECKED: W. CAMMETT
DATE: 10-18-16
FILE: S:\116031\VECD01.DWG
JOB #: 16031



TOLL FREE
(800) 555-5555
(1-800-555-5555)

SHEET 1 OF 1

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 5H

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 30 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____

Date _____

NOTE: See accompanying cover letter which is part of this report.

W.C. Cammett Engineering, Inc.
297 Elm St., Amesbury, MA 01913

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 15 Coleman Road

Job # 16031

COMMONWEALTH OF MASSACHUSETTS
Newbury, Massachusetts

16-6A

Percolation Test* 16-1A		
Date:	<u>9/5/2010</u>	Time:
Observation Hole#	<u>16-1A</u>	<u>16-6A</u>
Depth of Perc	<u>60"</u>	<u>58"</u>
Start Pre-soak	<u>11:25 AM</u>	<u>11:30 AM</u>
End Pre-soak	<u>11:40 AM</u>	<u>11:45 AM</u>
Time at 12"	<u>11:40</u>	<u>11:45</u>
Time at 9"	<u>6 min @ 12:24 (est. 12:09)</u>	<u>7 min @ 12:24 (est 12:18)</u>
Time at 6"	<u>5 min @ 2:59</u>	<u>7:51</u>
Time (9"-6")	<u>30 min</u>	<u>33 min</u>
Rate Min./Inch	<u>10 min / inch</u>	<u>11 min / inch</u>

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

Site Passed



Site Failed



Performed By: R. Blanchette / E. Fredette

Witnessed By: D. Rogers (Newbury BOM)

Comments:

W.C. Cammett Engineering, Inc.
297 Elm St., Amesbury, MA 01913

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 15 Coleman Road

Job # 16031

COMMONWEALTH OF MASSACHUSETTS
Newbury, Massachusetts

16-3A

Percolation Test* <u>16-3A</u>		
Date:	<u>9/15/2010</u>	Time:
Observation Hole#	<u>16-5A</u>	<u>16-3A</u>
Depth of Perc	<u>4.5"</u>	
Start Pre-soak	<u>12:00</u>	<u>12:00</u>
End Pre-soak	<u>12:00</u>	<u>12:00</u>
Time at 12"	<u>12:00</u>	<u>12:00</u>
Time at 9"		<u>3/4" 12:40 (est 12:40)</u>
Time at 6"	<u>1:41</u>	
Time (9"-6")	<u>105 min</u>	<u>23</u>
Rate Min./Inch	<u>2.6 MPI</u>	<u>8 MPI</u>

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

Site Passed



Site Failed



Performed By:

R. Blanchette / E. Fredette

Witnessed By:

D. Rogers (Newbury BOH)

Comments:

W.C. Cammett Engineering, Inc.
297 Elm St., Amesbury, MA 01913

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 15 Coleman Road

Job # 16031

COMMONWEALTH OF MASSACHUSETTS
Newbury, Massachusetts

16-5G

Percolation Test* <u>16</u>		
Date:	<u>10/6/2016</u>	Time:
Observation Hole#	<u>PH 11-5C</u>	<u>PH 11-51a</u>
Depth of Perc	<u>50"</u>	<u>50"</u>
Start Pre-soak	<u>11:26 AM</u>	<u>11:28 AM</u>
End Pre-soak	<u>11:31</u>	<u>11:44</u>
Time at 12"	<u>11:31</u>	<u>11:44</u>
Time at 9"	<u>12:25</u>	<u>12:00</u>
Time at 6"	<u>1:50</u>	<u>12:26</u>
Time (9"-6")	<u>95 min</u>	<u>76 min</u>
Rate Min./Inch	<u>2.8 MPT</u>	<u>0.9 MPT</u>

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

Site Passed



Site Failed



Performed By: R. Blanchette / E. Fredette

Witnessed By: D. Rogers (Newbury BOM)

Comments:

W.C. Cammett Engineering, Inc.
297 Elm St., Amesbury, MA 01913

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 15 Coleman Road

Job # 10031

COMMONWEALTH OF MASSACHUSETTS
Newbury, Massachusetts

Percolation Test* <u>16</u>		
Date:	<u>10/6/2014</u>	Time:
Observation Hole#	<u>01 11-100</u>	<u>PT 16-100</u>
Depth of Perc	<u>60"</u>	<u>41"</u>
Start Pre-soak	<u>11:31</u>	<u>11:35</u>
End Pre-soak	<u>11:40</u>	<u>11:50</u>
Time at 12"	<u>11:40</u>	<u>11:50</u>
Time at 9"	<u>12:21</u>	<u>8 1/2" @ 100 (est 12:50)</u>
Time at 6"	<u>1:58</u>	<u>3:38</u>
Time (9"-6")	<u>97 min</u>	<u>102</u>
Rate Min./Inch	<u>32 MPI</u>	<u>36 MPI</u>

* Minimum of 1 percolation test must be performed in both the primary area AND reserve area.

Site Passed



Site Failed



Performed By:

R. Blanchette / E. Fredette

Witnessed By:

D. Rogers (Newbury BOM)

Comments:

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 5G

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 26 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____

Date _____

NOTE: See accompanying cover letter which is part of this report.

W.C. Cammett Engineering, Inc.
297 Elm St., Amesbury, MA 01913

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-5H Date 10/6/2016 Time 11:30 AM Weather Clear, cool
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet
 Possible Wet Area >100 feet
 Drinking Water Well >100 feet
 Drainage way >100 feet
 Property Line >10 feet
 Other _____

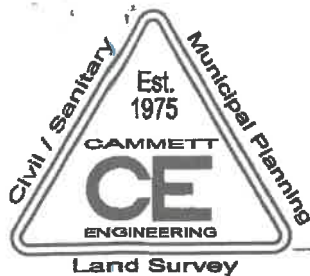
DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class II

Parent Material (geologic) T11 Depth to Bedrock: _____

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 30"



Woodbury C. Cammett, PE MA, NH
Robert B. Blanchette, PE, S/T
Robert E. Smith, PLS MA, NH
Denis Hamel, CPESC
Emily Fredette, EIT

Consulting Engineers and Land Surveyors

October 10, 2016

Mark Woodbury
17 Coleman Road
Newbury, MA 01922

Re: Soil and percolation tests at 15 Coleman Road -- CE #16031

Dear Mr. Woodbury,

In accordance with your request, soil and percolation tests were conducted on the subject lot(s) on October 5 & 6, 2016, in order to determine the feasibility of subsurface sewage effluent disposal for single family dwellings. Soil tests were observed and percolation tests were performed in accordance with the enclosed Evaluation Form (11) and Percolation Test Form (12).

Soil tests at sites 16-1A, 16-1B, 16-6A, 16-6C, 16-6D, 16-6E, 16-10D, 16-10E, 16-10F, 16-3A, 16-3C, 16-3D, 16-3E, 16-3F, 16-5A, 16-5C, 16-5D, 16-5F, 16-5G, and 16-5H meet the minimum requirements of Title 5 of the State Environmental Code for the subsurface disposal of sewage effluent, acceptable percolation rate. However, it is important to note at this time that all other requirements of Title 5 and any local regulations must be met in order that a sanitary system design can be accepted and approved by the local Board of Health.

Soil tests at sites 16-1C, 16-4A, 16-4B, 16-6B, 16-10A, 16-10B, 16-10C, 16-14A, 16-14B, 16-13A, 16-13B, 16-13C, 16-11A, 16-9A, 16-9B, 16-3B, 16-7A, 16-5B, and 16-5E do not meet the minimum requirements of Title 5 of the State Environmental Code for the subsurface disposal of sewage effluent. These locations had shallow depths to ledge and did not have four feet of naturally occurring pervious material. The locations of tests which do not meet the requirements are unsuitable for the subsurface disposal of sewage effluent.

If you have any questions regarding this matter, please feel free to contact me at this office.

Very truly yours,
W. C. Cammett Engineering, Inc.


Robert B. Blanchette, Jr.


