January 5, 2020

Dave Liskany (Countrytyme Land Specialist, Ltd)
3451 Cincinnati-Zanesville Rd, SW
Lancaster, OH 43130

Dear Mr. Liskany:

We would like to thank you for requesting our assistance to identify the specific soil properties on your property **(Track # 6, Pleasant Valley Woods - Union Road),** Chillicothe, in Ross County, Ohio.

Enclosed are the following:

1. Location map
2. Aerial Photo Sketch Map of Site
3. Soil Site Descriptions for the different Soil Areas
4. Soil and Site Evaluation and discussion, for the proposed waste water disposal

The information in this report is basic soils information as found on-site. This does not mean that this site is suitable for an STS, that is up to the Ross County Health Department. If I can be of further assistance, in helping to interpret, clarify or add additional information from my notes, please let me know at 304-372-4809 home or 304-532-4711 cell.

Thanks,

Carlos Cole
Soil Scientist

Cc: Logan Calhoun, R. S., Director of Environmental Health

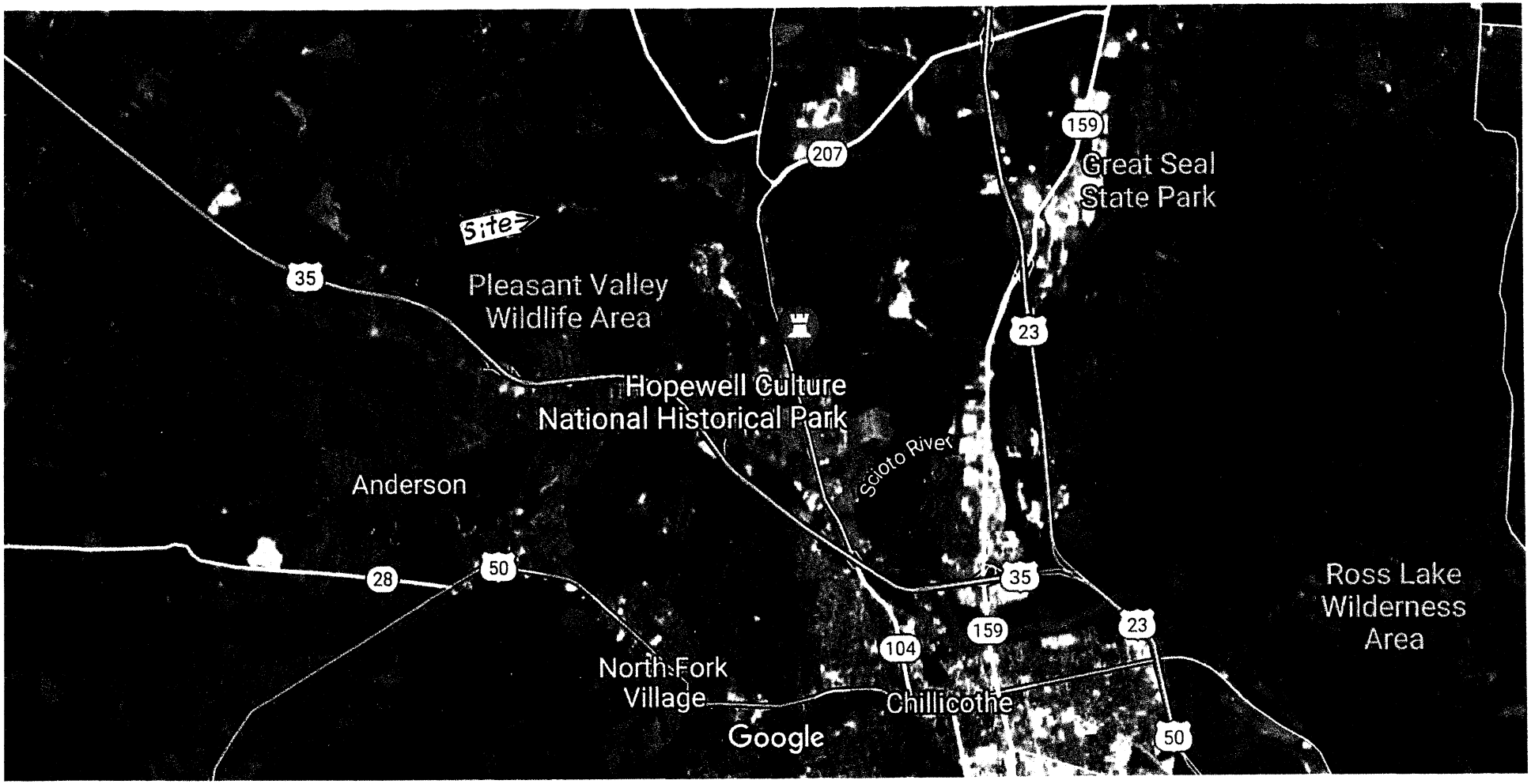
Soil and Site Evaluation Discussion

This soil evaluation is for a new STS (sewage treatment system) for a new home (we have located a possible new home location, but if changed make sure the new home is located upslope of the propose leach field). We used a soils probe and examined the soils as best as possible to find the depth to seasonal high water table, soil textures, percent clay and any compacted or dense layers that would impact the ability of a leach field to work properly. We located this proposed leach field on a sloping area, downslope of a less sloping landform. These soils have developed in glacial till parent material, with a thin local alluvial cap of soils overlying the original top portion of the soil. We also noted in soil pit #3, at a depth of 45 inches the soil consistence changes to firm, a result, of a change to a more clayey parent material, of residual interbedded siltstone and shale weathered soil.

The depth to a seasonal high water table in the #1 and #2 soil is 23 inches, and the #3 soil is 20 inches. These are mostly loamy soils with the main restricting layers occurring with increased clay percentage, except for the #3 soil, a change in more clayey parent material occurred, with a total restricting layer at a depth of 45 inches. These soils do not have any bedrock to a depth of 60 inches. The upper part (#1 & #2 soils) of this proposed leach field seems to be a little better for use as an STS leach field area, however water flows down hill, so wherever you locate the filter lines may work similar. This proposed filter field area is large and can serve as both the primary and secondary leach field areas.

