563 MONTAGUE ROAD

459 FLAT HILLS ROAD

FORM 3A - CERTIFICATE OF COMPLIANCE

No. _____ Fee_____

COMMONWEALTH OF MASSACHUSETTS
Board of Health, Amherst, MA

CERTIFICATE OF COMPLIANCE

Description of Work: (X) Complete System ( ) Individual Components

The undersigned hereby certify that the Sewage Disposal System: Upgrade

by: Joe Burek Construction

at: 563 Montague Road, Amherst

Homestead Inc. Project #: 594

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 8/16/12 . Approved Design Flow 355 (gpd).

Date of sub-grade inspection: 11/3/12

Installer _____ Date: 11/26/12
Joe Burek Construction

Designer: _____ Date: 11/7/12
Thomas Leue, Homestead Inc.
1664 Cape St. Williamsburg, MA 01096

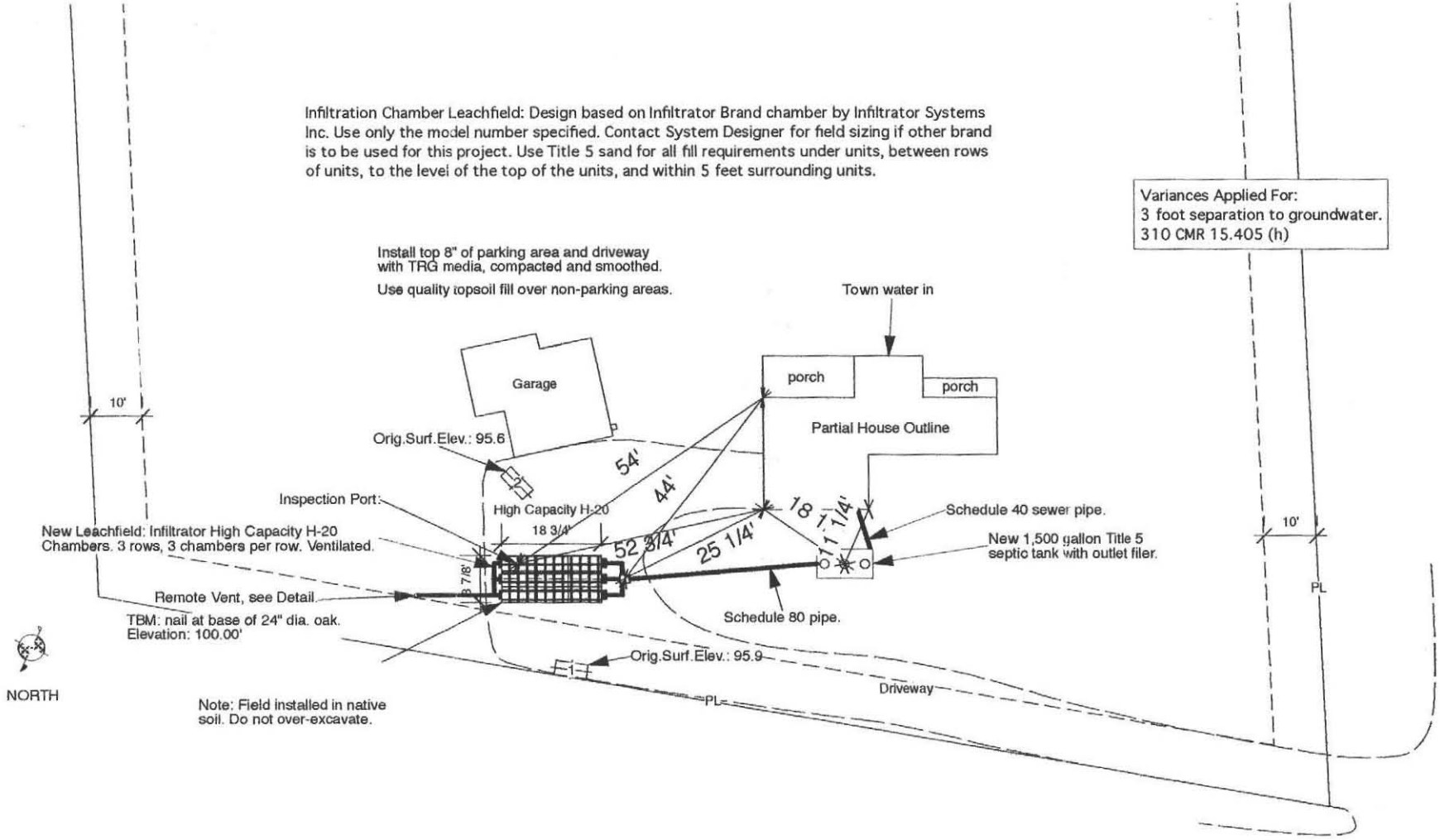
Inspector: _____ Date: _____
Local Approving Authority
Amherst Board of Health

This certification represents no warranty, expressed or implied as to the functioning or longevity of the onsite subsurface disposal system. Rather, the plan and installation are in compliance with all applicable rules and regulations in effect at the time of plan submittal.

cc: Marga and Bob Coler, c/o Delap Real Estate, Northampton, MA 01060

DEP

DEP APPROVED FORM 5/96



Closeout Notes:

1. Septic tank is equipped with an outlet filter. This is a maintenance item. Filter must be cleaned whenever septic tank is pumped, or every 3 years, whichever is sooner. Failure to maintain filter may lead to system failure.
2. Recommend pumping septic tank on a 3 to 5 year schedule, depending on house occupancy.
3. A copy of this document attached in the basement/utility area will keep this information available in future years for maintenance.

As-Built Drawing Existing Septic System	Date: 8/16/2012	Owner: Marga and Bob Coler 563 Montague Road Amherst, MA 01002	COMMONWEALTH OF MASSACHUSETTS THOMAS S. LEUE #1172 REGISTERED SANITARIAN	HOMESTEAD INC. Thomas S. Leue R.S. 1664 Cape St. Williamsburg, MA 01096 [413] 628-4533
Scale: 1 : 20' Except as Noted	Revision Date: 11/7/2012			

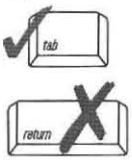
Commonwealth of Massachusetts
City/Town of

Septic System Installation Checklist

DEP has provided this form for use by local Boards of Health if they wish to do so.

A. Applicant Information

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



MARLA + BOB COHER
Name

C/O DELAP REAL ESTATE
Address

NORTHAMPTON, MA 01060
City | State | Zip Code

12-18
Disposal System Construction Permit # | Map: 24 | Lot: 17

JOSEPH BOREK,
Installer

THOMAS LEDE
Designer

EDMUND R-SMITH
Board of Health Representative

Inspection Dates:

Tank:	11/8/2012 Date	Leach Area:	11/8/2012 Date
Final:	11/8/2012 Date	Other:	Date

B. Application Checklist

1. Pre-Construction Conference	Approved	N/A	Problem
Sieve analysis supplied for sand	☐	☐	☐
Current approved plans (3 copies)	☑	☐	☐
System staked prior to construction	☐	☐	☐
On-site check for tank water-tightness	☐	☐	☐
Abandonment of existing system (repairs) — Check w/ Joe	☐	☐	☐
Plan revision(s)	☐	☐	☐
Conditions/Approvals	☐	☑	☐
O/M Plan on file	☐	☑	☐
DEP approval on file	☐	☑	☐

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

2. Construction Inspection

a) Building Sewer (310 CMR 15.222)		Approved	N/A	Problem
All waste pipes tied into building sewer	Basement check	☑	☐	☐
Schedule 40 PVC 4" or cast iron	Verify by reading pipe	☑	☐	☐
Minimum slope of 0.01-0.02	Visual	☑	☐	☐
Pipe laid in continuous straight line	Visual	☑	☐	☐
Pipe laid on compact, firm base	Visual	☑	☐	☐
Cleanouts precede all changes in alignment/grade	Verify by visual/tape	☐	☑	☐
Cleanout provided every 100 ft.	Verify by visual/tape	☐	☑	☐
Backfill material clean	Visual	☑	☐	☐

b) Septic Tank (310 CMR 15.223)		Approved	N/A	Problem
Tank is set level with 6" stone under (15.228)	Check with level	☑	☐	☐
Tank is required size/loading per plan	Verify with plan	☑	☐	☐
Inlet and outlet are at proper location (15.227)	Verify with plan	☑	☐	☐
Tank is water tight (15.226)	Test	☑	☐	☐
Outlet tees extend 6" above flow line	Verify by visual/tape	☑	☐	☐
Approved filter device placed at outlet	DEP list	☑	☐	☐
Gas baffle installed at outlet tee	Visual	☐	☑	☐
Inlet and outlet tees on center line	Visual	☑	☐	☐
Tank is backfilled with acceptable material	Visual	☑	☐	☐

Notes:

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

c) Distribution Box (310 CMR 15.232)		Approved	N/A	Problem
All outlet pipes at same elevation	Check by adding water	☑	☐	☐
Number of outlets 3 per plan	Number of laterals 3 per plan			
Inlet tee min. 1" over outlet	Visual and w/tape	☑	☐	☐
D box set on level base	Visual	☑	☐	☐
Top of D box 36" max depth	Visual and w/tape	☑	☐	☐
D box is water-tight	Add water	☑	☐	☐
D box has a minimum of 2" thick wall and 12" inside dimension		☑	☐	☐

d) Pump Chamber (310 CMR 15.231)		Approved	N/A	Problem
Tank is set level	Visual and w/level	☐	☑	☐
Proper volume is provided	Check plan and tank	☐	☐	☐
Float elevations set per plan	Measure w/tape	☐	☐	☐
Min. 2" delivery line to D box	Visual	☐	☐	☐
Number of pumps:		☐	☐	☐
Specified pump provided or designers approval for equal pump		☐	☐	☐
Correct pump sequence		☐	☐	☐
Covers set to grade		☐	☐	☐
Electrical permit provided		☐	☐	☐
6" of stone beneath chamber	Visual	☐	☐	☐
Chamber is water-tight	Test	☐	☐	☐
Min. 9" cover provided	Visual	☐	☐	☐
Correct loading provided per plan	Visual on tank	☐	☐	☐

Notes:

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

e) Leaching Facility (310 CMR 15.240)		Approved	N/A	Problem
No frozen material used including back fill	Visual	☑	☐	☐
No clay, tailings or stones larger than 6" for cover material		☑	☐	☐
Soil at bottom/sides of excavation matches info on deep holes		☑	☐	☐
All impervious layers removed	Visual	☑	☐	☐
No remaining A/B horizons	Visual	☑	☐	☐
Groundwater conditions match plan and deep holes	Visual/check plan	☑	☐	☐
Vented if under impervious cover per plan (15.241)		☑	☐	☐
Vent is protected from precipitation and animal entry		☑	☐	☐
Cover of a minimum of 9" over leach area		☑	☐	☐
Pipe slope equal to 0.005	Check w/transit	☑	☐	☐
Leach area per design (15.241)		☑	☐	☐
Excavation is level and at required depth	Visual/check plan	☑	☐	☐
Removal of 5 ft material and replacement (if in fill)	Visual/check plan	☐	☑	☐
Back fill material is acceptable	Visual	☑	☐	☐
Final contours correct per plan	Check with plan	☑	☐	☐
Surface/subsurface drainage away from leach area		☑	☐	☐
Final grade and side slopes are stable		☑	☐	☐
Distribution lines are capped, vented, or connected together		☑	☐	☐
Impermeable barrier (15.255[2])		☐	☑	☐
Retaining wall inspected by PE		☐	☑	☐
Retaining wall is water-proofed		☐	☑	☐
Retaining wall/barrier is at correct depth/height		☐	☑	☐

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

			Approved	N/A	Problem
f)	Leaching trenches (310 CMR 15.251)				
	Number of trenches:	3	☑	☐	☐
	Depth of trenches:		☑	☐	☐
	Width of trenches:		☑	☐	☐
	Trench spacing per plan		☑	☐	☐
	Stone is double-washed [3/4" to 1½"] (15.247)		☐	☑	☐
g)	Leaching fields (310 CMR 15.242)				
	Length of field:		☐	☑	☐
	Width of field:		☐	☐	☐
	Min. of 2 distribution lines		☐	☐	☐
	Separation distance conforms to plan		☐	☐	☐
	Stone is double-washed [3/4" to 1½"] (15.247)		☐	☐	☐
h)	Leaching Pits (310 CMR 15.253)				
	Number of pits:		☐	☑	☐
	Depth of pits:		☐	☐	☐
	Stone is double-washed [3/4" to 1½"] (15.247)		☐	☐	☐
	Each pit has min. 1 20" access cover		☐	☐	☐
	Piping network and configuration of pits/chambers per plan		☐	☐	☐
i)	Tight Tank (310 CMR 15.260)				
	Tank is set level with 6" stone under	Visual and with level	☐	☑	☐
	Tank is proper size per plan	Visual with plan	☐	☐	☐
	Pumping contract has been provided		☐	☐	☐
	Covers to grade	Visual	☐	☐	☐
	A/V alarm set at 3/5 tank capacity	Check floats by raising	☐	☐	☐
	A/V alarm test on separate circuit	Set off alarm	☐	☐	☐

Commonwealth of Massachusetts
City/Town of
Septic System Installation Checklist

B. Application Checklist (cont.)

j) Certificate of Compliance (310 CMR 15.021)

As Built Plan Submitted — Date

Signed by Installer — Date Joseph P Burel 11/8/12

Signed by Designer — Date

Certificate of Compliance Issued — Date

Notes:

App- 14947
Batch- 1158

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

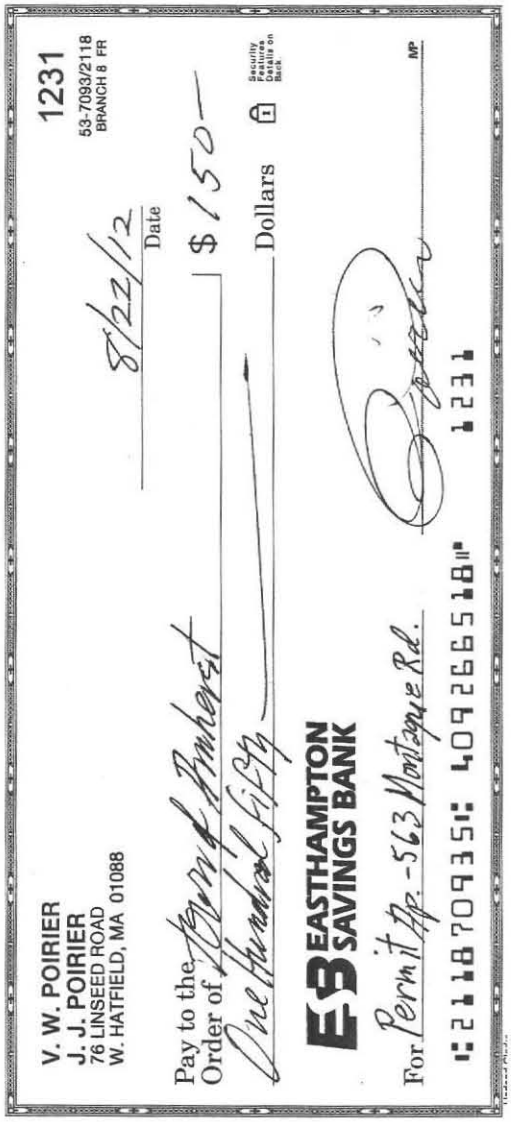
12-18
Number

$ 150
Fee

DEP has provided this form for use by local Boards of Health if they choose to do so. Before using the form, check with your local Board of Health to make sure that they will accept it.

A. Facility Information

Application is hereby made for a permit to: Upgrade On-site Sewag


1231
53-7093/2118
BRANCH 8 FR
8/22/12
Date
$ 150—
Dollars
Pay to the Order of Town of Amherst
One Hundred Fifty
EASTHAMPTON SAVINGS BANK
For Permit App. -563 Montague Rd.
V. W. POIRIER
J. J. POIRIER
76 LINSEED ROAD
W. HATFIELD, MA 01088
⑈211870935⑈ 409266518⑈ 1231

1. Location of Facility:
   - Address: 563 Montague Road
   - City/Town: Amherst, MA 01002

2. Owner Information
   - Name: Marga and Bob Coler
   - Address: c/o Delap Real Estate
   - City/Town: Northampton, MA 01060
   - Telephone:

3. Installer Information
   - Name: _____
   - Address: _____
   - City/Town: _____
   - Telephone: _____

4. Designer Information
   - Name: Thomas S. Leue R.S.
   - Name of Company: Homestead Engineering Inc.
   - Address: 1664 Cape Street
   - City/Town: Williamsburg, MA 01096
   - Telephone: 413 628-4533

5. Type of Building:

Other: Type of Building Dwelling
Garbage Grinder (check if present)
Number of Persons Served
Showers
Number of showers
Cafeteria
Other fixtures
Specify other fixtures: _____

130 PE

CUST NAME
4 BOLTWOOD AVENUE
08/24/12
CITY, ST, ZIP

***TOWN OF A TOWN HAL
AMHERST M REFERENCE
DATE/TIME 10:28

CUST NAME

0
DEPT

DE HEA017 SEPTIC TAN 150.

RECPT TOTAL

150.00 AMOUNT
J J POIRIE QUA CHECK 1231

Plan: 563 MONTAGUE RD. Designed by: THOMAS LEVE

CHECK LIST FOR SEPTIC PLANS

- [✓] Application page attached to plan
- [✓] PE or RS stamp, date, signature
- [NA] Variances to property line setback distances must have Surveyor Stamp 15.020 (3)
- [✓] Legal boundaries noted
- [✓] Easements noted
- [✓] Dwellings and buildings existing or proposed noted
- [✓] Location of driveway or parking areas, other impervious areas
- REPAIR - [NA] Location and dimensions of reserve area (new) CMR 15.248(1); 15.104(4)
- [✓] System design calculations
- [✓] Garbage grinder Y or (N)
- [✓] Benchmark not disturbed during construction, within 75 feet of facility CMR15.220 (4)(q)
- [✓] North arrow CMR 15.200 (4) (g) — NOT INDICATED YET AS-BUILT CAN HAVE TIE LINES TO BUILDING
- [✓] 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
- [NA] **Well statement if applicable**
- [✓] Location of any surface waters, rivers, vegetated wetlands
- [✓] 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 — Says washed, not double washed
- [✓] Schedule 40 PVC for trafficked areas, house to tank
- [✓] Distances noted from house to tank, etc.
- [NA] If dosing is proposed, design and specs of dosing system
- [NA] When alternative technology is required, complete plan and specs, including hydraulic profile
- [✓] Trenches preferred over beds CMR 15.240 (6) NO STATEMENT
- [NA] Buoyancy calculations for tanks or components partly below H20 table 15.221(8) p. 56
- [ ] 3 to 1 slope outside of mound, toe ending 5 feet from property line STEEP AT END OF DRIVE? (CHECK SYSTEM MEETS DRIVEWAY ...)
- [✓] Local upgrade requests on the plan
- [✓] Local upgrade forms attached to application
- [✓] Note on plan listing all variances sought in conjunction with the plan

NOTES: H-20 INFILTRATORS REQUIRE 16" cover after compaction & settling
Diagram of System profile shows native loam to cover; written instructions say top 8" of parking/drive area = 8" TRD
— NO INSTALLER YET? CHECK HOUSE FOR GRINDER

Cell (413) 207-1737
john@delaprealestate.com

delaprealestate.com

158 North King Street, Big Y Plaza
Northampton, MA 01060-1120

John Poirier
Associate Broker

(413) 586-9111 x104
Fax (413) 586-9112

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Form 1A

12-18
Number

$ 150
Fee

DEP has provided this form for use by local Boards of Health if they choose to do so. Before using the form, check with your local Board of Health to make sure that they will accept it.

A. Facility Information

Application is hereby made for a permit to: Upgrade On-site Sewage Disposal System.

