



Land Surveyors – Boundary Consultants
Water & Wastewater System Designers
P.O. Box 388 – 25A West Street
Bristol, Vermont 05443

Ronald L. LaRose, L.S.

Kevin R. LaRose, L.S.

September 30, 2009

Mr. & Mrs. Joseph Keenan
North Pasture Lane
Charlotte, Vermont 05445

RE: State of Vermont Septic Permit

Dear Joe & Martha:

Please find enclosed the State of Vermont application package concerning your proposed subdivision on North Pasture Lane in Charlotte.

In the package, you will find two sets of the application. The original is paper-clipped to an envelope that needs to be signed by you and sent to the Town of Charlotte along with a check for \$500.00 payable to the Town of Charlotte. The other set is for your records.

When the time comes that you are ready to construct the system, you or your contractor should contact me so that I can perform the required stake-out, inspections and certifications. Those will be billed when the system is complete. The stakeout, inspections and certification generally run around \$600. They include necessary stakeout, inspections, and a certification letter. It should be noted that the above-stated costs assume that the wastewater system and well site will be constructed in their designed location. Any deviation from the designed/permitted location may require an as-built drawing and possibly a permit amendment from the State of Vermont. The permit from the State of Vermont will in no way relieve you from any local permits that may be required. Also, we have indicated on the application to the State of Vermont that there will be no floor drains as part of this project.

If you have any questions, please do not hesitate to give me a call.

Sincerely,
COPY
Kevin R. LaRose, L.S.
Licensed Class B Designer

Land Surveying ♦ Topographical Surveys ♦ State & Local Permitting ♦ Septic Design ♦ Land Use Planning

p.802.453.3818
f.802.329.2138

www.larosesurveys.com
info@larosesurveys.com



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Bristol, Vermont 05443

Ronald L. LaRose, L.S.

Kevin R. LaRose, L.S.

October 19, 2009

Town of Charlotte
Attn: Mr. Tom Mansfield
PO Box 119
Charlotte, Vermont 05445

RE: Keenan Parcel, North Pasture Lane

Dear Tom:

We are writing on behalf of Joe & Martha Keenan in regard to their proposed two lot subdivision off of North Pasture Lane.

Specifically, the Keenan's wish to subdivide their 50.3 acre parcel into two lots. Lot 1, which will include the existing single-family residence, will be 5 acres. Lot 2 is proposed to be 45.3 acres and include the proposed four-bedroom single-family residence. Lot 1 is served by an existing drilled well and mound wastewater disposal system. Lot 2 will be served by a drilled well and a Presby disposal system. As part of this subdivision, we have identified a designated replacement area for Lot 1.

For your review, we have included the following:

1. Wastewater System & Potable Water Supply Permit Application;
2. Permit fee of \$500.00;
3. Subdivision Plat & Site Plan (two copies each);
4. Test Pit logs.

The Keenan's are looking forward to your review of their application and subsequent issuance of a permit. If you have any questions, please do not hesitate to give me a call.

Sincerely,

Kevin R. LaRose, L.S.
Licensed Class B Designer

Cc: Joe & Martha Keenan

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Wastewater Management Division - Permit Application Wastewater System & Potable Water Supply

For Office Use Only:

Application#	PIN#	Date Complete Application Received
<input type="text"/>	<input type="text"/>	<input type="text"/>

Authority

10 V.S.A Chapter 64, the Environmental Protection Rules, Chapter 1, Wastewater System & Potable Water Supply Rules, and Chapter 21, Water Supply Rules, Appendix A Part 11 - Small Scale Water Systems.

General Information:

The organization and/or content of this form may not be altered, however, the form is designed to expand to allow additional information to be entered. Changes in the organization and/or content of the form may result in an invalid application or permit.

In most cases a licensed designer will be required for your project and to help complete this application form. There are also line-by-line instructions available to assist with completing this form.

NOTE We strongly suggest referring to the application instructions while completing this application form.

