

260 294-304 Leverett

SEPTIC DESIGNS  
for Cabins



## NOTICE OF INTENT

Pursuant to the  
Massachusetts Wetlands Protection Act Regulations, 310 CMR 10.00 &  
the Amherst MA, Wetlands Protection Bylaw

### PROJECT:

Construction of a Barn and Greenhouse

### PROJECT LOCATION:

Juggler Meadow Farms  
260 Leverett Road  
Amherst, Massachusetts

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**Applicant:** Mr. Barre Tozloski  
Pocomo Road Nominee Trust  
312 Leverett Road  
Amherst, MA 01002

**Representative:** Baystate Environmental Consultants, Inc.  
296 N. Main Street  
East Longmeadow, MA 01028



December 2009



## TABLE OF CONTENTS

WPA Form 3: Notice of Intent Application

NOI Wetland Fee Transmittal Form

Addendum to Notice of Intent

Introduction

Existing Conditions

Proposed Work

Impact Assessment

Site Photos

Appendix A: Maps

Figure 1: Locus Map

Figure 2: FEMA Map

Figure 3: NHESP Areas

Figure 4: Soils Map

Figure 5: Turtle Habitat Assessment

Figure 6: Vegetative Communities

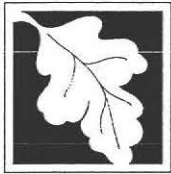
Figure 7: Turtle Impact Assessment

Appendix B: Abutter Information & Property Maps

Appendix C: MA DEP Data Forms

Appendix D: Site Plans





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

**WPA Form 3 – Notice of Intent**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Amherst

City/Town

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



Note:  
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

**A. General Information**

1. Project Location (**Note:** electronic filers will click on button to locate project site):

<u>260 Leverett Road</u>	<u>Amherst</u>	<u>01002</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:	<u>72d 30' 44.7"</u>	<u>42d 25' 37.5"</u>
	d. Latitude	e. Longitude
<u>3A</u>	<u>6 &amp; 10</u>	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant:

<u>Barre</u>	<u>Tozloski</u>	
a. First Name	b. Last Name	
<u>Pocomo Road Nominee Trust</u>		
c. Organization		
<u>312 Leverett Road</u>		
d. Street Address		
<u>Amherst</u>	<u>MA</u>	<u>01002</u>
e. City/Town	f. State	g. Zip Code
<u>413-548-9802</u>	<u>413-548-8131</u>	<u>barret@jugglermeadow.com</u>
h. Phone Number	i. Fax Number	j. Email Address

3. Property owner (required if different from applicant):  Check if more than one owner

<u></u>	<u></u>	
a. First Name	b. Last Name	
<u></u>		
c. Organization		
<u></u>		
d. Street Address		
<u></u>	<u></u>	<u></u>
e. City/Town	f. State	g. Zip Code
<u></u>	<u></u>	<u></u>
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

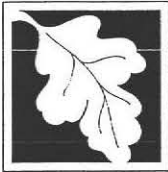
<u>Steven</u>	<u>Riberdy</u>	
a. First Name	b. Last Name	
<u>Baystate Environmental Consultants, Inc.</u>		
c. Company		
<u>296 North Main Street</u>		
d. Street Address		
<u>East Longmeadow</u>	<u>MA</u>	<u>01028</u>
e. City/Town	f. State	g. Zip Code
<u>413-525-3822</u>	<u>413-525-8348</u>	<u>SRiberdy@b-e-c.com</u>
h. Phone Number	i. Fax Number	j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

<u>\$750.00</u>	<u>\$362.50</u>	<u>\$387.50</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid







# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File Number

Document Transaction Number

Amherst

City/Town

## A. General Information (continued)

6. General Project Description:

Construction of a Barn within Buffer Zone and a greenhouse within previous disturbed (lawn) Riverfront Area.

7a. Project Type Checklist:

- |   |   |
|---|---|
| 1. <input checked="" type="checkbox"/> Single Family Home     | 2. <input type="checkbox"/> Residential Subdivision                   |
| 3. <input type="checkbox"/> Limited Project Driveway Crossing | 4. <input type="checkbox"/> Commercial/Industrial                     |
| 5. <input type="checkbox"/> Dock/Pier                         | 6. <input type="checkbox"/> Utilities                                 |
| 7. <input type="checkbox"/> Coastal Engineering Structure     | 8. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) |
| 9. <input type="checkbox"/> Transportation                    | 10. <input type="checkbox"/> Other                                    |

7b. Is any portion of the proposed activity eligible to be treated as a limited project subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1.  Yes  No If yes, describe which limited project applies to this project:

2. Limited Project

8. Property recorded at the Registry of Deeds for:

Hampshire

a. County

145

c. Book

b. Certificate # (if registered land)

105

d. Page Number

## B. Buffer Zone & Resource Area Impacts (temporary & permanent)

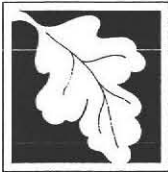
- Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
- Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet





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## B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet	2. square feet
	3. cubic feet of flood storage lost	4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet	
	2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input checked="" type="checkbox"/> Riverfront Area	unnamed stream	
	1. Name of Waterway (if available)	

2. Width of Riverfront Area (check one):

- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: 155,000 square feet

4. Proposed alteration of the Riverfront Area:

<u>944</u>	<u>800</u>	<u>144</u>
a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI?  Yes  No

6. Was the lot where the activity is proposed created prior to August 1, 1996?  Yes  No

3.  Coastal Resource Areas: (See 310 CMR 10.25-10.35)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

Online Users:  
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment





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City/Town \_\_\_\_\_

## B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	
	_____	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	_____	
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	_____	_____
	a. square feet of BVW	b. square feet of Salt Marsh
5. <input type="checkbox"/> Project Involves Stream Crossings		
	_____	_____
	a. number of new stream crossings	b. number of replacement stream crossings

## C. Other Applicable Standards and Requirements

### Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

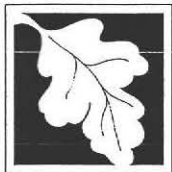
1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to [http://www.mass.gov/dfwele/dfw/nhesp/regulatory\\_review/priority\\_habitat/online\\_viewer.htm](http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/online_viewer.htm).

a.  Yes  No **If yes, include proof of mailing or hand delivery of NOI to:**

Natural Heritage and Endangered Species Program  
Division of Fisheries and Wildlife  
Route 135, North Drive  
Westborough, MA 01581

2008 \_\_\_\_\_  
b. Date of map





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Amherst \_\_\_\_\_

City/Town \_\_\_\_\_

## C. Other Applicable Standards and Requirements (cont'd)

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.C, and include requested materials with this Notice of Intent (NOI); OR complete Section C.1.d, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

### 1. c. Submit Supplemental Information for Endangered Species Review\*

1.  Percentage/acreage of property to be altered:

(a) within wetland Resource Area 944 sf  
percentage/acreage \_\_\_\_\_

(b) outside Resource Area 24,000 sf  
percentage/acreage \_\_\_\_\_

2.  Assessor's Map or right-of-way plan of site

3.  Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*\*\*

(a)  Project description (including description of impacts outside of wetland resource area & buffer zone)

(b)  Photographs representative of the site

(c)  MESA filing fee (fee information available at:  
[http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/ mesa/ mesa\\_fee\\_schedule.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_fee_schedule.htm)).

Make check payable to "Natural Heritage & Endangered Species Fund" and **mail to NHESP** at above address

*Projects altering 10 or more acres of land, also submit:*

(d)  Vegetation cover type map of site

(e)  Project plans showing Priority & Estimated Habitat boundaries

### d. OR Check One of the Following

1.  Project is exempt from MESA review.  
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, [http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/ mesa/ mesa\\_exemptions.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/ mesa/ mesa_exemptions.htm); the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2.  Separate MESA review ongoing. \_\_\_\_\_ a. NHESP Tracking # \_\_\_\_\_ b. Date submitted to NHESP

\* Some projects not in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/dfwele/dfw/nhosp/nhosp.htm>, regulatory review tab). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

\*\* MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.







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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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## C. Other Applicable Standards and Requirements (cont'd)

- 3.  Separate MESA review completed.  
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.
- 2. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a.  Not applicable – project is in inland resource area only

b.  Yes  No If yes, include proof of mailing or hand delivery of NOI to either:

South Shore - Cohasset to Rhode Island, and the Cape & Islands:

North Shore - Hull to New Hampshire:

Division of Marine Fisheries -  
Southeast Marine Fisheries Station  
Attn: Environmental Reviewer  
1213 Purchase Street – 3rd Floor  
New Bedford, MA 02740-6694

Division of Marine Fisheries -  
North Shore Office  
Attn: Environmental Reviewer  
30 Emerson Avenue  
Gloucester, MA 01930

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

- 3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

a.  Yes  No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.

b. ACEC

- 4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?

a.  Yes  No

- 5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?

a.  Yes  No

- 6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?

a.  Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:

- 1.  Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
- 2.  A portion of the site constitutes redevelopment
- 3.  Proprietary BMPs are included in the Stormwater Management System.

b.  No. Check why the project is exempt:

- 1.  Single-family house

Online Users:  
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.





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## C. Other Applicable Standards and Requirements (cont'd)

- 2.  Emergency road repair
- 3.  Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

## D. Additional Information

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

- 1.  USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
- 2.  Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
- 3.  Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.
- 4.  List the titles and dates for all plans and other materials submitted with this NOI.

Notice of Intent Plan

a. Plan Title

Baystate Environmental Consultants, Inc.

Thomas Jenkins, P.E.

b. Prepared By

c. Signed and Stamped by

40

d. Final Revision Date

e. Scale

Existing Conditions Plan- Rose Associates

f. Additional Plan or Document Title

g. Date

- 5.  If there is more than one property owner, please attach a list of these property owners not listed on this form.
- 6.  Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
- 7.  Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
- 8.  Attach NOI Wetland Fee Transmittal Form
- 9.  Attach Stormwater Report, if needed.





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
**WPA Form 3 – Notice of Intent**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

\_\_\_\_\_  
MassDEP File Number  
\_\_\_\_\_  
Document Transaction Number  
Amherst  
\_\_\_\_\_  
City/Town

**E. Fees**

1.  Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

203870 12/1/09  
2. Municipal Check Number 3. Check date  
203905 12/1/09  
4. State Check Number 5. Check date  
GZA GeoEnvironmental, Inc.  
6. Payor name on check: First Name 7. Payor name on check: Last Name

**F. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

[Signature] 12-6-09  
1. Signature of Applicant 2. Date  
[Signature] \_\_\_\_\_  
3. Signature of Property Owner (if different) 4. Date  
[Signature] 12/6/09  
5. Signature of Representative (if any) 6. Date

**For Conservation Commission:**

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

**For MassDEP:**

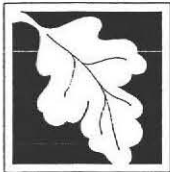
One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a copy of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

**Other:**

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.





**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**NOI Wetland Fee Transmittal Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



**A. Applicant Information**

1. Applicant:

Barre Tozloski  
 a. First Name b. Last Name  
 Pocomo Road Nominee Trust  
 c. Organization  
 312 Leverett Road  
 d. Mailing Address  
 Amherst MA 01002  
 e. City/Town f. State g. Zip Code  
 413-548-9802 Barret@jugglermeadow.com  
 h. Phone Number i. Fax Number j. Email Address

2. Property Owner (if different):

\_\_\_\_\_  
 a. First Name b. Last Name  
 \_\_\_\_\_  
 c. Organization  
 \_\_\_\_\_  
 d. Mailing Address  
 \_\_\_\_\_  
 e. City/Town f. State g. Zip Code  
 \_\_\_\_\_  
 h. Phone Number i. Fax Number j. Email Address

3. Project Location:

260 Leverett Road-(Barn and Greenhouse) Amherst  
 a. Street Address b. City/Town

**B. Fees**

The fee should be calculated using the following six-step process and worksheet. **Please see Instructions before filling out worksheet.**

**Step 1/Type of Activity:** Describe each type of activity that will occur in wetland resource area and buffer zone.

**Step 2/Number of Activities:** Identify the number of each type of activity.

**Step 3/Individual Activity Fee:** Identify each activity fee from the six project categories listed in the instructions.

**Step 4/Subtotal Activity Fee:** Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

**Step 5/Total Project Fee:** Determine the total project fee by adding the subtotal amounts from Step 4.

**Step 6/Fee Payments:** To calculate the state share of the fee, divide the total fee in half and subtract \$12.50. To calculate the city/town share of the fee, divide the total fee in half and add \$12.50.

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).







Massachusetts Department of Environmental Protection  
 Bureau of Resource Protection - Wetlands  
**NOI Wetland Fee Transmittal Form**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**B. Fees** (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2 (j)-Other activity (Ancillary site buildings)		1	\$500.00
Riverfront Area		x1.5	\$250.00

**Step 5/Total Project Fee:** \$750.00

**Step 6/Fee Payments:**

Total Project Fee:	\$750.00
State share of filing Fee:	a. Total Fee from Step 5 \$362.50
City/Town share of filling Fee:	b. 1/2 Total Fee less \$12.50 \$387.50
	c. 1/2 Total Fee plus \$12.50

**C. Submittal Requirements**

- a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection  
 Box 4062  
 Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a copy of this form; and the city/town fee payment.

**To MassDEP Regional Office** (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a copy of this form; and a copy of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



203888

GZA GeoEnvironmental, Inc.  
ONE EDGEWATER DR.  
NORWOOD, MA 02062



KeyBank National Association  
Salt Lake City, Utah 84115  
1-800-KEY2YOU

31-300-1243

CHECK DATE December 1, 2009

PAY Three Hundred and 00/100 Dollars

AMOUNT \$300.00

TO Natural Heritage & Endangered Species Fund

NOT VALID IN EXCESS OF \$10,000 UNLESS COUNTERSIGNED

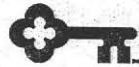
*David Brew*

AUTHORIZED SIGNATURE

⑈ 203888 ⑈ ⑆ 124303007⑆ 440991900109⑈

20390

GZA GeoEnvironmental, Inc.  
ONE EDGEWATER DR.  
NORWOOD, MA 02062



KeyBank National Association  
Salt Lake City, Utah 84115  
1-800-KEY2YOU

31-300-1243

CHECK DATE December 1, 2009

PAY Three Hundred Sixty Two and 50/100 Dollars

AMOUNT \$362.50

TO Commonwealth of Massachusetts

NOT VALID IN EXCESS OF \$10,000 UNLESS COUNTERSIGNED

*David Brew*

AUTHORIZED SIGNATURE

⑈ 203905 ⑈ ⑆ 124303007⑆ 440991900109⑈

20387

GZA GeoEnvironmental, Inc.  
ONE EDGEWATER DR.  
NORWOOD, MA 02062



KeyBank National Association  
Salt Lake City, Utah 84115  
1-800-KEY2YOU

31-300-1243

CHECK DATE December 1, 2009

PAY Three Hundred Eighty Seven and 50/100 Dollars

AMOUNT \$387.50

TO Town of Amherst

NOT VALID IN EXCESS OF \$10,000 UNLESS COUNTERSIGNED

*David Brew*

AUTHORIZED SIGNATURE

⑈ 203870 ⑈ ⑆ 124303007⑆ 440991900109⑈



**Addendum to Notice of Intent**

**260 Leverett Road**

**Amherst, Massachusetts**



## **Introduction**

The applicant, Juggler Meadow Farms, is proposing to implement site improvements at the existing single family home/farm/landscape business located at 260, Leverett Road, Amherst MA. These improvements include the construction of a 72 x 66 foot storage/maintenance barn within the existing mulch-compost storage area and the construction of a 40 x 20 foot greenhouse adjacent to the existing driveway. The applicant's intent is to continue to use this property in a similar manner as the previous owners, continuing to use the existing garden beds as well as the continued use of the composting operation in the western portion of the parcel. Because portions of the proposed work are in wither Buffer Zone and/or Riverfront Area, the applicant is seeking an Order of Conditions from the Amherst Conservation Commission for the construction of the two buildings and associated site work. Also, as the project is also in Priority Habitat for Rare Wildlife, The Applicant is also submitting this NOI for simultaneous review by the Massachusetts Natural Heritage and Endangered Species Program. An assessment of Eastern Box Turtle Habitat and associated impacts to this habitat is also included in this NOI for Review by NHESP.

## **Existing Conditions**

The site consists of a 12.5 acre parcel, recently acquired by the applicant. The parcel has a single family home with frontage along Leverett Road and abuts the railroad embanked to the west. A power line easement is present along the western half of the parcel. Other land owned by the applicant is present to both the north and south of this area (Figure 1-Locus Map). Prior to purchase by the applicant this October 2009, the site was a former landscape/earthscape business, which grew native trees and shrubs as well as provided a base of operation for the landscaping operation. The site is occupied by a single family home, ancillary structures (barns, sheds, gazebos, etc.), a farm pond, numerous garden beds, and a topsoil/compost storage area in addition to many other landscaped features. The western limit of the property is bordered by a power line easement, which contains high tension overhead lines and in turn borders on a railroad right of way. The property is bordered to the north and south by other land owned by the applicant and by single family residential to the east.

The parcel contains mainly open, farmland, which has been used as a dairy pasture in the past and was most recently a landscape/earthscape business. The parcel contains numerous outbuildings and structures including a single family home, barn, gazebo and sheds located throughout the parcel with numerous garden beds and turfgrass areas located throughout. The site is mainly open land, with some hedgerows and tree lines also present. No extensive forested areas are present on the parcel; however, some scrub-shrub areas are present around the periphery. The western and southern portions of the property contain numerous wetland areas associated with an unnamed perennial stream, pond and wet meadow areas.





The existing compost facility consists of an open area of compacted gravel roads, a large open sided barn, compost pile and sandy/gravelly areas around the perimeter. The edge areas around the perimeter are disturbed and sparsely vegetated with sparse grasses and forbs (timothy grass, fireweed, mullein, Queen Anne's lace and vetch) although sandy in appearance, these areas are fairly compacted by the previous landscaping operation as this area was used for compost and material storage.

### Wetlands

The site contains numerous wetland resource areas, all of which border on the Unnamed perennial stream that flows wetlands along the southern property line. These wetland resource areas are further described below:

*Wetland 1:* This wetland consists of a broad wet meadow that extends from the gravel access road, southward to the farm pond and continues to the west, wrapping around the southern end of the composting area. This wetland is predominately a wet meadow; being kept in this state through years of haying, mowing and grazing, the southern extreme of this wetland has begun to revegetate with shrubs and small trees, thus transitioning to a palustrine scrub-shrub wetland system. Wetland vegetation within this system is dominated by goldenrods and reed canary grass on the upper edges, transitioning to cattail, vervain, silky dogwood, wool grass, sensitive fern and lurid sedge in the wetter, interior, areas. The hydrology is seasonally saturated, with the wettest areas being located along the edges of the farm pond, or off site along the banks of the perennial stream. The shrub wetlands to the south of the parcel are dominated by silky dogwood and red maple saplings with dense herbaceous groundcover present throughout. This wetland extends westward to the base of the railroad embankment where it connects to drainage swales constructed along the base of the rail line.

*Wetland 2:* This wetland is located to the north of the gravel compost area access road and extends northward off site and wraps westward to the rail line. It appears that this wetland is connected to Wetland 1 off-site to the west, along the toe of the railroad embankment. This wetland is similar in vegetative composition to Wetland 1, in that it is dominated by wet meadow vegetation consisting of reed canary grass and goldenrods. Some cattail, sedges, rushes and vervain is also present within this wetland system, but to a lesser degree.

*Wetland 3 (Perennial Stream and Bordering Wetland) :* An unnamed perennial stream flows along the southern property line, leaving the property and flowing through neighboring land, before passing beneath the power line and railroad embankment on its course to the southwest, ultimately to Cushman Brook. On site the stream is 3-4 feet in width, 1-6 inches in depth with a sandy substrate. There is a bordering vegetated wetland along the banks of the stream, which varies in width from ~100 feet to near nonexistent in areas where the stem is channelized. Wetland vegetation within this system is dominated by reed canary grass and goldenrods on the upper edge, transitioning to cattail, skunk cabbage, joe-pye weed and sensitive fern in the wetter area long the stream channel.



*Wetland 4 (Pond)*: A farm pond is situated in the western third of the parcel, and borders along Wetland 1. The pond contains a thin margin of bordering vegetated wetlands (which varies from less than a foot in width to 10-15 feet wide). These wetland areas are relatively steep and vegetated by stands of cattail and vervain. In some areas no BVW is present and only the Bank of the pond was delineated.

Wetlands within 100 feet of the proposed work were flagged with Pink, sequentially numbered flags, which denotes the edge of the Bordering Vegetated Wetlands. Blue, sequentially numbered flags were used to denote Bank Resource. Wetlands were delineated following State of Massachusetts and US ACE criteria, and are effectively coincident on this site.

Jurisdictional wetland resources on site include Bank and Land Under Water (associated with the Unnamed Perennial Stream and farm Pond), Bordering Vegetated Wetlands (BVW), and Riverfront Area (RA). No Bordering Land Subject to Flooding (BLSF) was found on site (Figure 2, FEMA Map).

The Mean Annual High Water Line of the River was delineated based on bankfull indicators, which in the field corresponded to changes in topography as well as vegetation.

The entire parcel is located within both Priority and Estimated Habitat, regulated by MA NHESP (Figure 3-NHESP Map) and as such a copy of this NOI has been submitted to MA NHESP for their review and comment. Based on another filing for this applicant, which is currently under review by NHESP on neighboring property, the Eastern Box Turtle was identified as the species of concern.

#### **Eastern Box Turtle Habitat Assessment**

Eastern Box Turtles (*Terrapene c. carolina*) (EBT) are ubiquitous, utilizing many habitats that are present throughout the site and throughout the area in general. This species utilizes a variety of upland and wetland habitats for the majority of its life cycle, sometimes aestivating in shallow water. Eggs are typically laid in sandy, friable, well drained soils with exposed south or east facing aspects. Hatchlings typically forage and find cover in shallow water during their first years before venturing out into the forested uplands. Overwintering mostly occurs within the forested upland habitat, with the individual burying themselves into the ground typically beneath other cover objects (slash, logs, leaves) for added protection. Their activity period is rather long for a New England turtle species, with their emergence from hibernation as early as April and return to winter dormancy sometimes as late as November, depending on climatic conditions. During the year, they do not follow a typical movement cycle, and may be found within any of their preferred habitat, with nesting taking place in May/June when turtles move toward suitable nesting habitats.



Nesting Habitat: EBTs, like other turtles, generally nest in upland sandy soils, with a high degree of sun exposure to incubate the developing embryos. The preferred nesting sites typically contain well drained, sandy soils, with sparse groundcover to allow easy excavation. These species may nest anywhere suitable habitat exists within its range or, if suitable nesting area is not abundant, may travel outside its home range in search of suitable areas or conversely nest in less than suitable locations. Although the site is in a fairly open state, nesting opportunities are limited due to the sites wetness and the manicured nature of the majority of the parcel. Overall, of the sites 12.5 acres, only 7,800 SF (0.17 Acres) qualifies as good nesting habitat (open, loose sandy-gravelly soils). The remaining 222,800 SF (5.1 Acres) that are labeled as potential nesting habitat has a limited ability to provide this function due to the level and type of disturbances in these areas and wetness of the soils. Specifically, the vast majority of these areas are comprised of manicured garden and lawn areas and consists of a Gloucester very fine sandy loam. While some portions of these areas do provide potential nesting sites, the dense, manicured nature of the lawn areas, compaction on roadways from vehicles, tight-shallow to water soils limit nesting in these areas. Overall, a conservative estimate of 25% of the potential nesting areas within this altered habitat was calculated as being suitable nesting habitat for the Eastern Box Turtle, thus of the ~222,800 SF of Limited Nesting area, an estimate of ~55,700 SF was determined to be potentially useful as functional nesting habitat.

Forage Habitat: EBTs tend to forage within the upland habitats that they spend the majority of their spring-summer and fall traveling through. The typical diet of an adult EBT consists of various plant matter, while young tend to eat more insect matter and often forage in shallow water in vernal pools, pond edges and other slow moving to quiescent areas. Ample forage habitat exists on site to support a number of EBTs; both the wet meadow, shrub wetlands, gardens and patches of forested upland and wetland provide several low growing berry-producing and herbaceous vegetation. Box turtles are particularly attracted to the edge habitat between forest and open areas, where both cover and available food sources are abundant. Most of the site contains some forage habitat for the eastern box turtle, with the exception of the developed portion along Leverett Road. The garden areas do provide some forage habitat, although not all of the areas qualify as excellent forage habitat due to the lack of forage plants, insects, etc. The maintained lawn areas do not constitute forage habitat. A conservative estimate of 50% was used to calculate the percentage of functional forage habitat within these garden areas (taking into account the average amount of non-forage habitat located within). The remainder of the site, the shrubby edges, forested patches, dense grasslands, all provide excellent forage habitat. In total, the site contains 93,000 SF of high quality forage habitat along with another 99,000 SF of somewhat functional forage habitat within the garden and landscaped areas.



Aestivation Habitat: The EBT may aestivate in both aquatic and terrestrial environments, typically within its general home range and in the same areas that are typically used for forage and breeding. On site, these areas are also rather extensive, with large areas available within the shrubby and dense grasslands and edge habitats. Aestivation habitat on site for the most part, coincides with the forage/breeding habitat, also including shallow aquatic environments as well.

Breeding Habitat: EBTs typically breed in their terrestrial environments, which include both forested upland and wetland areas. These habitats are present throughout the site and includes the wet meadow areas, garden areas, and shrubby edge ecotones. On site these habitats are synonymous with the forage habitats.

Overwintering Habitat: The EBTs overwintering habitat typically coincides with their other terrestrial habitat needs (forage, breeding and migratory), in that forested upland and wetland habitats are used. However, due to the relative lack of such cover habitat on site, only a limited amount of overwintering habitat is present within the parcel boundaries. Overwintering habitat is present nearby, mainly to the south and west, where forested upland and wetland habitats are present in abundance. The agricultural and landscaped nature of this parcel does not provide available overwintering habitat, save for the periphery of the property.

Travel Habitat: The EBTs don't have a typical pattern upon emergence from overwintering in forested uplands/wetland. EBTs can be found anywhere within their home range during their active season with nesting usually taking place in late May-June and aestivation in mid to late summer. During nesting season EBTs can be expected to travel to suitable nesting areas on site to lay eggs and then back to their usual summer home ranges for forage and aestivation. Potential impediments to migration on site include the Leverett Road to the east and the rail line to the west, with the interior of the parcel relatively un-obstructed by travel barriers. On site travel habitat is assumed to be everything between, and within, the forested habitat and adjacent nesting areas.

Local Landscape Context: Although this site is cleared, heavily landscaped and under former agricultural development this parcel is situated within an otherwise forested landscape. Ample forage, travel, breeding, aestivation and overwintering habitat is found throughout the general area. The limiting habitat type present in the area appears to be nesting habitat based on a cursory review of the aerial photos and limited off site investigation. The fact that the majority of the nearby area is in a forested condition coupled with the fact that extensive wetlands are present in the general vicinity limits nesting areas to isolated patches of exposed, sunny, dry and sandy-gravelly areas in the general vicinity. Turtle migration through the area is likely impeded to some degree by Leverett Road to some degree as well as the active rail line, which impede east-west movement, the majority of turtle movement through the site would be expected to be on a north-south axis.





*Turtle Habitat Summary:* In general, the parcel is highly developed and maintained, that said, some turtle habitat still remains present on site. The shrub edges around the perimeter of the site are particularly useful to this species as are the grassy meadows (both upland and wetland), and portions of the garden areas as well. These areas are useful for forage, breeding, aestivating and travel habitat for the Eastern Box Turtle. Overwintering habitat appears absent from the vast majority of the parcel; however, is provided in abundance in nearby (off-site) habitat areas. Breeding habitat is limited on site due to wetness, turfgrass, dense meadow vegetation, roads, structures, and other past agricultural practices. The best areas of potential nesting habitat are in the extreme northwest and southwest corners of the parcel, where sunny-semi exposed, sandy-gravelly soils are present. The vast majority of the potential nesting habitat has limited usefulness in providing this function due to the afore mentioned factors; however, a conservative estimate of 25 percent of this habitat was used in determining how much actual nesting habitat is on site for the purposes of quantifying habitat impacts.

*Table 1: Existing EBT Habitat*

	Nesting		Breeding	Forage	Aestivation	Overwinter	Travel	Not Habitat
	High	Limited						
<b>On-Site</b>	7,800	222,800 (55,700)	193,500	193,500	193,500	0	460,000	113,000

*All values in Square Feet*

### **Proposed Project**

The applicant is proposing to construct a 66 x 72 foot barn/storage building on the portion of the parcel that was the former compost-manure-material storage area. This structure will be constructed by conventional construction methodologies in a previously disturbed area, and thus not require the removal of any trees and/or vegetation. Work associated with this project will involve only minor earthwork and grading, in order to install the concrete footings and frost walls. Minor grading of the existing gravel surface will occur to re-align the gravel access road and make a level pad for the structure. Sedimentation and erosion controls will be established around the proposed limit of work (See Plan Sheet 2). The applicant is also proposing to construct a 20 x 40 foot greenhouse, to be located off of the excising driveway area on the eastern portion of the parcel. In addition the applicant is also proposing to re-use the existing garden beds in a similar fashion as the previous owner, and grow harvestable trees, shrubs and produce.



## Impacts to Wetlands

### *Continued Maintenance of Garden Beds*

The site contains numerous garden beds, which consist of mulched areas within the turfgrass areas of the site. All of these beds were in existence prior to the acquisition of this parcel by the current applicant. The intent of the applicant is to continue to use these beds for gardening purposes, including organic produce, and Christmas trees. No expansion of the existing beds is proposed. The extent of these garden beds is shown on the enclosed plans.

### *Barn/Storage Building*

The proposed project will occur solely within the disturbed buffer zone to both Bank (pond) and BVW resources. At the closest point, the proposed building will be 50 feet from the BVW; however, separated from the wetland by a natural berm and tree line. All proposed work will be within the existing limit of the disturbance (cleared) buffer zone, with the building situated in the center of what was the former compost pile on site. The proposed work will not occur within the RA associated with the unnamed perennial stream.

### *Greenhouse*

A 20 x 40 greenhouse is proposed off the edge of the existing driveway, within landscaped lawn areas. Although within the landscaped areas, this area is also within the Riverfront Area. In total impact to RA will be 800 SF and occur entirely within previously landscaped (lawn) portions of the site.

Table 2: Wetland Impact Summary

	BVW (sf)	Bank/LUW (sf)	BLSF (sf)	Riverfront Area (sf)		Buffer Zone (sf)
				RA-100	RA-200	
<b>Greenhouse</b>	0	0	0	800*	0	800
<b>Barn</b>	0	0	0	0	144**	24,000
<b>TOTAL</b>	0	0	0	800*	144**	~25,000

\*: All work within RA is within previously landscaped 'lawn' portions of the RA.

\*\* : Temporary impact associated with grading only, area resorted to pre-construction condition.

*BVW*: No impact will occur within BVW on site

*BLSF*: No BLSF is present on site, therefore no work is proposed within BLSF

*Bank*: There will be no work within or impact to Bank Resource as a result of this proposed project

*LUW*: There will be no work within the stream or pond, therefore no impact to LUW will occur as a result of this project



*Riverfront Area:* The work associated with the construction of the greenhouse is located within the Riverfront Area associated with the unnamed perennial stream. All work within these areas will occur within the previously disturbed (lawn) portions of the Riverfront Area and the site qualifies a previously degraded Riverfront Area from the existing gravel driveway and structures located on site. No work within Riverfront Area will be closer to the river than the existing disturbed condition. However, degradation associated with the greenhouse will be closer than the existing degraded condition, which is currently at 65 feet. The proposed greenhouse will be located 31 feet from the MAHWL, and as such must be mitigated for on site at a 2:1 ratio. Stormwater will be managed according to the department and sedimentation and erosion controls will be erected as part of the proposed work. A minor amount of RA impact will occur as a result of minor grading activities associated with the placement of the storage building. All this impact is to existing gravel/hard packed surface associated with the former compost area, and will be restored to pre-construction condition following work.

Table 3: Riverfront Area Impact Summary

Total RA on site	Degraded RA on site	New RA Impact*	Degraded RA on site with proposed work
183,600 sf	12,740 sf (6.9%)	944 sf**	13,540 sf (7.3%)

\*: All work within RA is within previously landscaped 'lawn' portions (disturbed) of the RA.

\*\* : 144 SF of RA impact will be restored in-place and is temporary in nature.

*Riverfront Area Mitigation and Net Improvement:* In order to comply with 310 CMR 10.58, the applicant must replace the newly degraded RA that is closer than the existing degraded condition at a 2:1 ratio (for disturbed areas) and also show a net improvement to RA above and beyond to comply with 310 CMR 10.58(5)(a). To accomplish this, the applicant is proposing to restore, at a ~2.2:1 ratio, areas of existing lawn/garden to native scrub-shrub upland. This will allow the restoration to be in compliance with both the restoration criteria as well as the net improvement standard.

### **Impacts to Eastern Box Turtle**

The proposed impacts to box turtle will be limited and limited solely to areas of limited nesting habitat as the proposed structure will be located within the existing open portion of the site and within the portion of the open area that was used as compost/material storage. The majority of the impact associated with this proposed barn/storage building is to areas that are either to compact, developed or otherwise unsuitable nesting habitat (former compost areas, gravel road, etc.) and do not constitute usable nesting habitat in its present condition. As the compost and materials were only recently removed (less than two months ago), this area has not had a chance to become occupied by nesting Box Turtles. A thin strip of limited nesting habitat is present along the eastern side of the gravel road, and will be impacted by minor grading activities associated with the proposed work, in total impacting 3,190 SF of limited nesting habitat (See table 3 below). In total this impact to box turtle nesting habitat is relatively minor, given the overall amount of potential nesting that is present on site, less than one percent of the overall available nesting habitat, and have no direct impact to the high quality nesting habitat on site.



Table 4: Eastern Box Turtle Habitat Impact Summary, all areas in Square Feet.

	Nesting		Breeding	Forage	Aestivation	Over-winter	Travel	Not Habitat
	High	Limited						
Existing Habitat	7,800	222,800 (55,700*)	193,500	193,500	193,500	0	460,00 0	113,00 0
Proposed Impact	0	3,190 (798*)	0	0	0	0	0	20,000
Net	0	(-1.4%)	0	0	0	0	0	NA

\*: Effective impact on Nesting Habitat assuming that the 'Limited Nesting Habitat' is only 25% useful in this capacity

\*\* : Permanent Impact only, an additional 500 SF of temporary impact will occur during construction only and will be restored following construction.

In order to reduce impacts to the Eastern Box Turtle and its habitat, the proposed work associated with the greenhouse and landscaping was situated within the existing landscaped portion of the site, and the proposed barn was situated within the area of previous heavy disturbance associated with the compost-material storage facility.

In order to prevent direct harm to Eastern Box Turtle, the proposed site work is expected to occur over the winter-early spring months (outside of the nesting season), if work will occur during the nesting season, an exclusionary barrier will be erected around the entire construction zone, prior to May 15, to exclude any box turtle nesting attempts within the construction area. This fence will be maintained during the course of the project and will serve as both a turtle barrier and sedimentation and erosion control for the site. With above protection plan implemented, it is unlikely that a 'take' of the eastern box turtle or its habitat will result from the proposed project.

#### *Compliance with MESA Regulations*

As per MESA Regulations, the work within the existing landscaped areas associated with this single family property is considered and exempt activity. The work associated with the proposed greenhouse is situated in areas of low habitat value and within areas of existing lawn, and is thereby exempt from MESA regulations (321 CMR 10.14 (4)). The work associated with the construction of the proposed barn/storage building outside of the 'landscaped' areas of the site, and therefore is subject to MESA Review.







Photo of Proposed Storage Building Area, Limited Nesting Area to Right of Gravel Road, Former Compost Pile to Right of Gravel Road



Closeup of Compost Area, Following Compost Removal





Photo of High Quality Nesting Habitat



Lawn/Garden Area





Lawn/Garden Area



Lawn/Garden Area, Facing East Toward Proposed Greenhouse



**APPENDIX A**

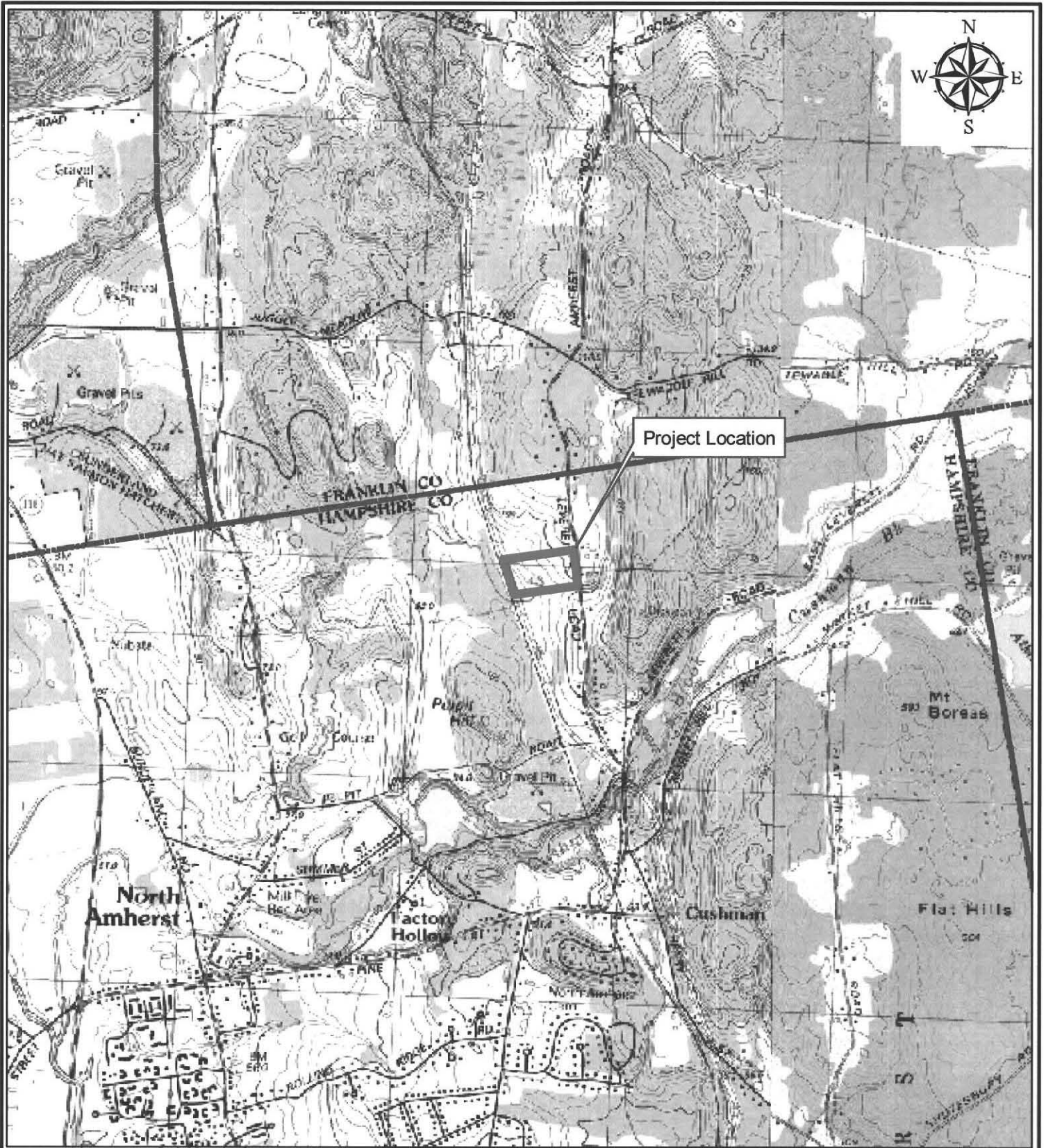
*Locus Maps*

**260 Leverett Road**

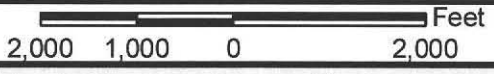
**Amherst, Massachusetts**







Project Location



### LOCUS MAP

Project No:  
**15.0166159.10**



## NOI 260 Leverett Road Amherst, Massachusetts

Drawn by:  
**SDR**

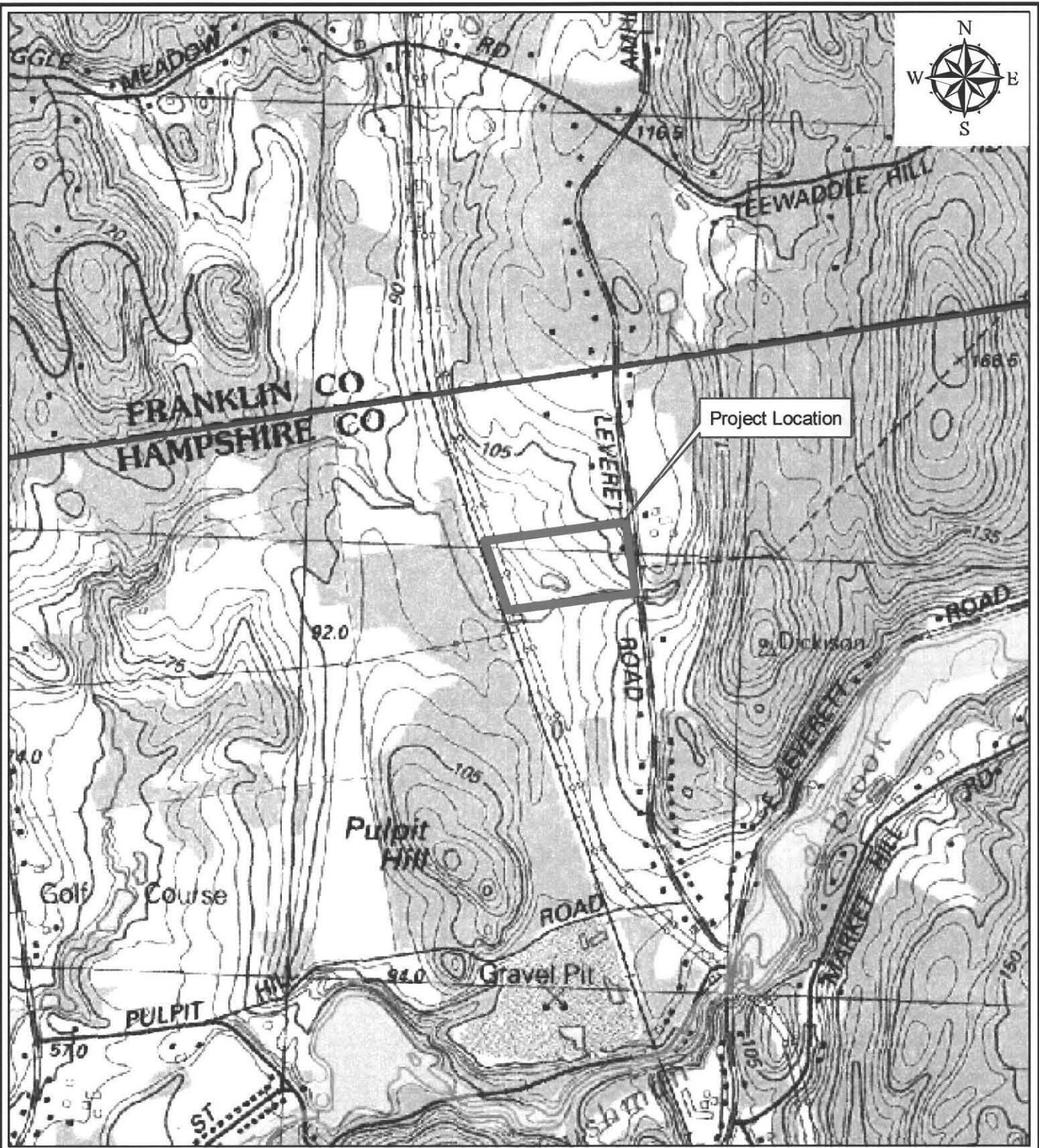
Checked by:  
**SDR**

Date:  
**11/30/2009**

USGS TOPOGRAPHIC QUADRANGLE MAP  
MT. TOBY, 1990

Figure No:  
**1**





**LEGEND**

- 100-Year FEMA
- 500-Year FEMA
- Town Boundary

**FEMA MAP**

**NOI**  
**260 Leverett Road**  
**Amherst, Massachusetts**

BASE MAP: USGS TOPOGRAPHIC QUADRANGLE MAP,  
 MT TOBY 1990

Project No:  
**15.0166159.10**

Drawn by:  
**SDR**

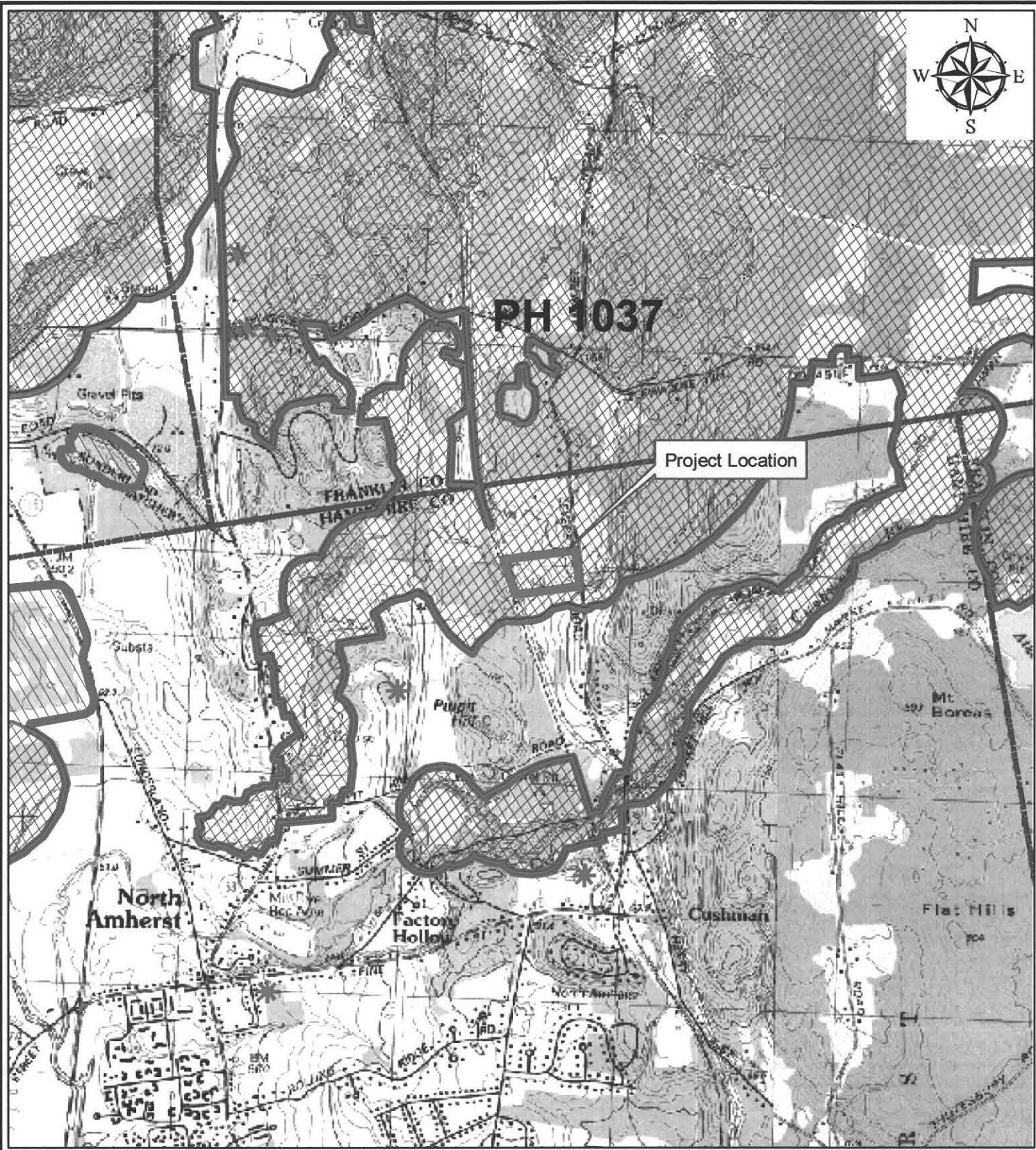
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Date:  
**11/30/2009**

Figure No:

**2**

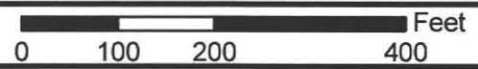




<p>2,000 1,000 0 2,000 Feet</p>	<p><b>NHESP MAP</b></p>	<p>Project No: <b>15.0166159.10</b></p>
<p><b>LEGEND</b></p> <ul style="list-style-type: none"> <li> Certified Vernal Pools 2008</li> <li> Estimated Habitats 2008</li> <li> Priority Habitats 2008</li> <li> Town Boundary</li> </ul>	<p><b>NOI</b></p> <p><b>260 Leverett Road</b></p> <p><b>Amherst, Massachusetts</b></p>	<p>Drawn by: <b>SDR</b></p> <p>Checked by: <b>SDR</b></p> <p>Date: <b>11/30/2009</b></p>
<p> Baystate Environmental Consultants, Inc. 296 North Main Street, East Longmeadow, MA</p>	<p>BASE MAP: USGS TOPOGRAPHIC QUADRANGLE MAP, Mt. Toby, 1990</p>	<p>Figure No: <b>3</b></p>

Data obtained from MASS GIS, Commonwealth of Massachusetts Executive Office of Energy and Environmental Affairs (EEA). NHESP 2007 Estimated and Priority Habitats for Rare Wildlife for use with the MA Wetlands Protection Act (310 CMR 10.00)