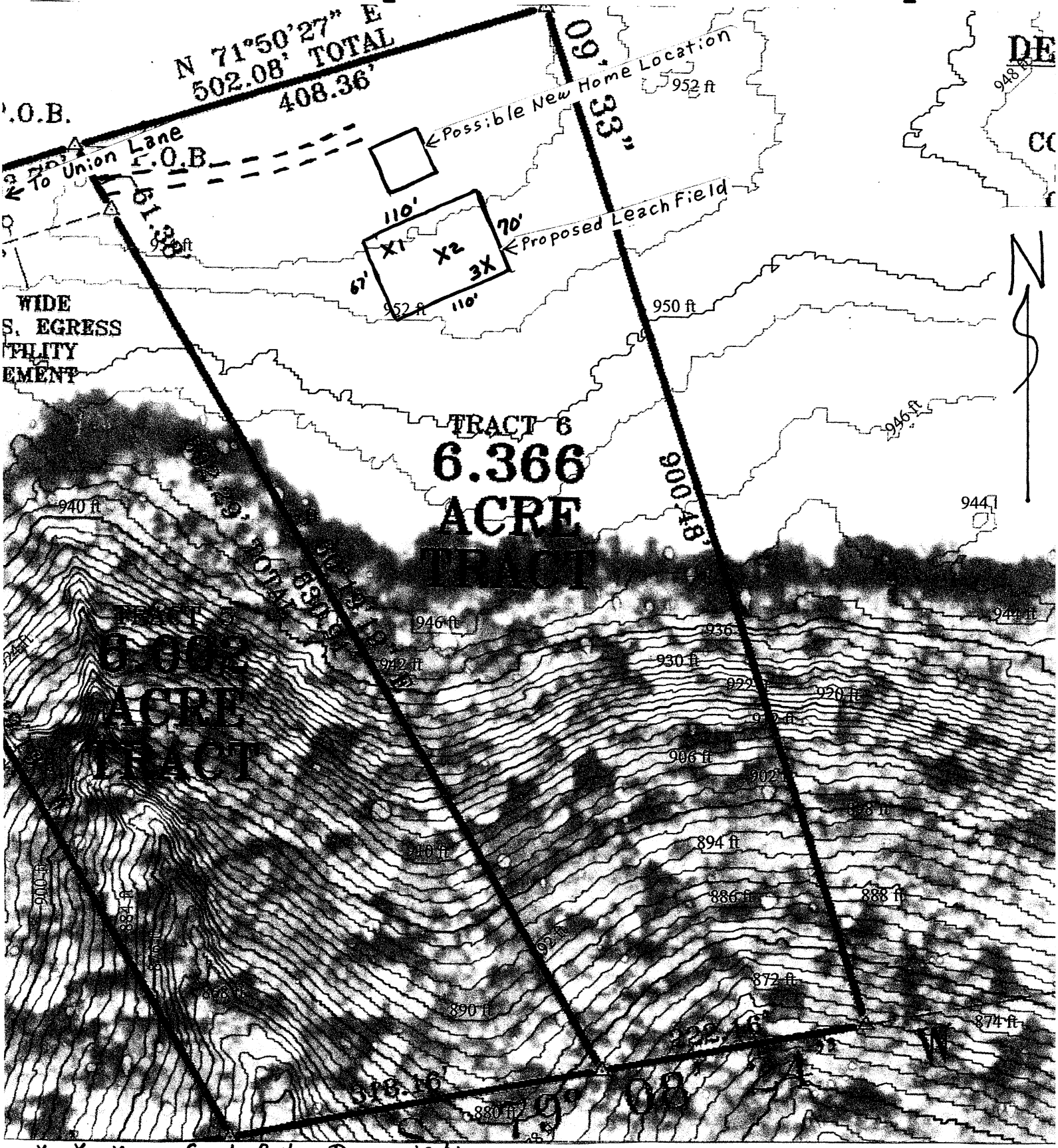
We have shown the location of the proposed STS leach field on the sketch map. We have marked the proposed filter field area with pink wire flags along the boundary and/or on the boundary corners. The soil description sites are marked with orange wire flags and the number of the description is marked on the flag. The approximate dominion, of the proposed filter field area, is marked on the sketch map. The proposed leach field area is just an indication of the area that can be used, the installer or the health department will determine where the filter lines will be located. The filter field lines would need to be located level on the contour around the slope. These soil descriptions were taken at random to show the soil properties at different areas within the proposed filter field area and the sketch map is not to scale. The proposed leach field can be extended around the slope, if needed. We gave a house site location (example that may change with new owner) on the sketch map to give you a possible reference point, for this report.

Location Map



Sketch Map for Countrytyme Property

Pleasant Valley Woods-Track #6 Ross County



X_1, X_2, X_3 – Soil Site Descriptions

===== Approximate "Possible" Driveway Location

These are all Approximate Locations "not to scale"

(2) we used the 12-24 Depth For H. Linear Loading Rate used 5-9 % slope

Site and Soil Evaluation for Sewage Treatment and Dispersal

Lot #6

County: Ross
Township / Sec.: Union
Property Address/Location: S. Union Rd. Chillicothie, OH 45601
Applicant Name: Countrytyme Reality
Address: Att: Dave Lisheny - Land specialist 3451 Cincinnati-Zanesville Rd, SW
Phone #: 614-429-8152
Lot #: 6
#1 Test Hole #: 1
Latitude/Longitude: N39° 23.665', W83° 02.975'
Method: ✓ Pit ✓ Auger ___ Probe

Land Use / Vegetation: crop Field
Landform: Glacial Till
Position on Landform: slight slope
Percent Slope: 5-6 %
Shape of Slope: convex
Date: 1-4-21
Evaluator: Carlos Cole

