4/16 Old Montague Rd

(2 revisions)

No. 04-11 Revised

FEE 75 00

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

Town OF Amherst

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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

416 Old Montague Rd. — Location	David Powers — Owner's Name
Map/Parcel #	16 Harkness Rd. Pelham, MA — Address
Lot #	(413) 563-9316 — Telephone #
Karl's Sitework, Inc. — Installer's Name	Richard E. Costa PE, Robert Stover — Designer's Name
327 River Dr., Hadley, MA 01035 — Address	Amherst Civil Engineering
(413) 549-5396 — Telephone #	P.O. Box 3312, Amherst, MA 01004-3312 — Address
	(413) 256-3400 — Telephone #

Type of Building: multi family house — Lot Size _____ Sq. feet

Dwelling — No. of Bedrooms 7 — Garbage Grinder (no)

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

Other fixtures _____

Design Flow (min. required) 770 gpd Calculated design flow 770 gpd Design flow provided _____ gpd

Plan: Date 8/17/04 Number of sheets 1 Revision Date _____

Title "Plan of Septic System Repair"

Description of Soil(s) on plan

Soil Evaluator Form No. _____ Name of Soil Evaluator Tupac Branche Date of Evaluation 6/17/04

DESCRIPTION OF REPAIRS OR ALTERATIONS replace leach bed.

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 [signature] Date 9-2-04

Inspections

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

No. 04-11

THE COMMONWEALTH OF MASSACHUSETTS

Amherst BOARD OF HEALTH

FEE _____

CERTIFICATE OF COMPLIANCE

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

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

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

by: David Powers

at 416 Old Montague Rd. 8/27/04

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

Installer [signature] For Karl's Excavating

Designer: Robert Stover 9/27/04 Inspector [signature] Date 9/27/04

for Amherst Civil Engineering

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. 04-11

FEE 75 00

THE COMMONWEALTH OF MASSACHUSETTS

Amherst BOARD OF HEALTH

DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to Construct ( ) Repair (X) Upgrade ( ) Abandon ( ) an individual sewage disposal system at 416 Old Montague Rd. as described in the application for Disposal System Construction Permit No. 04-11, dated 9/6/04.

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

Date 9/3/04 Board of Health [signature]

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

FORM 1255 (REV 5/96) H&W HOBBS & WARREN™ PUBLISHERS - BOSTON

Commonwealth of Massachusetts
City/Town of

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 5.404(1), is not feasible.

310 CMR 15.403(4) requires the system owner to provide a copy of the local upgrade approval to the appropriate Regional Office of the Department of Environmental Protection, Bureau of Resource Protection, Title 5 Permitting Program, upon issuance by the local approving authority and before commencement of construction.

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 15.417.

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

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

1. Facility Name and Address:

David Powers
Name

416 Old Montague Rd.
Street Address

Amherst | MA | 01002
City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

David Powers
Name

16 Harkness Rd.
Street Address

Pelham
City/Town

MA
State

01002
Zip Code

Telephone Number

3. Type of Facility (check all that apply):

☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Describe Facility:

Seven bedroom multi-family house without garbage grinder.

5. Type of Existing System:

☐ Privy ☐ Cesspool(s) ☒ Conventional ☐ Other (describe below):

Commonwealth of Massachusetts
City/Town of

Form 9A – Application for Local Upgrade Approval

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A. Facility Information (continued)

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

   One leach bed: fifty-two feet long by twenty feet wide.

7. Design Flow per 310 CMR 15.203:

   Design flow of existing system: _____ gpd

   Design flow of proposed upgraded system: 770 gpd

   Design flow of facility: 770 gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

   ☐ Voluntary ☐ Required by order, letter, etc. (attach copy)

   ☒ Required following inspection pursuant to 310 CMR 15.301: _____ date of inspection

2. Describe the proposed upgrade to the system:

   Replace existing leach facility with a leach bed as described above.

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

   ☒ Reduction in setback(s) – describe reductions:

   To allow the placement of fill on an abutting parcel to achieve a fifteen foot setback from a downhill slope and to create a finished slope beyond fifteen feet that is no steeper than 3:1. The nearest edge of the proposed leach bed shall be ten feet from the property line and a legal easement shall be obtained from the owner of the abutting parcel and the easement shall be registered at the Registry of Deeds.

   ☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

   ☑ Reduction in separation between the SAS and high groundwater:

   Separation reduction: 1 ft.

   Percolation rate: 2 min./inch

   Depth to groundwater: 4' (6 inches) ft.