**SOILS MAP**

Project No:  
15.0166159.10

**LEGEND**

- 70: Ridgebury FSL
- 103: Charlton-Hollis Rock Outcrop
- 253: Hinckley LS
- 300: Montauk FSL
- 405: Charlton FSL
- 440: Gloucester FSL

**NOI Juggler Meadow Farms  
260 Leverett Road  
Amherst, Massachusetts**

Drawn by:  
**SDR**

Checked by:  
**SDR**

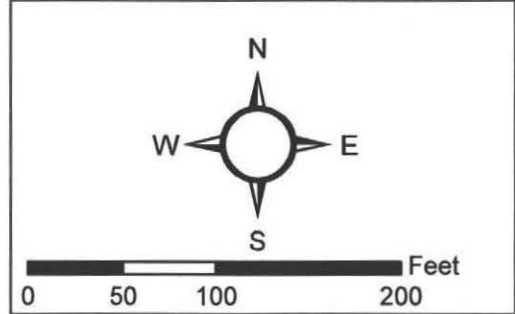
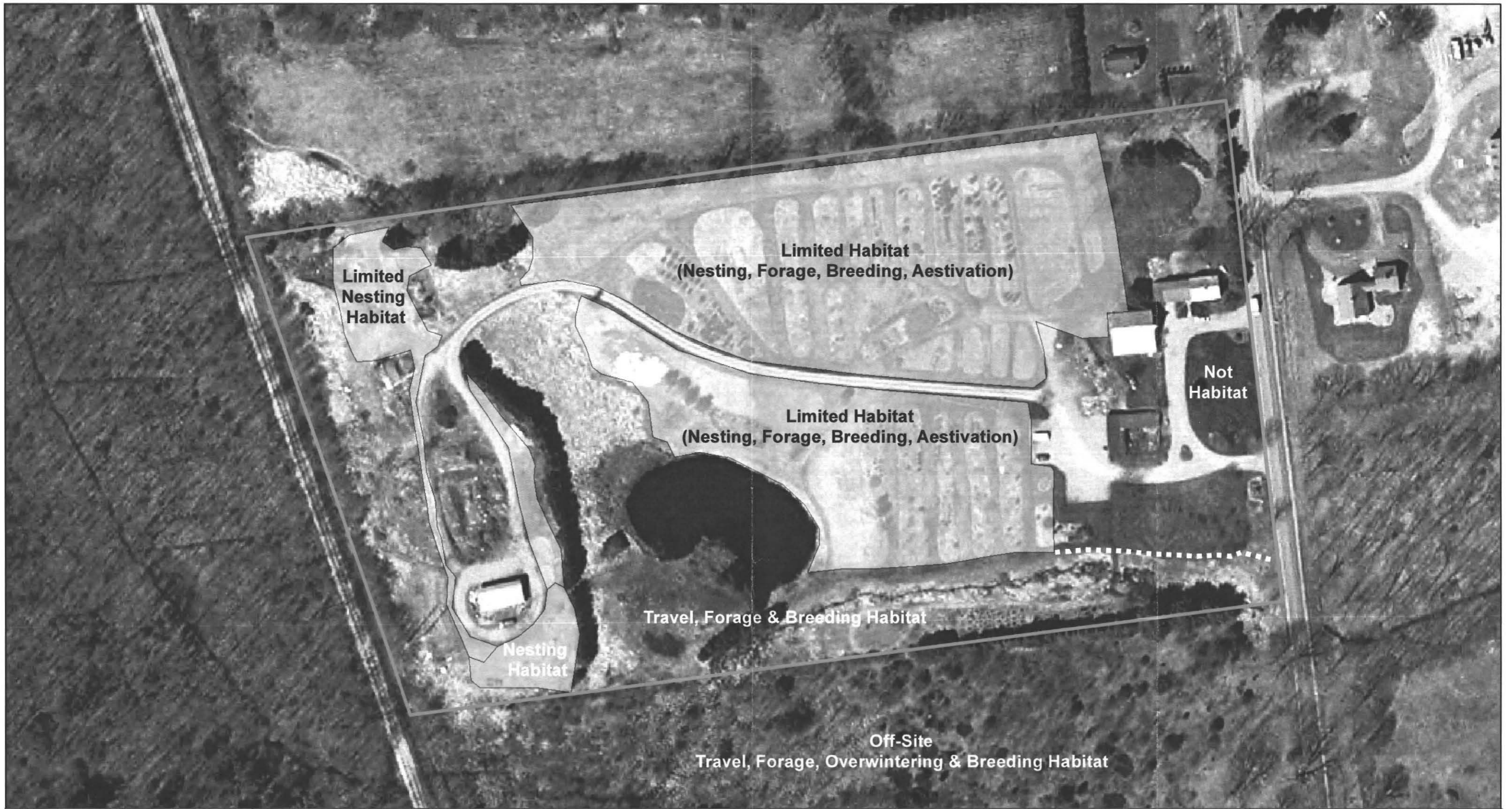
Date:  
**11/27/2009**

BASE MAP: 2005 Aerial Photo

Figure No:

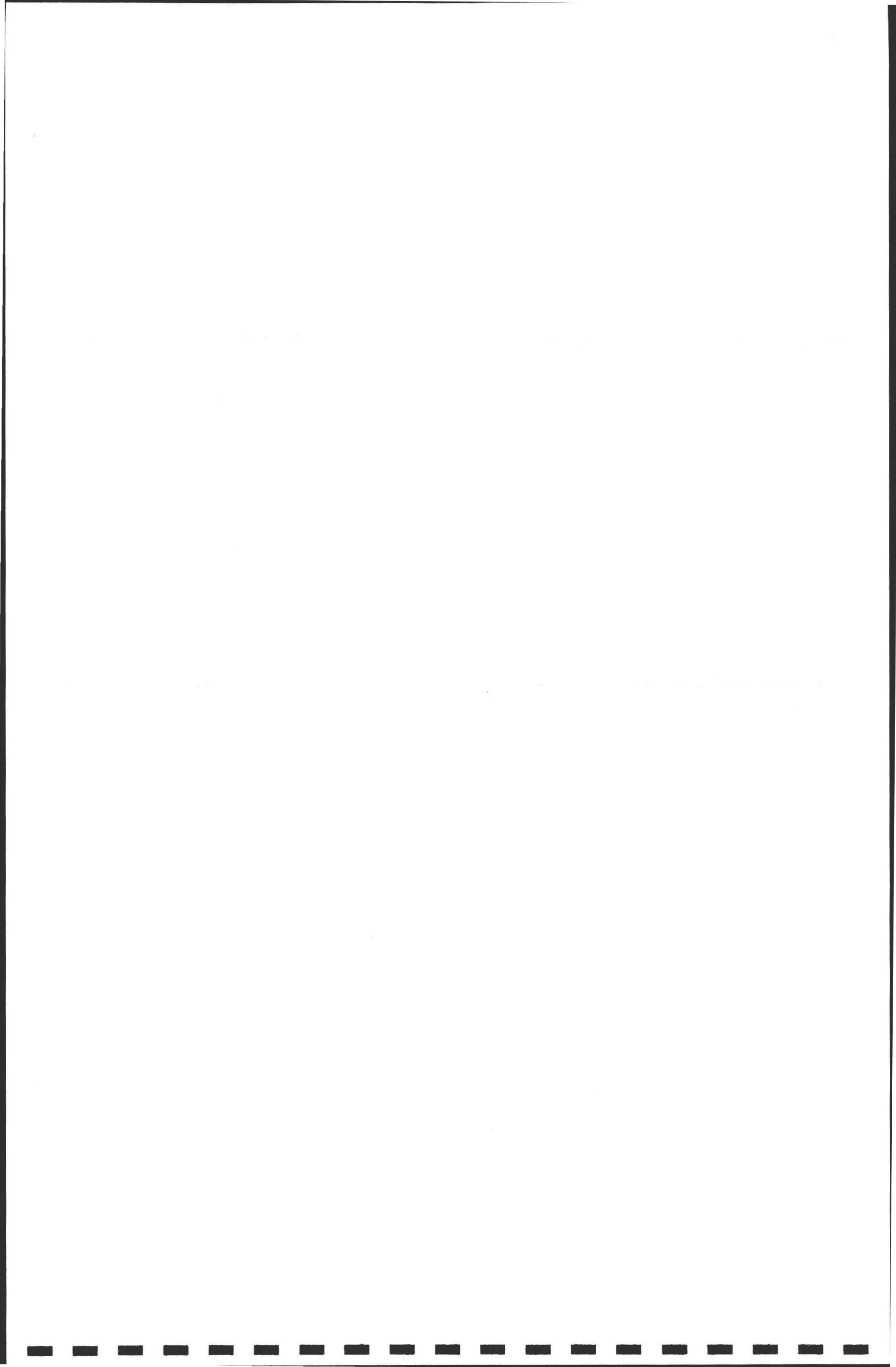


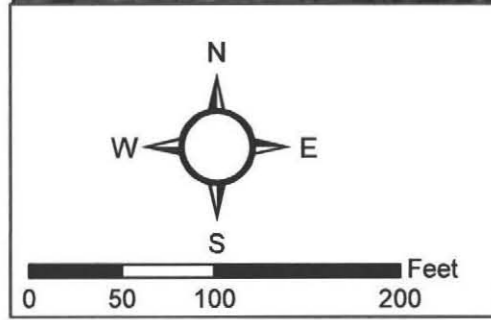












**EASTERN BOX TURTLE HABITAT MAP  
 JUGGLER MEADOW FARMS  
 260 LEVERETT ROAD  
 AMHERST, MA**

Project No: 15.0166159.10



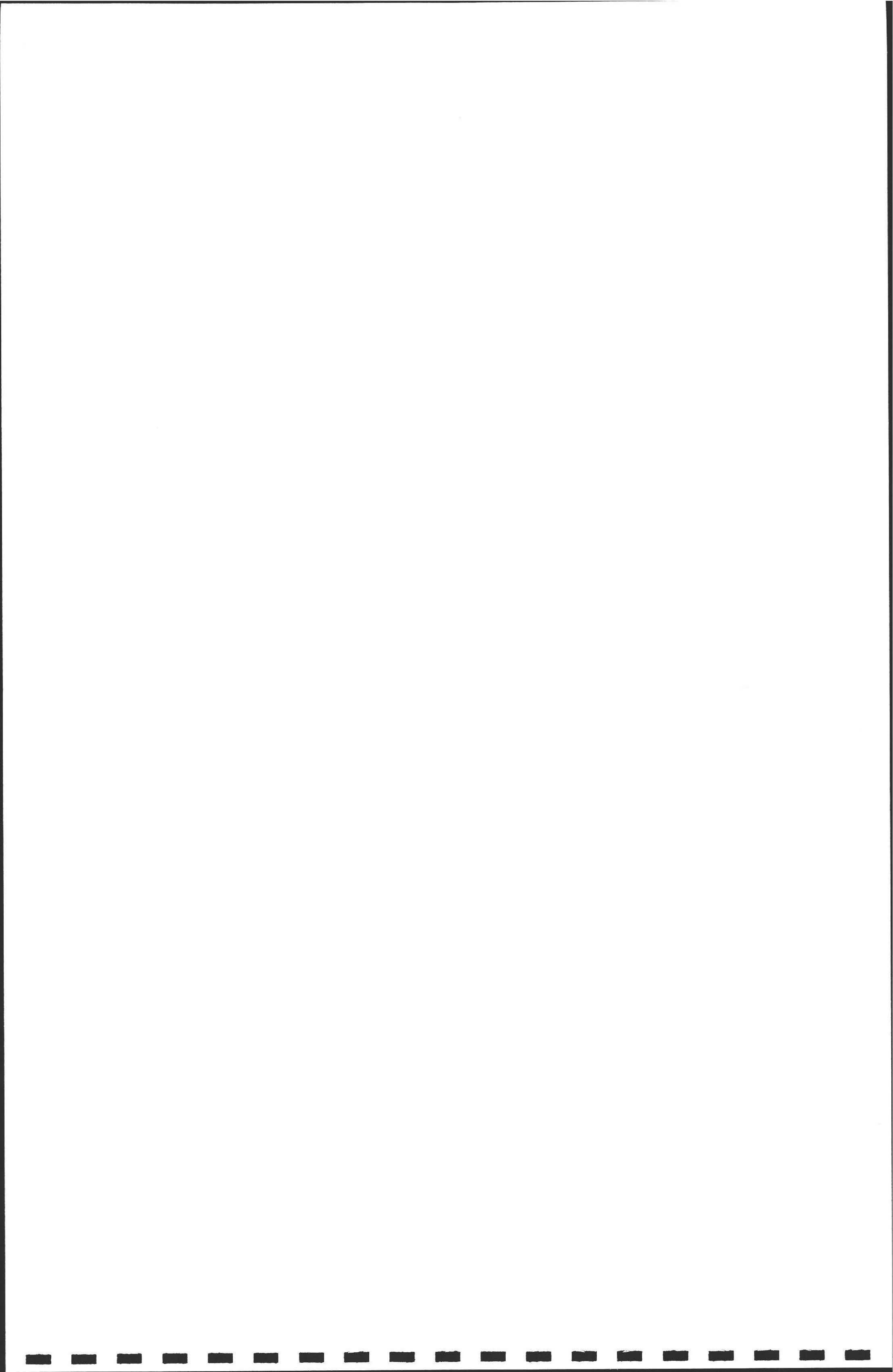


**LEGEND**

 Landscape/Lawn/Garden	 Scrub/Shrub
 Upland Goldenrod Meadow	 Pond
 Upland Forest	 Wet Meadow
 Open Ground/Sparse Vege	 Stream & Wetland Riparian

**VEGETATION COVER MAP  
 JUGGLER MEADOW FARMS  
 260 LEVERETT ROAD  
 AMHERST, MA**

Project No: 15.0166159.10



**APPENDIX B**

*Abutters Information*

**260 Leverett Road**

**Amherst, Massachusetts**



3A-2  
AMHERST BUILDING COMPANY LLC  
44 LILAC LNL  
AMHERST, MA 01002

3A-21  
AMHERST REAL PROPERTIES LLC  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

2B-4  
W D COWLS INC  
134 MONTAGUE RD, P.O. BOX 9677  
NORTH AMHERST, MA 01059-9677

3A-100  
HIGGINS, PAUL R  
273 LEVERETT RD  
AMHERST, MA 01002

3A-97  
MCCABE, MICHELE  
281 LEVERETT RD  
AMHERST, MA 01002

3A-96  
OBRIEN, THOMAS  
305 LEVERETT RD  
AMHERST, MA 01002

2B-8  
TOWN OF AMHERST CONSERV COMM  
TOWN HALL  
AMHERST, MA 01002

3A-23  
AMHERST REAL PROPERTIES LLC  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

3A-20  
AMHERST REAL PROPERTIES LLC  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

3A-4  
FERRY, EDWARD M & ELIZABETH K  
207 LEVERETT RD  
AMHERST, MA 01002

3A-99  
HIGGINS, PAUL R & SUE R  
273 LEVERETT RD  
AMHERST, MA 01002

3A-85  
OLIVER, STEPHEN P TRUSTEE  
CALIBRE ADVISORY SERVICES  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

3A-51  
OLIVER, STEPHEN P TRUSTEE  
CALIBRE ADVISORY SERVICES  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

2B-3  
W D COWLS INC  
134 MONTAGUE RD, P.O. BOX 9677  
NORTH AMHERST, MA 01059-9677

3A-22  
AMHERST REAL PROPERTIES LLC  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

3A-62  
OLIVER, STEPHEN P TRUSTEE  
CALIBRE ADVISORY SERVICES  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

3A-101  
HOCHMAN, JERE I & JOSETTE M  
P.O. BOX 188  
BEDFORD HILLS, NY 10507

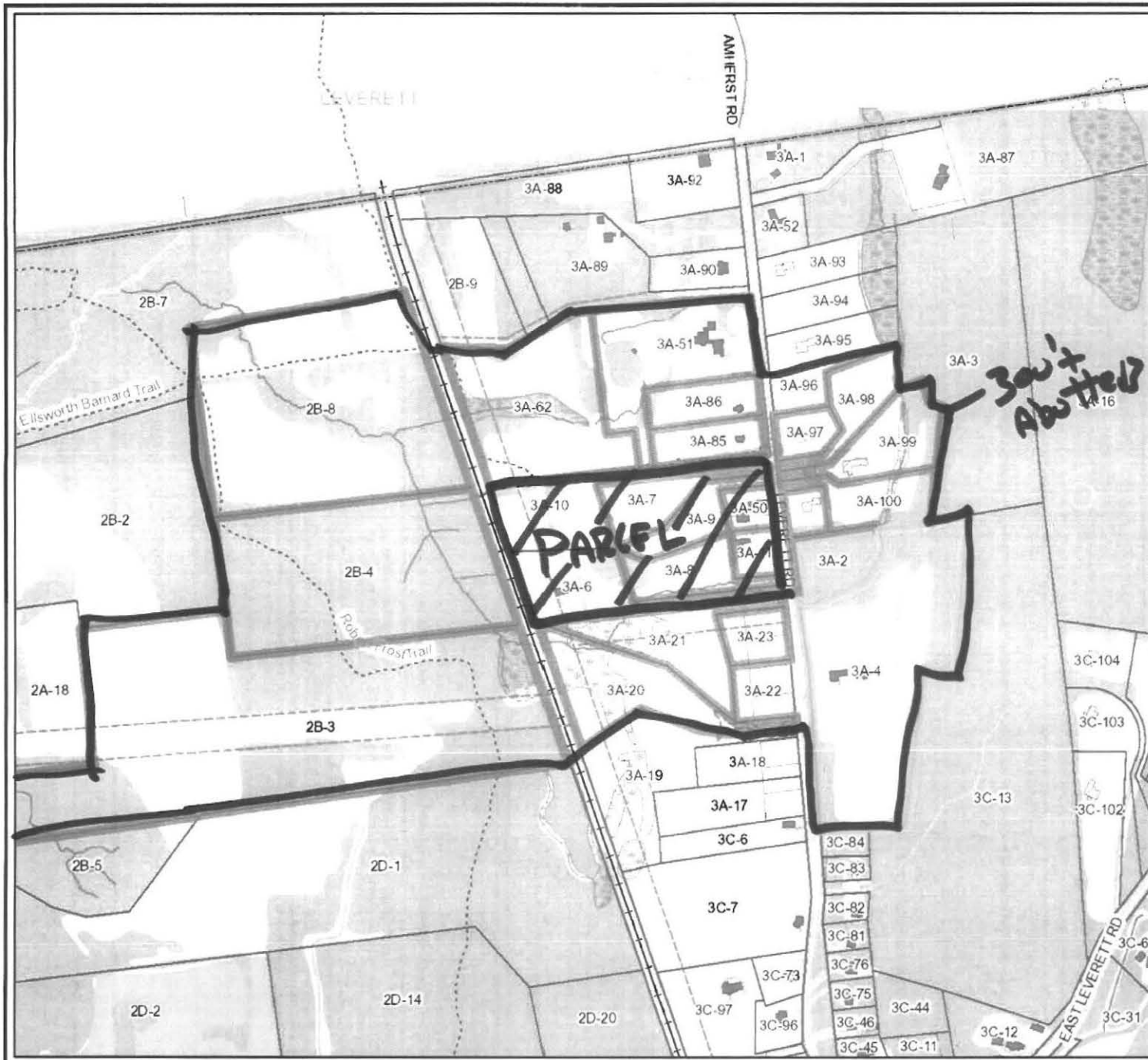
3A-98  
KINGSLEY, SEAN E S & CHRISTINE M  
275 LEVERETT RD  
AMHERST, MA 01002

3A-86  
OLIVER, STEPHEN P TRUSTEE  
CALIBRE ADVISORY SERVICES  
930 WINTER ST SUITE 1500  
WALTHAM, MA 02451

3A-95  
IRANI ZUBIN & JAMAJI FIROZA  
317 LEVERETT RD  
AMHERST, MA 01002







**Property Map**

- Property Lines**
  - Property Line
  - Hydrographic Property Lin
  - Right of Way Line
  - Town Boundary
- Other Property Lines**
  - Former Property Line
  - Subdivision Lot Line
- Easements**

**Basemap**

- Trails
- Rail Lines
- Structures**
  - Building
  - Foundation
  - Miscellaneous
  - Pier / Dock
  - Water Tank
  - Sketched Structure
- Rivers and Streams**
  - Streams
  - Headwalls, Floodwalls
  - Hydro Connector
  - Major Culverts
  - Major Drainage Ditches
- Transportation**
  - Pavement
  - Unpaved Road
  - Tree Cover

Horizontal Datum: MA Stateplane Coordinate System, Zone 4151, Datum NAD83, Feet

Planimetric basemap features compiled at 1"=40' and 1"=100' scale from April, 1998 Aerial Photography, Aerial Photography, April, 2004. Parcels compiled to match the basemap; revisions are ongoing.

The information depicted on this map is for planning purposes only. It may not be adequate for legal boundary definition, regulatory interpretation, or property conveyance purposes. Utility structures and underground utility locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES, EXPRESSED OR IMPLIED, CONCERNING THE ACCURACY, COMPLETENESS, RELIABILITY, OR SUITABILITY OF THESE DATA. THE TOWN OF AMHERST DOES NOT ASSUME ANY LIABILITY ASSOCIATED WITH THE USE OR MISUSE OF THIS INFORMATION.

1" = 541 ft



Amherst GIS Viewer November 2, 2009





**Baystate  
Environmental  
Consultants  
Inc.**  
*A GZA Company*

Civil Engineers  
Environmental Scientists  
Planners

296 North Main Street  
East Longmeadow, MA 01028  
Tel (413) 525-3822  
Fax (413) 525-8348

120 Mountain Avenue  
Bloomfield, CT 06002  
Tel (860) 286-8900  
Fax (860) 243-9055

*GZA Offices in Connecticut, Massachusetts,  
Maine, New Hampshire, Rhode Island, New  
York, New Jersey, Pennsylvania, Michigan, Ohio,  
Vermont, Wisconsin*

*www.b-e-c.com  
www.gza.com*

December 21, 2009

To: Project Abutters

From: Baystate Environmental Consultants, Inc. (BEC)

Re: Proposed Work at Juggler Meadow Farms, 260 Leverett Road,  
Amherst MA  
BEC File No. 15.0166159.10

Dear Project Abutter:

On behalf of the Applicant, BEC, Inc., has prepared and submitted a Notice of Intent application to the Amherst Conservation Commission for the proposed construction of a barn and greenhouse at Juggler Meadow Farms, 260 Leverett Road, Amherst MA. This project is within the 100 foot Buffer Zone and Riverfront Area to an unnamed perennial stream.

Pursuant to the Massachusetts Wetlands Protection Act regulations (310 CMR 10.00), the Applicant or representative must notify project abutters by certified mail or hand delivery, of the application filing. Should you have any questions, please call our office.

Sincerely yours,

BEC, Inc.

Steven D. Riberdy  
Wetland Ecologist

*encl. Notification to Abutters*



**Notification to Abutters Under the  
Massachusetts Wetlands Protection Act (310 CMR 10.00) & Amherst Wetlands  
Protection Bylaw**

In accordance with the second paragraph of the Massachusetts General Laws Chapter 31, Section 40, you are hereby notified of the following work within a wetland resource area or within the 100-foot buffer zone of a resource area:

- A. The name of the applicant is: **Town of Amherst.**
- B. The address of the lot where activity is proposed is: **260 Leverett Road.**
- C. The applicant has filed a Notice of Intent with the Conservation Commission of the **Amherst** seeking permission to perform work within wetland resource areas or areas subject to protection under the Wetlands Protection Act (General Laws 131, Section 40).
- D. Copies of the Notice of Intent may be examined at the **Amherst Commission Office, 4 Boltwood Ave** between the hours of **8:30** and **4:00** on **Monday-Thursday**. For more information call: **1 (413) 259-3149**.
- E. The public hearing for this application will be **Wednesday, January 13, 2009 at TBD pm in the Town Room of the Town Hall, 4 Boltwood Ave, Amherst, MA 01002**. Additional information regarding the public hearing for this application, may be obtained from the **Amherst Conservation Commission** between the hours of **8:30** and **4:00** on **Monday-Thursday**. For more information call: **1 (413) 259-3149**.
- F. For more information regarding this notice or where copies of the NOI Application may be obtained, contact the applicant's representative:  
**Mon. – FRI., 8:30 – 4:00**  
**Baystate Environmental Consultants**  
**296 North Main Street**  
**East Longmeadow, MA 01028**  
**(413) 525-3822**

Note: Notice of the public hearing, including its date, time, and place, will be published at least 5 days in advance in the following newspaper:

**The Daily Hampshire Gazette**

Note: You may also contact you're the West Springfield Conservation Commission or the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call:

**Western Region: 413-784-1100**



**APPENDIX C**

*MA DEP Data Forms*

**260 Leverett Road**

**Amherst, Massachusetts**





## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number:      Upland      Transect Number:      2W-1      Date of Delineation:      10/23/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
--	-------------------------------------	-------------------------	----------------------------------	-----------------------------------

Trees:      *N/A*

Lianas:      *N/A*

Saplings: <i>Acer saccharum</i> <i>N/A</i>	<i>Sugar-maple</i>	3.0	100	Yes	<b>FACU-</b>
---	--------------------	-----	-----	-----	--------------

Shrubs:      *N/A*

Groundcover: <i>Phalaris arundinaceae</i> *	<i>Reed-Canary Grass</i>	98.0	88	Yes	<b>FACW*</b>
<i>Solidago altissima</i>	<i>Tall Goldenrod</i>	10.5	9	No	<b>FACU-</b>
<i>Asclepias syriaca</i>	<i>Common Milkweed</i>	3	3	No	<b>FACU-</b>

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	
Number of dominant wetland indicator plants:      1	Number of dominant non-wetland plants:      1
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? <input checked="" type="checkbox"/> YES	
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.	



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES  
 title/date: Hampshire Co, Central  
 map number:  
 soil type mapped: **Gloucester**  
 hydric soil inclusions: NO  
 Are field observations consistent with soil survey? YES

Remarks:

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
Ap	0-11	10YR 4/4	SL	
AB	11-13	10YR 5/4	FSL	
Bw	13-18	10YR 5/3	FSL	

Remarks:

#### 3. Other:

Conclusions: Is soil hydric? NO

Observation Plot Number: Upland Transect Number: 2w\_1

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:  
 Depth to free water in observation hole:  
 Depth to soil saturation in observation hole:  
 Water marks:  
 Drift lines:  
 Sediment deposits:  
 Drainage Patterns in BVW:  
 Oxidized rhizospheres:  
 Water stained leaves:  
 Recorded data (stream, lake, or tidal gauge; aerial photo; other):  
 Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Wetland hydrology present:

hydric soil present  YES  NO

other indicators of hydrology  
present  YES  NO

Sample location is in a BVW  YES  NO

Submit this form with the Request for Determination of Applicability or Notice of Intent.



## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number: (B-5')      Transect Number: 2W-1      Date of Delineation: 10/23/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*	
Trees: <i>N/A</i>	-				
Lianas: <i>N/A</i>	-				
Saplings: <i>N/A</i>	-				
Shrubs: <i>N/A</i> <i>N/A</i>	-				
Groundcover: <i>Phalaris arundinaceae*</i>	<i>Reed-Canary Grass</i>	98	94	Yes	FACW*
<i>Solidago altissima</i>	<i>Tall Goldenrod</i>	3	3	No	FACU-
<i>Asclepias syriaca</i>	<i>Common Milkweed</i>	3	3	No	FACU-

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	
Number of dominant wetland indicator plants:      1	Number of dominant non-wetland plants:      0
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? <input checked="" type="checkbox"/> YES	
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.	



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES  
 title/date: Hampshire Co, Central  
 map number:  
 soil type mapped: **Ridgebury**  
 hydric soil inclusions: NO  
 Are field observations consistent with soil survey? YES

Remarks:

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
A	0-6"	10YR 3/2	SL	
AB	6-8	10YR 4/4	SL	
Bg	8-16	10YR 5/2	GSL	C2P 10YR 6/1 C3P 5YR5/6

Remarks:

#### 3. Other:

Conclusions: Is soil hydric? YES

Observation Plot Number: (B-5') Transect Number: 2W-1

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:  
 Depth to free water in observation hole:  
 Depth to soil saturation in observation hole: 15"  
 Water marks:  
 Drift lines:  
 Sediment deposits:  
 Drainage Patterns in BWV:  
 Oxidized rhizospheres:  
 Water stained leaves:  
 Recorded data (stream, lake, or tidal gauge; aerial photo; other):  
 Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Wetland hydrology present:

hydric soil present

other indicators of hydrology present

Sample location is in a BWV

Submit this form with the Request for Determination of Applicability or Notice of Intent.





## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number:      Upland Transect Number: 2W-9      Date of Delineation: 10/23/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*	
Trees: <i>Picea abies</i>	<i>Norway Spruce</i>	883	286	Yes	ND (FACW)*
<i>Picea pungens</i>	<i>Blue Spruce</i>	145	258	Yes	UPL

Lianas:      *N/A*

Saplings:      *N/A*

Shrubs:      *N/A*

Groundcover: <i>Trifolium pratense</i>	<i>Red Clover</i>	10.5	22	Yes	FACU-
<i>Graminae sp.</i>	<i>Grass</i>	3	6	No	ND
<i>Carex lurida</i> *	<i>Lurid Sedge</i>	11	22	Yes	OBL*
<i>Plantago lanceolata</i>	<i>English Plantain</i>	11	22	Yes	UPL
<i>Rumex crispus</i>	<i>Curled Dock</i>	3	6	No	FACU
<i>Vicia sativa</i>	<i>Common Vetch</i>	11	22	Yes	FACU-

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	
Number of dominant wetland indicator plants:      1	Number of dominant non-wetland plants:      4
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?	
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.	
<input style="width: 50px; height: 20px; border: 1px solid black;" type="text" value="NO"/>	



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? **YES**  
 title/date: Hampshire Co, Central  
 map number:  
 soil type mapped: **Gloucester**  
 hydric soil inclusions: **NO**  
 Are field observations consistent with soil survey? **NO**

Remarks: Fill Soils (LS) (Gravel), over buried Gloucester

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
A	0-4	10YR 5/4	GSL	
C	4-15	10YR 6/3	VGLS	
2A	15-18+	10YR 3/2	SL	

Remarks:

#### 3. Other:

Conclusions: Is soil hydric? **NO**

Observation Plot Number: Upland Transect Number: 2W9

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:  
 Depth to free water in observation hole:  
 Depth to soil saturation in observation hole:  
 Water marks:  
 Drift lines:  
 Sediment deposits:  
 Drainage Patterns in BVW:  
 Oxidized rhizospheres:  
 Water stained leaves:  
 Recorded data (stream, lake, or tidal gauge; aerial photo; other):  
 Other:

## Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>

### Wetland hydrology present:

hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>
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Submit this form with the Request for Determination of Applicability or Notice of Intent.



## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number: (B-5)      Transect Number: 2W-9      Date of Delineation: 10/23/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*	
Trees: <i>Picea abies</i>	Norway Spruce	286	53	Yes	ND (FACW)*
<i>Picea pungens</i>	Blue Spruce	258	47	Yes	UPL

Lianas: N/A

Saplings: N/A

Shrubs: N/A

Groundcover: <i>Typha latifolia</i> *	Common Cattail	20.5	18	No	OBL*
<i>Phalaris arundinaceae</i> *	Reed-Canary Grass	86	76	Yes	FACW*
<i>Solidago rugosa</i> *	Rough Stemmed Goldenr	3	3	No	FAC*
<i>Scirpus cyperinus</i> *	Wool grass	3	3	No	FACW+*

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACV, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	
Number of dominant wetland indicator plants: 1	Number of dominant non-wetland plants: 1
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? <input checked="" type="checkbox"/> YES	
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.	



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES  
 title/date: Hampshire Co, Central  
 map number:  
 soil type mapped: **Ridgebury**  
 hydric soil inclusions: NO  
 Are field observations consistent with soil survey? YES

Remarks:

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
A	0-23	10YR 2/2	Mucky SL	
Cg	23-27"+	10YR 5/1	GSL	C3p 5YR 5/6 C3F 10YR 6/1

Remarks:

#### 3. Other:

Conclusions: Is soil hydric? YES

Observation Plot Number: (B-5') Transect Number: 2W-9

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:  
 Depth to free water in observation hole: 3"  
 Depth to soil saturation in observation hole: 0"  
 Water marks:  
 Drift lines:  
 Sediment deposits:  
 Drainage Patterns in BVW:  
 Oxidized rhizospheres:  
 Water stained leaves:  
 Recorded data (stream, lake, or tidal gauge; aerial photo; other):  
 Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Wetland hydrology present:

hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.





## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number:      Upland      Transect Number:      2W-23      Date of Delineation:      10/23/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
--	-------------------------------------	-------------------------	----------------------------------	-----------------------------------

Trees:      *N/A*

Lianas:      *N/A*

Saplings:      *N/A*

Shrubs:      *N/A*

Groundcover: <i>Phalaris arundinaceae*</i>	Reed-Canary Grass	20.5	26	Yes	FACW*
<i>Solidago altissima</i>	Tall Goldenrod	10.5	13	Yes	FACU-
<i>Rumex crispus</i>	Curled Dock	3.0	4	No	FACU
<i>Echinochloa crusgalli</i>	Barnyard Grass	3.0	4	No	FACU
<i>Taraxacum officinale</i>	Common Dandelion	10.5	13	Yes	FACU-
<i>Plantago lanceolata</i>	English Plantain	10.5	13	Yes	UPL
<i>Daucus carota</i>	Queen Ann's Lace (wild ca	10.5	13	Yes	ND(FACU)
<i>Phleum pratense</i>	Timothy Grass	10.5	13	Yes	FACU

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

**Vegetation conclusion:**

Number of dominant wetland indicator plants:      1

Number of dominant non-wetland plants:      4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?

NO

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES

title/date: Hampshire, Central

map number:

soil type mapped: **Gloucester**

hydric soil inclusions: NO

Are field observations consistent with soil survey? YES

Remarks:

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
A	0-5	10YR 4/3	SL	
AB	5-7	10YR 4/4	SL	
Bw	7-14	10YR 5/4	FSL	
BC	14-20+	10YR 6/4	LS	

Remarks: disturbed soils in Powerline, near railroad

#### 3. Other:

Conclusions: Is soil hydric? NO

Observation Plot Number: Upland Transect Number: 2w 23

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:

Depth to free water in observation hole:

Depth to soil saturation in observation hole:

Water marks:

Drift lines:

Sediment deposits:

Drainage Patterns in BVW:

Oxidized rhizospheres:

Water stained leaves:

Recorded data (stream, lake, or tidal gauge; aerial photo; other):

Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Wetland hydrology present:

hydric soil present  YES  NO

other indicators of hydrology present  YES  NO

Sample location is in a BVW  YES  NO

Submit this form with the Request for Determination of Applicability or Notice of Intent.



## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number: (B-5)      Transect Number: 2W-23      Date of Delineation: 10/23/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
--	-------------------------------------	-------------------------	----------------------------------	-----------------------------------

Trees:      *N/A*

Lianas:      *N/A*

Saplings:      *N/A*

Shrubs:      *N/A*

Groundcover: <i>Phalaris arundinaceae*</i>	<i>Reed-Canary Grass</i>	63	67	Yes	FACW*
<i>Solidago altissima</i>	<i>Tall Goldenrod</i>	11	11	No	FACU-
<i>Verbena hastata*</i>	<i>Vervain, Blue</i>	11	11	No	FACW+*
<i>Onoclea sensibilis*</i>	<i>Sensitive Fern</i>	11	11	No	FACW*

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	Number of dominant wetland indicator plants: 1	Number of dominant non-wetland plants: 0	
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?			<input checked="" type="checkbox"/> YES
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.			



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES

title/date: Hampshire, Central

map number:

soil type mapped: **Raynham**

hydric soil inclusions: NO

Are field observations consistent with soil survey? YES

#### Remarks:

Disturbed Soils in P-Line, near RR embankment, past borrow

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
A	0-6	10YR 2/2	VFSL	
AB	6-8	10YR 4/2	Sil	
Ab	8-12	10YR 2/2	Sil	
Bg	12-16"+	10YR 5/2	Sil	C2D 10YR 6/2

#### Remarks:

#### 3. Other:

Conclusions: Is soil hydric? YES

Observation Plot Number: (B-5') Transect Number: 2W-23

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:

Depth to free water in observation hole:

Depth to soil saturation in observation hole: ~14"

Water marks:

Drift lines:

Sediment deposits:

Drainage Patterns in BVW:

Oxidized rhizospheres:

Water stained leaves:

Recorded data (stream, lake, or tidal gauge; aerial photo; other):

Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>

#### Wetland hydrology present:

hydric soil present

other indicators of hydrology present

Sample location is in a BVW

Submit this form with the Request for Determination of Applicability or Notice of Intent.





## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number:      Upland      Transect Number:      3W-22      Date of Delineation:      11/11/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
Trees: <i>Acer rubrum*</i>	<i>Red Maple</i>	154	100	Yes  FAC*

Lianas:      *N/A*

Saplings:	<i>Picea pungens</i>	<i>Blue Spruce</i>	10.5	100	Yes  UPL
-----------	----------------------	--------------------	------	-----	----------------

Shrubs:      *N/A*

Groundcover:	<i>Solidago altissima</i>	<i>Tall Goldenrod</i>	38.0	62	Yes	
	<i>Alliaria petiolata</i>	<i>Garlic Mustard</i>	20.5	33	Yes	FACU-
	<i>Phalaris arundinaceae*</i>	<i>Reed-Canary Grass</i>	3.0	5	No	FACU- FACW*

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s.40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	1	Number of dominant non-wetland plants:	3
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?			
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.			

NO



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES

title/date: Hampshire, Central

map number:

soil type mapped: **Gloucester fSL**

hydric soil inclusions: NO

Are field observations consistent with soil survey? YES

Remarks:

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
Ap	0-18"	10YR 3/3	FSL	
B	18-24"	10YR 5/4	SL	@20" C3P 2.5Y 5/3 F1P 5YR 4/6

Remarks:

#### 3. Other:

Conclusions: Is soil hydric? NO

Observation Plot Number: Upland Transect Number: 2w 23

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:

Depth to free water in observation hole:

Depth to soil saturation in observation hole:

Water marks:

Drift lines:

Sediment deposits:

Drainage Patterns in BVW:

Oxidized rhizospheres:

Water stained leaves:

Recorded data (stream, lake, or tidal gauge; aerial photo; other):

Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>

#### Wetland hydrology present:

hydric soil present  YES  NO

other indicators of hydrology present  YES  NO

Sample location is in a BVW  YES  NO

Submit this form with the Request for Determination of Applicability or Notice of Intent.



## DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

Applicant: Juggler Meadow

Prepared by: BEC, Inc.

Project location: Leverett Road, Amherst

DEP File #:

Check all that apply:

<input type="checkbox"/>	Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
<input checked="" type="checkbox"/>	Vegetation and other indicators of hydrology used to delineate BVW boundary : fill out Sections I and II
<input type="checkbox"/>	Method other than dominance test used (attach additional information)

**Section 1. Vegetation**      Observation Plot Number: (B-5)      Transect Number: 3W-22      Date of Delineation: 11/11/2009

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
--	-------------------------------------	-------------------------	----------------------------------	-----------------------------------

Trees:      N/A

Lianas:      N/A

Saplings:      N/A

Shrubs:      N/A

Groundcover: <i>Phalaris arundinaceae</i> *	Reed-Canary Grass	98.0	74	Yes	FACW*
<i>Solidago altissima</i>	Tall Goldenrod	20.5	16	No	FACU-
<i>Polygonum sagittatum</i> *	Arrow-leaved Tearthumb	10.5	8	No	OBL*
<i>Alliaria petiolata</i>	Garlic Mustard	3.0	2	No	FACU-

\* Use an asterisk to mark indicator plant species listed in the Wetlands Protection Act (MGL c. 131, s. 40); plants in the genus Sphagnum; plants listed as FAC, FAC+, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

<b>Vegetation conclusion:</b>	Number of dominant wetland indicator plants: 1	Number of dominant non-wetland plants: 0	
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?			<input type="checkbox"/> YES
If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.			



## Section II. Indicators of Hydrology

### Hydric Soil Interpretation

#### 1. Soil Survey

Is there a published soil survey for this site? YES

title/date: Hampshire, Central

map number:

soil type mapped: **Ridgebury fSL**

hydric soil inclusions: NO

Are field observations consistent with soil survey? YES

#### Remarks:

Disturbed Soils in P-Line, near RR embankment, past borrow

#### 2. Soil Description

Horizon	Depth	Matrix Color	Texture	Mottles Color
A	0-5"	10YR 2/2	FSL	
Bw	5-12"	10YR 4/2	FSL	C1P 7.5YR 5/6
C	12-18"	10YR 5/2	SL	C2P 7.5YR 5/6

#### Remarks:

#### 3. Other:

Conclusions: Is soil hydric? YES

Observation Plot Number: (B-5') Transect Number: 3W-22

Other Indicators of Hydrology: (check all that apply and describe)

Site inundated:

Depth to free water in observation hole:

Depth to soil saturation in observation hole:

Water marks:

Drift lines:

Sediment deposits:

Drainage Patterns in BWV:

Oxidized rhizospheres:

Water stained leaves:

Recorded data (stream, lake, or tidal gauge; aerial photo; other):

Other:

### Vegetation and Hydrology Conclusion

	YES	NO
Number of wetland indicator plants > number of non-wetland indicator plants	X	

#### Wetland hydrology present:

hydric soil present  X

other indicators of hydrology  
present  X

Sample location is in a BWV  X

Submit this form with the Request for Determination of Applicability or Notice of Intent.





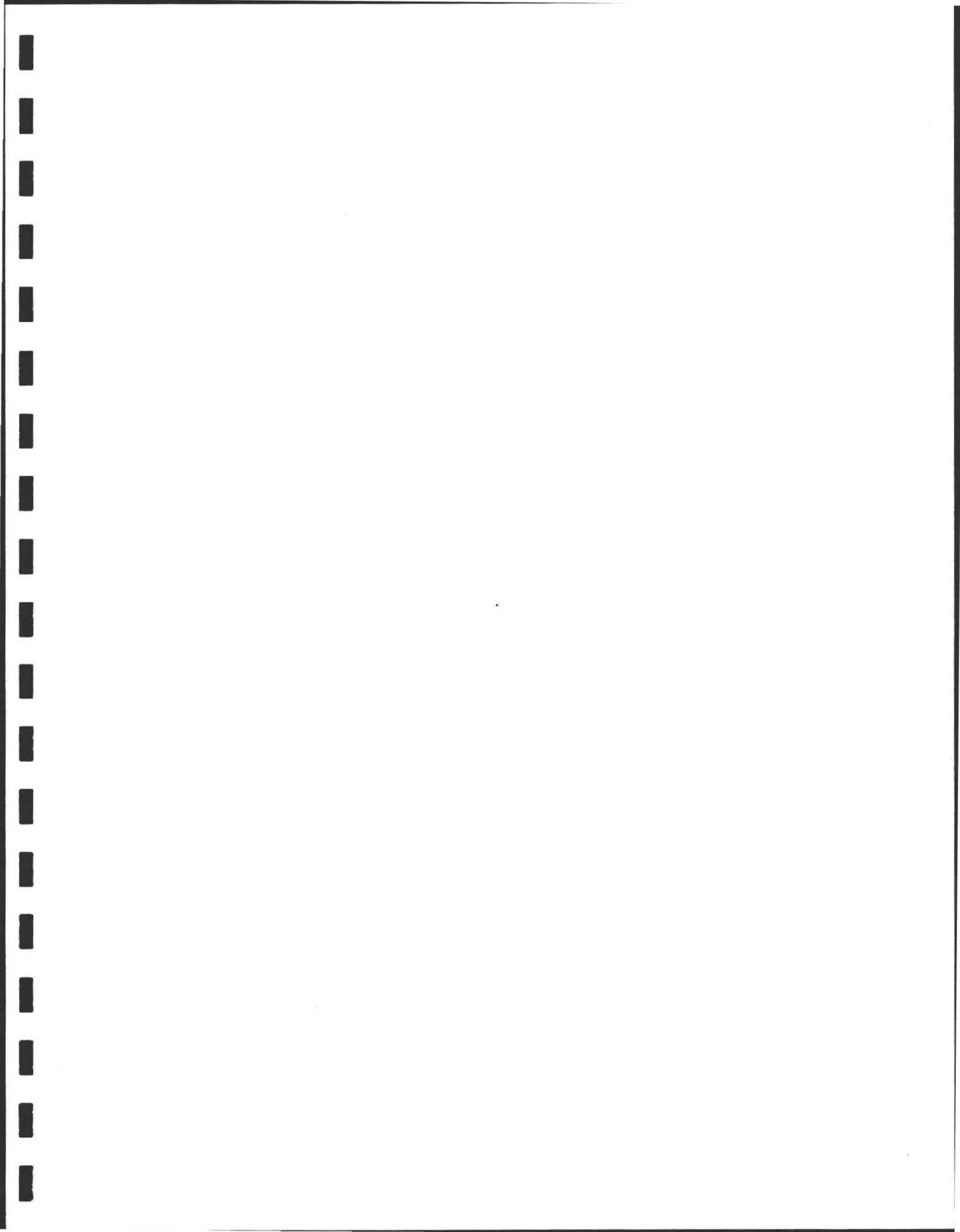
**APPENDIX D**

*Site Plans*

**260 Leverett Road**

**Amherst, Massachusetts**





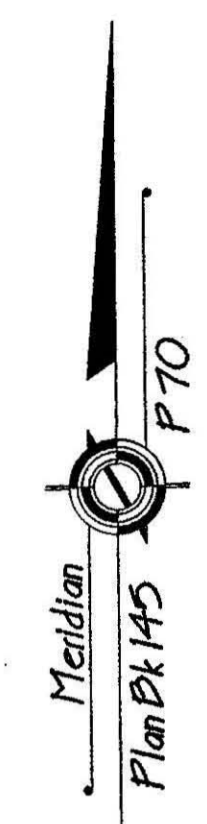


Stephen P. Oliver, Trustee of the  
Wood Land Nominee Trust  
Dk 7300 P 54  
Dk 7300 P 67  
see Plan Dk 89 P 39

Stephen P. Oliver, Trustee of the  
Wood Land Nominee Trust  
Dk 7300 P 25  
see Plan Dk 89 P 39

Darre Todroski, Trustee of the  
Pocarno Road Nominee Trust  
Dk 9996 P 105  
see Plan Dk 145 P 10  
12,551 Acres (total)

Amherst Real Properties, LLC  
Dk 9040 P 24  
see Plan Dk 213 P 119



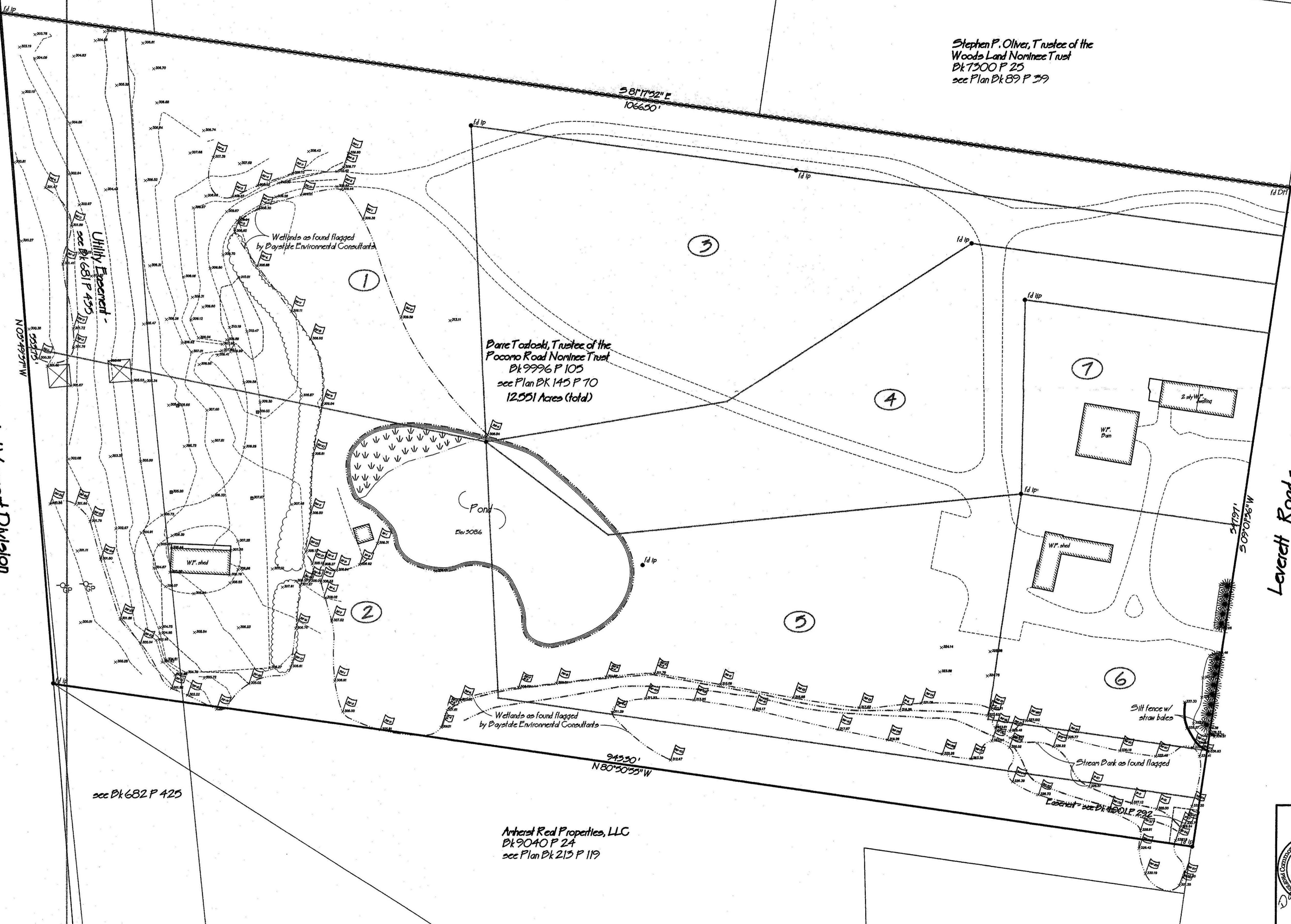
Canadian National Railroad - Central Vermont Division