Certification Stamp or Certification #: 24835
Signature: Carlos Cole
Phone#: 304-372-4809 Home
304-532-4711 cell

Dug to 30" + Augered Remainder

Soil Profile		Estimating Soil Saturation: Munsell Color (hue, value, chroma)			Estimating Soil Permeability							Infiltration Loading Rate gal/day/sq ft	Hydraulic Linear Loading Rate (2)
			Redoximorphic Features		Texture			Structure					
Horizon	Depth (inches)	Matrix Color	Concentrations	Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Other Soil Features	
Ap1	0-5	10YR 4/3	+4/4	—	L	18-21	—	2-1	F	Gr	Fr	.6	4.1
BA	5-10	10YR 5/4	-	—	L/SiL	21-23	1+	2-1	F+M	sbk	fr	.6	4.1
2Ab	10-17	10YR 3/3	+3/4	- —	L	15-18	-	2-1	F+M	sbk	Fr	.6	4.1
Bt1	17-23	10YR 6/4	5/6 +6/3	-	L	23-26	1-2+	2-1	M	sbk	Fr	.6	4.1
Bt2	23-33	10YR 5/6		10YR 7/2	CL	27-29	1-2+	2-1	M	sbk	Fr	.4	3.0
Bt3	33-41	10YR 5/6	5/4	6/2	CL	30-34	2+	1-2	M+C	sbk	Fr-Fi	.2	2.7
BC	41-45	10YR 5/6	5/4	6/1	CL	27-31	5+	1	C	sbk	Fr	.2	2.7
C	45-55	10YR 5/6	5/4	6/1	CL	27-33	5-10+	—	—	—	Fr		

Limiting Conditions	Depth to (in.)	Descriptive Notes
Perched Seasonal Water Table	23"	
Apparent Water Table	—	
Highly Permeable Material	—	
Bedrock	none	to 55"
Restrictive Layer		some At 33-41 * gravel

Remarks / Risk Factors:

Note: The evaluation should include a complete site plan or site drawing.

This soil has been subject to some kind of Alluvial overwash, buried A (Ab) horizon.

(2) we used the 12-24 Depth For H. Linear Loading Rate used 5-9 % slope

Site and Soil Evaluation for Sewage Treatment and Dispersal

Lot #6

County: Ross
Township / Sec.: Union
Property Address/Location: S. Union Rd. Chillicothie, OH 45601
Applicant Name: Countrytyme Reality
Address: Att: Dave Lisheny - Land specialist 3451 Cincinnati-Zanesville Rd., SW
Phone #: 614-429-8152
Lot #: 6
#2 Test Hole #: 2
Latitude/Longitude: N 39° 23.661', W 83° 02.967'
Method: ✓ Pit ✓ Auger ___ Probe

Land Use / Vegetation: crop Field
Landform: Glacial Till
Position on Landform: sloping Area
Percent Slope: 5%
Shape of Slope: Convex
Date: 1-4-21
Evaluator: Carlos Cole

Certification Stamp or Certification #: 24835
Signature: Carlos Cole
Phone#: 304-372-4809 Home
304-532-4711 cell

Dug to 30" + Augered Remainder

Soil Profile		Estimating Soil Saturation: Munsell Color (hue, value, chroma)			Estimating Soil Permeability: Texture			Structure				Infiltration Rate Loading gal/day/ft²	Hydraul. Linear Loading Rate (2)
			Redoximorphic Features										
Horizon	Depth (inches)	Matrix Color	Concentrations	Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Other Soil Features	
Ap1	0-6	10YR 4/3	–	–	L	18-21	2+	2-1	F	Gr	Fr-vFr	.6	4.1
2 Ap2	6-10	10YR 3/3	+4/3	–	L	15-18	1-2+	2	F+m	Gr	vFr	.6	4.1
2 Bt1	10-15	10YR 5/6	+5/4	–	L	23-26	2-5+	2-1	m	sbk	Fr	.6	4.1
2 Bt2	15-23	10YR 5/6	+5/4	–	CL/L	26-29	2+	2	m	sbk	Fr	.4	3.0
2 Bt3	23-32	10YR 5/4	+5/6	10YR 6/2	CL	28-32	5+	2-1	m	sbk	Fr	.4	3.0
2 BC	32-36	10YR 5/4	+5/6	10YR 6/1	CL/L	26-30	2-5+	1	m	sbk	Fr	.2	2.7
2 C	36-47	10YR 5/4	–	–	L	25-28	5-10	–	–	–	Fr		