Commonwealth of Massachusetts
City/Town of

Form 9A – Application for Local Upgrade Approval

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B. Proposed Upgrade of System (continued)

☐ Relocation of water supply well (explain):

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

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 15.405(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 (type or print)	Signature	Date of evaluation

C. Explanation

Explain why full compliance, as defined 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:

This property does not have sufficient space in the area where test pits indicated that there is sufficient soil suitable for subsurface sewage disposal to allow installation of both a suitable leach facility and sufficient fill to meet the required setback from a downhill slope. This local upgrade approval will allow a system in full compliance without the need for a concrete retaining wall pursuant to Title 5.

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

An alternative is not appropriate for the circumstances as described above.

Commonwealth of Massachusetts
City/Town of

Form 9A – Application for Local Upgrade Approval

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C. Explanation (continued)

3. A shared system is not feasible:

   This local upgrade approval will provide full compliance without the necessity of a shared system.

4. Connection to a public sewer is not feasible:

   Public sewer is not available to this property.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

   ☒ Application for Disposal System Construction Permit

   ☒ Complete plans and specifications

   ☒ 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):

   Nancy Gittelman, 410 Old Montague Rd., Amherst, MA 01002, affected abutter.

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 deliberate violations."

Facility Owner's Signature	9-2-04 Date
David Powers Print Name	
Robert Stover, Amherst Civil Engineering Name of Preparer	September 1, 2004 Date
P. O. Box 3312 Preparer's address	Amherst City/Town
MA 01004-3312 State/ZIP Code	(413) 256-3400 Telephone

Commonwealth of Massachusetts
City/Town of

Form 9A – Application for Local Upgrade Approval

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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 5.404(1), is not feasible.

310 CMR 15.403(4) requires the system owner to provide a copy of the local upgrade approval to the appropriate Regional Office of the Department of Environmental Protection, Bureau of Resource Protection, Title 5 Permitting Program, upon issuance by the local approving authority and before commencement of construction.

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 15.417.

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

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

1. Facility Name and Address:

   Ms. Nancy Gittelman
   Name

   416 Old Montague Rd.
   Street Address

   Amherst | MA | 01002
   City/Town | State | Zip Code

2. Owner Name and Address (if different from above):

   Name | Street Address

   City/Town | State

   Zip Code | Telephone Number

3. Type of Facility (check all that apply):

   ☒ Residential ☐ Institutional ☐ Commercial ☐ School

4. Describe Facility:

   Conventional Upgrade

5. Type of Existing System:

   ☐ Privy ☐ Cesspool(s) ☒ Conventional ☐ Other (describe below):

Commonwealth of Massachusetts
City/Town of

Form 9A – Application for Local Upgrade Approval

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A. Facility Information (continued)

6. Type of soil absorption system (trenches, chambers, leach field, pits, etc):

   Leach Field

7. Design Flow per 310 CMR 15.203:

   Design flow of existing system: 770 gpd

   Design flow of proposed upgraded system 770 gpd

   Design flow of facility: 770 gpd

B. Proposed Upgrade of System

1. Proposed upgrade is (check one):

   ☒ Voluntary ☐ Required by order, letter, etc. (attach copy)

   ☐ Required following inspection pursuant to 310 CMR 15.301: _____ date of inspection

2. Describe the proposed upgrade to the system:

   Upgraded leachfield, D-Box, and associated piping.

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

   ☐ Reduction in setback(s) – describe reductions:

   ☐ Reduction in SAS area of up to 25%: _____ SAS size, sq. ft. _____ % reduction

   ☒ Reduction in separation between the SAS and high groundwater:

   Separation reduction 1.0 ft. (5.0 ft. to 4.0 ft.) ft.

   Percolation rate 14 min./inch

   Depth to groundwater 56" (from Est GW Table to exist. ground surface)

Commonwealth of Massachusetts
City/Town of
Form 9A – Application for Local Upgrade Approval

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B. Proposed Upgrade of System (continued)

☐ Relocation of water supply well (explain):

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

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 15.405(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 (type or print)	Signature	Date of evaluation

C. Explanation

Explain why full compliance, as defined 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:

   4-foot separation requested due to grade and financial hardship

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

   .Alternative system is economically unfeasible or impractical due to topographical limitations.

Commonwealth of Massachusetts
City/Town of

Form 9A – Application for Local Upgrade Approval

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C. Explanation (continued)

3. A shared system is not feasible:

   Upgrade to eliminate existing shared system.

4. Connection to a public sewer is not feasible:

   Public sewer is not available.

5. The Application for Local Upgrade Approval must be accompanied by all of the following (check the appropriate boxes):

   ☒ Application for Disposal System Construction Permit

   ☒ Complete plans and specifications

   ☒ 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):

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 deliberate violations."

