34 Elf Hill Rd

34 Elf Hill

Filios Enterprises, Inc.
69 Pelham Rd.
Amherst, MA 01002

7 July, 1992

Frank R. Sanning
34 Elf Hill Rd.
Amherst, MA 01002

This is to notify you that Filios Enterprises, Inc. has inspected the septic repair installed at the address above.

The purpose of the inspection was to determine whether the installed system complied with the plan prepared by this office and approved by the Amherst Health Department.

The inpection revealed that the elevations and layout of the as-built system varied from the approved plan to the extent shown in red on the copy of the plan profile and planview enclosed.

This variation from the plan does not represent a violation of either the regulations of the Amherst Health Dept. or the Mass. State Environmental Code, Title 5, and should not interfere with the proper functioning of the installed system.

Sincerely Yours,

Frederick A Filios Jun.

Frederick A. Filios
President

C.C. to Amherst Health Dept.

D.2.

JUL 0 6 1992

FILIOS ENTERPRISES, INC.
69 Pelham Rd.
Amherst, MA 01002

Date: 3 July, 1992

Name: Frank R. Sanning

Address: 34 Elf Hill Rd.
Amherst, MA 01002

Dear Mr. Sanning,

This is to notify you that Fillos Enterprises, Inc. has inspected the septic system installed

AT: Repair at above address

Unless exceptions are noted below, the system complied with the approved design and elevations.

Exceptions:

1.) Building sewer outlet and existing tank raised to eliminate need for pump.

2.) Elevations of the as-built system vary from those of the design to the extent shown in red on the copy of the profile enclosed.

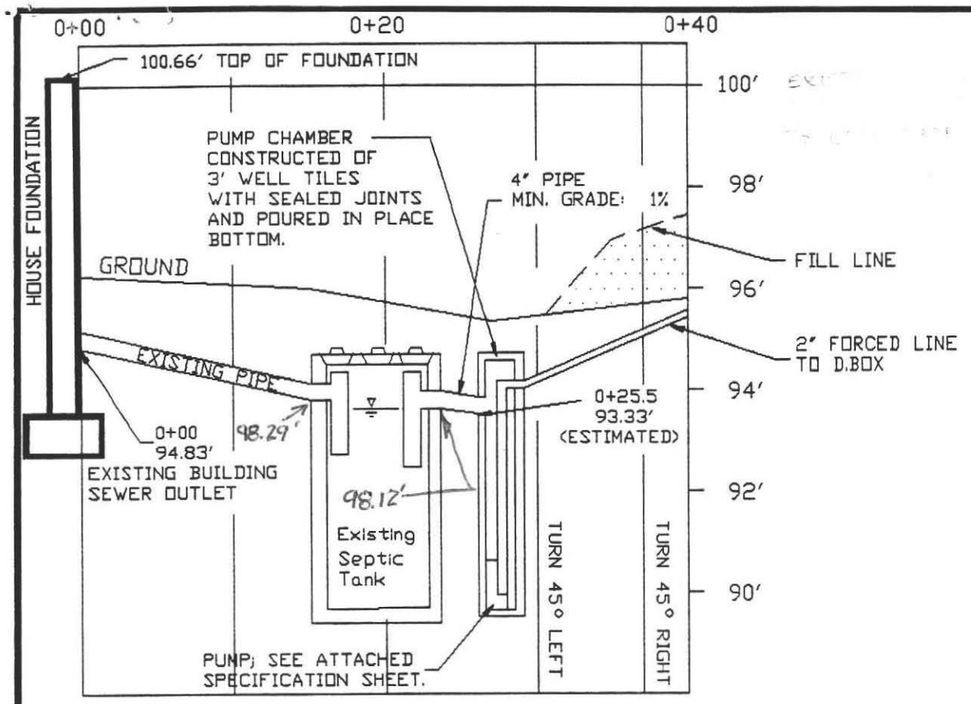
3.) The layout of the as-built system varies from that of the design to the extent shown in red on the copy of the planview enclosed.

Sincerely,

Frederick A Fillos

(Frederick A. Fillos)

C.C. to Board of Health



100' Elevation Assumed at TBM. TBM is top of landing at top of back steps shown on planview.

SPECIFICATIONS

ALL MATERIALS AND CONSTRUCTION MUST BE IN ACCORDANCE WITH COMMONWEALTH OF MASSACHUSETTS DEPT. OF ENVIRONMENTAL PROTECTION STATE ENVIRONMENTAL CODE TITLE 5.

Construction Notes

1. Septic tank should be inspected and pumped annually.
2. Inlet and outlet tees must extend 14" and 24" below the flow line respectively.