Emily A. Fredette

cc: Board of Health
Title: M:\Winword\2016\16031\6\F\16035 SOIL.doc

W.C. Cammett Engineering, Inc.
297 Elm Street ▲ Amesbury, Massachusetts 01913
Telephone: (978) 388-2157 ▲ Fax: (978) 388-0428
www.cammett.com

DATE: 10/5/2016 and 10/6/2016

Commonwealth of Massachusetts
Newbury, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed by: R. Blanchette, E. Fredette

Job No. 16031

Witnessed by: D. Rogers

Location Address or Lot # 15 Coleman Road Newbury, MA Proposed Lots 1-13	Owner's Name Address and Telephone # Mark Woodbury 17 Coleman Road Newbury, MA 01922 (978) 857-7960
--	---

New Construction ☒ Repair ☐

Office Review

Published Soil Survey Available NO ☐ Yes ☒

Year Published 2015 Publication Scale 1:50,000 Soil Map Unit 305,306,311,711
Drainage Class Well-Drained Soil Limitations Very stony, depth to water table, bedrock

Surficial Geologic Report Available NO ☐ Yes ☒

Year Published 2014 Publication Scale 1:250,000

Geologic Material (Map Unit) Till/Bedrock, Fine grained deposit

Landform Drumlin

Flood Insurance Rate Map:

Above 500 year flood boundary NO ☐ Yes ☒

Within 500 year flood boundary NO ☒ Yes ☐

Within 100 year flood boundary NO ☒ Yes ☐

Wetland Area:

National Wetland Inventory Map (map unit)

****On-site delineation by Basbanes Wetland Consulting**

Wetlands Conservancy Program Map (map unit)

In 2016

Current Water Resource Conditions (USGS):

Range: Above Normal ☐ Normal ☐ Month September
Below Normal ☒

Other References Reviewed: _____

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-1A Date 10/5/2016 Time 8:00 AM Weather Clear, 40°F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class II

Parent Material (geologic) T-11 Depth to Bedrock: _____

Depth to Groundwater: **Standing Water in the Hole:** — **Weeping from Pit Face:** —

Estimated Seasonal High Ground Water: 30"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 1A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 30 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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

Robert Blumhert

Date

10/21/2014

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-18 Date 10/6/2016 Time 3:00 pm Weather Clear, 60°f
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0-12	A	SL	10 YR 3/3		frable, massive
12-18	B	SL	2.5 YR 5/8		frable
18-66	C1	SL	2.5 Y 6/4	2.5 Y 5/8 2.5 Y 6/2	frable
66-128	C2	SL	2.5 Y 4/3		frable, gravelly

Receiving Layers Design Class II

Parent Material (geologic) till Depth to Bedrock:

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 18"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 18

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 18 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-16 Date 10/6/2016 Time 3:10 pm Weather Clear, 60°F
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet
Possible Wet Area >100 feet
Drinking Water Well >100 feet
Drainage way >100 feet
Property Line >10 feet
Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
------------------	--------------

Parent Material (geologic) T-111 Depth to Bedrock: 27"

Depth to Groundwater: **Standing Water in the Hole:** — **Weeping from Pit Face:** —

Estimated Seasonal High Ground Water:

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 1C

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☐ Depth to soil mottles _____ inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 8' 15"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-4A Date 10/6/2016 Time 8:00 AM Weather Clear, 36°F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
------------------	--------------

Parent Material (geologic) fill Depth to Bedrock: 40" @ deepest

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water:

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 4A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☐ Depth to soil mottles _____ inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 34"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 4B

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☐ Depth to soil mottles _____ inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 15"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-6A Date 10/5/2016 Time 8:30 AM Weather Clear, 40°F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers Design Class **II**

Parent Material (geologic) 11 Depth to Bedrock:

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 24'

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 16A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-606 Date 10/6/2016 Time 8:15 AM Weather Clear, 36°C
 Location (Identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
<p>1. Input Layer</p> <p>2. Hidden Layer</p> <p>3. Output Layer</p>	<p>1. Input Layer</p> <p>2. Hidden Layer</p> <p>3. Output Layer</p>

Parent Material (geologic) fill Depth to Bedrock: 48" compact

Depth to Groundwater: **Standing Water in the Hole:** — **Weeping from Pit Face:** —

Estimated Seasonal High Ground Water: 15"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16-68

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 15 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____

Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 39"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-6C Date 10/6/2016 Time 8:35 am Weather Clear, 37°F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class	I
------------------	--------------	----------

Parent Material (geologic) 111 Depth to Bedrock:

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 24"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16-60

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-10D Date 10/16/2016 Time 2:40 pm Weather Clear, 55°
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers Design Class I

Parent Material (geologic) 11 Depth to Bedrock:

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 27"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 6D

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 27 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____

Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Number 16-6E Date 10/6/2016 Time 2:45pm Weather Clear, 63°
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class	II
------------------	--------------	----

Parent Material (geologic) T-111 Depth to Bedrock: _____

Depth to Groundwater: **Standing Water in the Hole:** **Weeping from Pit Face:**

Estimated Seasonal High Ground Water: 17'

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 6E

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 17 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-10A Date 9/17/2016 Time 8:40 AM Weather Clear, 51°F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
<p>1. Input Layer</p> <p>2. Hidden Layer</p> <p>3. Output Layer</p>	<p>1. Input Layer</p> <p>2. Hidden Layer</p> <p>3. Output Layer</p>

Parent Material (geologic) T-11 Depth to Bedrock: 6'

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: —

Estimated Seasonal High Ground Water:

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-10D Date 10/6/2016 Time 8:45 AM Weather Clear 48°C
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
<p>1. Physical Layer</p> <p>2. Data Link Layer</p> <p>3. Network Layer</p> <p>4. Transport Layer</p> <p>5. Application Layer</p>	<p>1. Physical Layer</p> <p>2. Data Link Layer</p> <p>3. Network Layer</p> <p>4. Transport Layer</p> <p>5. Application Layer</p>

Parent Material (geologic) T-11 Depth to Bedrock:

Depth to Groundwater: Standing Water in the Hole: — Weeping from Pit Face: —————

Estimated Seasonal High Ground Water: 36"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16-10D

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 36 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-10E Date 10/6/2016 Time 19:00 am Weather Clear, 56^{or}
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet
Possible Wet Area >100 feet
Drinking Water Well >100 feet
Drainage way >100 feet
Property Line >10 feet
Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers Design Class I

Parent Material (geologic) _____ Depth to Bedrock: _____

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 30'

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 10E

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 30 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-10F Date 10/6/2016 Time 2:30pm Weather Clear, 73° F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class	II
------------------	--------------	----

Parent Material (geologic) T-11 Depth to Bedrock:

Depth to Groundwater: **Standing Water in the Hole:** — **Weeping from Pit Face:** —

Estimated Seasonal High Ground Water: 30"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 10F

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 30 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-02A Date 9/1/2016 Time 9:10 am Weather Clear, 48°F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones _____ None _____
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
1	
2	
3	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	
16	
17	
18	
19	
20	
21	
22	
23	
24	
25	
26	
27	
28	
29	
30	
31	
32	
33	
34	
35	
36	
37	
38	
39	
40	
41	
42	
43	
44	
45	
46	
47	
48	
49	
50	
51	
52	
53	
54	
55	
56	
57	
58	
59	
60	
61	
62	
63	
64	
65	
66	
67	
68	
69	
70	
71	
72	
73	
74	
75	
76	
77	
78	
79	
80	
81	
82	
83	
84	
85	
86	
87	
88	
89	
90	
91	
92	
93	
94	
95	
96	
97	
98	
99	
100	

Parent Material (geologic) T-11 Depth to Bedrock: 20"

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water:

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-148 Date 10/5/2010 Time 9:20 am Weather Clear, 49°F
Location (identify on site plan) Refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) Refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
<p>1. Physical Layer</p> <p>2. Data Link Layer</p> <p>3. Network Layer</p> <p>4. Transport Layer</p> <p>5. Session Layer</p> <p>6. Presentation Layer</p> <p>7. Application Layer</p>	<p>1. Physical Layer</p> <p>2. Data Link Layer</p> <p>3. Network Layer</p> <p>4. Transport Layer</p> <p>5. Session Layer</p> <p>6. Presentation Layer</p> <p>7. Application Layer</p>

Parent Material (geologic) T-11 Depth to Bedrock: 26'

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 22'

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 14B

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 22" inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 19"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-13A Date 10/5/2016 Time 8:30 am Weather Clear, 53°F
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0-6	A	SL	10 YR 3/3		massive, friable
6-12	B	SL	7.5 YR 5/6		fractile
12-21	C1	SL	2.5 Y 6/4		v. friable
21-51	Cd	SL	2.5 Y 5/4		ledge @ 51" gravelly, dense

Receiving Layers _____ Design Class _____

Parent Material (geologic) till Depth to Bedrock: 51"

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 21"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 13A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 21 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 45"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-138 Date 10/5/2016 Time 9:40 am Weather Clear, 54° F
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
<p>1. Receiving Layers</p> <p>2. Design Class</p>	