Leverett Road - an 1885 Hampshire County Highway

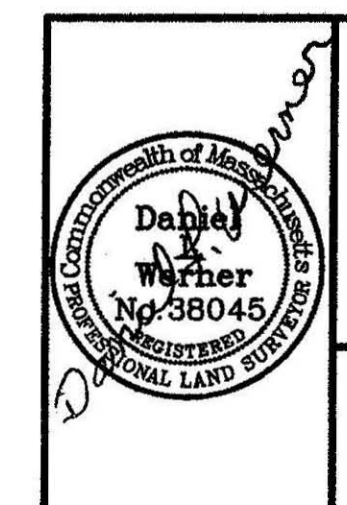
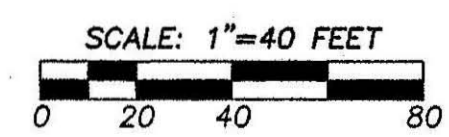
see Dk 688 P 519

Utility Easement -  
see Dk 681 P 459

see Dk 682 P 425



Note: Datum is NGVD 29, based on  
USGS disk 11224 in Cushman



PLAN OF TOPOGRAPHY AND WETLAND DELINEATION IN  
Amherst, MA.  
SURVEYED FOR  
**Michael Kittredge**  
SURVEY: Sept 2001 - Nov 2009 PLAN: 3 December 2009  
**Daniel L. Werner, R.P.L.S.**  
225 Shelburne Line Road  
Colrain, MA 01340

CANADIAN NATIONAL RAILROAD - CENTRAL VERMONT DIVISION

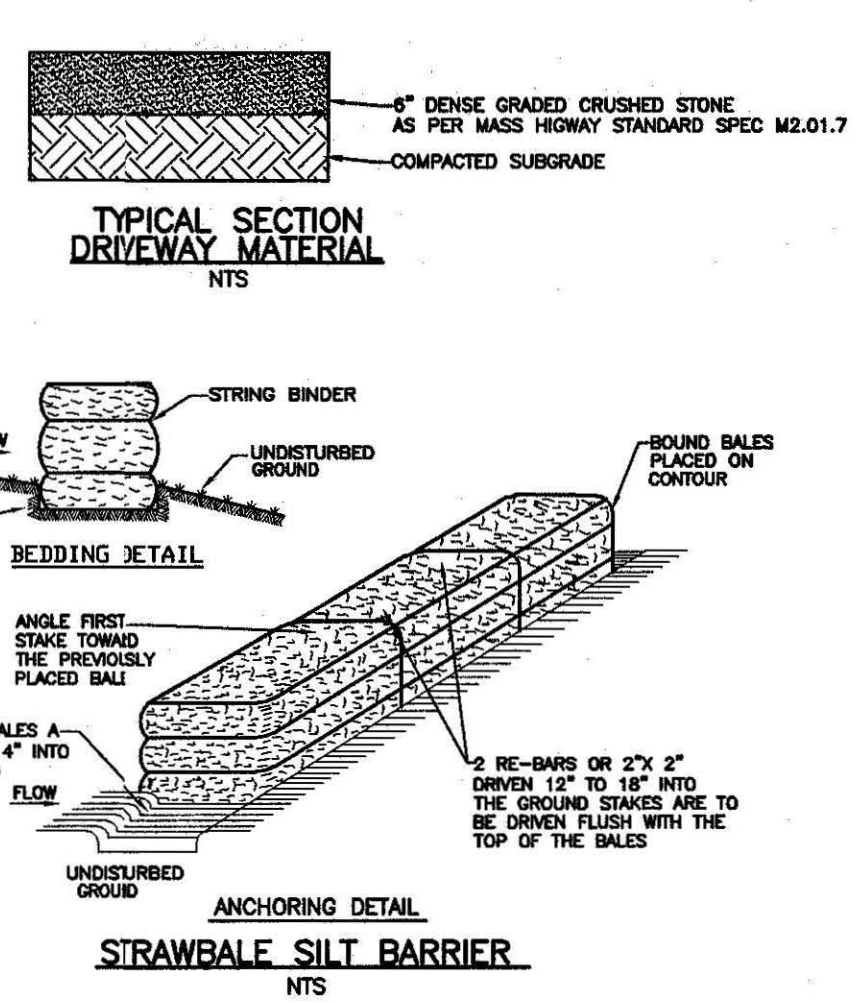
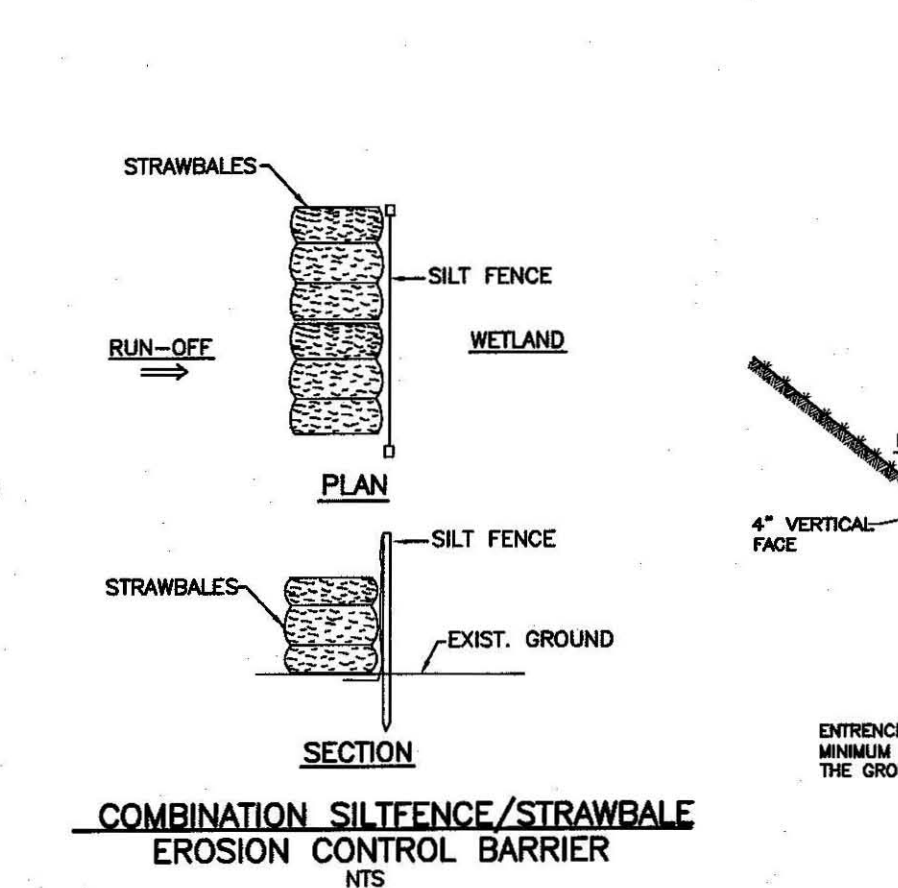
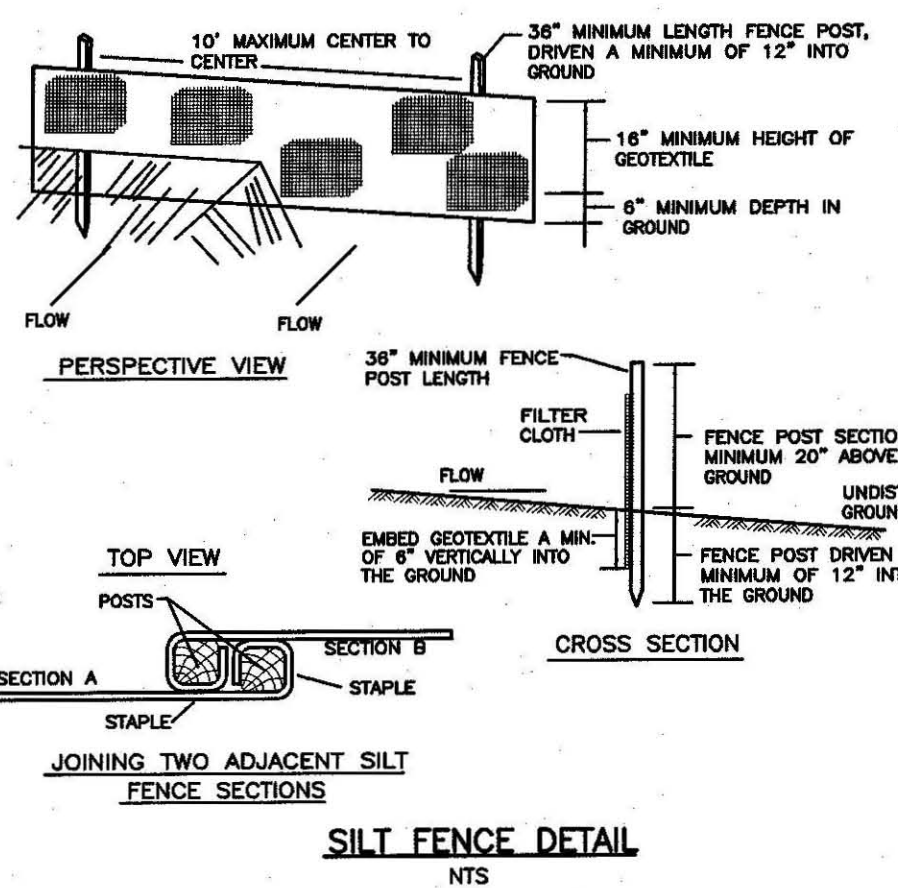
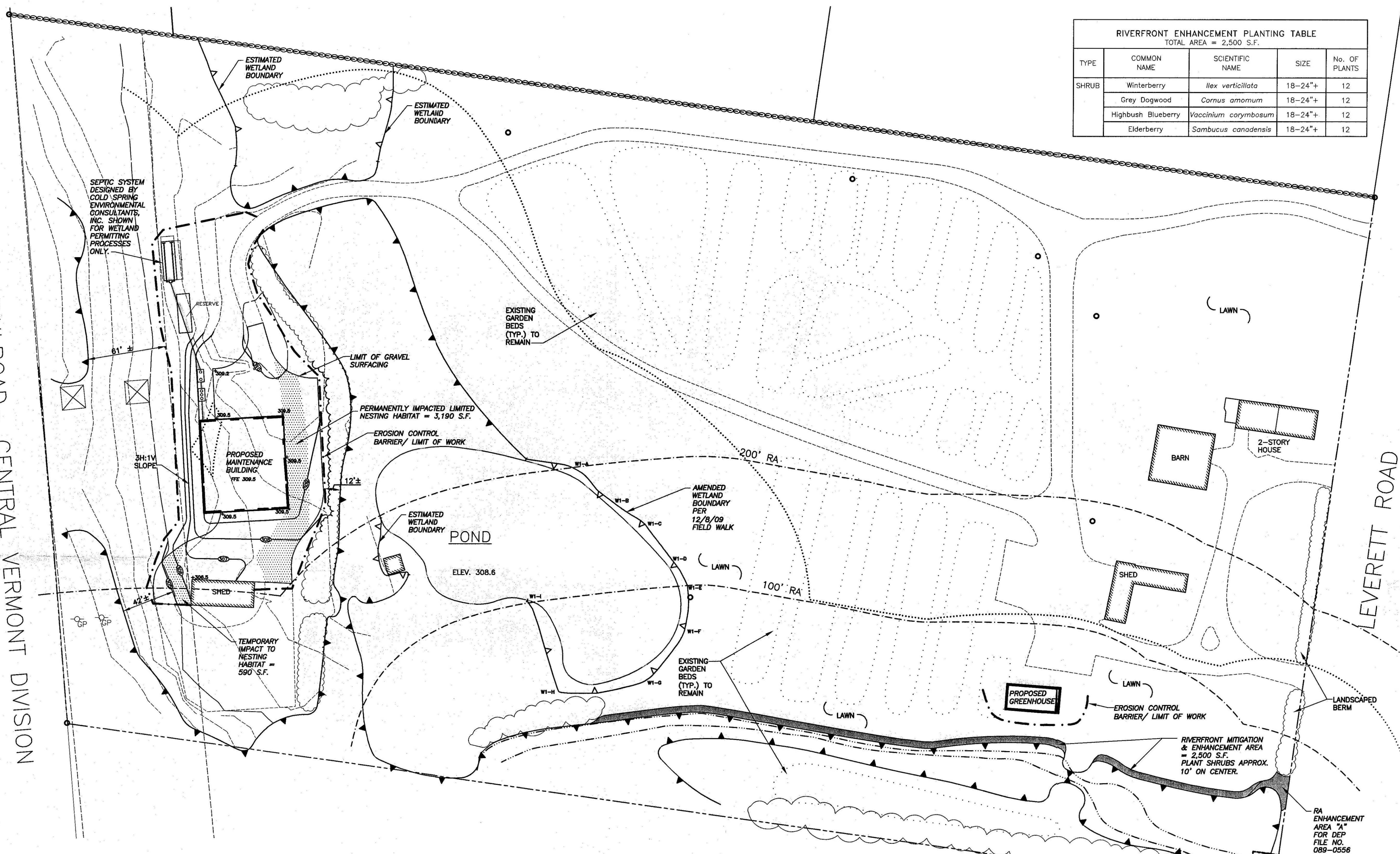
RIVERFRONT ENHANCEMENT PLANTING TABLE				
TOTAL AREA = 2,500 S.F.				
TYPE	COMMON NAME	SCIENTIFIC NAME	SIZE	No. OF PLANTS
SHRUB	Winterberry	<i>Ilex verticillata</i>	18-24"+	12
	Grey Dogwood	<i>Cornus amomum</i>	18-24"+	12
	Highbush Blueberry	<i>Vaccinium corymbosum</i>	18-24"+	12
	Elderberry	<i>Sambucus canadensis</i>	18-24"+	12

No.	DATE	REVISION	BY

N

LEGEND

- W-41A WETLAND BOUNDARY
- 100 FT. BUFFER
- 288 EXISTING CONTOUR
- PROPOSED CONTOUR
- EXISTING PROPERTY LINE
- RIVERFRONT AREA
- EXISTING EDGE OF GRAVEL
- PROPOSED EDGE OR GRAVEL
- EXISTING SANITARY SEWER
- EXISTING RAILROAD
- BANK RESOURCE & MEAN ANNUAL HIGH WATER LINE
- IMPACTED LIMITED NESTING HABITAT
- EXISTING GARDEN BED
- EXISTING GUIDE POLE
- EXISTING IRON PIN



**CONSTRUCTION NOTES:**

- EXISTING INFORMATION SHOWN ON THIS DRAWING IS TAKEN FROM THE SURVEY PREPARED BY ROSE ASSOCIATES, REGISTERED LAND SURVEYORS, CONWAY MASS, DATED SEPTEMBER 2007.
- CONTRACTOR SHALL CONFIRM GRADES AND LOCATION OF ALL EXISTING FACILITIES AND IMPROVEMENTS IN THE FIELD. ANY DISCREPANCIES SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE OWNER.
- PLANS DO NOT PURPORT TO SHOW ALL UTILITIES. CONTRACTOR CONTACT DIG-SAFE (1-888-344-7233) 72 HOURS PRIOR TO BEGINNING EXCAVATION WORK AT THE SITE.
- THE ACCURACY AND COMPLETENESS OF ANY UNDERGROUND AND OVERHEAD UTILITIES AS SHOWN ON THE PLANS ARE NOT GUARANTEED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE EXACT LOCATION, SIZE, TYPE, ETC. OF ALL UTILITIES THAT MAY BE AFFECTED BY THE WORK OF THIS PROJECT.
- PRIOR TO COMMENCING ANY WORK, THE CONTRACTOR SHALL REVIEW SCHEDULING AND SITE SAFETY WITH THE OWNER. THE CONTRACTOR SHALL INCLUDING THE INSTALLATION OF TEMPORARY BARRICADES PROTECT THE PUBLIC FROM THE HAZARDS ASSOCIATED WITH THEIR WORK AT ALL TIMES, OR FENCING AT ACCESS POINTS TO ACTIVE WORK AREAS.
- CONTRACTOR SHALL PERFORM ALL EXCAVATIONS IN STRICT CONFORMANCE WITH APPLICABLE O.S.H.A. RULES, AS AMENDED.
- UNLESS OTHERWISE NOTED, ALL WORK AND MATERIALS SHALL COMPLY WITH APPLICABLE SECTIONS OF THE MASSACHUSETTS HIGHWAY DEPARTMENT'S "STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES", AS AMENDED.
- CONTRACTOR SHALL DEMOLISH, RAZE, REMOVE AND DISPOSE OF ALL PAVEMENTS, PIPING, VEGETATION, STRUCTURES, AND OTHER OBSTRUCTIONS TO NEW WORK, EXCEPT OPERATING UTILITIES AND THOSE ITEMS FOR WHICH OTHER PROVISIONS HAVE BEEN MADE FOR REMOVAL AND/OR PROTECTION. ALL MATERIALS SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE DISPOSED OF AT AN OFF-SITE LOCATION. EXISTING UTILITIES SHALL REMAIN IN PLACE AND BE PROTECTED DURING THE WORK OF THIS PROJECT.
- CONTRACTOR IS RESPONSIBLE FOR REPAIR OF ALL EXISTING UTILITIES, WALLS, FENCES, SERVICES, AND OTHER STRUCTURES OR IMPROVEMENTS OF WHATEVER NATURE, WHICH ARE DISTURBED BY THE CONTRACTOR, WHETHER SHOWN ON THE PLANS OR NOT, AT NO ADDITIONAL COST TO THE OWNER.
- ALL AREAS NOT OTHERWISE SURFACED SHALL RECEIVE MINIMUM 6" LOAM AND SHALL BE SEEDED, MULCHED, AND ESTABLISHED AS LAWN.
- EXISTING TREES AND VEGETATION LOCATED IN AREAS NOT TO BE GRADED SHALL BE PROTECTED THROUGHOUT THE PROJECT. WHERE ROOTS MUST BE CUT, THEY SHALL BE NEATLY PRUNED AND BACKFILLED AS SOON AS POSSIBLE. ALL PLANTINGS MUST BE MAINTAINED, AND THAT PORTION OF THE PUBLIC WAY ABUTTING THE PARCEL AND INCLUDING THE TREE BELT, SHALL BE MAINTAINED IN A SAFE AND ATTRACTIVE CONDITION BY THE CONTRACTOR.

**NOTICE OF INTENT PLAN**

PROJECT AND LOCATION:  
**JUGGLER MEADOW FARMS**  
**260 LEVERETT ROAD**  
**AMHERST, MA**

PREPARED FOR:  
**MICHAEL KITTRIDGE**

**DEC** BAYSTATE ENVIRONMENTAL CONSULTANTS INC.

Civil Engineers Environmental Scientists  
 296 North Main Street 290 Roberts Street, Suite 207  
 East Longmeadow, MA 01028 East Hartford, CT 06108

PROJECT No. 15.0166159.30 SHEET No. 1

SCALE 1" = 40'

DATE DEC. 2009

DRAWN BY ATR

CHECKED BY TEJ

1 OF 1 SHEETS

No. \_\_\_\_\_

FEE \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.



## APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

Application for a Permit to Construct (✓) Repair ( ) Upgrade ( ) Abandon ( ) -  Complete System  Individual Components

Location <u>260 Lewortt Rd. (Rear)</u>	Owner's Name <u>Parreffe Co. / M. Kittidge.</u>
Map/Parcel# <u>3A-10</u>	Address <u>312 Lewortt Rd.</u>
Lot#	Telephone# <u>548-9802</u>
Installer's Name <u>DMO Const / R Mistrka</u>	Designer's Name <u>Alan Weiss, 160 Spring End.</u>
Address <u>Amherst, MA.</u>	Address <u>Belchertown, MA.</u>
Telephone#	Telephone# <u>323-5957</u>

Type of Building Maint. Bldg. Lot Size 12 1/4-Ac sq. ft.  
 Dwelling - No. of Bedrooms \_\_\_\_\_ Garbage grinder (✓) No  
 Other - Type of Building 15 GAL/PERSON No. of persons 10 Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 150 gpd Calculated design flow 150 Design flow provided 180 gpd  
 Plan: Date \_\_\_\_\_ Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title Septic Plan For Maintenance Garage.  
 Description of Soil(s) CLASS 1: (LS)  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator A Weiss Date of Evaluation 12-15-09

DESCRIPTION OF REPAIRS OR ALTERATIONS \_\_\_\_\_

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed [Signature] Date 12-22-09

Inspections \_\_\_\_\_

No. 09-12

FEE \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System  
 The undersigned hereby certify that the Sewage Disposal System; Constructed (✓), Repaired ( ), Upgraded ( ), Abandoned ( )  
 by: DMO CONSTRUCTION  
 at: 260 (REAR) LEWORTT RD  
 has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. 09-12, dated \_\_\_\_\_, Approved Design Flow \_\_\_\_\_ (gpd)  
 Installer: [Signature] Inspector: [Signature] Date: 8/16/12  
 Designer: \_\_\_\_\_

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. \_\_\_\_\_

FEE 150.00/PER

# COMMONWEALTH OF MASSACHUSETTS

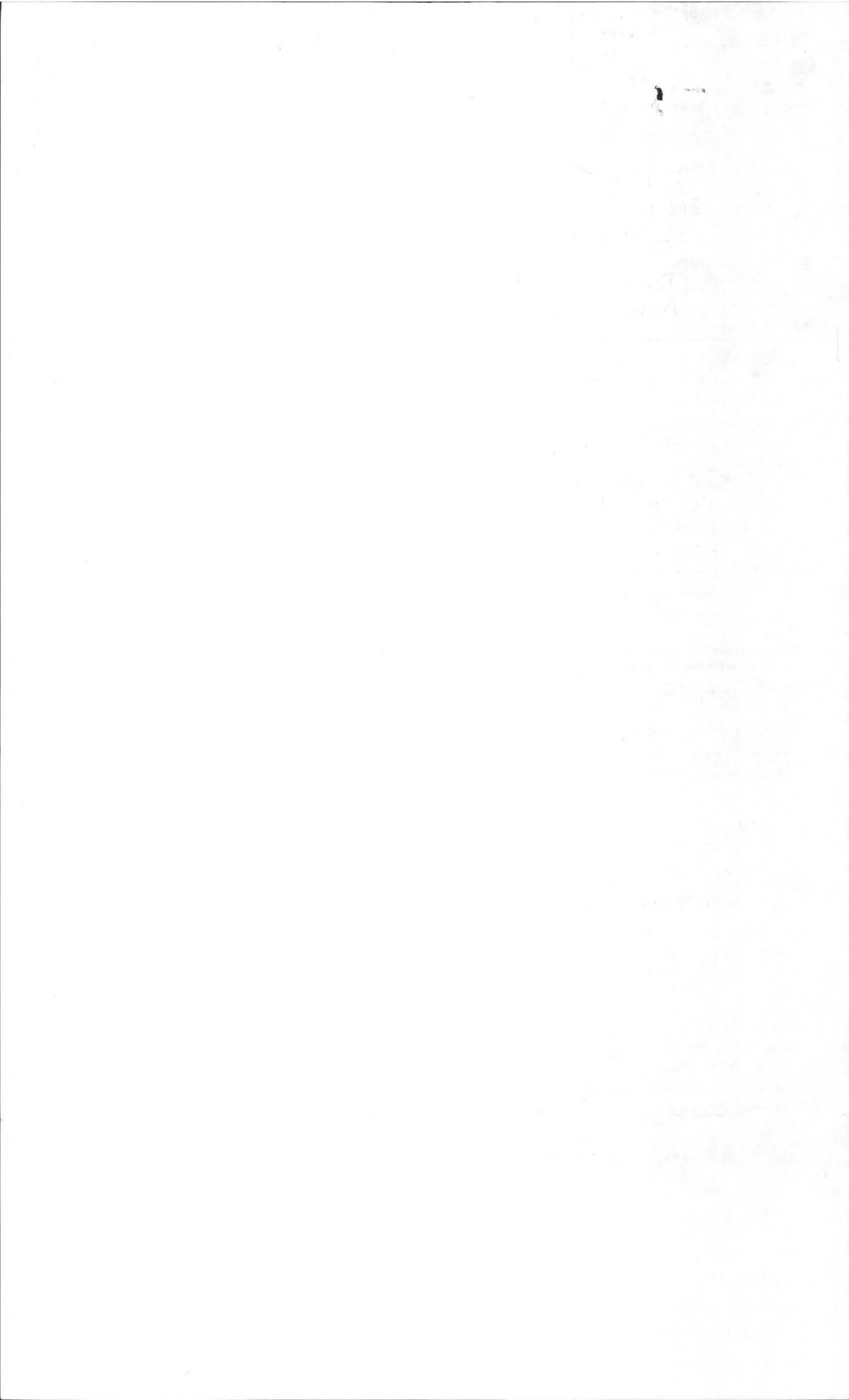
Board of Health, \_\_\_\_\_, MA.

## DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct (✓) Repair ( ) Upgrade ( ) Abandon ( ) an individual sewage disposal system  
 at 260 LEWORTT RD (R) as described in the application for  
 Disposal System Construction Permit No. 09-12, dated 12/23/09.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

Date 12/23/09 Board of Health [Signature]







ALAN E. WEISS, M.S., L.S.P.  
Licensed Site Professional  
Registered Sanitarian  
Hydrogeologist  
President

- Subsurface Investigations
- 21E Site Investigations
- Pollution Remediation
- Percolation Tests and Septic Designs

350 Old Enfield Rd.  
Belchertown, MA 01007  
(413) 323-5957 & 323-4916 (FAX)

Date: 12-15-07

Commonwealth of Massachusetts  
*Amherst*, Massachusetts  
Soil Suitability Assessment for On-site Sewage Disposal

Performed By: *A. Weiss*  
Witnessed By: *G. Courtin*

Date: 12-15-07

Location Address or Lot # <i># 260 Levere H (rear)</i>	Owner's Name, Address, and Telephone # <i>Paraffin Co. 312 Levere H RD Amherst, MA.</i>
New Construction <input checked="" type="checkbox"/> Repair <input checked="" type="checkbox"/>	

Office Review *primy by shad*

Published Soil Survey Available: No  Yes

Year Published \_\_\_\_\_ Publication Scale \_\_\_\_\_ Soil Map Unit \_\_\_\_\_  
Drainage Class \_\_\_\_\_ Soil Limitations \_\_\_\_\_

Surficial Geologic Report Available: No  Yes

Year Published \_\_\_\_\_ Publication Scale \_\_\_\_\_

Geologic Material (Map Unit) \_\_\_\_\_

Landform \_\_\_\_\_

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) \_\_\_\_\_

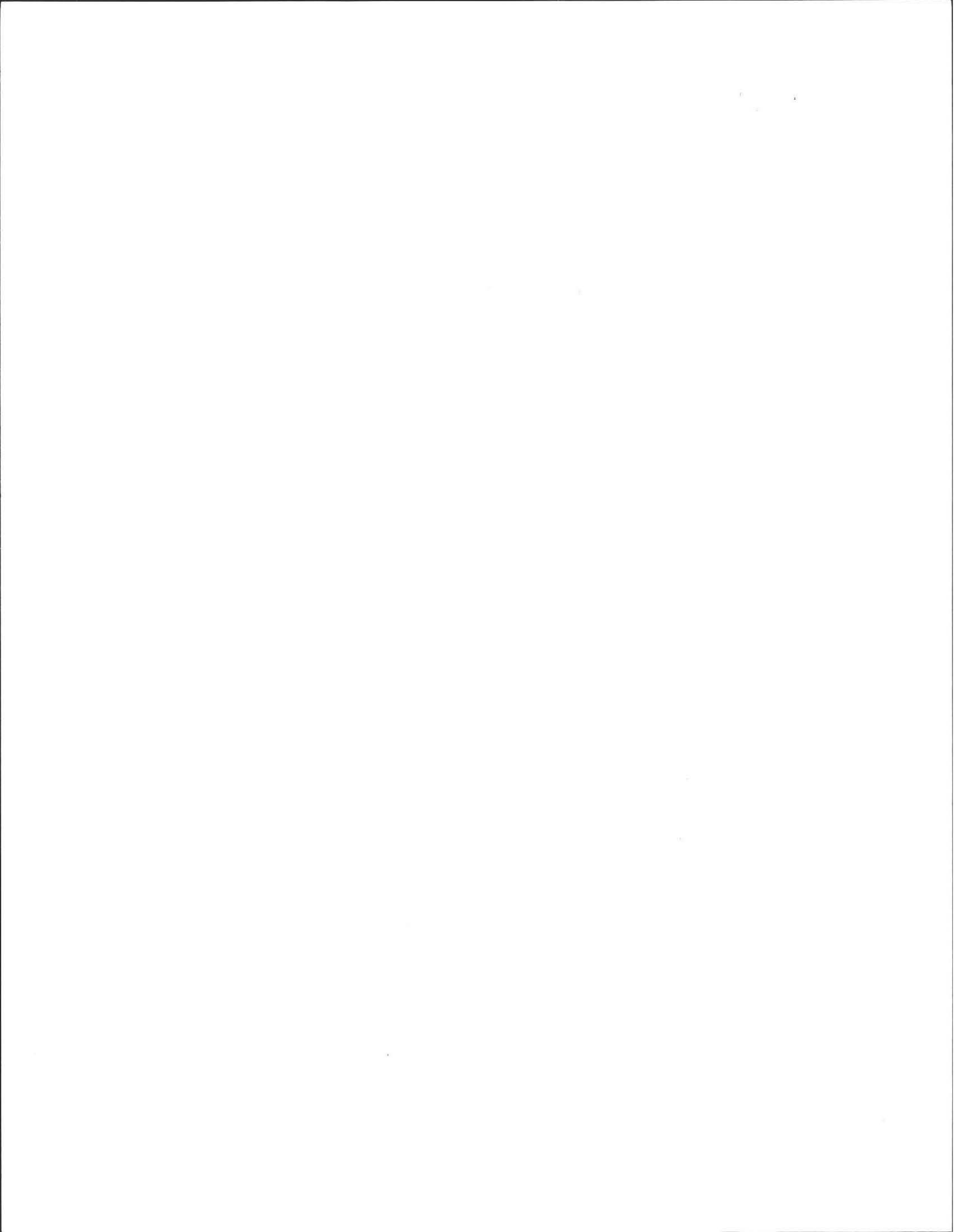
Wetlands Conservancy Program Map (map unit) \_\_\_\_\_

Current Water Resource Conditions (USGS): Month \_\_\_\_\_

Range :Above Normal  Normal  Below Normal

Other References Reviewed: \_\_\_\_\_





Location Address or Lot No. 260 Levertt RD.

### On-site Review

Deep Hole Number 131 Date: 12-15-09 Time: \_\_\_\_\_ Weather Clouds 40°F  
 Location (identify on site plan) \_\_\_\_\_  
 Land Use \_\_\_\_\_ Slope (%) 2 Surface Stones Many  
 Vegetation \_\_\_\_\_  
 Landform Terraced  
 Position on landscape (sketch on the back) \_\_\_\_\_  
 Distances from:  
 Open Water Body 50' feet  
 Possible Wet Area 50' feet  
 Drinking Water Well \_\_\_\_\_ feet  
 Drainage way 50' feet  
 Property Line 254' feet  
 Other \_\_\_\_\_

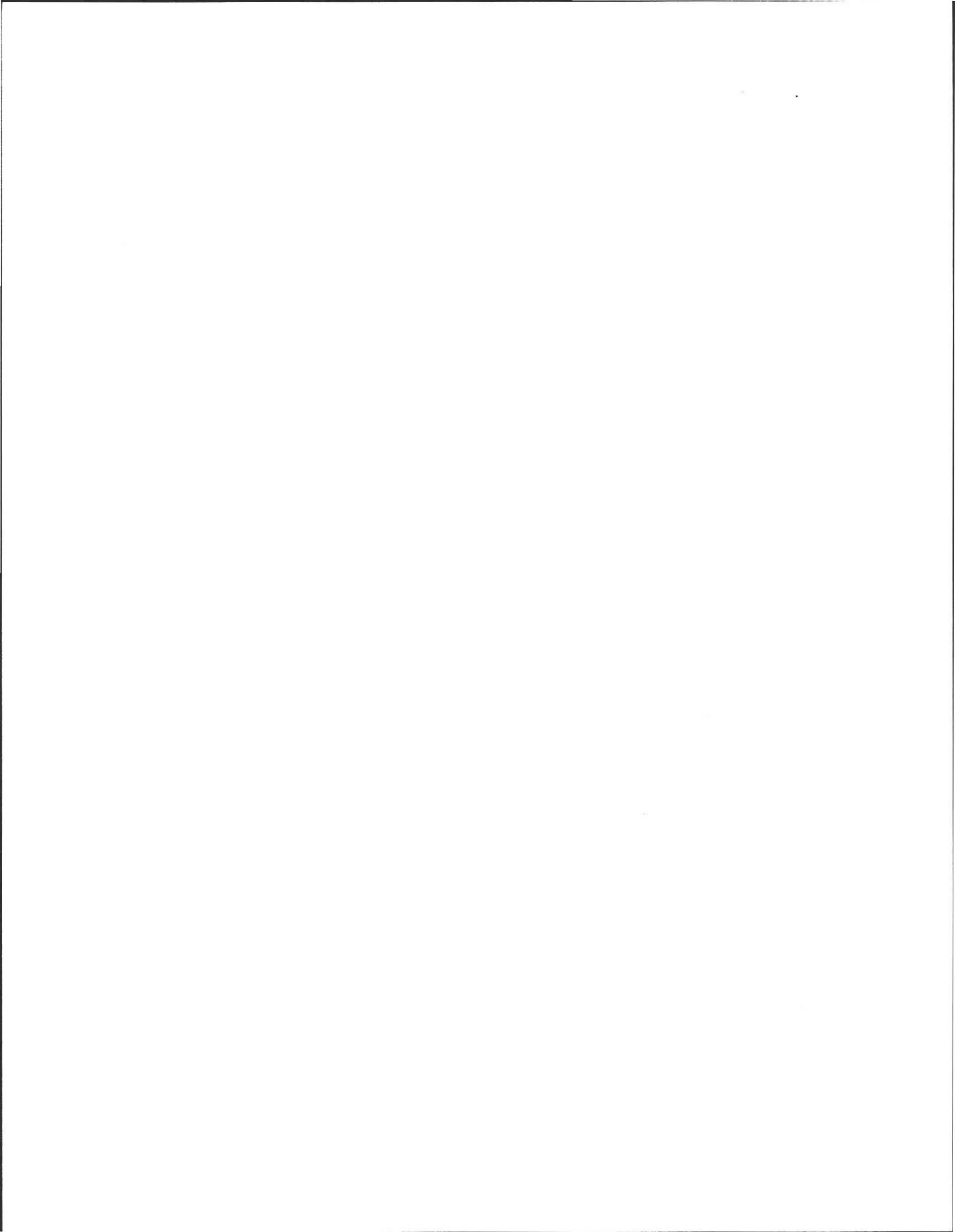
### DEEP OBSERVATION HOLE LOG\*

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
#1 0-6" 6"-12" 12" → 108"	A	FSC	10YR 3/3	36" 10YR 6/8	- Friable - Friable Loose F.M. Sandy gravelly Ablation till
	Bw	SL	7.5YR 4/6		
	C <sub>1</sub>	LS	7.5YR 4/6		
#2 0-6" 6-13" 13"-80"	A	FSL	10YR 3/3	36" 10YR 6/8	- Friable - Friable, Loose F.M. Sandy gravelly Ablation Till
	Bw	SL	7.5YR 4/6		
	C <sub>1</sub>	LS	7.5YR 4/6		
#3 0-8" 8"-16" 16"-78"	A	FSL	10YR 3/3	36"	Same
	Bw	SL	7.5YR 4/6		
	C <sub>1</sub>	LS	7.5YR 4/6		
#4 0-9" 9-12" 12-59"	A	FSL	10YR 3/3	36"	Same
	Bw	SL	7.5YR 4/6		
	C <sub>1</sub>	LS	7.5YR 4/6		

\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Ablation till  
 Depth to Groundwater: Standing Water in the Hole: \_\_\_\_\_ Depth to Bedrock: 59" - 108"  
 Estimated Seasonal High Ground Water: 36" Weeping from Pit Face: 70"





Location Address or Lot No. 260 Westcott RD.

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: <u>12-15-09</u>		Time: <u>10:00.</u>
Observation Hole #	P <sub>1</sub>	P <sub>2</sub>
Depth of Perc	<u>44"</u>	<u>42"</u>
Start Pre-soak	<u>10:25</u>	<u>10:30</u>
End Pre-soak	<u>10:40</u>	<u>10:45</u>
Time at 12"	<u>10:40</u>	<u>10:45</u>
Time at 9"	<u>10:50</u>	<u>10:55</u>
Time at 6"	<u>11:05</u>	<u>11:22</u>
Time (9"-6")	<u>15 MIN</u>	<u>27</u>
Rate Min./Inch	<u>5 MIN</u>	<u>10 <math>\frac{MIN}{IN}</math></u>

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

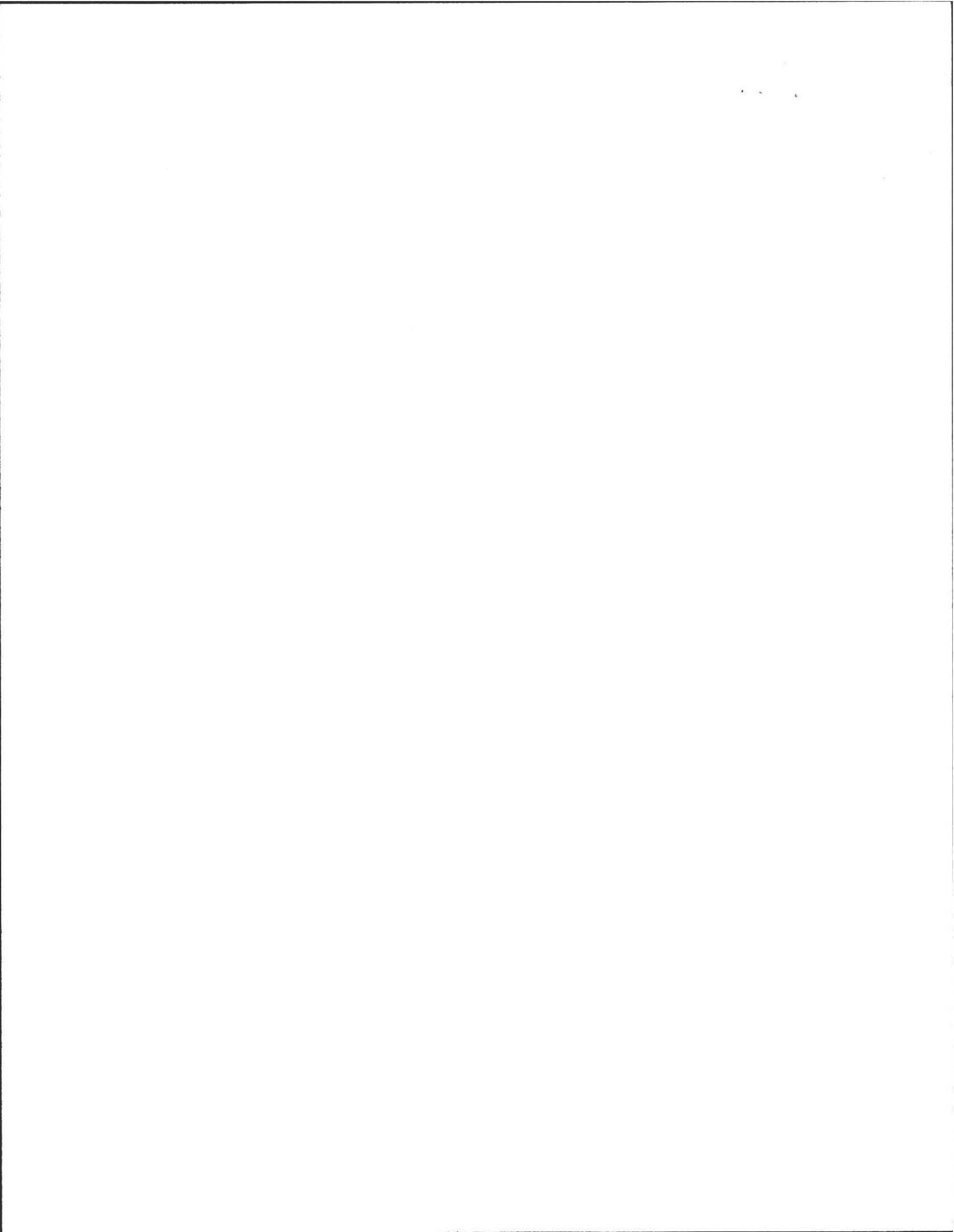
Site Passed  Site Failed

Performed By: A. Weiss

Witnessed By: G. Courtneidge

Comments: \_\_\_\_\_





Location Address or Lot No. 260 Everett Rd.

### Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole ..... inches
- Depth weeping from side of 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 level .....

Depth of Naturally Occurring Pervious Material

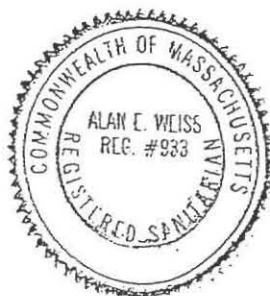
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

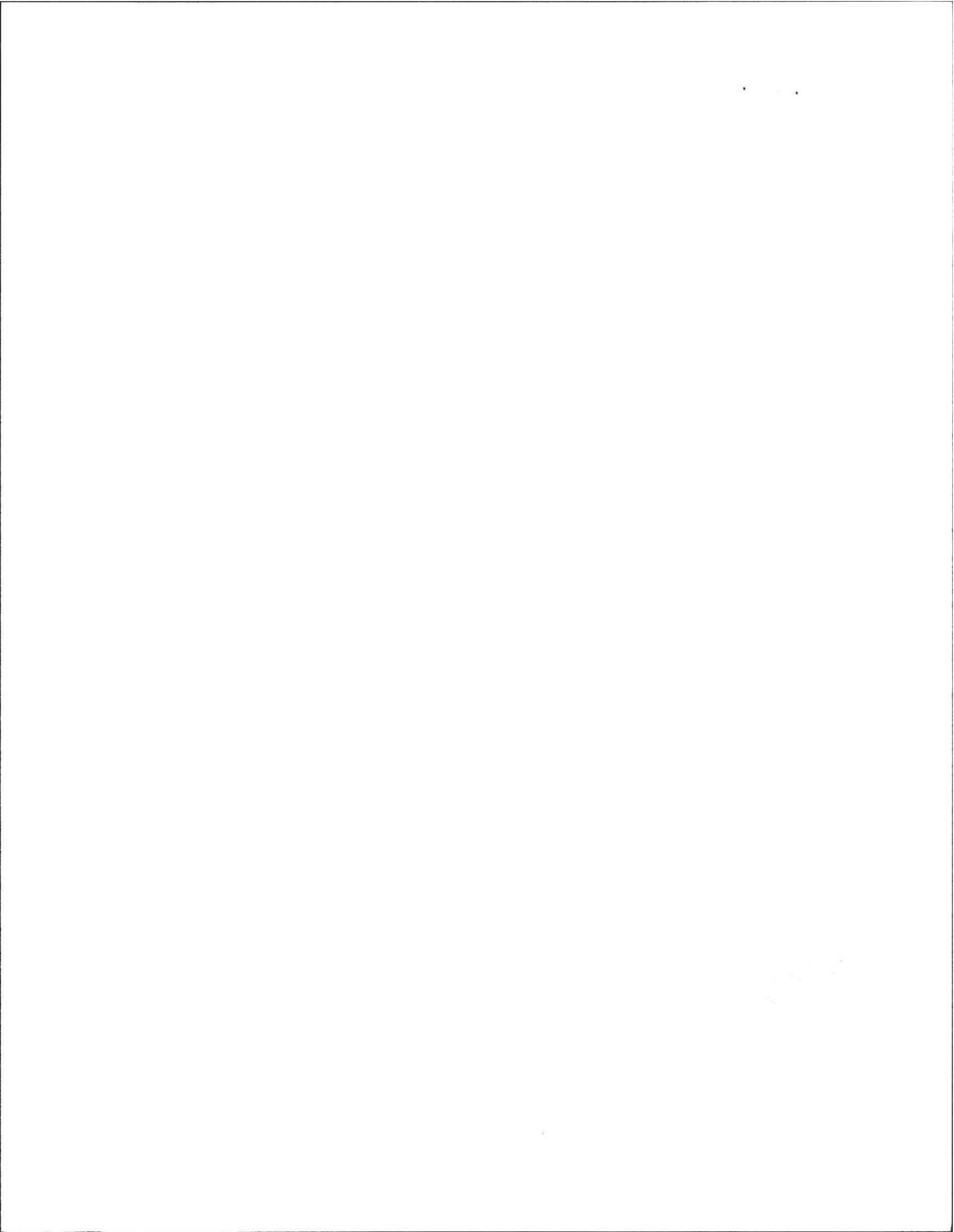
If not, what is the depth of naturally occurring pervious material? \_\_\_\_\_

Certification

I certify that on 6/15 (date) I have passed the soil evaluator examination approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature AE Date 12-15-09



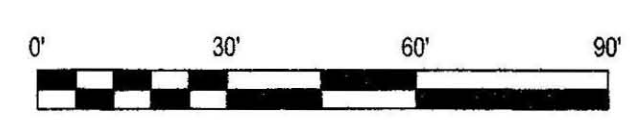
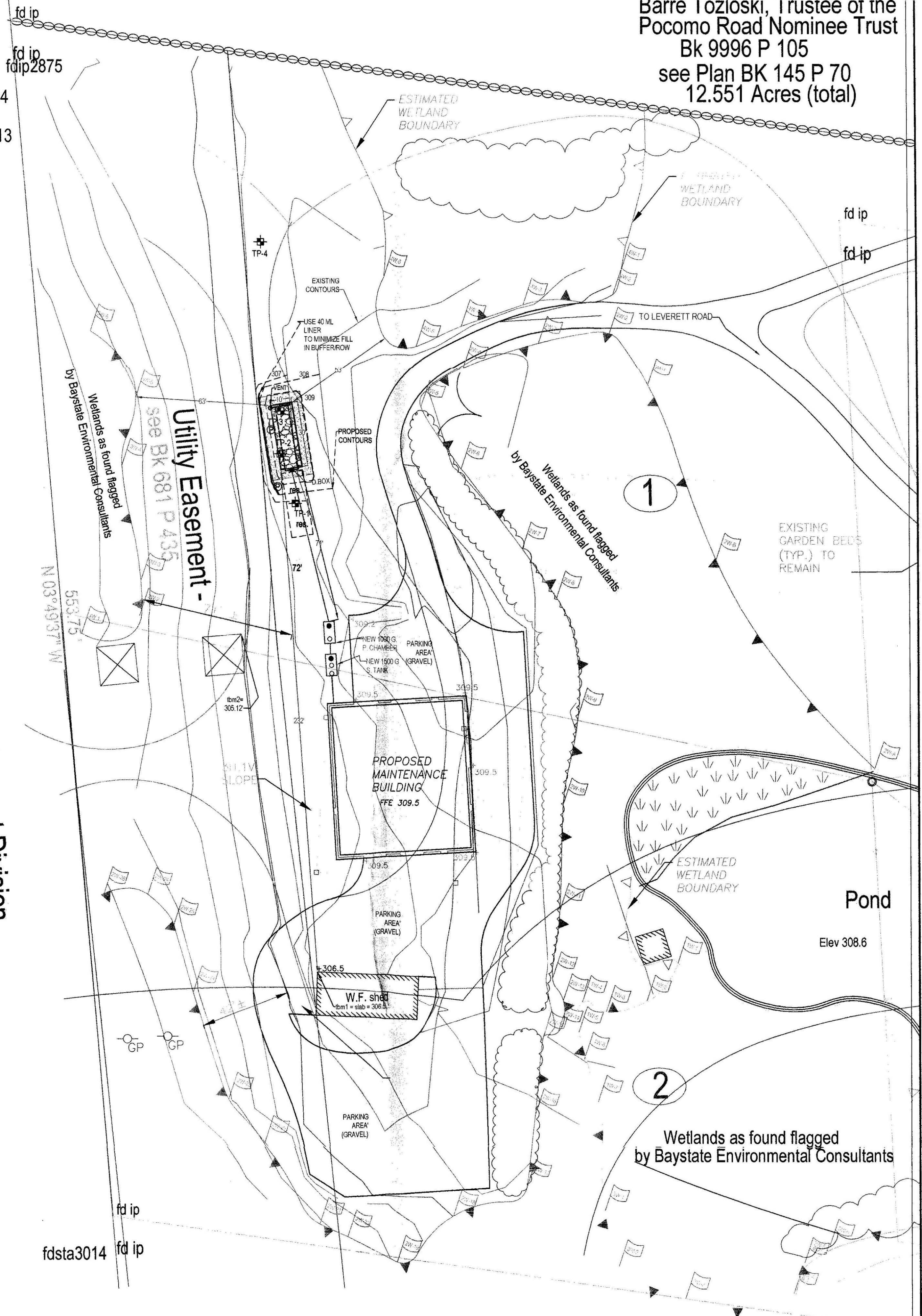




Barre Tozloski, Trustee of the  
 Pocomo Road Nominee Trust  
 Bk 9996 P 105  
 see Plan BK 145 P 70  
 12.551 Acres (total)

fdsta3004  
 fdsta2413

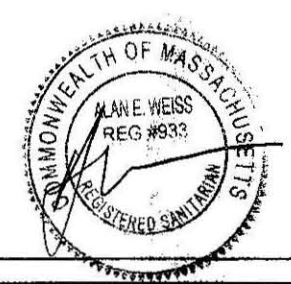
Canadian National Railroad - Central Vermont Division



PLOT PLAN PROVIDED TO COLD SPRING ENVIRONMENTAL BY  
 BAYSTATE ENVIRONMENTAL CONSULTANTS INC.  
 (THAT PLOT REFERENCES SURVEY BY ROSE ASSOCIATES SEPT. 2007)

SEPTIC SYSTEM PLAN  
 SCALE: 1"=30'  
 12.55± Ac.