47" Hit Rock - Loose Rock not Bedrock

Limiting Conditions	Depth to (in.)	Descriptive Notes	Remarks / Risk Factors:
Perched Seasonal Water Table	23"		
Apparent Water Table	–		
Highly Permeable Material	–		
Bedrock	Hit Rock	(Loose) At 47", This is not Bedrock just stopped Auger	
Restrictive Layer	None		

Note: The evaluation should include a complete site plan or site drawing.

*gravel

Top 6" of Soil is over wash (?. How

(2) we used the 12-24" Depth For H. Linear Loading Rate
used 5-9 % slope **Site and Soil Evaluation for Sewage Treatment and Dispersal**

Lot #6

County: Ross
Township / Sec.: Union
Property Address/Location: S. Union Rd. Chillicothie, OH 45601
Applicant Name: Countrytyme Realty
Address: Att: Dave Lisheny - Land specialist 3451 Cincinnati-Zanesville Rd., SW
Phone #: 614-429-8152
Lot #: 6
#3 Test Hole #: 3
Latitude/Longitude: N39° 23.659'
Method: ✓ Pit ✓ Auger ___ Probe

Land Use / Vegetation: crop Field
Landform: Glacial Till
Position on Landform: Lower slope
Percent Slope: 4-5%
Shape of Slope: convex
Date: 1-4-21
Evaluator: Carlos Cole

Certification Stamp or Certification #: 24835
Signature: Carlos Cole
Phone#: 304-372-4809 Home
304-532-4711 Cell

Dug to 28" + Augered Remainder

Soil Profile		Estimating Soil Saturation: Munsell Color (hue, value, chroma)			Estimating Soil Permeability							Infiltrative Loading Rate gal/day/ft²	Hydraulic Linear Loading Rate (2)
			Redoximorphic Features		Texture			Structure					
Horizon	Depth (inches)	Matrix Color	Concentrations	Depletions	Class	Approx. % Clay	Approx. % Fragments	Grade	Size	Type (shape)	Consistence	Other Soil Features	
Ap1	0-7	10YR 4/3	—	-	L	17-19	1-2+	2-1	F	Gr	fr-vfr		
2 Ap2	7-12	10YR 3/3	+4/3 -	-	L	15-18	2+	2-1	f+m	Gr	fr-vfr		
2 Bt1	12-20	10YR 5/6	+5/4 · 6/3		CL	26-30	2+	2	m	sbk	fr		
2 Bt2	20-31	10YR 5/6	+5/4	10YR 6/2	CL	27-32	2-4+	2	m	sbk	fr		
2 Bt3	31-37	10YR 5/6	+5/4 +7.5YR 6/6	10YR 6/2	CL	29-34	5-8+	2-1	m	sbk	fr		
2 BC	37-45	7.5YR 6/6	10YR 6/4	10YR 6/2	CL	34-38	2-5	1	m+c	sbk	fr-fi		
3 C1	45-60	10YR 6/1	10YR 5/4	10YR 4/2	SiCL	stratified 35+	L +	CL Higher %clay	+Lower	—	Fi		
		+2.5Y 4/1											

Limiting Conditions	Depth to (in.)	Descriptive Notes	Remarks / Risk Factors:
Perched Seasonal Water Table	20		
Apparent Water Table	—		
Highly Permeable Material	—		
Bedrock	none		
Restrictive Layer	45		

3C1 Horizon Developed from Residual sedimentary siltstone Rock (in place)

Note: The evaluation should include a complete site plan or site drawing.

Top 7" of soil is overwash