1. Location of Facility:
   - Address: 563 Montague Road
   - City/Town: Amherst, MA 01002

2. Owner Information
   - Name: Marga and Bob Coler
   - Address: c/o Delap Real Estate
   - City/Town: Northampton, MA 01060
   - Telephone:

3. Installer Information
   - Name: _____
   - Address: _____
   - City/Town: _____
   - Telephone: _____

4. Designer Information
   - Name: Thomas S. Leue R.S.
   - Name of Company: Homestead Engineering Inc.
   - Address: 1664 Cape Street
   - City/Town: Williamsburg, MA 01096
   - Telephone: 413 628-4533

5. Type of Building:

	Garbage Grinder (check if present)
Other: Type of Building Dwelling	Number of Persons Served
Showers	Number of showers
Cafeteria	Other fixtures

Specify other fixtures: _____

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

Number _____

$ _____ Fee

Form 1A

A. Facility Information (continued)

6. Design Flow: 355 Gallons per Day
   Calculated Daily Flow: 330 Gallons

7. Plan: 8/16/12 Date of Original
   Number of Sheets 13 Revision Date
   Title of Plan: Plan to Upgrade Septic System

8. Description of Soil:
   fine sand

9. Nature of Repairs or Alterations (if applicable):
   New septic tank and infiltration chamber leachfield.

10. Date last inspected: 4/6/12

B. Agreement

The undersigned agrees to ensure the construction and maintenance of the aforedescribed on-site sewage disposal system in accordance with the provisions of Title 5 of the Environmental Code and not to place the system in operation until a Certificate of Compliance has been issued by this Board of Health.

Signature Margaret L. Coler Date 08/21/12

Application Approved By:

Name Edward L. Smith Amherst Health Dept. Date 8/28/12

Application **Disapproved** for the following reasons:

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

12-18
Number

$ 150
Fee

FORM 2A - DSCP

No. 12-18

↑
Fee

COMMOMWEALTH OF MASSACHUSETTS
Board of Health, Amherst, MA

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to: Upgrade an individual sewage disposal system at

563 Montague Road, Amherst as described in the application for Disposal System Construction Permit No. _

dated 8/16/12.

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

Date 8/28/2012 Board of Health Edward L Smith

Commonwealth of Massachusetts
City/Town of Amherst

Application for Disposal System Construction Permit

FORM 3A - CERTIFICATE OF COMPLIANCE

Number _____

$ _____ Fee

No. _____ Fee_____

COMMONWEALTH OF MASSACHUSETTS
Board of Health, Amherst, MA

CERTIFICATE OF COMPLIANCE

Description of Work: (X) Complete System ( ) Individual Components

The undersigned hereby certify that the Sewage Disposal System: Upgrade

by: _____

at: 563 Montague Road, Amherst

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 8/16/12. Approved Design Flow 355 (gpd).

Installer: _____ Date: _____

Designer: Thomas S. Leue, Homestead Inc. Date: _____

Inspector: _____ Date: _____

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

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

Form 9A is to be submitted to the Local Board of Health for the upgrade of a failed or nonconforming septic system with a design flow of less than 10,000 gpd, where full compliance, as defined in 310 CMR 15.404(1), is not feasible.

System upgrades that cannot be performed in accordance with 310 CMR 15.404 and 15.405, or in full compliance with the requirements of 310 CMR 15.000, require a variance pursuant to 310 CMR 15.410 through 15.415.

NOTE: Local upgrade approval shall not be granted for an upgrade proposal that includes the addition of a new design flow to a cesspool or privy, or the addition of a new design flow above the existing approved capacity of an on-site system constructed in accordance with either the 1978 Code or 310 CMR 15.000.

A. Facility Information

1. Facility Name and Address:
   Name: Marga and Bob Coler
   Street Address: 563 Montague Road, Amherst

2. Owner Name and Address (if different from above):
   Name: Marga and Bob Coler
   Address: c/o Delap Real Estate, Northampton, MA 01060
   Phone #

3. Type of Facility (check all that apply):
   - [X] Residential
   - [ ] Commercial
   - [ ] School
   - [ ] Institutional
   - [ ] Other (specify) _____

4. Describe Facility: single family dwelling

5. Type of Existing System:
   - [ ] privy
   - [ ] cesspool
   - [X] conventional system
   - [ ] Other (specify) _____

6. Type of soil absorption system (SAS) (trenches, chambers, pits, etc):
   leachfield

7. Design Flow based on 310 CMR 15.203:

   Design for existing system: unknown gpd (not verified)

   Design flow of proposed upgraded system: 355 gpd

   Design flow of facility: 330 gpd

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):
   - __ Voluntary
   - __ Required by order, letter, etc. (attach copy)
   - X Required following inspection required by 310 CMR 15.301
     Date of inspection:

2. Describe the proposed upgrade to the system:
   New septic tank and leaching chamber leachfield.

3. Local Upgrade Approval is requested for (check all that apply):

   __ Reduction of setback(s) - describe reductions: _____

   __ Reduction in SAS area of up to 25%: SAS Size: _____ % reduction:

   X Reduction in separation between bottom of SAS & high groundwater:

   Separation reduction: 3

   Percolation rate: 2.6

   Depth to groundwater: 7 ft.

   __ Relocation of water supply well (explain):

   _____

   __ Reduction of 12-inch separation between inlet and outlet tees and high groundwater

   __ Use of only one deep hole in proposed disposal area

   __ Use of a sieve analysis as a substitute for a perc test

   __ Other requirements of 310 CMR 15.000 that cannot be met - describe and specify sections of the Code:

   _____

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

B. Proposed Upgrade of System (continued)

If the proposed upgrade involves a reduction in the required separation between the bottom of the soil absorption system and the high groundwater elevation, an Approved Soil Evaluator must determine the high groundwater elevation pursuant to 310 CMR 15.404 (1)(i)(1). ***The soil evaluator must be a member or agent of the local approving authority.***

High groundwater evaluation determined by:

Evaluator's Name: Ed Smith

Evaluator's Signature: Edward L Smith

Date of Evaluation: 7/31/12

C. Explanation

Explain why full compliance, as described in 310 CMR 15.404(1), is not feasible. (Each section must be completed)

1. An upgraded system in full compliance with 310 CMR 15.000 is not feasible:
   The purpose is to lower the repair costs in a economically constrained situation.

2. An alternative system approved pursuant to 310 CMR 15.283 to 15.288 is not feasible:
   Conventional system is sufficient.

3. A shared system is not feasible:
   Not necessary.

4. Connection to a sewer is not feasible:
   No public sewer in area.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):
   X Application for Disposal System Construction Permit
   X Complete plans and specifications
   X Site evaluation forms
   _ A list of abutters affected by reduced setbacks to private water supply wells or property lines. Provide proof that affected abutters have been notified pursuant to 310 CMR 15.405(2).
   _ Other (List):

Commonwealth of Massachusetts
City/Town of Amherst

Form 9A – Application for Local Upgrade Approval

DEP has provided this form for use by local Boards of Health. Other forms may be used, but the information must be substantially the same as that provided here. Before using this form, check with your local Board of Health to determine the form they use.

D. Certification

"I, the facility owner, certify under penalty of law that this document and all attachments, to the best of my knowledge and belief, are true, accurate, and complete. I am aware that there may be significant consequences for submitting false information, including, but not limited to, penalties or fine and/or imprisonment for knowing violations."

Marga L. Coler — 8/22/12
Facility Owner's Signature — Date

Marga and Bob Coler
Print Name

Thomas S. Leue, Homestead Inc. — 8/16/12
Name of Preparer — Date

1664 Cape Street, Williamsburg, MA 01096 (413) 628-4533
Address and Telephone Number of Preparer

Plan to Upgrade
SEPTIC SYSTEM

for

Marga and Bob Coler

Located at

563 Montague Road
Amherst, MA 01002

Plan Number 594

Septic System Designer:
Thomas S. Leue R.S.
Homestead Inc.
1664 Cape St.
Williamsburg, MA 01096
(located in Ashfield)

413 628-4533
800 285-4533
fax: 413 628-3973

email: Vegheat@gmail.com

Design Date: 8/16/12
Updated:

Contents

Separate

AT&T 4G 1:17 PM 89%

gis.amherstma.gov/public/Viewer.aspx

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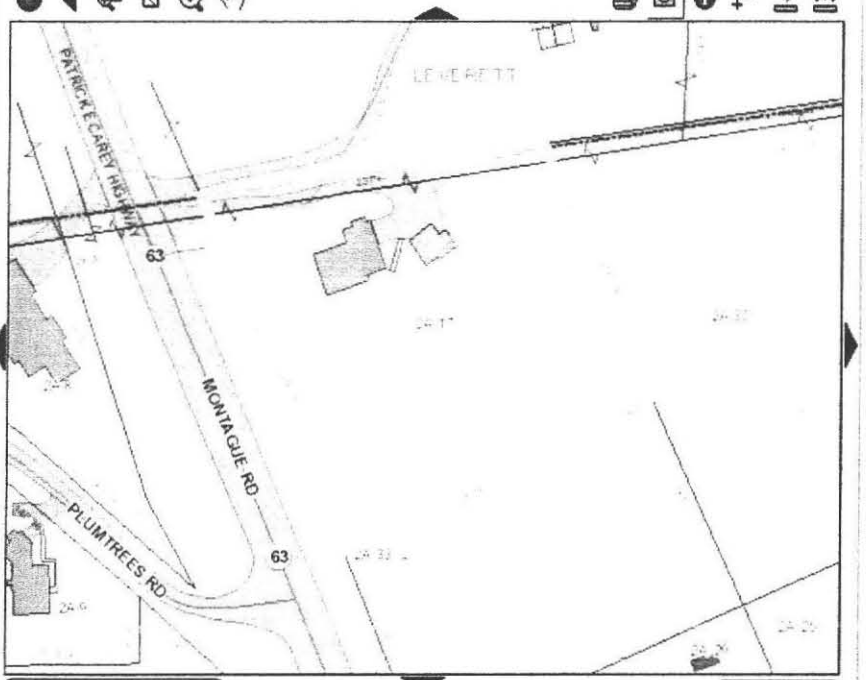
AMHERST MASSACHUSETTS

amherstma.gov/maps

AMHERST MAPS

Property Map | Aerial Photos | Topography | Utilities | Zoning | Size

Help Scale 1" = 107 ft



More Maps Here --> Go Save Map as Image

Selection | Legend | Location | Markup

Select: Parcels

(show all)

Parcel	Address	Land Use
2A-17	563 MONTAGUE RD	Single Family

1 selected To Mailing Labels To Spreadsheet

Property | Sales | Permits | Neighborhood Sales

Print

2A-17 / 563 MONTAGUE RD

Parcel 2A-17

Owner COLER, ROBERT A & MARGA LIFE ESTATE

Assessment $233,000.00 (FY12)
$250,800.00 (FY11)

Landuse Single Family (1010)

Primary Zone RO (Dimensional Regulations)

Neighborhood NORTH AMHERST

Town Hall | 4 Boltwood Avenue | Amherst MA, 01002

413-259-3247 | 413-256-4006

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

DEP has provided this form for use by on-site professionals and local Boards of Health. Other forms may be used, but the information must be substantially the same as provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information

1. Facility Information

Marga and Bob Coler
Owner Name
563 Montague Road
Street Address
Amherst MA 01002

Map/Lot Parcel 2A - 117

B. Site Information

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

2. Published Soil Survey available? _X_ Yes ___ No If yes: 1967 (Year Published) 15840 (Publication Scale) 59 (Soil Map Unit)

CrC Charlton-Hollis fine sandy loam, rocky, 3-15% slopes (Soil Name) Moderate limitations: slope (Soil limitations)

Comment:

3. Superficial Geological Report available? _X_ Yes ___ No If yes: 1980 (Year Published) 1:190,080 (Publication Scale) 6 (Map Unit)

glaciated (Geologic Material) upland (Landform)

4. Flood Rate Insurance Map:
   Above the 500 year flood boundary? _X_ Yes ___ No
   Within the 100 year flood boundary? ___ Yes _X_ No
   Within the 500 year flood boundary? ___ Yes _X_ No
   Within a Velocity Zone? ___ Yes _X_ No

5. Wetland Area: National Wetland Inventory Map Map Unit _____ Name _____
   Wetlands Conservancy Program Map Map Unit _____ Name _____

6. Current Water Resource Conditions (USGS) Month/Year _____ Range: Above Normal ___ Normal _X_ Below Normal ___

7. Other references reviewed: _____

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

C. On-Site Review

(minimum of two holes required at every proposed primary and reserved disposal area)

1 Deep Observation Hole Number 1 — 7/31/12 Perc date — 9:00 AM Time — Clear Weather

2 Land Use: driveway — Yes Surface Stones — 5% Slope (%)
(e.g. woodland, agricultural field, vacant lot, etc.)
Vegetation mixed hardwoods — Landform hillside
Latitude:
Longitude:

Position on landscape (attach sketch)

3 Distances from: Open Water Body 150 feet; Property Line ≤10 feet; Drainage Way 150 feet; Drinking Water Well 150 feet; Possible Wet Area 150 feet; Other: feet

4 Parent Material: Glacial outwash — Unsuitable Materials Present: NO
If Yes: Disturbed Soil — Fill Material — Impervious Layer(s) — Weathered/Fractured Rock — Bedrock

5 Groundwater Observed: no
If Yes: Depth Weeping from Pit 0 inches — Depth Standing Water in Hole 0 inches
Estimated Depth to High Groundwater: 80 inches

Depth (In.)	Soil Horizon / Layer	Soil Matrix Color-Moist (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Soil Texture (USDA)	Coarse Fragments Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
0 - 7	Fill					Gravel			none		
7 - 14	A	7.5YR 4/3				fine sandly loam	5%	5%	weak fine granular	very friable	
14 - 34	B	10YR 6/6				fine sandy loam	15%	15%	subangular blocky	friable	
34 - 80	C	10YR 6/3				gravelly sandy loam	20%	30%	massive	firm	
80+											

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

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(minimum of two holes required at every proposed primary and reserved disposal area)

1 Deep Observation Hole Number 1 — 7/31/12 Perc date — 9:00 AM Time — Clear Weather

2 Land Use: driveway (e.g. woodland, agricultural field, vacant lot, etc.) — Yes Surface Stones — 5% Slope (%)

Vegetation mixed hardwoods — Landform hillside

Latitude:

Longitude:

Position on landscape (attach sketch)

3 Distances from: Open Water Body 150 feet; Property Line 70 feet; Drainage Way 150 feet; Drinking Water Well 150 feet; Possible Wet Area 150 feet; Other: feet

4 Parent Material: Glacial till — Unsuitable Materials Present: NO

If Yes: Disturbed Soil — Fill Material — Impervious Layer(s) — Weathered/Fractured Rock — Bedrock

5 Groundwater Observed: no

If Yes: Depth Weeping from Pit 0 inches — Depth Standing Water in Hole 0 inches

Estimated Depth to High Groundwater: 72 inches

Depth (In.)	Soil Horizon / Layer	Soil Matrix Color-Moist (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Soil Texture (USDA)	Coarse Fragments Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
0 - 7	Fill					Gravel			none		
7 - 14	A	7.5YR 4/3				fine sandly loam	5%	5%	weak fine granular	very friable	
14 - 34	B	10YR 6/1				fine sandy loam	15%	15%	subangular blocky	friable	
34 - 72	C	10YR 6/3				gravelly sandy loam	20%	30%	massive	firm	

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

D. Determination of High Groundwater Elevation

1. Method used:

___	Depth observed standing water in observation hole	A. _ inches	B. _ inches
___	Depth weeping from side of observation hole	A. _ inches	B. _ inches
___	Depth to soil redoximorphic features (mottles)	A. _ inches	B. _ inches
___	Groundwater adjustment (USGS methodology)	A. _ inches	B. _ inches

2. Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment Factor _____ Adjusted Groundwater Level _____

No mottles seen: depth of refusal found at 80 inches in observation hole A, 72 inches at observation hole B.

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

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

b. If yes, at what depth was it observed? Upper boundary: 14 Min. inches Lower boundary: 80 Max. inches

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Thomas S. Leue

Signature of Soil Evaluator

7/31/12
Date

Thomas S. Leue SE 1368
Typed or Printed Name of Soil Evaluator/License Numbe

June 1995
Date of Soil Evaluator Exam

Ed Smith
Name of Board of Health Witness

Town of Amherst
Board of Health

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the

CONSTRUCTION SPECIFICATIONS
563 Montague Road, Amherst

Title 5 Septic System Plan Number 594

1. General

a. No work on this system construction shall take place until a permit for the approved system plan has been received from the local Board of Health. A copy of the Disposal Works Construction Permit should be on site for inspection during the time of construction. Additional specifications may be included elsewhere in this design.

b. Loading requirements are specified for the septic tank on the system calculations page. Loading requirements for any other component are on the drawing. Normal loading systems are designated H-10. If H-20 rating is specified on the drawing and/or on the page for system calculations, the tank or leaching facility shall be custom built to meet the increased loading requirements using additional rebar, greater wall thickness and/or other approved methods. Follow the manufacturer's rating system and installation procedures.

c. Alternatives to these specifications should be discussed with the System Designer in advance at 800 285-4533.

2. Septic Tank

a. The septic tank selected by the contractor shall conform with 310 CMR 15.223. The septic tank shall be a minimum effective liquid capacity of 1,500 gallons below the outlet invert, rectangular, and with a minimum length to width ration of 1.5:1. Liquid depth to be 48". Compartmentalized tanks are not to be used.

b. Septic tank shall be installed on a minimum of 6" of crushed stone, leveled to grade and thoroughly compacted. Septic tanks shall have a minimum cover of 9". No structures shall be located directly upon or above the septic tank access locations which interfere with performance, access, inspection, pumping, or repair.

c. All three access covers to the septic tank shall have risers at least 20" diameter, if round, tightly fitted to the tank to resist water infiltration, and terminated with a tight fitting cover no more than 6" below ground surface. If, with the agreement of the Owner, one or more of the risers are terminated flush with ground, these shall be secured against unauthorized entry with stainless steel hardware.

d. Inlet and outlet tees shall be of Schedule 40 PVC and shall extend a minimum of 6" above the flow line of the septic tank and be on the center line of the septic tank located directly under the clean-out manhole. All fittings to be glued and secured against any movement due to horizontal or vertical impacts. Cross-sectional flow baffles shall not be used as substitutes for inlet or outlet tees. The inlet pipe elevation shall be no less than 2" nor more than 3" above the invert elevation of the outlet pipe. Inlet tee minimum of 10" length below water surface. The outlet shall be provided with a tee extending below the flow line 14" and be **equipped with a gas baffle**. There shall be an air space of at least 3" between the tops of the tees and the inside of the tank cover. Inlet tees may be modified or a 6" riser on inlet cover may achieve this spacing. The tops of the tees shall be left open to provide ventilation or separate ventilation shall be provided. The **effluent tee shall be fitted with a removable plastic outlet filter**, as manufactured by Polylok Inc., model PL-120, Zebco, or approved equal. Provide manufacturer's maintenance data, as boxed with the filter, to the homeowner or the System Designer.

e. Septic tank should be inspected by the Owner or his representative for solids accumulation annually. When the sum of the sludge and scum layer approach 1/4 the net working volume of the tank (net of 12" total thickness), as measured at the center of the tank, the tank is due for pumping. Septic tanks shall be inspected and maintained in accordance with 310 CMR 15.300 and applicable local requirements.

3. Distribution Box

a. The distribution box selected by the contractor shall conform with 310 CMR 15.232. Material of construction shall be concrete or plastic lined concrete. A 6" sump is required in the d-box.

b. The distribution box shall be placed on thoroughly tamped and compacted sand or peastone a minimum of 6" thickness, and shall be leveled utilizing a water flow test. Speed levelers shall not be used on a new installation to obtain level and equal distribution flow, but should be installed after leveling is completed in case uneven settling occurs in the future.

c. For inlet pipe slopes of 5% or greater, or where there is a pumped flow, the distribution box shall have an internal cast baffle or solvent welded pipe tee to reduce the velocity of the influent flow. An internal pipe "Y" or an elbow are not acceptable.

d. The first 2 feet of pipe out of the distribution box to be set dead level. Use a fernco connector to join to pitched pipes beyond first two feet.

e. A riser to grade is required on distribution boxes buried more than 9 inches below grade.