Nancy Gittelman — Facility Owner's Signature

7/20/04 — Date

Nancy Gittelman — Print Name

Mark McClusky, P.E., Huntley Associates, P.C. — Name of Preparer

7/16/04 — Date

30 Industrial Drive East — Preparer's address

Northampton — City/Town

MA 01060 — State/ZIP Code

(413) 584-7444 — Telephone

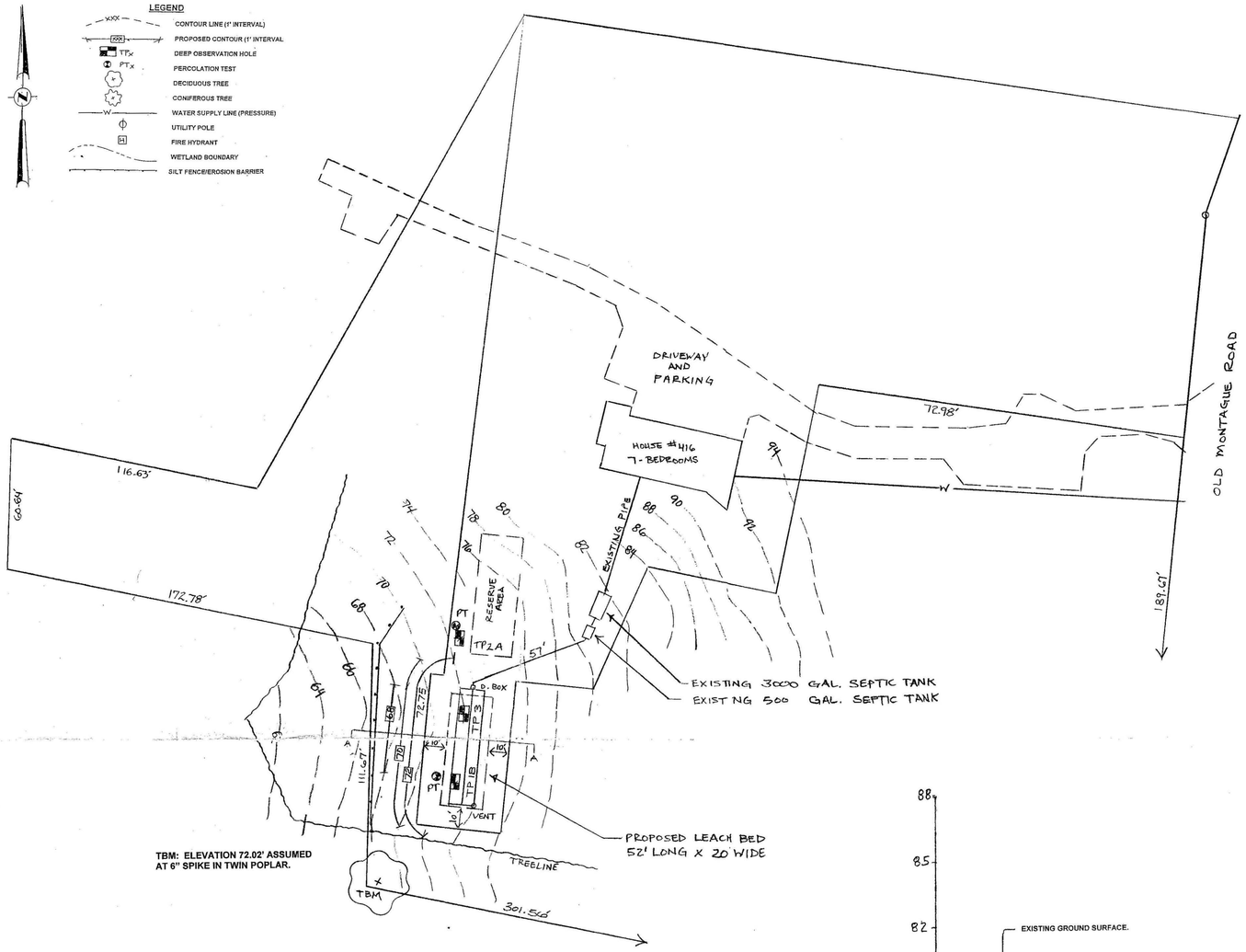
Commonwealth of Massachusetts
City/Town of
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

inches elevation

Deep Observation Hole Number: TP-3

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			
0-8"	A_p	10YR 3/4	—	—	—	LOAMY SAND	5	2	GRANULAR	FRIABLE	
8"-18"	B_w	10YR 5/6	—	—	—	LOAMY SAND	5	2	BLOCKY	FRIABLE	
18"-56"	C_1	25Y 5/6	56"	5YR 4/6	10	LOAMY SAND	—	—	BLOCKY	FRIABLE	
56"-68"	C_2	25Y 6/3		5YR 4/6	10	LOAMY SAND	—	—	BLOCKY	FRIABLE	
68"-102"	C_3	25Y 5/4		5YR 4/6	10	SAND	10	2	SINGLE GRAIN	LOOSE	