NOTE TO HOMEOWNER: MOUNDS, WHERE USED, ARE REQUIRED BY STATE CODE TO MAXIMIZE THE DISTANCE FROM THE BOTTOM OF THE LEACHING FIELD TO THE TOP OF THE ESTIMATED HIGH GROUNDWATER. THIS "SEPARATION" FROM HIGH GROUNDWATER (3.4, OR 5 FEET), IS NOT THE SAME AS THE HEIGHT OF THE FINISHED MOUND SURFACE. THE ACTUAL FINISHED MOUND IS TYPICALLY HIGHER THAN THE "SEPARATION". BY SIGNING PERMIT YOU ACKNOWLEDGE THAT COLD SPRING ENVIRONMENTAL CONSULTANTS INC. IS NOT RESPONSIBLE FOR THE AESTHETICS OF FILLED OR MOUNDED SYSTEMS.



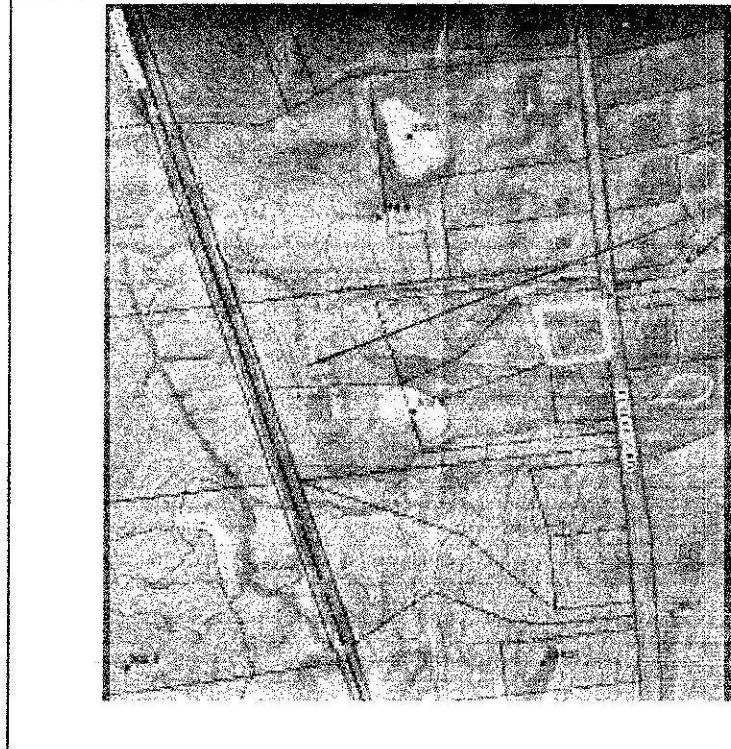
SEPTIC SYSTEM PLAN FOR MAINTENACE BUILDING PARAFFIN Co.  
 260 REAR LEVERETT ROAD  
 AMHERST, MA.

**Cold Spring Environmental Consultants Inc.**  
 350 Old Enfield Road  
 Belchertown, MA 01007

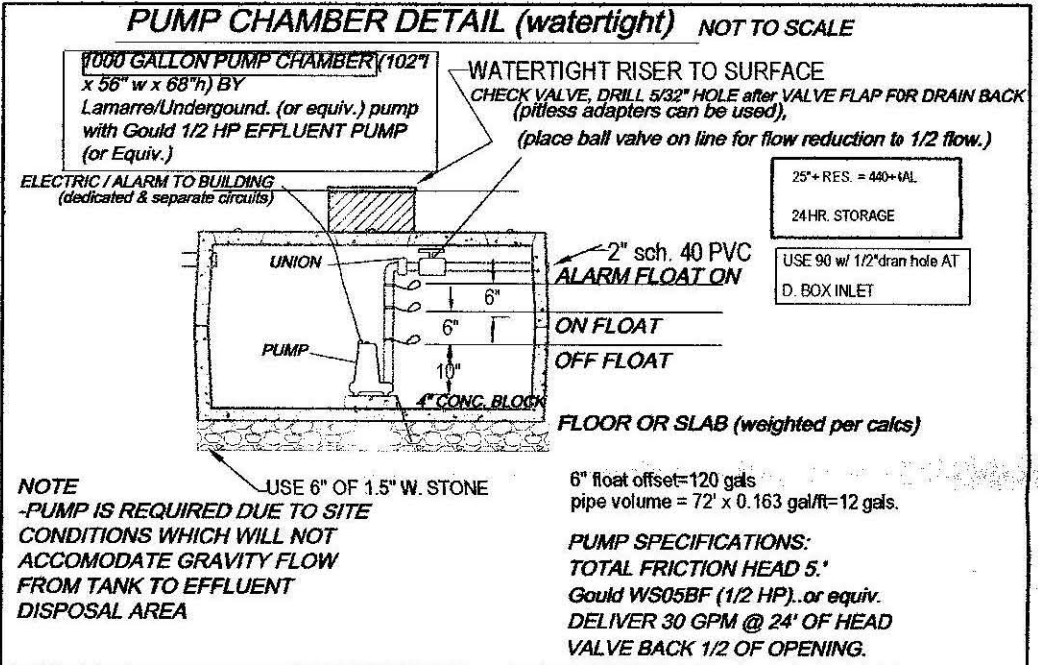
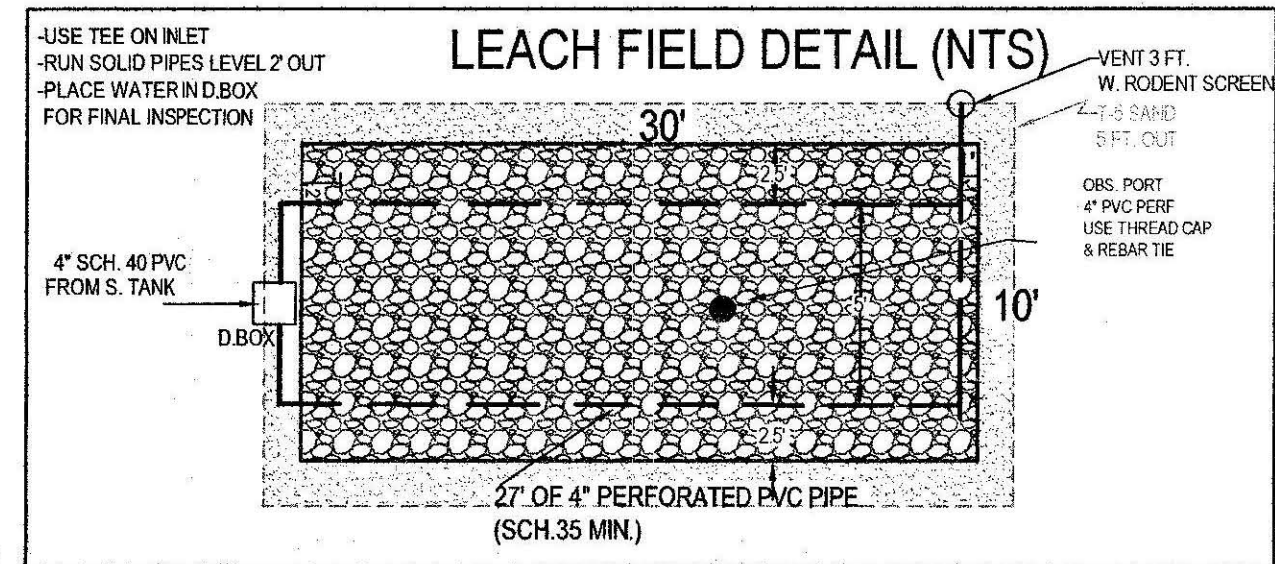
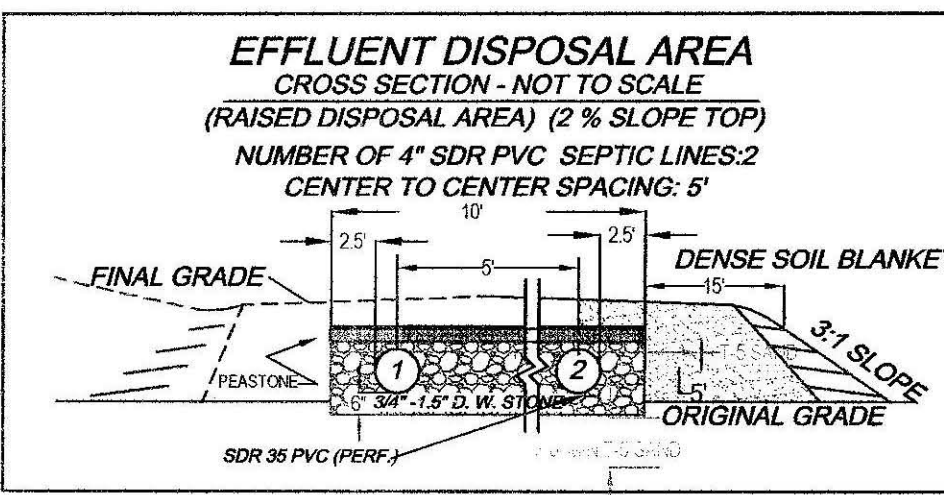
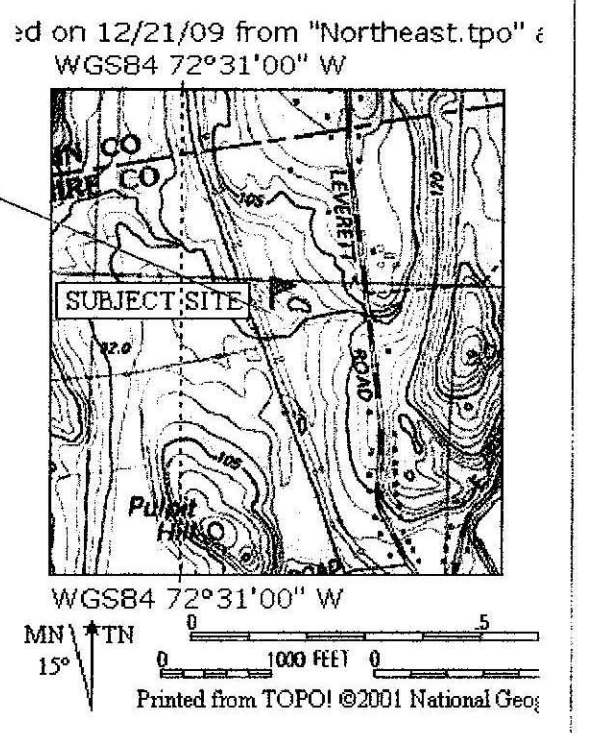
PHONE: (413) 323-5957  
 FAX: (413) 323-4916  
 e-Mail: AEW@CS@charter.net

DATE: 12/21/09	DRAWN BY: ARS	PAGE 1 OF 2
SCALE: 1"=30'	CHECKED BY: AEW	DRAWING NUMBER: 109-3790-1214

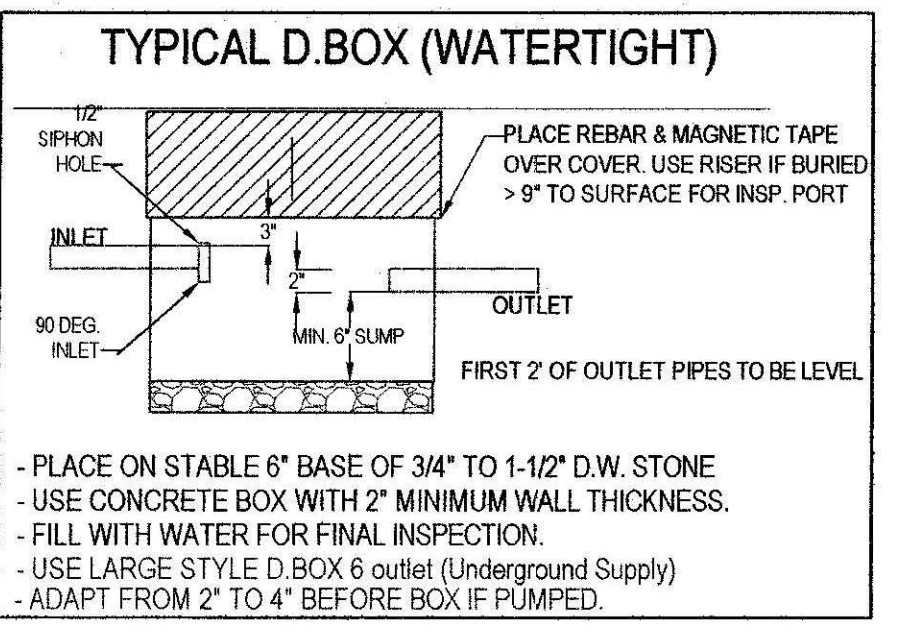
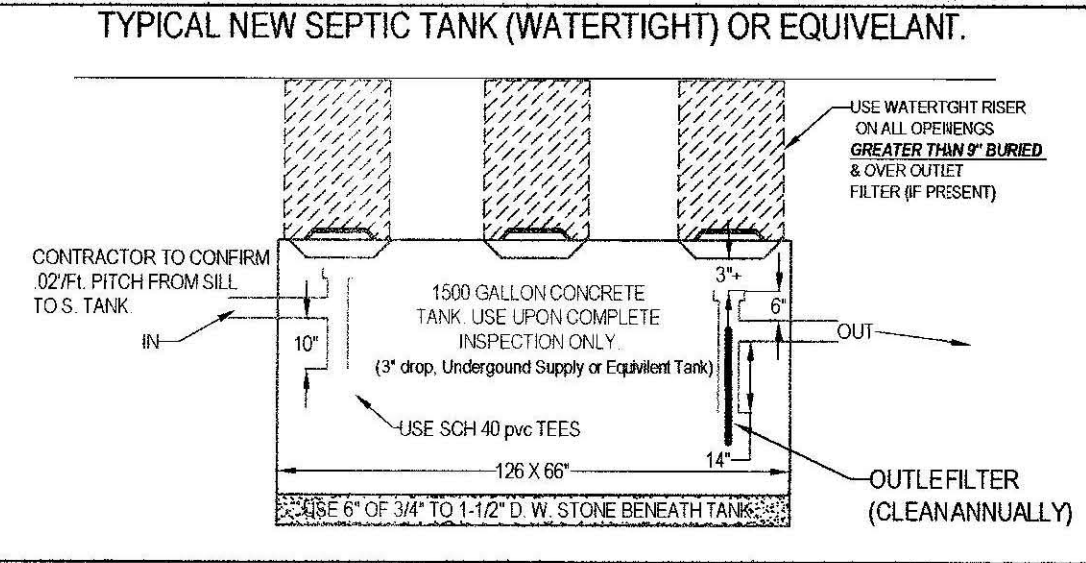
TEST PIT LOG:				SOIL EVALUATOR: ALAN WEISS				DATE OF EVALUATION: 12/15/09			
TP-1 EFF. ELEV. 306.4'				TP-2 EFF. ELEV. 306.4'				TP-3 EFF. ELEV. 306.4'			
DEPTH:	HORIZ. TEXTURE:	MOISTURE:	MATERIAL:	DEPTH:	HORIZ. TEXTURE:	MOISTURE:	MATERIAL:	DEPTH:	HORIZ. TEXTURE:	MOISTURE:	MATERIAL:
0-6	A	FSL	10 YR 33	0-6	A	FSL	10 YR 33	0-6	A	FSL	10 YR 33
6-12	Bw	SL	7.5 YR 46	6-13	Bw	SL	7.5 YR 46	6-16	Bw	SL	7.5 YR 46
12-108	C1	LS	7.5 YR 46	13-80	C1	LS	7.5 YR 46	16-78	C1	LS	7.5 YR 46
F.M. SANDY GRAVELLY ABLATION TILL MOD FIRM				F.M. SANDY GRAVELLY ABLATION TILL MOD FIRM				F.M. SANDY GRAVELLY ABLATION TILL MOD FIRM			
OXIDES: 10 YR 6B OBSERVED @ 36"				OXIDES: 10 YR 6B OBSERVED @ 36"				OXIDES: 10 YR 6B OBSERVED @ 36"			
EHW: 36" - 303.4'				EHW: 36"				EHW: 36"			
STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED			
WEEPING: 70"				WEEPING: 70"				WEEPING: 59"			
BEDROCK: 108"+				BEDROCK: 80"+				BEDROCK: 78"+			



SUBJECT SITE LOCATION

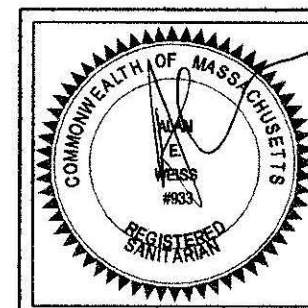
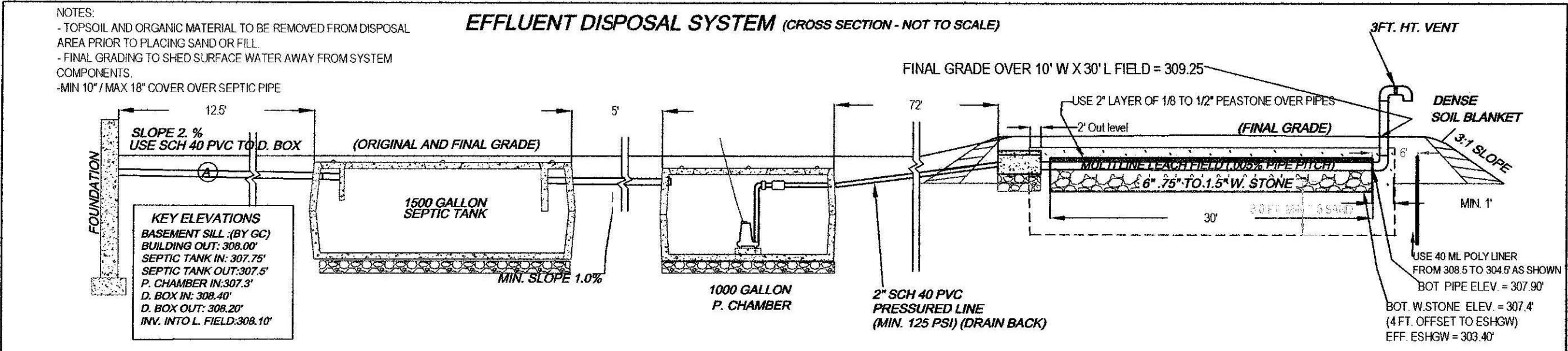


- PUMP CHAMBER/MOUNDED SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER:**
- HAVE SEPTIC TANK PUMPED EVERY SECOND (2) YEARS.
  - HAVE Tank, PUMP AND PUMP CHAMBER & OUTLET FILTER & D BOX INSPECTED ANNUALLY. OUTLET FILTER MUST BE CLEANED ANNUALLY.
  - MAKE CERTAIN TO TEST HI WATER SHUT OFF ALARM ANNUALLY.
  - MAINTAIN AREA OVER SEPTIC AS GRASSY OR SIMILAR GROUND COVER ATTEMPTING TO MAXIMIZE SUNLIGHT TO AREA.
  - DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF LEACHFIELD.
  - USE ONLY LIQUID DETERGENTS IN WASHER OR DISHWASHER.
  - CONSERVE WATER WHEREVER POSSIBLE TO LENGTHEN LIFE OF SYSTEM. USE WATER SAVING DEVICES AND FIXTURES ONLY.
  - KEEP ALL RUNOFF DRAINS SUCH AS GUTTERS OR CURTAIN DRAINS AT LEAST 25 FEET FROM LEACHING FIELD.



- DESIGN NOTES AND CALCULATIONS:**
- COMMERCIAL BUILDING - 15 GPD PER PERSON X 10 PERSON = MINIMUM 150 GPD
  - USE ONE FIELD: 10' WIDE X 30' LONG WITH 6" OF 3/4" TO 1 1/2" DBL WASHED STONE BELOW INVIERT
    - BOTTOM AREA: 10' W X 30' L = 300 SF.
    - SIDE AREA: 0 SF.
    - TOTAL AREA: 300 SF X 0.60 GAL/SF = 180 GPD
  - GARBAGE DISPOSAL... NOT ALLOWED...
  - NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS.
  - NO OTHER WETLANDS WITHIN 50 FEET OF SAS, NO FILING BY BEC CONSULTANTS, SEPARATE.
  - USE NEW 1,500 GAL. SS. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
    - INSTALL & INSPECT - SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET).
  - INSTALL NEW 1000 G. PUMP CHAMBER
    - NOTE:
      - ALL COMPONENTS OF NEW SYSTEM MUST BE MARKED WITH MAGNETIC TAPE BE SURE TO MAINTAIN 3" CLEARANCE FROM TOP OF TEES TO BOTTOM OF TANK COVERS & BOXES.
  - USE LARGE STYLE (6" OUTLET) D.BOX ONLY.
  - ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2'. BOXES MUST HAVE 2"+ CONC. WALLS
    - NOTE:
      - D. BOXES WITH MORE THAN 9" OF COVER SOIL MUST HAVE RISERS TO 6" OF SURFACE.
  - USE APPROVED (75"-1 1/2") DBL. WASHED STONE UNDER TANK & D. BOX FOR 6".
    - CONFIRM STONE PROPERLY DOUBLE WASHED PRIOR TO PLACEMENT.
  - USE PROPER SCH. 40 PVC TEES AS SHOWN.
  - PRE & POST CONTOURS & RESERVE NOTED.
  - SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQ'D.
  - FIELD DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
  - USE 2% MIN. SLOPE OVER SAS
    - CLEAR TOP AND SUB TO 16" MIN. AS NEEDED (INSPECTION REQUIRED).
    - CLEAR PAST BASE OF B (MIN. 16") & SCARIFY UNDER BED PRIOR TO TITLE V SAND/STONE PLACEMENT.
    - EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
  - SOIL EVALUATION BY A. WEISS, RS. ON 12/15/09 (G. COURTMONDE, BOH AGENT)
    - PERC RATE = 5 & 1/10 MIN/IN.
    - CLASS I (LS) SOIL RATING
  - NO TREES WITHIN 100 FT. OF NEW LEACH FIELD.
  - ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSPECT AT FINAL.
  - BM= (as noted), CONFIRM PROPER PIPE SLOPES
    - INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
  - GRADE MULCH AND SEED OVER SAS AS NOTED.
  - INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
  - USE OBSERVATION PORT NEAR CENTER OF STONE BED HAVE 4" PERFORATED, PVC INSPECTION PORTALS TO BOTTOM OF STONE BED, WITH RISER TO 3" OF SURFACE & THREADED CAP & MARK WITH RE-BAR.

**NOTE TO HOMEOWNER: MOUNDS, WHERE USED, ARE REQUIRED BY STATE CODE TO MAXIMIZE THE DISTANCE FROM THE BOTTOM OF THE LEACHING FIELD TO THE TOP OF THE ESTIMATED HIGH GROUNDWATER. THIS "SEPARATION" FROM HIGH GROUNDWATER (3, 4, OR 5 FEET), IS NOT THE SAME AS THE HEIGHT OF THE FINISHED MOUND SURFACE. THE ACTUAL FINISHED MOUND IS TYPICALLY HIGHER THAN THE "SEPARATION". BY SIGNING PERMIT YOU ACKNOWLEDGE THAT COLD SPRING ENVIRONMENTAL CONSULTANTS INC. IS NOT RESPONSIBLE FOR THE AESTHETICS OF FILLED OR MOUNDED SYSTEMS.**



SEPTIC SYSTEM PLAN FOR MAINTENACE BUILDING PARAFFIN Co.  
260 REAR LEVERETT ROAD  
AMHERST, MA.  
**Cold Spring Environmental Consultants Inc.**  
350 Old Enfield Road  
Belchertown, MA. 01007

PROJECT: (413) 323-5957  
DATE: 12/21/09  
SCALE: 1"=30'  
DRAWN BY: ARS  
CHECKED BY: AEW  
PAGE 2 OF 2  
DRAWING NUMBER: 109-3790-1214

**ATTENTION INSTALLER!**  
CALL DIG SAFE BEFORE YOU DIG! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 40 - 40E REQUIRE THAT PREMARKING OF GAS, ELECTRIC, WATER, TELEPHONE AND CABLE T.V. UTILITY LINES BE MADE A MINIMUM OF 72 HOURS PRIOR TO GROUND BREAK FOR ANY EXCAVATION.

NOTE: INSTALLER MUST CONTACT ENGINEER/BD OF HEALTH 48 HOURS PRIOR TO SUBGRADE INSPECTION. INSTALLER MUST HAVE ALL BREAK OUT FILL ON SITE AND IN PLACE PRIOR TO SIGN OFF BY ENGINEER AT TIME OF FINAL INSPECTION OR APPROVAL WILL NOT BE GIVEN TO BACKFILL.

PERMITS/INSP PAYMENT RECPT#: 10054341  
\*\*\*TOWN OF AMHERST\*\*\*  
TOWN HALL  
4 BOLTWOOD AVENUE  
AMHERST MA 01002

DATE: 12/23/09 TIME: 11:33  
CLERK: mirj DEPT:

PAID BY:  
PAYMENT METH: CHECK 012853

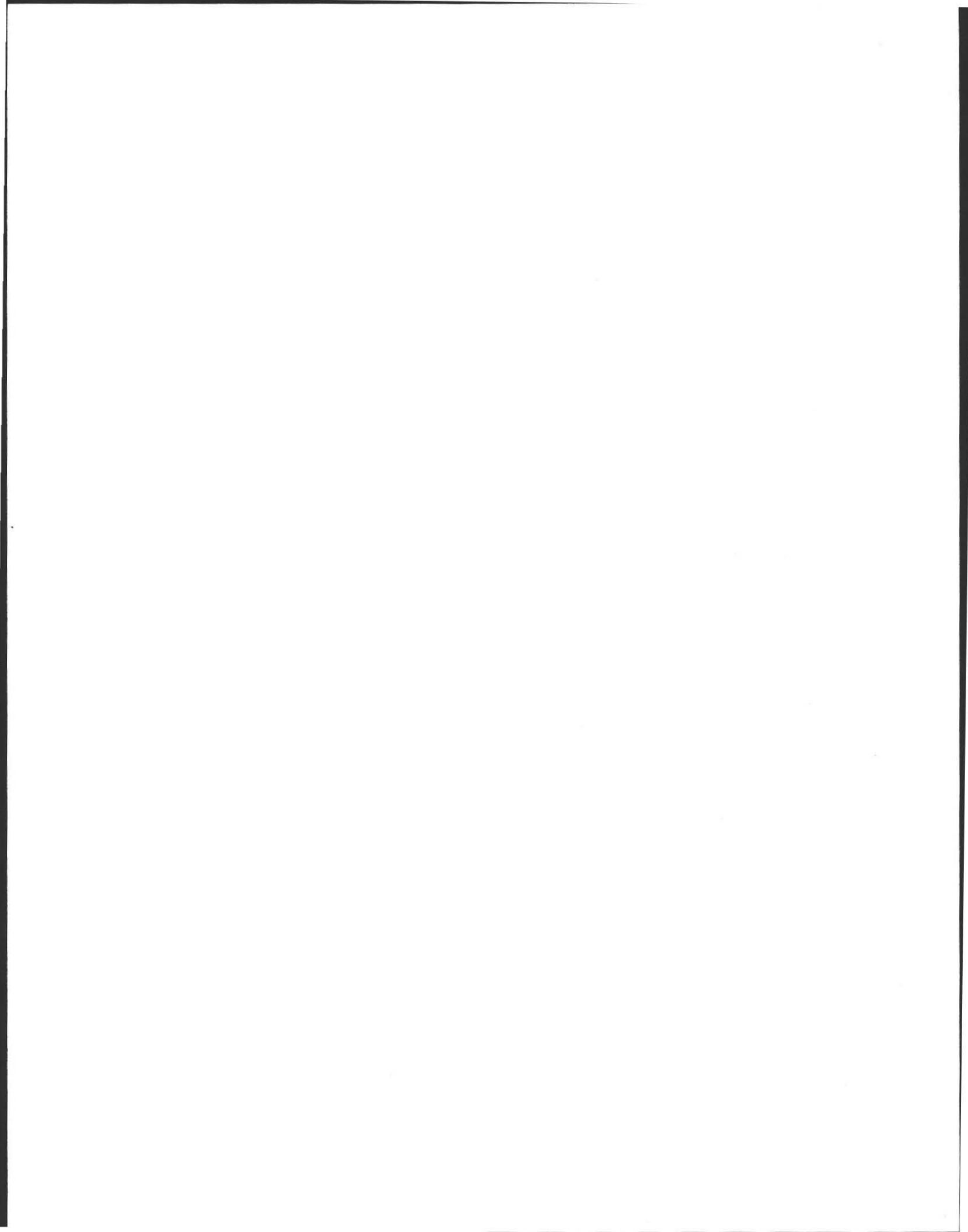
REFERENCE: A

AMT TENDERED: 300.00  
AMT APPLIED: 300.00  
CHANGE: .00

SITE ADDRESS: 260 LEVERETT ROAD

FEEs:  
HEA011 PERCOLATIONS TE 300.00

TOTAL PAID: 300.00



PERMITS/INSP PAYMENT RECPT#: 10054343  
\*\*\*TOWN OF AMHERST\*\*\*  
TOWN HALL  
4 BOLTWOOD AVENUE  
AMHERST MA 01002

DATE: 12/23/09 TIME: 11:35  
CLERK: mirj DEPT:

PAID BY:  
PAYMENT METH: CHECK 012853

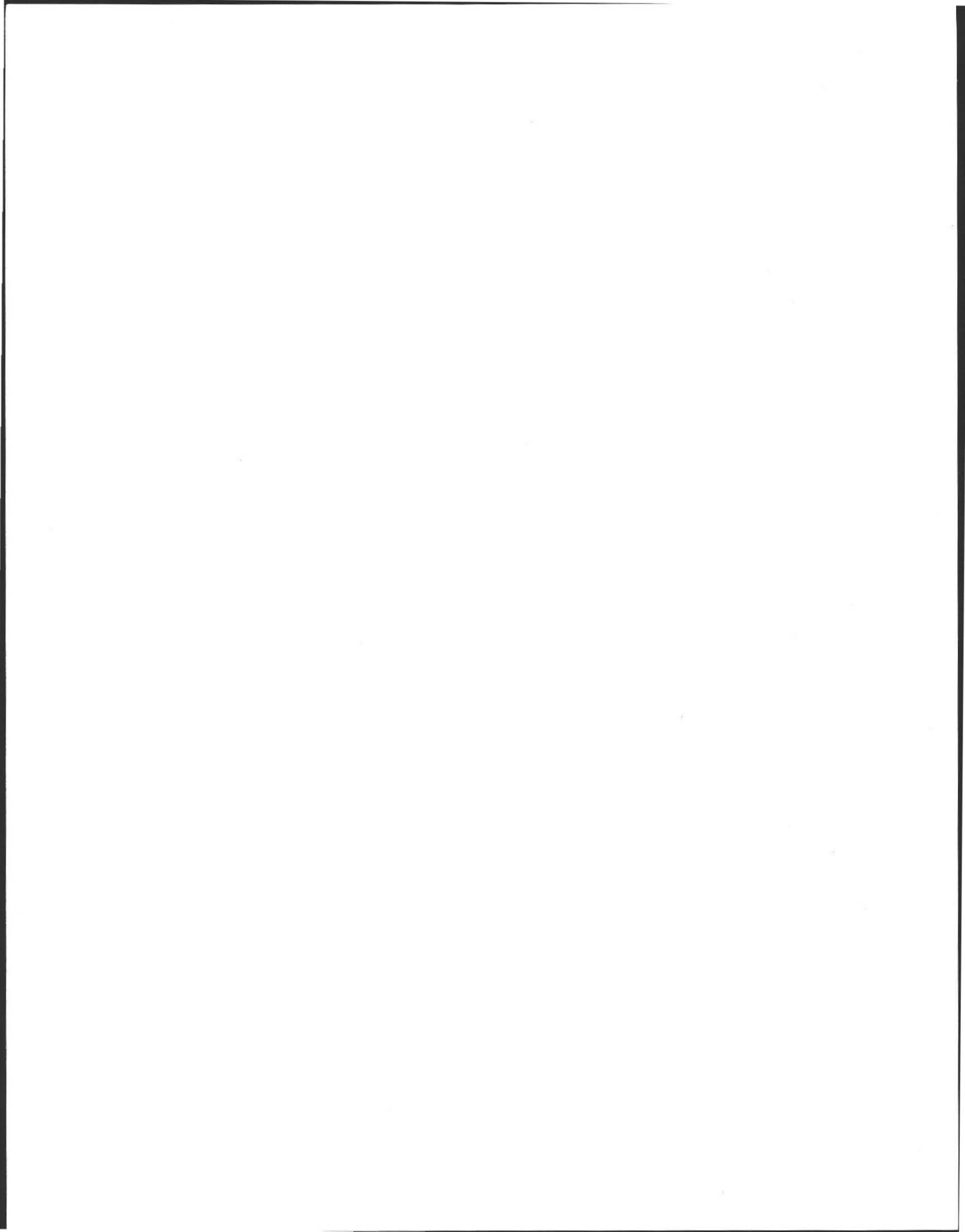
REFERENCE: A

AMT TENDERED: 150.00  
AMT APPLIED: 150.00  
CHANGE: .00

SITE ADDRESS: 260 LEVERETT PLAN

FEES:  
HEA043 PLAN REVIEW 150.00

TOTAL PAID: 150.00



PERMITS/INSP PAYMENT RECPT#: 10054347  
\*\*\*TOWN OF AMHERST\*\*\*  
TOWN HALL  
4 BOLTWOOD AVENUE  
AMHERST MA 01002

DATE: 12/23/09 TIME: 11:48  
CLERK: mirj DEPT:

PAID BY:  
PAYMENT METH: CHECK 012852

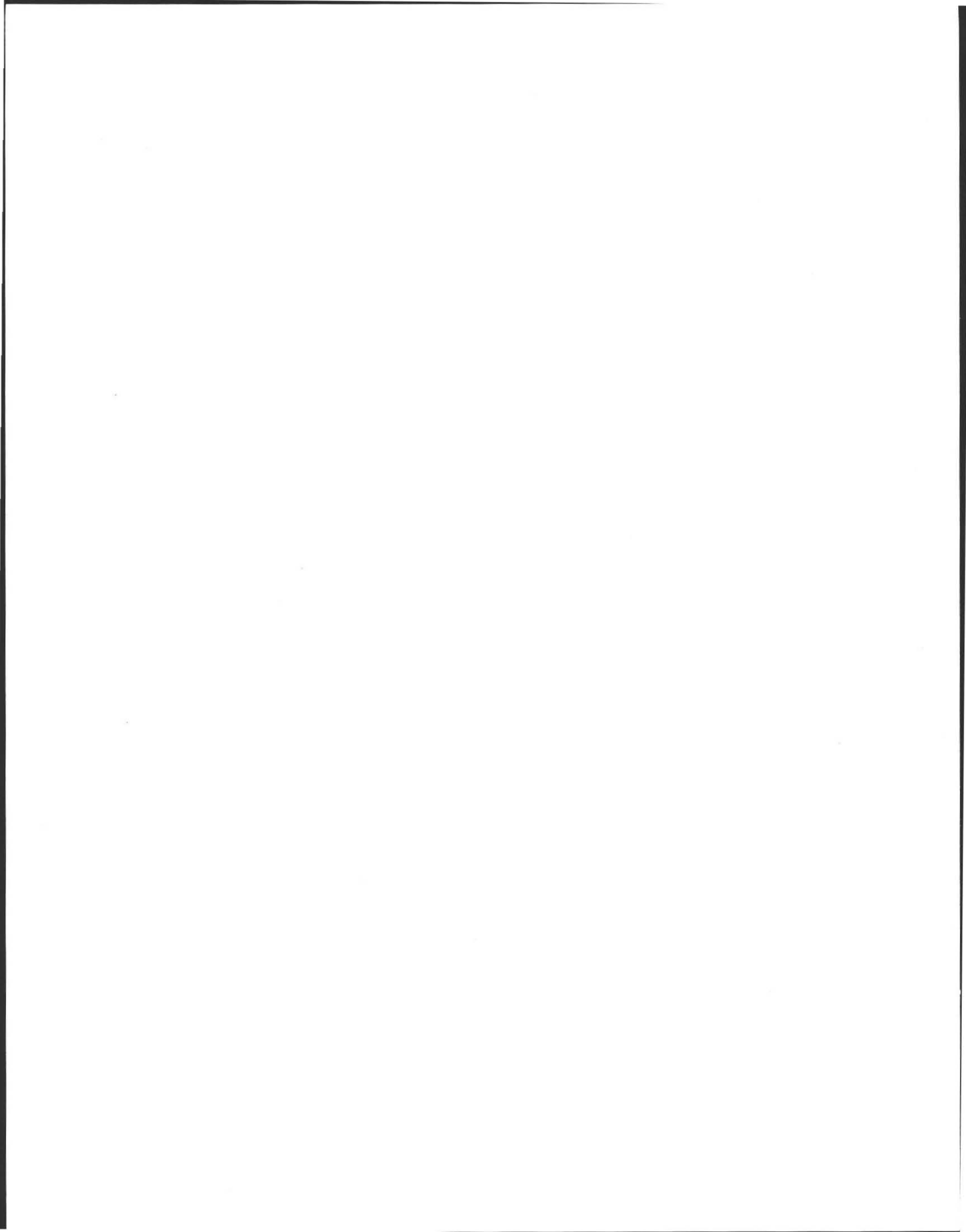
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AMT APPLIED: 150.00  
CHANGE: .00

SITE ADDRESS: 294-304 LEVERETT

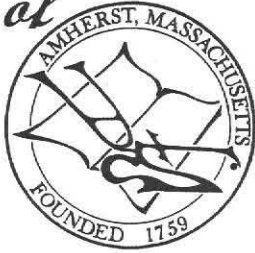
FEES:  
HEA043 PLAN REVIEW 150.00

TOTAL PAID: 150.00





Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002  
(413) 259-3077 (413) 259-2404 - FAX Environmental Health Division (413) 259-3078

**APPLICATION FOR A WELL CONTRUCTION PERMIT**

I hereby petition the Board of Health of the Town of Amherst for a Well Construction Permit (WCP) to install a private well in the Town of Amherst.

**ATTACHED IS A PLAN SHOWING THE PROPOSED LOCATION OF THE WELL (WITH ORIGINAL DATE, STAMP AND SIGNATURE OF AN ENGINEER REGISTERED SANITARIAN, OR REGISTERED LAND SURVEYOR) MEETING ALL THE REQUIREMENTS OF AMHERST RULES AND REGULATIONS FOR PRIVATE WELLS.**

1. Address of Property: \_\_\_\_\_
2. Assessor of Parcel Number: \_\_\_\_\_
3. Name of Owner: \_\_\_\_\_ Telephone Number: \_\_\_\_\_  
Address of Owner: \_\_\_\_\_
4. Name of Well Driller: \_\_\_\_\_  
(Must be registered with Massachusetts Water Resources Commission)
5. Purpose of Well:     \*Drinking (  )     Agricultural Only (  )

The undersigned acknowledges that he must, before commencing construction or use of the system which is the matter of this application, secure any and all other permits which may be required by the laws of the Town of Amherst and the Commonwealth of Massachusetts, and agree to abide by all regulations of the Town of Amherst and the Commonwealth of Massachusetts concerning private wells.

- The undersigned also understands that if a private well is to be used for drinking purposes, a **BUILDING PERMIT** affecting the structure the well is to serves **WILL NOT BE ISSUED UNTIL A Water Supply Certificate** has been granted by the Amherst Board of Health.

Name of Applicant: \_\_\_\_\_ Fee: \$100.00

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

WELL PERMIT # \_\_\_\_\_



**AMHERST BOARD OF HEALTH REGULATIONS FOR  
PRIVATE WELLS**

**Adoption Date: October 30, 2008**

---

**I. PURPOSE**

These regulations are intended to protect the public health and general welfare by ensuring that private wells are constructed in a manner which will protect the quality of the groundwater derived from private wells.

**II. AUTHORITY**

These regulations are adopted by the Amherst Board of Health, as authorized by Massachusetts General Laws, Chapter III, section 31. These regulations supersede all previous regulations adopted by the Board of Health pursuant to the construction of private wells. These regulations are derived from the Massachusetts Department of Environmental Protection Model Board of Health Regulations for Private Wells, October 30, 1989, as revised February 1998.

**III. DEFINITIONS**

Agent: Any person designated and authorized by the Board to enforce these regulations. The agent shall have all the authority of the appointing Board and shall be directly responsible to the Board and under its direction and control.

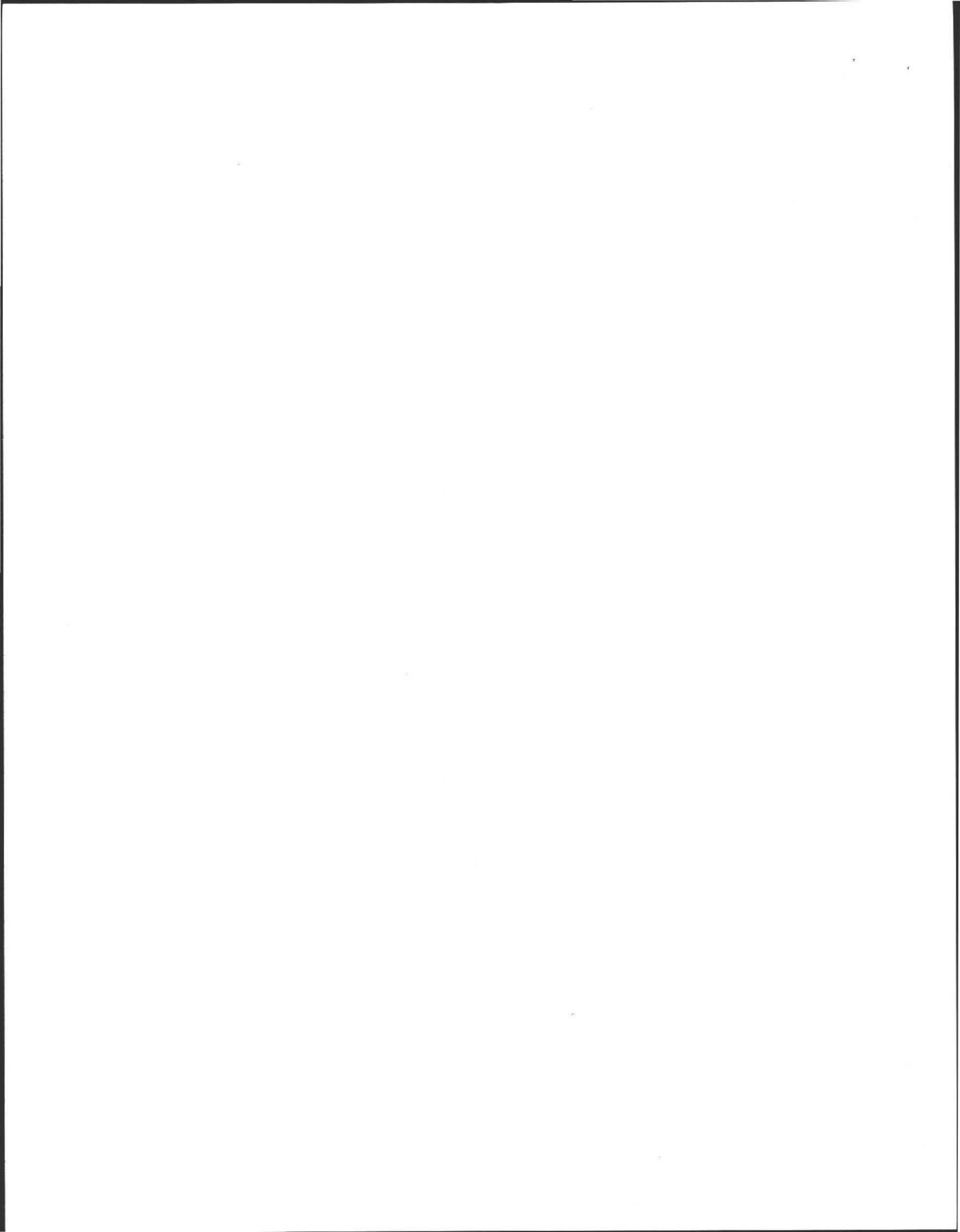
Applicant: Any person who intends to have a private well constructed and is applying for a permit for same.

Board: The Board of Health of Amherst, Massachusetts or its authorized agent.

Casing: Impervious durable pipe placed in a boring to prevent the walls from caving and to serve as a vertical conduit for water in a well.

Certified Laboratory: Any laboratory currently certified by the Massachusetts Department of Environmental Protection for analysis of drinking water. Provisional certification shall also qualify.

Person: An individual, corporation, company, association, trust, or partnership.



Private Well: Any dug, driven, or drilled hole, with a depth greater than its largest surface diameter developed to supply water intended and/or used for human consumption and not subject to regulation by 310 CMR 22.00.

Pumping Test: A procedure used to determine the characteristics of a well and adjacent geologic formation by installing and operating a pump.

Registered Well Driller: Any person registered with the Department of Environmental Management/Office of Water Resources to dig or drill wells in the Commonwealth of Massachusetts.

Static Water Level: The level of water in a well under non-pumping conditions.

Structure: A combination of materials assembled at a fixed location to give support or shelter, such as a building, framework, retaining wall, fence, or the like.

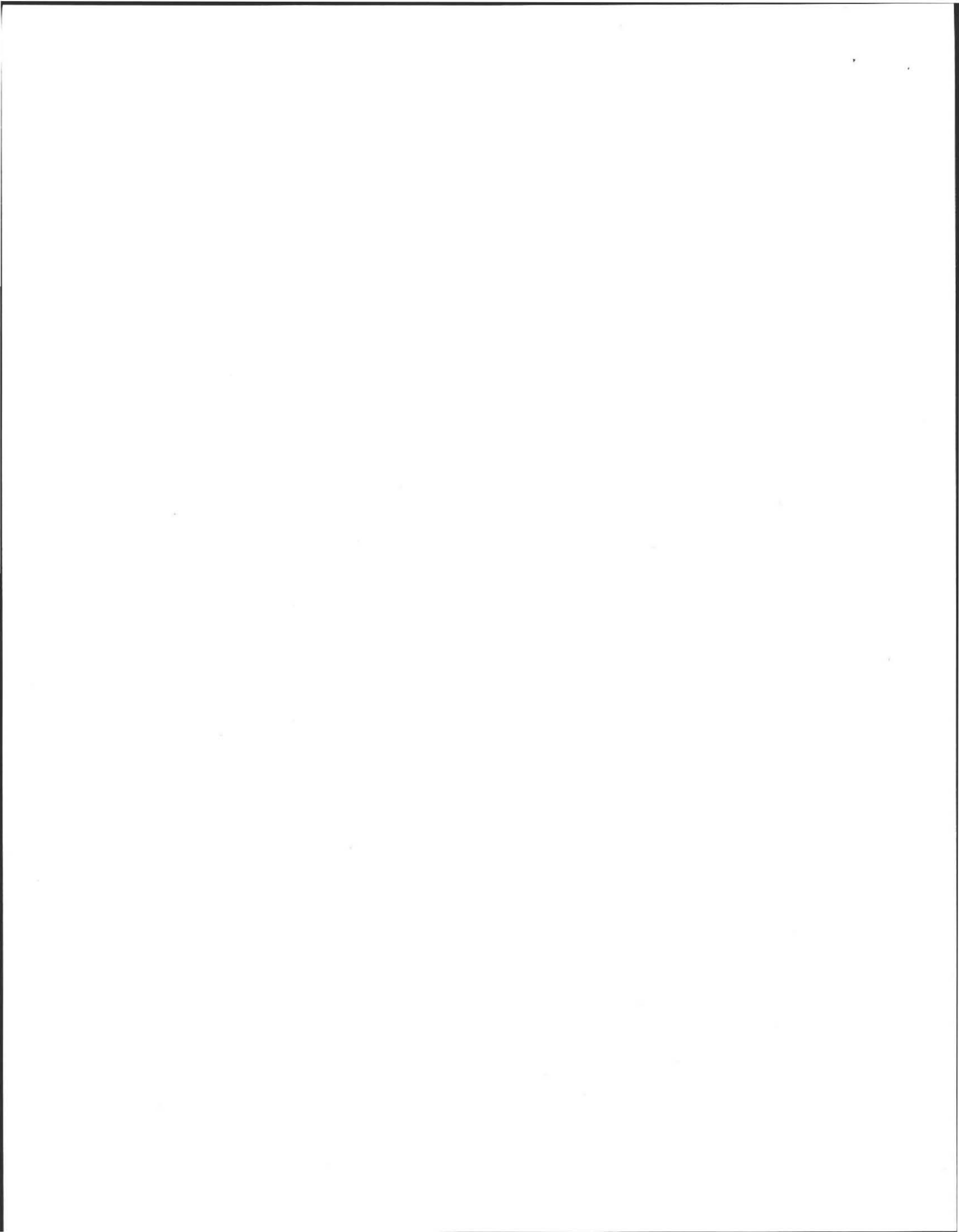
#### IV. WELL CONSTRUCTION PERMIT

The property owner or his designated representative shall obtain a permit from the Board of Health prior to the commencement of construction of a private well.