4. Piping

a. Piping to the septic tank (the building sewer) shall be 4" diameter, PVC Schedule 40 or better. Slope new pipe installations at 1/4" per foot length.

b. All piping from the septic tank to the end of the system shall be 4" diameter, SDR-35 or better, except as noted on the drawings. Slope pipe installations 1/8" per foot length as a minimum value.

c. Place magnetic detectable warning tape pre-printed "Sewer Pipe Below" or similar wording approximately 12" above all new 4" diameter piping installed on this project.

5. Leaching Facilities

a. General: All leaching facilities to be of the size and location shown on the drawings.

b. Leach fields (Infiltration chambers): Arrange infiltration chambers on levelled ground. Parallel rows should be placed a minimum of 6" apart. Add end plates as per manufacturer's assembly directions. Fill spaces between rows with Title 5 sand to the level of the top of the chambers.

c. All fill materials used on this project within five feet of the leaching chambers to be certified Title 5 sand, including any fill materials under chambers, between chambers and to the level of the top of the chambers.

d. A reasonably current copy of the certification from the sand supplier is required to be submitted to the System Designer before the conclusion of this project.

e. Breakout barrier, where required, to be minimum 40 mil thick continuous sheet. Install barrier vertically from bottom of excavation to height of top of leaching system. Seams of membrane material to be overlapped a minimum of 12 inches and glued with sealant as recommended by manufacturer. Material to be hypolon, low density polyethylene, buna-N rubber, EPDM, or approved equal. Backfill in lifts of no more than 6" to assure minimal deformation of membrane. If material is wider than the vertical distance to be covered as shown on the drawing, fold excess material over at the bottom of the trench, or trim with upper

edge level at appropriate elevation.

6. Inspection

a. A minimum of two site inspections are required under the revised Title 5 code by the System Designer. First, after the site has been prepared with clearing, excavation and system site layout, but before the installation of the system sand. Second, the contractor shall notify the System Designer a minimum of 48 hours in advance of the anticipated completion time for a Final Inspection. The impervious barrier will be inspected for approval at this time. This barrier will have to be exposed at any locations of overlaps or penetrations to confirm watertight installation. The system shall be essentially complete at the time of the final inspection, including all components in place, risers and covers installed, electrical components functional, etc. No installed system component shall be buried greater than 1" depth at the time of final inspection. The System Designer shall verify the system was installed as designed and authorize the final grading. Coordinate the timing of the Final Inspection so the System Designer and the representative of the local Board of Health may be on the site at the same time, if possible.

b. If the System Designer finds the system is not ready for inspection after being called, or if serious deficiencies are discovered, the System Designer must be notified to return to the job site when it is complete. There will be a charge to the Installer of $50 for each return trip, payable directly to the System Designer at the time of the reinspection.

c. Inspection and project closeout forms are usually generated within 24 hours of final inspection by the System Designer, when all other requirements are met. Signed Certificate of Compliance forms and As-built Drawings are sent to the Installer for a signature and date. One set of forms are then returned to the System Designer for final processing. The second set of forms are for the Contractor to keep as his project record.

7. Final Grading

a. At conclusion of work, loam and seed all disturbed areas to perennial grass mixture. Added loam may be required for adequate grass growth. Mulch slopes with hay, burlap or netting to minimize erosion.

b. Surface over leaching facility shall be pitched so as to shed rainwater. Also pitch surface over all tanks to shed rainwater from any exposed covers. Do not allow surface water to puddle over any system component.

c. Systems built late in the year, where the grass cover does not have a chance to establish itself, requires the contractor is to return after spring thaw and resurface final grades and add grass seed cover as required to equalize and stabilize all disturbed areas.

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 563 Montague Road Amherst
Homestead Inc. #: 594

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*

Date:	7/31/12	Time:	9:46 AM		
Observation Hole #	1	2	3	4	
Depth of Perc: (in.)	28				(inches)
Start Pre-soak:	9:46 AM				
End Pre-soak:	10:01 AM				
Time at 12":	10:01 AM				
Time at 9":	10:06 AM				
Time at 6":	10:13 AM				
Time (9" - 6"):	0:07:45				
Rate - Min./Inch:	0:02:35				

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

Site Passes / Site Fails: Passes

Performed By: Thomas S. Leue, Homestead Inc.

Witnessed By: Ed Smith, Amherst

Comments: _

DEP

DEP APPROVED FORM - 12/07/95

DESIGN CALCULATIONS

563 Montague Road — Amherst — Plan Number 594

Leaching Chamber type Leach Bed System

				Info Source
Structure:	Single Family House	3	bedrooms	Owner's information
Flow Design Criteria:		110	gallons per bedroom per day	310 CMR 15.203
Calc. Design Flow:		330	gallons per day	multiply above
Garbage Grinder:	**Not Allowed**	1.0	factor	310 CMR 15.240
Total Design Flow:		330	gallons per day	multiply above
Percolation Rate:	Measured	2.3	min. per inch	from perc test
Percolation Rate:	Design Rate	2	min. per inch	310 CMR 15.105
Loading Rate:	Class I Soil	0.74	gallons/sq.ft./day	310 CMR 15.242

Area required for infiltration:	446	sq. ft.	divide flow by loading rate
Field Size Reduction Variance Application:	**2.0%**		310 CMR 15.404(2d)
Net Field Size:	437	sq. ft.	multiply above

Bed Configuration:	Infiltrator Systems Inc.	
Model Used:	High Capacity H-20	Manuf. Trade Name
Effective Leaching Area:	7.79 sq ft/ln ft	DEP technology ratings
Length per chamber:	75 inches	Manufacturer's size
Width per chamber:	34 inches	Manufacturer's size
Invert height:	11 inches	Manufacturer's size
Overall height:	16 inches	Manufacturer's size
Leaching area/chamber:	48.7 sq ft	length x leaching area
# Chambers required:	9.0	field size divided
# Chambers provided:	**9**	by leaching area
# field provided:	**1**	judgement
# rows wide:	3	judgement
space between rows:	2 inches	average
Total Field Width:	8.83 feet	chambers + spacing
# Chambers long:	3	judgement
Total Field Length:	18.75 feet ea.	length of assembly
Total Field Area:	165.6 sq. ft.	length X width
Effective Leaching Area:	438.2 sq. ft.	# chambers X rating
Net Calculated Capacity:	331 gals/day	area X loading rate
Loading:	**H-20**	judgement

COMMONWEALTH OF MASSACHUSETTS
THOMAS S. LEUE
#1172
REGISTERED SANITARIAN

Thomas S Leue

Homestead Inc.

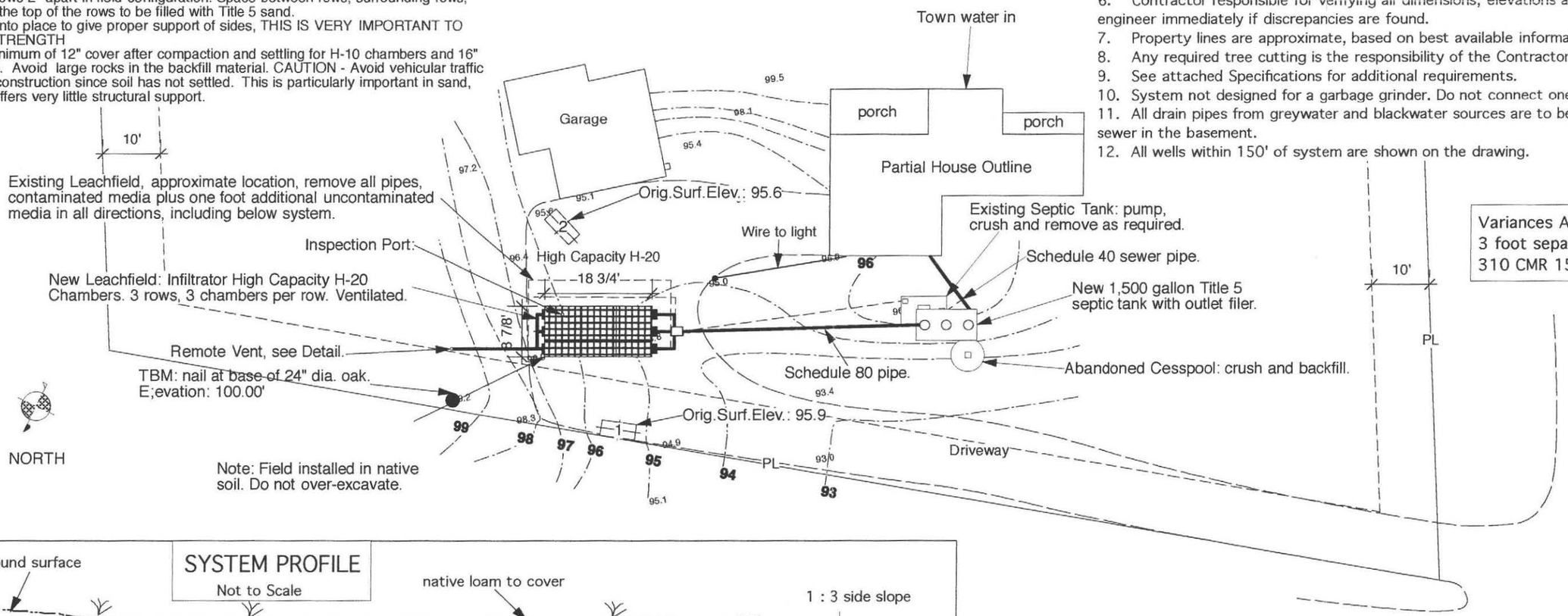
8/16/12

INFILTRATION CHAMBERS INSTALLATION INSTRUCTIONS.

1. Excavate and level field area to depth of excavation.
2. Prepare field area in accordance with 310 CMR 15.00. Add Title 5 sand to depth of Field Base specified.
3. Snap chamber end with integral splash plate into inlet end of first Infiltrator chamber with splash plate extending into chamber. Secure end plate with two or more stainless screws.
4. Place first unit in the inlet end of trench with interlocks downstream.
5. Run distribution pipe through inlet opening in end plate but not beyond splash plate. A single screw to be used to hold in place. Pipe does not normally run the length of system.
6. Connect Infiltrator chambers together, fully engaging interlocks to form desired field length. Be sure to check all grades with a level or surveying equipment. Secure sections with three or more screws each.
7. Screw closed end plate in downstream end of last chamber.
8. Space parallel rows 2" apart in field configuration. Space between rows, surrounding rows, and to the level of the top of the rows to be filled with Title 5 sand.
9. "Walk" sand fill into place to give proper support of sides, THIS IS VERY IMPORTANT TO ACHIEVE FULL STRENGTH
10. Backfill to a minimum of 12" cover after compaction and settling for H-10 chambers and 16" for H-20 chambers. Avoid large rocks in the backfill material. CAUTION - Avoid vehicular traffic on system during construction since soil has not settled. This is particularly important in sand, since loose sand offers very little structural support.

Install top 8" of parking area and driveway with TRG media, compacted and smoothed.

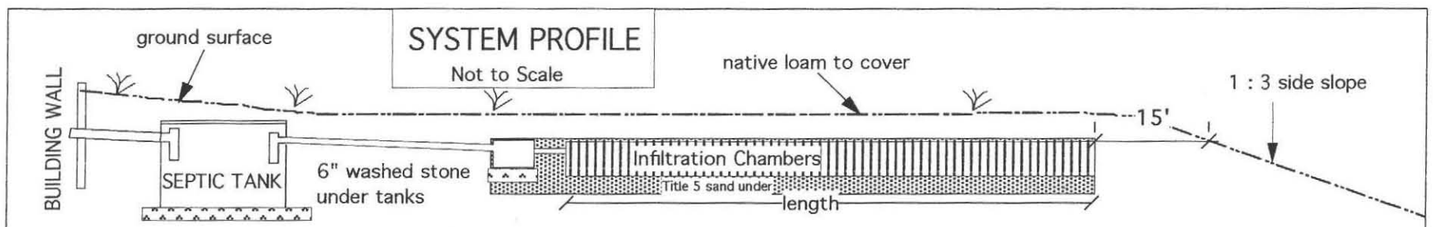
Use quality topsoil fill over non-parking areas.



CONSTRUCTION NOTES

1. Board of Health approval required before licensed contractor installs system. Obtain Disposal Works Permit.
2. Notify engineer at least 24 hours in advance of completion of excavation and before addition of sand to certify site preparation.
3. Notify engineer at least 24 hours in advance of completion of system construction and prior to backfill for final inspection.
4. All construction to be in accordance with Title 5 of the State Environmental Code.
5. At conclusion of work, loam and seed all disturbed areas to perennial grass mixture. Added loam may be required for adequate grass growth.
6. Contractor responsible for verifying all dimensions, elevations and conditions. Contact engineer immediately if discrepancies are found.
7. Property lines are approximate, based on best available information.
8. Any required tree cutting is the responsibility of the Contractor.
9. See attached Specifications for additional requirements.
10. System not designed for a garbage grinder. Do not connect one to the system.
11. All drain pipes from greywater and blackwater sources are to be connected to the building sewer in the basement.
12. All wells within 150' of system are shown on the drawing.

Variances Applied For:
3 foot separation to groundwater.
310 CMR 15.405 (h)

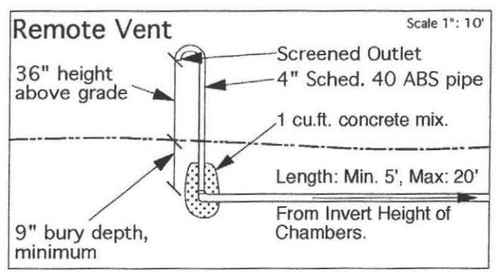


INVERT HEIGHTS & ELEVATIONS:			D-box	Excavate	Field Base	Inlet Inv.	Final	Height of	SHWT	Depth to	Orig.
Bldg. out	Septic in	Septic out	In: 93.2	18" soil	92.0	93.0	Surface	Gndwater	Separation	Gndwater	Contour
96.1	95.8	95.5	Out: 93.0	Field size for Infiltrator High Capacity:			95.0	89.0	3 ft.	72 in.	95.0
Sewer:	House to Septic Tank:		12 ft.	Chambers per Row:		3	Length:	18 3/4 "			
	Septic Tank to D-box:		42 ft.	Number of Rows:		3	Width:	8 7/8 "			

Infiltration Chamber Leachfield: Design based on Infiltrator Brand chamber by Infiltrator Systems Inc. Use only the model number specified. Contact System Designer for field sizing if other brand is to be used for this project. Use Title 5 sand for all fill requirements under units, between rows of units, to the level of the top of the units, and within 5 feet surrounding units.

Plan to Repair Septic System	Date: 8/16/2012	Owner: Marga and Bob Coler 563 Montague Road Amherst, MA 01002	COMMONWEALTH OF MASSACHUSETTS THOMAS S. LEUE #1172 REGISTERED SANITARIAN	HOMESTEAD INC. Thomas S. Leue R.S. 1664 Cape St. Williamsburg, MA 01096 [413] 628-4533
Scale: 1 : 20' Except as Noted	Revision Date:			

LEGEND	
Perc Test location & #	
Deep Hole location & #	
Original contour	
Revised contour	
Indicates perf. pipe	
Indicates solid pipe	
Well location	PL = Property Line



Plan to Upgrade
SEPTIC SYSTEM

for

Marga and Bob Coler

Located at

563 Montague Road
Amherst, MA 01002

Plan Number 594

Septic System Designer:
Thomas S. Leue R.S.
Homestead Inc.
1664 Cape St.
Williamsburg, MA 01096
(located in Ashfield)

413 628-4533
800 285-4533
fax: 413 628-3973

email: Vegheat@gmail.com

Design Date: 8/16/12
Updated:

Contents

Separate

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Andy Nuciforo fo... | Dullest Campaig... | Daily Digest 7/30... | GIS Property Sea... | × Property Viewer | +

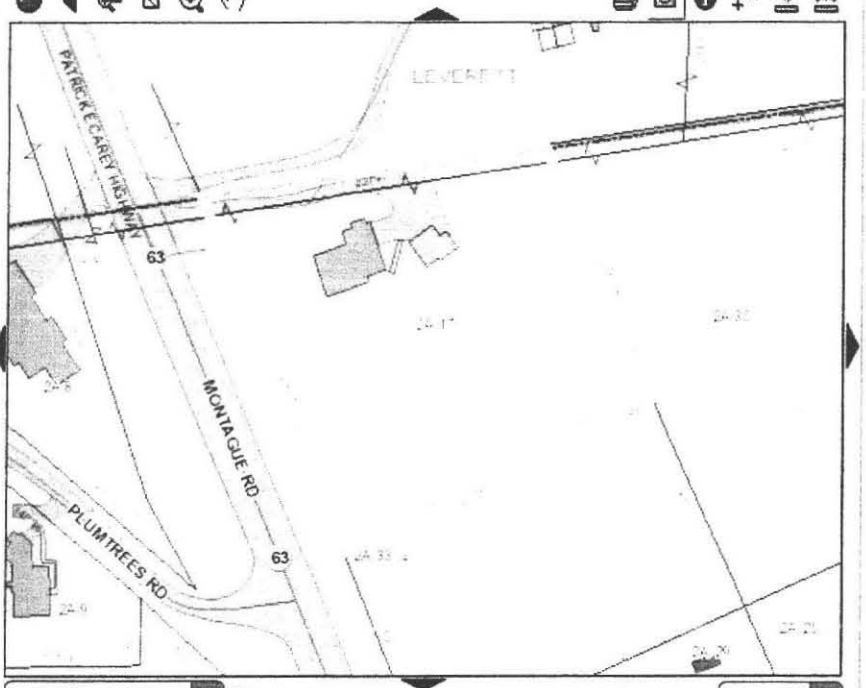
AMHERST MASSACHUSETTS

amherstma.gov/maps

AMHERST MAPS

Property Map | Aerial Photos | Topography | Utilities | Zoning | Size

Help Scale 1" = 107 ft



More Maps Here --> Go Save Map as Image

Selection | Legend | Location | Markup

Select Parcels

(show all)

Parcel	Address	Land Use
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1 selected To Mailing Labels To Spreadsheet

Property | Sales | Permits | Neighborhood Sales

Print

2A-17 / 563 MONTAGUE RD

Parcel 2A-17

Owner COLER, ROBERT A & MARGA LIFE ESTATE

Assessment $233,000.00 (FY12)
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Primary Zone RO (Dimensional Regulations)

Neighborhood NORTH AMHERST

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A. Facility Information

1. Facility Information

Marga and Bob Coler
Owner Name
563 Montague Road
Street Address
Amherst MA 01002

Map/Lot Parcel 2A - 117

B. Site Information

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

2. Published Soil Survey available? _X_ Yes ___ No If yes: 1967 (Year Published) 15840 (Publication Scale) 59 (Soil Map Unit)

CrC Charlton-Hollis fine sandy loam, rocky, 3-15% slopes (Soil Name) Moderate limitations: slope (Soil limitations)

Comment:

3. Superficial Geological Report available? _X_ Yes ___ No If yes: 1980 (Year Published) 1:190,080 (Publication Scale) 6 (Map Unit)

glaciated (Geologic Material) upland (Landform)

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   Above the 500 year flood boundary? _X_ Yes ___ No Within the 100 year flood boundary? ___ Yes _X_ No
   Within the 500 year flood boundary? ___ Yes _X_ No Within a Velocity Zone? ___ Yes _X_ No

5. Wetland Area: National Wetland Inventory Map Map Unit _____ Name _____
   Wetlands Conservancy Program Map Map Unit _____ Name _____

