415 Meadow St.
Nancy Hardy

No. 03-13 Revised

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

Town OF Amherst

FEE 275 ck
PL -
ck # 171

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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

415 Meadow St. — Location	Nancy Hardy — Owner's Name
4-D/9 — Map/Parcel #	415 Meadow St., Amherst, MA — Address
	(413) 587-9500 — Telephone #
WW Cl. A — Lot #	Richard E. Costa PE — Designer's Name
Prentice Cranson — Installer's Name	Amherst Civil Engineering — Address
259-1411 — Address	P.O. Box 3312, Amherst, MA 01004-3312
Telephone #	(413) 256-3400 — Telephone #

Type of Building: _____ Lot Size 30,025 Sq. feet

Dwelling — No. of Bedrooms 4 Garbage Grinder (No)

Other — Type of Building _____ No. of persons _____ Showers ( ), Cafeteria ( )

Other fixtures _____

Design Flow (min. required) 440 gpd Calculated design flow 592 gpd Design flow provided _____ gpd

Plan: Date 8/5/03 Number of sheets 1 Revision Date _____

Title "Plan of Septic System Repair"

Description of Soil(s) Attached

Soil Evaluator Form No. _____ Name of Soil Evaluator Robert Stover Date of Evaluation 7/24/03

DESCRIPTION OF REPAIRS OR ALTERATIONS Install 1500 Gal. Septic Tank. Install new leach bed: 50' long by 16' wide

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

Signed _____ Date _____

Inspections _____

FORM 1 - APPLICATION FOR DSCP **DEP APPROVED FORM 5/96**

No. 03-13 Revised

THE COMMONWEALTH OF MASSACHUSETTS

Amherst BOARD OF HEALTH

CERTIFICATE OF COMPLIANCE

COMMONWEALTH OF MASSACHUSETTS — Richard E. Costa — Civil — No. 37449 — REGISTERED PROFESSIONAL ENGINEER

Description of Work: ☐ **Individual Component(s)** (X) **Complete System**

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

by: Nancy Hardy

at 415 Meadow St. 8/5/03

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. 03-13 dated _____. Approved Design Flow _____ (gpd)

Installer _____

Designer: Robert W. Stover 8/19/03 for Amherst Civil Engineering Inspector _____ Date 8/19/03

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

FORM 3 - CERTIFICATE OF COMPLIANCE **DEP APPROVED FORM 5/96**

No. 03-13

THE COMMONWEALTH OF MASSACHUSETTS

Amherst BOARD OF HEALTH

FEE 275 ck
PL
ck # 171

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to Construct ( ) Repair (X) Upgrade ( ) Abandon ( ) an individual sewage disposal system at 415 Meadow St as described

in the application for Disposal System Construction Permit No. 03-13 Rev. dated 8/5/03.

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

Date 8/16/03 Board of Health _____

FORM 2 - DSCP **DEP APPROVED FORM 5/96**

No Pictures

FORM 11: Soil Evaluation Form NO: _____

Commonwealth of Massachusetts
Town of _____

Soil Suitability Assessment : On-Site Sewage Disposal

Performed By: Bob Stowell Date: 7/24/03
Witnessed By: David Zaremski

Location Address of:
Lot #

Owner's Name: Nancy Hardy
Address of: 415 Mendon St
Telephone: 587-9500

New Construction ☐ Repair ☑

Office Review

Published Soil Survey Available? No ☐ Yes ☐
Year Published _____ Publication Scale _____ Soil Map Unit _____
Drainage Class _____ Soil Limitations _____

Surficial Geologic Report Available? No ☐ Yes ☐
Year Published _____ Publication Scale _____
Geologic Material (map unit) _____
Landform _____

Flood Insurance Rate Map:
Above 500 year flood boundary? No ☐ Yes ☐
Within 500 year flood boundary? No ☐ Yes ☐
Within 100 year flood boundary? No ☐ Yes ☐

Wetland Area:
National Wetland Inventory Map (map unit) _____
Wetlands Conservancy Program Map (map unit) _____

Current Water Resource Conditions (USGS): month _____
Range: Above Normal ☐ Normal ☐ Below Normal ☐

Other Reference Reviewed:

1.25 SPT 2 holes 100 cc each Perc Test
100 Plans
28 cc
4 Bedroom NoG/G

Determination: Seasonal High Water Table

Methods Used:

☐ Depth observed standing in observation hole _____ inches
☐ Depth weeping from side of observation hole _____ inches
☐ Depth to soil mottles _____ inches
☐ Ground water adjustment _____ feet

Index Well No. _____ Reading Date _____ Index Well Level _____
Adjustment factor _____ Adjusted ground water level _____

Depth of Naturally Occurring Previous Material

Does at least four feed of naturally occurring previous materials exist in all areas observed throughout the area proposed for this soil absorption system? _____

If not, what is the depth of naturally occurring previous material?
_____

Certification

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

Signature _____
Date _____

CH, 11 - 275 cc

4 Bedrooms No GT

On-Site Review

Deep Hole Number 4 Date: 7/24/03 Time 8 AM
Weather Overcast 80°
Location (identify on site plan) _____
Land Use Residential Slope (%) _____
Surface Stone None
Vegetation: Silver Maple

Landform:

Position on Landscape (sketch on back) _____
Distances from:

Open Water Body	200 feet	Drainageway	100 feet
Possible Wet Ares	200 feet	Property Line	540 feet
Drinking Water Well	200 feet	Other	_____

DEEP OBSERVATION HOLE LOG

depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsel)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
12	Ap	Loam	10YR 2/2		Friable
20	Ab	FSL		1% ORA	Friable
30	Bw	FSL	2.5Y 4/4	Common	Friable
96	C	FSL	5Y 5/3	2.5Y 5/1 (6%) 2.5Y 7/6	Massive Firm No coarse fragments

Parent Material (geologic) Outwash
Depth to Bedrock 96"
Depth to Groundwater :
Standing Water in the Hole 72"
Weeping from Pit Face 54"
Estimated Seasonal High Water 51"

On-Site Review

Deep Hole Number _____ Date: _____ Time _____
Weather _____
Location (identify on site plan) _____
Land Use _____ Slope (%) _____
Surface Stone _____
Vegetation:

Landform:

Position on Landscape (sketch on back) _____
Distances from:

Open Water Body	_____ feet	Drainageway	_____ feet
Possible Wet Ares	_____ feet	Property Line	_____ feet
Drinking Water Well	_____ feet	Other	_____

DEEP OBSERVATION HOLE LOG

depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsel)	soil mottling	other (structure, stones, boulders) Consistency, % gravel

Parent Material (geologic) _____
Depth to Bedrock _____
Depth to Groundwater :
Standing Water in the Hole _____
Weeping from Pit Face _____
Estimated Seasonal High Water _____

FORM 12: Percolation Test
Location Address or Lot # 415 Meadow ST

Commonwealth of Massachusetts
Town of

PERCOLATION TEST * DATE: 7/24/07 TIME: 8 AM		
Observation Hole #	(1)	
Depth of Perc	60"	
Start Pre-soak	8:11	
End Pre-soak	8:28	
Time at 12"	8:28	
Time at 9"	8:30	
Time at 6"	8:37	
Time (9"-6")	2+	
Rate Min./Inch		

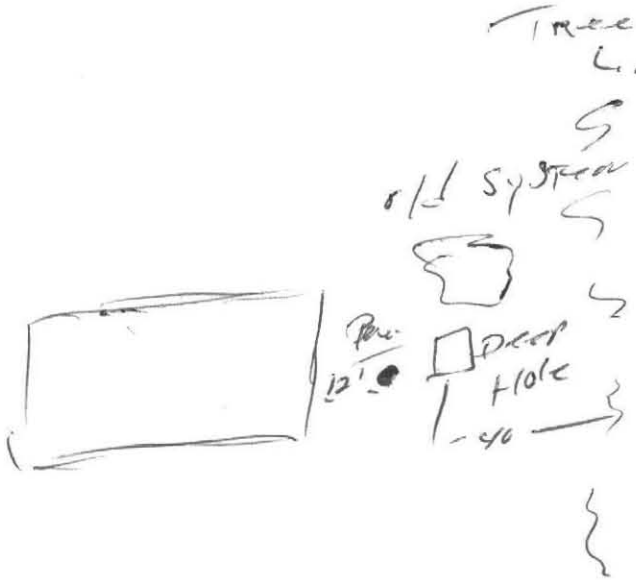
*Minimum of one percolation test must be performed in both the primary area and reserve area.

Site Passed ☑ Site failed ☐

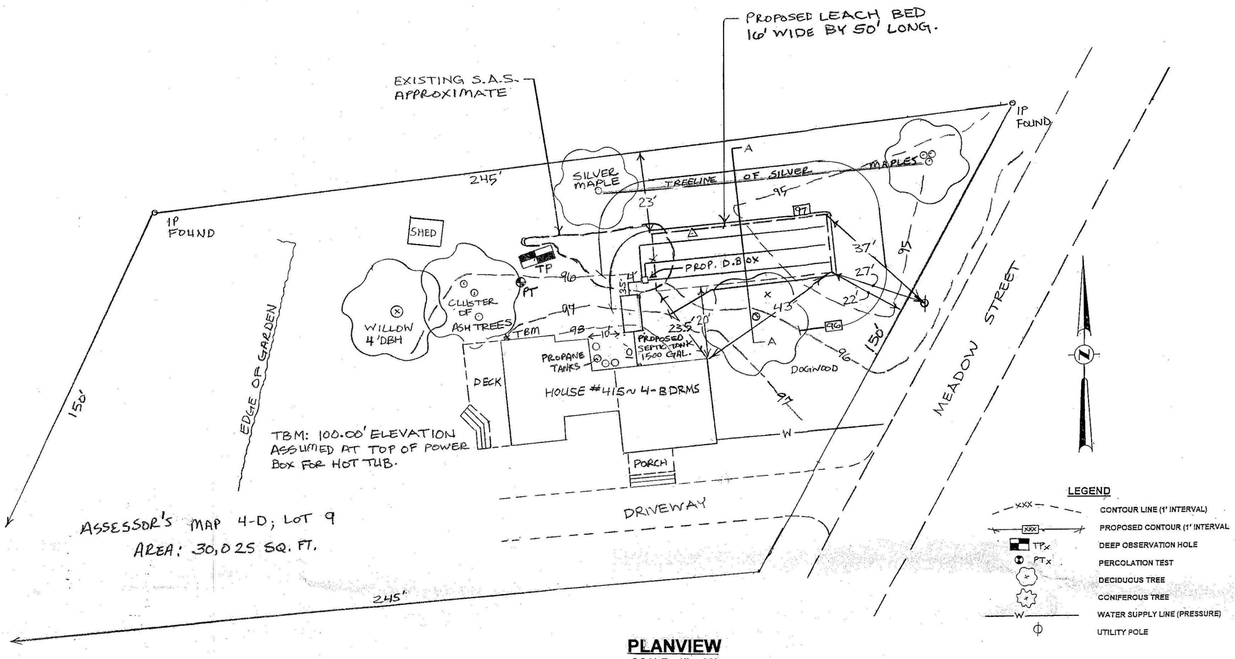
Performed by Bob Stevens

Witnessed by David Zaroznicki

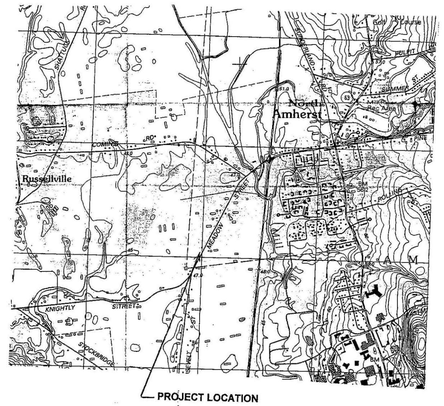
Comments:



Meadow - St



PLANVIEW
SCALE: 1" = 20'



USGS WILLIAMSBURG, MASS. QUAD
SCALE = 1: 25 000

SOIL EVALUATION

Soil Evaluator: Robert Stover
BOH Representative: David Zarozinski
Date of Evaluation: 7/24/03

Ground surface elevation at Deep Hole: 95.25'.
Estimated Seasonal High Ground Water Elev. 91.00'.
Bedrock Elev. Deeper than 87.25'.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
12-0"	Fill	loam	----------	none	friable
0-20"	Ab	FSL	10YR2/2	none	friable
20-30"	Bw	FSL	2.5Y4/4	none	firm, massive
30-96"	C	FLS	5Y5/3	@ 51" common 2.5Y5/1 & 2.5Y7/6	firm, no coarse fragments.

Parent Material (Geologic): outwash
Standing Water in the Hole: 6 ft. Weeping from Pit Face: 4.5 ft.
Estimated Seasonal High Ground Water: 51"

DESIGN CRITERIA

Design flow is for a 4-bedroom house without a garbage grinder.

DESIGN CALULATION

Design flow: 4-bedrooms, no garbage grinder: = 440 gpd.

Proposed Septic Tank: 1500 gallon precast concrete septic tank.

Effluent Loading Rate: Percolation Rate = 2.33 minutes per inch
Class I soils.
Effluent loading rate = 0.74 gpd/sf.

Proposed Soil Absorption System: one leach bed:
50' long by 16' wide

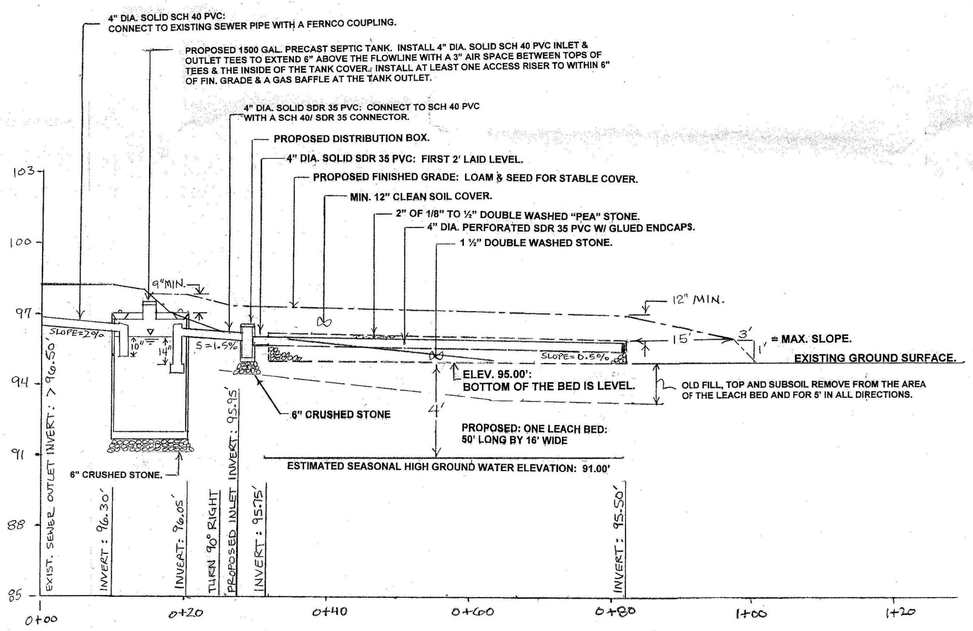
Bottom Area: 50' X 16'	= 800 sf.
Sidewall Area: not allowed	= 0 sf.
Total proposed leaching Area:	= 800 sf.
Calculated Design Flow: 800 sf X 0.74 gpd/sf:	= 592 gpd.
Total Required Design Flow	= 440 gpd (OK)

GENERAL CONDITIONS

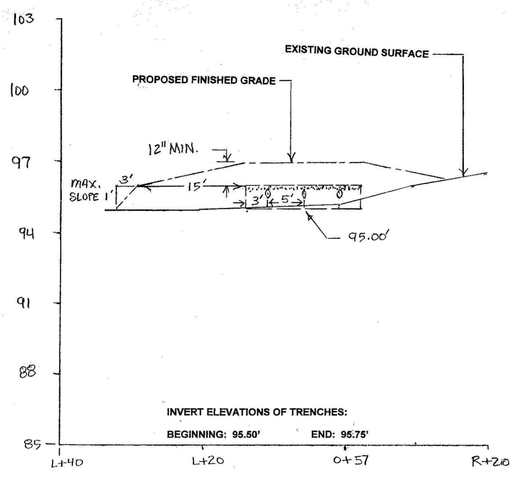
1. This septic system repair plan is prepared in accordance with Title 5, 310 CMR 15.00. Construction shall conform to these regulations.
2. The installer shall inform the designer of any unusual conditions and shall not modify the plan without the written consent of the designer.
3. All debris in the site area shall be removed and disposed of in accordance with the law.
4. There is no guarantee expressed or implied to any user of a system installed pursuant to this plan.
5. The installer shall notify the designer when the system excavation is ready for inspection and the designer and the Board of Health when the system installation is complete and prior to the placement of the cover material for final inspection. Notification shall be 48 hours prior to the time of inspection.
6. The on-site sewage disposal system shall be pumped and inspected as necessary and at least once every three years.

CONSTRUCTION NOTES

1. Any topsoil, subsoil, old fill, stumps, stones, debris or other impervious materials encountered during excavation shall be removed from the area of the soil absorption system, from five feet around the soil absorption system and from wherever fill is to be placed. Any fill placed under or adjacent to the soil absorption system shall be a clean, granular sand and conform to the specifications of Title 5, 310 CMR 15.255(3).
2. The finished grade above the soil absorption system shall have a minimum two percent slope to shed surface runoff away from the system.
3. Disturbed areas shall be loamed, seeded and mulched until stable vegetation is established.
4. The pipes exiting the distribution box shall have the same invert elevation and shall be level for a minimum of the first two feet.
5. The existing septic tank shall be pumped, crushed and disposed of in accordance with the law. Any part of the existing soil absorption system encountered during excavation shall be disposed of in accordance with the law.



PROFILE OF SYSTEM
SCALE: H: 1" = 10' V: 1" = 3'



SECTION OF LEACH BED
SCALE: H: 1" = 10' V: 1" = 3'

COMMONWEALTH OF MASSACHUSETTS
Richard E. Costa
CIVIL
No. 37449
REGISTERED PROFESSIONAL ENGINEER
8/5/03

PLAN OF SEPTIC SYSTEM REPAIR
415 MEADOW STREET, AMHERST, MASS.

NANCY HARDY
415 MEADOW ST., AMHERST, MA 01002

SCALE: AS SHOWN	APPROVED BY	DRAWN BY
DATE: 7/31/03	REVISED 8/5/03	

AMHERST CIVIL ENGINEERING
RICHARD COSTA, P.E. / ROBERT STOVER
P.O. BOX 3312, AMHERST, MA 01004-3312
(413)256-3400

DRAWING NUMBER