Each permit application to construct a well shall include the following:

- ✓1) the property owner's name and address ✓
- 2) the well driller's name and proof of valid state registration
- ✓3) a plan with a specified scale showing the location of the proposed well in relation to existing or proposed above or below ground structures on the subject property. *2 signed copies.*
- 4) a written description of visible prior and current land uses within two-hundred (200) feet of the proposed well location, which represent a potential source of contamination, including but not limited to the following:
  - a) existing and proposed structures
  - b) subsurface sewage disposal systems
  - c) subsurface and above ground fuel storage tanks
  - d) public ways
  - e) utility rights-of-way
  - f) any other potential sources of pollution.
- 5) proof that the owner of any property within one hundred and fifty (150) feet of the well and all property abutters have been notified by registered or certified mail, return receipt requested, of the applicant's intention to install a well.
- 6) a permit fee of \$100.00

The permit shall be posted in a visible manner on site at all times that work is taking place. Each permit shall expire one (1) year from the date of issuance unless revoked for cause. Permits may be extended for one additional six (6) months period provided that a



written request has been received by the Board prior to the one year expiration date, and the Board subsequently votes to grant such an extension. No additional fee shall be charged for a permit extension, provided there is no change in the plans for the proposed well.

Well Construction Permits are not transferable.

#### V. WATER SUPPLY CERTIFICATE

The issuance of a Water Supply Certificate by the Board shall certify that the private well may be used as a drinking water supply. No person shall use a private well, installed after the effective date of these regulations, as a drinking water supply without a Water Supply Certificate issued by the Board of Health.

The following shall be submitted to the Board of Health to obtain a Water Supply Certificate:

- a) ~~well construction permit~~
- b) ~~copy of the Water Well Completion Report as required by the DEM Office of Water Resources (313 CMR 3.00)~~
- c) ~~a copy of the Pumping Test Report required pursuant to Section VII of these regulations~~
- d) ~~a copy of the Water Quality Report required pursuant to Section VIII of these regulations.~~

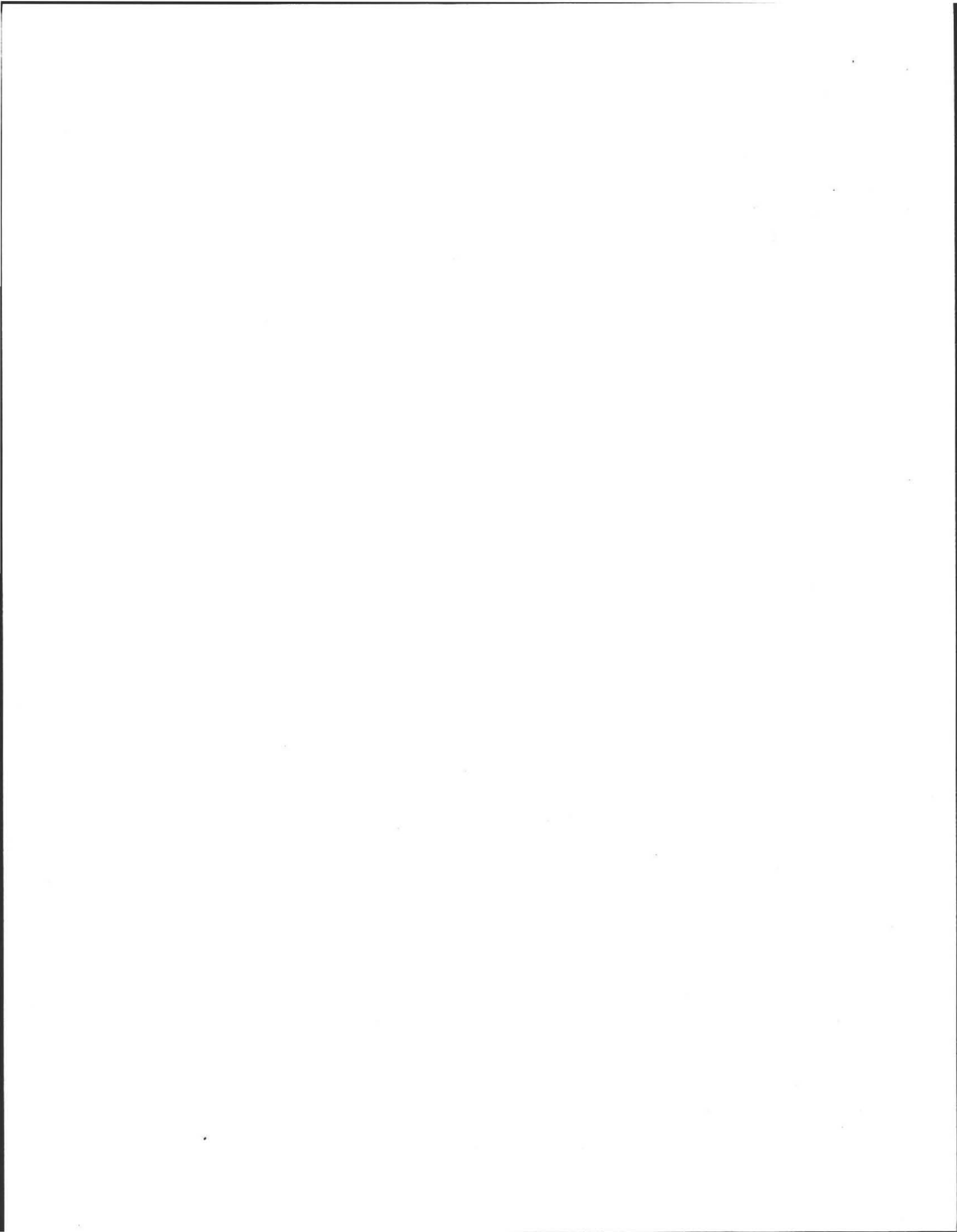
Upon the receipt and review of the above documents, the Board shall make a final decision on the application for a Water Supply Certificate. A final decision shall be in writing and shall comprise one of the following actions:

- a) Issue a Water Supply Certificate
- b) Deny the applicant a Water Supply Certificate and specify the reasons for the denial.
- c) Issue a conditional Water Supply Certificate with those conditions which the Board deems necessary to ensure fitness, purity and quantity of the water derived from that private well. Said conditions may include but not be limited to requiring treatment or additional testing of the water.

It shall be the responsibility of the applicant to transmit a copy of any issued Water Supply Certificate or conditional Water Supply Certificate to the Building Commissioner in association with any request for a certificate ~~of a certificate~~ of occupancy for any building(s) to be served by a private well.

#### VI. WELL LOCATION AND USE REQUIREMENTS

In locating a well, the applicant shall identify all potential sources of contamination which exist or are proposed within two hundred (200) feet of the site. When possible, the well shall be located upgradient of all potential sources of contamination and shall be as





far removed from potential sources of contamination as possible, given the layout of the premises.

Each private well shall be accessible for repair, maintenance, testing, and inspection. The well shall be completed in a water bearing formation that will produce the required quantity of water under normal operating conditions.

Each private well shall be located at least ten (10) feet from any property line. The centerline of a well shall, if extended vertically, clear any projection from an adjacent structure by at least five (5) feet.

All private wells shall be located a minimum of 25 feet away from the normal driving surface of any public roadway or a minimum of 15 feet from property boundary of the road right-of-way, whichever is greater.

Each private well shall be located at least 25 feet, laterally, from the normal high water mark of any lake, pond, river, stream, ditch, or slough. When possible, private water systems shall be located in areas above the 100-year floodplain.

A suction line or well shall be located a minimum of 10 feet from a building sewer constructed of durable corrosion resistant material with watertight joints, or 50 feet from a building sewer constructed of any other type of pipe; 50 feet from a septic tank; 100 feet from a leaching field; and 100 feet from a privy.

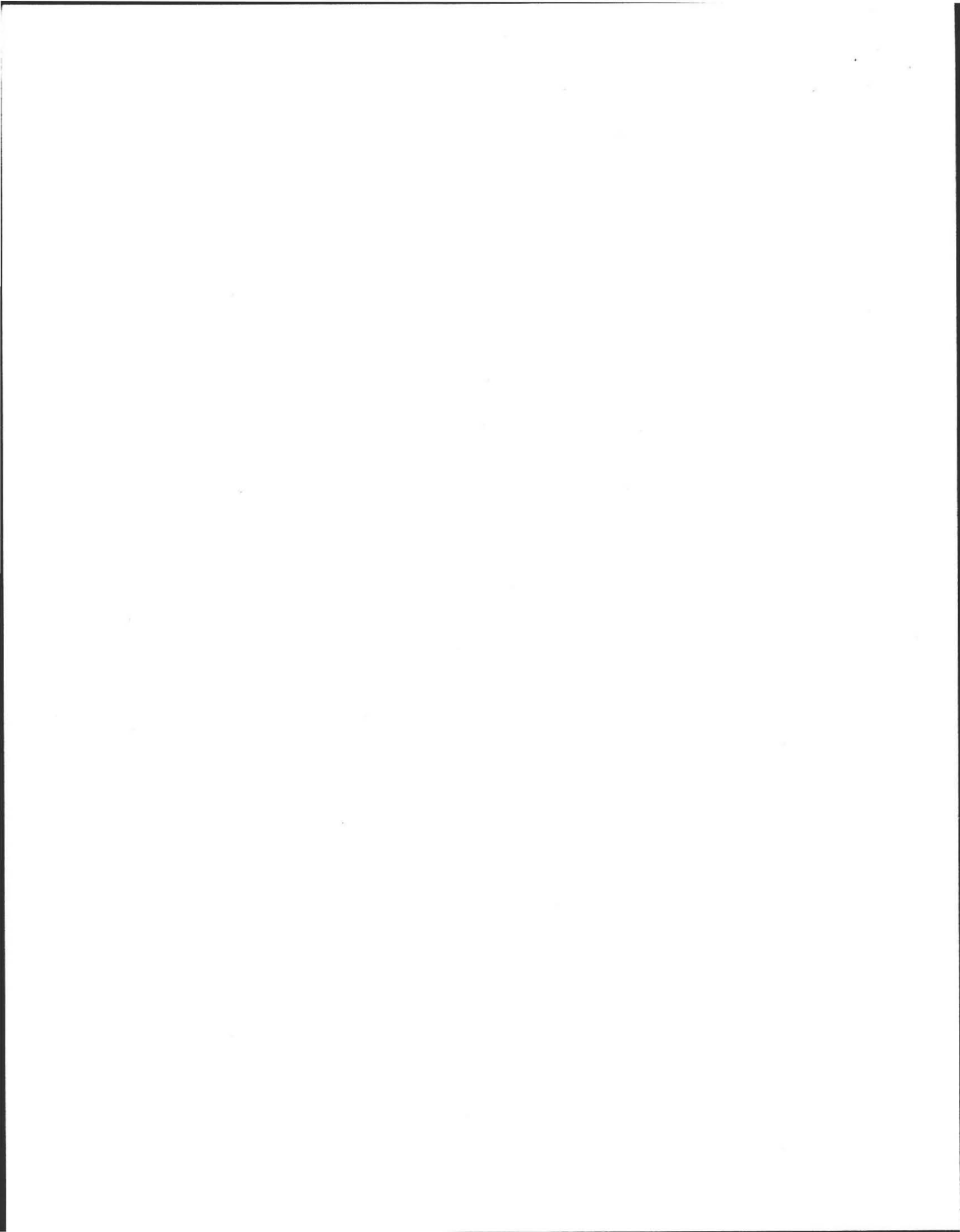
Water supply lines shall be installed at least 10 feet from and 18 inches above any sewer line. Whenever water supply lines must cross sewer lines, both pipes shall be constructed of class 150 pressure pipe and shall be pressure tested to assure a watertight-condition.

The Board reserves the right to impose greater dimensional requirements than those listed, and to impose minimum lateral distance requirements from other potential sources of contamination not listed above. All such special well location requirements shall be listed, in writing, as a condition of the well construction permit.

No private well, or its associated distribution system, shall be connected to either the distribution system of a public water supply system or any type of waste distribution system.

## VII. WATER QUANTITY REQUIREMENTS

The applicant shall submit to the Board for review and approval a Pumping Test Report. The Pumping Test Report shall include the name and address of the well owner, description of well location if different from that described in the well construction permit application, date the pumping test was performed, depth at which the pump was set for the test, location for the discharge line, static water level immediately before



pumping commenced, discharge rate and, if applicable, the time the discharge rate changed, pumping water levels and respective times after pumping commenced, maximum drawdown during the test, duration of the test, including both the pumping time and the recovery time during which measurements were taken, recovery water levels and respective times after cessation of pumping, and reference point used for all measurements.

In order to demonstrate the capacity of the well to provide adequate water a Required Volume is pumped during the test. The Required Volume is calculated as follows:

1. The volume of water necessary to support the household's daily need shall be determined using the following equation: (number of bedrooms plus one bedroom) x (110 gallons per bedroom) x (a safety factor of 2) = number of gallons needed daily.
2. The storage capacity of the well shall be determined using the measured static water level and the depth and radius of the drillhole or casing.
3. The Required Volume shall be calculated by adding the volumes of water in (1) and (2) above.

Successful completion of the pumping test requires

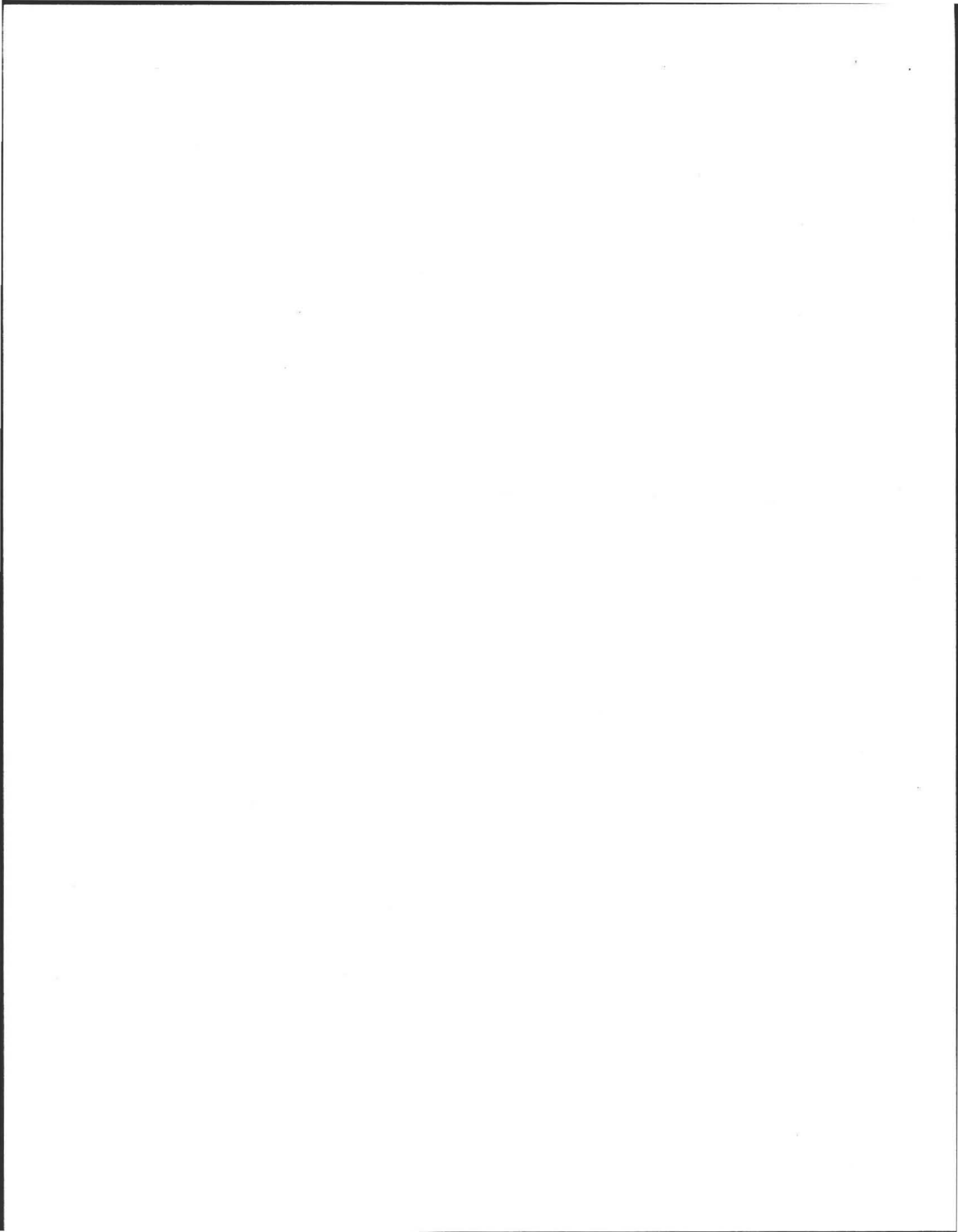
- a) that the well be pumped at a sustained rate of at least 0.5 gallons per minute
- b) that the Required Volume be pumped from the well within a period not to exceed 24-hours.
- c) that, within a twenty-four (24) hour period after the cessation of pumping, the water level in the well recovers to at least eighty-five (85) percent of the prepumped static water level.

If the well fails to sustain a pumping rate of 0.5 gallons per minute, fails to yield the Required Volume within a 24 hour period, or if the water level in the well fails to recover to within 85 percent of the prepumped static water level within a 24 hour period, the well should be redeveloped, hydrofractured, and/ or deepened. After completing the chosen procedure(s), another pumping test should be conducted.

## VIII. WATER QUALITY TESTING REQUIREMENTS

After the well has been completed and disinfected, and prior to using it as a drinking water supply, a water quality test shall be conducted.

A water sample shall be collected either after purging three well volumes or following the stabilization of the pH, temperature and specific conductance in the pumped well. The water sample to be tested shall be collected at the pump discharge or from a disinfected tap in the pump discharge line. In no event shall a water treatment device be installed prior to sampling.



The water quality test, utilizing an applicable US EPA approved method for drinking water testing shall be conducted by an EPA or Massachusetts certified laboratory and shall include analysis for the parameters listed in Appendix A. Samples taken from wells completed in crystalline bedrock should also be analyzed for radon, arsenic, and selenium. Additionally, in areas where current or historical land use includes agriculture, the sample should be analyzed for pesticides, herbicides, and arsenic. The results shall be compared to Massachusetts drinking water standards for public water supplies.

Following a receipt of the water quality test results, the applicant shall submit a Water Quality Report to the Board which includes:

- 1) a copy of the certified laboratory's test results
- 2) the name of the individual who performed the sampling
- 3) where in the system the water sample was obtained

Because water quality at a well can change over time the Board recommends that the well be retested at intervals not to exceed ten years. More frequent retesting should be conducted if the well is in an agricultural, commercial, industrial or high density residential area. Retesting should also be considered if any of these conditions occur: an extended drought, an extended wet (high water table) period, significant changes in local hydrologic conditions.

The Board reserves the right to require retesting of the above parameters, or testing for additional parameters when, in the opinion of the Board, it is necessary due to local conditions or for the protection of public health, safety, and welfare. All costs and laboratory arrangements for water testing are the responsibility of the applicant.

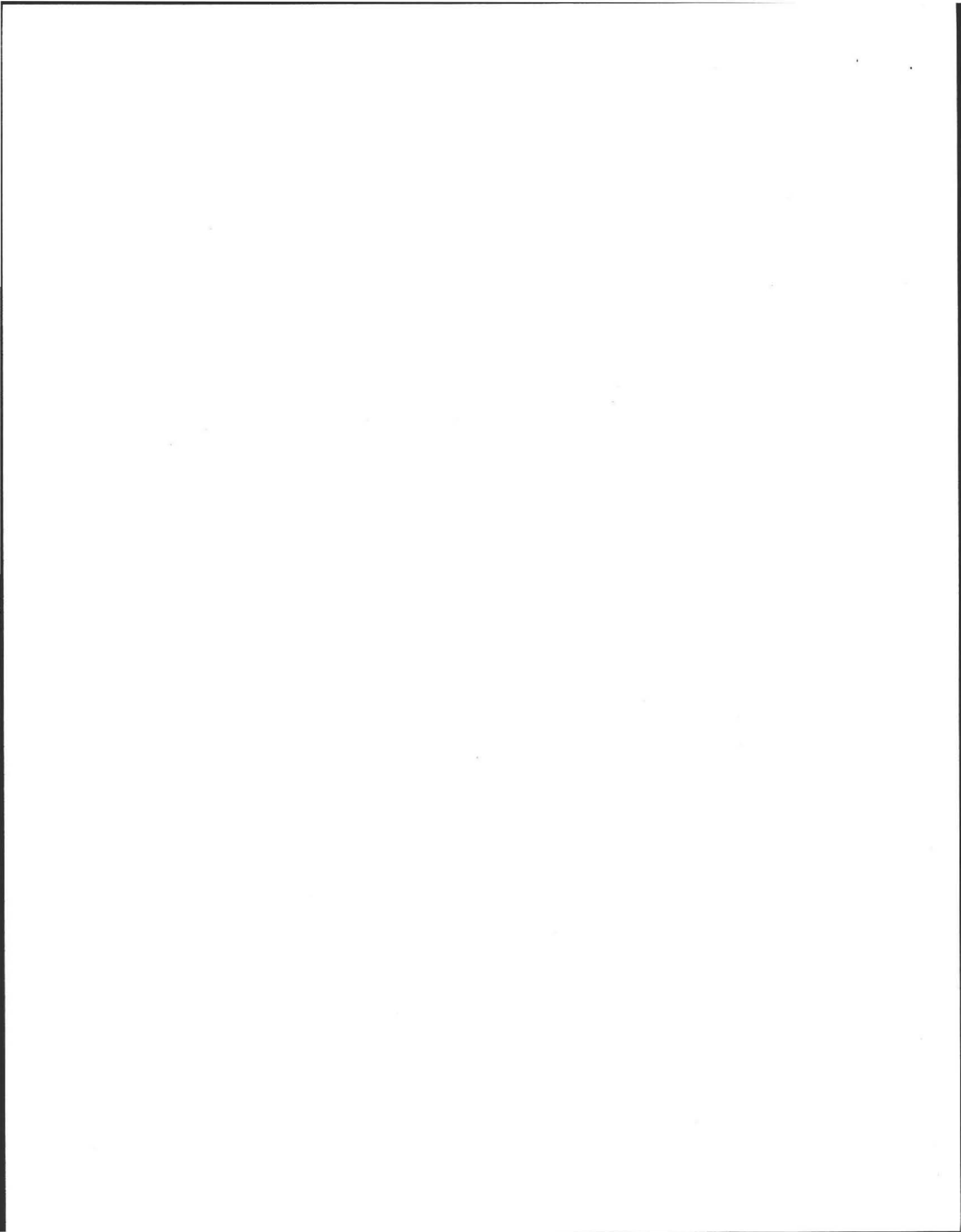
Retesting shall be conducted if the title to the property on which the well is placed is transferred. Exclusions from this requirement follow those described in 310 CMR 15.301 (Title V – for septic systems).

#### IX. WELL CONSTRUCTION REQUIREMENTS

No person shall construct a private well unless they are a Registered Well Driller as defined in these Regulations.

Any work involving the connection of the private well to the distribution system of the residence must conform to the local plumbing code. All electrical connections between the well and the pump controls and all piping between the well and the storage and/or pressure tank in the house must be made by a pump installer or registered well driller, including the installation of the pump and appurtenance in the well or house.

A physical connection is not permitted between a water supply which satisfies the requirements of these regulations and another water supply that does not meet the requirements of these regulations without prior approval of the Board.



All aspects of construction of a well, including well screen, well casing, wellhead completion, grouting and sealing, pumps, and disinfection shall be in accordance with the Massachusetts Department of Environmental Protection Private Well Guidelines.

In addition, the following requirements must be followed:

All private water supply wells shall be designed such that no unsealed opening will be left around the well that could conduct surface water or contaminated groundwater vertically to the intake portion of the well or transfer water from one formation to another.

Private water supply wells shall be constructed using either steel, thermoplastic or precast concrete pipe well casing. The casing shall be of adequate strength and durability to withstand anticipated formation and hydrostatic pressures, the forces imposed on it during installation, and the corrosive effects of the local hydrogeologic environment.

Private wells drilled in bedrock shall be grouted from the top of the weathered rock interface to fifteen (15) feet into competent bedrock.

All wells completed with the casing extending above grade shall have a surface seal designed to eliminate the possibility of surface water flowing down the annular space between the well casing and the surrounding backfilled materials.

All pumps shall be installed either below the frost line with a pitless adapter or in some other heated and protected sanitary location. Above ground pumps shall be installed in sheltered, dry, accessible locations and shall be protected from freezing.

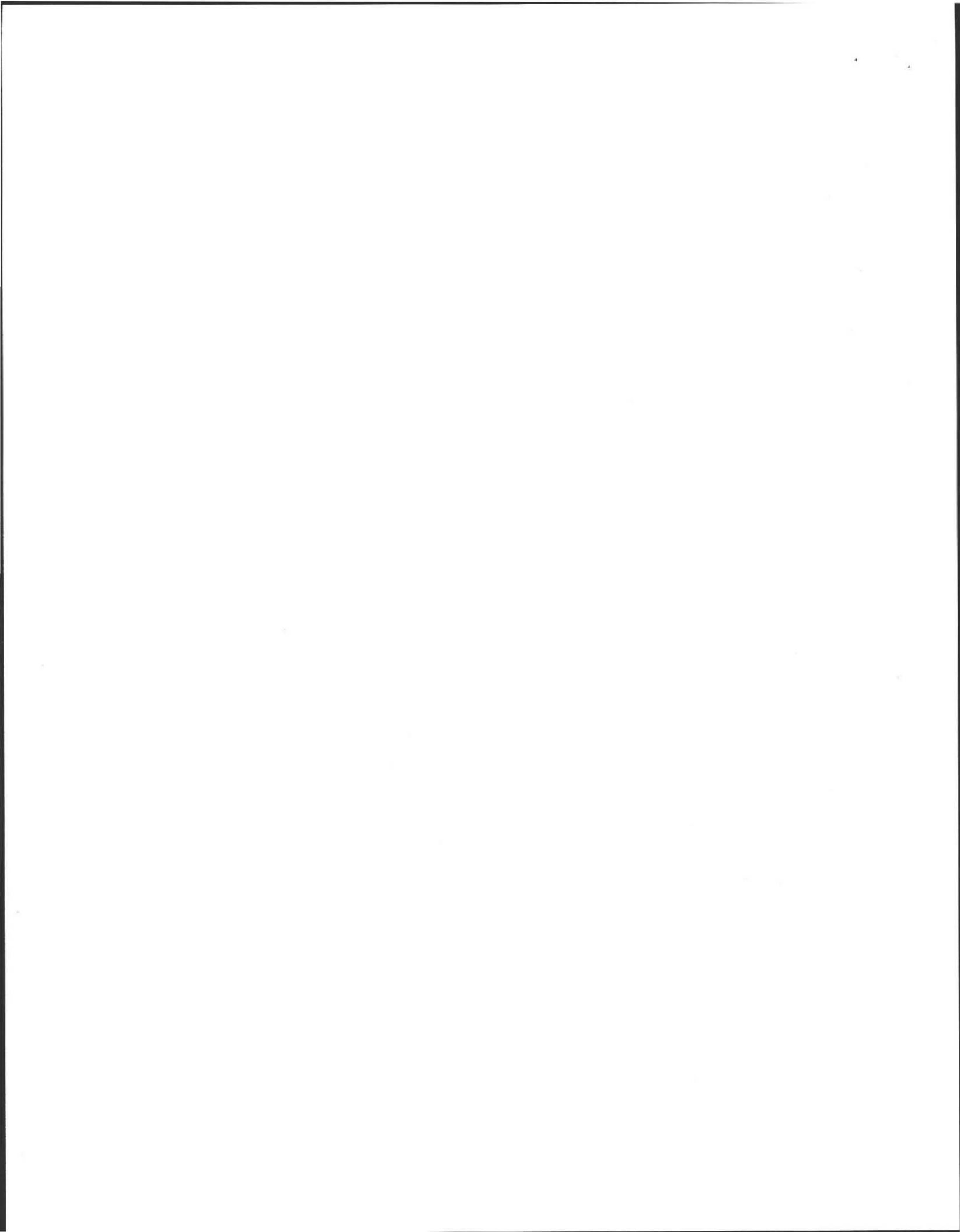
#### X. DECOMMISSIONING REQUIREMENTS

Abandoned wells, test holes, and borings shall be decommissioned to prevent the well and the annular space outside the casing from serving as a water conduit. The criteria for abandoning a well and the subsequent decommissioning procedures shall be in accordance with the Massachusetts Department of Environmental Protection Private Well Guidelines. Within 30 days of the decommissioning a copy of the Decommissioning Report, containing information described in the DEP Private Well Guidelines, shall be provided to the Board and filed at the Hampshire Registry of Deeds. A copy of a receipt for such filing shall be submitted to the Board.

#### XI. ENFORCEMENT

##### 1. Permit or Certificate Suspension or Revocation

The Board of Health may suspend or revoke any Well Construction Permit, Water Supply Certificate, or variance issued pursuant to these regulations for any violation of these regulations, or any other applicable General Law, regulation or by-law, or if





the results of a well-test demonstrates that water from the well is no longer suitable for human consumption. Such revocation or suspension may take place after a hearing held by the Board of Health of which the permit holder is given seven (7) days written notice. Such notice shall be deemed given upon mailing same, certified mail, return receipt requested, to the address listed on the permit application.

Nothing in this section shall prevent the Town from taking emergency action to prevent an imminent risk to the health, safety or welfare of the public or the users of a private well. ✓

## 2. Non-Criminal Disposition

This regulation may be enforced by any Town police officers or agents of the Town's Board of Health.

Whoever violates any provision of this regulation may be penalized by a non-criminal disposition process as provided in G.L. c.40, §21D and the Town's non-criminal disposition by-law. If non-criminal disposition is elected, then any person who violates any provision of this regulation shall be subject to a penalty in the amount of three hundred dollars (\$300.00) per day for each day of violation, commencing ten (10) days following day of receipt of written notice from the Board of Health. Each day or portion thereof shall constitute a separate offense. If more than one, each condition violated shall constitute a separate offense.

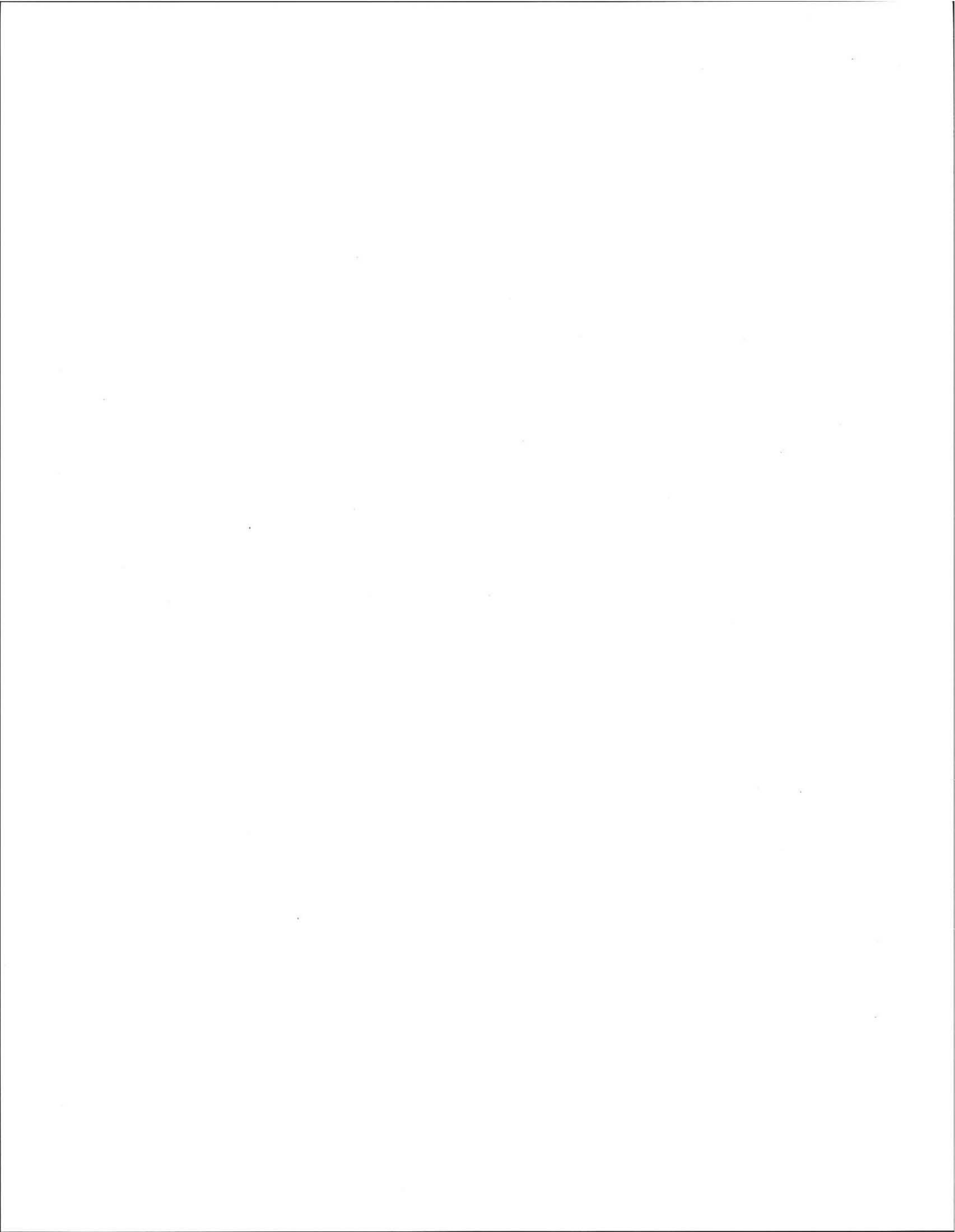
## 3. Other

Whoever violates any provision of this regulation may be penalized by indictment or on complaint brought in the district court. Except as may be otherwise provided by law and as the district court may see fit to impose, the maximum penalty for each violation or offense shall be one thousand dollars (\$1000.00). Each day or portion thereof shall constitute a separate offense. If more than one, each condition violated shall constitute a separate offense.

The Board of Health may enforce these Regulations or enjoin violations thereof through any lawful process, and the election of one remedy by the Board of Health shall not preclude enforcement through any other lawful means.

## XII. VARIANCE

The Board may, after a public hearing, grant a variance to the application of these regulations when, in its opinion, the enforcement thereof would do manifest injustice, and the applicant has demonstrated that the equivalent degree of protection will still be provided to the private water supply without strict application to particular provisions of these regulations.



Every request for a variance shall be made in writing and shall state the specific variance sought and the reasons therefore. The writing shall contain all the information needed to assure the Board that, despite the issuance of a variance, the public health and environment will be protected. Notice of the hearing shall be given by the Board, at the applicant's expense, at least ten (10) days prior thereto, by certified mail to the owner of any property within one hundred and fifty (150) feet of the well to all abutters of the property upon which the private well is located and by publication in a newspaper of general circulation in the town or city in which the private well is located. The notice shall include a statement of the variance sought and the reasons therefore. Any grant or denial of a variance shall be in writing and shall contain a brief statement of the reasons for approving or denying the variance. A copy of each variance shall be conspicuously posted for thirty (30) days following its issuance and shall be available to the public at all reasonable hours in the office of the Town Clerk, Building Commissioner, or Office of the Board of Health. No work shall be done under any variance until thirty (30) days shall have elapsed from its issuance, unless the Board certifies in writing that an emergency exists.

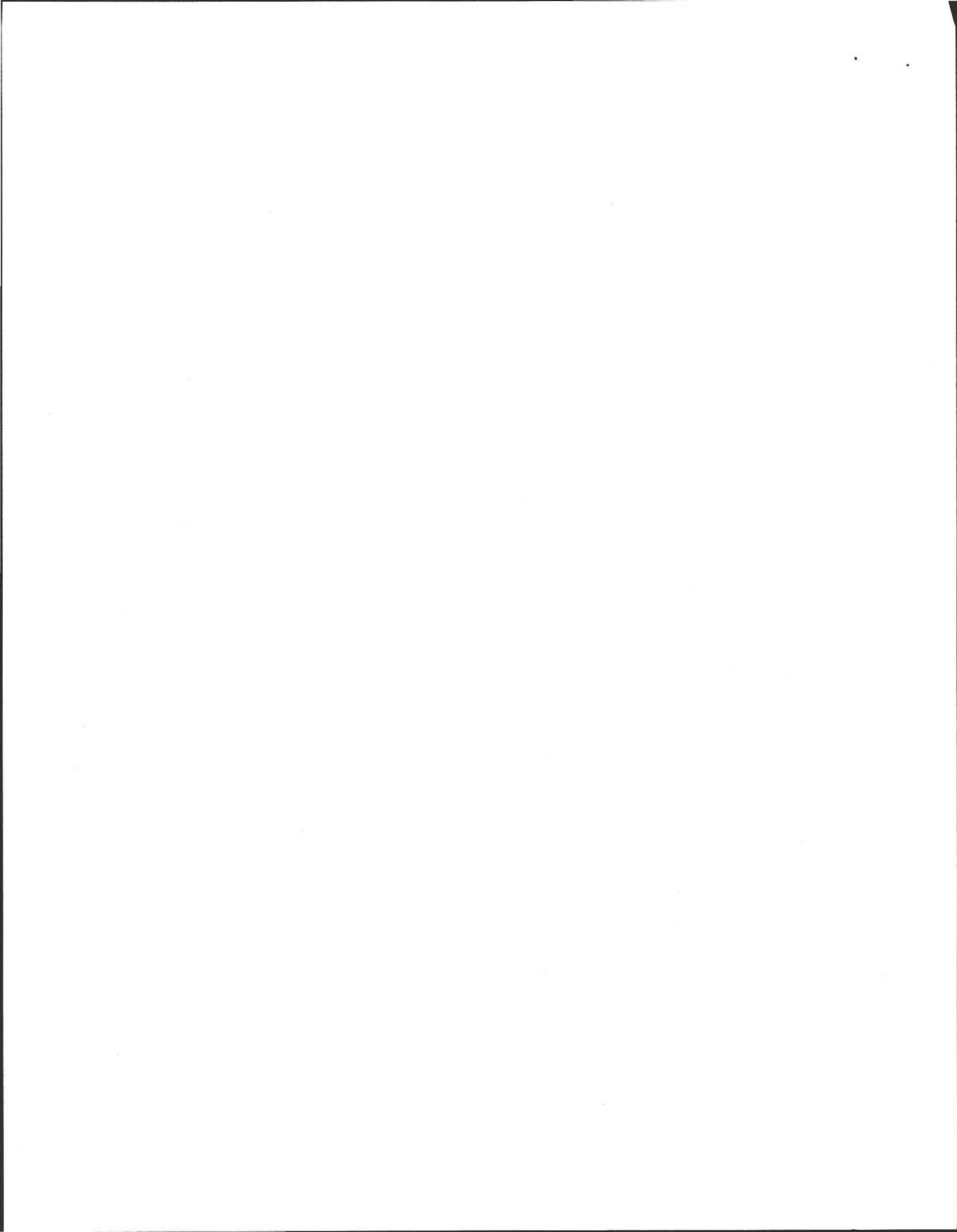
Any variance may be subject to such qualification, revocation, suspension, condition, or expiration as is provided in these regulations or as the Board expresses in its grant of the variance. A variance may otherwise be revoked, modified or suspended, in whole or in part, only after the holder thereof has been notified in writing and has been given an opportunity to be heard, pursuant to Section XI of these regulations.

### XIII. SEVERABILITY:

If any provision of these regulations or the application thereof is held to be invalid by a court of competent jurisdiction, the invalidity shall be limited to said provision(s) and the remainder of these regulations shall remain valid and effective. Any part of these regulations subsequently invalidated by a new state law or modification of an existing state law shall automatically be brought into conformity with the new or amended law and shall be deemed to be effective immediately, without recourse to a public hearing and the customary procedures for amendment or repeal of such regulation.

### XIV. EFFECTIVE DATE

These regulations were adopted by vote of the Amherst Massachusetts Board of Health, at their regularly scheduled meeting held on October 30, 2008 and are to be in full force and effect on and after December 1, 2008. Before said date, these regulations shall be published and a copy thereof be placed on file in the Board of Health Offices and filed with the Department of Environmental Protection, Division of Wastewater Management (formerly Division of Water Pollution Control) in Boston. These regulations or any portions thereof may be amended, supplemented or repealed from time to time by the Board, with notice as provided by law, on its own motion or by petition.



XV. DISCLAIMER

The issuance of a well permit shall not be construed as a guarantee by the Board or its agents that the water system will function satisfactorily nor that the water supply will be of sufficient quality or quantity for its intended use.



## Appendix A: Required Analytes for Testing of Private Well Water Quality

Aluminum
Chloride
Coliform Bacteria
Color
Copper
Fluoride
Foaming Agents
Iron
Manganese
Nitrate
Odor
pH
Silver
Sodium
Sulfate
Total Dissolved Solids
Turbidity
Zinc

### Volatile Organic Compounds

Benzene

Carbon Tetrachloride

Dichloromethane

o-Dichlorobenzene

p-Dichlorobenzene

1,2-Dichloroethane

cis-1,2-Dichloroethylene

trans-1,2-Dichloroethylene

1,1-Dichloroethylene

1,2-Dichloropropane

Ethylbenzene

Methyl Tertiary Butyl Ether(MTBE)

Monochlorobenzene

Styrene

Tetrachloroethylene (PCE)

Toluene

Trichloroethylene (TCE)

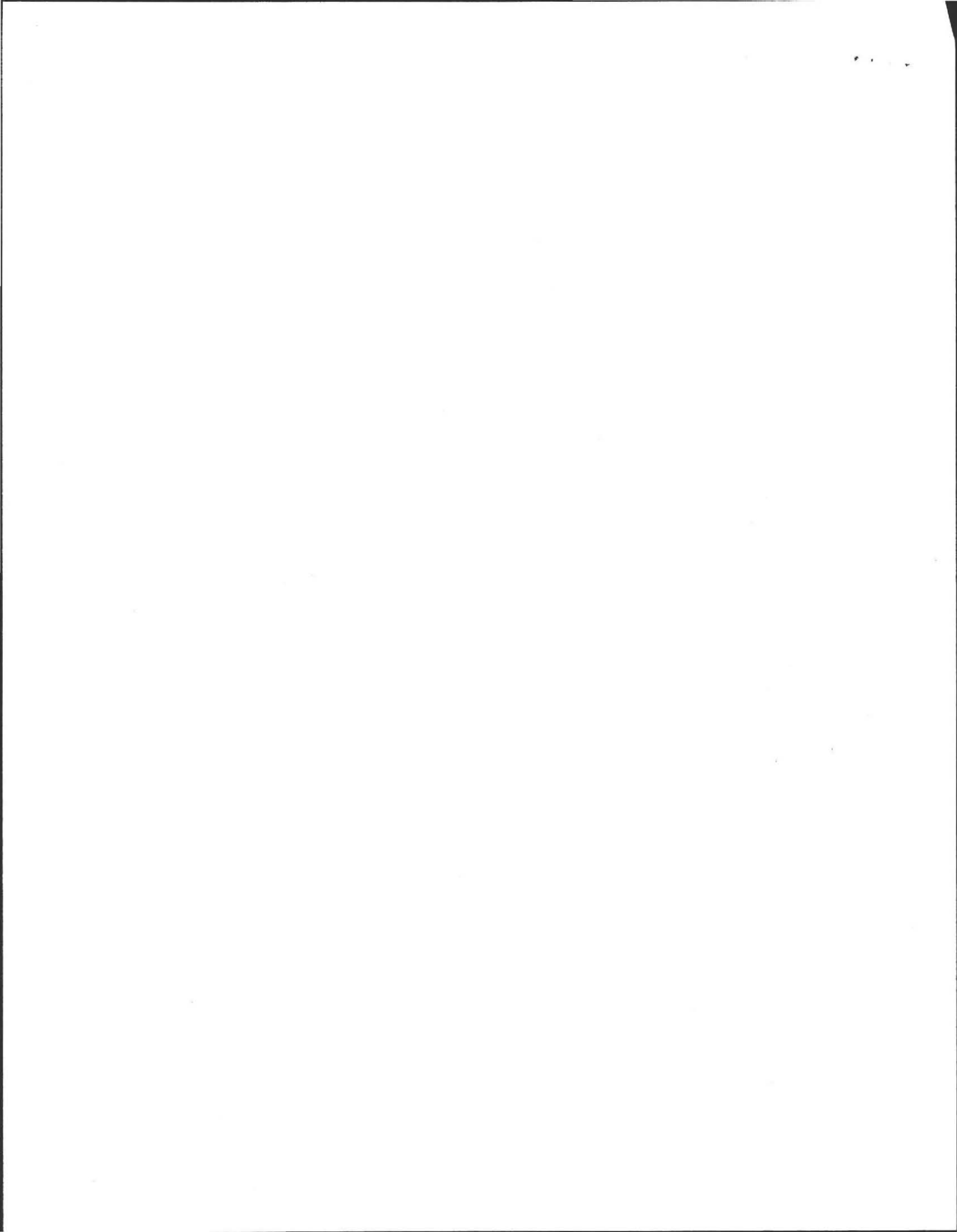
1,1,1-Trichloroethane (1,1, 1-TCA)

1,2,4-Trichlorobenzene

1,1,2-Trichloroethane

Vinyl Chloride (VC)

Xylenes(total)







Massachusetts Department of Environmental Protection  
 Bureau of Resource Protection - Wetlands  
**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 89-0557  
 MassDEP File #  
 eDEP Transaction #  
 Amherst NOI10-1180  
 City/Town

Latitude and Longitude, if known: 72d30m44.7s 42d25m37.5s  
 d. Latitude e. Longitude

**A. General Information (cont.)**

6. Property recorded at the Registry of Deeds for (attach additional information if more than one parcel):  
Hampshire  
 a. County 145 b. Certificate Number (if registered land) 105  
 c. Book 145 d. Page 105
7. Dates: December 21, 2009 January 27, 2010 January 29, 2010  
 a. Date Notice of Intent Filed b. Date Public Hearing Closed c. Date of Issuance
8. Final Approved Plans and Other Documents (attach additional plan or document references as needed):  
Notice of Intent Plan Juggler Meadow Farms 260 Leverett Road Amherst, MA prepared for Michael Kittredge  
Baystate Environmental Consultants, Inc.  
 b. Prepared By 1/11/10 c. Signed and Stamped by 1"=40'  
 d. Final Revision Date e. Scale December 2009  
 f. Additional Plan or Document Title g. Date

**B. Findings**

1. Findings pursuant to the Massachusetts Wetlands Protection Act:  
 Following the review of the above-referenced Notice of Intent and based on the information provided in this application and presented at the public hearing, this Commission finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act (the Act). Check all that apply:
- a.  Public Water Supply b.  Land Containing Shellfish c.  Prevention of Pollution  
 d.  Private Water Supply e.  Fisheries f.  Protection of Wildlife  
 g.  Groundwater Supply h.  Storm Damage Prevention i.  Flood Control
2. This Commission hereby finds the project, as proposed, is: (check one of the following boxes)

**Approved subject to:**

- a.  the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. This Commission orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.





Massachusetts Department of Environmental Protection  
 Bureau of Resource Protection - Wetlands  
**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 89-0557  
 MassDEP File #

eDEP Transaction #  
 Amherst NOI10-  
 1180  
 City/Town

**B. Findings (cont.)**

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
9. <input checked="" type="checkbox"/> Riverfront Area	944	944		
Sq ft within 100 ft	a. total sq. feet 800	b. total sq. feet 800		
Sq ft between 100-200 ft	c. square feet 144	d. square feet 144	e. square feet	f. square feet
	g. square feet	h. square feet	i. square feet	j. square feet

**Coastal Resource Area Impacts:** Check all that apply below. (For Approvals Only)

10.  Designated Port Areas  
 Indicate size under Land Under the Ocean, below
11.  Land Under the Ocean  
 a. square feet      b. square feet  
 c. c/y dredged      d. c/y dredged
12.  Barrier Beaches  
 Indicate size under Coastal Beaches and/or Coastal Dunes below
13.  Coastal Beaches  
 a. square feet      b. square feet      c. nourishment <sup>cu yd</sup>      d. nourishment <sup>cu yd</sup>
14.  Coastal Dunes  
 a. square feet      b. square feet      c. nourishment <sup>cu yd</sup>      d. nourishment <sup>cu yd</sup>
15.  Coastal Banks  
 a. linear feet      b. linear feet
16.  Rocky Intertidal Shores  
 a. square feet      b. square feet
17.  Salt Marshes  
 a. square feet      b. square feet      c. square feet      d. square feet
18.  Land Under Salt Ponds  
 a. square feet      b. square feet  
 c. c/y dredged      d. c/y dredged
19.  Land Containing Shellfish  
 a. square feet      b. square feet      c. square feet      d. square feet
20.  Fish Runs  
 Indicate size under Coastal Banks, Inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above
21.  Land Subject to Coastal Storm  
 a. c/y dredged      b. c/y dredged  
 a. square feet      b. square feet



Massachusetts Department of Environmental Protection  
 Bureau of Resource Protection - Wetlands  
**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 89-0557  
 MassDEP File # \_\_\_\_\_  
 eDEP Transaction # \_\_\_\_\_  
 Amherst NOI10-  
 1180  
 City/Town \_\_\_\_\_

**B. Findings (cont.)**

Denied because:

- b.  the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect the interests of the Act, and a final Order of Conditions is issued. **A description of the performance standards which the proposed work cannot meet is attached to this Order.**
- c.  the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order as per 310 CMR 10.05(6)(c).**

**Inland Resource Area Impacts:** Check all that apply below. (For Approvals Only)

- 3.  Buffer Zone Impacts: Shortest distance between limit of project disturbance and Bank or Bordering Vegetated Wetland boundary (if available) \_\_\_\_\_ a. linear feet

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	_____ a. linear feet	_____ b. linear feet	_____ c. linear feet	_____ d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	_____ a. square feet	_____ b. square feet	_____ c. square feet	_____ d. square feet
6. <input type="checkbox"/> Land Under Waterbodies and Waterways	_____ a. square feet	_____ b. square feet	_____ c. square feet	_____ d. square feet
	_____ e. c/y dredged	_____ f. c/y dredged		
7. <input type="checkbox"/> Bordering Land Subject to Flooding	_____ a. square feet	_____ b. square feet	_____ c. square feet	_____ d. square feet
Cubic Feet Flood Storage	_____ e. cubic feet	_____ f. cubic feet	_____ g. cubic feet	_____ h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	_____ a. square feet	_____ b. square feet		
Cubic Feet Flood Storage	_____ c. cubic feet	_____ d. cubic feet	_____ e. cubic feet	_____ f. cubic feet



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

89-0557

MassDEP File #

eDEP Transaction #

Amherst NOI10-  
1180

City/Town

**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Conservation Commission on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,  

"Massachusetts Department of Environmental Protection" [or, "MassDEP"]  
"File Number 89-0557 "
11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before MassDEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Conservation Commission.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #12 above shall require the applicant to inquire of the Conservation Commission in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Conservation



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands  
**WPA Form 5 – Order of Conditions**  
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
89-0557  
MassDEP File #

eDEP Transaction #  
Amherst NOI10-  
1180  
City/Town

Flowage

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**B. Findings (cont.)**

22.  Restoration/Enhancement:

2,500

a. square feet of BWV

b. square feet of salt marsh

23.  Stream Crossing(s):

a. number of new stream crossings

b. number of replacement stream crossings

---

**C. General Conditions Under Massachusetts Wetlands Protection Act**

The following conditions are only applicable to Approved projects.