CALCULATIONS

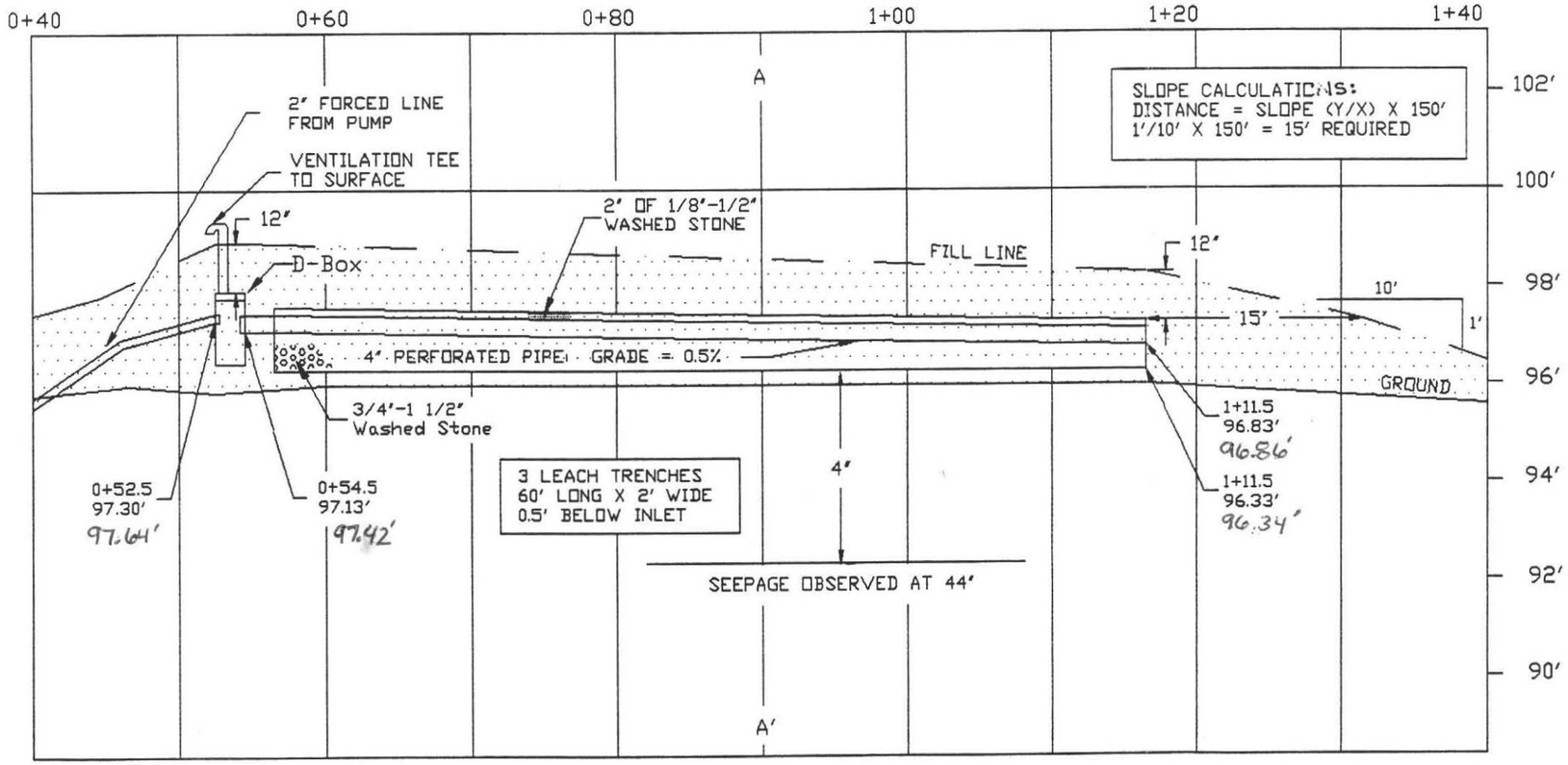
REQUIRED:

FOR A 4 BEDROOM HOUSE WITH GARBAGE GRINDER REMOVED AND A VARIANCE TO TOWN OF AMHERST REQIREMENT THAT THE LEACHING AREA NOT BE LESS THAN 1 1/4 TIMES THE MIN. AREA REQUIRED BY TITLE 5. AT 110 GAL./BEDROOM/DAY = 440 GAL./DAY REQUIRED.

DESIGNED:

3 LEACH TRENCHES: 60' LONG X 2' WIDE X 0.5' BELOW INLET (EFFECTIVE DEPTH). DESIGNED WITH A PERCOLATION RATE OF 8 MIN./INCH GIVING LOADING FACTORS OF 1.25 AND 0.63 GAL./SQ.FT./DAY RESPECTIVELY.

