55 Hoist Rd.

Keller Septic Variance

31 Shutesbury Road
Pelham, MA 01002
(413) 256-0647

November 30, 1998

Dave Zarozinski
Health Department
Boltwood Avenue
Amherst, MA 01002

Subject: Title 5 Septic System Inspection at 55 Hulst Road
(Property of Paul & Shirley Gratkowski)

Dear Dave:

On November 21, 1998I completed an inspection of the septic system at the subject property in accordance with 310 CMR 15.000 (Title 5) requirements. Two copies of the report are enclosed for your use.

This system is certified as, "Passed" by the criteria in the regulation. Additional comments are included in the report.

If you have questions on any aspect of the inspection or the report please contact me at the address above or by phone evenings.

Sincerely,

Richard Scott

Richard Scott, P.E.

cc: Paul & Shirley Gratkowski, Owners
Realtor c/o Gratkowskis
Buyer c/o Gratkowskis

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION
ONE WINTER STREET. BOSTON. MA 02108 617-292-5500

WILLIAM F. WELD
Governor

ARGEO PAUL CELLUCCI
Lt. Governor

TRUDY COXE
Secretary

DAVID B. STRUHS
Commissioner

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION

Property Address: 55 HULST ROAD AMHERST
Date of Inspection: NOV. 21, 1998
Name of Inspector: RICHARD SCOTT

Address of Owner: (If different) PAUL & SHIRLEY GRATKOWSKI
55 HULST ROAD
AMHERST, MA 01002
413-256-8948

I am a DEP approved system inspector pursuant to Section 15.340 of Title 5 (310 CMR 15.000)

Company Name: RICHARD SCOTT, P.E.
Mailing Address: 31 SHUTESBURY ROAD PELHAM, MA 01002
Telephone Number: (413) 256-0647

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 inspection. The inspection was performed based on my training and experience in the proper function and maintenance of on-site sewage disposal systems. The system:

THE COMPLETION OF THIS INSPECTION SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE SYSTEM WILL FUNCTION SATISFACTORILY IN THE FUTURE.

- ✓ Passes
- ___ Conditionally Passes
- ___ Needs Further Evaluation By the Local Approving Authority
- ___ Fails

Inspector's Signature: Richard Scott **Date:** Nov. 30, 1998

The System Inspector shall submit a copy of this inspection report to the Approving Authority 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 Department of Environmental Protection. The original should be sent to the system owner and copies sent to the buyer, if applicable, and the approving authority.

INSPECTION SUMMARY: Check *A, B, C, or D*:

A] SYSTEM PASSES:

✓ I have not found any information which indicates that the system violates any of the failure criteria as defined in 310 CMR 15.303. Any failure criteria not evaluated are indicated below.

COMMENTS: SYSTEM HAS GARBAGE GRINDER WITH A SINGLE 1000 GALLON SEPTIC TANK. RECOMMEND LIMITED USE OF GRINDER AND/OR ANNUAL PUMPING.

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.

Indicate yes, no, or not determined (Y, N, or ND). Describe basis of determination in all instances. If "not determined", explain why not.

___ The septic tank is metal, unless the owner or operator has provided the system inspector with a copy of a Certificate of Compliance (attached) indicating that the tank was installed within twenty (20) years prior to the date of the inspection; or the septic tank, whether or not metal, is cracked, structurally unsound, shows substantial infiltration or exfiltration, or tank failure is imminent. The system will pass inspection if the existing septic tank is replaced with a conforming septic tank as approved by the Board of Health.

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: 55 HALLST RD. AMHERST
Owner: PAUL & SHIRLEY GRATKOWSKI
Date of Inspection: 11-21-98

B] SYSTEM CONDITIONALLY PASSES (continued)

___ Sewage backup or breakout or high static water level observed 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). Describe observations:
- _____ broken pipe(s) are replaced
- _____ obstruction is removed
- _____ distribution box is levelled or replaced

___ The system required pumping more than four 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

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 and the environment.

1) **SYSTEM WILL PASS UNLESS BOARD OF HEALTH DETERMINES THAT THE SYSTEM IS NOT FUNCTIONING IN A MANNER WHICH WILL PROTECT THE PUBLIC HEALTH AND 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 THE BOARD OF HEALTH (AND PUBLIC WATER SUPPLIER, IF APPROPRIATE) DETERMINES THAT THE SYSTEM IS FUNCTIONING IN A MANNER THAT PROTECTS THE PUBLIC HEALTH AND 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 soil absorption system and the SAS is within a Zone I of a public water supply well.
___ The system has a septic tank and soil absorption system and the SAS is within 50 feet of a private water supply well.
___ The system has a septic tank and soil absorption system and the SAS is less than 100 feet but 50 feet or more from a private water supply well, unless a well water analysis 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. Method used to determine distance _____ **(approximation not valid).**

3) **OTHER**

___ _____
_____
_____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: 55 HUEST RD. AMHERST
Owner: PAUL & SHIRLEY GRATKOWSKI
Date of Inspection: 11-21-98

D] SYSTEM FAILS:

You must indicate either "Yes" or "No" as to each of the following:

_____ I have determined that the system violates one or more of the following failure criteria as defined in 310 CMR 15.303. The basis for this determination is identified below. The Board of Health should be contacted to determine what will be necessary to correct the failure.

Yes	No	
—	—	Backup of sewage into facility or system component due to an 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 a 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. If the well has been analyzed to be acceptable, attach copy of well water analysis for coliform bacteria, volatile organic compounds, ammonia nitrogen and nitrate nitrogen.

E] LARGE SYSTEM FAILS:

You must indicate either "Yes" or "No" as to each of the following:

The following criteria apply to large systems in addition to the criteria above:

_____ The system serves a facility with a design flow of 10,000 gpd or greater (Large System) and the system is a significant threat to public health and safety and the environment because one or more of the following conditions exist:

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)

The owner or operator of any such system shall bring the system and facility into full compliance with the groundwater treatment program requirements of 314 CMR 5.00 and 6.00. Please consult the local regional office of the Department for further information.

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART B
CHECKLIST

Property Address: 55 HURST RD. AMHERST
Owner: PAUL & SHIRLEY GRATKOWSKI
Date of Inspection: 11-21-98

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 provided by the owner, occupant, or Board of Health.
✓		None of the system components have been pumped for at least two weeks and the system has been receiving normal flow rates during that period. Large volumes of water have not been introduced into the system recently or as part of this inspection.
N/A		As built plans have been obtained and examined. Note if they are not available with N/A.
✓		The facility or dwelling was inspected for signs of sewage back-up.
✓		The system does not receive non-sanitary or industrial waste flow.
✓		The site was inspected for signs of breakout.
✓		All system components, excluding the Soil Absorption System, have been located on the site.
✓		The septic tank manholes were uncovered, opened, and the interior of the septic tank was inspected for condition of baffles or tees, material of construction, dimensions, depth of liquid, depth of sludge, depth of scum.
✓		The facility owner (and occupants, if different from owner) were provided with information on the proper maintenance of Sub-Surface Disposal System.

The size and location of the Soil Absorption System on the site has been determined based on:

	✓	Existing information. Ex. Plan at B.O.H.
✓		Determined in the field (if any of the failure criteria related to Part C is at issue, approximation of distance is unacceptable) [15.302(3)(b)]

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION

Property Address: 55 HULST RD. AMHERST
Owner: PAUL & SHIRLEY GRATKOWSKI
Date of Inspection: 11-21-98

FLOW CONDITIONS

RESIDENTIAL:
Design flow: 110 g.p.d./bedroom for S.A.S.
Number of bedrooms: 3
Number of current residents: 2
Garbage grinder (yes or no): YES
Laundry connected to system (yes or no): YES
Seasonal use (yes or no): NO
Water meter readings, if available (last two (2) year usage (gpd): 30 GAL PER DAY = MOST RECENT 3-MONTH AVERAGE
Sump Pump (yes or no): NO

Last date of occupancy: CURRENTLY OCCUPIED

COMMERCIAL/INDUSTRIAL:
Type of establishment: _____
Design flow: _____ gallons/day
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) ___
Water meter readings, if available: _____
_____
Last date of occupancy: _____

OTHER: (Describe) _____
Last date of occupancy: _____

GENERAL INFORMATION

PUMPING RECORDS and source of information:
PUMPED LAST IN 1988 BY KARL'S EXCAVATING (INFO BY OWNER.)
System pumped as part of inspection: (yes or no) YES
If yes, volume pumped: 1000 gallons
Reason for pumping: SOLIDS REMOVAL - CHECK TANK

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)
_____ I/A Technology etc. Copy of up to date contract?
Other _____

APPROXIMATE AGE of all components, date installed (if known) and source of information: 23 YEARS OLD (PER OWNER.)
_____

Sewage odors detected when arriving at the site: (yes or no) NO

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 55 Hulst Rd. Amherst
Owner: Paul & Shirley Gratkowski
Date of Inspection: 11-21-98

BUILDING SEWER:
(Locate on site plan)

Depth below grade: 8"(?)
Material of construction: ✓ cast iron __ 40 PVC __ other (explain)

Distance from private water supply well or suction line N/A Water Supply is Public Pressure Line.
Diameter 4"
Comments: (condition of joints, venting, evidence of leakage, etc.)
System is Vented To Roof. No Evidence of Leakage. Building Sewer's Exit From House is Concealed Under Garage Floor.

SEPTIC TANK: ✓
(locate on site plan)

Depth below grade: 30"
Material of construction: ✓ concrete __ metal __ Fiberglass __ Polyethylene __ other(explain)

If tank is metal, list age ____ Is age confirmed by Certificate of Compliance ____ (Yes/No)

Dimensions: 58" x 102" x 48" Effective Depth
Sludge depth: 7"
Distance from top of sludge to bottom of outlet tee or baffle: 23"
Scum thickness: 5"
Distance from top of scum to top of outlet tee or baffle: 3"
Distance from bottom of scum to bottom of outlet tee or baffle: 15"
How dimensions were determined: Direct Measurement At Time of Pumping

Comments:
(recommendation for pumping, condition of inlet and outlet tees or baffles, depth of liquid level in relation to outlet invert, structural integrity, evidence of leakage, etc.) No Evidence of Leakage. Tank & Covers Are in Good Condition. Inlet Pipe is At Side of Inlet End While Inlet Cover is At Center of Inlet End. Cast-In, Full-Width Baffles Are in Good Condition. Recommend Installation of Risers on Center And Outlet To Facilitate Future Pumping.

GREASE TRAP: N/A
(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 or baffle: ____
Distance from bottom of scum to bottom of outlet tee or baffle: ____
Date of last pumping: ____

Comments:
(recommendation for pumping, condition of inlet and outlet tees or baffles, depth of liquid level in relation to outlet invert, structural integrity, evidence of leakage, etc.) ____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 55 Hulst Rd. Amherst
Owner: Paul & Shirley Gratkowski
Date of Inspection: 11-21-98

TIGHT OR HOLDING TANK: N/A (Tank must be pumped prior to, or 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/day
Alarm level:_____ Alarm in working order ___ Yes; ___ No
Date of previous pumping: _____
Comments:
(condition of inlet tee, condition of alarm and float switches, etc.)

DISTRIBUTION BOX: ✓
(locate on site plan)

Depth of liquid level above outlet invert: 0"

Comments:
(note if level and distribution is equal, evidence of solids carryover, evidence of leakage into or out of box, etc.) Solids have been carried over to fill the sump of the D-Box but no "damming" of the outlets or evidence of previous high liquid level in the box. Distribution box was replaced on 11-23-98 to include outlet tees to minimize flow of solids out of the D-Box. (System includes garbage grinder with a single 1000 gallon septic tank.)

PUMP CHAMBER: N/A
(locate 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.) _____

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 55 HULST RD. AMHERST
Owner: PAUL & SHIRLEY GRATKOWSKI
Date of Inspection: 11-21-98

SOIL ABSORPTION SYSTEM (SAS): ✓
(locate on site plan, if possible; excavation not required, but may be approximated by non-intrusive methods)

If not determined to be present, explain:

Type:
leaching pits, number:___
leaching chambers, number:___
leaching galleries, number:___
leaching trenches, number,length:_____ TYPE OF SYSTEM IS NOT KNOWN. EDUCATED ESTIMATE IS
leaching fields, number, dimensions:_____ TWO TRENCHES x 30'(?) LONG.
overflow cesspool, number:___
Alternative system: _____
Name of Technology: _____

Comments:
(note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.)
SOIL SURFACE CONDITIONS ARE GOOD.

CESSPOOLS: N/A
(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 (cesspool must be pumped as part of inspection)_____

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

PRIVY: N/A
(locate on site plan)

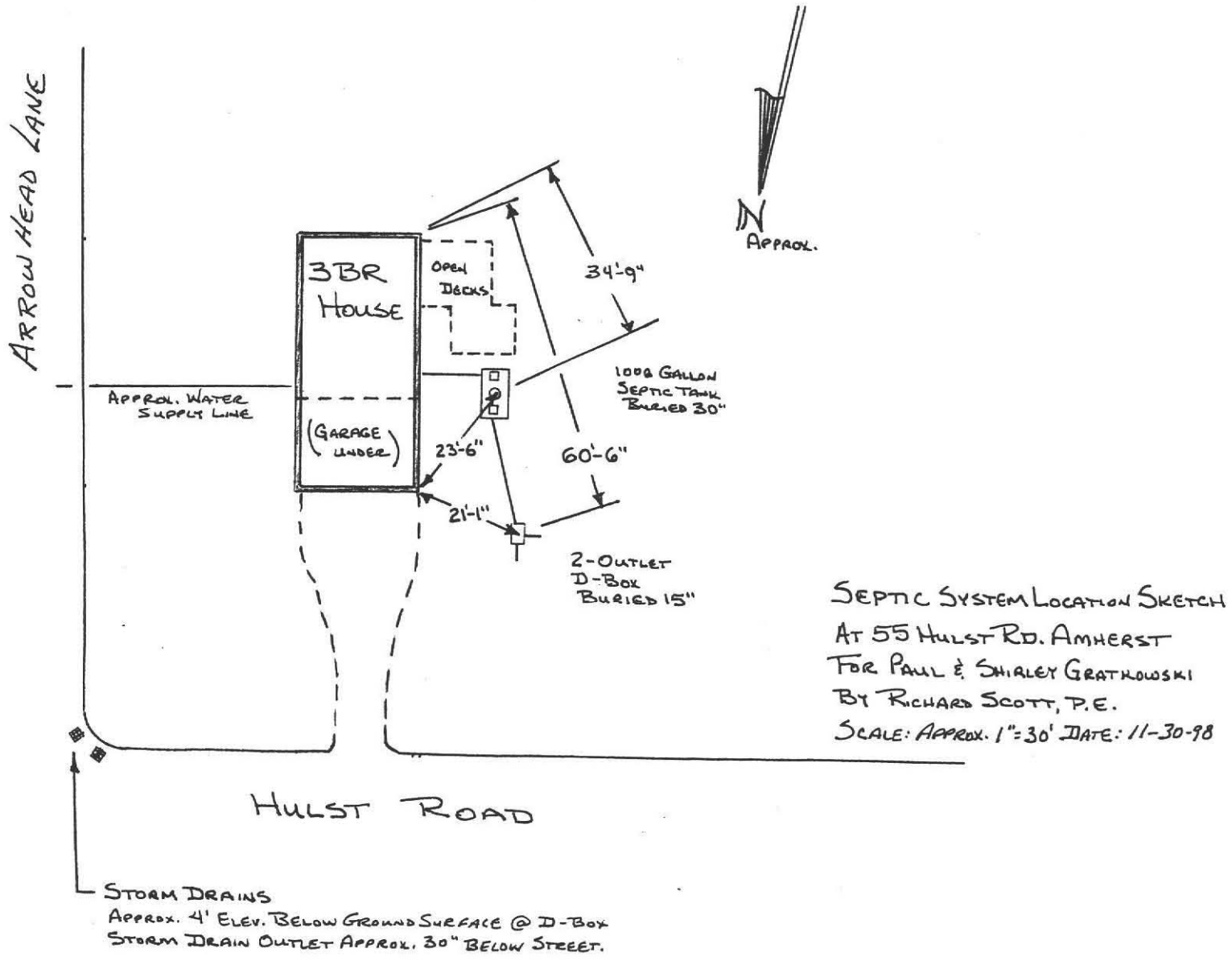
Materials of construction:_____ Dimensions:_____
Depth of solids:_____
Comments:
(note condition of soil, signs of hydraulic failure, level of ponding, condition of vegetation, etc.)

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 55 Hulst Rd. Amherst
Owner: Paul & Shirley Gratkowski
Date of Inspection: 11-21-98

SKETCH OF SEWAGE DISPOSAL SYSTEM:

include ties to at least two permanent references landmarks or benchmarks
locate all wells within 100' (Locate where public water supply comes into house)



Septic System Location Sketch
At 55 Hulst Rd. Amherst
For Paul & Shirley Gratkowski
By Richard Scott, P.E.
Scale: Approx. 1"=30' Date: 11-30-98

SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 55 HULST RD. AMHERST
Owner: PAUL & SHIRLEY GRATKOWSKI
Date of Inspection: 11-21-98

Depth to Groundwater 5+ Feet

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

____ Obtained from Design Plans on record

__✓__ Observation of Site (Abutting property, observation hole, basement sump etc.)

____ Determine it from local conditions

____ Check with local Board of health

____ Check FEMA Maps

____ Check pumping records

____ Check local excavators, installers

__✓__ Use USGS Data

Describe in your own words how you established the High Groundwater Elevation. (**Must** be completed)

- USGS DATA SHOWS SANDY WELL-DRAINED HINCKLEY SOILS.
- OUTLET FROM STORM DRAIN IS APPROX. 6½ FEET BELOW GROUND SURFACE AT DISTRIBUTION BOX.
- GROUND SURFACE IS DRY & SANDY. NO EVIDENCE OF WATER IN BASEMENT.