Parent Material (geologic) T-11 Depth to Bedrock: 40'

Depth to Groundwater: _____ Standing Water in the Hole: — Weeping from Pit Face: —

Estimated Seasonal High Ground Water: 25'

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 138

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 21 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 34"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-130 Date 10/5/2016 Time 9:50 AM Weather Some Clouds, 56°F
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Motting	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0-6	A	fsL	10YR 3/3		massive, friable
6-12	B	fsL	7.5YR 5/8		friable
12-21	C1	fsL	2.5Y 6/4		very friable
21-24	Cd	SL	2.5Y 5/4		ledge @ 24 gravelly, dense

Receiving Layers Design Class

Parent Material (geologic) till Depth to Bedrock: 24"

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 21"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 13C

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 21 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 15"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Estimated Seasonal High Ground Water: 32^{ft}

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 11A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 32 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 26"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-9A Date 10/5/2016 Time 10:10am Weather Some Clouds, 56°
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0 - 6"	A	10 YR 3/3	5L		Ledge @ 6"
6 - 12"					
12 - 18"					
18 - 24"					
24 - 30"					
30 - 36"					
36 - 42"					
42 - 48"					
48 - 54"					
54 - 60"					
60 - 66"					
66 - 72"					
72 - 78"					
78 - 84"					
84 - 90"					
90 - 96"					
96 - 102"					
102 - 108"					
108 - 114"					
114 - 120"					

Receiving Layers	Design Class
------------------	--------------

Parent Material (geologic) T-11 Depth to Bedrock: 6"

Depth to Groundwater: Standing Water in the Hole: — Weeping from Pit Face: —

Estimated Seasonal High Ground Water: _____

Job. # 16031

On-Site Review

Deep Hole Number 16-98 Date 10/5/2016 Time 10:15 am Weather Some Clouds, 57°F
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0 - 6	A	SL	10 YR 3/3		massive, friable
6 - 18	B	SL	2.5 YR 5/8		fractile
18 - 32"	C1	fSL	2.5 Y 6/4		fractile, some gravel

Receiving Layers _____ Design Class _____

Parent Material (geologic) till Depth to Bedrock: 32"

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 18"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16-9B

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 18 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 26"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-3A Date 10/5/2016 Time 10:50 am Weather Some Clouds, 59°f
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class II

Parent Material (geologic) T-11 Depth to Bedrock: _____

Depth to Groundwater: **Standing Water in the Hole:** — **Weeping from Pit Face:** —

Estimated Seasonal High Ground Water: 36"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16-3A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 36 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. #

On-Site Review

Deep Hole Number 116-3B Date 10/5/14 Time 10:20 AM Weather Clear, 59°F
Location (identify on site plan) refer to site plan (attached)
Land Use Woodland Slope (%) Surface Stones None
Vegetation Hardwood trees
Landform Downhill
Position on landscape (sketch on the back) refer to site plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0-6	A	SL	10 YR 3/3		massive, friable
6-14	B	SL	7.5 YR 5/8		friable
14-24	C1	fsL	2.5 Y 6/4		very friable.
24-48	Cd	SL	2.5 Y 5/4		Ledge @ 48" gravelly dense

Receiving Layers Design Class

Parent Material (geologic) tilt Depth to Bedrock: 48"

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 24"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 3B

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 42"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-3C Date 10/5/2016 Time 10:30 AM Weather Clear, 59°f
 Location (identify on site plan) refer to Site Plan (attached)
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation Hardwood trees
 Landform Drumlin
 Position on landscape (sketch on the back) refer to Site Plan (attached)
 Distances from:
 Open Water Body >100 feet Drainage way >100 feet
 Possible Wet Area >100 feet Property Line >10 feet
 Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class 1

Parent Material (geologic) T-11 Depth to Bedrock: _____

Depth to Groundwater: **Standing Water in the Hole:** — **Weeping from Pit Face:** —

Estimated Seasonal High Ground Water: 24"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 3C

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____

Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. #

On-Site Review

Deep Hole Number 16-30 Date 10/5/14 Time 10:40 AM Weather Clear, 59°F
Location (identify on site plan) refer to site plan (attached)
Land Use Woodland Slope (%) Surface Stones None
Vegetation hard wood trees
Landform drumlin
Position on landscape (sketch on the back) see attached site plan
Distances from:
Open Water Body > 100 feet
Possible Wet Area 7100 feet
Drinking Water Well 7100 feet
Drainage way > 100 feet
Property Line > 10 feet
Other