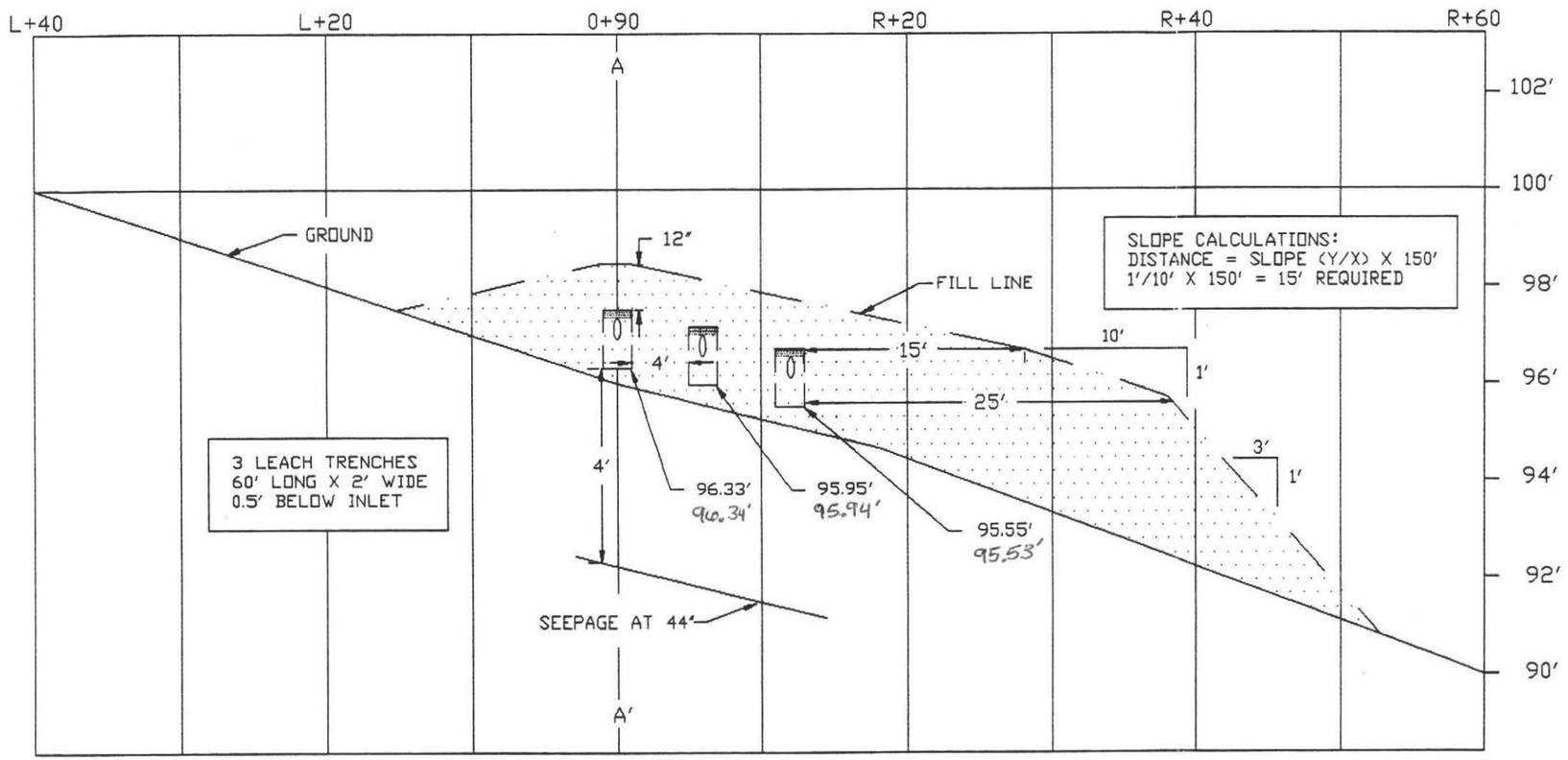
SIDEWALL:	6 SIDES (60' X 0.5') 1.25 GAL./SQ.FT./DAY	= 225 GAL./DAY
BOTTOM:	3 TR.S (60' X 2') 0.63 GAL./SQ.FT./DAY	= 227 GAL./DAY
TOTAL:		= 452 GAL./DAY



COMMONWEALTH OF MASSACHUSETTS
FREDERICK J. FILIOS, R.S.
688

PROFILE OF SEWAGE DISPOSAL SYSTEM	
REPAIR AT 34 ELF HILL RD., AMHERST, MA	
BY: FILIOS ENTERPRISES, INC. 69 PELHAM RD. AMHERST MA 01002 (413)256-8008	FOR: FRANK R. SANNING 34 ELF HILL RD. AMHERST, MA 01002
DRAWN BY R. STOVER	SCALE: 1" = 10' HOR. 3' VER.
21 AUGUST 1991	PAGE TWO OF THREE

CROSS-SECTION OF LEACH TRENCHES AT A-A' (0+90)