Part I Applicant (Landowner) & Project Contact Information

Section A - Applicant Details (if Landowner is an Individual or Individuals)

1 Last Name Keenan		2 First Name (and Middle Initial if appropriate) Joseph A. & Martha Q.	
3 Mailing Address Line 1 631 North Pasture Lane		4 Mailing Address Line 2	
5 Town/City Charlotte	6 State/Province Vermont	7 Country United States	8 Zip/Postal Code 05445
9 Email Address			10 Telephone 425-2384
Remove This Applicant			
Add Another Applicant			

Section B - Applicant Details (if Landowner is other than an Individual or Individuals, e.g. Corporations, Homeowner's Associations, etc.)

1 Registered Legal Entity or Organization Name			2 Telephone
3 Mailing Address Line 1			4 Mailing Address Line 2
5 Town/City	6 State/Province	7 Country United States	8 Zip/Postal Code

Certifying Official

The Certifying Official must be a person who has signatory authority for the legal entity or organization that is the Applicant. A copy of the document authorizing this person to act as a signatory authority must be attached to this application.

9 Certifying Official Last Name		10 Certifying Official First Name (and MI if appropriate)	
11 Certifying Official Title			
12 Certifying Official Email Address			13 Telephone
Remove This Applicant			
Add Another Applicant			

Section C - Primary Contact Information (if other than Applicant)

1 Last Name		2 First Name (and Middle Initial if appropriate)	
3 Mailing Address Line 1		4 Mailing Address Line 2	
5 Town/City	6 State/Province	7 Country	8 Zip/Postal Code
		United States	
9 Email Address			10 Telephone

Section D - Building/Business Owner Information

1 Last Name		2 First Name (and Middle Initial if appropriate)	
3 Mailing Address Line 1		4 Mailing Address Line 2	
5 Town/City	6 State/Province	7 Country	8 Zip/Postal Code
		United States	
9 Email Address			10 Telephone

Part II Certifying Designer(s) Information

1 Designer Last Name		2 Designer First Name (and Middle Initial if appropriate)	
LaRose		Kevin R	
3 Designer License#	4 Company Name		
00443	LaRose Surveys, P C		
5 Mailing Address Line 1		6 Mailing Address Line 2	
PO Box 388			
7 Town/City	8 State/Province	9 Country	10 Zip/Postal Code
Bristol	Vermont	United States	05443
11 Email Address			12 Telephone
larosesurveys@gmail.com			453-3818
13 Designer Role(s) (check all that apply)			
<input checked="" type="checkbox"/> Water Supply Designer			
<input checked="" type="checkbox"/> Wastewater Disposal System Designer			
Remove This Designer			
Add Another Designer			

Part III Property Location Information

Section A - Property Parcel ID#(s) and Location(s)

1 Please provide the property location information including Town or City Parcel ID#, Town/City, and Street or Road location in the table below.

	(a) Town/City Parcel ID#	(b) Town or City	(c) Street or Road Location
X	03-02-04	Charlotte	North Pasture Lane
Add Another Property			

Section B - Center of Property GPS Coordinates

1 Enter the approximate center of property coordinates using GPS set for NAD83 or as derived from a map (map must be based on NAD83)

(a) Latitude
(in decimal degrees to five decimal places, ex. 44.38181°)

(b) Longitude
(in decimal degrees to five decimal places, ex. -72.31392°)

N °

W (-) °

Part IV Project Information

Section A - General Project Information & Questions

1 Project Name (if applicable)

2 Total Acreage of Property

3 Business Name (if applicable)

4 Detailed Project Description

Two lot subdivision. One existing three-bedroom SFR located on parcel and new lot to be built on with a four-bedroom SFR. Both lots will have on-site water and septic

5 Were all buildings or structures, campgrounds, and their associated potable water supplies and wastewater systems substantially completed before January 1, 2007 and all improved and unimproved lots in existence before January 1, 2007? Yes No

6 Does this application include subdividing the property? Yes No

7 Has anyone from the Wastewater Management Division's Regional Office been to the property? Yes No

If Yes, enter the staff person's name and the date of the visit

(a) Name of Staff Person

(b) Date of Visit

8 Will any construction occur within 50 feet of a wetland boundary, mapped or designated? Yes No

If Yes, contact the Wetlands Program of the Water Quality Division at (802) 241-3770.