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0-8	A	SL	10YR 3/3		massive, friable
8-18	B	SL	2.5 YR 5/8		fractures
18-27	C1	fsL	2.5 Y 4/4		v-friable
27-78	Cd	SL	2.5 Y 5/4		gravelly, dense

Receiving Layers Design Class II
Parent Material (geologic) till Depth to Bedrock:
Depth to Groundwater: Standing Water in the Hole: — Weeping from Pit Face: —
Estimated Seasonal High Ground Water: 27"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 3D

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 27 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____

Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. #

On-Site Review

Deep Hole Number 16-3E Date 10/5/16 Time 10:45 am Weather Clear, 59°F
 Location (identify on site plan) See attached site plan
 Land Use Woodland Slope (%) _____ Surface Stones None
 Vegetation hardwood trees
 Landform dumpling
 Position on landscape (sketch on the back) See attached site plan
 Distances from:
 Open Water Body _____ feet Drainage way _____ feet
 Possible Wet Area _____ feet Property Line _____ feet
 Drinking Water Well _____ feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class II

Parent Material (geologic) till Depth to Bedrock: 67'

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 32"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16-3E

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 32 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-3F Date 10/6/2016 Time 10:10 am Weather Clear, 56°F
Location (identify on site plan) Refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) Refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet
Possible Wet Area >100 feet
Drinking Water Well >100 feet
Drainage way >100 feet
Property Line >10 feet
Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0 - 6	A	SL	10 YR 3/3		massive, friable
6 - 10	B	SL	2.5 YR 5/8		friable
10 - 22	B/C	SL	2.5 Y 6/4		friable
22 - 94	B/C C	SL	2.5 Y 5/4		gravelly

Receiving Layers _____ Design Class II
Parent Material (geologic) till Depth to Bedrock: _____
Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____
Estimated Seasonal High Ground Water: 22"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 3F

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☐ Depth to soil mottles 22 inches

☐ Ground water adjustment _____ feet

Index Well Number _____

Reading Date _____

Index well level _____

Adjustment factor _____

Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____

Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-7A Date 10/5/2016 Time 11:20 am Weather Clear of

Location (identify on site plan) Refer to Site Plan (attached)

Land Use	Woodland	Slope (%)	Surface Stones	None
----------	----------	-----------	----------------	------

Vegetation Hardwood trees

Landform Drumlin

Position on landscape (sketch on the back) refer to Site Plan (attached)

Distances from:

Open Water Body >100 feet

Drainage way > 100 feet

Possible Wet Area 2100 feet

Property Line 10 feet

Drinking Water Well >100 feet

Other

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers **Design Class**

Parent Material (geologic) T-11 Depth to Bedrock: 44"

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: ~~0.0~~ 24"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number

16 - 7A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____

Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 38"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-5A Date 10/5/2016 Time 11:00 am Weather Clear 59°F

Location (identify on site plan) Refer to Site Plan (attached)

Land Use Woodland

Slope (%)

Surface Stones

Note

Vegetation Hardwood trees

Landform *Drumlin*

Position on landscape (sketch on the back)

Refer to Site Plan (attached)

Distances from:

Open Water Body >100 feet

Drainage way 100 feet

Possible Wet Area	2100	feet
-------------------	------	------

Property Line 10 feet

Drinking Water Well >100 feet

Other

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers

Design Class II

Parent Material (geologic)

Depth to Bedrock:

Depth to Groundwater:

Standing Water in the Hole:

Weeping from Pit Face:

Estimated Seasonal High Ground Water:

24

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 5A

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. #

On-Site Review

Deep Hole Number 16-5A Date 10/5/16 Time 11:10 AM Weather Clear, 59°
Location (identify on site plan) see attached site plan
Land Use woodland Slope (%) _____ Surface Stones None
Vegetation hardwood trees
Landform drumlin
Position on landscape (sketch on the back) see attached site plan
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0-6	A	SL	10 YR 3/3		massive, friable
6-16	B	SL	7.5 YR 5/8		fracture
16-22	B/C	SL	2.5 Y 6/4		large @ 22"