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
  - a. the work is a maintenance dredging project as provided for in the Act; or
  - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. If this Order constitutes an Amended Order of Conditions, this Amended Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Order will expire on January 29, 2013 unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

89-0557

MassDEP File #

eDEP Transaction #

Amherst NOI10-  
1180

City/Town

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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 18(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMP Operation and Maintenance Plan ("O&M Plan") and certifying the following: *i.*) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and *ii.*) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.

d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.

e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 18(f) through 18(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 18(f) through 18(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.

f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

89-0557

MassDEP File #

eDEP Transaction #

Amherst NOI10-  
1180

City/Town

Commission.

**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Conservation Commission, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

**NOTICE OF STORMWATER CONTROL AND MAINTENANCE REQUIREMENTS**

19. **The work associated with this Order (the "Project") is (1)  is not (2)  subject to the Massachusetts Stormwater Standards. If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:**

a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.

b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:

- i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
- ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
- iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;
- iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;
- v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.





**Massachusetts Department of Environmental Protection**  
 Bureau of Resource Protection - Wetlands  
**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 89-0557  
 MassDEP File #  
 eDEP Transaction #  
 Amherst NOI10-1180  
 City/Town

**D. Findings Under Municipal Wetlands Bylaw or Ordinance**

1. Is a municipal wetlands bylaw or ordinance applicable?  Yes  No
2. The Amherst hereby finds (check one that applies):  
 Conservation Commission
- a.  that the proposed work cannot be conditioned to meet the standards set forth in a municipal ordinance or bylaw, specifically:

1. Municipal Ordinance or Bylaw \_\_\_\_\_ 2. Citation \_\_\_\_\_

Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides measures which are adequate to meet these standards, and a final Order of Conditions is issued.

- b.  that the following additional conditions are necessary to comply with a municipal ordinance or bylaw:

Town of Amherst Wetlands Protection Bylaw  
 1. Municipal Ordinance or Bylaw \_\_\_\_\_ 2. Citation \_\_\_\_\_

3. The Commission orders that all work shall be performed in accordance with the following conditions and with the Notice of Intent referenced above. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, the conditions shall control.

The special conditions relating to municipal ordinance or bylaw are as follows (if you need more space for additional conditions, attach a text document):

see attached

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Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

89-0557

MassDEP File #

eDEP Transaction #

Amherst NOI10-  
1180

City/Town

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**C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)**

- g) The responsible party shall:
  - 1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
  - 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
  - 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
  
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Special Conditions (if you need more space for additional conditions, please attach a text document):

**see attached**

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**Massachusetts Department of Environmental Protection**  
**Bureau of Resource Protection - Wetlands**  
**WPA Form 5 – Order of Conditions**  
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:  
 89-0557  
 MassDEP File # \_\_\_\_\_  
 eDEP Transaction # \_\_\_\_\_  
 Amherst NOI10-  
 1180  
 City/Town \_\_\_\_\_

**E. Signatures**

This Order is valid for three years, unless otherwise specified as a special condition pursuant to General Conditions #4, from the date of issuance.

\_\_\_\_\_  
 1. Date of Issuance

Please indicate the number of members who will sign this form.

This Order must be signed by a majority of the Conservation Commission.

\_\_\_\_\_  
 2. Number of Signers

The Order must be mailed by certified mail (return receipt requested) or hand delivered to the applicant. A copy also must be mailed or hand delivered at the same time to the appropriate Department of Environmental Protection Regional Office, if not filing electronically, and the property owner, if different from applicant.

Signatures:

\_\_\_\_\_  
*Brian Adams*  
 \_\_\_\_\_  
*Arthur L. Steer*  
 \_\_\_\_\_  
*Mary D. Allen*  
 \_\_\_\_\_

\_\_\_\_\_  
*Todd V. Wan*  
 \_\_\_\_\_  
*John Deel*  
 \_\_\_\_\_  
 \_\_\_\_\_

by hand delivery on

by certified mail, return receipt requested, on

\_\_\_\_\_  
 Date

\_\_\_\_\_  
 Date

**F. Appeals**

The applicant, the owner, any person aggrieved by this Order, any owner of land abutting the land subject to this Order, or any ten residents of the city or town in which such land is located, are hereby notified of their right to request the appropriate MassDEP Regional Office to issue a Superseding Order of Conditions. The request must be made by certified mail or hand delivery to the Department, with the appropriate filing fee and a completed Request of Departmental Action Fee Transmittal Form, as provided in 310 CMR 10.03(7) within ten business days from the date of issuance of this Order. A copy of the request shall at the same time be sent by certified mail or hand delivery to the Conservation Commission and to the applicant, if he/she is not the appellant.

Any appellants seeking to appeal the Department's Superseding Order associated with this appeal will be required to demonstrate prior participation in the review of this project. Previous participation in the permit proceeding means the submission of written information to the Conservation Commission prior to the close of the public hearing, requesting a Superseding Order, or providing written information to the Department prior to issuance of a Superseding Order.

The request shall state clearly and concisely the objections to the Order which is being appealed and how the Order does not contribute to the protection of the interests identified in

## **Order of Conditions - Special Conditions**

**Issued to: Barre Tozloski. Pocomo Road Nominee Trust**

**For: construction of a barn & greenhouse**

**Date of Issuance: January 29, 2010**

**This Order of Conditions pertains to the construction of a barn and greenhouse in the riverfront resource area. Riverfront area enhancement has been proposed at a ratio of greater than 2:1 along the bvw boundary in the vicinity of the greenhouse.**

1. Conditions #1-#20 on pages 1& 2 of this form shall be followed in their entirety.
2. Before any site work begins, the applicant shall record the Order of Conditions at the Hampshire County Registry of Deeds within the chain of title for this property and submit proof of recording to the Commission.
3. No activity may proceed until the applicant has received all other permits required by law, including but not limited to any permit required by Health Inspections, Planning Board, Zoning Board of Appeals, Department of Environmental Protection, and/or the Army Corps of Engineers.
4. Before any work begins on the site, a performance deposit of **(NA)** shall be submitted to the Commission. The deposit will be returned with any accumulated interest upon completion of the project to the satisfaction of the Commission, together with the issuance of a Certificate of Compliance.
5. Before any site work begins, a site meeting scheduled by the applicant shall be held to review the Order of Conditions. Representatives of the applicant, the Commission, and the contractor in charge of site work shall be present.
6. The Wetlands Administrator shall receive forty-eight (48) hours advance notice, before the commencement of any activity within, or within the 100 foot buffer zone of, the resource area(s), including site preparation and construction.
7. **Work shall conform to plans and information submitted to the Commission in the Notice of Intent, and to these special conditions:**
  - a. **No further alteration shall be allowed within the restoration/mitigation area(s) except as may be required to maintain the area in its restored/mitigated condition.**
  - b. **Condition 7a. above shall serve as a permanent condition and shall be recorded as an ongoing condition in the Certificate of Compliance.**
  - c. **Turtle exclusion fencing shall be placed around the perimeter of the entire construction zone. At the beginning of each work day, a qualified environmental scientist or biologist shall inspect for and remove any turtles that have entered the construction site to an appropriate location outside the work zone.**



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 5 – Order of Conditions**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

89-0557

MassDEP File #

eDEP Transaction #

Amherst NOI10-

1180

City/Town

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Document Number

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Signature of Applicant

18. The Commission reserves the right to amend this Order of Conditions if changed conditions or new information so warrants.

19. Representatives of the Commission shall have the right to inspect the premises to ensure compliance with the Conditions and the Performance Standards applying to this Order and with the Massachusetts Wetland Protection Act and the Town of Amherst Wetlands Protection By-Law.

20. This Order shall apply to every successor in interest of the property described in the Notice of Intent and accompanying plans. In the event that this land changes ownership before or during construction, the current owner shall notify the new owner of this Order by registered mail prior to the transfer of ownership and shall forward proof of this notification to the Commission.

**d. Weekly "turtle sweep" reports shall be submitted to the Commission during the construction period.**

**e. Before a Certificate of Compliance is issued, an "as built" plan shall be submitted to the Commission.**

8. Work shall proceed in strict accordance to referenced plan(s) in the Permit, and to information submitted in the Application. For any change in the approved plans, the applicant shall inquire of the Commission in writing whether the change is substantial enough to require an Amended Order of Conditions or the filing of a new Notice of Intent.

9. Before any work begins, erosion control shall be installed along the limit-of-work line. The Commission shall approve the actual location in the field. Extra materials shall be kept onsite for use as needed. Such controls shall remain in place and be maintained until all disturbed areas have been stabilized to the satisfaction of the Commission.

10. No grading, operation of machinery, storage of materials, stockpiling of fill or brush or other work shall occur on the wetland side of the erosion control. The area between this line and the wetland edge shall be kept as a permanent vegetated buffer for the purpose of minimizing any potential negative wetland impacts.

11. No fill or topsoil shall be stored within 20 feet of the silt fence.

12. All disturbed areas in the Buffer Zone shall be loamed, seeded, mulched and stabilized within 48 hours of project completion.

13. A copy of the Permit shall be kept on-site at all times during construction. All contractors and sub-contractors engaged during construction shall be provided with a copy of the Permit, and should be prepared to produce said Permit upon request of the Commission or its agent.

14. All structures, facilities, and equipment as part of the project shall be continually operated and maintained so as to comply with the Permit. This provision applies specifically to all heavy equipment used on the project. Any leakage of oil, hydraulic fluid, gasoline, or any other pollutant must be cleaned up immediately, and the defective equipment responsible for said leaking shall be repaired immediately or taken off-site.

15. All work shall be completed in such a manner as to prevent eutrophication or sedimentation in wetlands, water bodies, or public or private water supplies.

16. Any substantial changes made or intended to be made in the plans shall require the applicant to file a new Notice of Intent or to inquire of the Commission, in writing or by certified mail, whether the change is so substantial as to require the filing of a new Notice.

17. A Certificate of Compliance shall be requested from the Commission upon completion of the proposed work. Said request shall be accompanied by a written statement from the professional who prepared the plan certifying compliance with all plans, as well as an "as built" plan.



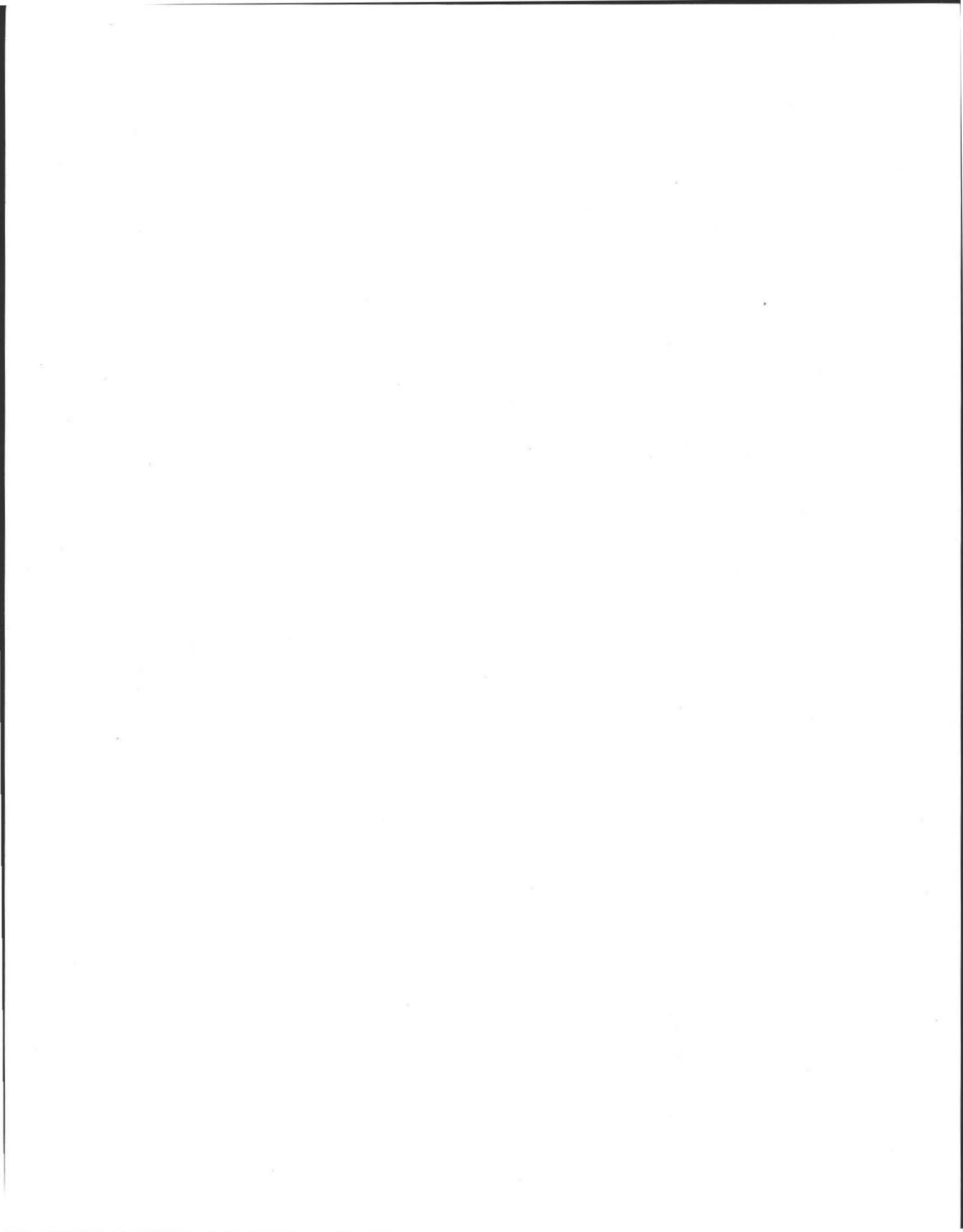
Plan: 09-13

Designed by: Alan Weicz

CHECK LIST FOR SEPTIC PLANS

- Application page attached to plan
- PE or RS stamp, date, signature
- Variances to property line setback distances must have Surveyor Stamp 15220 (3)
- Legal boundaries noted
- Easements noted (utility)
- Dwellings and buildings existing or proposed noted
- Location of driveway or parking areas, other impervious areas
- Location and dimensions of reserve area (new) CMR 15.248(1), 15.104(4)
- System design calculations
- Garbage grinder Y or N (N)
- Benchmark not disturbed during construction, within 75 feet of facility CMR 15.220 (4)(q)
- North arrow CMR 15.200 (4) (g)
- Contours
- Deep hole location and data
- Perc hole location and data
- Elevations
- Names of approving authority and soil evaluator CMR 15.211 p. 49
- Location of every water supply, public and private CMR 15.220(k):
  - Within 400 feet of system in case of surface water and gravel packed public water supply
  - Within 250 feet of system in case of tubular public water supply
  - Within 150 feet of private supply wells 100' septic sys. ; 50' tank
- Well statement if applicable N/A
- Location of any surface waters, rivers, vegetated werlands
- Location of water lines and other subsurface utilities N/A
- Observed and adjusted ground water elevation in the vicinity of system 15.220 (4)(n)
- Profile of system
- Locus plan to show location of facility, including nearest street
- Materials of construction and specs for system
- Gas Baffle 15.227.4
- Pipe in center line of tank 310 CMR 15.227, 15.06(8)
- Double washed stone
- Schedule 40 PVC for trafficked areas, house to tank
- Distances noted from house to tank, etc. (N/A)
- If dosing is proposed, design and specs of dosing system
- When alternative technology is required, complete plan and specs, including hydraulic profile N/A
- Trenches preferred over beds CMR 15.240 (6)
- Buoyancy calculations for tanks or components partly below H2O table 15.221(8) p. 56 N/A
- 3 to 1 slope outside of mound, toe ending 5 feet from property line
- Local upgrade requests on the plan N/A
- Local upgrade forms attached to application N/A
- Note on plan listing all variances sought in conjunction with the plan NONE

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



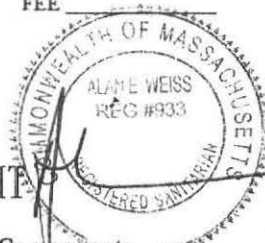
No. \_\_\_\_\_

FEE \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



Application for a Permit to Construct (  ) Repair ( ) Upgrade ( ) Abandon ( ) -  Complete System  Individual Components

Location <u>260 Leverett RD. (Recr)</u>	Owner's Name <u>Parroff Co / M. Kittidge</u>
Map/Parcel# <u>3A-10</u>	Address <u>312 Leverett RD.</u>
Lot#	Telephone# <u>548-9802</u>
Installer's Name <u>D Mo Const / R. Misterka</u>	Designer's Name <u>Alan Weiss, Cold Spring End.</u>
Address <u>Amherst, MA.</u>	Address <u>Beldoraw, MA.</u>
Telephone#	Telephone# <u>323-5957</u>

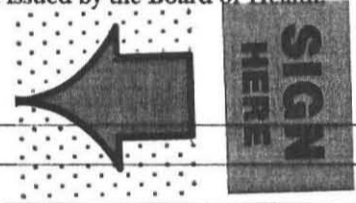
Type of Building Maint. Bldg. Lot Size 12 1/2-Ac sq. ft.  
 Dwelling - No. of Bedrooms \_\_\_\_\_ Garbage grinder (  )  
 Other - Type of Building 15 GAL/PERSON No. of persons 10 Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 150 gpd Calculated design flow 150 Design flow provided 180 gpd  
 Plan: Date \_\_\_\_\_ Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title Septic Plan for Maintenance Garage.  
 Description of Soil(s) CLASS 2: (LS)  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator A. Weiss Date of Evaluation 12-15-09  
Co-Contructor

DESCRIPTION OF REPAIRS OR ALTERATIONS \_\_\_\_\_

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed [Signature] Date 12-22-09

Inspector [Signature]



No. \_\_\_\_\_

FEE \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, \_\_\_\_\_, MA.

## CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired ( ), Upgraded ( ), Abandoned ( )

by: \_\_\_\_\_  
at \_\_\_\_\_

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. \_\_\_\_\_, dated \_\_\_\_\_, Approved Design Flow \_\_\_\_\_ (gpd)

Installer \_\_\_\_\_

Designer: \_\_\_\_\_ Inspector: [Signature] Date: \_\_\_\_\_

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. \_\_\_\_\_

FEE \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, \_\_\_\_\_, MA.

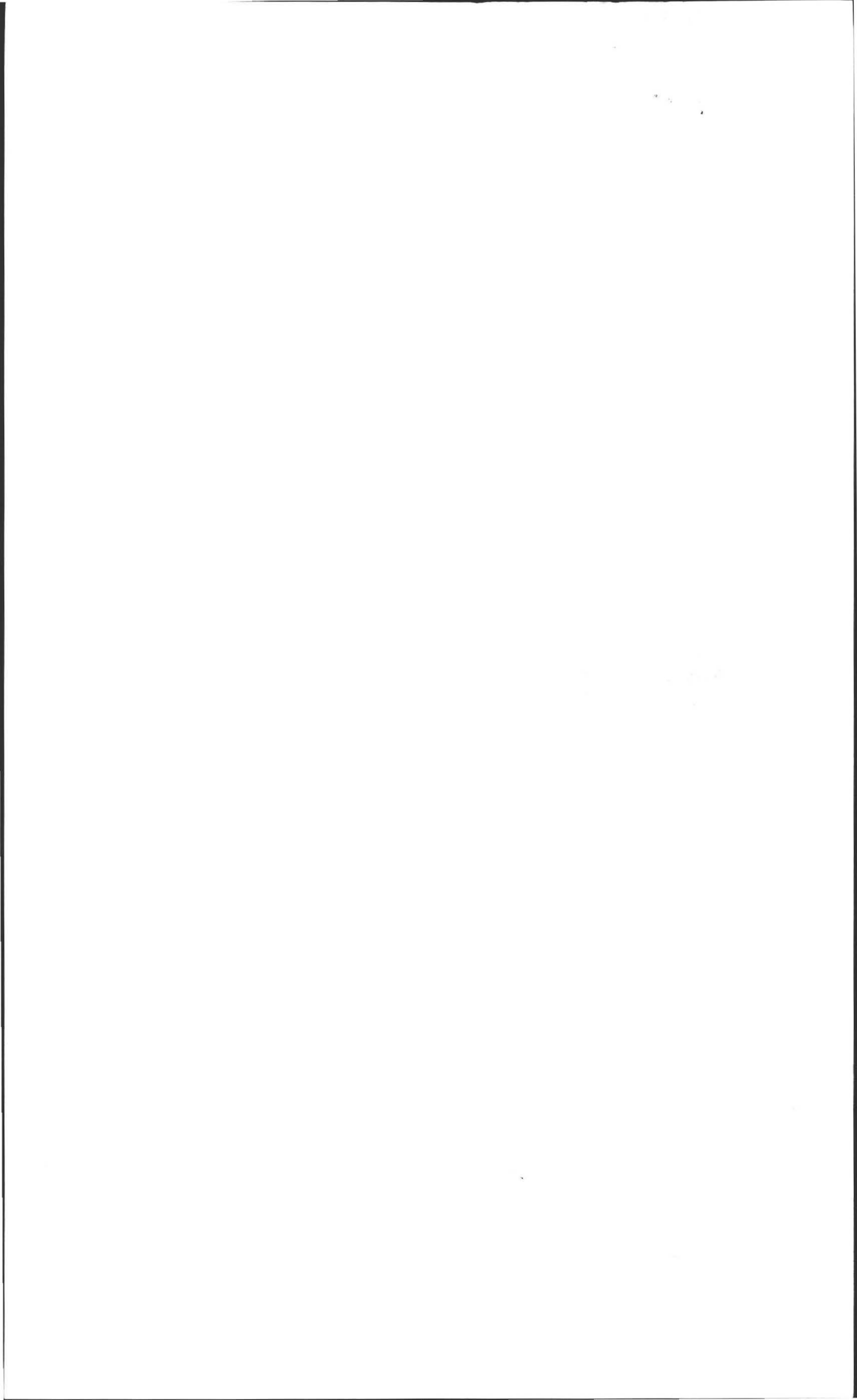
## DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct ( ) Repair (  ) Upgrade ( ) Abandon ( ) an individual sewage disposal system at 260 R Leverett RD as described in the application for

Disposal System Construction Permit No. \_\_\_\_\_, dated \_\_\_\_\_.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

Form 1255 Rev. 5/96 A.M. Sulkin Co. Charlestown, MA Date \_\_\_\_\_ Board of Health [Signature]



ALAN E. WEISS, M.S., L.S.P.

Licensed Site Professional  
Registered Sanitarian  
Hydrogeologist  
President

- Subsurface Investigations
- 21E Site Investigations
- Pollution Remediation
- Percolation Tests and Septic Designs

350 Old Enfield Rd.  
Belchertown, MA 01007  
(413) 323-5957 & 323-4916 (FAX)

Date: 12-15-07

Commonwealth of Massachusetts

Amherst, Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: A. Weiss

Date: 12-15-07

Witnessed By: G Courtlander

Location Address or Lot # <u># 260 Leverett (rear)</u>	Owner's Name, Address, and Telephone # <u>Parafin Co. 312 Leverett RD Amherst, MA</u>
New Construction <input checked="" type="checkbox"/> Repair <input checked="" type="checkbox"/>	

Office Review Privity by sheet

Published Soil Survey Available: No  Yes

Year Published

Publication Scale

Soil Map Unit

Drainage Class

Soil Limitations

Surficial Geologic Report Available: No  Yes

Year Published

Publication Scale

Geologic Material (Map Unit)

Landform

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)

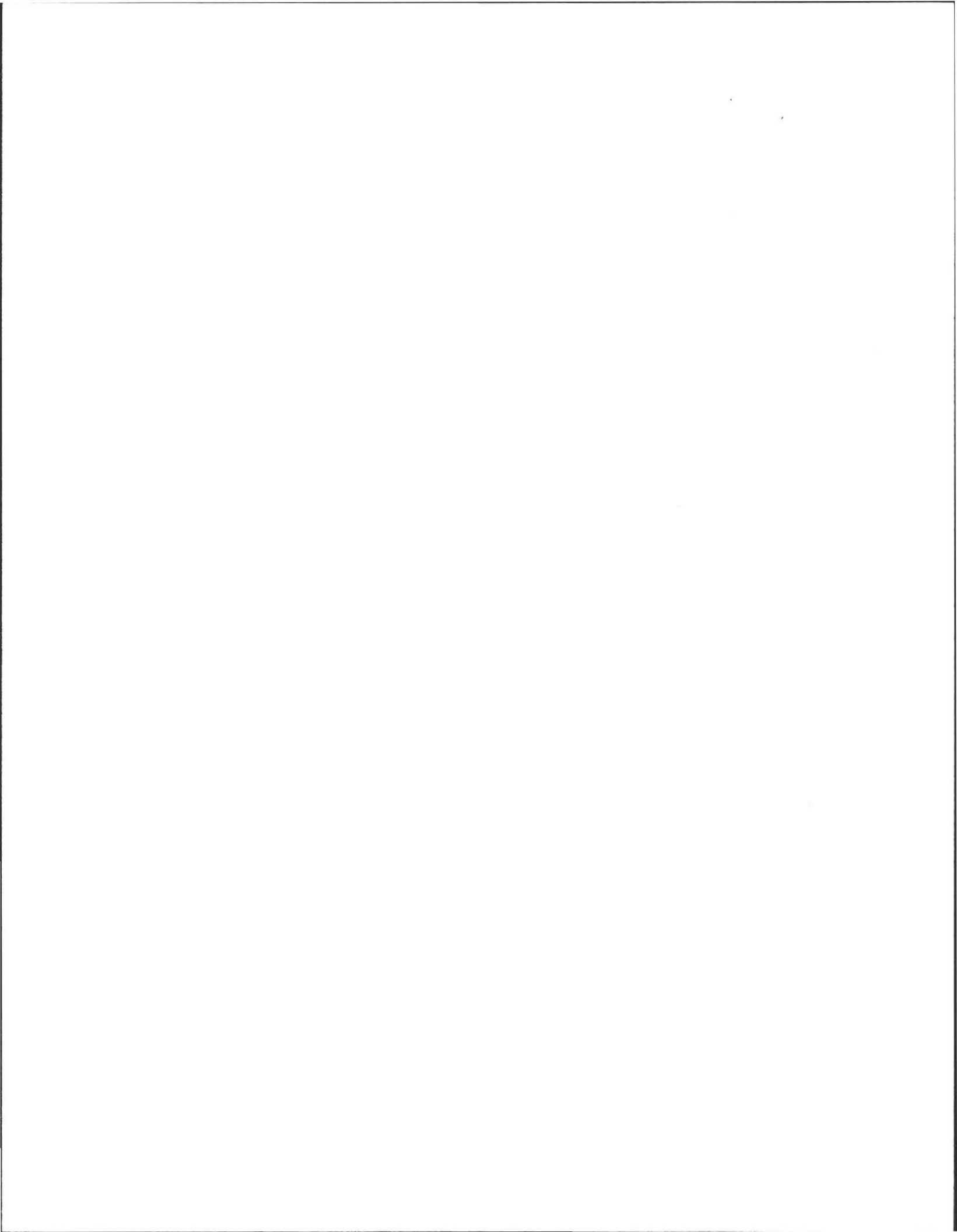
Wetlands Conservancy Program Map (map unit)

Current Water Resource Conditions (USGS): Month

Range :Above Normal  Normal  Below Normal

Other References Reviewed: \_\_\_\_\_





Location Address or Lot No. 260 Leavitt Rd.

On-site Review

Deep Hole Number 174 Date: 12-15-09 Time: \_\_\_\_\_ Weather Clouds 40°F

Location (identify on site plan) \_\_\_\_\_

Land Use \_\_\_\_\_ Slope (%) 2 Surface Stones Many

Vegetation \_\_\_\_\_

Landform Terraced

Position on landscape (sketch on the back) \_\_\_\_\_

Distances from:

Open Water Body 50' feet      Drainage way 50' feet  
 Possible Wet Area 50' feet      Property Line 254' feet  
 Drinking Water Well \_\_\_\_\_ feet      Other \_\_\_\_\_

DEEP OBSERVATION HOLE LOG\*

#1

#2

#3

#4

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-6" 6"-12" 12" → 108"	A Bw C <sub>1</sub>	FSL SL LS	10YR3/3 7.5YR2 4/6 7.5YR2 4/6	36" 10YR6/8	- Friable - Friable Loose F.M. Sandy gravelly Abolition till
0-6" 6-12" 13"-80"	A Bw C <sub>1</sub>	FSL SL LS	10YR3/3 7.5YR2 4/6 7.5YR2 4/6	36" 10YR6/8	- Friable - Friable, Loose F.M. Sandy gravel Abolition Till
0-8" 8"-16" 16"-78"	A Bw C <sub>1</sub>	FSL SL LS	10YR3/3 7.5YR2 4/6 7.5YR2 4/6	36"	Sand
0-9" 9-12" 12-59"	A Bw C <sub>1</sub>	FSL SL LS	10YR3/3 7.5YR2 4/6 7.5YR2 4/6	36"	Sand

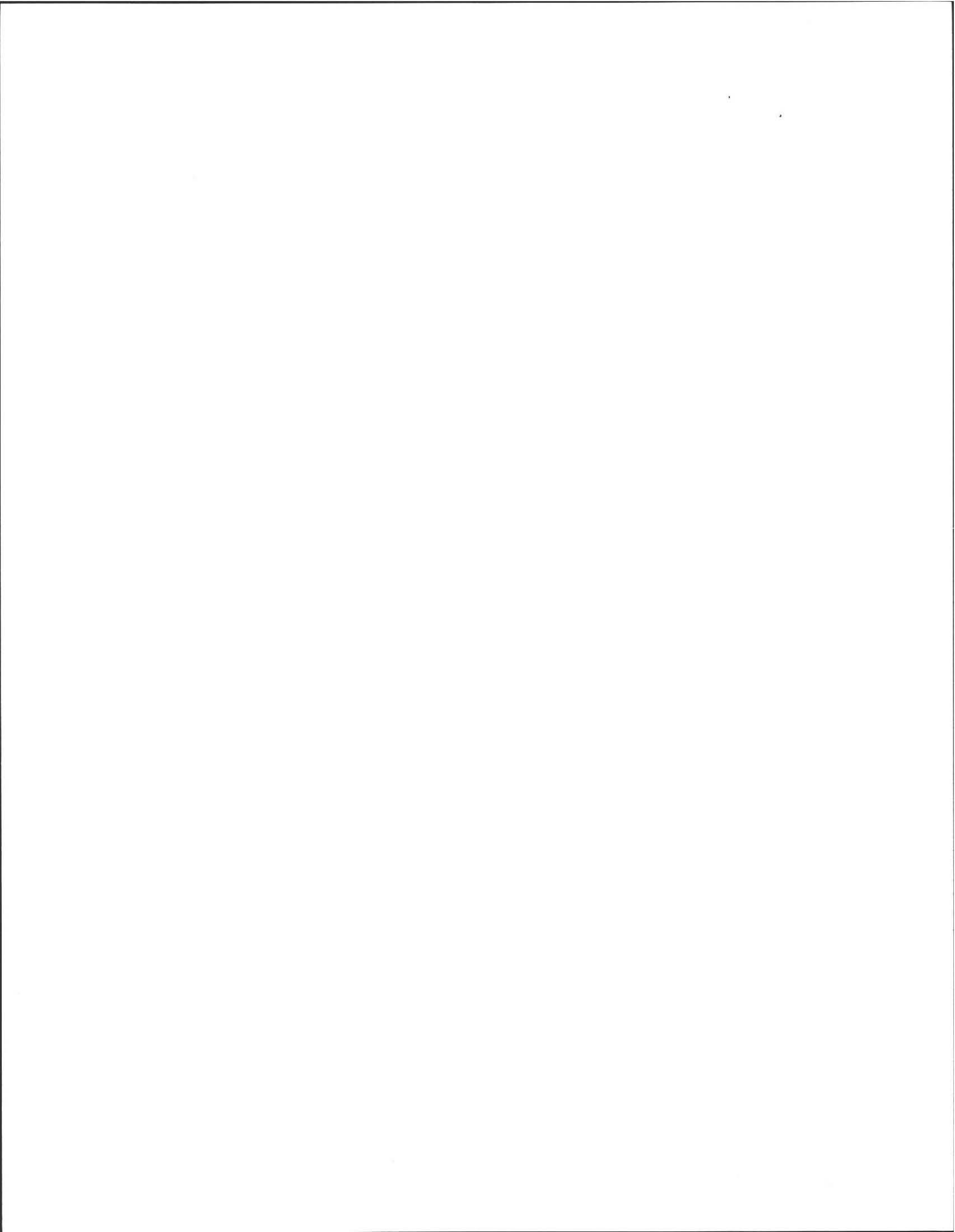
\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) Abolition till      Depth to Bedrock: 59"-108"

Depth to Groundwater: Standing Water in the Hole: \_\_\_\_\_ Weeping from Pit Face: 70"

Estimated Seasonal High Ground Water: 36"







Location Address or Lot No. 210 Leitch RD.

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*		
Date: <u>12-15-09</u>		Time: <u>10:00..</u>
Observation Hole #	P <sub>1</sub>	P <sub>2</sub>
Depth of Perc	<u>44"</u>	<u>42"</u>
Start Pre-soak	<u>10:25</u>	<u>10:30</u>
End Pre-soak	<u>10:40</u>	<u>10:45</u>
Time at 12"	<u>10:40</u>	<u>10:45</u>
Time at 9"	<u>10:50</u>	<u>10:55</u>
Time at 6"	<u>11:05</u>	<u>11:22</u>
Time (9"-6")	<u>15 MIN</u>	<u>27</u>
Rate Min./Inch	<u>5 MIN</u>	<u>10 <math>\frac{MIN}{IN}</math></u>

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

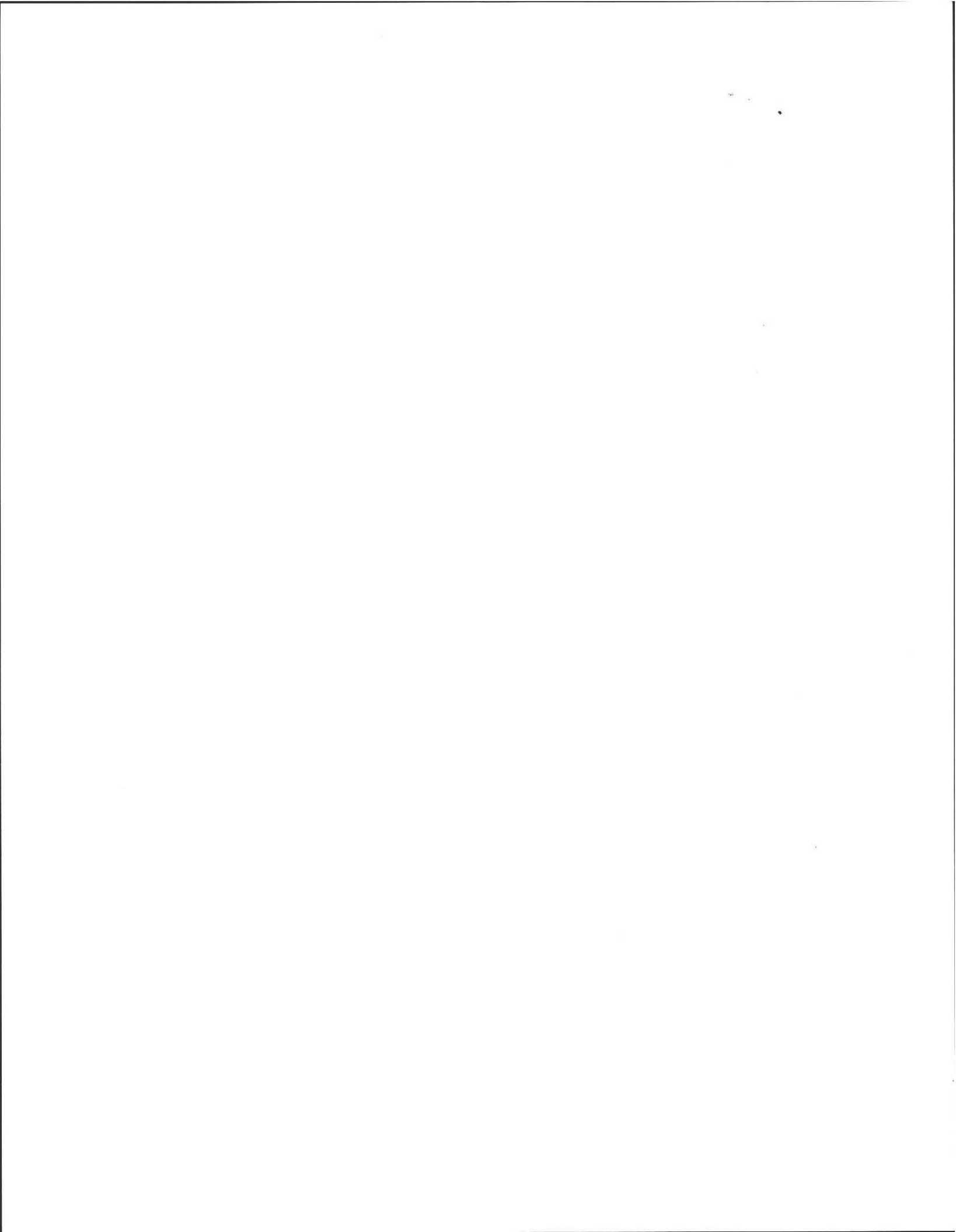
Site Passed  Site Failed

Performed By: A. Weiss

Witnessed By: G. Courtin

Comments: \_\_\_\_\_





Location Address or Lot No. 260 Levertt Rd.

### Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole ..... inches
- Depth weeping from side of 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 level .....

### Depth of Naturally Occurring Pervious Material

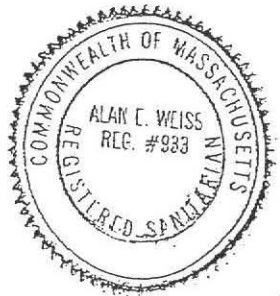
Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system? yes

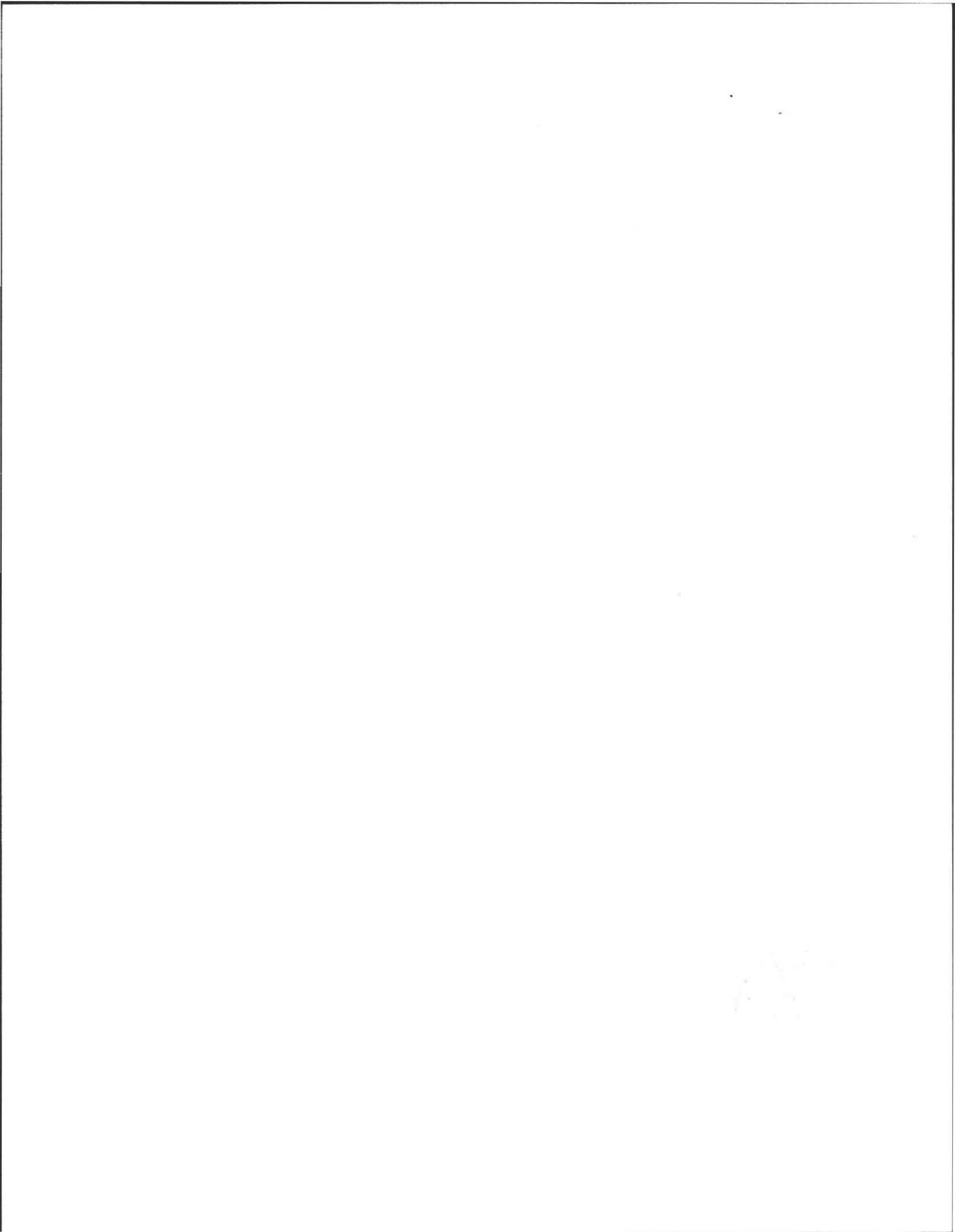
If not, what is the depth of naturally occurring pervious material? \_\_\_\_\_

### Certification

I certify that on 6/95 (date) I have passed the soil evaluator examination, approved by the Department of Environmental Protection and that the above analysis was performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017.

Signature AC Date 12-15-09





413  
563  
9132

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 260 R - Leverett *Parafine* 312 Leverett Rd

COMMONWEALTH OF MASSACHUSETTS

Massachusetts

Percolation Test*		
Date: <u>12/15/09</u>		Time: _____
Observation Hole #	P <sub>1</sub>	P <sub>2</sub>
Depth of Perc	44"	42"
Start Pre-soak	10:15	10:30
End Pre-soak	10:40	10:45
Time at 12"	10:40	10:45
Time at 9"	10:50	10:55
Time at 6"	11:05	11:22
Time (9"-6")	15	27
Rate Min./Inch	5 min.	10 min.

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

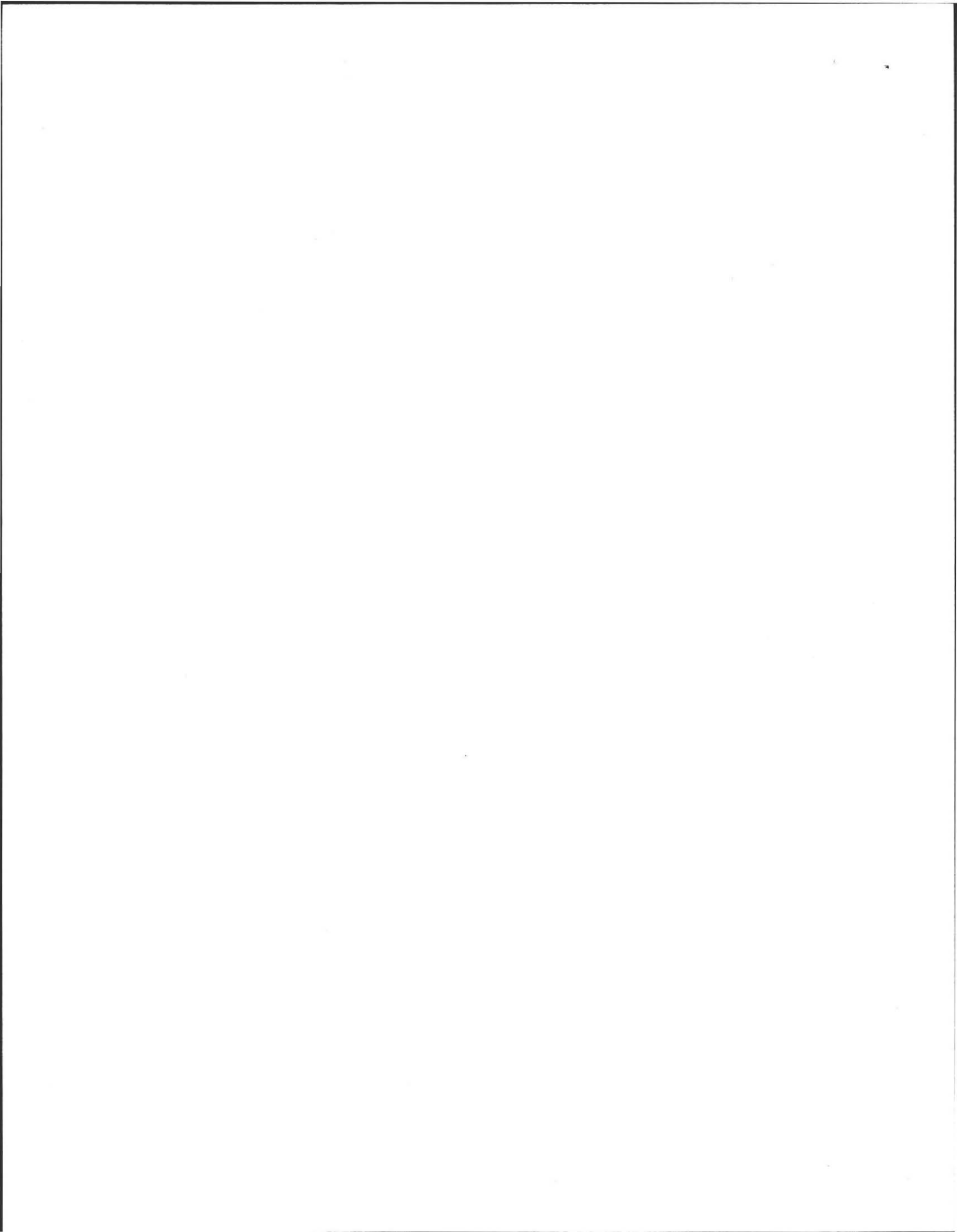
Site Passed  Site Failed

Performed By: Alan Lopez

Witnessed By: Raymond Carimanche

Comments: MOIST SYSTEM TO BE INSTALLED.