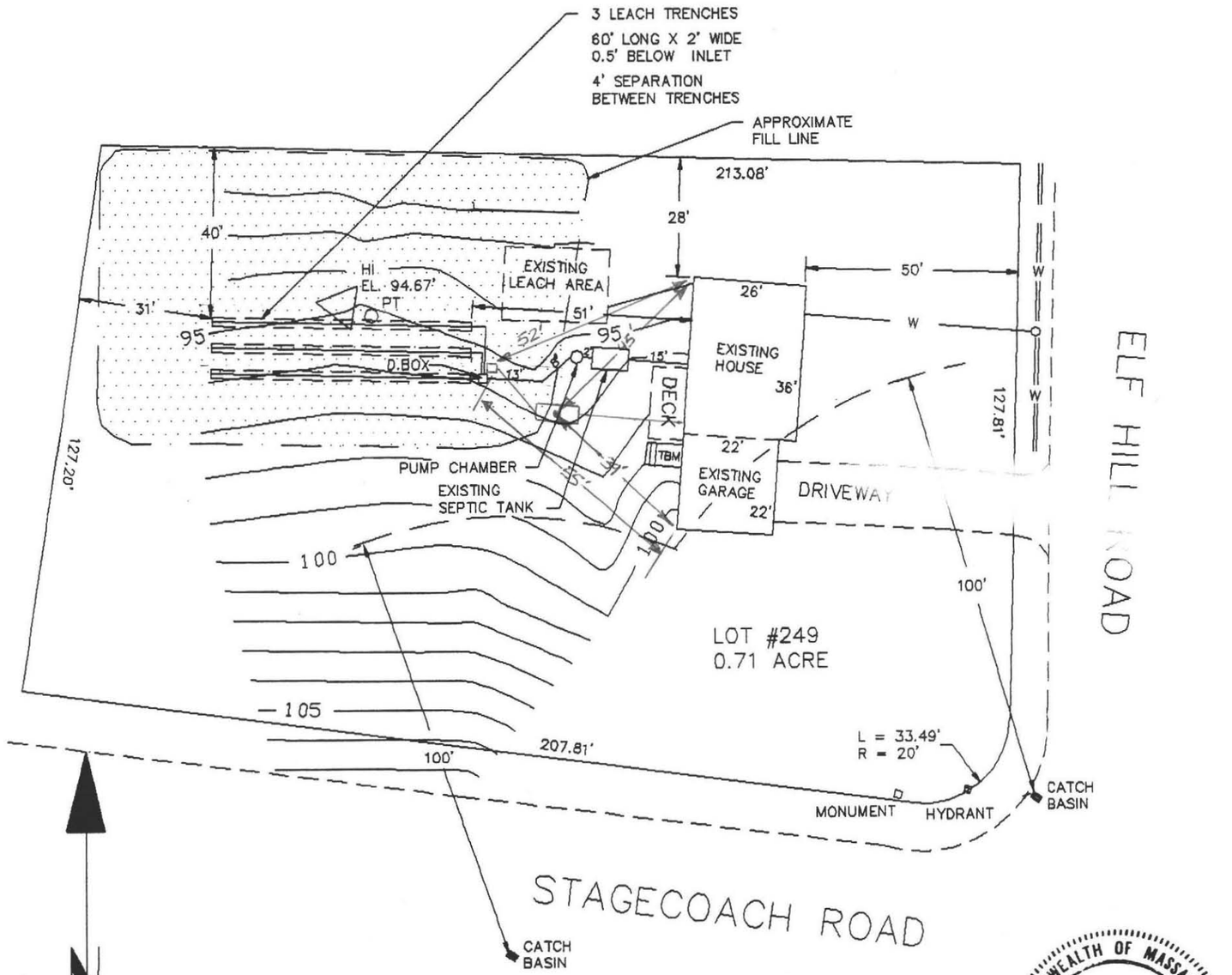
100' Elevation Assumed at TBM. TBM is top of landing at top of back steps shown on planview.

SPECIFICATIONS

ALL MATERIALS AND CONSTRUCTION MUST BE IN ACCORDANCE WITH COMMONWEALTH OF MASSACHUSETTS DEPT. OF ENVIRONMENTAL PROTECTION STATE ENVIRONMENTAL CODE TITLE 5.

COMMONWEALTH OF MASSACHUSETTS
FREDERICK A. FILIOS, R.S.
688

PROFILE OF SEWAGE DISPOSAL SYSTEM	
REPAIR AT 34 ELF HILL RD., AMHERST, MA	
BY: FILIOS ENTERPRISES, INC. 69 PELHAM RD. AMHERST MA 01002 (413)256-8008	FOR: FRANK R. SANNING 34 ELF HILL RD. AMHERST, MA 01002
DRAWN BY R. STOVER	SCALE: 1" = 10' HOR. / 3' VER.
20 AUGUST 1991	PAGE THREE OF THREE



NOTES:

1. TBM IS TOP OF LANDING AT TOP OF BACK STEPS.
2. NO OTHER WELLS WITHIN 200' OF THE LEACH AREA AT THE TIME OF SURVEY. TOWN WATER.
3. THE TOPSOIL AND SUBSOIL SHALL BE REMOVED FOR A DISTANCE OF 25' FROM THE LEACH FIELD AND WHERE FILL IS TO BE PLACED.

LEGEND

PT	PERCOLATION TEST
Hx	DEEP TEST PIT
	CONTOUR LINES (1' INTERVAL)

COMMONWEALTH OF MASSACHUSETTS
FREDERICK
FILIOS, R.S.
688

PLAN OF SEWAGE DISPOSAL SYSTEM	
REPAIR AT 34 ELF HILL RD., AMHERST, MA	
BY: FILIOS ENTERPRISES, INC. 69 PELHAM RD. AMHERST MA 01002 (413)256-8008	FOR: FRANK R. SANNING 34 ELF HILL RD. AMHERST, MA 01002
DRAWN BY R. STOVER	SCALE: 1" = 30'00"
21 AUGUST 1991	PAGE ONE OF THREE

JUL 0 6 1992

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part A
Certification (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

INSPECTION SUMMARY: CHECK A, B, C, D or E / ALWAYS complete all of Section D

A] SYSTEM PASSES:

☒ I have not found any information which indicates that any of the failure conditions described in 310 CMR 15.303 or in 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.

Answer YES, NO, or Not Determined (**Y**,**N**, or **ND**). in the ___ 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.
ND explain:

_____ Observation of sewage backup or breakout or high static water level in the distribution box is due to broken or obstructed pipe(s) or due to a broken, settled, or uneven distribution box. The system will pass inspection if (with approval of the Board of Health):
☐ broken pipe(s) are replaced
☐ obstruction is removed
☐ distribution box is leveled or replaced
ND explain:

_____ 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
☐ obstruction is removed
ND explain:

COMMONWEALTH OF MASSACHUSETTS

EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TITLE 5 INSPECTION FORM

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part A
Certification

Property Address: 34 Elf Hill Road Amherst, Ma. Name of Owner: Frank R. Sanning

Date of Inspection: July 14, 2004
Address of Owner:
Name of Inspector: Philip J. Pasiecnik
Company Name: **Greg's Wastewater Removal**
239A Greenfield Road
S. Deerfield, MA 01373
Company Phone: (413) 665 - 3989

CERTIFICATION STATEMENT

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
- ☐ Needs Further Evaluation by the local Approving Authority
- ☐ Fails

INSPECTOR'S SIGNATURE: Philip J. Pasiecnik **DATE:** 7/14/04

The System Inspector shall submit a copy of this inspection report to the Approving Authority (Board of Health or DEP) within thirty (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.

NOTES AND COMMENTS: No failure criteria as described on page four of this inspection form was found at the time of inspection of this system. System Design Plan was obtained from the owner.

***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.

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part A

Certification (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

D] SYSTEM FAILURE CRITERIA applicable to all systems:

You **must** indicate either "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 1/2 day flow.
☐	☒	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 Soil Absorption System, cesspool, or privy is below the high groundwater 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 I 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 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 coliform bacteria and volatile organic compounds indicates that the well is free from pollution from that facility 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.]**
☐	☒	**The system fails.** I have determined that one or more of the above failure criteria exists as defined 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.

You must indicate either "Yes" or "No" to each of the following:
(The following criteria apply to large systems in addition to the criteria above)

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 threat, or answered "yes" in Section D above the large system has failed. The owner or operator or 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.

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part A

Certification (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

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 the 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 THE 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.

2) **SYSTEM WILL FAIL UNLESS 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 THE ENVIRONMENT:**

- ☐ The system has a septic tank and soil absorption system (**SAS**) and the SAS is within 100 feet to 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 coliform bacteria and volatile organic compounds indicates that the well is free from pollution from that facility 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

_____

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part C
SYSTEM INFORMATION

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

FLOW CONDITIONS

Residential:

Number of bedrooms (design): 4 Number of bedrooms (actual) 4

DESIGN Flow: 440 G.P.D. (based on 310 CMR 15.203 - for example: 110 gpd x # of bedrooms)

Number of current residents: 1

Is Garbage Grinder present (yes or no) Yes

Is laundry on a separate sewage system (yes or no) No ____ if **yes** separate inspection required

Laundry system inspected (yes or no) _____

Seasonal Use (yes or no) No

Water Meter readings - if available
(last two (2) year usage (gpd) _____

Sump Pump (yes or no) No

Last Date of Occupancy: Currently Occupied

Commercial/Industrial:

Type of establishment: _____

Design flow: (Based on 310 CMR 15.203) _____ gallons per day

Basis of design flow (seats/persons/sqft,etc.) _____

Grease trap present (yes or no) _____

Industrial Waste Holding Tank present (yes or no) _____

Non-sanitary waste discharged to the Title 5 system (yes or no) _____

Last Date of Occupancy/Use: _____

OTHER (describe): _____

GENERAL INFORMATION

PUMPING RECORDS

Source of information: Owner states system has not been pumped since repaired in 1991.

Was system pumped as part of the inspection: (yes or no) Yes

If YES -enter volume pumped 1000 gallons

How was the quantity pumped determined? Tank Dimensions

Reason for pumping: Tank Inspection

TYPE OF SYSTEM:

☒ Septic Tank / D Box / Soil Absorption System ☐ Single Cesspool
☐ Overflow Cesspool ☐ Privy

Shared system (yes or no) (if yes, attach previous inspection records, if any) No

Innovative/Alternative technology. Attach a copy of up the current operation and maintenance contract (to be obtained from system owner) _____

Tight Tank _____ Attach a copy of DEP Approval

OTHER (describe):

Approximate age of all components, date installed (if known) and source of information:
Tank 30 Years Old + or - SAS 13 Years Old / SAS 1991 / Design Plan

Were sewage odors detected when arriving at site: (yes or no) No

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part B
CHECKLIST

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

Check if the following have been done. You **must** indicate either "Yes" or "No" as to each of the following:

Yes	No	
☒	☐	Pumping information was requested of 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)
☒	☐	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 Soil Absorption System, 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 systems?

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 (3)(b)]

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part C

SYSTEM INFORMATION (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

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 in gallons
Design flow in gallons per day
_____ Alarm present (Yes or No)
_____ Alarm level Alarm in working order ☐Yes ☐ No
_____ Date of last pumping

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

DISTRIBUTION BOX ☒ Yes ☐ No (If present, MUST be opened - locate on site plan)

Depth of liquid level above outlet invert: Not Above

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.) The box was level and distribution was equal to all three outlet pipes. Little solids carryover was in the box when opened for inspection. No leakage was evident into or out of the box at this time.

PUMP CHAMBER: ☐ (located on site plan)

Pumps in working order: (Yes or No) _____
Alarms in working order (Yes or No) _____
Comments: (Note condition of pump chamber, condition of pumps and appurtenances, etc.) _____.

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part A

Certification (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

BUILDING SEWER (Locate on site plan): ☒
Depth below grade: 16"
Material of construction: _____ cast iron XXX 40 PVC _____ other (explain)

_____
Distance from private water supply well or suction line Public Water Supply
Diameter 4"
Comments: (condition of joints, venting, evidence of leakage, etc.) Joints were in good condition. Venting pipes were visible outside the dwelling. No leakage was evident at this time.

SEPTIC TANK (locate on site plan): ☒

Depth below grade: 8"
Material of Construction: ☒ Concrete ☐ Metal ☐ Fiberglass ☐ Polyethylene _____ Other (explain)

_____

If tank is metal, list age _____ Is age confirmed by Certificate of Compliance _____
(Yes/No) (If "Y", attach copy of Certificate of Compliance)

8' Lx5' Wx6'6"D	Dimensions:
10"	Sludge Depth
35"	Distance from top of sludge to bottom of outlet tee or baffle
8"	Scum thickness
5"	Distance from top of scum to top of outlet tee or baffle
17"	Distance from bottom of scum to bottom of outlet tee or baffle
Measured	How dimensions were determined:

Comments: (On pumping recommendations, inlet & outlet tee or baffle condition, structural integrity, liquid levels as related to outlet invert, evidence of leakage, etc.) The septic tank should be pumped every two to three years. PVC Inlet tee was in place and extends 12" below the flow line. PVC Outlet tee was in place and extends 25" below the flow line. The liquid level was at the outlet invert. Structural integrity of the septic tank was good. No leakage was evident at the time of inspection. .

GREASE TRAP (locate on site plan): ☐

Depth below grade: _____.
Material of Construction: ☐ Concrete ☐ Metal ☐ Fiberglass ☐ Polyethylene ☐ Other (explain)_____

_____	Dimensions
_____	Scum thickness
_____	Distance from top of scum to top of outlet tee / baffle
_____	Distance from bottom of scum to bottom of outlet tee / baffle
_____	Date of last pumping:

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

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part C

SYSTEM INFORMATION

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

SKETCH OF SEWAGE DISPOSAL SYSTEM:

{Provide a Sketch 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.

****** { SEE EXHIBIT A} ******

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part C

SYSTEM INFORMATION (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

SOIL ABSORPTION SYSTEM (SAS): ☒
(locate on site plan, if possible; excavation not required.)

If SAS is not located explain why:_____.

TYPE:
Leaching pits & number _____
Leaching chambers & number _____
Leaching galleries & number _____
Leaching trenches, number, length 3 - Trenches 60ft. Long x 2ft. Wide (Per Design Plan)
Leaching fields, number, dimensions _____
Overflow cesspool, number _____
Innovative/Alternative system: _____
Name of Technology: _____

Comments: (Note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.) The soil was sandy gravel with no clogging evident. No signs of hydraulic failure or ponding to the surface. The soil wasn't damp over the area of the trenches. Vegetation was mowed grass for the first ten feet of the trenches. Vegetation over the rest of the trench areas was small trees and tall grass. Vegetation all seemed uniform throughout the area. Recommend the small trees be cut down close to the ground without removing the roots. Vegetation over the area of the trenches should be kept clear..

CESSPOOLS ☐ (Cesspool must be pumped as part of inspection - locate on site plan)

Number & 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 or No) _____
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.) _____.

OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM

Part C

SYSTEM INFORMATION (continued)

Property Address: 34 Elf Hill Road Amherst, Ma.
Owner: Frank R. Sanning
Date of Inspection: July 14, 2004

SITE EXAM
- ☒ Slope
- ☒ Surface water
- ☒ Check cellar
- ☐ Shallow wells

Estimated Depth to Groundwater > 4 Feet

Please indicate (check) all the methods used to determine High Groundwater Elevation:

☒ Obtained from system design plans on record - If checked, date of design plan reviewed: August 21, 1991

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

☐ Checked with local Board of Health - explain: _____

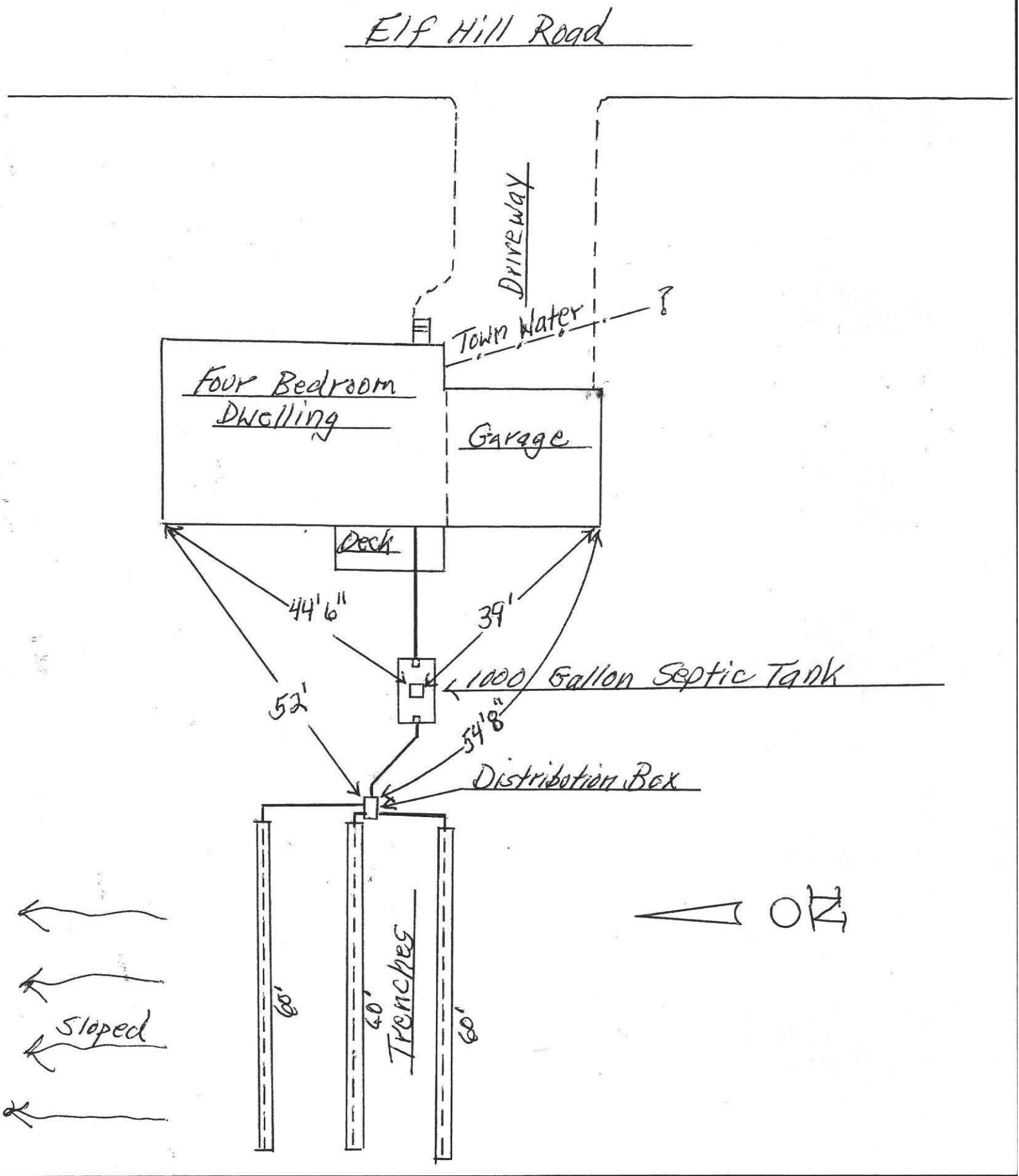
☐ Checked with local excavators, installers - (attach documentation)

☐ Accessed USGS database - explain: _____

You **must** describe how you established the **high ground water elevation:**
Design Plan shows depth to groundwater at 44". Area was filled and trenches installed without the use of a pump chamber as Design Plan shows. No sump pump in the basement of the dwelling which was dry at this time. No sign of surface water on the property. No groundwater evident on sloped areas on the property. No infiltration of groundwater into the septic tank after pumping.

Sewage Disposal System
at 34 Elf Hill Road
Amherst, Ma.

EXHIBIT "A"
Inspection Date 7/14/04
Drawing Not to Scale



No.....

FEE.....

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

Town OF Amherst

Application for Disposal Works Construction Permit

COMMONWEALTH OF MASSACHUSETTS
FREDERICK FILIOS, R.S. 688

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

34 Elf Hill Rd. — Location - Address
Lot # 249 — or Lot No.

Frank R. Sanning — Owner
Same — Address

Installer — Address

Type of Building — Size Lot.....Sq. feet

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

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

Other fixtures Garbage Grinder To Be Removed

Design Flow 55 gallons per person per day. Total daily flow 440 gallons.

Exist Septic Tank — Liquid capacity.....gallons Length..... Width..... Diameter..... Depth.....

Disposal Trench — No. 3 Width 2' Total Length 180' Total leaching area 180 sq. ft. Sidewal

Seepage Pit No..... Diameter..... Depth below inlet 0.5' Total leaching area 360 sq. ft. Bottom

Other Distribution box (✓) Dosing tank ( )

DEEP HOLE: MAY 14, 1991

Percolation Test Results Performed by Filios Enterprises, Inc. Date PERC TEST: JULY 19, 1991

Test Pit No. 1 7 minutes per inch Depth of Test Pit 114" Depth to ground water 44"

Test Pit No. 2.....minutes per inch Depth of Test Pit..... Depth to ground water.....

Description of Soil Attached

Nature of Repairs or Alterations — Answer when applicable Retain existing septic tank install pump and pump chamber and replace leach area.

Agreement:

The undersigned agrees to install the aforedescribed Individual Sewage Disposal System in accordance with the provisions of TITLE 5 of the State Environmental Code — The undersigned further agrees not to place the system in operation until a Certificate of Compliance has been issued by the board of health.

Signed ..... Date .....

Application Approved By ..... Date .....

Application Disapproved *for the following reasons:* .....

..... Date .....

Permit No. ..... Issued ..... Date

CHECK OR FILL IN WHERE APPLICABLE

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

..... OF .....

Certificate of Compliance

THIS IS TO CERTIFY, That the Individual Sewage Disposal System constructed ( ) or Repaired ( )

by ..... Installer

at .....

has been installed in accordance with the provisions of TITLE 5 of The State Environmental 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 SATISFACTORY.

DATE ..... Inspector

COMMONWEALTH OF MASSACHUSETTS
FREDERICK A. FILIOS, R.S.
6882

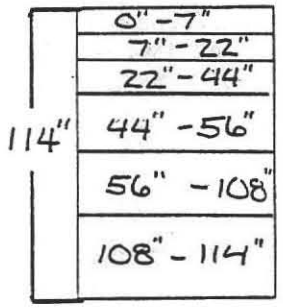
Percolation Test Report
and Deep Soil Log

FILIOS ENTERPRISES
69 Pelham Rd., Amherst MA 01002, (413) 256-8008

Owner: FRANK SANNING
Location: 34 ELF HILL RD. AMHERST, MA.

Date: MAY 14 1991
B. of H. DAVE ZAROZINSKI

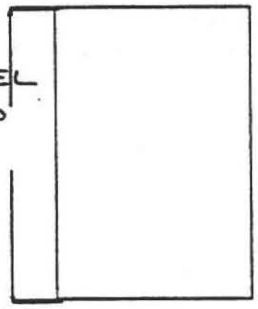
DEEP HOLE 1



TOPSOIL
SUBSOIL
SAND AND SOME GRAVEL
COMPACT (HARD) SAND WITH SOME SILT
FIRM SAND WITH SOME SILT
RED TILL

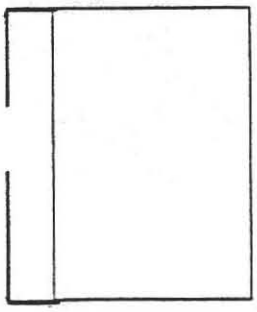
Ground Water SEEPAGE AT 44" VEINS DEEPER

DEEP HOLE 2



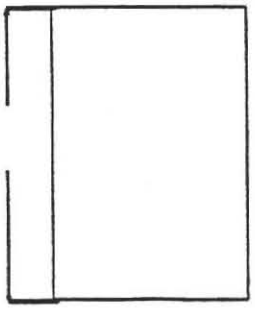
Ground Water _____

DEEP HOLE 3



Ground Water _____

DEEP HOLE 4



Ground Water _____

PERC TEST #1 - ABANDONED
PERC TEST #2 - DONE 7/19/91
DEPTH OF PERC 32"
PERC RATE: 7 MIN./IN.

COMMENTS: _____

levation Assumed
M. TBM is top of
g at top of back
shown on planview.

PECIFICATIONS
LS AND CONSTRUCTION MUST BE
CE WITH COMMONWEALTH OF
TS DEPT. OF ENVIRONMENTAL
STATE ENVIRONMENTAL CODE

onstruction Notes

tank should be inspected
annually.

d outlet tees must
and 24" below the flow
tively.

CALCULATIONS

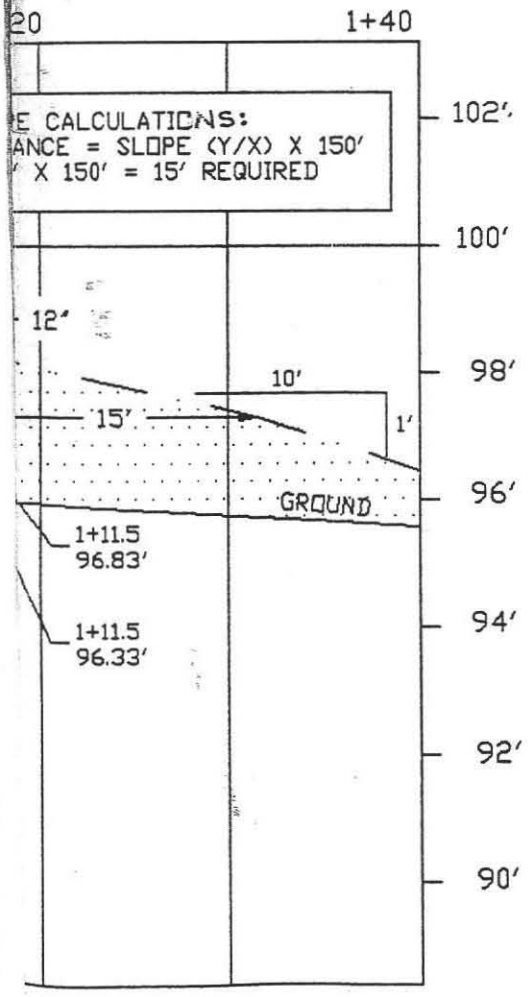
REQUIRED:

FOR A 4 BEDROOM HOUSE WITH GARBAGE GRINDER REMOVED AND A VARIANCE TO TOWN OF AMHERST REQIREMENT THAT THE LEACHING AREA NOT BE LESS THAN 1 1/4 TIMES THE MIN. AREA REQUIRED BY TITLE 5. AT 110 GAL./BEDROOM/DAY = 440 GAL./DAY REQUIRED.

DESIGNED:

3 LEACH TRENCHES: 60' LONG X 2' WIDE X 0.5' BELOW INLET (EFFECTIVE DEPTH). DESIGNED WITH A PERCOLATION RATE OF 8 MIN./INCH GIVING LOADING FACTORS OF 1.25 AND 0.63 GAL./SQ.FT./DAY RESPECTIVELY.

SIDEWALL: 6 SIDES (60' X 0.5') 1.25 GAL./SQ.FT./DAY = 225 GAL./DAY
BOTTOM: 3 TR.S (60' X 2') 0.63 GAL./SQ.FT./DAY = 227 GAL./DAY
TOTAL: = 452 GAL./DAY



PROFILE OF SEWAGE DISPOSAL SYSTEM	
REPAIR AT 34 ELF HILL RD., AMHERST, MA	
BY: FILIOS ENTERPRISES, INC. 69 PELHAM RD. AMHERST MA 01002 (413)256-8008	FOR: FRANK R. SANNING 34 ELF HILL RD. AMHERST, MA 01002
DRAWN BY R. STOVER	SCALE: 1' = 10' HOR. / 3' VER.
21 AUGUST 1991	PAGE TWO OF THREE