6. Current Water Resource Conditions (USGS) _____ (Month/Year) Range: Above Normal ___ Normal _X_ Below Normal ___

7. Other references reviewed: _____

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

C. On-Site Review

(minimum of two holes required at every proposed primary and reserved disposal area)

1 Deep Observation Hole Number 1 — 7/31/12 Perc date — 9:00 AM Time — Clear Weather

2 Land Use: driveway — Yes Surface Stones — 5% Slope (%)
(e.g. woodland, agricultural field, vacant lot, etc.)
Vegetation mixed hardwoods — Landform hillside
Latitude:
Longitude:

Position on landscape (attach sketch)

3 Distances from: Open Water Body 150 feet; Property Line ≤10 feet; Drainage Way 150 feet; Drinking Water Well 150 feet; Possible Wet Area 150 feet; Other: feet

4 Parent Material: Glacial outwash — Unsuitable Materials Present: NO
If Yes: Disturbed Soil Fill Material Impervious Layer(s) Weathered/Fractured Rock Bedrock

5 Groundwater Observed: no
If Yes: Depth Weeping from Pit 0 inches — Depth Standing Water in Hole 0 inches
Estimated Depth to High Groundwater: 80 inches

Depth (In.)	Soil Horizon / Layer	Soil Matrix Color-Moist (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Soil Texture (USDA)	Coarse Fragments Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
0 - 7	Fill					Gravel			none		
7 - 14	A	7.5YR 4/3				fine sandly loam	5%	5%	weak fine granular	very friable	
14 - 34	B	10YR 6/6				fine sandy loam	15%	15%	subangular blocky	friable	
34 - 80	C	10YR 6/3				gravelly sandy loam	20%	30%	massive	firm	
80+											

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

C. On-Site Review

(minimum of two holes required at every proposed primary and reserved disposal area)

1 Deep Observation Hole Number 1 — 7/31/12 (Perc date) — 9:00 AM (Time) — Clear (Weather)

2 Land Use: driveway (e.g. woodland, agricultural field, vacant lot, etc.) — Yes (Surface Stones) — 5% (Slope (%))

Vegetation: mixed hardwoods — Landform: hillside

Latitude:

Longitude:

Position on landscape (attach sketch)

3 Distances from: Open Water Body 150 feet; Property Line 70 feet; Drainage Way 150 feet; Drinking Water Well 150 feet; Possible Wet Area 150 feet; Other: feet

4 Parent Material: Glacial till — Unsuitable Materials Present: NO

If Yes: Disturbed Soil — Fill Material — Impervious Layer(s) — Weathered/Fractured Rock — Bedrock

5 Groundwater Observed: no

If Yes: Depth Weeping from Pit 0 inches — Depth Standing Water in Hole 0 inches

Estimated Depth to High Groundwater: 72 inches

Depth (In.)	Soil Horizon / Layer	Soil Matrix Color-Moist (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Soil Texture (USDA)	Coarse Fragments Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
0 - 7	Fill					Gravel			none		
7 - 14	A	7.5YR 4/3				fine sandly loam	5%	5%	weak fine granular	very friable	
14 - 34	B	10YR 6/1				fine sandy loam	15%	15%	subangular blocky	friable	
34 - 72	C	10YR 6/3				gravelly sandy loam	20%	30%	massive	firm	

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

D. Determination of High Groundwater Elevation

1. Method used:
   - ___ Depth observed standing water in observation hole — A. __ inches — B. __ inches
   - ___ Depth weeping from side of observation hole — A. __ inches — B. __ inches
   - ___ Depth to soil redoximorphic features (mottles) — A. __ inches — B. __ inches
   - ___ Groundwater adjustment (USGS methodology) — A. __ inches — B. __ inches

2. Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment Factor _____ Adjusted Groundwater Level _____

No mottles seen: depth of refusal found at 80 inches in observation hole A, 72 inches at observation hole B.

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

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

b. If yes, at what depth was it observed? Upper boundary: 14 Min. inches Lower boundary: 80 Max. inches

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Thomas S. Leue — 7/31/12

Signature of Soil Evaluator — Date

Thomas S. Leue SE 1368 — June 1995

Typed or Printed Name of Soil Evaluator/License Numbe — Date of Soil Evaluator Exam

Ed Smith — Town of Amherst

Name of Board of Health Witness — Board of Health

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the

CONSTRUCTION SPECIFICATIONS
563 Montague Road, Amherst

Title 5 Septic System Plan Number 594

1. General

a. No work on this system construction shall take place until a permit for the approved system plan has been received from the local Board of Health. A copy of the Disposal Works Construction Permit should be on site for inspection during the time of construction. Additional specifications may be included elsewhere in this design.

b. Loading requirements are specified for the septic tank on the system calculations page. Loading requirements for any other component are on the drawing. Normal loading systems are designated H-10. If H-20 rating is specified on the drawing and/or on the page for system calculations, the tank or leaching facility shall be custom built to meet the increased loading requirements using additional rebar, greater wall thickness and/or other approved methods. Follow the manufacturer's rating system and installation procedures.

c. Alternatives to these specifications should be discussed with the System Designer in advance at 800 285-4533.

2. Septic Tank

a. The septic tank selected by the contractor shall conform with 310 CMR 15.223. The septic tank shall be a minimum effective liquid capacity of 1,500 gallons below the outlet invert, rectangular, and with a minimum length to width ration of 1.5:1. Liquid depth to be 48". Compartmentalized tanks are not to be used.

b. Septic tank shall be installed on a minimum of 6" of crushed stone, leveled to grade and thoroughly compacted. Septic tanks shall have a minimum cover of 9". No structures shall be located directly upon or above the septic tank access locations which interfere with performance, access, inspection, pumping, or repair.

c. All three access covers to the septic tank shall have risers at least 20" diameter, if round, tightly fitted to the tank to resist water infiltration, and terminated with a tight fitting cover no more than 6" below ground surface. If, with the agreement of the Owner, one or more of the risers are terminated flush with ground, these shall be secured against unauthorized entry with stainless steel hardware.

d. Inlet and outlet tees shall be of Schedule 40 PVC and shall extend a minimum of 6" above the flow line of the septic tank and be on the center line of the septic tank located directly under the clean-out manhole. All fittings to be glued and secured against any movement due to horizontal or vertical impacts. Cross-sectional flow baffles shall not be used as substitutes for inlet or outlet tees. The inlet pipe elevation shall be no less than 2" nor more than 3" above the invert elevation of the outlet pipe. Inlet tee minimum of 10" length below water surface. The outlet shall be provided with a tee extending below the flow line 14" and be **equipped with a gas baffle**. There shall be an air space of at least 3" between the tops of the tees and the inside of the tank cover. Inlet tees may be modified or a 6" riser on inlet cover may achieve this spacing. The tops of the tees shall be left open to provide ventilation or separate ventilation shall be provided. The **effluent tee shall be fitted with a removable plastic outlet filter**, as manufactured by Polylok Inc., model PL-120, Zebco, or approved equal. Provide manufacturer's maintenance data, as boxed with the filter, to the homeowner or the System Designer.

e. Septic tank should be inspected by the Owner or his representative for solids accumulation annually. When the sum of the sludge and scum layer approach 1/4 the net working volume of the tank (net of 12" total thickness), as measured at the center of the tank, the tank is due for pumping. Septic tanks shall be inspected and maintained in accordance with 310 CMR 15.300 and applicable local requirements.

3. Distribution Box

a. The distribution box selected by the contractor shall conform with 310 CMR 15.232. Material of construction shall be concrete or plastic lined concrete. A 6" sump is required in the d-box.

b. The distribution box shall be placed on thoroughly tamped and compacted sand or peastone a minimum of 6" thickness, and shall be leveled utilizing a water flow test. Speed levelers shall not be used on a new installation to obtain level and equal distribution flow, but should be installed after leveling is completed in case uneven settling occurs in the future.

c. For inlet pipe slopes of 5% or greater, or where there is a pumped flow, the distribution box shall have an internal cast baffle or solvent welded pipe tee to reduce the velocity of the influent flow. An internal pipe "Y" or an elbow are not acceptable.

d. The first 2 feet of pipe out of the distribution box to be set dead level. Use a fernco connector to join to pitched pipes beyond first two feet.

e. A riser to grade is required on distribution boxes buried more than 9 inches below grade.

4. Piping

a. Piping to the septic tank (the building sewer) shall be 4" diameter, PVC Schedule 40 or better. Slope new pipe installations at 1/4" per foot length.

b. All piping from the septic tank to the end of the system shall be 4" diameter, SDR-35 or better, except as noted on the drawings. Slope pipe installations 1/8" per foot length as a minimum value.

c. Place magnetic detectable warning tape pre-printed "Sewer Pipe Below" or similar wording approximately 12" above all new 4" diameter piping installed on this project.

5. Leaching Facilities

a. General: All leaching facilities to be of the size and location shown on the drawings.

b. Leach fields (Infiltration chambers): Arrange infiltration chambers on levelled ground. Parallel rows should be placed a minimum of 6" apart. Add end plates as per manufacturer's assembly directions. Fill spaces between rows with Title 5 sand to the level of the top of the chambers.

c. All fill materials used on this project within five feet of the leaching chambers to be certified Title 5 sand, including any fill materials under chambers, between chambers and to the level of the top of the chambers.

d. A reasonably current copy of the certification from the sand supplier is required to be submitted to the System Designer before the conclusion of this project.

e. Breakout barrier, where required, to be minimum 40 mil thick continuous sheet. Install barrier vertically from bottom of excavation to height of top of leaching system. Seams of membrane material to be overlapped a minimum of 12 inches and glued with sealant as recommended by manufacturer. Material to be hypolon, low density polyethylene, buna-N rubber, EPDM, or approved equal. Backfill in lifts of no more than 6" to assure minimal deformation of membrane. If material is wider than the vertical distance to be covered as shown on the drawing, fold excess material over at the bottom of the trench, or trim with upper

edge level at appropriate elevation.

6. Inspection

a. A minimum of two site inspections are required under the revised Title 5 code by the System Designer. First, after the site has been prepared with clearing, excavation and system site layout, but before the installation of the system sand. Second, the contractor shall notify the System Designer a minimum of 48 hours in advance of the anticipated completion time for a Final Inspection. The impervious barrier will be inspected for approval at this time. This barrier will have to be exposed at any locations of overlaps or penetrations to confirm watertight installation. The system shall be essentially complete at the time of the final inspection, including all components in place, risers and covers installed, electrical components functional, etc. No installed system component shall be buried greater than 1" depth at the time of final inspection. The System Designer shall verify the system was installed as designed and authorize the final grading. Coordinate the timing of the Final Inspection so the System Designer and the representative of the local Board of Health may be on the site at the same time, if possible.

b. If the System Designer finds the system is not ready for inspection after being called, or if serious deficiencies are discovered, the System Designer must be notified to return to the job site when it is complete. There will be a charge to the Installer of $50 for each return trip, payable directly to the System Designer at the time of the reinspection.

c. Inspection and project closeout forms are usually generated within 24 hours of final inspection by the System Designer, when all other requirements are met. Signed Certificate of Compliance forms and As-built Drawings are sent to the Installer for a signature and date. One set of forms are then returned to the System Designer for final processing. The second set of forms are for the Contractor to keep as his project record.

7. Final Grading

a. At conclusion of work, loam and seed all disturbed areas to perennial grass mixture. Added loam may be required for adequate grass growth. Mulch slopes with hay, burlap or netting to minimize erosion.

b. Surface over leaching facility shall be pitched so as to shed rainwater. Also pitch surface over all tanks to shed rainwater from any exposed covers. Do not allow surface water to puddle over any system component.

c. Systems built late in the year, where the grass cover does not have a chance to establish itself, requires the contractor is to return after spring thaw and resurface final grades and add grass seed cover as required to equalize and stabilize all disturbed areas.

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 563 Montague Road Amherst
Homestead Inc. #: 594

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*

Date:	7/31/12	Time:	9:46 AM		
Observation Hole #	1	2	3	4	
Depth of Perc: (in.)	28				(inches)
Start Pre-soak:	9:46 AM				
End Pre-soak:	10:01 AM				
Time at 12":	10:01 AM				
Time at 9":	10:06 AM				
Time at 6":	10:13 AM				
Time (9" - 6"):	0:07:45				
Rate - Min./Inch:	0:02:35				

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

Site Passes / Site Fails: Passes

Performed By: Thomas S. Leue, Homestead Inc.

Witnessed By: Ed Smith, Amherst

Comments: _

DEP

DEP APPROVED FORM - 12/07/95

DESIGN CALCULATIONS

563 Montague Road | Amherst | Plan Number 594

Leaching Chamber type Leach Bed System				Info Source
Structure:	Single Family House	3	bedrooms	Owner's information
Flow Design Criteria:		110	gallons per bedroom per day	310 CMR 15.203
Calc. Design Flow:		330	gallons per day	multiply above
Garbage Grinder:	**Not Allowed**	1.0	factor	310 CMR 15.240
Total Design Flow:		330	gallons per day	multiply above
Percolation Rate:	Measured	2.3	min. per inch	from perc test
Percolation Rate:	Design Rate	2	min. per inch	310 CMR 15.105
Loading Rate:	Class I Soil	0.74	gallons/sq.ft./day	310 CMR 15.242

Area required for infiltration:	446	sq. ft.	divide flow by loading rate
Field Size Reduction Variance Application:	**2.0%**		310 CMR 15.404(2d)
Net Field Size:	437	sq. ft.	multiply above

Bed Configuration:	Infiltrator Systems Inc.		
Model Used:	High Capacity H-20		Manuf. Trade Name
Effective Leaching Area:	7.79	sq ft/ln ft	DEP technology ratings
Length per chamber:	75	inches	Manufacturer's size
Width per chamber:	34	inches	Manufacturer's size
Invert height:	11	inches	Manufacturer's size
Overall height:	16	inches	Manufacturer's size
Leaching area/chamber:	48.7	sq ft	length x leaching area
# Chambers required:	9.0		field size divided
# Chambers provided:	**9**		by leaching area
# field provided:	**1**		judgement
# rows wide:	3		judgement
space between rows:	2	inches	average
Total Field Width:	8.83	feet	chambers + spacing
# Chambers long:	3		judgement
Total Field Length:	18.75	feet ea.	length of assembly
Total Field Area:	165.6	sq. ft.	length X width
Effective Leaching Area:	438.2	sq. ft.	# chambers X rating
Net Calculated Capacity:	331	gals/day	area X loading rate
Loading:	**H-20**		judgement

COMMONWEALTH OF MASSACHUSETTS
THOMAS S. LEUE
#1172
REGISTERED SANITARIAN

Thomas S Leue

Homestead Inc.

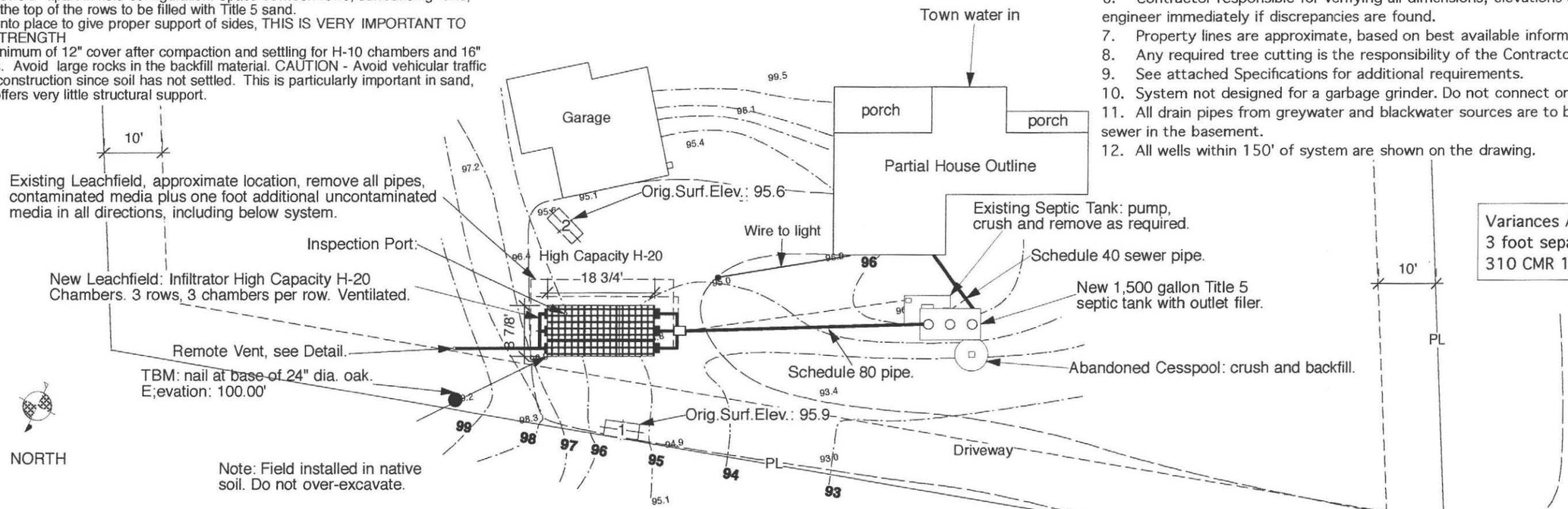
8/16/12

INFILTRATION CHAMBERS INSTALLATION INSTRUCTIONS

1. Excavate and level field area to depth of excavation.
2. Prepare field area in accordance with 310 CMR 15.00. Add Title 5 sand to depth of Field Base specified.
3. Snap chamber end with integral splash plate into inlet end of first Infiltrator chamber with splash plate extending into chamber. Secure end plate with two or more stainless screws.
4. Place first unit in the inlet end of trench with interlocks downstream.
5. Run distribution pipe through inlet opening in end plate but not beyond splash plate. A single screw to be used to hold in place. Pipe does not normally run the length of system.
6. Connect Infiltrator chambers together, fully engaging interlocks to form desired field length. Be sure to check all grades with a level or surveying equipment. Secure sections with three or more screws each.
7. Screw closed end plate in downstream end of last chamber.
8. Space parallel rows 2" apart in field configuration. Space between rows, surrounding rows, and to the level of the top of the rows to be filled with Title 5 sand.
9. "Walk" sand fill into place to give proper support of sides, THIS IS VERY IMPORTANT TO ACHIEVE FULL STRENGTH
10. Backfill to a minimum of 12" cover after compaction and settling for H-10 chambers and 16" for H-20 chambers. Avoid large rocks in the backfill material. CAUTION - Avoid vehicular traffic on system during construction since soil has not settled. This is particularly important in sand, since loose sand offers very little structural support.

Install top 8" of parking area and driveway with TRG media, compacted and smoothed.

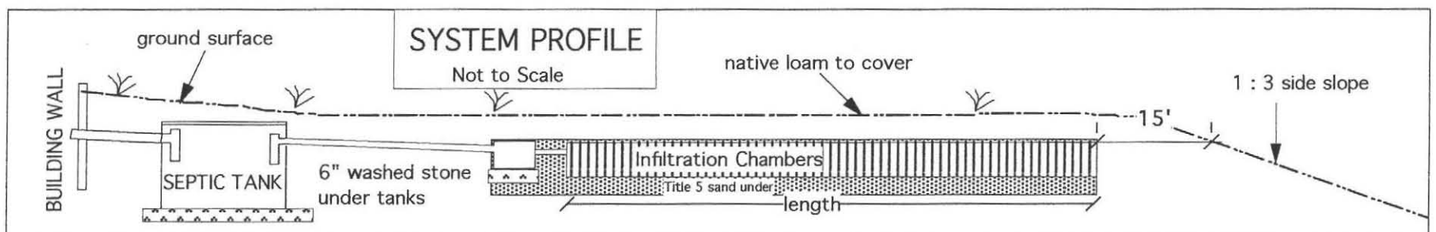
Use quality topsoil fill over non-parking areas.