Location Address or Lot No. \_\_\_\_\_

***On-site Review***

Deep Hole Number \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Weather \_\_\_\_\_

Location (identify on site plan) \_\_\_\_\_

Land Use \_\_\_\_\_ Slope (%) \_\_\_\_\_ Surface Stones \_\_\_\_\_

Vegetation \_\_\_\_\_

Landform \_\_\_\_\_

Position on landscape (sketch on the back) \_\_\_\_\_

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\***

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)

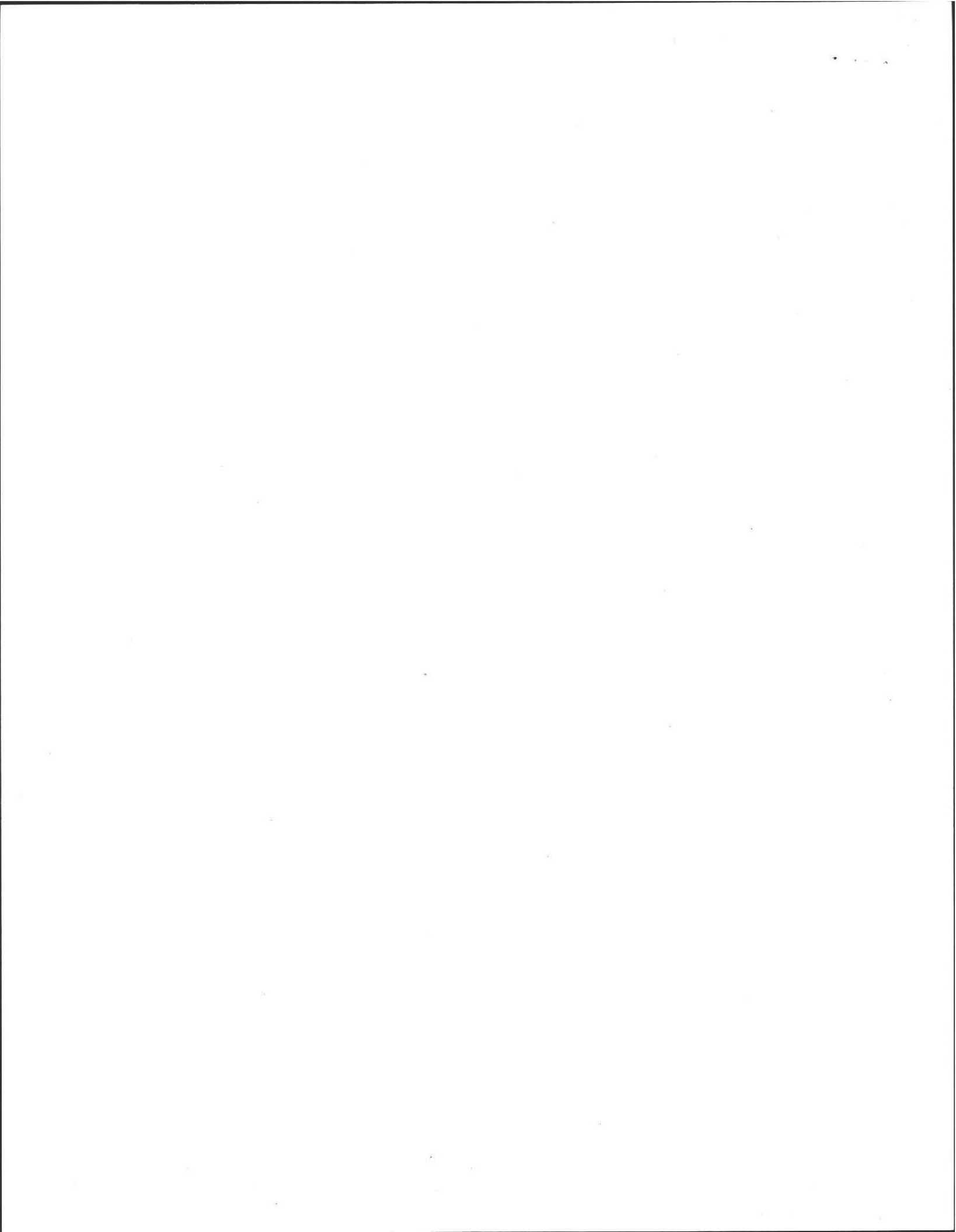
\* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) \_\_\_\_\_ Depth to Bedrock: \_\_\_\_\_

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

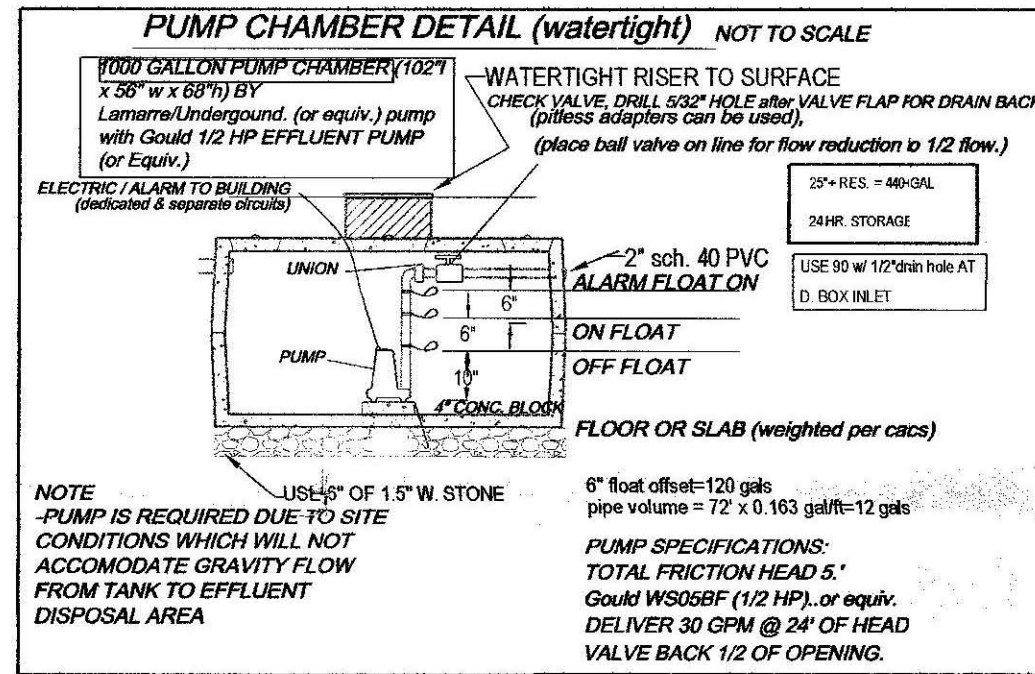
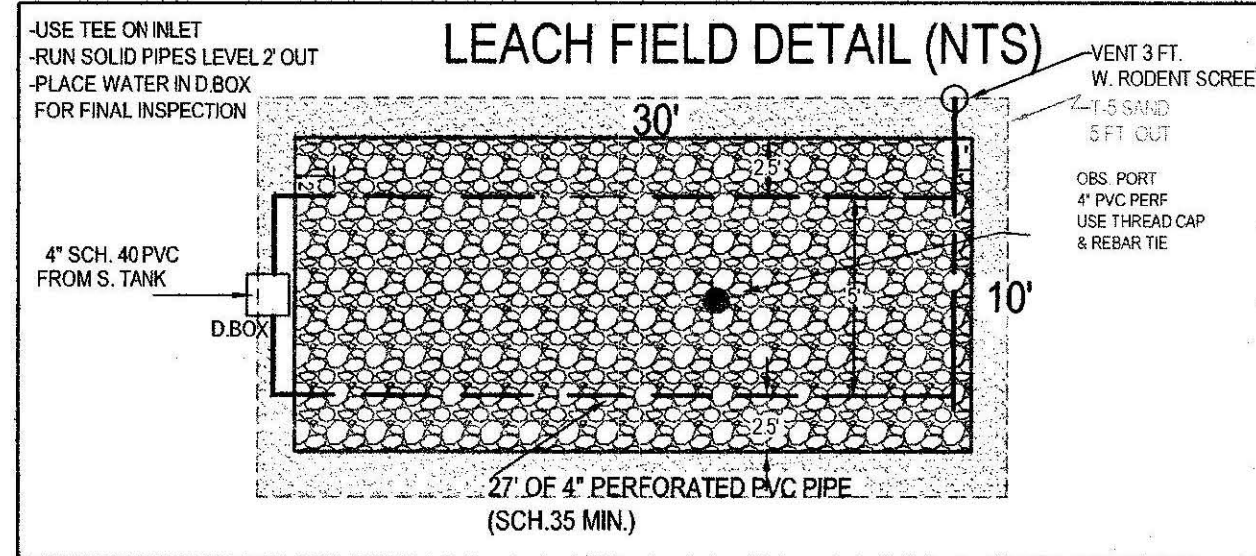
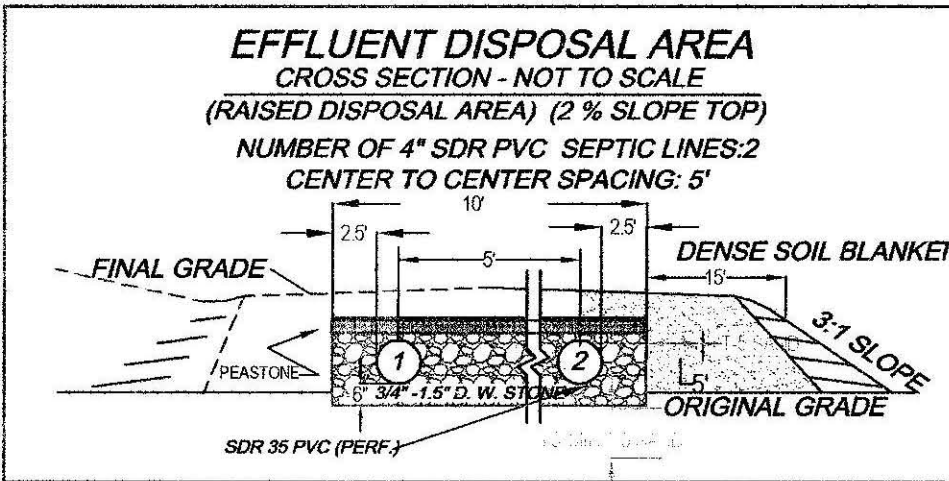
Estimated Seasonal High Ground Water: \_\_\_\_\_



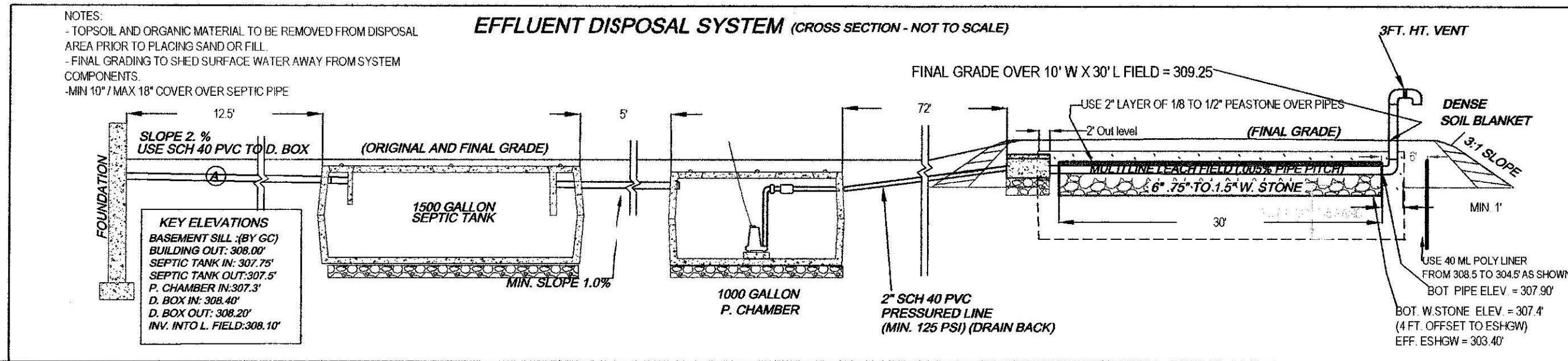
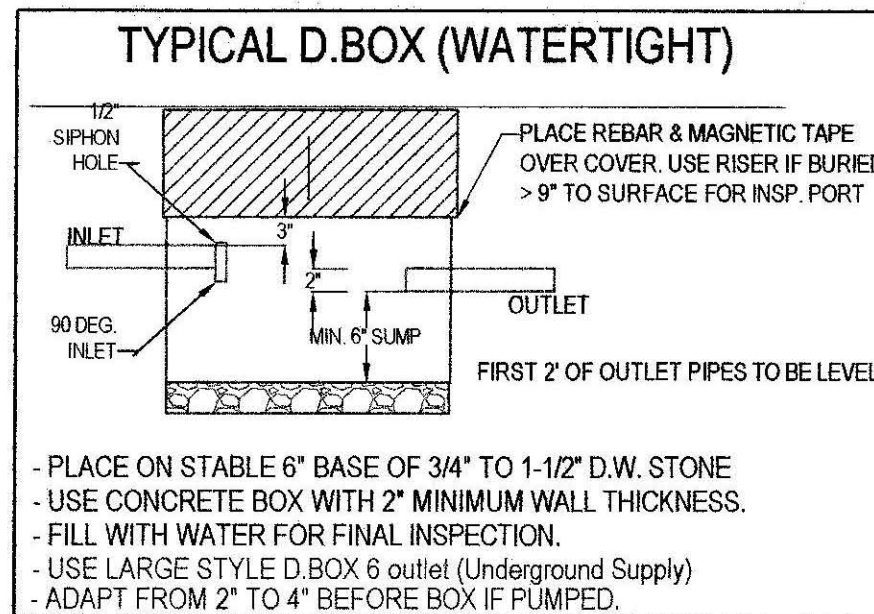
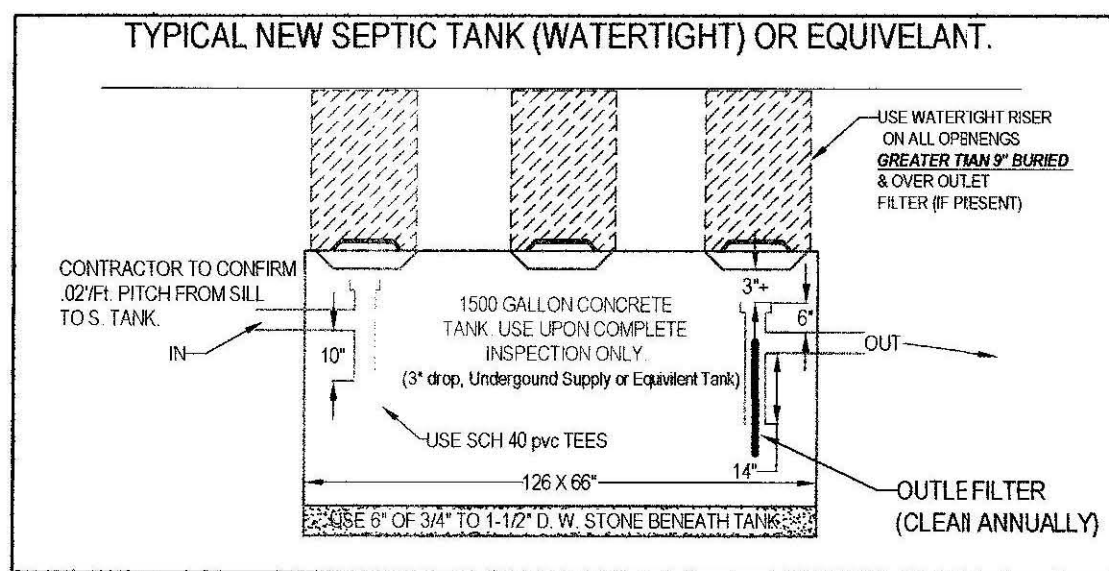




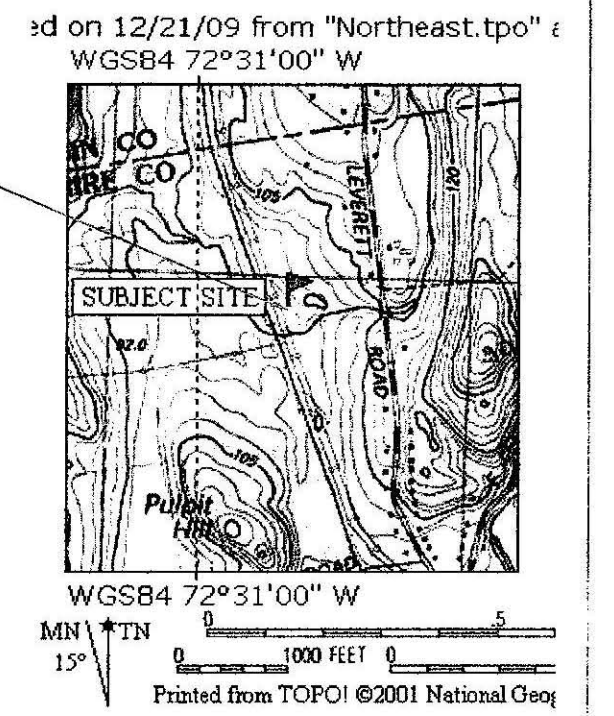
TEST PIT LOG:				SOIL EVALUATOR: ALAN WEISS				DATE OF EVALUATION: 12/15/09											
TP-1 EFF. ELEV. 306.4				TP-2 EFF. ELEV. 306.4				TP-3 EFF. ELEV.				TP-4 EFF. ELEV.							
DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL	DEPTH	HORIZ.	TEXTURE	MOISTURE	MATERIAL
0-6	A	FSL	10 YR 33	FRIABLE	0-6	A	FSL	10 YR 33	FRIABLE	0-6	A	FSL	10 YR 33	FRIABLE	0-6	A	FSL	10 YR 33	FRIABLE
6-12	Bw	SL	7.5 YR 46	FRIABLE LOOSE	6-13	Bw	SL	7.5 YR 46	FRIABLE LOOSE	6-16	Bw	SL	7.5 YR 46	FRIABLE LOOSE	9-10	Bw	SL	7.5 YR 46	FRIABLE LOOSE
12-106	C1	LS	7.5 YR 46	F.M. SANDY GRAVELLY	13-80	C1	LS	7.5 YR 46	F.M. SANDY GRAVELLY	16-78	C1	LS	7.5 YR 46	F.M. SANDY GRAVELLY	10-59	C1	LS	7.5 YR 46	F.M. SANDY GRAVELLY
ABLATION TILL MOD. FIRM				ABLATION TILL MOD. FIRM				ABLATION TILL MOD. FIRM				ABLATION TILL MOD. FIRM							
OXIDES: 10 YR 68 OBSERVED @ 36"				OXIDES: 10 YR 68 OBSERVED @ 36"				OXIDES: 10 YR 68 OBSERVED @ 36"				OXIDES: 10 YR 68 OBSERVED @ 36"							
EHW: 36" - 303.4				EHW: 36"				EHW: 36"				EHW: 36"							
STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED				STANDING H2O: NOT OBSERVED							
WEEPING: 70"				WEEPING: 70"				WEEPING: 70"				WEEPING: 59"							
BEDROCK: 106"				BEDROCK: 80"				BEDROCK: 78"				BEDROCK: 59"							



- PUMP CHAMBER/MOUNDED SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER:**
- HAVE SEPTIC TANK PUMPED EVERY SECOND (2) YEARS.
  - \*\*HAVE Tank, PUMP AND PUMP CHAMBER & OUTLET FILTER & D BOX INSPECTED ANNUALLY. \*\*OUTLET FILTER MUST BE CLEANED ANNUALLY\*\*
  - MAKE CERTAIN TO TEST HI WATER SHUT OFF ALARM ANNUALLY.
  - MAINTAIN AREA OVER SEPTIC AS GRASSY OR SIMILAR GROUND COVER ATTEMPTING TO MAXIMIZE SUNLIGHT TO AREA.
  - DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF LEACHFIELD.
  - USE ONLY LIQUID DETERGENTS IN WASHER OR DISHWASHER.
  - CONSERVE WATER WHEREVER POSSIBLE TO LENGTHEN LIFE OF SYSTEM. USE WATER SAVING DEVICES AND FIXTURES ONLY.
  - KEEP ALL RUNOFF DRAINS SUCH AS GUTTERS OR CURTAIN DRAINS AT LEAST 25 FEET FROM LEACHING FIELD.



SUBJECT SITE LOCATION



**DESIGN NOTES AND CALCULATIONS:**

1.) COMMERCIAL BUILDING - 15 GPD PER PERSON X 10 PERSONS = MINIMUM 150 GPD

- Use ONE FIELD: 10' WIDE X 30' LONG WITH 6" OF 3/4" TO 1 1/2" DBL WASHED STONE BELOW INWERT
- BOTTOM AREA: 10' W X 30' L = 300 SF.
- SIDE AREA: 0 SF.
- TOTAL AREA: 300 SF X 0.60 GAL/SF = 180 GPD
- 3. GARBAGE DISPOSAL NOT ALLOWED...
- 4. NO OTHER PRIVATE WELLS WITHIN 100 FEET OF SAS.
- 5. NO OTHER WETLANDS WITHIN 50 FEET OF SAS, NO FILING BY BEC CONSULTANTS, SEPARATE.
- 6. USE NEW 1,500 GAL. SS. TANK AS NOTED & MAINTAIN 0.02 PITCH FROM SILL TO S. TANK
- INSTALL & INSPECT SCH. 40 TEES / BAFFLES (10" INLET, 14" OUTLET).
- 6A INSTALL NEW 1000 G. PUMP CHAMBER
- NOTE: ALL COMPONENTS OF NEW SYSTEM MUST BE MARKED WITH MAGNETIC TAPE. BE SURE TO MAINTAIN 3" CLEARANCE FROM TOP OF TEES TO BOTTOM OF TANK COVERS & BOXES.
- 7. USE LARGE STYLE (6 OUTLET) D.BOX ONLY.
- 7A ALL D. BOX OUTLET PIPES LEVEL FOR FIRST 2' BOXES MUST HAVE 2" CONC. WALLS
- NOTE: D. BOXES WITH MORE THAN 9" OF COVER SOIL MUST HAVE RISERS TO 6" OF SURFACE.
- 8. USE APPROVED (.75"-1 1/2") DBL. WASHED STONE UNDER TANK & D. BOX FOR 6".
- CONFIRM STONE PROPERLY DOUBLE WASHED PRIOR TO PLACEMENT.
- 9. USE PROPER SCH. 40 PVC TEES AS SHOWN.
- 10. PRE & POST CONTOURS & RESERVE NOTED.
- 11. SLOPE CALCS (SEE CONTOURS). SUBGRADE INSP. REQ'D.
- 13. USE FIELD DUE TO TOPOGRAPHY AND SPACE OF LOT WITH RESPECT TO LOCATION AND ELEVATION OF RESIDENCE (310 CMR 15.240)
- 14. USE 2% MIN. SLOPE OVER SAS
- CLEAR TOP AND SUB TO 16" MIN. AS NEEDED (INSPECTION REQUIRED).
- CLEAR PAST BASE OF B (MIN. 16") & SCARIFY UNDER BED PRIOR TO TITLE V SAND/STONE PLACEMENT.
- EXCAVATE EXISTING LOAM, SUB AND ANY EXISTING DEBRIS, DIRTY FILL OR PRIOR SYSTEM IF PRESENT.
- 15. SOIL EVALUATION BY A. WEISS, RS. ON 12/15/09 (G. COURTMONDE, BOH AGENT).
- DEPTH OF PERC. 44" & 42"
- PERC RATE = 5 & 10 MIN / IN.
- CLASS I (LS) SOIL RATING
- 16. NO TREES WITHIN 10 FT. OF NEW LEACH FIELD.
- 17. ENGINEER & TOWN (IF REQUIRED) TO INSPECT SUBGRADE, TOWN AND ENGINEER INSPECT AT FINAL.
- 18. BM= (as noted), CONFIRM PROPER PIPE SLOPES
- USE/INSPECT SCH. 40 PIPE FOR PIPE FROM HOUSE TO NEW OR EXISTING TANK
- 19. GRADE MULCH AND SEED OVER SAS AS NOTED.
- 20. INSTALLATION IN LOW GROUNDWATER SEASON RECOMMENDED.
- 21. USE OBSERVATION PORT NEAR CENTER OF STONE BED HAVE 4" PERFORATED PVC INSPECTION PORTALS TO BOTTOM OF STONE BED. WITH RISER TO 3" OF SURFACE & THREADED CAP & MARK WITH RE-BAR.

NOTE TO HOMEOWNER: MOUNDS, WHERE USED, ARE REQUIRED BY STATE CODE TO MAXIMIZE THE DISTANCE FROM THE BOTTOM OF THE LEACHING FIELD TO THE TOP OF THE ESTIMATED HIGH GROUNDWATER. THIS "SEPARATION" FROM HIGH GROUNDWATER (3.4, OR 5 FEET), IS NOT THE SAME AS THE HEIGHT OF THE FINISHED MOUND SURFACE. THE ACTUAL FINISHED MOUND IS TYPICALLY HIGHER THAN THE "SEPARATION". BY SIGNING PERMIT YOU ACKNOWLEDGE THAT COLD SPRING ENVIRONMENTAL CONSULTANTS INC. IS NOT RESPONSIBLE FOR THE AESTHETICS OF FILLED OR MOUNDED SYSTEMS.

SEPTIC SYSTEM PLAN FOR MAINTENACE BUILDING PARAFFIN Co.  
260 REAR LEVERETT ROAD  
AMHERST, MA.  
**Cold Spring Environmental Consultants Inc.**  
350 Old Enfield Road  
Belchertown, MA. 01007



PROJECT: (413) 323-5957  
DATE: 12/21/09  
SCALE: 1"=30'  
DRAWN BY: ARS  
CHECKED BY: AEW  
PAGE 2 OF 2  
DRAWING NUMBER: 109-3790-1214

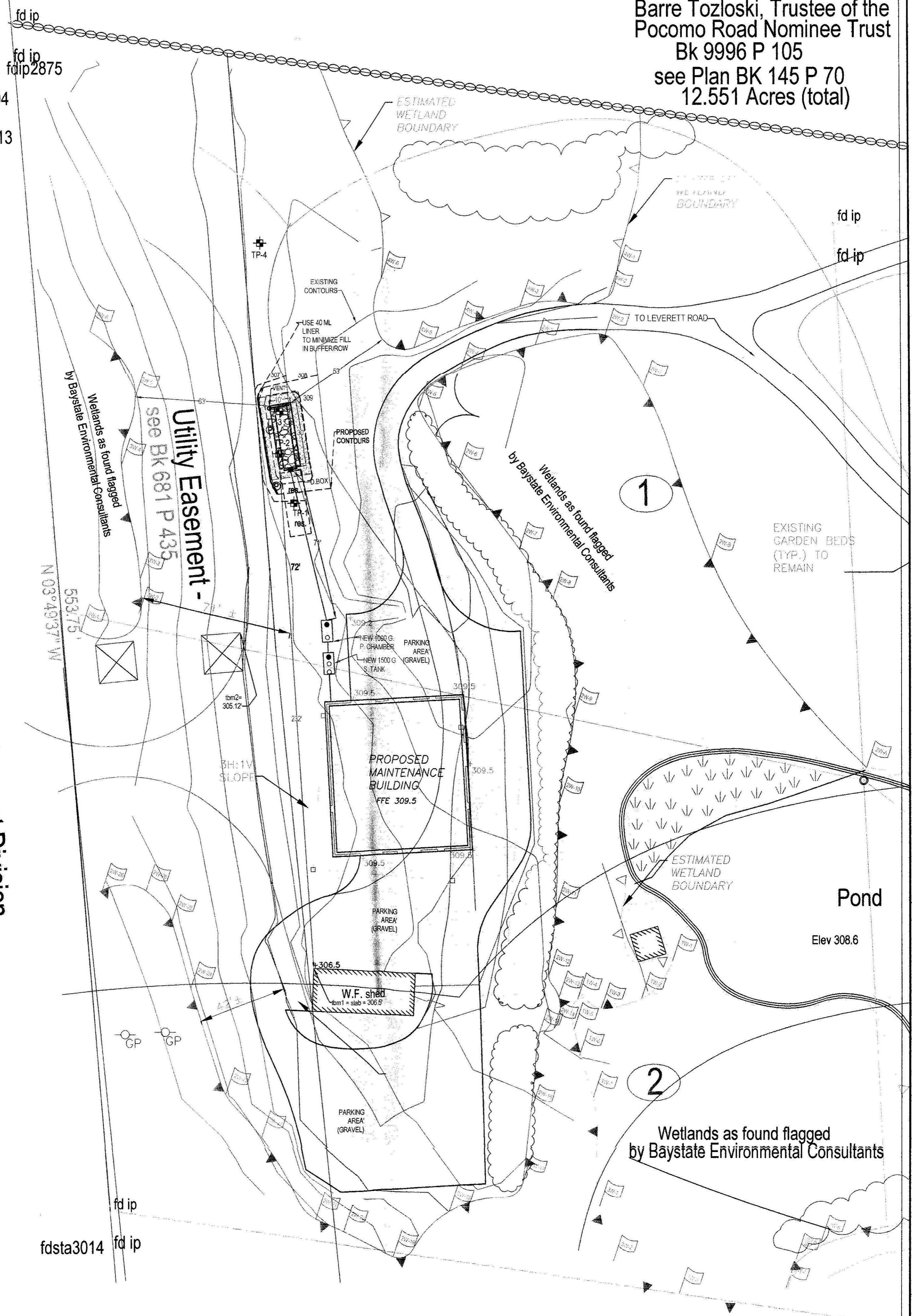
ATTENTION INSTALLER!  
CALL DIG SAFE BEFORE YOU DIG!! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 40 - 40E REQUIRE THAT PREMARKING OF GAS, ELECTRIC, WATER, TELEPHONE AND CABLE T.V. UTILITY LINES BE MADE A MINIMUM OF 72 HOURS PRIOR TO GROUND BREAK FOR ANY EXCAVATION.

NOTE: INSTALLER MUST CONTACT ENGINEER/BD OF HEALTH 48 HOURS PRIOR TO SUBGRADE INSPECTION. INSTALLER MUST HAVE ALL BREAK OUT FILL ON SITE AND IN PLACE PRIOR TO SIGN OFF BY ENGINEER AT TIME OF FINAL INSPECTION OR APPROVAL WILL NOT BE GIVEN TO BACKFILL.

Barre Tozloski, Trustee of the  
 Pocomo Road Nominee Trust  
 Bk 9996 P 105  
 see Plan BK 145 P 70  
 12.551 Acres (total)

fdsta3004  
 fdsta2413

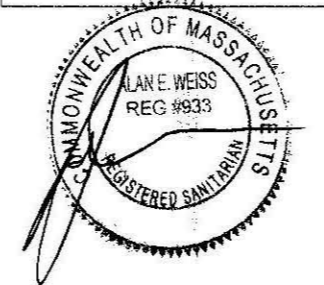
Canadian National Railroad - Central Vermont Division



PLOT PLAN PROVIDED TO COLD SPRING ENVIRONMENTAL BY  
 BAYSTATE ENVIRONMENTAL CONSULTANTS INC.  
 (THAT PLOT REFERENCES SURVEY BY ROSE ASSOCIATES SEPT. 2007)

NOTE TO HOMEOWNER: MOUNDS, WHERE USED, ARE REQUIRED BY STATE CODE TO MAXIMIZE THE DISTANCE FROM THE BOTTOM OF THE LEACHING FIELD TO THE TOP OF THE ESTIMATED HIGH GROUNDWATER. THIS "SEPARATION" FROM HIGH GROUNDWATER (3, 4, OR 5 FEET), IS NOT THE SAME AS THE HEIGHT OF THE FINISHED MOUND SURFACE. THE ACTUAL FINISHED MOUND IS TYPICALLY HIGHER THAN THE "SEPARATION". BY SIGNING PERMIT YOU ACKNOWLEDGE THAT COLD SPRING ENVIRONMENTAL CONSULTANTS INC. IS NOT RESPONSIBLE FOR THE AESTHETICS OF FILLED OR MOUNDED SYSTEMS.

SEPTIC SYSTEM PLAN  
 SCALE: 1"=30'  
 12.55± Ac.



SEPTIC SYSTEM PLAN FOR MAINTENACE BUILDING PARAFFIN Co.  
 260 REAR LEVERETT ROAD  
 AMHERST, MA.

**Cold Spring Environmental Consultants Inc.**  
 350 Old Enfield Road  
 Belchertown, MA. 01007

PHONE: (413) 323-5957  
 FAX: (413) 323-4916  
 DATE: 12/21/09  
 SCALE: 1"=30'  
 DRAWN BY: ARS  
 CHECKED BY: AEW  
 PAGE 1 OF 2  
 DRAWING NUMBER: 109-3790-1214

3A 85d 86  
304 LEVERETT RD.

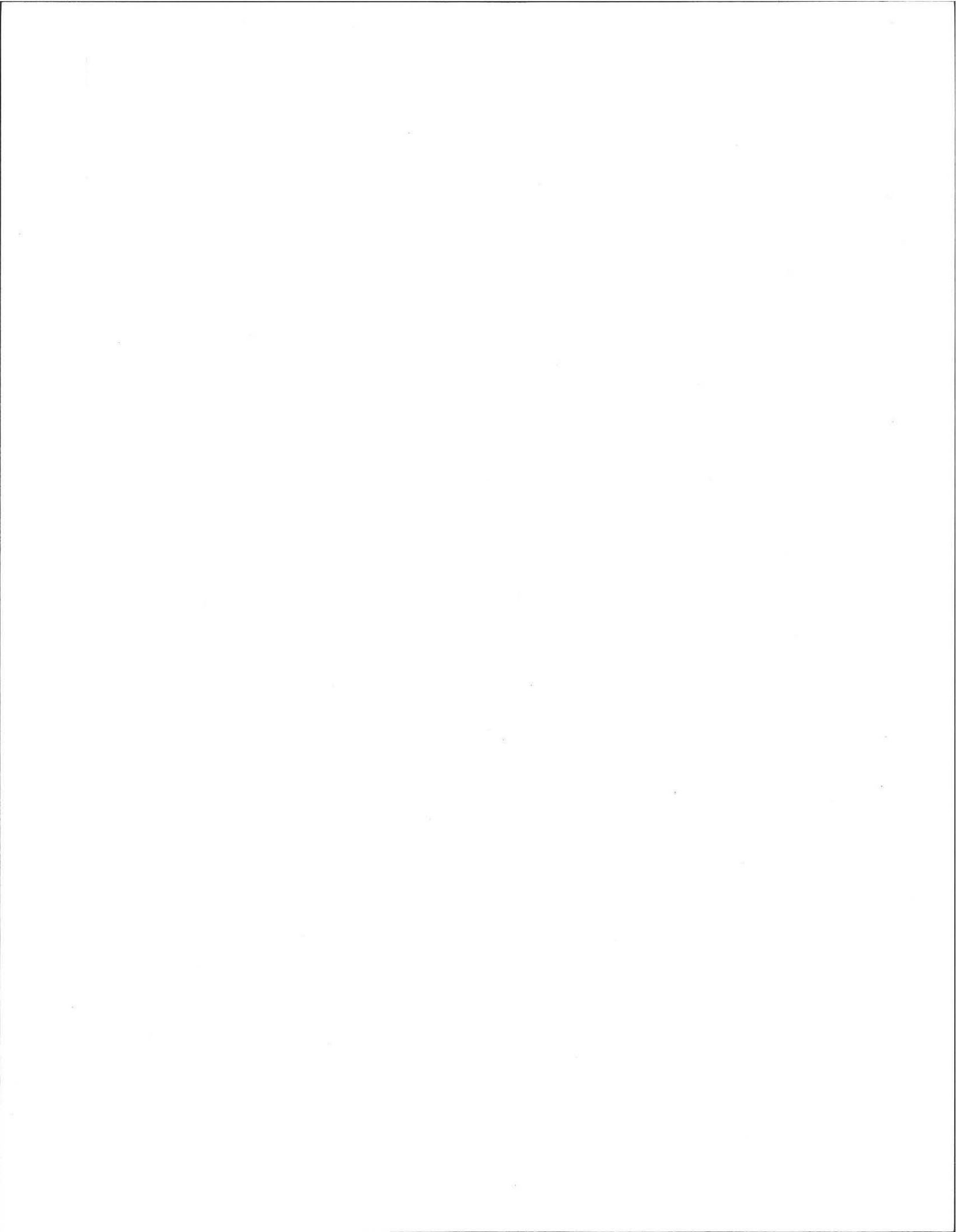
Plan: 09-13

Designed by: Alan Wrecc

CHECK LIST FOR SEPTIC PLANS

- Application page attached to plan
- PE or RS stamp, date, signature
- Variances to property line setback distances must have Surveyor Stamp 15220 (3)
- Legal boundaries noted
- Easements noted N/A
- Dwellings and buildings existing or proposed noted
- Location of driveway or parking areas, other impervious areas
- Location and dimensions of reserve area (new) CMR 15.248(1), 15.104(4)
- System design calculations N/A
- Garbage grinder Y or N
- Benchmark not disturbed during construction, within 75 feet of facility CMR 15.220 (4)(q)
- North arrow CMR 15.200 (4) (g)
- Contours
- Deep hole location and data (existing lead)
- Perc hole location and data (existing lead)
- Elevations
- Names of approving authority and soil evaluator CMR 15.211 p. 49 N/A
- Location of every water supply, public and private CMR 15.220(k):
  - Within 400 feet of system in case of surface water and gravel packed public water supply
  - Within 250 feet of system in case of tubular public water supply
  - Within 150 feet of private supply wells 100' septic sys. & 50' tank
- Well statement if applicable N/A
- Location of any surface waters, rivers, vegetated wetlands N/A
- Location of water lines and other subsurface utilities
- Observed and adjusted ground water elevation in the vicinity of system 15.220 (4)(n)
- Profile of system
- Locus plan to show location of facility, including nearest street
- Materials of construction and specs for system
- Gas Baffle 15.227.4
- Pipe in center line of tank 310 CMR 15.227, 15.06(8)
- Double washed stone
- Schedule 40 PVC for trafficked areas, house to tank
- Distances noted from house to tank, etc.
- If dosing is proposed, design and specs of dosing system N/A
- When alternative technology is required, complete plan and specs, including hydraulic profile N/A
- Trenches preferred over beds CMR 15.240 (6) N existing
- Buoyancy calculations for tanks or components partly below H2O table 15.221(8) p. 56 N/A
- 3 to 1 slope outside of mound, toe ending 5 feet from property line
- Local upgrade requests on the plan N/A
- Local upgrade forms attached to application N/A
- Note on plan listing all variances sought in conjunction with the plan N/A

NOTES: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



No. \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT



Application for a Permit to Construct (  ) Repair (  ) Upgrade ( ) Abandon ( ) -  Complete System  Individual Components

Location <u>294-304 Leverett RD.</u>	Owner's Name <u>Paraffin Co.</u>
Map/Parcel# <u>3A 85+86.</u>	Address <u>312 Leverett RD</u>
Lot# <u>85+86</u>	Telephone# <u>548-9802</u>
Installer's Name <u>DMO CONST</u>	Designer's Name <u>Alan Weiss</u>
Address <u>Amherst, MA.</u>	Address <u>Belchertown,</u>
Telephone# _____	Telephone# <u>323-5957</u>

Type of Building Res + Storage Bldg Lot Size 1.5+1.5 Ac +/- sq. ft.  
 Dwelling - No. of Bedrooms (3) Garbage grinder ( )  
 Other - Type of Building \_\_\_\_\_ No. of persons \_\_\_\_\_ Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 110 gpd Calculated design flow 330 Design flow provided 330 gpd  
 Plan: Date 12-16-09 Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title Existing System tied into at #304 Leverett RD w/ Ejector Pump  
 Description of Soil(s) \_\_\_\_\_  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator \_\_\_\_\_ Date of Evaluation \_\_\_\_\_

DESCRIPTION OF REPAIRS OR ALTERATIONS change cabin at #294 to storage space with bathroom only to ejector pump to SFI dwelling system at #304 Leverett RD.

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed [Signature] Date 12-22-09 ✓

Inspections \_\_\_\_\_

No. \_\_\_\_\_

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

## CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired (  ), Upgraded ( ), Abandoned ( )

by: \_\_\_\_\_

at \_\_\_\_\_

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. 09-13, dated 12/23/09. Approved Design Flow 330 (gpd)

Installer DMO CONST.

Designer: [Signature] Inspector: [Signature] Date: 12-16-09

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. 09-13

FEE 150.00

# COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

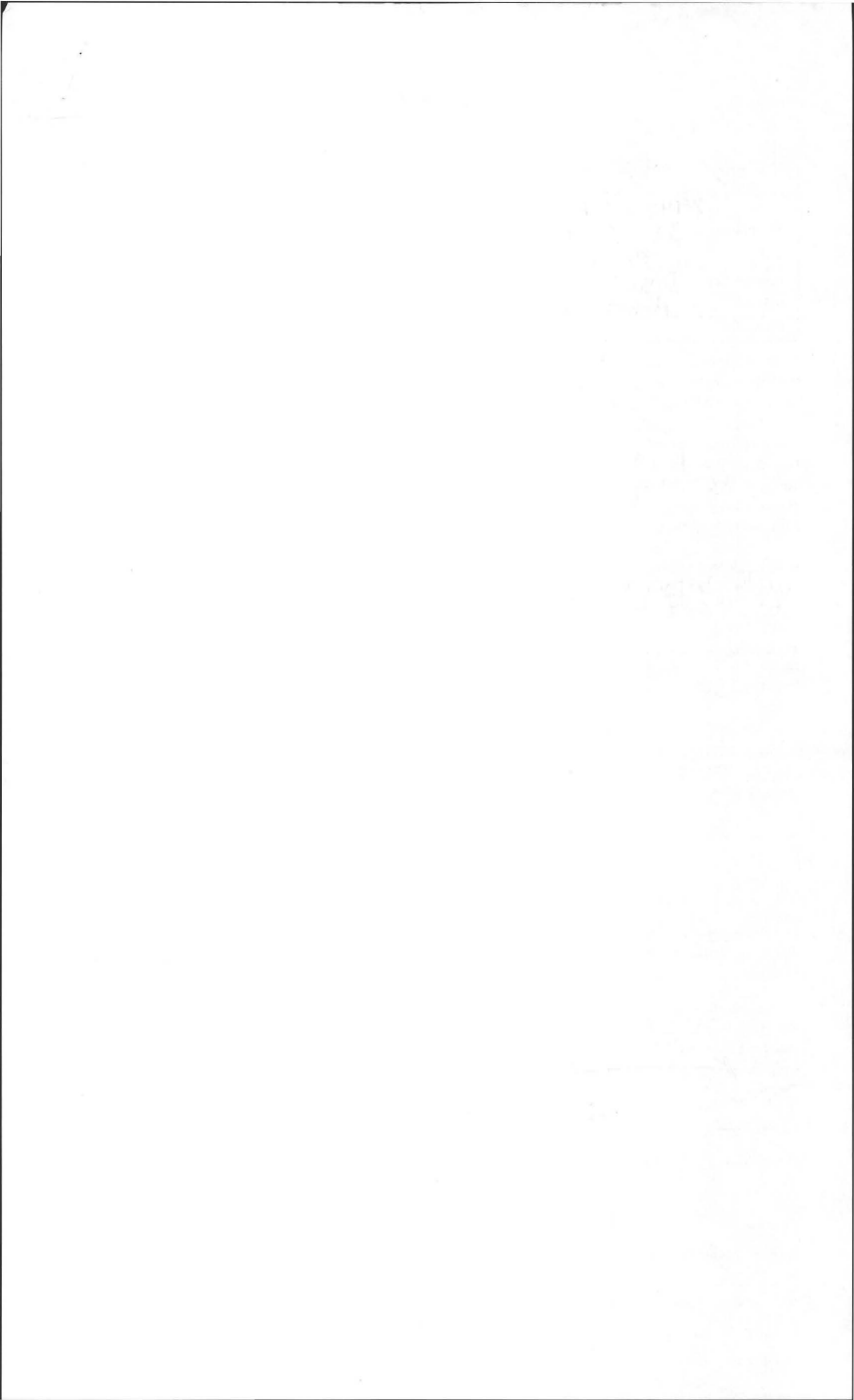
## DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct ( ) Repair (  ) Upgrade ( ) Abandon ( ) an individual sewage disposal system at \_\_\_\_\_ as described in the application for

Disposal System Construction Permit No. 09-13, dated 12/23/09.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

Date 12/23/09 Board of Health [Signature]  
 ASSISTANT SANITARIAN.