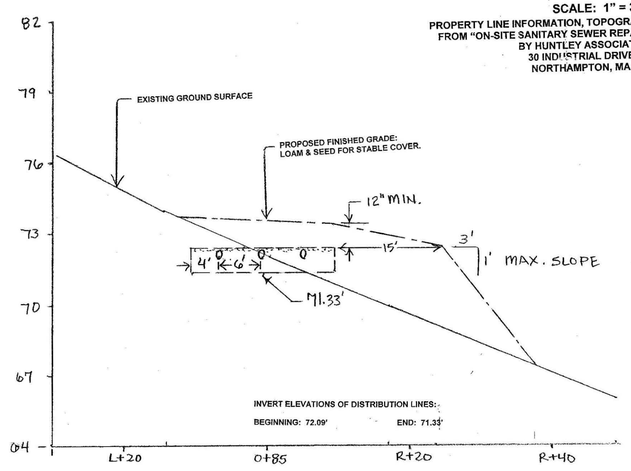
Additional Notes WEEPING @ 90"
STANDING H2O @ 100"
Soil Log By TUPAC BRANCHE, EIT, CSE WITNESSED By DAVID ZAROZNSKI, BOH



PLANVIEW

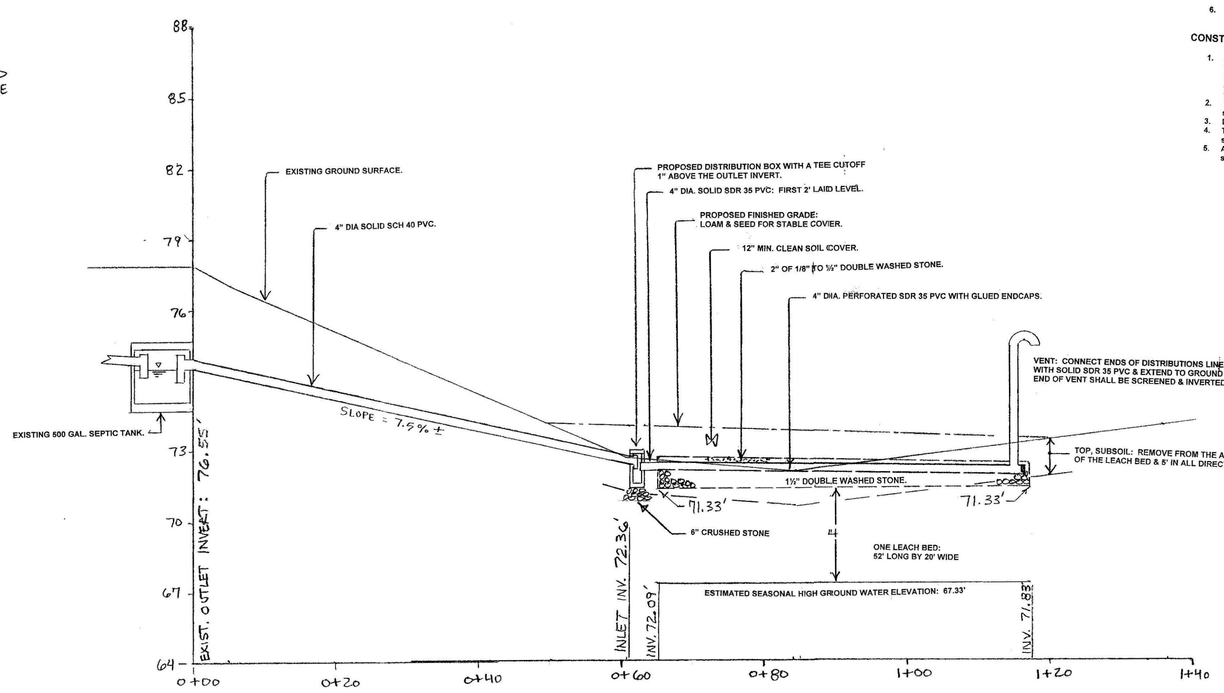
SCALE: 1" = 30'

PROPERTY LINE INFORMATION, TOPOGRAPHY AND SITE FEATURES FROM "ON-SITE SANITARY SEWER REPAIR PLAN" DATED 7/20/04 BY HUNTLEY ASSOCIATES, P.C. 30 INDUSTRIAL DRIVE EAST NORTHAMPTON, MA 01060



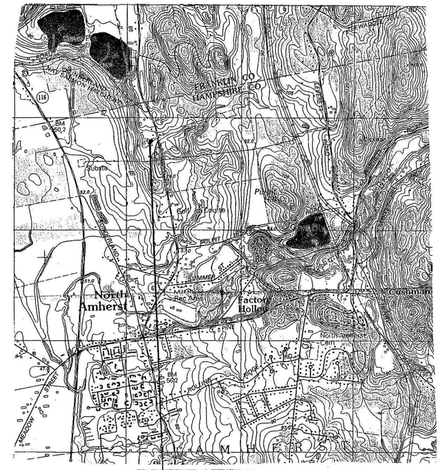
SECTION OF LEACH BED

SCALE: H: 1" = 10' V: 1" = 3'



PROFILE OF SYSTEM

SCALE: H: 1" = 10' V: 1" = 3'



USGS WILLIAMSBURG, MASS. QUAD

SCALE: 1:25 000

SOIL EVALUATION

Soil Evaluator: Tupac Branche, CSE
BOH Representative: David Zanozinski
Date of Evaluation: 6/17/04

Ground surface elevation at Deep Hole #1B: 72.00'+.
Estimated Seasonal High Ground Water Elev. 65.00'.
Bedrock Elev. Deeper than 82.00 '.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
0-7"	Ap	LS	10YR4/4	none	friable, weak, 5% gravel, 2% stones
7 – 13"	Bw	SL	2.5YR6/4	none	friable, weak
13 - 60"	C1	LS	2.5YR4/4	none	friable, weak
60 – 120"	C2	SAND	10YR4/3	2.5YR5/6 @84"	loose, single 25% gravel, 10% stones

Parent Material (Geologic): outwash
Standing Water in the Hole: 120" Weeping from Pit Face: 108"
Estimated Seasonal High Ground Water: 84"

Ground surface elevation at Deep Hole #3: 72.00'+.
Estimated Seasonal High Ground Water Elev.: 67.33'.
Bedrock Elev. Deeper than 63.00 '.

Depth	Soil Horizon	Soil Texture	Soil Color	Mottling	Other
0 - 8"	Ap	LS	10YR4/3	none	friable, granular gr 5% stones 2%
8 - 18"	Bw	LS	10YR5/6	none	friable, blocky, 5% gravel 2% stones
18 - 56"	C1	LS	2.5Y5/6	5YR4/6 @56"	friable, weak
56 – 68"	C2	LS	2.5Y6/3	5YR4/6	friable, weak
68 – 102"	C3	sand	2.5YR5/4	5YR4/6	loose single grain, 10% gr, 2% stones some clay

Parent Material (Geologic): outwash
Standing Water in the Hole: 100" Weeping from Pit Face: 90"
Estimated Seasonal High Ground Water: 66"

DESIGN CRITERIA

Design flow is for a 7-bedroom house without a garbage grinder.

DESIGN CALULATION

Design flow: 7-bedrooms, no garbage grinder: = 770 gpd.
Total required design flow: = 770 gpd.

Two existing septic tanks: one 3,000 gallons, the second 500 gallons.

Effluent Loading Rate: Percolation Rate = <2 minutes per inch
Class I soils.
Effluent loading rate = 0.74 gpd/sf.

Soil Absorption System: One leach bed: 52' long by 20' wide.

Bottom Area: 52' X 20': = 1040 sf.
Sidewall Area: not allowed: = 0 sf.
Total Proposed leaching Area: = 1040 sf.

Calculated Design Flow: 1040 sf X 0.33 gpd/sf: = 770 gpd.
Total Required Design Flow = 770 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 septic tanks 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 d. box shall be laid level for a minimum of the first two feet and shall have the same invert elevation.
5. Any portion of the existing soil absorption system encountered during the installation of this repair shall be excavated and disposed of in conformance with the requirements of the Board of Health.

COMMONWEALTH OF MASSACHUSETTS
Richard E. Costa
No. 31169
REGISTERED PROFESSIONAL ENGINEER
8/25/04

PLAN OF SEPTIC SYSTEM REPAIR

416 OLD MONTAGUE RD., AMHERST, MASS.

DAVID POWERS

16 HARKNESS RD., PELHAM, MA 01002

SCALE: AS SHOWN
DATE: 8/11/04
RWS

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