CONSTRUCTION NOTES

1. Board of Health approval required before licensed contractor installs system. Obtain Disposal Works Permit.
2. Notify engineer at least 24 hours in advance of completion of excavation and before addition of sand to certify site preparation.
3. Notify engineer at least 24 hours in advance of completion of system construction and prior to backfill for final inspection.
4. All construction to be in accordance with Title 5 of the State Environmental Code.
5. At conclusion of work, loam and seed all disturbed areas to perennial grass mixture. Added loam may be required for adequate grass growth.
6. Contractor responsible for verifying all dimensions, elevations and conditions. Contact engineer immediately if discrepancies are found.
7. Property lines are approximate, based on best available information.
8. Any required tree cutting is the responsibility of the Contractor.
9. See attached Specifications for additional requirements.
10. System not designed for a garbage grinder. Do not connect one to the system.
11. All drain pipes from greywater and blackwater sources are to be connected to the building sewer in the basement.
12. All wells within 150' of system are shown on the drawing.

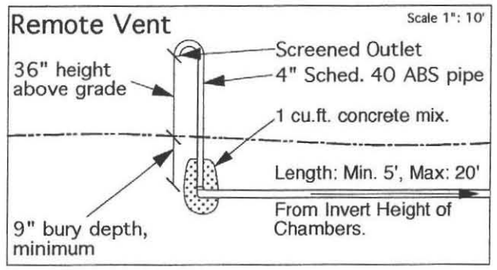
Variances Applied For:
3 foot separation to groundwater.
310 CMR 15.405 (h)



INVERT HEIGHTS & ELEVATIONS:			D-box	Excavate	Field Base	Inlet Inv.	Final	Height of	SHWT	Depth to	Orig.
Bldg. out	Septic in	Septic out	In: 93.2	18" soil	92.0	93.0	Surface	Gndwater	Separation	Gndwater	Contour
96.1	95.8	95.5	Out: 93.0	Field size for Infiltrator High Capacity:			95.0	89.0	3 ft.	72 in.	95.0
Sewer:	House to Septic Tank:		12 ft.	Chambers per Row:		3	Length:	18 3/4 '			
	Septic Tank to D-box:		42 ft.	Number of Rows:		3	Width:	8 7/8 '			

Infiltration Chamber Leachfield: Design based on Infiltrator Brand chamber by Infiltrator Systems Inc. Use only the model number specified. Contact System Designer for field sizing if other brand is to be used for this project. Use Title 5 sand for all fill requirements under units, between rows of units, to the level of the top of the units, and within 5 feet surrounding units.

LEGEND	
Perc Test location & #	
Deep Hole location & #	
Original contour	
Revised contour	
Indicates perf. pipe	
Indicates solid pipe	
Well location	PL = Property Line



Plan to Repair Septic System Scale: 1 : 20' Except as Noted	Date: 8/16/2012 Revision Date:	Owner: Marga and Bob Coler 563 Montague Road Amherst, MA 01002	COMMONWEALTH OF MASSACHUSETTS THOMAS S. LEUE 11172 REGISTERED SANITARIAN	HOMESTEAD INC. Thomas S. Leue R.S. 1664 Cape St. Williamsburg, MA 01096 [413] 628-4533

Smith, Edmund

From: Thomas Leue [vegheat@gmail.com]
Sent: Friday, August 24, 2012 11:45 AM
To: Smith, Edmund
Subject: Re: questions: 563 Montague Road

Hello Ed.

let me answer questions as best as I can.

On Fri, Aug 24, 2012 at 11:09 AM, Smith, Edmund <smithe@amherstma.gov> wrote:

Hi Tom

Left you a phone message but I'm going home early today, so I'll send you my questions by email:

-on your plans, you don't indicate what you'll use (and the installer should use) for a benchmark (or tell me where I missed it)

The TBM is to the lower left. Sorry there was a line crossing the note, and a spelling error, making it somewhat obscure. It says "TBM: nail at base of 24" dia. oak. Elevation: 100.00'"

-along with that, the distances from house to tank, etc., aren't given

In the little number block in the "System Profile" it says the sewer from the house to the septic tank is 12 ft. The Septic Tank to the D-box is 42 ft. I hope that is specific enough. let me know if you want more.

-the profile of the tank doesn't show a gas baffle

The septic tank has an outlet filter. these are considered to be an effective substitute to a gas baffle.

-I didn't see a statement about why you are choosing a field(bed) over trenches

I am not familiar with any such required statement. In this instance, there is not enough room for trenches. For repairs, usually fields are acceptable for the required flow.

-washed stone is indicated, but not double washed

The stone is used only under the tanks for leveling purposes. There is no practical use for double washed stone in this instance.

Also, is the driveway going to increase in steepness (pitch) at the top where it meets the bed? I can't quite visualize what's happening there.

The initial and final elevation of the parking areas are not changes. there is no change to the pitch of the driveway.

If I've missed any of this info on the material you provided, just let me know where to look. I take it the installer is not chosen?

I do not know who the installer is yet. I am sure we can let you know soon.

Thanks –

Ed

Tom Leue, R.S.

Edmund R. Smith

Health Inspector; (413)259-3153

my regular hours: Tuesdays 8-4:30; Thursdays 12:30-4:30; Fridays 8-4:30

Amherst Health Department

main phone #: (413)259-3077; fax (413)259-2404

Bangs Community Center

70 Boltwood Walk

Amherst, MA 01002

--
Homestead Engineering Inc.
d.b.a. Homestead Inc.
1664 Cape St.
located in Ashfield
Williamsburg, MA 01096
413-628-4533
HomesteadInc.net
YellowBiodiesel.com

Plan to Upgrade
SEPTIC SYSTEM

for

Marga and Bob Coler

Located at

563 Montague Road
Amherst, MA 01002

Plan Number 594

Septic System Designer:
Thomas S. Leue R.S.
Homestead Inc.
1664 Cape St.
Williamsburg, MA 01096
(located in Ashfield)

413 628-4533
800 285-4533
fax: 413 628-3973

email: Vegheat@gmail.com

Design Date: 8/16/12
Updated:

Contents

Separate

AT&T 4G 1:17 PM 89%

gis.amherstma.gov/public/Viewer.aspx

Andy Nuciforo fo... | Dullest Campaig... | Daily Digest 7/30... | GIS Property Sea... | × Property Viewer | +

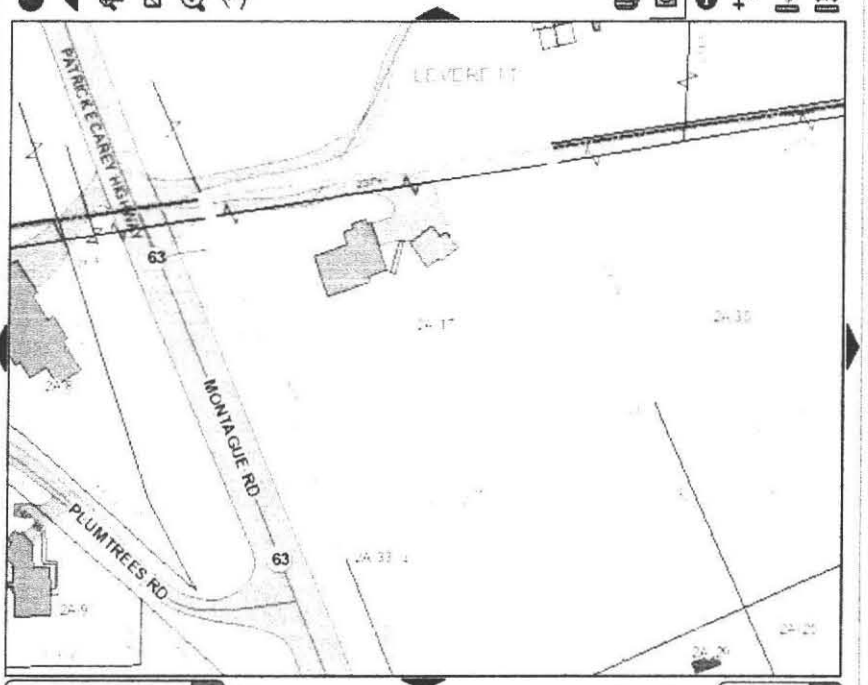
AMHERST MASSACHUSETTS

amherstma.gov/maps

AMHERST MAPS

Property Map | Aerial Photos | Topography | Utilities | Zoning | Size

Help Scale 1" = 107 ft



More Maps Here --> Go Save Map as Image

Selection | Legend | Location | Markup

Select Parcels

(show all)

Parcel	Address	Land Use
2A-17	563 MONTAGUE RD	Single Family

1 selected To Mailing Labels To Spreadsheet

Property | Sales | Permits | Neighborhood Sales

Print

2A-17 / 563 MONTAGUE RD

Parcel 2A-17

Owner COLER, ROBERT A & MARGA LIFE ESTATE

Assessment $233,000.00 (FY12)
$250,800.00 (FY11)

Landuse Single Family (1010)

Primary Zone RO (Dimensional Regulations)

Neighborhood NORTH AMHERST

Amherst GIS | Amherst 3D | Map Gallery | GIS Application | Property Search | Street Search | amherstma.gov

Town Hall | 4 Boltwood Avenue | Amherst MA, 01002

Phone: 413-259-3247 | Fax: 413-256-4006 | Email: gis-group@amherstma.gov

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

DEP has provided this form for use by on-site professionals and local Boards of Health. Other forms may be used, but the information must be substantially the same as provided here. Before using this form, check with your local Board of Health to determine the form they use.

A. Facility Information

1. Facility Information

Marga and Bob Coler
Owner Name
563 Montague Road
Street Address
Amherst MA 01002

Map/Lot Parcel 2A - 117

B. Site Information

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

2. Published Soil Survey available? _X_ Yes ___ No If yes: 1967 (Year Published) 15840 (Publication Scale) 59 (Soil Map Unit)

CrC Charlton-Hollis fine sandy loam, rocky, 3-15% slopes (Soil Name) Moderate limitations: slope (Soil limitations)

Comment:

3. Superficial Geological Report available? _X_ Yes ___ No If yes: 1980 (Year Published) 1:190,080 (Publication Scale) 6 (Map Unit)

glaciated (Geologic Material) upland (Landform)

4. Flood Rate Insurance Map:
   Above the 500 year flood boundary? _X_ Yes ___ No
   Within the 100 year flood boundary? __ Yes _X_ No
   Within the 500 year flood boundary? __ Yes _X_ No
   Within a Velocity Zone? __ Yes _X_ No

5. Wetland Area: National Wetland Inventory Map ____ (Map Unit) ____ (Name)
   Wetlands Conservancy Program Map ____ (Map Unit) ____ (Name)

6. Current Water Resource Conditions (USGS) ____ (Month/Year) Range: Above Normal ___ Normal _X_ Below Normal ___

7. Other references reviewed: ____

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

C. On-Site Review

(minimum of two holes required at every proposed primary and reserved disposal area)

1 Deep Observation Hole Number 1

7/31/12 Perc date | 9:00 AM Time | Clear Weather

2 Land Use: driveway
(e.g. woodland, agricultural field, vacant lot, etc.)
Vegetation mixed hardwoods
Latitude:
Longitude:

Yes Surface Stones | 5% Slope (%)

Landform hillside

Position on landscape (attach sketch)

3 Distances from: Open Water Body 150 | Drainage Way 150 | Possible Wet Area 150
Property Line ≤10 | Drinking Water Well 150 | Other: feet
feet feet

4 Parent Material: Glacial outwash
If Yes: Disturbed Soil Fill Material | Impervious Layer(s) | Unsuitable Materials Present: NO | Weathered/Fractured Rock | Bedrock

5 Groundwater Observed: no
If Yes: Depth Weeping from Pit 0 inches | Depth Standing Water in Hole 0 inches
Estimated Depth to High Groundwater: 80 inches

Depth (In.)	Soil Horizon / Layer	Soil Matrix Color-Moist (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Soil Texture (USDA)	Coarse Fragments Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
0 - 7	Fill					Gravel			none		
7 - 14	A	7.5YR 4/3				fine sandly loam	5%	5%	weak fine granular	very friable	
14 - 34	B	10YR 6/6				fine sandy loam	15%	15%	subangular blocky	friable	
34 - 80	C	10YR 6/3				gravelly sandy loam	20%	30%	massive	firm	
80+											

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

C. On-Site Review

(minimum of two holes required at every proposed primary and reserved disposal area)

1 Deep Observation Hole Number 1 — 7/31/12 Perc date — 9:00 AM Time — Clear Weather

2 Land Use: driveway (e.g. woodland, agricultural field, vacant lot, etc.) — Yes Surface Stones — 5% Slope (%)

Vegetation mixed hardwoods — Landform hillside

Latitude:

Longitude:

Position on landscape (attach sketch)

3 Distances from: Open Water Body 150 feet; Property Line 70 feet; Drainage Way 150 feet; Drinking Water Well 150 feet; Possible Wet Area 150 feet; Other: feet

4 Parent Material: Glacial till — Unsuitable Materials Present: NO

If Yes: Disturbed Soil — Fill Material — Impervious Layer(s) — Weathered/Fractured Rock — Bedrock

5 Groundwater Observed: no

If Yes: Depth Weeping from Pit 0 inches — Depth Standing Water in Hole 0 inches

Estimated Depth to High Groundwater: 72 inches

Depth (In.)	Soil Horizon / Layer	Soil Matrix Color-Moist (Munsell)	Redoximorphic Features (mottles) Depth	Color	Percent	Soil Texture (USDA)	Coarse Fragments Gravel	Cobbles & Stones	Soil Structure	Soil Consistency (Moist)	Other
0 - 7	Fill					Gravel			none		
7 - 14	A	7.5YR 4/3				fine sandly loam	5%	5%	weak fine granular	very friable	
14 - 34	B	10YR 6/1				fine sandy loam	15%	15%	subangular blocky	friable	
34 - 72	C	10YR 6/3				gravelly sandy loam	20%	30%	massive	firm	

Commonwealth of Massachusetts
City/Town of Amherst

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

Site Address: 563 Montague Road, Amherst

D. Determination of High Groundwater Elevation

1. Method used:	___	Depth observed standing water in observation hole	A. _	inches	B. _	inches
	___	Depth weeping from side of observation hole	A. _	inches	B. _	inches
	___	Depth to soil redoximorphic features (mottles)	A. _	inches	B. _	inches
	___	Groundwater adjustment (USGS methodology)	A. _	inches	B. _	inches

2. Index Well Number _____ Reading Date _____ Index Well Level _____

Adjustment Factor _____ Adjusted Groundwater Level _____

No mottles seen: depth of refusal found at 80 inches in observation hole A, 72 inches at observation hole B.

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material

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

b. If yes, at what depth was it observed? Upper boundary: 14 Min. inches Lower boundary: 80 Max. inches

F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Thomas S Leue

Signature of Soil Evaluator — 7/31/12 Date

Thomas S. Leue SE 1368
Typed or Printed Name of Soil Evaluator/License Numbe

June 1995
Date of Soil Evaluator Exam

Ed Smith
Name of Board of Health Witness

Town of Amherst
Board of Health

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the

CONSTRUCTION SPECIFICATIONS
563 Montague Road, Amherst

Title 5 Septic System Plan Number 594

1. General

a. No work on this system construction shall take place until a permit for the approved system plan has been received from the local Board of Health. A copy of the Disposal Works Construction Permit should be on site for inspection during the time of construction. Additional specifications may be included elsewhere in this design.

b. Loading requirements are specified for the septic tank on the system calculations page. Loading requirements for any other component are on the drawing. Normal loading systems are designated H-10. If H-20 rating is specified on the drawing and/or on the page for system calculations, the tank or leaching facility shall be custom built to meet the increased loading requirements using additional rebar, greater wall thickness and/or other approved methods. Follow the manufacturer's rating system and installation procedures.

c. Alternatives to these specifications should be discussed with the System Designer in advance at 800 285-4533.

2. Septic Tank

a. The septic tank selected by the contractor shall conform with 310 CMR 15.223. The septic tank shall be a minimum effective liquid capacity of 1,500 gallons below the outlet invert, rectangular, and with a minimum length to width ration of 1.5:1. Liquid depth to be 48". Compartmentalized tanks are not to be used.

b. Septic tank shall be installed on a minimum of 6" of crushed stone, leveled to grade and thoroughly compacted. Septic tanks shall have a minimum cover of 9". No structures shall be located directly upon or above the septic tank access locations which interfere with performance, access, inspection, pumping, or repair.

c. All three access covers to the septic tank shall have risers at least 20" diameter, if round, tightly fitted to the tank to resist water infiltration, and terminated with a tight fitting cover no more than 6" below ground surface. If, with the agreement of the Owner, one or more of the risers are terminated flush with ground, these shall be secured against unauthorized entry with stainless steel hardware.

d. Inlet and outlet tees shall be of Schedule 40 PVC and shall extend a minimum of 6" above the flow line of the septic tank and be on the center line of the septic tank located directly under the clean-out manhole. All fittings to be glued and secured against any movement due to horizontal or vertical impacts. Cross-sectional flow baffles shall not be used as substitutes for inlet or outlet tees. The inlet pipe elevation shall be no less than 2" nor more than 3" above the invert elevation of the outlet pipe. Inlet tee minimum of 10" length below water surface. The outlet shall be provided with a tee extending below the flow line 14" and be **equipped with a gas baffle**. There shall be an air space of at least 3" between the tops of the tees and the inside of the tank cover. Inlet tees may be modified or a 6" riser on inlet cover may achieve this spacing. The tops of the tees shall be left open to provide ventilation or separate ventilation shall be provided. The **effluent tee shall be fitted with a removable plastic outlet filter**, as manufactured by Polylok Inc., model PL-120, Zebco, or approved equal. Provide manufacturer's maintenance data, as boxed with the filter, to the homeowner or the System Designer.

e. Septic tank should be inspected by the Owner or his representative for solids accumulation annually. When the sum of the sludge and scum layer approach 1/4 the net working volume of the tank (net of 12" total thickness), as measured at the center of the tank, the tank is due for pumping. Septic tanks shall be inspected and maintained in accordance with 310 CMR 15.300 and applicable local requirements.

3. Distribution Box

a. The distribution box selected by the contractor shall conform with 310 CMR 15.232. Material of construction shall be concrete or plastic lined concrete. A 6" sump is required in the d-box.

b. The distribution box shall be placed on thoroughly tamped and compacted sand or peastone a minimum of 6" thickness, and shall be leveled utilizing a water flow test. Speed levelers shall not be used on a new installation to obtain level and equal distribution flow, but should be installed after leveling is completed in case uneven settling occurs in the future.

c. For inlet pipe slopes of 5% or greater, or where there is a pumped flow, the distribution box shall have an internal cast baffle or solvent welded pipe tee to reduce the velocity of the influent flow. An internal pipe "Y" or an elbow are not acceptable.

d. The first 2 feet of pipe out of the distribution box to be set dead level. Use a fernco connector to join to pitched pipes beyond first two feet.

e. A riser to grade is required on distribution boxes buried more than 9 inches below grade.

4. Piping

a. Piping to the septic tank (the building sewer) shall be 4" diameter, PVC Schedule 40 or better. Slope new pipe installations at 1/4" per foot length.

b. All piping from the septic tank to the end of the system shall be 4" diameter, SDR-35 or better, except as noted on the drawings. Slope pipe installations 1/8" per foot length as a minimum value.

c. Place magnetic detectable warning tape pre-printed "Sewer Pipe Below" or similar wording approximately 12" above all new 4" diameter piping installed on this project.