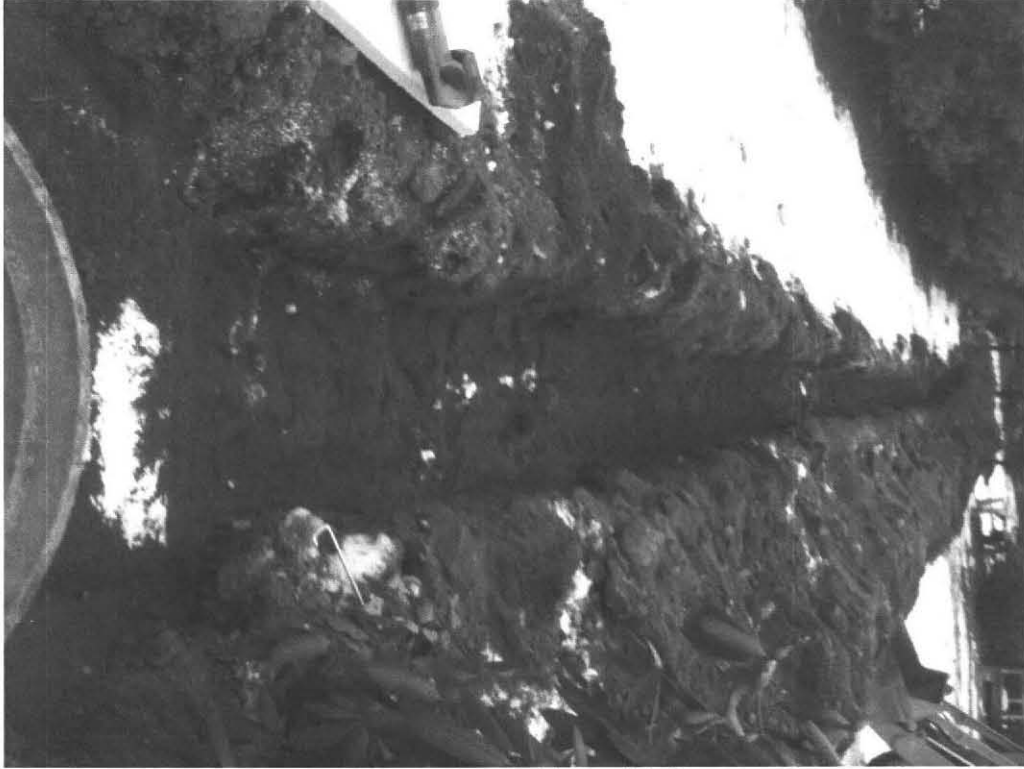


Ejector Pump (Little Giant)  
294-304 Leverett Road  
Amherst, MA  
12.16.2009

12.08.2009

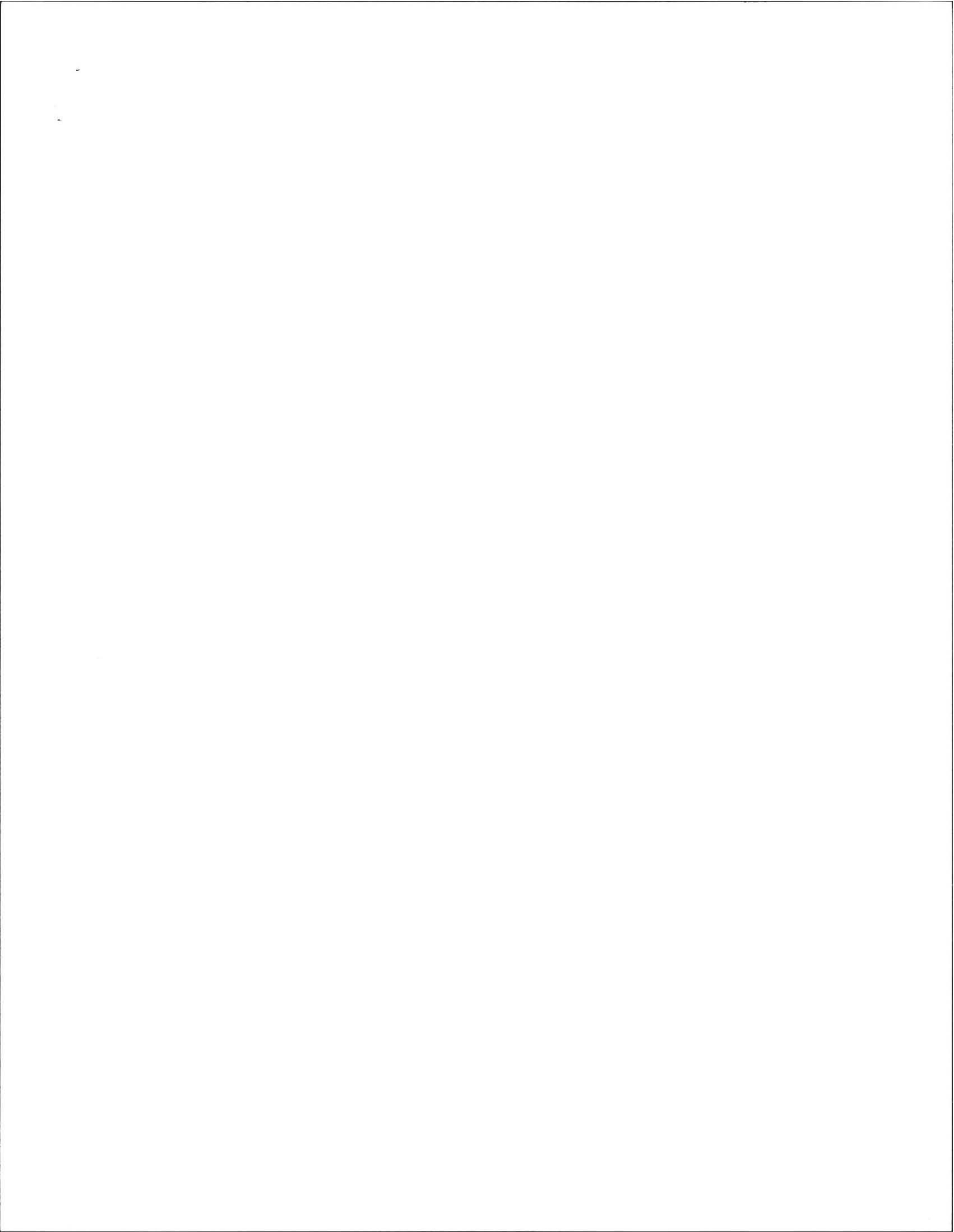






Ejector Pump Force Main  
294-304 Leverett Road  
Amherst, MA  
12.16.2009

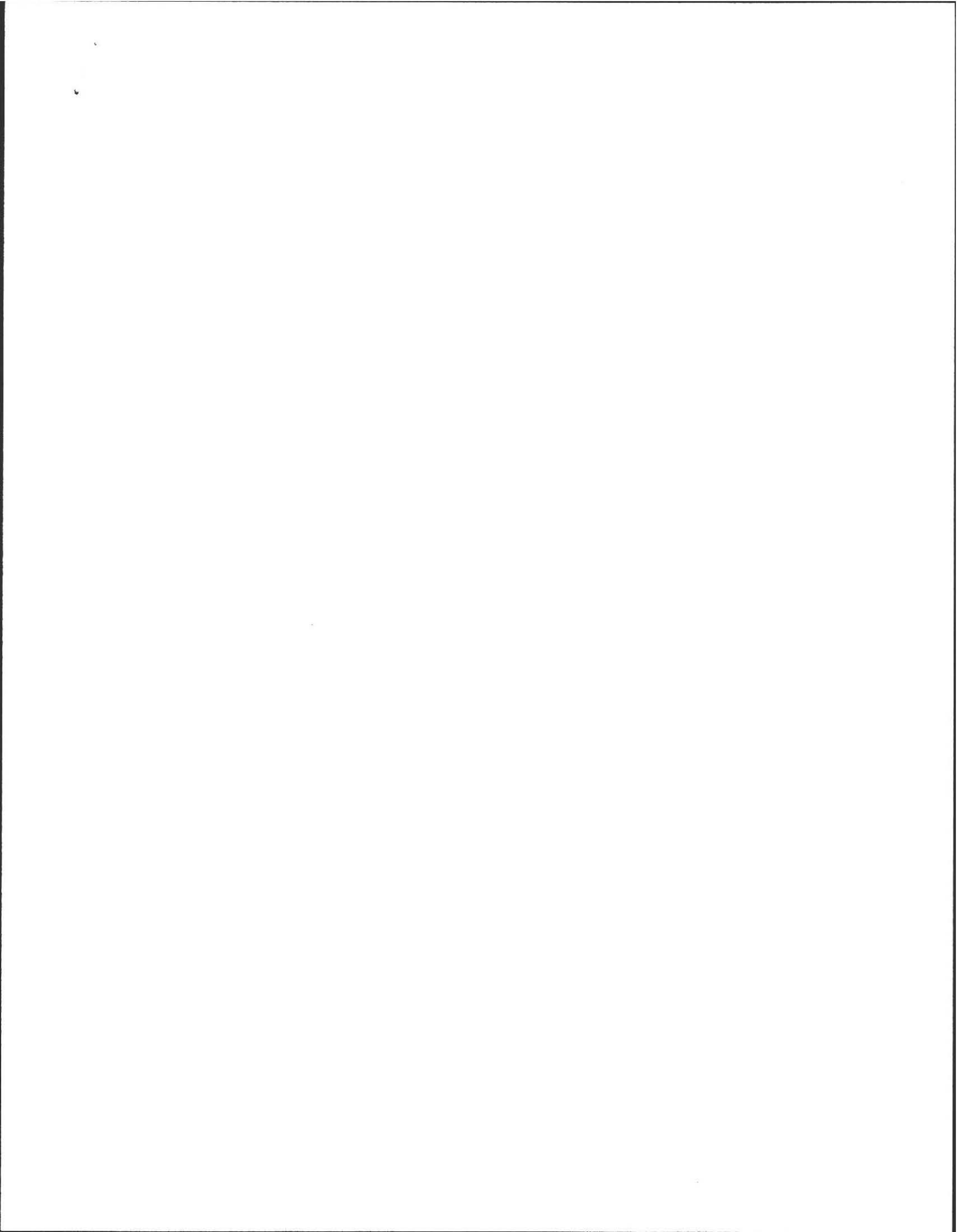
12.08.2009

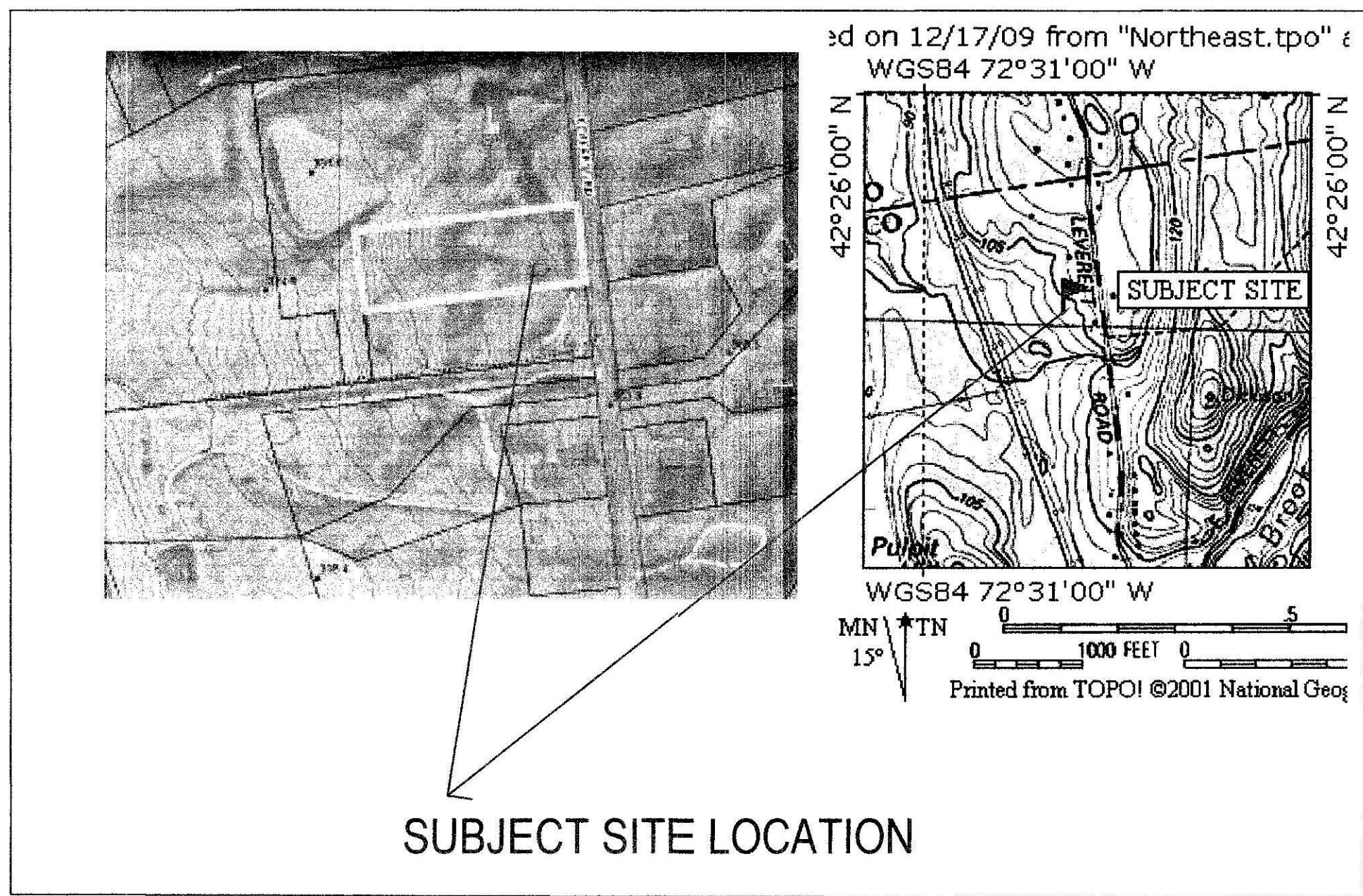
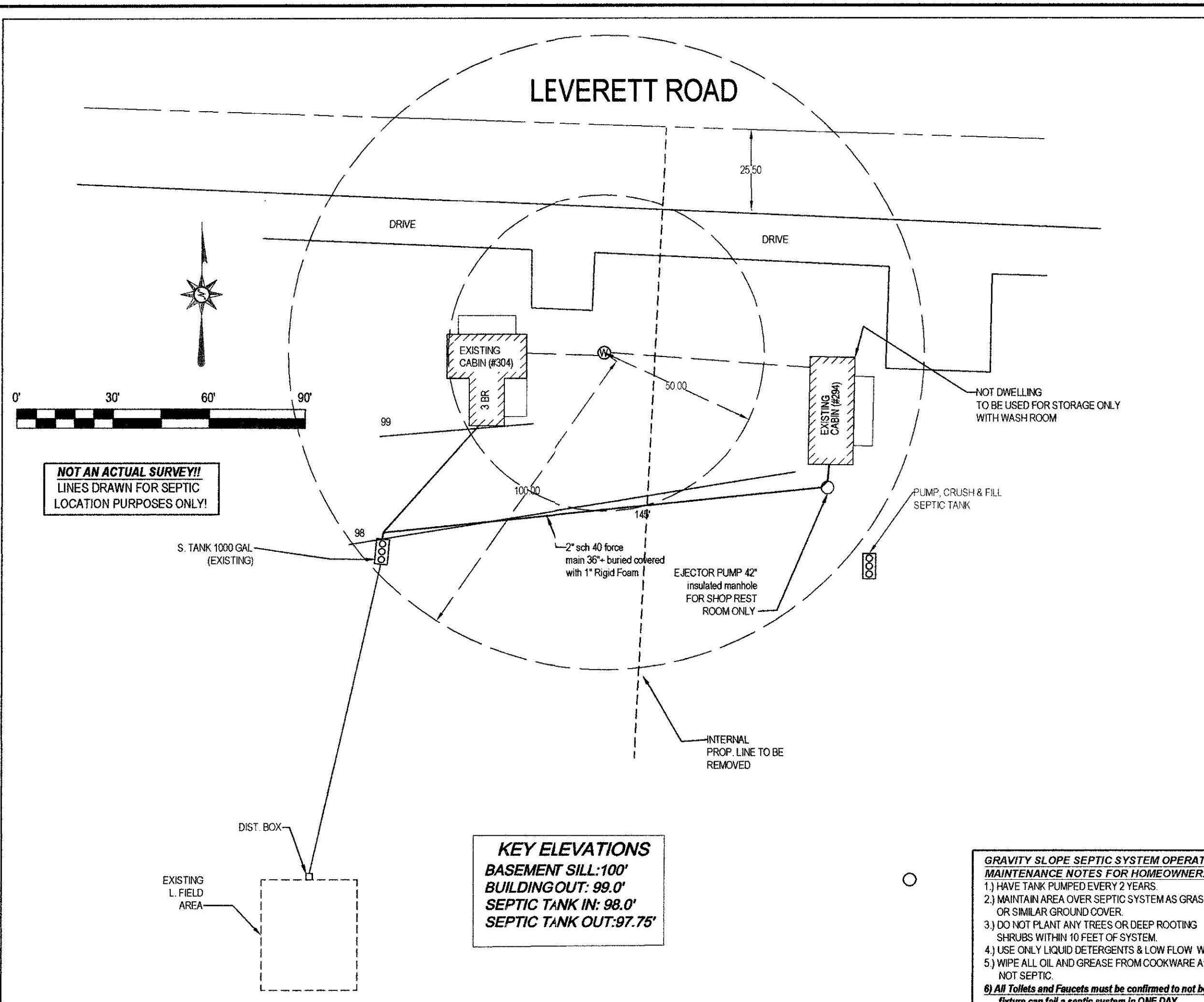




Ejector Pump  
294-304 Leverett Road  
Amherst, MA  
12.16.2009

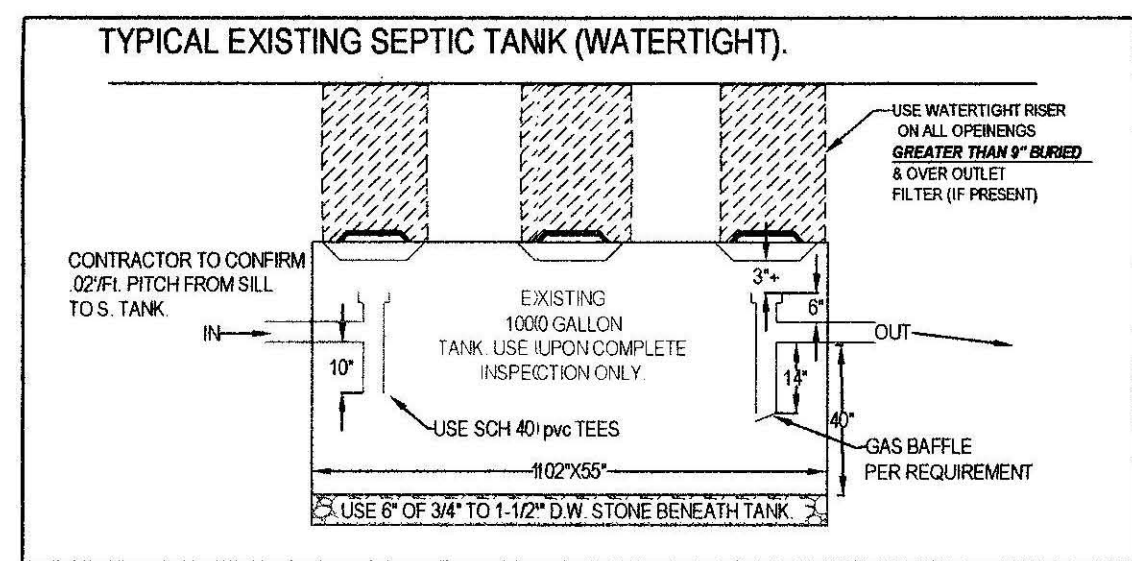
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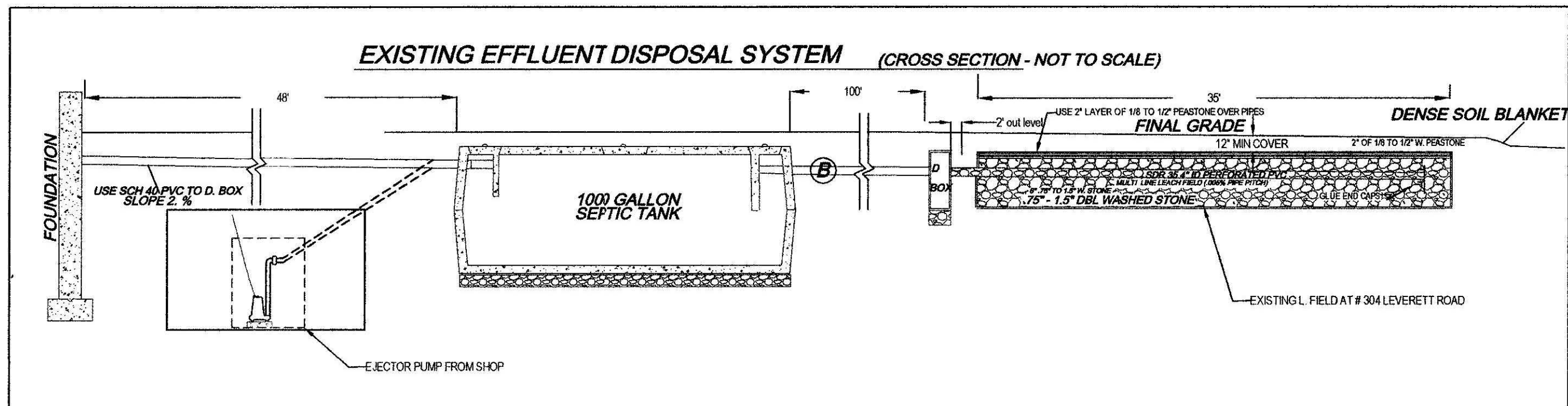
**GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER.**

- HAVE TANK PUMPED EVERY 2 YEARS.
- MAINTAIN AREA OVER SEPTIC SYSTEM AS GRASSY OR SIMILAR GROUND COVER.
- DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF SYSTEM.
- USE ONLY LIQUID DETERGENTS & LOW FLOW WASHERS.
- WIPE ALL OIL AND GREASE FROM COOKWARE AND DISPOSE IN TRASH NOT SEPTIC.
- All Toilets and Faucets must be confirmed to not be leaking, because one leaking fixture can fill a septic system in ONE DAY.



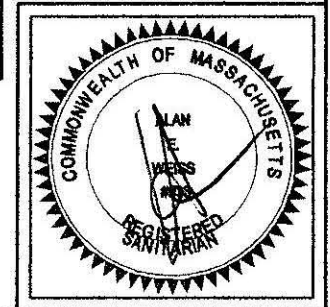
**NOTES TO INSTALLER**

- CONNECT SHOP AT 294 LEVERETT ROAD TO S. TANK AT 304 LEVERETT ROAD USING ELECTOR PUMP. INSTALL 2\"/>
- CONNECT AT EXISTING S. TANK USING 4\"/>
- NEW FORCE MAIN (2\"/>
- PUMP TO HAVE DEDICATED POWER AND ALARM CIRCUITS.



**ATTENTION INSTALLER!!**  
CALL DIG SAFE BEFORE YOU DIG!! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 40 - 40E REQUIRE THAT PREMARKING OF GAS, ELECTRIC, WATER, TELEPHONE AND CABLE T.V. UTILITY LINES BE MADE A MINIMUM OF 72 HOURS PRIOR TO GROUND BREAK FOR ANY EXCAVATION.

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SEPTIC SYSTEM CHANGE FOR PARRAFIN CO.  
 294-304 LEVERETT ROAD  
 AMHERST, MA

**Cold Spring Environmental Consultants Inc.**  
 350 Old Enfield Road  
 Belchertown, MA 01007

P/JO/NC: (413) 323-5957  
 FAX: (413) 323-4916  
 e-Mail: AEW@CS@charter.net

DATE: 12.16.2009	DRAWN BY: AEW	REVISED:
SCALE: 1"=30'	CHECKED BY: AEW	DRAWING NUMBER: 109-3291-1214

No. \_\_\_\_\_



COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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Lot# <u>85+86</u>	Telephone# <u>548-9802</u>
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Telephone# _____	Telephone# <u>323-5957</u>

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 Dwelling - No. of Bedrooms (3) Garbage grinder ( )  
 Other - Type of Building \_\_\_\_\_ No. of persons \_\_\_\_\_ Showers ( ), Cafeteria ( )  
 Other Fixtures \_\_\_\_\_  
 Design Flow (min. required) 110 gpd Calculated design flow 330 Design flow provided 330 gpd  
 Plan: Date 12-16-09 Number of sheets \_\_\_\_\_ Revision Date \_\_\_\_\_  
 Title Existing System tied into at #304 Leverett RD w/ Ejector Pump  
 Description of Soil(s) \_\_\_\_\_  
 Soil Evaluator Form No. \_\_\_\_\_ Name of Soil Evaluator \_\_\_\_\_ Date of Evaluation \_\_\_\_\_

DESCRIPTION OF REPAIRS OR ALTERATIONS change cabin at #294 to storage space with bathroom only to ejector pump to SFI dwelling system at #304 Leverett RD.

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

Signed [Signature] Date 12-22-09

Inspections \_\_\_\_\_

No. \_\_\_\_\_

FEE \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

CERTIFICATE OF COMPLIANCE

Description of Work:  Individual Component(s)  Complete System

The undersigned hereby certify that the Sewage Disposal System; Constructed ( ), Repaired ( ), Upgraded ( ), Abandoned ( )

by: \_\_\_\_\_ at \_\_\_\_\_

has been installed in accordance with the provisions of 310 CMR 15.00 (Title 5) and the approved design plans/as-built plans relating to application No. \_\_\_\_\_, dated \_\_\_\_\_, Approved Design Flow \_\_\_\_\_ (gpd)

Installer \_\_\_\_\_

Designer: [Signature] Inspector: \_\_\_\_\_ Date: 12-16-09

The issuance of this permit shall not be construed as a guarantee that the system will function as designed.

No. \_\_\_\_\_

FEE \_\_\_\_\_

COMMONWEALTH OF MASSACHUSETTS

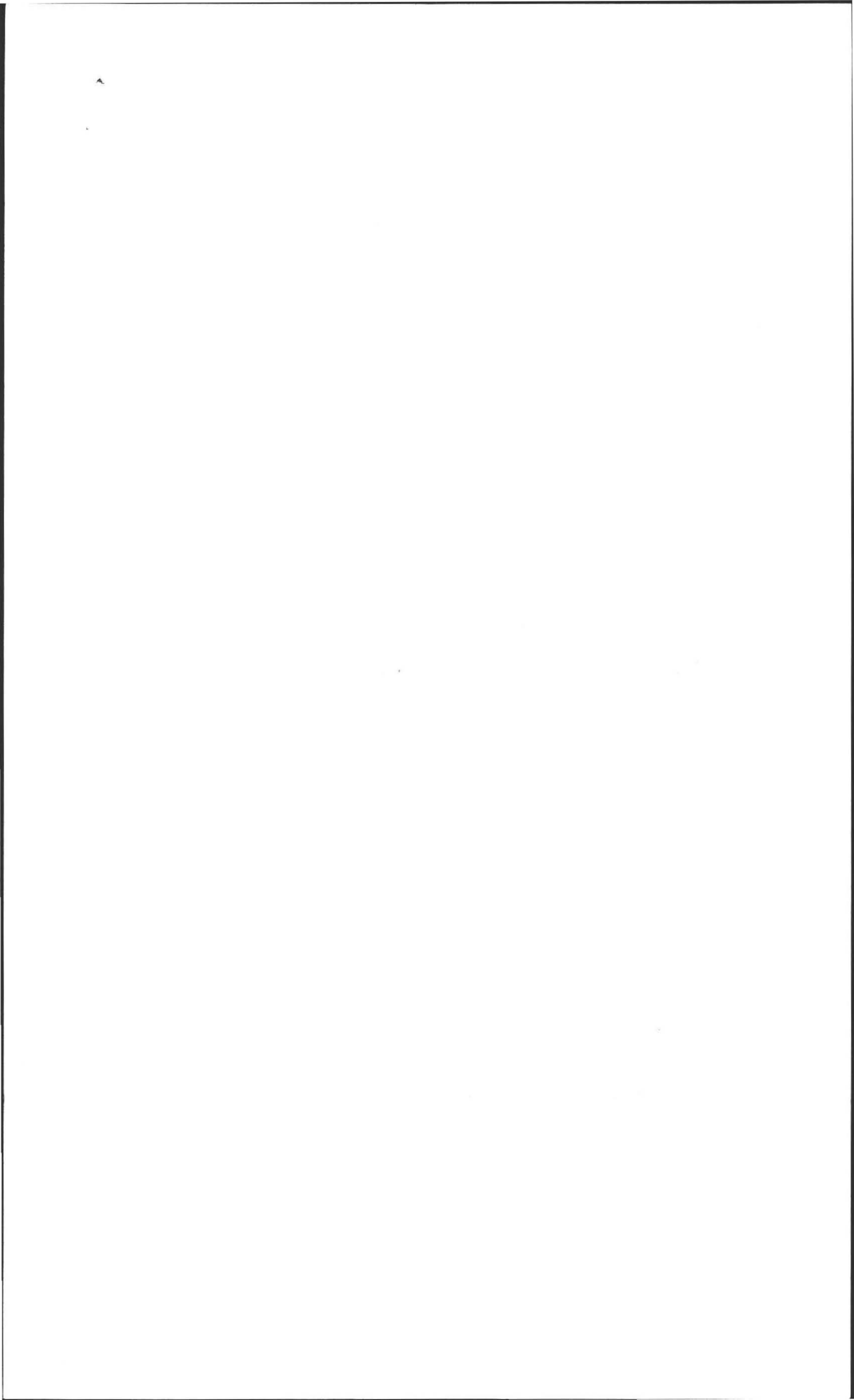
Board of Health, \_\_\_\_\_, MA.

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct ( ) Repair ( ) Upgrade ( ) Abandon ( ) an individual sewage disposal system at \_\_\_\_\_ as described in the application for

Disposal System Construction Permit No. \_\_\_\_\_, dated \_\_\_\_\_.

Provided: Construction shall be completed within three years of the date of this permit. All local conditions must be met.

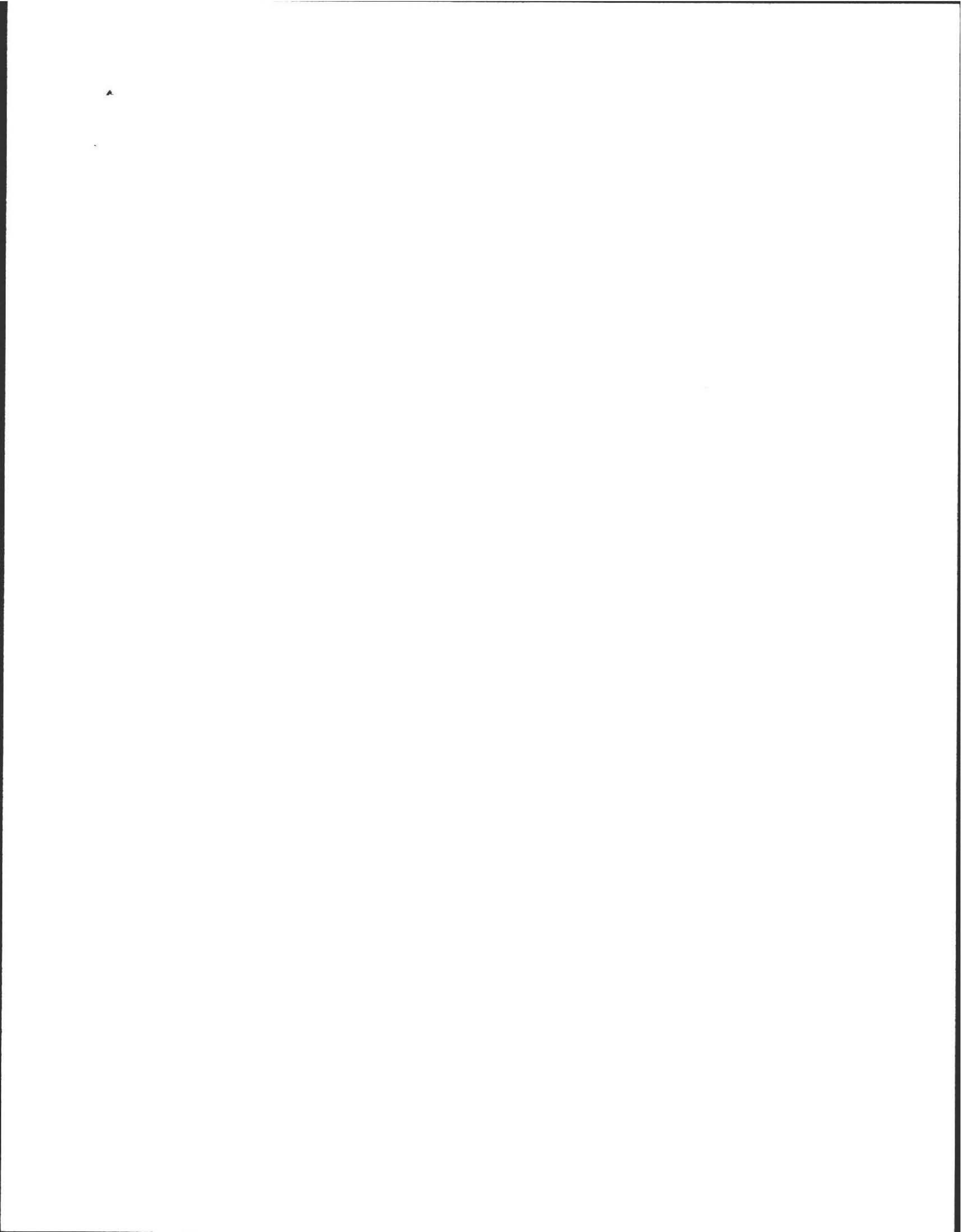




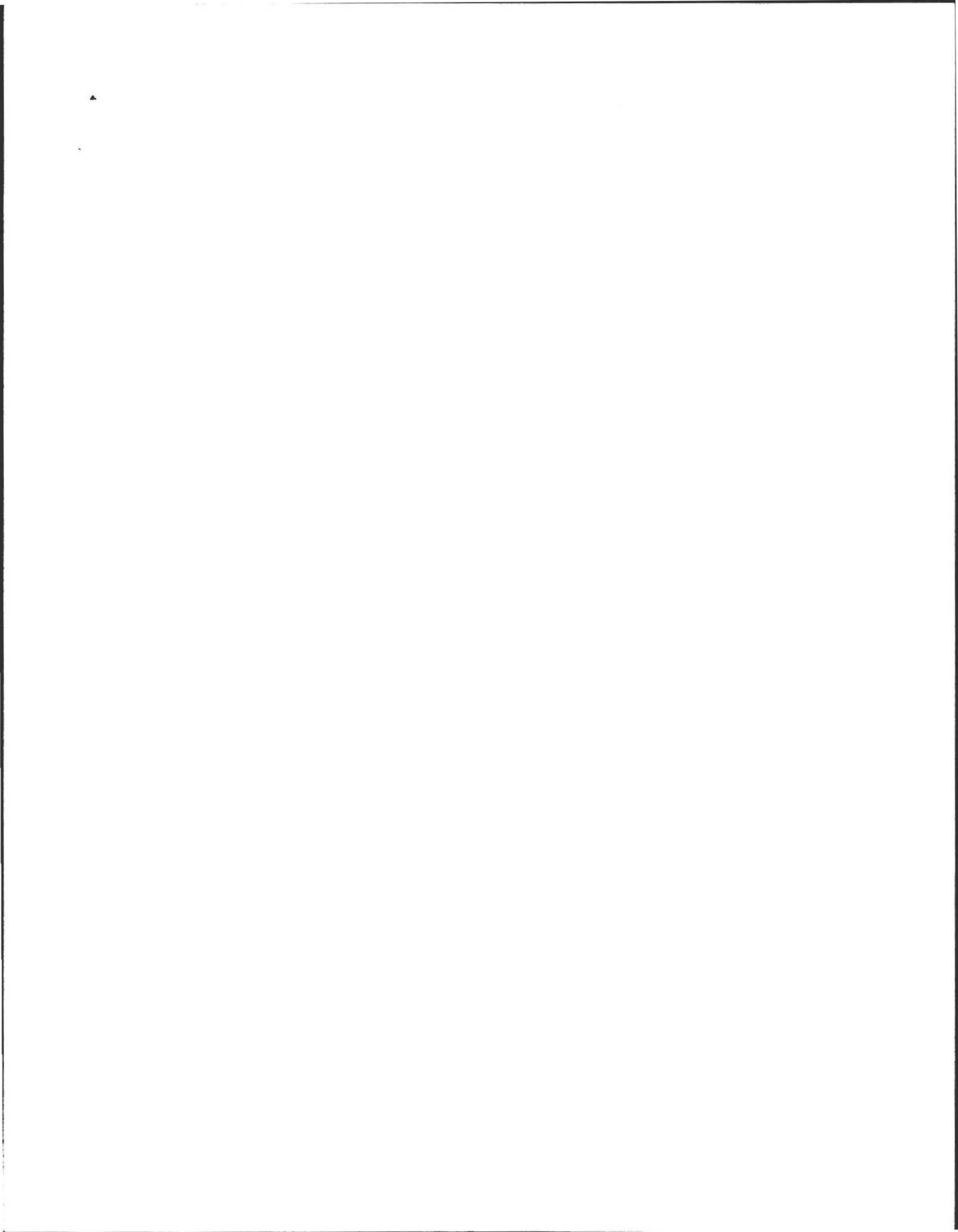
Ejector Pump  
294-304 Leverett Road  
Amherst, MA  
12.16.2009

12.08.2009





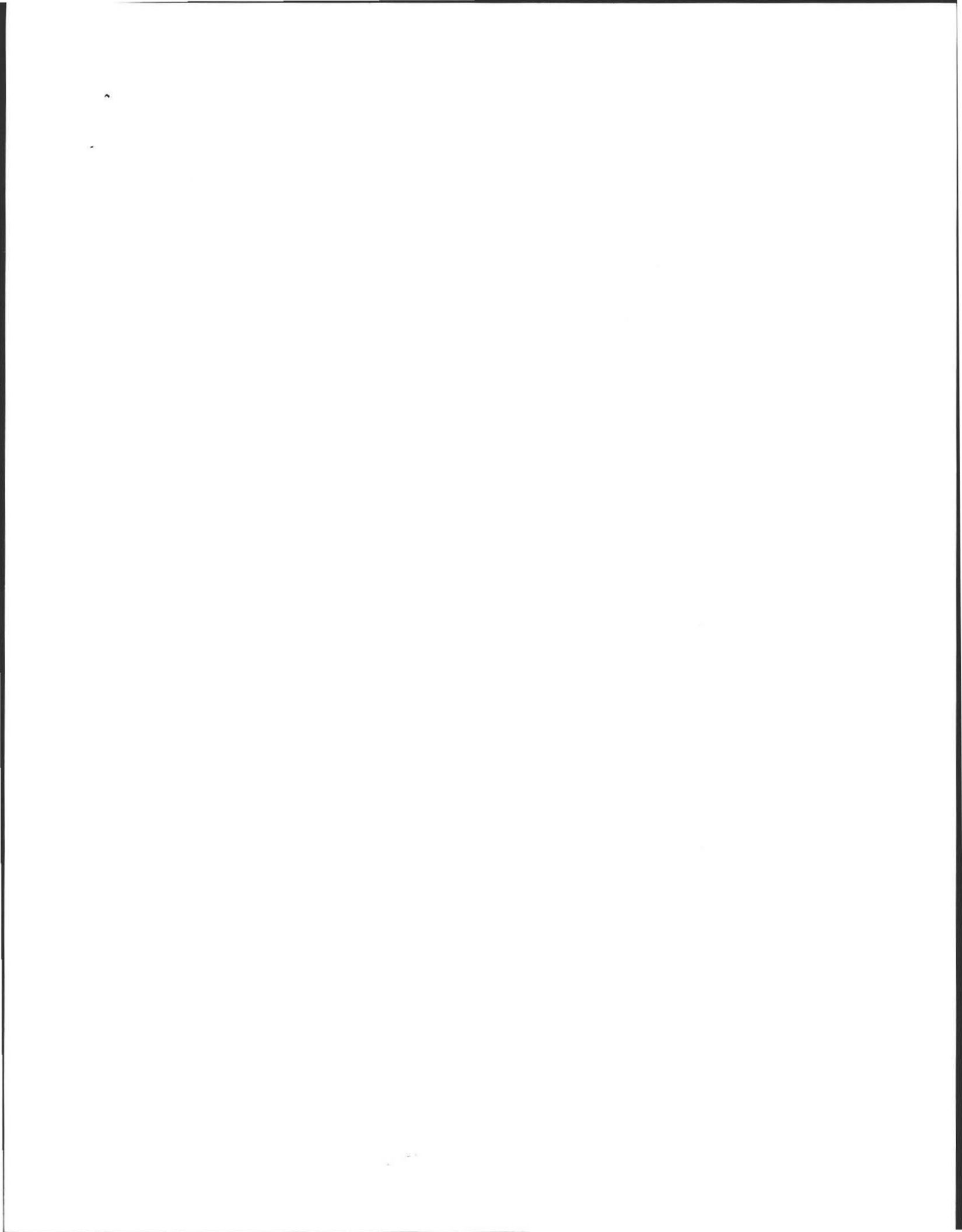


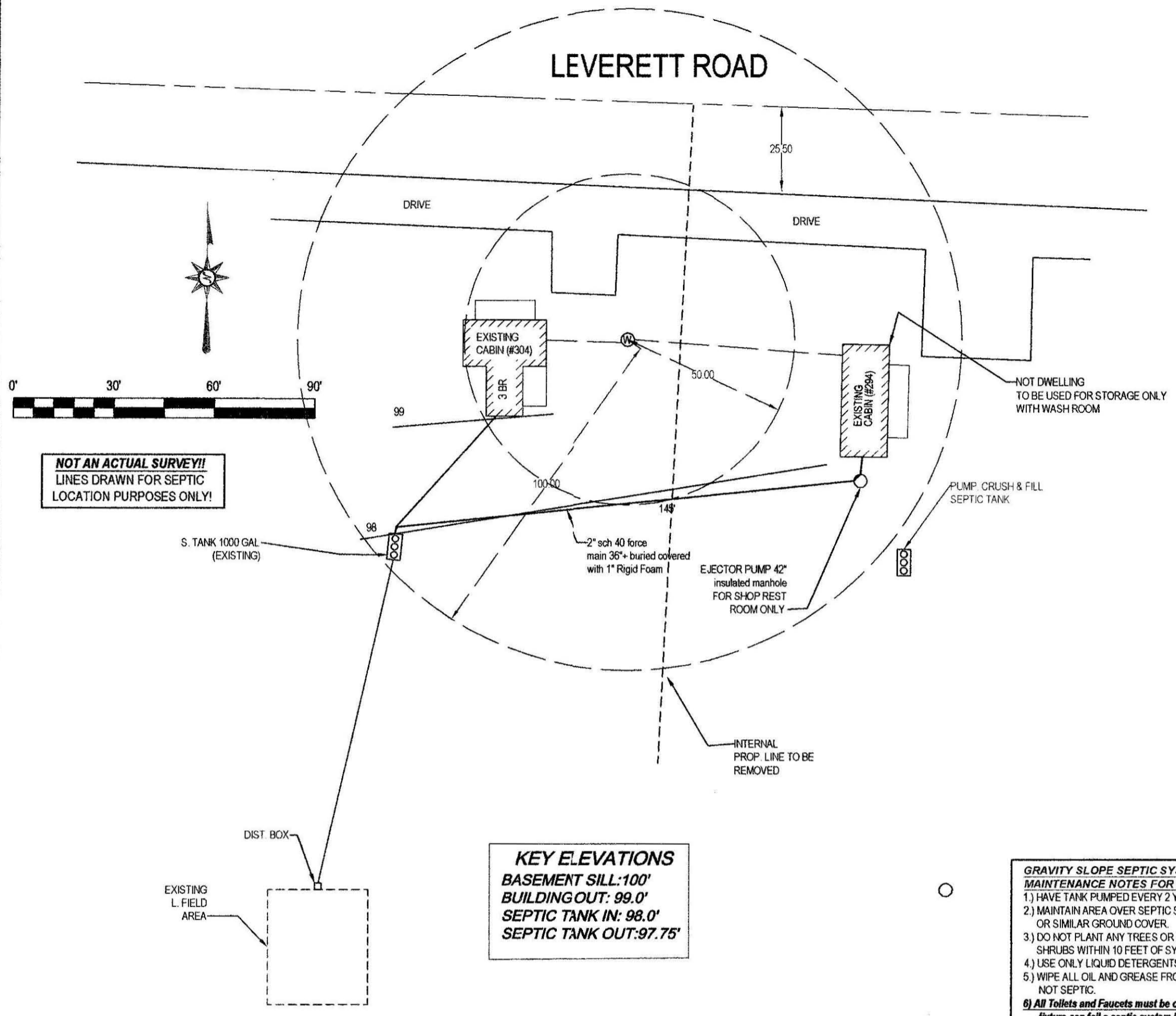




Ejector Pump Force Main  
294-304 Leverett Road  
Amherst, MA  
12.16.2009

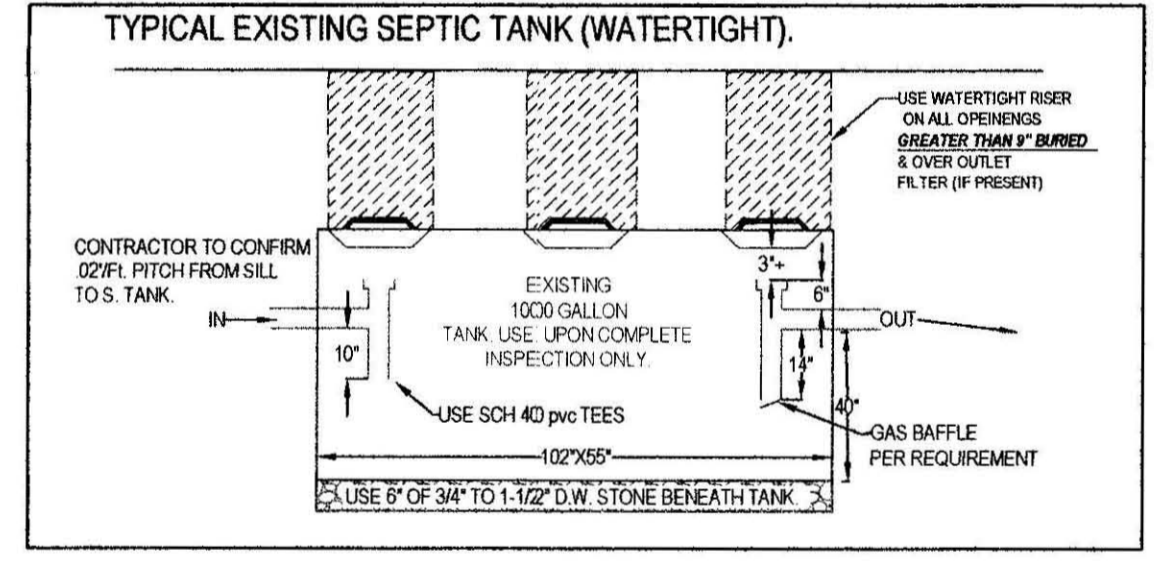
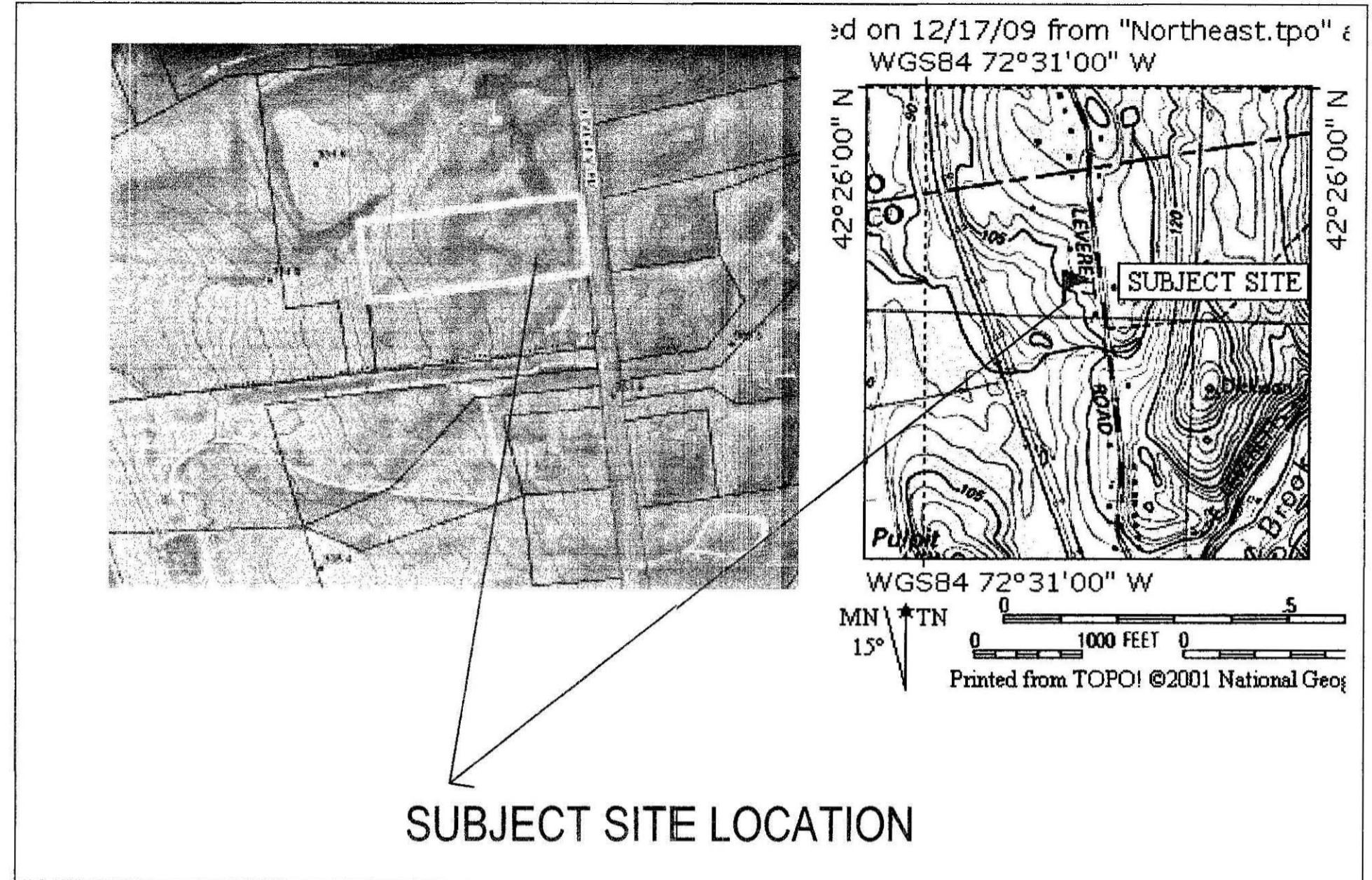
12.08.2009



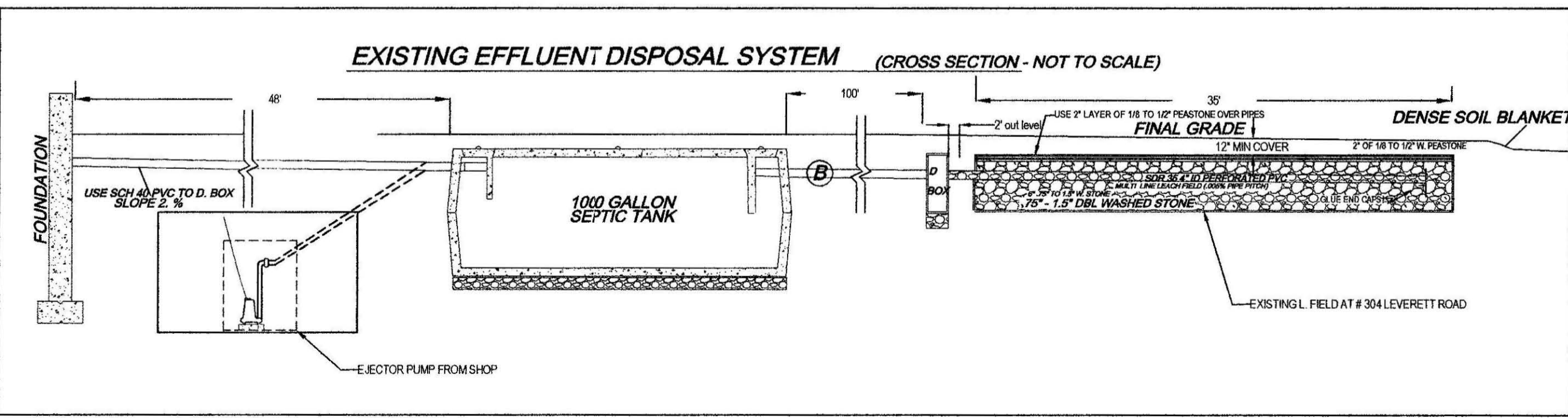


**KEY ELEVATIONS**  
 BASEMENT SILL: 100'  
 BUILDING OUT: 99.0'  
 SEPTIC TANK IN: 98.0'  
 SEPTIC TANK OUT: 97.75'

**GRAVITY SLOPE SEPTIC SYSTEM OPERATION AND MAINTENANCE NOTES FOR HOMEOWNER.**  
 1) HAVE TANK PUMPED EVERY 2 YEARS.  
 2) MAINTAIN AREA OVER SEPTIC SYSTEM AS GRASSY OR SIMILAR GROUND COVER.  
 3) DO NOT PLANT ANY TREES OR DEEP ROOTING SHRUBS WITHIN 10 FEET OF SYSTEM.  
 4) USE ONLY LIQUID DETERGENTS & LOW FLOW WASHERS.  
 5) WIPE ALL OIL AND GREASE FROM COOKWARE AND DISPOSE IN TRASH NOT SEPTIC.  
 6) All Toilets and Faucets must be confirmed to not be leaking, because one leaking fixture can fail a septic system in ONE DAY.

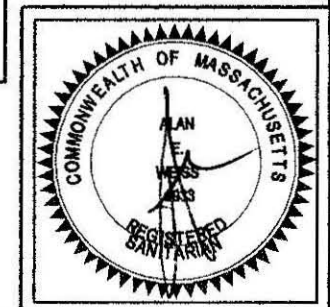


**NOTES TO INSTALLER**  
 1. CONNECT SHOP AT 294 LEVERETT ROAD TO S. TANK AT 304 LEVERETT ROAD USING ELECTOR PUMP. INSTALL 2\"/>



**ATTENTION INSTALLER!!**  
 CALL DIG SAFE BEFORE YOU DIG!! MASSACHUSETTS STATE LAW CHAPTER 82 SECTIONS 40 - 40E REQUIRE THAT PREMARKING OF GAS, ELECTRIC, WATER, TELEPHONE AND CABLE T.V. UTILITY LINES BE MADE A MINIMUM OF 72 HOURS PRIOR TO GROUND BREAK FOR ANY EXCAVATION.

NOTE: INSTALLER MUST CONTACT ENGINEER/BD OF HEALTH 48 HOURS PRIOR TO SUBGRADE INSPECTION. INSTALLER MUST HAVE ALL BREAK OUT FILL ON SITE AND IN PLACE PRIOR TO SIGN OFF BY ENGINEER AT TIME OF FINAL INSPECTION OR APPROVAL WILL NOT BE GIVEN TO BACKFILL.



SEPTIC SYSTEM CHANGE FOR PARRAFIN CO.  
 294-304 LEVERETT ROAD  
 AMHERST, MA

**Cold Spring Environmental Consultants Inc.**  
 350 Old Enfield Road  
 Belchertown, MA. 01007

PROJ. NO: (413) 323-5957  
 S.A.X: (413) 323-4916  
 e-Mail: AEW@CSES@charter.net

DATE: 12.16.2009	DRAWN BY: AEW	REVISED:
SCALE: 1"=30'	CHECKED BY: AEW	DRAWING NUMBER: 109-3291-1214