9 Will more than one acre be disturbed during the entire course of construction, including all lots and phases? Yes No

If Yes, contact the Stormwater Program of the Water Quality Division at (802) 241-4320.

10 Will there be any stream crossings by roads, utilities, or other construction? Yes No

If Yes, contact the River Corridor Mgmt. Program of the Water Quality Division at

Central & Northwest Vermont

(802) 879-5631

Southern Vermont

(802) 786-5906

Northeastern Vermont

(802) 751-0129

11 Is the project located in a special flood hazard area as designated on the flood insurance maps prepared for a municipality by the Federal Emergency Management Agency? Yes No

If Yes, show the special flood hazard area limits on the site plan

12 Act 250 Has the Applicant (Landowner) subdivided any other lots of any size within a five mile radius of this subdivision, or within the environmental district within the last five years? Yes No

If Yes, enter the town(s) and the associated number of lots in the table below:

(a) Town

(b) Number of Lots

X	<input type="text"/>	<input type="text"/>
---	----------------------	----------------------

Add Another Town/Lot

13 Is there any prior Act 250 jurisdiction on the tract of land? Yes No

If Yes, enter the Act 250 permit number

(a) Act 250 Permit Number

Section B - Project Deed Reference

1 Please provide the Town, Book, and Page reference for the current landowner's deed(s) to this property in the table below:

	(a) Town	(b) Book	(c) Page(s)
X	Charlotte	41	490

Add Another Deed Reference

Section C - Project Plan Reference

1 Please provide the following information for all water supply and wastewater disposal system plans being submitted

	(a) Sheet#	(b) Title	(c) Plan Date	(d) Plan Revision Date
X	1	plat showing a proposed subdivision of lands of Joseph A. & Martha A. Keenan	01-05-2009	07-02-2009
X	2	a site plan showing a subdivision of lands of Joseph A. & Martha Q. Keenan	01-05-2009	07-13-2009

Add Another Plan Reference

Section D - Existing Project Lot/Building Details

Please provide the existing project details. This section is used to describe what is existing for the project. For example, if you are subdividing an undeveloped 21-acre parcel, you would list the existing parcel. If you are revising the boundary lines of two commercial lots in an industrial park, and constructing an addition to an existing building you would list the existing lot numbers, existing acres, existing buildings, existing uses, construction date(s), prior permits, and answer the compliance questions.

1 Lot#	2 Lot Size (acres)	3 Existing Use of the Lot
1	50.3	four-bedroom single-family residence

4 Provide the following information for each building on the lot:

	(a) Building ID	(b) Existing Use	(c) Date Construction of Building Substantially Complete	(d) Prior Permits	(e) In compliance with existing permits?
X	1	Residential	pre-2005		<input type="radio"/> Yes <input type="radio"/> No

Add Another Building

Remove This Lot

Add Another Lot

Section E - Proposed Project Lot/Building Details

This section is used to describe what you are proposing to do in this project. For example, if you were going to create 4 lots for construction of single family residences, you would list each lot, proposed acreage, proposed buildings, and proposed use.

1 Lot#	2 Lot Size (acres)	3 Proposed Use of the Lot
1	5	four-bedroom SFR

4 Is the lot being created as part of a subdivision? Yes No

5 Are you requesting that the Blood, Marriage, or Civil Union special fee be applied to this lot? Yes No

6 If the lot is exempt, please indicate the specific exemption from the Wastewater System and Potable Water Supply Rules?

7 Provide the following information for each building on the lot:

	(a) Building ID	(b) If building is exempt, indicate exemption	(c) Construction or increased flow?	(d) Proposed Use
X	1		<input type="checkbox"/>	SFR

Add Another Building

Remove This Lot

1 Lot# 2	2 Lot Size (acres) 45.3	3 Proposed Use of the Lot proposed four-bedroom SFR
4 Is the lot being created as part of a subdivision?		<input checked="" type="radio"/> Yes <input type="radio"/> No
5 Are you requesting that the Blood, Marriage, or Civil Union special fee be applied to this lot?		<input type="radio"/> Yes <input checked="" type="radio"/> No
6 If the lot is exempt, please indicate the specific exemption from the Wastewater System and Potable Water Supply Rules?		
7 Provide the following information for each building on the lot.		
(a) Building ID	(b) If building is exempt, indicate exemption	(c) Construction or increased flow?
X 2		<input checked="" type="checkbox"/>
		(d) Proposed Use
		SFR
<input type="button" value="Add Another Building"/>		
<input type="button" value="Remove This Lot"/>		
<input type="button" value="Add Another Lot"/>		

Part V Water Supply Information

Section A - Water Supply Screening Questions

- 1 Are you proposing a new water supply for this project? Yes No
 - 2 Are you proposing changes to an existing water supply for this project? Yes No
 - 3 Is there a connection to an existing water supply for the project? Yes No
- If you answered No to all three of the above questions, skip to Part VI. Otherwise, proceed with Part V*

Section B - General Water Supply Questions

- 1 Does this project involve a failed water supply? Yes No
- 2 Will any of the proposed water sources serve 25 or more people or have 15 or more service connections? Yes No
If Yes the applicant must contact the Water Supply Division at (802) 241-3400 for source, construction and operating
- 3 Are any of the existing or proposed water sources located within a special flood hazard area? Yes No
- 4 Are any of the existing or proposed water sources located within a floodway? Yes No
- 5 Are any of the proposed water sources located within 1 mile of a hazardous waste site as designated by the Waste Management Division and identified on the Agency mapping website? Yes No
If Yes, please submit additional information on the site. The Waste Management Division can be reached at (802) 241-3888
- 6 Does this project require an approval letter from the Water Supply Division for the construction of a public water system, municipal water line extension over 500 feet, or hydrants or sprinkler systems? Yes No
If Yes, please submit a copy of the approval letter from the Water Supply Division
- 7 Does the proposed or existing water supply(ies) use a water treatment device to obtain compliance with the quality requirements in the Water Supply Rule? Yes No
If Yes, please submit additional information regarding the constituent(s) that exceeds the standards and plans, details, and specifications of the treatment device
- 8 Is any portion of the proposed water supply located in or near a Water Source Protection Area as designated by the Water Supply Division? Yes No
If in areas of known interference issues, please contact the Water Supply Division at (802) 241-3400

Section C - Individual Water Supply Details

Please provide the following information for each of the existing and proposed water supply(ies) serving a building or structure, or campground on the property

1 Water Supply Name/Identifier ex well		2 Water Supply Owner (if not Applicant)					
3 Water Source Type Non-Public Drilled Bedrock Well		4 Type of Change to Supply No Change					
5 Lots/Buildings Served by this Water Supply System							
	(a) Lot#	(b) Building ID	(c) Type of Change to the Building's Supply	(d) Existing	(e) Increase	(f) Total	(g) Rule or Meter Based Flows
X	1	1	No Change	490	0	490	Rule-based
Add Another Lot/Building Served by this Supply				6	7	8	
				490	0	490	
9 Is this water supply located off-lot? <input type="radio"/> Yes <input checked="" type="radio"/> No							
10 Is this water supply shared? <input type="radio"/> Yes <input checked="" type="radio"/> No							
<i>If the water supply is located off-lot or shared, submit a copy of the agreement to provide an easement prior to construction.</i>							
11 Is a variance being requested for this water supply? <input type="radio"/> Yes <input checked="" type="radio"/> No							
<i>If Yes, please submit additional details related to the variance request.</i>							
<input type="button" value="Remove This Water Supply"/>							
<input type="button" value="Add Another Water Supply"/>							

Section D - Water Supply Design Flows Summary Table

1 If the project includes more than one water supply, please list each water supply system and provide the total water supply design flows for the project **IMPORTANT**. Please don't include systems that were identified in this Part on Section C, Line 4 as a "Replacement Area Designation" in this summary table

	(a) Water Supply Name/Identifier	(b) Existing	(c) Increase	(d) Total
X	ex well	490	0	490
Add Another Water Supply				
		2	3	4
		490	0	490

Part VI Wastewater Disposal System Information

Section A - Wastewater Disposal System Screening Questions

1 Are you proposing a new wastewater disposal system or replacement area for this project? Yes No

2 Are you proposing changes to an existing wastewater disposal system for this project? Yes No

3 Is there a connection to an existing wastewater disposal system for the project? Yes No

If you answered No to all three of the above questions, skip to Part VII Otherwise, proceed with Part VI.

Section B - General Wastewater Disposal System Questions

1 Does this project involve a failed wastewater disposal system? Yes No

2 Do any of the systems require a curtain or dewatering drain as part of the design? Yes No

3 Is a hydrogeologic study required for this project? Yes No

4 If the project has a soil-based wastewater disposal system with design flows that exceed 1,000 GPD, is this project located in a Class A Watershed? Yes No NA

If Yes, indicate the Class A Watershed in which the system(s) is located

(a) Class A Watershed Name

5 Are there any existing or proposed floor drains as part of this project? Yes No
 If Yes, indicate where the floor drains will discharge.
 (a) Floor Drain Discharge Point

6 If the project utilizes an Innovative/Alternative System or Product, has the applicant received a copy of the Wastewater Management Division's approval letter? Yes No NA

7 Is any portion of the proposed wastewater disposal system located in or near a Water Source Protection Area as designated by the Water Supply Division? Yes No
 If Yes, contact the Water Supply Division at (802) 241-3400

Section C - Individual Wastewater Disposal System Details

Please provide the following information for each of the existing and proposed wastewater disposal systems serving a building or structure, or campground on the property.

1 Wastewater Disposal System Name/Identifier Lot 1 ex system	2 Wastewater Disposal System Owner (if not Applicant)
3 Wastewater Disposal System Type Mound	4 Type of Change to System No Change

5 Lots/Buildings Served by this Wastewater Disposal System

(a) Lot#	(b) Building ID	(c) Type of Change to the Building's System	(d) Existing	(e) Increase	(f) Infiltration	(g) Total	(h) Rule or Meter Based Flows
X 1	1	No Change	490	0	0	490	Rule-based
Add Another Lot/Building Served by this System:			6 490	7 0	8 0	9 490	

10 Is this wastewater disposal system located off-lot? Yes No

11 Is this wastewater disposal system shared? Yes No
 If the wastewater disposal system is located off-lot or shared, submit a copy of the agreement to provide an easement prior to initiation of construction

12 Is a variance being requested for this wastewater disposal system? Yes No
 If Yes please submit additional details related to the variance request

13 If this wastewater disposal system type is a connection to an Indirect Discharge System, please provide the Indirect Discharge System ID number.
 Indirect Discharge System ID Number

14 If this wastewater disposal system type is a connection to a municipal system, please select the town
 Town

15 If this wastewater disposal system is a soil-based system, please select the design approach used
 Design Approach Used

16 For soil-based systems, please check all that apply
 Storage and Dose Filtrate

18 If this is an Innovative/Alternative soil-based system, please select the Innovative/Alternative system or product.

Innovative/Alternative System or Product

Remove This Wastewater System

1 Wastewater Disposal System Name/Identifier Lot 2 Primary	2 Wastewater Disposal System Owner (if not Applicant)
3 Wastewater Disposal System Type Mound	4 Type of Change to System New System

5 Lots/Buildings Served by this Wastewater Disposal System

	(a) Lot#	(b) Building ID	(c) Type of Change to the Building's System	(d) Existing	(e) Increase	(f) Infiltration	(g) Total	(h) Rule or Meter Based Flows
X	2	2	Connection to New System	0	490	0	490	Rule-based
Add Another Lot/Building Served by this System				6	7	8	9	
				0	490	0	490	

10 Is this wastewater disposal system located off-lot? Yes No

11 Is this wastewater disposal system shared? Yes No

If the wastewater disposal system is located off-lot or shared, submit a copy of the agreement to provide an easement prior to initiation of construction.

12 Is a variance being requested for this wastewater disposal system? Yes No

If Yes, please submit additional details related to the variance request

13 If this wastewater disposal system type is a connection to an Indirect Discharge System, please provide the Indirect Discharge System ID number.

Indirect Discharge System ID Number

14 If this wastewater disposal system type is a connection to a municipal system, please select the town

Town

15 If this wastewater disposal system is a soil-based system, please select the design approach used

Design Approach Used

16 For soil-based systems, please check all that apply

Storage and Dose Filtrate

17 If this is an Innovative/Alternative soil-based system, please select the system use type.

Innovative/Alternative System Use Type

18 If this is an Innovative/Alternative soil-based system, please select the Innovative/Alternative system or product.

Innovative/Alternative System or Product

Remove This Wastewater System

Add Another Wastewater System

Section D - Wastewater Disposal Systems Design Flows Summary Table

1. If the project includes more than one wastewater disposal system, please list each system on this page and provide the total wastewater disposal design flows for the project **IMPORTANT** Please don't include systems that were identified in this Part on Section C, Line 4 as a "Replacement Area Designation" in this summary table.

	(a) Wastewater Disposal System Name/Identifier	(b) Existing	(c) Increase	(d) Infiltration	(e) Total
X	Lot 1 existing	490	0	0	490
X	Lot 2 Primary	0	490	0	490
	Add Another Wastewater System	2	3	4	5
		490	490	0	980

Part VII Application Fees

1 Fee Amount

2 Fee Calculation Details

per conversation with Tom Mansfield

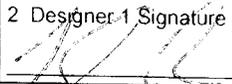
Part VIII Designer Certification & Copyright License

Section A - Certifying Designer 1 Certification & Copyright License

"I hereby certify that in the exercise of my reasonable professional judgment, the design-related information submitted with this application is true and correct, and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules and the Vermont Water Supply Rules

As the individual who prepared this application, including all documents that are marked as copyrighted, I hereby grant a non-exclusive, limited license to the State to allow the documents to be made available for public review and copying in order to properly implement and operate the permitting programs for Wastewater Systems and Potable Water Supplies, and for no other purposes. As a condition to this license, the State agrees that it will not make any changes to such documents, nor will the State delete any copyright notices on such documents."

- 1 Check the design(s) you are certifying. This should be the same as the Designer Role(s) you selected in Part II, Section A, Line 13
- Water Supply Designer
 - Wastewater Disposal System Designer

1 Designer 1 Name Kevin R. LaRose	2 Designer 1 Signature 	3 Signature Date 10/19/09
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Section B - Certifying Designer 2 Certification & Copyright License

"I hereby certify that in the exercise of my reasonable professional judgment, the design-related information submitted with this application is true and correct, and that the design included in this application for a permit complies with the Vermont Wastewater System and Potable Water Supply Rules and the Vermont Water Supply Rules

As the individual who prepared this application, including all documents that are marked as copyrighted, I hereby grant a non-exclusive, limited license to the State to allow the documents to be made available for public review and copying in order to properly implement and operate the permitting programs for Wastewater Systems and Potable Water Supplies, and for no other purposes. As a condition to this license, the State agrees that it will not make any changes to such documents, nor will the State delete any copyright notices on such documents."

- 1 Check the design(s) you are certifying. This should be the same as the Designer Role(s) you selected in Part II, Section B, Line 13.
- Water Supply Designer
 - Wastewater Disposal System Designer

1 Designer 2 Name 	2 Designer 2 Signature 	3 Signature Date
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Part IX Applicant(s) Signature & Acknowledgements			
<p><i>In order to insure compliance with the requirements of the regulations administered by the Department of Environmental Conservation, Wastewater Management Division, it may be necessary to visit the property. As this would involve a Department employee entering private property, we request your approval to do so</i></p>			
<p>1 If we do visit your property, do you have any special instructions?</p> <div style="border: 1px solid black; height: 40px; width: 100%; margin-top: 5px;"></div>			
<p><i>"As landowner of the property for which I am requesting a permit from the Department of Environmental Conservation, I understand that by signing this application I am granting permission for the Department employees to enter the property, during normal working hours, to insure compliance of the property with the applicable rules of the Department</i></p> <p><i>I also understand that I am not allowed to commence any site work or construction on this project without written approval from the Department of Environmental Conservation</i></p> <p><i>If my project utilizes an Innovative/Alternative System or Product, I have received a copy of the Wastewater Management Division's approval letter and agree to abide by the conditions of the approval</i></p> <p><i>I also certify that to the best of my knowledge and belief the information submitted above is true, accurate and complete."</i></p>			
X	2 Print Applicant Name <div style="border: 1px solid black; padding: 2px;">Joseph A Keenan</div>	3 Applicant Signature <div style="border: 1px solid black; height: 25px;"></div>	4 Signature Date <div style="border: 1px solid black; height: 25px;"></div>
X	2 Print Applicant Name <div style="border: 1px solid black; padding: 2px;">Martha Q. Keenan</div>	3 Applicant Signature <div style="border: 1px solid black; height: 25px;"></div>	4 Signature Date <div style="border: 1px solid black; height: 25px;"></div>
<div style="background-color: #e0e0e0; border: 1px solid black; padding: 2px; display: inline-block;">Add Applicant Signature Block</div>			



OTTER CREEK ENGINEERING

SOIL TEST PIT LOG

Project: Joe and Martha Keenan

Location: North Pasture Road - Charlotte

Date: 9/29/99 Time: _____ Weather Conditions: Overcast, 70's

Method of Excavation: Owner Operated Backhoe

Ground Surface Slope: _____ Logged By: P. DeGraff

Test Pit #	Depth (inches)	Texture	Consistence or Density	Color	Mottles	Comments
1	0-4"	Woods Duff		Dr. Brn.		
	4-29"	Silty Loam	Firm	Lt. Brn.	Mottles@14"	Refusal @ 29"
2	0-5"	Woods Duff		Dr. Brn.		
	5-30"	Clay Loam	Very Firm	Med. Brn.	Faint@14" Distinct@19"	
3	0-6"	Woods Duff		Dr. Brn.		
	6-32"	Clay Loam	Very Firm	Med. Brn.	Distinct@16"	Stone or Ledge @ 12"
4	0-5"	Woods Duff		Dr. Brn.		Pine Grove
	5-27"	Clay Loam	Very Firm	Lt. Brn.	Mottled @11"	
5	0-7"	Woods Duff		Dr. Brn.		
	7-29"	Clay Loam	Very Firm	Med. Brn.	Faint@14" Distinct@20"	
6	0-6"	Woods Duff		Dr. Brn.		
	6-27"	Clay Loam	Very Firm	Med. Brn.	Mottled @18"	



**OTTER CREEK
ENGINEERING**

SOIL TEST PIT LOG

Project: Joe and Martha Keenan

Location: North Pasture Road - Charlotte

Date: 9/29/99 Time: _____ Weather Conditions: Overcast, 70's

Method of Excavation: Owner Operated Backhoe

Ground Surface Slope: _____ Logged By: P. DeGraff

Test Pit #	Depth (inches)	Texture	Consistence or Density	Color	Mottles	Comments
7	0-4"	Woods Duff		Dr. Brn.		
	4-22"	Silty Loam	Firm	Lt. Brn.	Mottled	Refusal @ 22"
8	0-3"	Woods Duff		Dr. Brn.		
	3-24"	Silty Loam	Friable	Med. Brn.	None	Refusal @ 24"
9	0-4"	Woods Duff		Dr. Brn.		
	4-24"	Clay Loam	Firm	Grey Brn.	Mottled @8"	
Area 2						
10	0-6"	Woods Duff		Dr. Brn.		
	6-32"	Sandy Loam	Loose	Orange Brn.	M@28"	Very Faint, Inconsistent
	32-42"	Fine Gravel	Loose	Med. Brn.	None	OK for in-ground
	42-64"	Med Sand	Loose	Tan	None	
11		Topsoil		Dr. Brn.		
		Clay Loam	Very Firm	Grey to Med. Brn.	Mottled @12"	
		Clay Loam	Very Firm	Med. Brn.	Mottled @18"	



**OTTER CREEK
ENGINEERING**

SOIL TEST PIT LOG

Project: Joe and Martha Keenan

Location: North Pasture Road - Charlotte

Date: 9/29/99 Time: _____ Weather Conditions: Overcast, 70's

Method of Excavation: Owner Operated Backhoe

Ground Surface Slope: _____ Logged By: P. DeGraff

Test Pit #	Depth (inches)	Texture	Consistence or Density	Color	Mottles	Comments
12	0-2"	Woods Duff				Material Consistant
	2-30"	Sandy Loam	Firm	Orange Brn.	None	w/ TP10 not TP11
	30-50"	Fine Gravel	Loose	Med. Brn.	None	Assume Boundary 1/2 distance between.
13	0-3"	Woods Duff				
	3-39"	Sandy Loam	Friable	Orange Brn.	M@26"	Very Faint,
	39-54"	Sand	Friable	Tan	None	Inconsistent
14	0-4"	Woods Duff		Dr. Brn.		Consistent to Depth
	4-48"	Fine Sandy Loam	Loose	Tan	M @ 33"	No Stones
15	0-6"	Woods Duff		Dr. Brn.		
	6-36"	Sandy Loam	Firm	Med. Brn.	None	In-Ground System
	36-54"	Fine Gravel	Loose	Tan	None	
16	0-4"	Topsoil				
	4-24"	Clay Loam	Very Firm	Dk. Brn.	M @ 7"	



**OTTER CREEK
ENGINEERING**

SOIL TEST PIT LOG

Project: Joe and Martha Keenan

Location: North Pasture Road - Charlotte

Date: 9/29/99 Time: _____ Weather Conditions: Overcast, 70's

Method of Excavation: Owner Operated Backhoe

Ground Surface Slope: _____ Logged By: P. DeGraff

Test Pit #	Depth (inches)	Texture	Consistence or Density	Color	Mottles	Comments
Area 3						
17	0-4"	Woods Duff		Dr. Brn.		
	4-38"	Sandy Loam	Friable	Med. Brn.	M @24"	Inconsistent
	38-48"	Very Fine Sand	Firm	Lt. Tan	Clear @ 36"	
	48-52"	Sand	Loose	Salt&Pepper		
18	0-6"	Top Soil				
	6-20"	Silty Loam	Friable	Med. Brn.	Mottles@12"	
	20-28"	Clay Loam	Very Firm	Tan to Grey		
19	0-3"	Top Soil				
	3-32"	Silty Loam	Friable	Med. Brn.	Mottles@24"	Mound System
	32-48"	Fine Silty Loam	Very Firm	Lt. Tan		
20	0-7"	Top Soil				
	7-34"	Silty Loam	Friable	Med. Brn.	Mottles@26"	Mound System
	34-42"	Fine Silty Loam	Very Firm	Lt. Tan		

LaRose Surveys, P.C.
Test Pit Evaluation

Client: Keenan Project #: 08063 Date: July 17, 2009 Site Address: North Pasture Lane

Project Description: Two-lot subdivision

Logged By: Kevin LaRose Witnessed By: Spencer Harris

Topographical Description: woods Slope: 5-18% Vegetation: mix of hard wood

Weather: sunny 75 Method of Excavation: hand auger Excavating Company: _____

Test Pit #	Horizon	Depth (inches)	Texture	Color	Consistency	Structure	Redoximorphic Features	Comments
HA-1		0-4"	sandy loam	dark brown	friable	granular	none	
		4-20"	v.f.sandy loam	brown	friable	subang. Blocky	none	
		20-37"	v.f.sandy loam	light brown	friable	subang. Blocky	none	
		37-42"	silty loam	grayish brown	friable	subang. Blocky	conc.	
HA-2		0-4"	sandy loam	dark brown	friable	granular	none	
		4-18"	v.f.sandy loam	brown	friable	subang. Blocky	none	
		18-36"	v.f.sandy loam	light brown	friable	subang. Blocky	none	
		36-40"	silty loam	grayish brown	friable	subang. Blocky	conc.	
HA-3		0-5"	vfsi	dark brown	friable	granular	none	
		5-14"	vfsi to sil	brown	friable	subang. Blocky	none	
		14-26"	sil	olive gray	friable	subang. Blocky	conc.	