5. Leaching Facilities

a. General: All leaching facilities to be of the size and location shown on the drawings.

b. Leach fields (Infiltration chambers): Arrange infiltration chambers on levelled ground. Parallel rows should be placed a minimum of 6" apart. Add end plates as per manufacturer's assembly directions. Fill spaces between rows with Title 5 sand to the level of the top of the chambers.

c. All fill materials used on this project within five feet of the leaching chambers to be certified Title 5 sand, including any fill materials under chambers, between chambers and to the level of the top of the chambers.

d. A reasonably current copy of the certification from the sand supplier is required to be submitted to the System Designer before the conclusion of this project.

e. Breakout barrier, where required, to be minimum 40 mil thick continuous sheet. Install barrier vertically from bottom of excavation to height of top of leaching system. Seams of membrane material to be overlapped a minimum of 12 inches and glued with sealant as recommended by manufacturer. Material to be hypolon, low density polyethylene, buna-N rubber, EPDM, or approved equal. Backfill in lifts of no more than 6" to assure minimal deformation of membrane. If material is wider than the vertical distance to be covered as shown on the drawing, fold excess material over at the bottom of the trench, or trim with upper

edge level at appropriate elevation.

6. Inspection

a. A minimum of two site inspections are required under the revised Title 5 code by the System Designer. First, after the site has been prepared with clearing, excavation and system site layout, but before the installation of the system sand. Second, the contractor shall notify the System Designer a minimum of 48 hours in advance of the anticipated completion time for a Final Inspection. The impervious barrier will be inspected for approval at this time. This barrier will have to be exposed at any locations of overlaps or penetrations to confirm watertight installation. The system shall be essentially complete at the time of the final inspection, including all components in place, risers and covers installed, electrical components functional, etc. No installed system component shall be buried greater than 1" depth at the time of final inspection. The System Designer shall verify the system was installed as designed and authorize the final grading. Coordinate the timing of the Final Inspection so the System Designer and the representative of the local Board of Health may be on the site at the same time, if possible.

b. If the System Designer finds the system is not ready for inspection after being called, or if serious deficiencies are discovered, the System Designer must be notified to return to the job site when it is complete. There will be a charge to the Installer of $50 for each return trip, payable directly to the System Designer at the time of the reinspection.

c. Inspection and project closeout forms are usually generated within 24 hours of final inspection by the System Designer, when all other requirements are met. Signed Certificate of Compliance forms and As-built Drawings are sent to the Installer for a signature and date. One set of forms are then returned to the System Designer for final processing. The second set of forms are for the Contractor to keep as his project record.

7. Final Grading

a. At conclusion of work, loam and seed all disturbed areas to perennial grass mixture. Added loam may be required for adequate grass growth. Mulch slopes with hay, burlap or netting to minimize erosion.

b. Surface over leaching facility shall be pitched so as to shed rainwater. Also pitch surface over all tanks to shed rainwater from any exposed covers. Do not allow surface water to puddle over any system component.

c. Systems built late in the year, where the grass cover does not have a chance to establish itself, requires the contractor is to return after spring thaw and resurface final grades and add grass seed cover as required to equalize and stabilize all disturbed areas.

FORM 12 - PERCOLATION TEST

Location Address or Lot No. 563 Montague Road Amherst
Homestead Inc. #: 594

COMMONWEALTH OF MASSACHUSETTS

Amherst, Massachusetts

Percolation Test*

Date:	7/31/12	Time:	9:46 AM		
Observation Hole #	1	2	3	4	
Depth of Perc: (in.)	28				(inches)
Start Pre-soak:	9:46 AM				
End Pre-soak:	10:01 AM				
Time at 12":	10:01 AM				
Time at 9":	10:06 AM				
Time at 6":	10:13 AM				
Time (9" - 6"):	0:07:45				
Rate - Min./Inch:	0:02:35				

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

Site Passes / Site Fails: Passes

Performed By: Thomas S. Leue, Homestead Inc.

Witnessed By: Ed Smith, Amherst

Comments: _

DEP

DEP APPROVED FORM - 12/07/95

DESIGN CALCULATIONS

563 Montague Road | Amherst | Plan Number 594

Leaching Chamber type Leach Bed System

				Info Source
Structure:	Single Family House	3	bedrooms	Owner's information
Flow Design Criteria:		110	gallons per bedroom per day	310 CMR 15.203
Calc. Design Flow:		330	gallons per day	multiply above
Garbage Grinder:	**Not Allowed**	1.0	factor	310 CMR 15.240
Total Design Flow:		330	gallons per day	multiply above
Percolation Rate:	Measured	2.3	min. per inch	from perc test
Percolation Rate:	Design Rate	2	min. per inch	310 CMR 15.105
Loading Rate:	Class I Soil	0.74	gallons/sq.ft./day	310 CMR 15.242

Area required for infiltration:	446	sq. ft.	divide flow by loading rate
Field Size Reduction Variance Application:	**2.0%**		310 CMR 15.404(2d)
Net Field Size:	437	sq. ft.	multiply above

Bed Configuration:	Infiltrator Systems Inc.	
Model Used:	High Capacity H-20	Manuf. Trade Name
Effective Leaching Area:	7.79 sq ft/ln ft	DEP technology ratings
Length per chamber:	75 inches	Manufacturer's size
Width per chamber:	34 inches	Manufacturer's size
Invert height:	11 inches	Manufacturer's size
Overall height:	16 inches	Manufacturer's size
Leaching area/chamber:	48.7 sq ft	length x leaching area
# Chambers required:	9.0	field size divided
# Chambers provided:	**9**	by leaching area
# field provided:	**1**	judgement
# rows wide:	3	judgement
space between rows:	2 inches	average
Total Field Width:	8.83 feet	chambers + spacing
# Chambers long:	3	judgement
Total Field Length:	18.75 feet ea.	length of assembly
Total Field Area:	165.6 sq. ft.	length X width
Effective Leaching Area:	438.2 sq. ft.	# chambers X rating
Net Calculated Capacity:	331 gals/day	area X loading rate
Loading:	**H-20**	judgement

COMMONWEALTH OF MASSACHUSETTS
THOMAS S. LEUE
#1172
REGISTERED SANITARIAN

Thomas S Leue

Homestead Inc.

8/16/12

INFILTRATION CHAMBERS INSTALLATION INSTRUCTIONS

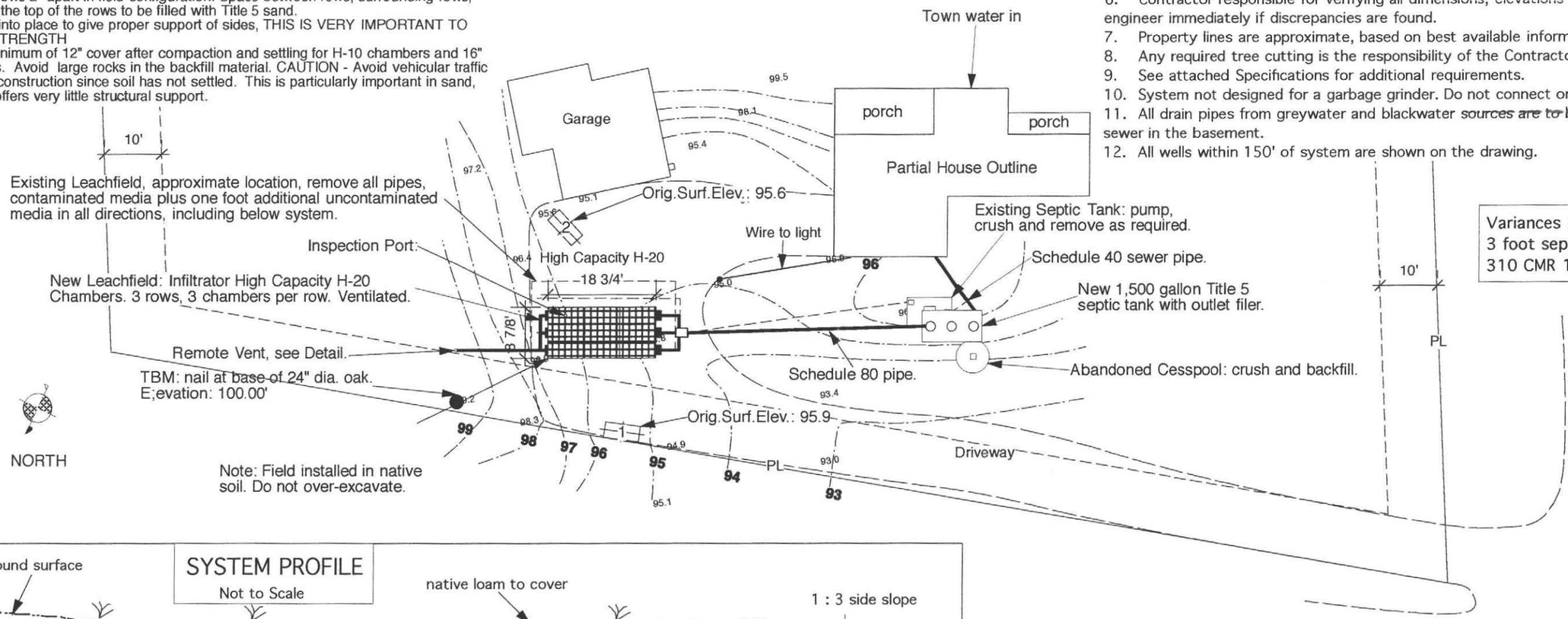
1. Excavate and level field area to depth of excavation.
2. Prepare field area in accordance with 310 CMR 15.00. Add Title 5 sand to depth of Field Base specified.
3. Snap chamber end with integral splash plate into inlet end of first Infiltrator chamber with splash plate extending into chamber. Secure end plate with two or more stainless screws.
4. Place first unit in the inlet end of trench with interlocks downstream.
5. Run distribution pipe through inlet opening in end plate but not beyond splash plate. A single screw to be used to hold in place. Pipe does not normally run the length of system.
6. Connect Infiltrator chambers together, fully engaging interlocks to form desired field length. Be sure to check all grades with a level or surveying equipment. Secure sections with three or more screws each.
7. Screw closed end plate in downstream end of last chamber.
8. Space parallel rows 2" apart in field configuration. Space between rows, surrounding rows, and to the level of the top of the rows to be filled with Title 5 sand.
9. "Walk" sand fill into place to give proper support of sides, THIS IS VERY IMPORTANT TO ACHIEVE FULL STRENGTH
10. Backfill to a minimum of 12" cover after compaction and settling for H-10 chambers and 16" for H-20 chambers. Avoid large rocks in the backfill material. CAUTION - Avoid vehicular traffic on system during construction since soil has not settled. This is particularly important in sand, since loose sand offers very little structural support.

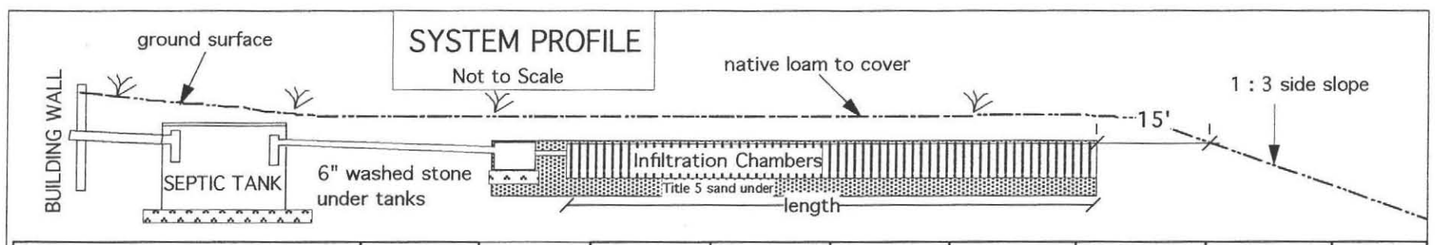
Install top 8" of parking area and driveway with TRG media, compacted and smoothed.

Use quality topsoil fill over non-parking areas.

CONSTRUCTION NOTES

1. Board of Health approval required before licensed contractor installs system. Obtain Disposal Works Permit.
2. Notify engineer at least 24 hours in advance of completion of excavation and before addition of sand to certify site preparation.
3. Notify engineer at least 24 hours in advance of completion of system construction and prior to backfill for final inspection.
4. All construction to be in accordance with Title 5 of the State Environmental Code.
5. At conclusion of work, loam and seed all disturbed areas to perennial grass mixture. Added loam may be required for adequate grass growth.
6. Contractor responsible for verifying all dimensions, elevations and conditions. Contact engineer immediately if discrepancies are found.
7. Property lines are approximate, based on best available information.
8. Any required tree cutting is the responsibility of the Contractor.
9. See attached Specifications for additional requirements.
10. System not designed for a garbage grinder. Do not connect one to the system.
11. All drain pipes from greywater and blackwater ~~sources are to be connected~~ to the building sewer in the basement.
12. All wells within 150' of system are shown on the drawing.

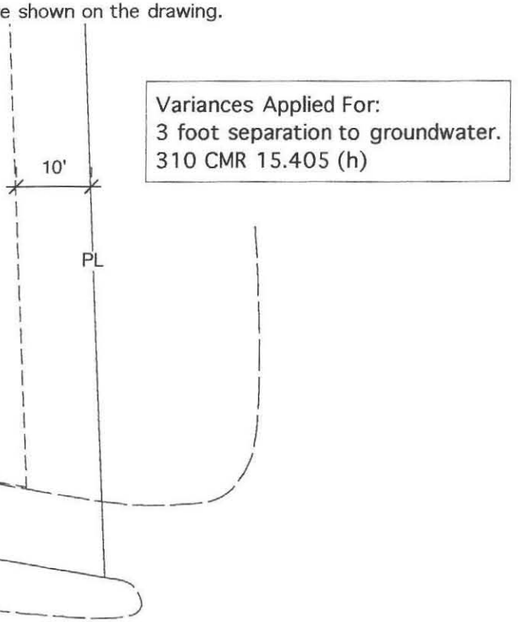




INVERT HEIGHTS & ELEVATIONS:			D-box	Excavate	Field Base	Inlet Inv.	Final	Height of	SHWT	Depth to	Orig.
Bldg. out	Septic in	Septic out	In: 93.2	18" soil	92.0	93.0	Surface	Gndwater	Separation	Gndwater	Contour
96.1	95.8	95.5	Out: 93.0	Field size for Infiltrator High Capacity:			95.0	89.0	3 ft.	72 in.	95.0
Sewer:	House to Septic Tank:		12 ft.	Chambers per Row:		3	Length:	18 3/4 '			
	Septic Tank to D-box:		42 ft.	Number of Rows:		3	Width:	8 7/8 '			

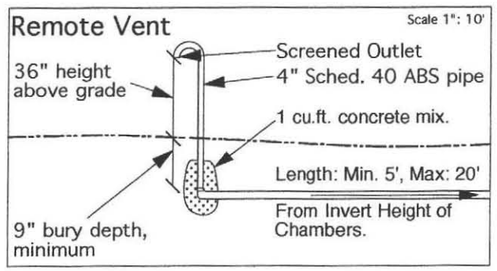
Plan to Repair Septic System	Date: 8/16/2012	Owner: Marga and Bob Coler 563 Montague Road Amherst, MA 01002	COMMONWEALTH OF MASSACHUSETTS THOMAS S. LEUE #11172 REGISTERED SANITARIAN	HOMESTEAD INC. Thomas S. Leue R.S. 1664 Cape St. Williamsburg, MA 01096 [413] 628-4533
Scale: 1 : 20' Except as Noted	Revision Date:			

Variances Applied For:
3 foot separation to groundwater.
310 CMR 15.405 (h)



Infiltration Chamber Leachfield: Design based on Infiltrator Brand chamber by Infiltrator Systems Inc. Use only the model number specified. Contact System Designer for field sizing if other brand is to be used for this project. Use Title 5 sand for all fill requirements under units, between rows of units, to the level of the top of the units, and within 5 feet surrounding units.

LEGEND	
Perc Test location & #	
Deep Hole location & #	
Original contour	
Revised contour	
Indicates perf. pipe	
Indicates solid pipe	
Well location	PL = Property Line



App - 14654
Batch - 627

April 2012 INVOICE

AMHERST PUBLIC HEALTH DEPARTMENT

Bangs Community Center
70 Boltwood Walk
Amherst, MA 01002

DATE: April 6, 2012

TO Robert A. & Marga Coler
5 Spruce Run
South Hadley, MA 01075

RE: Invoice for **Perc & Soil Evaluation, 563 Montague Rd., Amherst MA 01002**

Services provided by **Edmund Smith**

PAYMENT TERMS: I PAID

QUANTITY	DESCRIPTION	UNIT PRICE	LINE TOTAL
1.00	Perc & Soil Evaluation, 563 Montague Rd., Amherst MA 01002	$ 300.00	$ 300.00
	Rec'd today your check #3757 for $300.00		
	this invoice is paid in full/thank you		
		SUBTOTAL	$ 300.00
		SALES TAX	
		TOTAL	$ 300.00

CUST NAME
4 BOLTWOOD AVENUE
08/01/12
CITY, ST, ZIP

***TOWN OF A TOWN HAL
AMHERST M REFERENCE
DATE/TIME 10:06

CUST NAME

0
DEPT

DE HEA011 PERCOLATIO 300.

RECPT TOTAL

300.00
AMOUNT
MARGA COLE QUA CHECK 3757

4/6/2012

563 MONTAGUE

① - ABANDONED BUT NOT CRUSHED & FILLED ORIGINAL LEACH PIT NEEDS TO BE FILLED

② - TANK IS INFILTRATED W/ FINE ROOTS. BAFFLE (REMOVABLE IS BROKEN, NEEDS REPAIR, + NEW OUTLET COVER

③ FIELD IS UNDER DRIVEWAY (TRG, PACKED).

jct54@aol.com

Town of AMHERST, MASSACHUSETTS, FOUNDED 1759

AMHERST *Massachusetts*

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002
(413) 259-3077 (413) 259-2404 - FAX health@amherstma.gov

April 23, 2012

Marga and Bob Coler
5 Spruce Run
South Hadley, MA 01075

RE: Title V Septic Inspection

Dear Mr. and Mrs. Coler

The Amherst Board of Health is in receipt of a report on the Subsurface Sewage Disposal System Inspection conducted by Thomas Leue, on April 6, 2012. That inspection report indicates that the subsurface sewage disposal system at that address fails to protect the public health and the environment as defined in **Section 15.303 of CMR 15.000, State Environmental Code, Title 5.**

Therefore, in accordance with the provisions of 310 CMR 15.000 of the State Environmental Code, Title 5, and under authority of Massachusetts General Laws, Chapter 21A, Section 13, you (or the subsequent owners of the property) are hereby ordered to repair the subsurface sewage disposal system **at 563 Montague Road, within two (2) years of the date of the inspection, (by April 6, 2014).** If further degradation of the sewage disposal system occurs (e.g. sewage flowing to the surface of the ground),you may be required to complete the repairs sooner.

All work to repair/upgrade the subsurface sewage disposal system must be performed by a licensed sewage disposal system installer, in accordance with the requirements of 310 CMR 15.000, and with plans prepared by a Registered Sanitarian or Registered Professional Engineer and approved by the Northampton Board of Health.

Please be advised that you are entitled to a hearing on this order to upgrade your subsurface sewage disposal system, provided that you file a **written petition** requesting such a hearing in the Board of health office within **seven (7) days** of the receipt of this notice.

Please feel free to contact the Board of Health office, at 253-3077, if you have any questions concerning this notice.

Thank you for your anticipated cooperation in this matter.

Sincerely,

Edmund Smith
Assistant Sanitarian

FILE COPY
1 REG -> OWNER

#563

BOARD OF HEALTH, AMHERST, MASSACHUSETTS

APPLICATION FOR DISPOSAL WORKS CONSTRUCTION PERMIT

No. 66-8 Date 6-7-66 Fee 1.00 Date Rec'd. 6-7-66 By CED

Application is hereby made for a permit to Construct ( ) or Repair (X) an Individual Sewage Disposal System at:

Location—Address ~~563~~ 563 MONTAGUE RD or Lot No. —

Owner BEN. H PAGE Address 563 MONTAGUE

Contractor OWN - LABOR Address STURTEBURY

Type of Building — Dimensions — Size Lot —

Dwelling—No. of Bedrooms 3 4. Expansion Attic ( ) Garbage Grinder (NO

Other — No. of persons — Showers ( )

Other fixtures —

Town Water? YES - Type of Well —

Design Flow 50 gallons per person per day. Total daily flow 400 gallons

Septic Tank—Liquid capacity ~~1000~~ gallons Dimensions: L — W — D —

Disposal Trench—No. 2 Width 2 Total Length 120' Total leaching area 240 sq. ft.