Receiving Layers _____ Design Class _____

Parent Material (geologic) TM Depth to Bedrock: 22"

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: _____

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-5C Date 10/6/2016 Time 9:00AM Weather Clear 90°F
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet
Possible Wet Area >100 feet
Drinking Water Well >100 feet
Drainage way >100 feet
Property Line >10 feet
Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class II

Parent Material (geologic) 1-11 Depth to Bedrock:

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 30"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 5C

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 30" inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 11031

On-Site Review

Deep Hole Number 16-5D Date 10/6/2016 Time 9:15am Weather Clear, 51°F
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]Receiving Layers _____ Design Class II

Parent Material (geologic) T-11 Depth to Bedrock: _____

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 32'

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 5D

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 32 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-5E Date 10/6/2016 Time 10:30 AM Weather Clear, 60°C
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, %Gravel)
0 - 7	A	fine SL	10 YR 3/3		massive, friable
7 - 12	B	SL	2.5 Y 5/3		friable
12 - 24	B/C	SL	2.5 Y 6/4		friable
24 - 35"	Cd	SL	2.5 Y 5/4		ledge @ 35" grainy, dense

Receiving Layers Design Class

Parent Material (geologic) till Depth to Bedrock: 35"

Depth to Groundwater: Standing Water in the Hole: ✓ Weeping from Pit Face: ✓

Estimated Seasonal High Ground Water: 24"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - SE

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 24 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? No

If not, what is the depth of naturally occurring pervious material? 28"

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

Job. # 16031

On-Site Review

Deep Hole Number 16-5F Date 10/16/2016 Time 9:45 am Weather Clear, 60°F
Location (identify on site plan) refer to Site Plan (attached)

Land Use	Woodland	Slope (%)	Surface Stones	None
----------	----------	-----------	----------------	------

Vegetation Hardwood trees

Landform Drumlin

Position on landscape (sketch on the back)

Refer to Site Plan (attached)

Distances from:

Open Water Body >100 feet

Drainage way > 100 feet

Possible Wet Area 2100 feet

Property Line 10 feet

Drinking Water Well >100 feet

Other

[illegible]Receiving Layers _____ Design Class IV

Parent Material (geologic) T-11 Depth to Bedrock: _____

Depth to Groundwater: Standing Water in the Hole: Weeping from Pit Face:

Estimated Seasonal High Ground Water: 26"

Job # 16031

Determination for Seasonal High Water Table

Method Used:

Test Hole Number 16 - 5F

☐ Depth observed standing in observation hole _____ inches

☐ Depth weeping standing in observation hole _____ inches

☒ Depth to soil mottles 240 inches

☐ Ground water adjustment _____ feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water _____

Depth of Naturally Occurring 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? _____

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 _____ Date _____

NOTE: See accompanying cover letter which is part of this report.

FORM 11 - SOIL EVALUATOR FORM

PAGE 2

Job. # 16031

On-Site Review

Deep Hole Number 16-56 Date 10/10/2016 Time 9:30 AM Weather Clear, cool
Location (identify on site plan) refer to Site Plan (attached)
Land Use Woodland Slope (%) _____ Surface Stones None
Vegetation Hardwood trees
Landform Drumlin
Position on landscape (sketch on the back) refer to Site Plan (attached)
Distances from:
Open Water Body >100 feet Drainage way >100 feet
Possible Wet Area >100 feet Property Line >10 feet
Drinking Water Well >100 feet Other _____

DEEP OBSERVATION HOLE LOG

[illegible]

Receiving Layers	Design Class
<p>1. Physical Layer</p> <p>2. Data Link Layer</p> <p>3. Network Layer</p> <p>4. Transport Layer</p> <p>5. Session Layer</p> <p>6. Presentation Layer</p> <p>7. Application Layer</p>	<p>1. Physical Layer</p> <p>2. Data Link Layer</p> <p>3. Network Layer</p> <p>4. Transport Layer</p> <p>5. Session Layer</p> <p>6. Presentation Layer</p> <p>7. Application Layer</p>

Parent Material (geologic)	111	Depth to Bedrock:
----------------------------	-----	-------------------

Depth to Groundwater: _____ Standing Water in the Hole: _____ Weeping from Pit Face: _____

Estimated Seasonal High Ground Water: 26"