Disposal Bed—No. — Diameter — Depth below inlet — Total leaching area — sq. ft.

Dry Well—No. — Diameter — Depth below inlet — Dimensions: — x — x —

Other: Distribution box (X) No. — Dosing tank ( )

(Depth of Soil Line Below finished grade at foundation —

Percolation Test Results Performed by DEARCE Date 6-8-66

Test Pit No. 1 3 minutes per inch Depth of Test Pit 3'

Test Pit No. 2 — minutes per inch Depth of Test Pit —

Description of Soil — Depth to Ground Water —

Will *disposal area* be filled? — Cut down? —

(On reverse side or separate sheet, show plot plan with building. Include dimensions, distances from all boundaries. Show location of wells, streams, ledge, large trees, etc.)

AGREEMENT: The undersigned agrees to construct the aforedescribed individual sewage disposal system in accordance with the provisions of Article XI of the Sanitary Code and regulations of the Amherst Board of Health. The undersigned further agrees not to place the system in operation until a Certificate of Compliance has been issued by this board of health.

Benjamin H Page
Owner or builder

—
date

Application Approved by Drake

6-8-66
date

Application Disapproved *for the following reasons:*

BOARD OF HEALTH, AMHERST, MASSACHUSETTS

CERTIFICATE OF COMPLIANCE

THIS IS TO CERTIFY, That the individual Sewage Disposal System installed ( ) or repaired ( ) by — at — has been constructed in accordance with the provisions of
INSTALLER
Article XI of the State Sanitary Code as described in the application for Disposal Works Construction Permit No. — dated —

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

DATE — Inspector —

BOARD OF HEALTH, AMHERST, MASSACHUSETTS

DISPOSAL WORKS CONSTRUCTION PERMIT

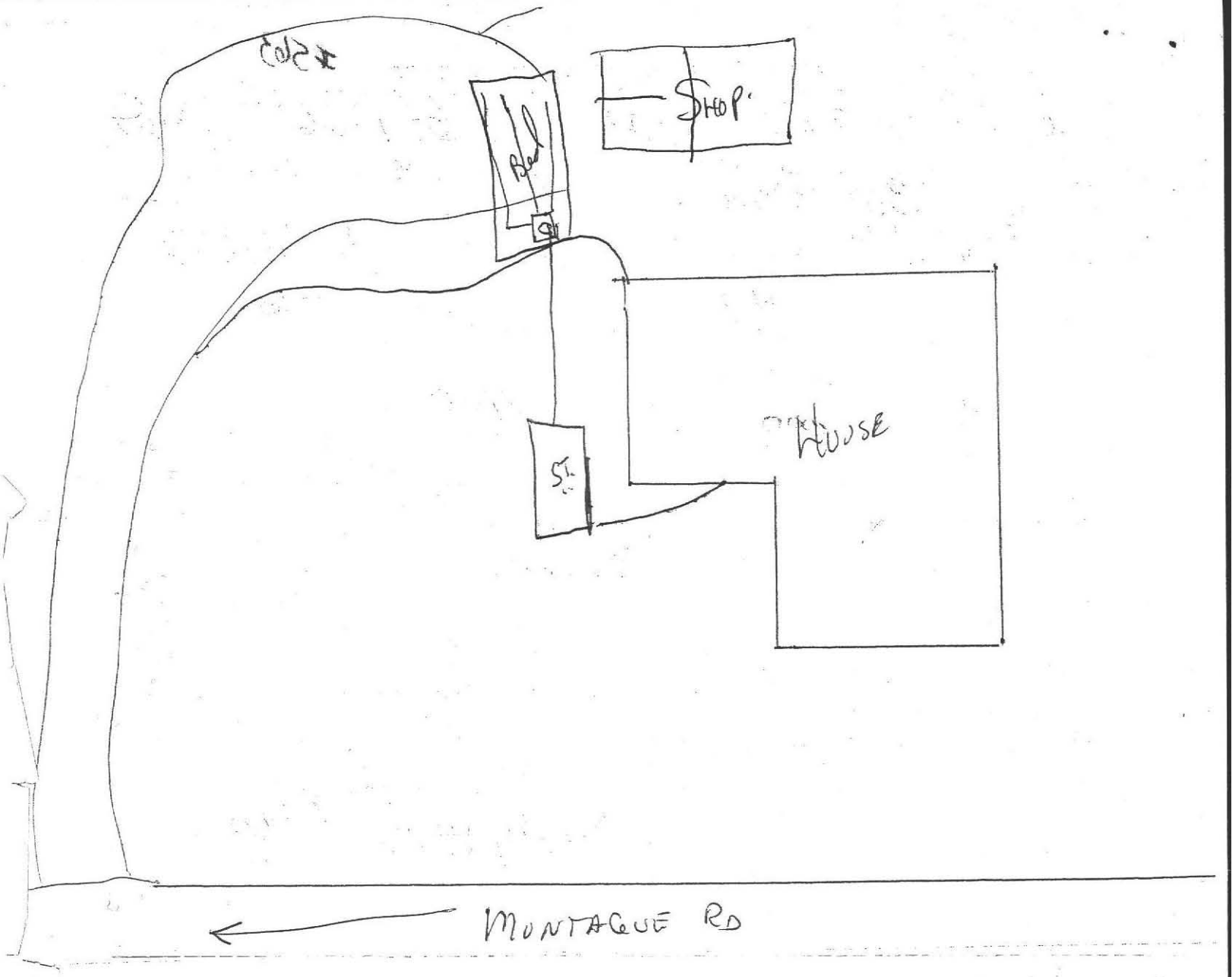
No. 66-9

Permission is hereby granted BEN H. PAGE to construct ( ) or repair (X) an Individual Sewage Disposal System at MONTAGUE as shown on the application for Disposal Works Construction Permit No. —

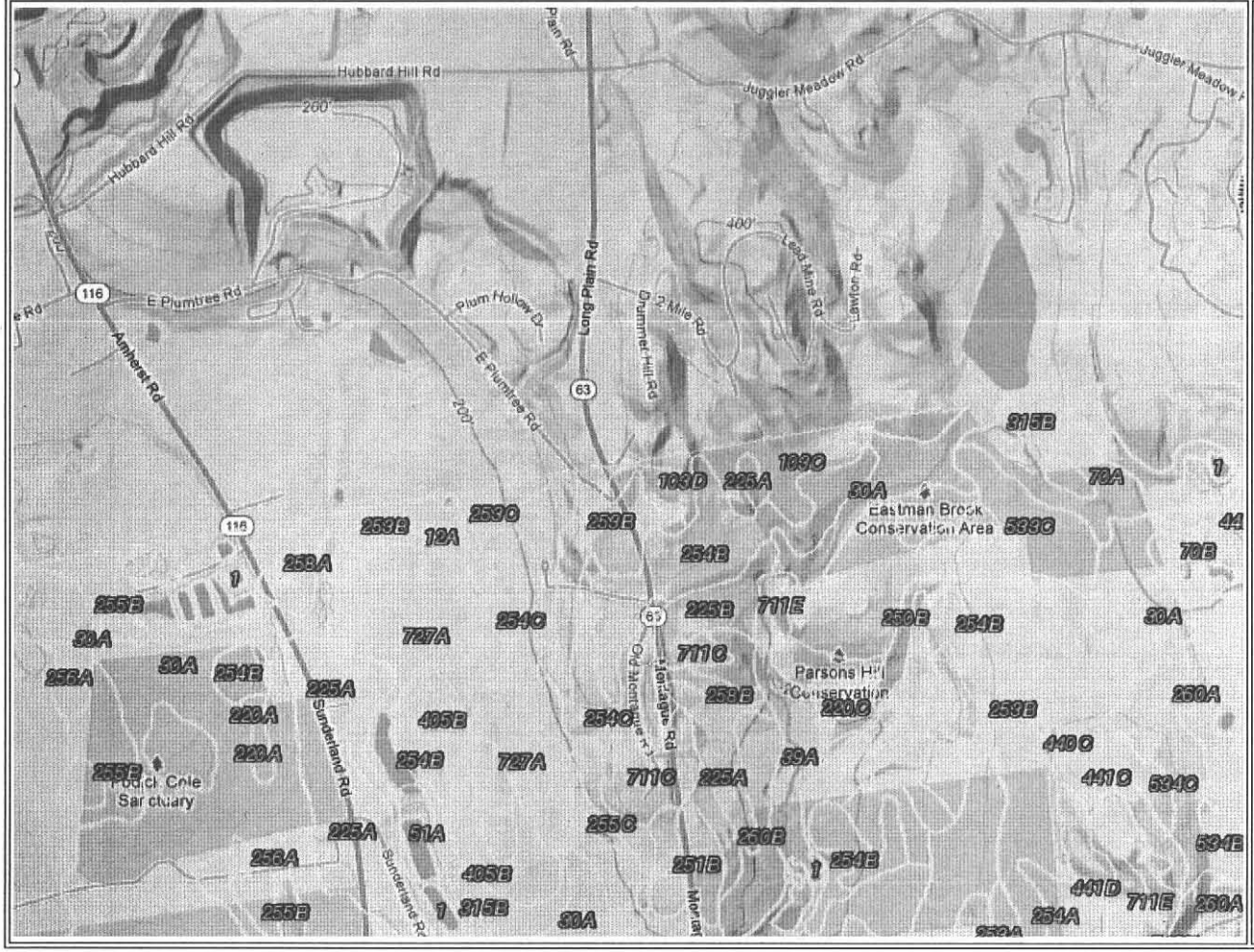
This permit is issued with the understanding that future alterations or additions will be made if necessary. This permit shall not be construed as permission to create or maintain any sewage nuisance and in the issuance of this permit the Board of Health assumes no responsibility for the future operation or maintenance of the system.

DATE 6-6-66

Drake
Board of Health


SHOP
HOUSE
MONTAGUE RD

Zoom to location: 563 montague road, amherst ma Go!



Map Unit Legend

Area (Ac)	Map Symbol	Map Unit
836.2	Sp	Sycamore silt loam, drained
233.0	Ra	Reiff very fine sandy loam
146.9	Yb	Yolo silty clay loam
118.5	Ss	Sycamore silty clay loam, drained
115.9	Ca	Capay silty clay
101.5	St	Sycamore silty clay loam, drained
41.2	Yo	Yolo loam
38.7	Tc	Tyndall very fine sandy loam, drained
11.5	BrA	Brentwood silty clay loam, 0 to 2 percent slopes
6.8	Ys	Yolo silty clay loam
2.3	Ra	Reiff fine sandy loam

Smith, Edmund

Subject:	title v Tom leue 800-285-4533
Location:	563 montague road
Start:	Fri 4/6/2012 9:00 AM
End:	Fri 4/6/2012 10:00 AM
Recurrence:	(none)
Meeting Status:	Accepted
Organizer:	Mir, Javeria
Required Attendees:	Smith, Edmund

Any files regarding this property, please bring with you!!

Any changes please call him.

4/3/2012

20 OVERLOOK DRIVE

DESIGNER: AE WEISS

INSTALLER: ROB ADAIR

FILLER ADDING TODAY

SEPTIC TANK 1500 gal single tank extra cover for ballast

ATTACH WORKS

Send invoice to KENNETH AND MARGARET S. BROWNELL
16 FOXGROVE
AMHERST MA 01002

paid today 4/5/2012
Check for $200

73 HULST 9 AM 5/13 TITLE V

760 STATION 10 AM 5/13 TOM FIELDS PERC

66 FLATHILLS 5/16
double perc.

- if recent engineered system - no staining or other signs

-

259

3247

April 2012
INVOICE

AMHERST PUBLIC HEALTH DEPARTMENT

Bangs Community Center
70 Boltwood Walk
Amherst, MA 01002

DATE: April 6, 2012

TO Robert A. & Marga Coler
5 Spruce Run
South Hadley, MA 01075

RE: Invoice for **Septic Title V witness: 563 Montague Road, Amherst MA**

Services provided by **Edmund Smith**

PAYMENT TERMS: I PAID

QUANTITY	DESCRIPTION	UNIT PRICE	LINE TOTAL
1.00	Septic Title V witness: Complete ystem failed Title V inspection	$ 200.00	$ 200.00
	Rec'd today your check #3734 for $200.00		
	this invoice is paid in full/thank you		
		SUBTOTAL	$ 200.00
		SALES TAX	
		TOTAL	$ 200.00

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
Property Address

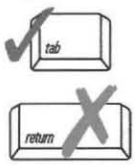
Marga and Bob Coler
Owner's Name

Owner information is required for every page.

Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

Inspection results must be submitted on this form. Inspection forms may not be altered in any way. Please see completeness checklist at the end of the form.

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



A. General Information

1. Inspector:

Thomas S. Leue
Name of Inspector

Homestead Engineering Inc.
Company Name

1664 Cape St.
Company Address

Williamsburg	MA	01096
City/Town	State	Zip Code

413-628-4533	SI-130
Telephone Number	License Number

B. Certification

I certify that I have personally inspected the sewage disposal system at this address and that the information reported below is true, accurate and complete as of the time of the inspection. The inspection was performed based on my training and experience in the proper function and maintenance of on site sewage disposal systems. **I am a DEP approved system inspector pursuant to Section 15.340 of Title 5 (310 CMR 15.000).** The system:

☐ Passes ☐ Conditionally Passes ☒ Fails

☐ Needs Further Evaluation by the Local Approving Authority

Thomas S Leue	April 6, 2012
Inspector's Signature	Date

The system inspector shall submit a copy of this inspection report to the Approving Authority (Board of Health or DEP) within 30 days of completing this inspection. If the system is a shared system or has a design flow of 10,000 gpd or greater, the inspector and the system owner shall submit the report to the appropriate regional office of the DEP. The original should be sent to the system owner and copies sent to the buyer, if applicable, and the approving authority.

****This report only describes conditions at the time of inspection and under the conditions of use at that time. This inspection does not address how the system will perform in the future under the same or different conditions of use.**

563 Montague Road
Property Address

Marga and Bob Coler
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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

B. Certification (cont.)

Inspection Summary: Check A,B,C,D or E / ***always*** complete all of Section D

A) System Passes:

☐ I have not found any information that indicates that any of the failure criteria described in 310 CMR 15.303 or in 310 CMR 15.304 exist. Any failure criteria not evaluated are indicated below.

Comments:

B) System Conditionally Passes:

☐ One or more system components as described in the "Conditional Pass" section need to be replaced or repaired. The system, upon completion of the replacement or repair, as approved by the Board of Health, will pass.

Check the box for "yes", "no" or "not determined" (Y, N, ND) for the following statements. If "not determined," please explain.

The septic tank is metal and over 20 years old* **or** the septic tank (whether metal or not) is structurally unsound, exhibits substantial infiltration or exfiltration or tank failure is imminent. System will pass inspection if the existing tank is replaced with a complying septic tank as approved by the Board of Health.

* A metal septic tank will pass inspection if it is structurally sound, not leaking and if a Certificate of Compliance indicating that the tank is less than 20 years old is available.

☐ Y ☐ N ☐ ND (Explain below):

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
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Marga and Bob Coler
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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

B. Certification (cont.)

B) System Conditionally Passes (cont.)**:**

☐ Observation of sewage backup or break out or high static water level in the distribution box due to broken or obstructed pipe(s) or due to a broken, settled or uneven distribution box. System will pass inspection if (with approval of Board of Health):

☐	broken pipe(s) are replaced	☐ Y	☐ N	☐ ND (Explain below):
☐	obstruction is removed	☐ Y	☐ N	☐ ND (Explain below):
☐	distribution box is leveled or replaced	☐ Y	☐ N	☐ ND (Explain below):

☐ The system required pumping more than 4 times a year due to broken or obstructed pipe(s). The system will pass inspection if (with approval of the Board of Health):

☐	broken pipe(s) are replaced	☐ Y	☐ N	☐ ND (Explain below):
☐	obstruction is removed	☐ Y	☐ N	☐ ND (Explain below):

C) Further Evaluation is Required by the Board of Health:

☐ Conditions exist which require further evaluation by the Board of Health in order to determine if the system is failing to protect public health, safety or the environment.

1. System will pass unless Board of Health determines in accordance with 310 CMR 15.303(1)(b) that the system is not functioning in a manner which will protect public health, safety and the environment:

☐ Cesspool or privy is within 50 feet of a surface water

☐ Cesspool or privy is within 50 feet of a bordering vegetated wetland or a salt marsh

563 Montague Road
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Marga and Bob Coler
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Amherst	MA	01002	4/6/2012
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B. Certification (cont.)

2. System will fail unless the Board of Health (and Public Water Supplier, if any) determines that the system is functioning in a manner that protects the public health, safety and environment:

- ☐ The system has a septic tank and soil absorption system (SAS) and the SAS is within 100 feet of a surface water supply or tributary to a surface water supply.
- ☐ The system has a septic tank and SAS and the SAS is within a Zone 1 of a public water supply.
- ☐ The system has a septic tank and SAS and the SAS is within 50 feet of a private water supply well.
- ☐ The system has a septic tank and SAS and the SAS is less than 100 feet but 50 feet or more from a private water supply well**.
  Method used to determine distance: _____

** This system passes if the well water analysis, performed at a DEP certified laboratory, for fecal coliform bacteria indicates absent and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm, provided that no other failure criteria are triggered. A copy of the analysis must be attached to this form.

3. Other:

_____

D) System Failure Criteria Applicable to All Systems:

You must indicate "Yes" or "No" to each of the following for all inspections:

Yes	No	
☒	☐	Backup of sewage into facility or system component due to overloaded or clogged SAS or cesspool
☐	☒	Discharge or ponding of effluent to the surface of the ground or surface waters due to an overloaded or clogged SAS or cesspool
☐	☐	Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool
☐	☒	Liquid depth in cesspool is less than 6" below invert or available volume is less than ½ day flow

563 Montague Road
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Marga and Bob Coler
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Amherst	MA	01002	4/6/2012
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B. Certification (cont.)

Yes	No	
☐	☒	Required pumping more than 4 times in the last year ***NOT*** due to clogged or obstructed pipe(s). Number of times pumped: ____.
☐	☒	Any portion of the SAS, cesspool or privy is below high ground water elevation.
☐	☒	Any portion of cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply.
☐	☒	Any portion of a cesspool or privy is within a Zone 1 of a public well.
☐	☒	Any portion of a cesspool or privy is within 50 feet of a private water supply well.
☐	☒	Any portion of a SAS, cesspool or privy is less than 100 feet but greater than 50 feet from a private water supply well with no acceptable water quality analysis. **[This system passes if the well water analysis, performed at a DEP certified laboratory, for fecal coliform bacteria indicates absent and the presence of ammonia nitrogen and nitrate nitrogen is equal to or less than 5 ppm, provided that no other failure criteria are triggered. A copy of the analysis and chain of custody must be attached to this form.]**
☐	☒	The system is a cesspool serving a facility with a design flow of 2000 gpd-10,000 gpd.
☒	☐	**The system fails.** I have determined that one or more of the above failure criteria exist as described in 310 CMR 15.303, therefore the system fails. The system owner should contact the Board of Health to determine what will be necessary to correct the failure.

E) Large Systems: To be considered a large system the system must serve a facility with a design flow of 10,000 gpd to 15,000 gpd.

For large systems, you must indicate either "yes" or "no" to each of the following, in addition to the questions in Section D.

Yes	No	
☐	☒	the system is within 400 feet of a surface drinking water supply
☐	☒	the system is within 200 feet of a tributary to a surface drinking water supply
☐	☒	the system is located in a nitrogen sensitive area (Interim Wellhead Protection Area – IWPA) or a mapped Zone II of a public water supply well

If you have answered "yes" to any question in Section E the system is considered a significant threat, or answered "yes" in Section D above the large system has failed. The owner or operator of any large system considered a significant threat under Section E or failed under Section D shall upgrade the system in accordance with 310 CMR 15.304. The system owner should contact the appropriate regional office of the Department.

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
Property Address

Marga and Bob Coler
Owner's Name

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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

C. Checklist

Check if the following have been done. You **must** indicate "yes" or "no" as to each of the following:

Yes	No	
☒	☐	Pumping information was provided by the owner, occupant, or Board of Health
☐	☒	Were any of the system components pumped out in the previous two weeks?
☒	☐	Has the system received normal flows in the previous two-week period?
☐	☒	Have large volumes of water been introduced to the system recently or as part of this inspection?
☐	☐	Were as built plans of the system obtained and examined? (If they were not available note as N/A) **N/A**
☒	☐	Was the facility or dwelling inspected for signs of sewage back up?
☒	☐	Was the site inspected for signs of break out?
☒	☐	Were all system components, excluding the SAS, located on site?
☒	☐	Were the septic tank manholes uncovered, opened, and the interior of the tank inspected for the condition of the baffles or tees, material of construction, dimensions, depth of liquid, depth of sludge and depth of scum?
☐	☒	Was the facility owner (and occupants if different from owner) provided with information on the proper maintenance of subsurface sewage disposal
		The **size and location of the Soil Absorption System (SAS)** on the site has been determined based on:
☒	☐	Existing information. For example, a plan at the Board of Health.
☐	☒	Determined in the field (if any of the failure criteria related to Part C is at issue approximation of distance is unacceptable) [310 CMR 15.302(5)]

D. System Information

Residential Flow Conditions:

Number of bedrooms (design): 3

Number of bedrooms (actual): 2

DESIGN flow based on 310 CMR 15.203 (for example: 110 gpd x # of bedrooms): 400 gpd

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information

Description:

Conventional septic tank, distribution box and two leaching trenches on permit application, but leachfield shown on sketch.

Number of current residents: 1

Does residence have a garbage grinder? ☐ Yes ☒ No

Is laundry on a separate sewage system? [if **yes** separate inspection required] ☐ Yes ☒ No

Laundry system inspected? ☐ Yes ☒ No

Seasonal use? ☐ Yes ☒ No

Water meter readings, if available (last 2 years usage (gpd)):

Detail:

Sump pump? ☐ Yes ☒ No

Last date of occupancy: Continuous
Date

Commercial/Industrial Flow Conditions:

Type of Establishment:

Design flow (based on 310 CMR 15.203):
Gallons per day (gpd)

Basis of design flow (seats/persons/sq.ft., etc.):

Grease trap present? ☐ Yes ☐ No

Industrial waste holding tank present? ☐ Yes ☐ No

Non-sanitary waste discharged to the Title 5 system? ☐ Yes ☐ No

Water meter readings, if available:

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Last date of occupancy/use: _____ Date

Other (describe below):

_____

_____

_____

General Information

Pumping Records:

Source of information: Pumped 3 or 4 years ago, says Owner.

Was system pumped as part of the inspection? ☐ Yes ☒ No

If yes, volume pumped: _____ gallons

How was quantity pumped determined? _____

Reason for pumping: _____

Type of System:

- ☒ Septic tank, distribution box, soil absorption system
- ☐ Single cesspool
- ☐ Overflow cesspool
- ☐ Privy
- ☐ Shared system (yes or no) (if yes, attach previous inspection records, if any)
- ☐ Innovative/Alternative technology. Attach a copy of the current operation and maintenance contract (to be obtained from system owner) and a copy of latest inspection of the I/A system by system operator under contract
- ☐ Tight tank. Attach a copy of the DEP approval.
- ☐ Other (describe): _____

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Approximate age of all components, date installed (if known) and source of information:

Septic plan permit dated 6-8-66.

Were sewage odors detected when arriving at the site? ☐ Yes ☒ No

Building Sewer (locate on site plan):

Depth below grade: 1 average feet

Material of construction:

☐ cast iron ☐ 40 PVC ☒ other (explain): ABS Plastic

Distance from private water supply well or suction line: 10 ft. feet

Comments (on condition of joints, venting, evidence of leakage, etc.):

No problems seen.

Septic Tank (locate on site plan):

Depth below grade: 0.75 feet

Material of construction:

☒ concrete ☐ metal ☐ fiberglass ☐ polyethylene ☐ other (explain)

Standard septic tank of nominal 950 gallons capacity. Removable outlet baffle deteriorated and non-functional.

If tank is metal, list age: _____ years

Is age confirmed by a Certificate of Compliance? (attach a copy of certificate) ☐ Yes ☐ No

Dimensions (both tanks): 52" tall, 96" long, 52" wide

Sludge depth: 5"

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
Property Address

Marga and Bob Coler
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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Septic Tank (cont.)

Distance from top of sludge to bottom of outlet tee or baffle: No outlet baffle

Scum thickness: 0"

Distance from top of scum to top of outlet tee or baffle: No outlet baffle

Distance from bottom of scum to bottom of outlet tee or baffle: No outlet baffle

How were dimensions determined? measured

Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):

Tank structurally OK. Tank of mid-1960's vintage, but structurally OK if outlet tee replaced.

Grease Trap (locate on site plan):

Depth below grade: _____ feet

Material of construction:

☐ concrete ☐ metal ☐ fiberglass ☐ polyethylene ☐ other (explain): _____

Dimensions: _____

Scum thickness _____

Distance from top of scum to top of outlet tee or baffle _____

Distance from bottom of scum to bottom of outlet tee or baffle _____

Date of last pumping: _____ Date

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
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Amherst	MA	01002	4/6/2012
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D. System Information (cont.)

Comments (on pumping recommendations, inlet and outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.):

Tight or Holding Tank (tank must be pumped at time of inspection) (locate on site plan):

Depth below grade:

Material of construction:

☐ concrete ☐ metal ☐ fiberglass ☐ polyethylene ☐ other (explain):

Dimensions:

Capacity: gallons

Design Flow: gallons per day

Alarm present: ☐ Yes ☐ No

Alarm level: Alarm in working order: ☐ Yes ☐ No

Date of last pumping: Date

Comments (condition of alarm and float switches, etc.):

* Attach copy of current pumping contract (required). Is copy attached? ☐ Yes ☐ No

563 Montague Road
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Amherst	MA	01002	4/6/2012
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D. System Information (cont.)

Distribution Box (if present must be opened) (locate on site plan):

Depth of liquid level above outlet invert: unknown

Comments (note if box is level and distribution to outlets equal, any evidence of solids carryover, any evidence of leakage into or out of box, etc.):

General location of d-box identified, but encountered standing sewage in gravel media near box, a failure criterion. Digging up d-box has no purpose when standing sewage encountered.

Pump Chamber (locate on site plan):

Pumps in working order: ☐ Yes ☐ No

Alarms in working order: ☐ Yes ☐ No

Comments (note condition of pump chamber, condition of pumps and appurtenances, etc.):

Soil Absorption System (SAS) (locate on site plan, excavation not required):

If SAS not located, explain why:

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
Property Address

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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Type:

☐	leaching pits	number:	
☐	leaching chambers	number:	
☐	leaching galleries	number:	
☐	leaching trenches	number, length:	
☒	leaching fields	number, dimensions:	probable 15'x25'
☐	overflow cesspool	number:	
☐	innovative/alternative system		

Type/name of technology: _____

Comments (note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.):
No surface problems seen. Located about 28" below parking area, so surfacing of sewage is unlikely due to compact fill over field. Gravel media was blackened by anaerobic conditions, sewage odor present. Due to site constraints, designed trenches are not likely to be present, but sketch of leachfield, about 15' x 25' is likely to be present. This was not confirmed.

Cesspools (cesspool must be pumped as part of inspection) (locate on site plan):

Number and configuration _____

Depth – top of liquid to inlet invert _____

Depth of solids layer _____

Depth of scum layer _____

Dimensions of cesspool _____

Materials of construction _____

Indication of groundwater inflow ☐ Yes ☐ No

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
Property Address

Marga and Bob Coler
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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Comments (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.):

Privy (locate on site plan):

Materials of construction:

Dimensions

Depth of solids

Comments (note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.):

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
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Marga and Bob Coler
Owner's Name

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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Sketch Of Sewage Disposal System: Provide a view of the sewage disposal system, including ties to at least two permanent reference landmarks or benchmarks. Locate all wells within 100 feet. Locate where public water supply enters the building. Check one of the boxes below:

☐ hand-sketch in the area below
☒ drawing attached separately

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
Property Address

Marga and Bob Coler
Owner's Name

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Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

D. System Information (cont.)

Site Exam:

☒ Check Slope

☒ Surface water

☒ Check cellar

☐ Shallow wells

Estimated depth to high ground water: 5+ feet

Please indicate all methods used to determine the high ground water elevation:

☐ Obtained from system design plans on record

If checked, date of design plan reviewed: _____ Date

☒ Observed site (abutting property/observation hole within 150 feet of SAS)

☐ Checked with local Board of Health - explain:

See below

☐ Checked with local excavators, installers - (attach documentation)

☐ Accessed USGS database - explain:

You **must** describe how you established the high ground water elevation:

Estimated based on elevation of leachfield area above slopes on all sides. Actual depth to groundwater to be determined during perc test for repair.

Before filing this Inspection Report, please see Report Completeness Checklist on next page.

Commonwealth of Massachusetts

Title 5 Official Inspection Form

Subsurface Sewage Disposal System Form - Not for Voluntary Assessments

563 Montague Road
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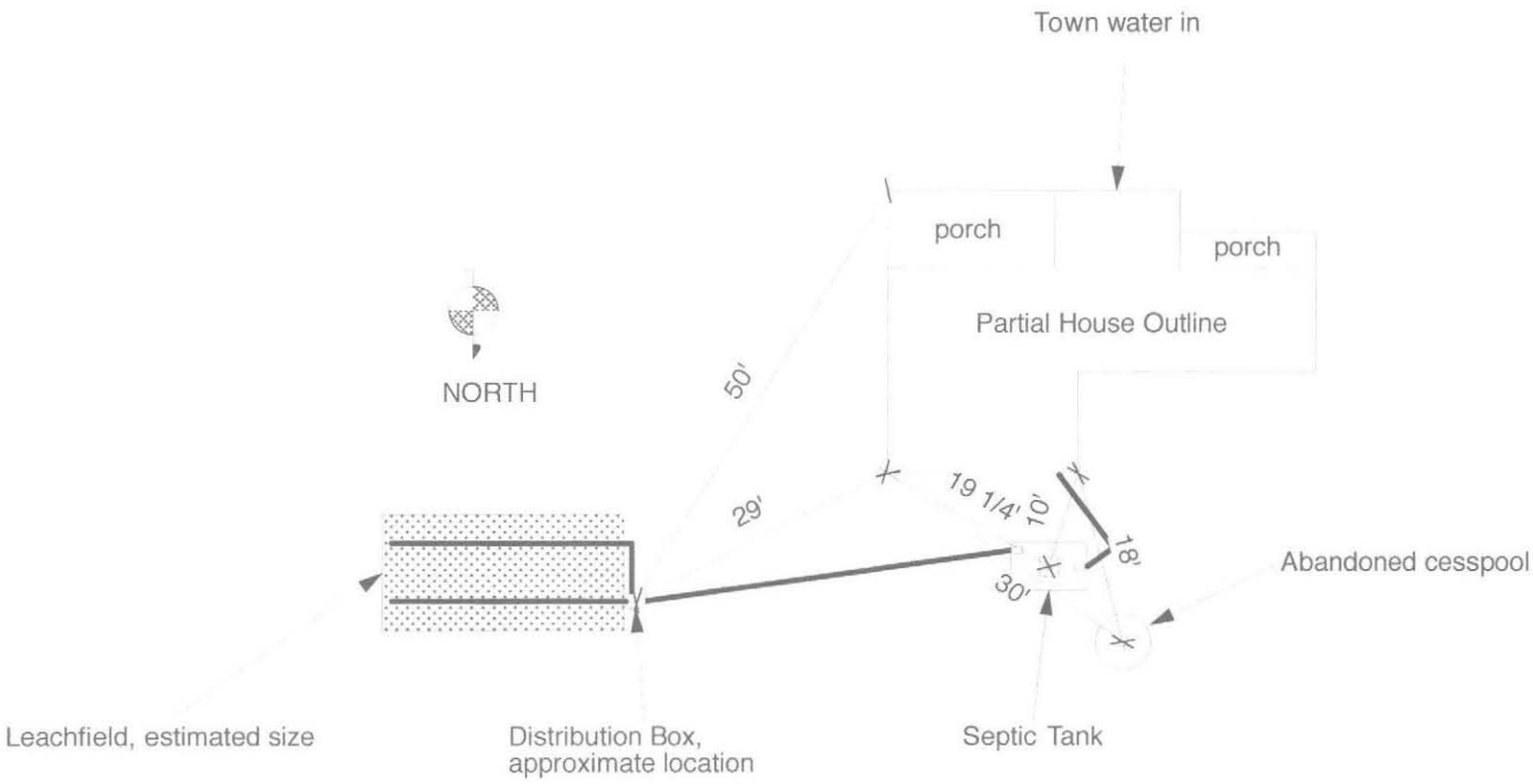
Amherst	MA	01002	4/6/2012
City/Town	State	Zip Code	Date of Inspection

E. Report Completeness Checklist

- ☒ Inspection Summary: A, B, C, D, or E checked
- ☒ Inspection Summary D (System Failure Criteria Applicable to All Systems) completed
- ☒ System Information – Estimated depth to high groundwater
- ☒ Sketch of Sewage Disposal System either drawn on page 15 or attached in separate file



As-Built Drawing Existing Septic System	Date: 4/6/2012	Owner: Marga and Bob Coler 563 Montague Road Amherst, MA 01002	COMMONWEALTH OF MASSACHUSETTS THOMAS S. LEUE #1172 REGISTERED SANITARIAN	HOMESTEAD INC. Thomas S. Leue R.S. 1664 Cape St. Williamsburg, MA 01096 [413] 628-4533
Scale: 1 : 20' Except as Noted	Revision Date:			

App - 13140
Batch - 4557

April 2012 INVOICE

AMHERST PUBLIC HEALTH DEPARTMENT

Bangs Community Center
70 Boltwood Walk
Amherst, MA 01002

DATE: April 6, 2012

TO Robert A. & Marga Coler
5 Spruce Run
South Hadley, MA 01075

RE: Invoice for **Septic Title V witness: 563 Montague Road, Amherst MA**

Services provided by **Edmund Smith**

PAYMENT TERMS: I PAID

QUANTITY	DESCRIPTION	UNIT PRICE	LINE TOTAL
1.00	Septic Title V witness: Complete ystem failed Title V inspection	$ 200.00	$ 200.00
	Rec'd today your check #3734 for $200.00		
	this invoice is paid in full/thank you		
		SUBTOTAL	$ 200.00
		SALES TAX	
		TOTAL	$ 200.00

CUST NAME
4 BOLTWOOD AVENUE
04/09/12
CITY, ST, ZIP

***TOWN OF A TOWN HAL
AMHERST M REFERENCE
DATE/TIME 07:54

CUST NAME

0
DEPT

DE HEA058 TITLE V WI 200.

RECPT TOTAL

200.00 AMOUNT
MARGA COLE QUA CHECK 3734

Commonwealth of Massachusetts
City/Town of

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

A. Facility Information

Owner Name

Street Address | Map/Lot #

City | State | Zip Code

B. Site Information

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

2. Published Soil Survey Available? ☐ Yes ☐ No If yes: Year Published | Publication Scale | Soil Map Unit

Soil Name | Soil Limitations

3. Surficial Geological Report Available? ☐ Yes ☐ No If yes: Year Published | Publication Scale | Map Unit

Geologic Material | Landform

4. Flood Rate Insurance Map

Above the 500-year flood boundary? ☐ Yes ☐ No Within the 100-year flood boundary? ☐ Yes ☐ No

Within the 500-year flood boundary? ☐ Yes ☐ No Within a velocity zone? ☐ Yes ☐ No

5. Wetland Area: National Wetland Inventory Map — Map Unit | Name

Wetlands Conservancy Program Map — Map Unit | Name

6. Current Water Resource Conditions (USGS): Month/Year Range: ☐ Above Normal ☐ Normal ☐ Below Normal

7. Other references reviewed:

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C. On-Site Review *(minimum of two holes required at every proposed primary and reserved disposal area)*

Deep Observation Hole Number: _____ Date _____ Time _____ Weather _____

1. Location

   Ground Elevation at Surface of Hole: _____ Location (identify on plan): _____

2. Land Use _____ (e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones _____ Slope (%) _____

   Vegetation _____ Landform _____ Position on Landscape (attach sheet) _____

3. Distances from: Open Water Body _____ feet Drainage Way _____ feet Possible Wet Area _____ feet

   Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Parent Material: _____ Unsuitable Materials Present: ☐ Yes ☐ No

   If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☐ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

   Estimated Depth to High Groundwater: _____ inches _____ elevation

MARCIA + BOB COLER
563 MONTAGUE ROAD
AGENT: JOHN POTRER

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DRIVEWAY

C. On-Site Review (continued)

STONE WALL (SURFACE STONES
SLOPE 3%

Deep Observation Hole Number: _____

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			
0-7	FATURED					GRAVEL FILL (DRIVEWAY)					
7-14	A	7.5YR 4/3				FSL					
14-34	B	10 YR 6/4				FSL					
34-80	C	10 YR 6/3				LS			EXTREMELY STRUCTURE	STONY, BOULDERY 50%	

Additional Notes:

DEPTH 28"

9:46 START PRESOAK
10:01 END PRESOAK
10:01 12"
10:06 9"
10:13:45 6"
9-6" = 7:45
MIN SEC

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C. On-Site Review (continued)

Deep Observation Hole Number: _____ Date _____ Time _____ Weather _____

1. Location

   Ground Elevation at Surface of Hole: _____ Location (identify on plan): _____

2. Land Use _____ (e.g., woodland, agricultural field, vacant lot, etc.) Surface Stones _____ Slope (%) _____

   Vegetation _____ Landform _____ Position on Landscape (attach sheet) _____

3. Distances from: Open Water Body _____ feet Drainage Way _____ feet Possible Wet Area _____ feet

   Property Line _____ feet Drinking Water Well _____ feet Other _____ feet

4. Parent Material: _____ Unsuitable Materials Present: ☐ Yes ☐ No

   If Yes: ☐ Disturbed Soil ☐ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☐ Yes ☐ No If yes: _____ Depth Weeping from Pit _____ Depth Standing Water in Hole

   Estimated Depth to High Groundwater: _____ inches _____ elevation

C. On-Site Review (continued)

Deep Observation Hole Number: _____

Depth (in.)	Soil Horizon/ Layer	Soil Matrix: Color-Moist (Munsell)	Redoximorphic Features (mottles)			Soil Texture (USDA)	Coarse Fragments % by Volume		Soil Structure	Soil Consistence (Moist)	Other
			Depth	Color	Percent		Gravel	Cobbles & Stones			

Additional Notes:

_____

_____

_____

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D. Determination of High Groundwater Elevation

1. Method Used:

☐ Depth observed standing water in observation hole	A. _____ inches	B. _____ inches
☐ Depth weeping from side of observation hole	A. _____ inches	B. _____ inches
☐ Depth to soil redoximorphic features (mottles)	A. _____ inches	B. _____ inches
☐ Groundwater adjustment (USGS methodology)	A. _____ inches	B. _____ inches

2. _____ Index Well Number _____ Reading Date _____ Index Well Level

_____ Adjustment Factor _____ Adjusted Groundwater Level

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
   a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
      ☐ Yes ☐ No
   b. If yes, at what depth was it observed? Upper boundary: _____ inches Lower boundary: _____ inches

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F. Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator	Date
Typed or Printed Name of Soil Evaluator / License #	Date of Soil Evaluator Exam
Name of Board of Health Witness	Board of Health

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.

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Field Diagrams

Use this sheet for field diagrams: