

80 Woodlot

New owner 9/11/02
Peter 7735 8013

Need AS-built from

Bob C.

I called Bob - 8AM 525 2874

Home - LAB 947-9894

New
Buyer



804

COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE OFFICE OF ENVIRONMENTAL AFFAIRS
DEPARTMENT OF ENVIRONMENTAL PROTECTION

TITLE 5
OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM FORM
PART A
CERTIFICATION

Property Address: 80 WOODLOT RD
AMHERST, MA
Owner's Name: MICHAEL BRANDT
Owner's Address: SAME

Date of Inspection: 7/22/2002

Name of Inspector: (please print) NATHAN TORRETTI
Company Name: CLEAN SEPTICS
Mailing Address: P.O. BOX 394
LUDLOW, MA
Telephone Number: 583-2138

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:

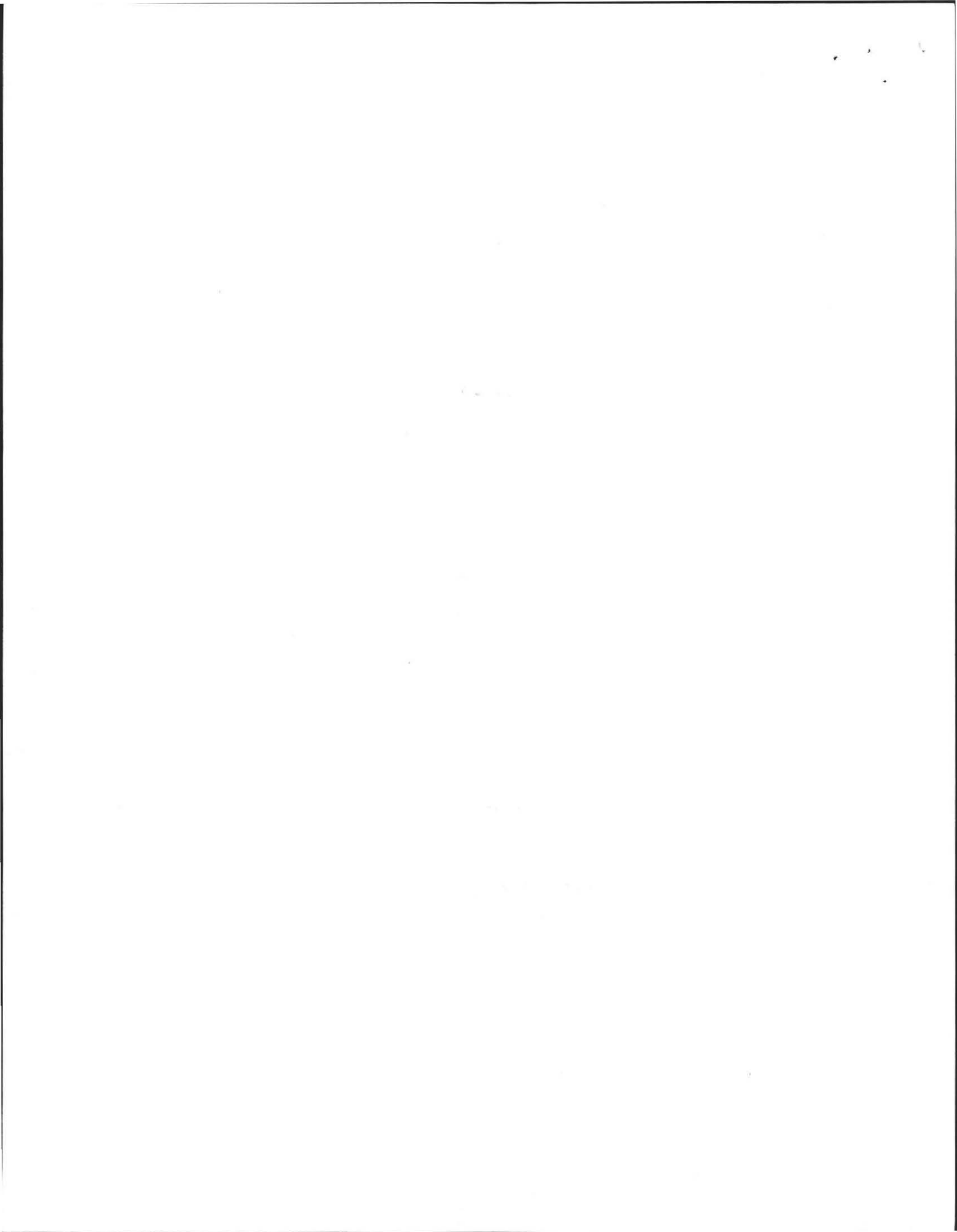
- Passes
- Conditionally Passes
- Needs Further Evaluation by the Local Approving Authority
- Fails

Inspector's Signature: *Nathan Torretti* Date: 7/22/02

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.

Notes and Comments

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: 80 WOODLOT RD
AMHERST, MA
Owner: BRANDT
Date of Inspection: 7/22/02

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 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.

Answer yes, no or not determined (Y,N,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:

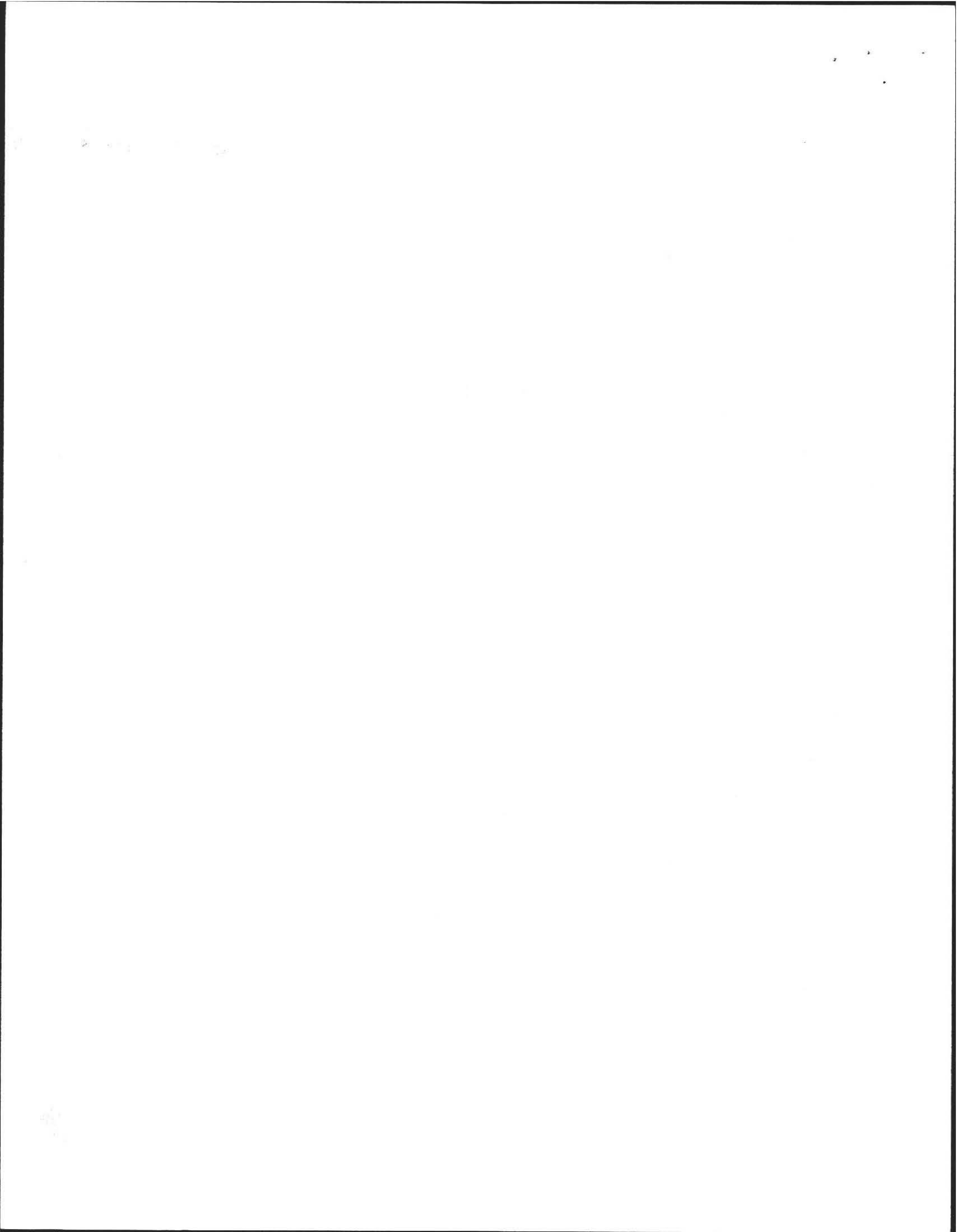
 Observation of sewage backup or break out or high static water level in the distribution box due to broken or obstructed pipe(s) or due to a broken, settled or uneven distribution box. System will pass inspection if (with approval of Board of Health):

- broken pipe(s) are replaced
- 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



OFFICIAL INSPECTION FORM - NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART A
CERTIFICATION (continued)

Property Address: 80 WOODLOT RD
AMHERST, MA
Owner: BRANDT
Date of Inspection: 7/22/02

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:

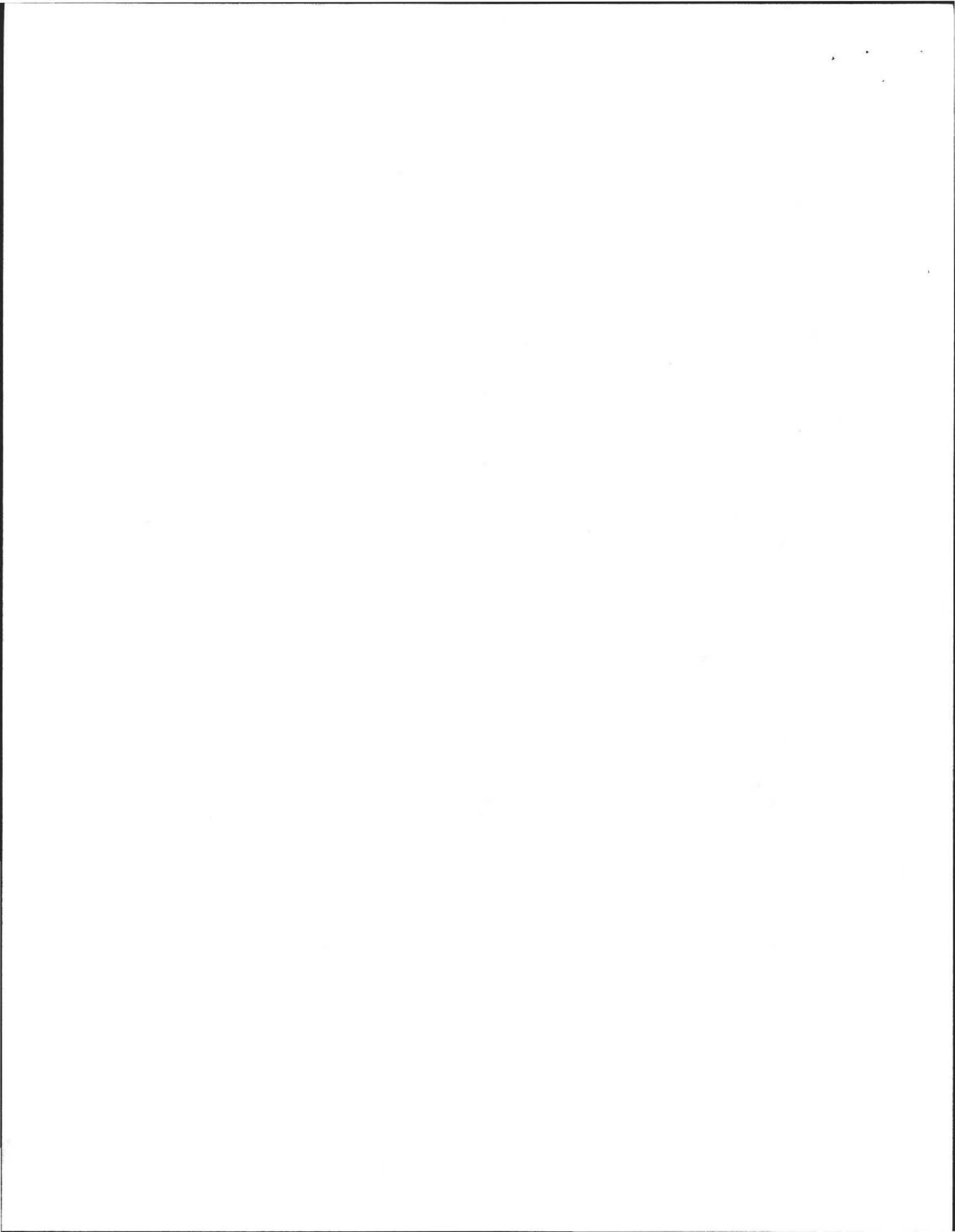
- Cesspool or privy is within 50 feet of a surface water
- Cesspool or privy is within 50 feet of a bordering vegetated wetland or a salt marsh

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 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 A
CERTIFICATION (continued)**

Property Address: 80 WOODLOT RD
AMHERST, MA
Owner: BRANDT
Date of Inspection: 7/22/02

D. System Failure Criteria applicable to all systems:
You **must** indicate "yes" or "no" to each of the following for **all** inspections:

- | Yes | No | |
|-------------------------------------|-------------------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Backup of sewage into facility or system component due to overloaded or clogged SAS or cesspool |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Discharge or ponding of effluent to the surface of the ground or surface waters due to an overloaded or clogged SAS or cesspool |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Static liquid level in the distribution box above outlet invert due to an overloaded or clogged SAS or cesspool |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Liquid depth in cesspool is less than 6" below invert or available volume is less than 1/2 day flow |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Required pumping more than 4 times in the last year NOT due to clogged or obstructed pipe(s). Number of times pumped _____ |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of the SAS, cesspool or privy is below high ground water elevation. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of cesspool or privy is within 100 feet of a surface water supply or tributary to a surface water supply. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of a cesspool or privy is within a Zone 1 of a public well. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Any portion of a cesspool or privy is within 50 feet of a private water supply well. |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | 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.] |

YES (Yes/No) **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. 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 | |
|--------------------------|--------------------------|--|
| <input type="checkbox"/> | <input type="checkbox"/> | the system is within 400 feet of a surface drinking water supply |
| <input type="checkbox"/> | <input type="checkbox"/> | the system is within 200 feet of a tributary to a surface drinking water supply |
| <input type="checkbox"/> | <input type="checkbox"/> | 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



**OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART B
CHECKLIST**

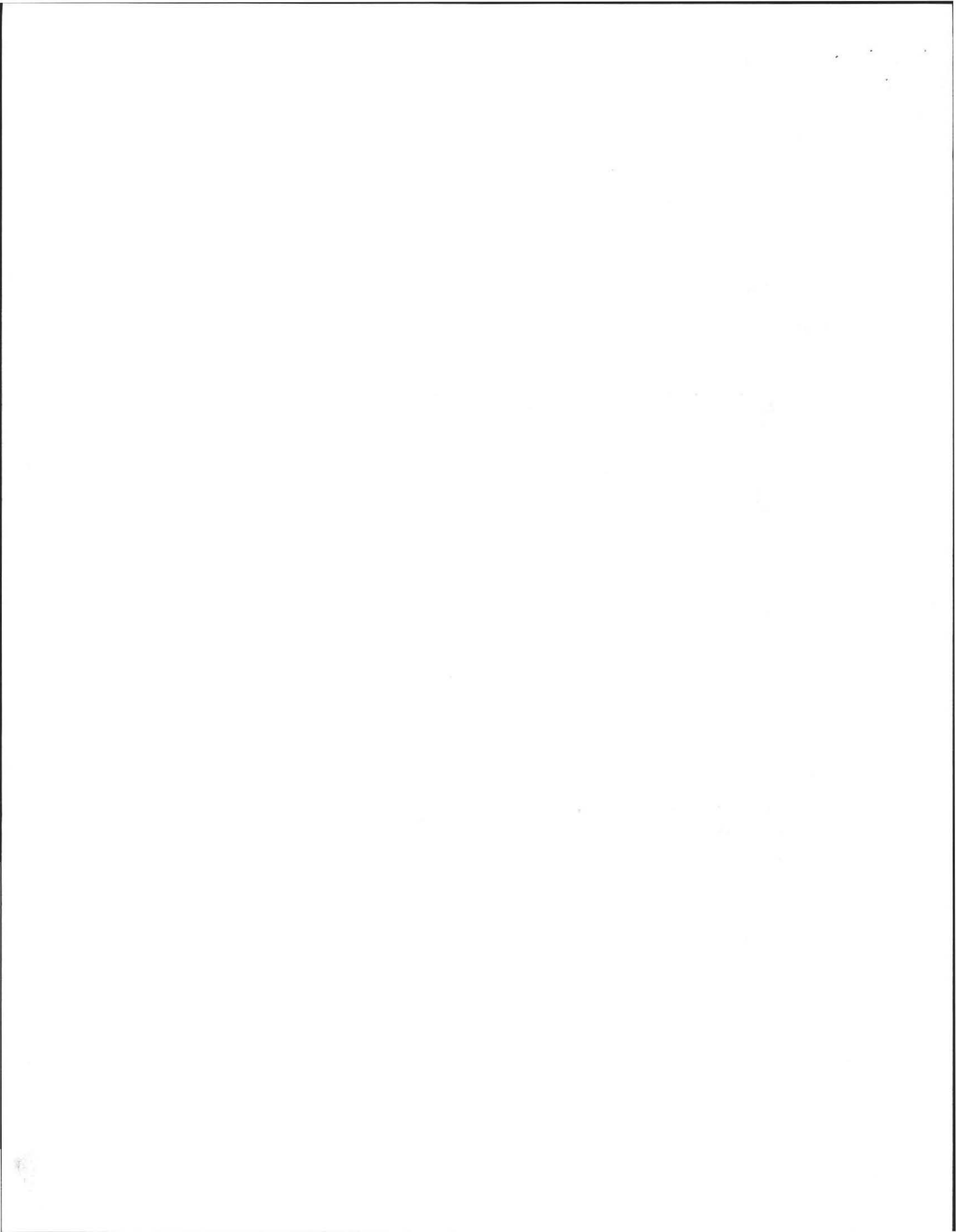
Property Address: 80 WOODLOT RD
AMHERST, MA
Owner: BRANDT
Date of Inspection: 7/22/02

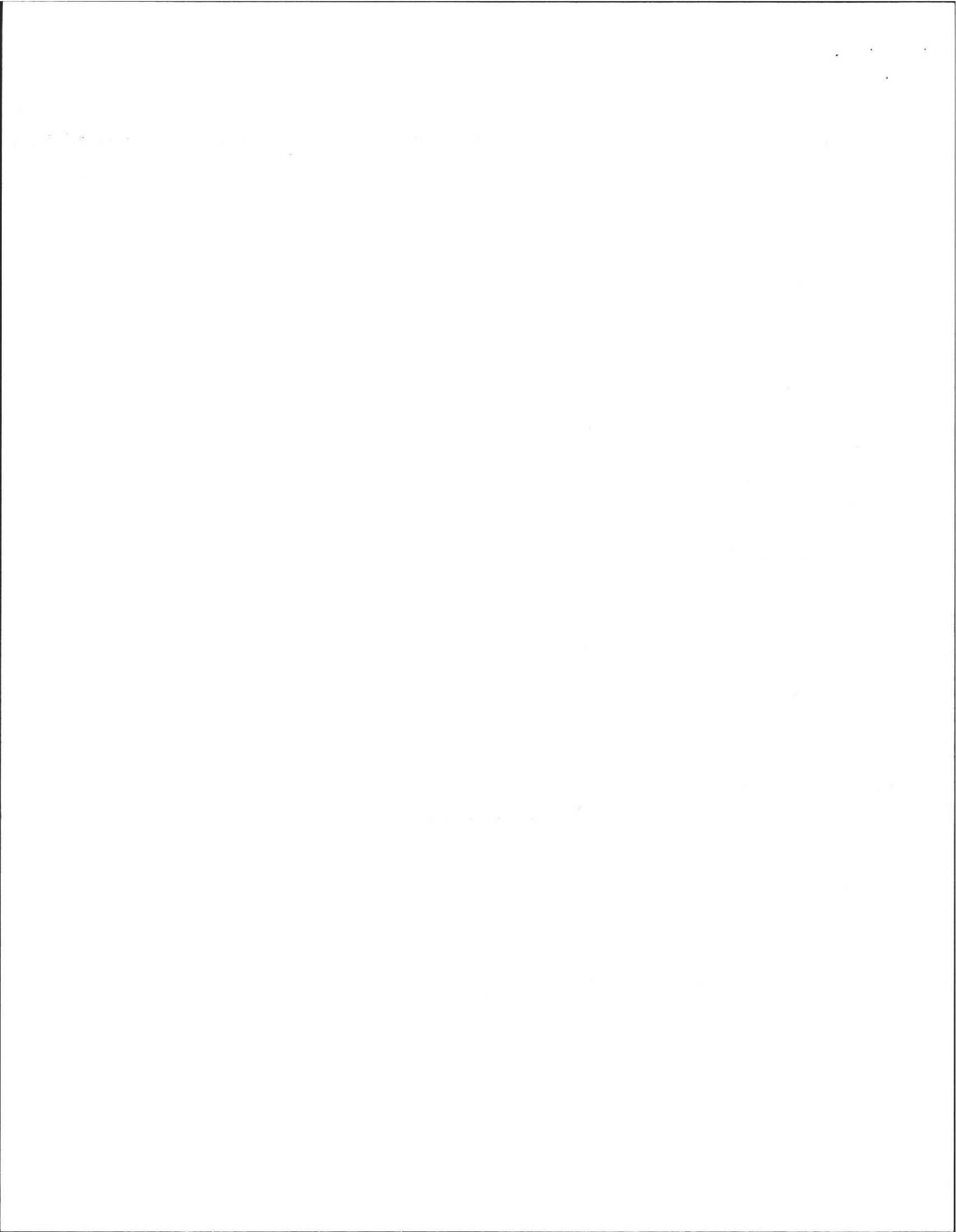
Check if the following have been done. You must indicate "yes" or "no" as to each of the following:

- | Yes | No | |
|-------------------------------------|-------------------------------------|--|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Pumping information was provided by the owner, occupant, or Board of Health |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were any of the system components pumped out in the previous two weeks |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Has the system received normal flows in the previous two week period |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Have large volumes of water been introduced to the system recently or as part of this inspection |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | Were as built plans of the system obtained and examined? (If they were not available note as N/A) |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Was the facility or dwelling inspected for signs of sewage back up |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Was the site inspected for signs of break out |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Were all system components, excluding the SAS, located on site |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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 |
| <input type="checkbox"/> | <input type="checkbox"/> | 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:

- | Yes | no | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Existing information. For example, a plan at the Board of Health. |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | 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: 80 WOODLOT RD
AMHERST, MA

Owner: BRANDT
Date of Inspection: 7/22/02

BUILDING SEWER (locate on site plan)

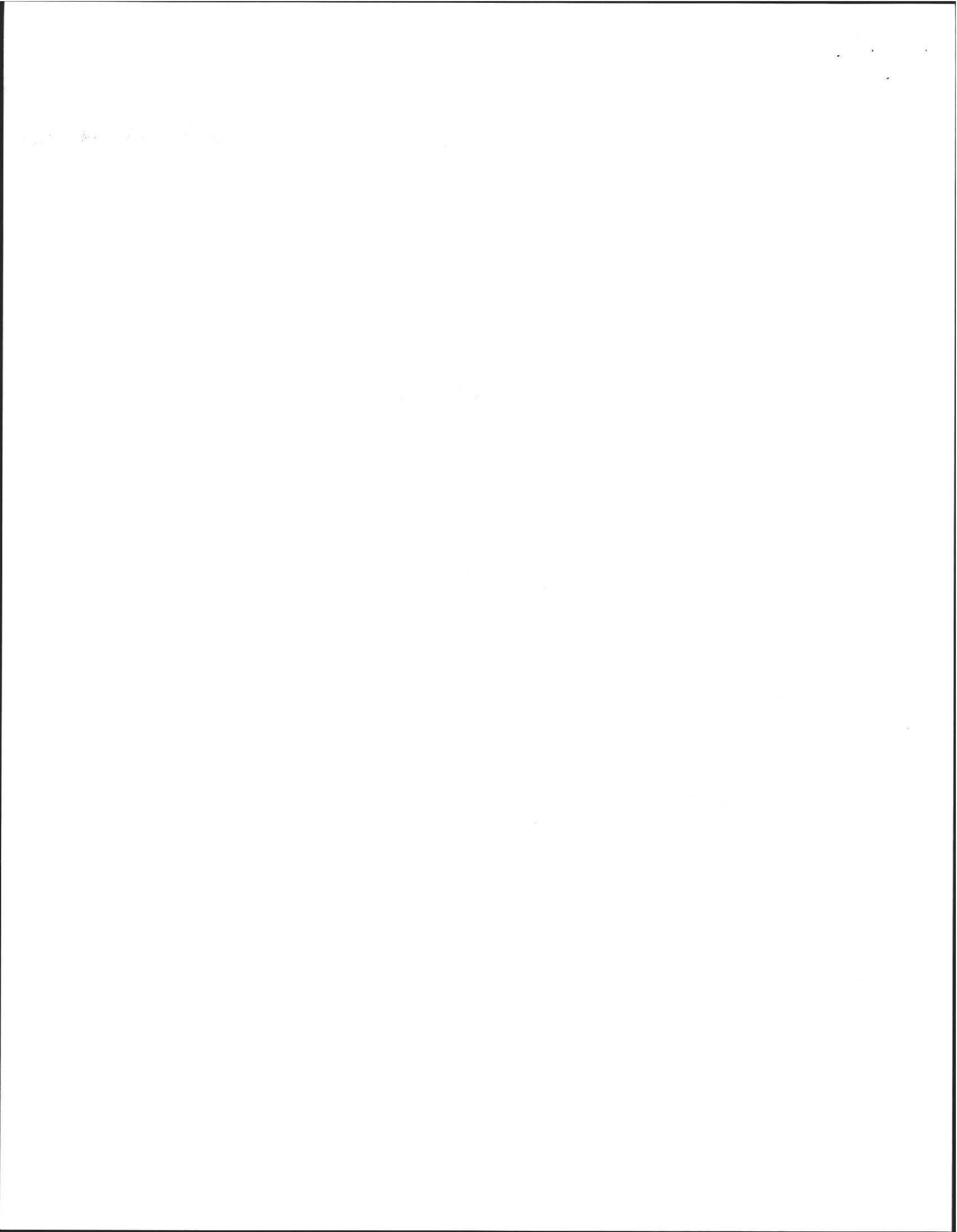
Depth below grade: 3'10"
Materials of construction: cast iron XX 40 PVC other (explain):
Distance from private water supply well or suction line: N/A
Comments (on condition of joints, venting, evidence of leakage, etc.):
JOINTS, VENTING APPEAR OK , NO LEAKS

SEPTIC TANK: (locate on site plan)

Depth below grade: 3'6"
Material of construction: XX concrete metal fiberglass polyethylene other(explain)
If tank is metal list age: Is age confirmed by a Certificate of Compliance (yes or no): (attach a copy of certificate)
Dimensions: 10'5" L, 5' W, 5' D
Sludge depth: 4"
Distance from top of sludge to bottom of outlet tee or baffle: 32"
Scum thickness: 2"
Distance from top of scum to top of outlet tee or baffle: 6"
Distance from bottom of scum to bottom of outlet tee or baffle: 22"
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.):
PUMP SEPTIC TANK WHEN INSTALLING NEW LEACH, TANK SHOULD BE PUMPED EVERY TWO YEARS, BAFFLES OK; STRUCTURAL INTEGRITY OK , LIQUID LEVELS OK, NO LEAKS

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 or baffle:
Distance from bottom of scum to bottom of outlet tee or 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 (continued)

Property Address: 80 WOODLOT RD
AMHERST, MA
Owner: BRANDT
Date of Inspection: 7/22/02

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):

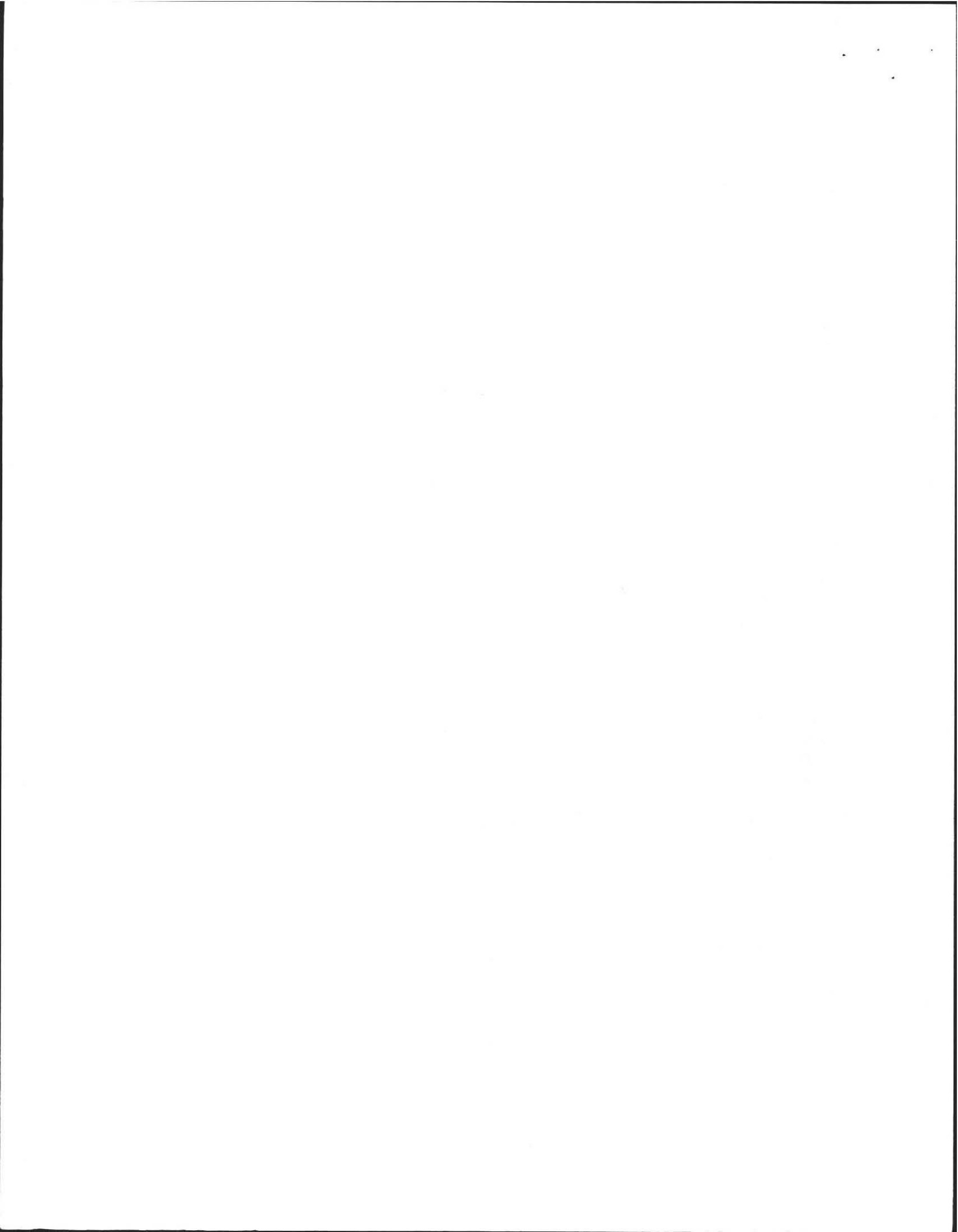
Dimensions:
Capacity: gallons
Design Flow: gallons/day
Alarm present (yes or no):
Alarm level: Alarm in working order (yes or no):
Date of last pumping:
Comments (condition of alarm and float switches, etc.):

DISTRIBUTION BOX: (if present must be opened)(locate on site plan)

Depth of liquid level above outlet invert: NONE
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.):

PUMP CHAMBER: (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.):



OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 80 WOODLOT RD
AMHERST, MA

Owner: BRANDT

Date of Inspection: 7/22/02

SOIL ABSORPTION SYSTEM (SAS): (locate on site plan, excavation not required)

If SAS not located explain why:

Type

- leaching pits, number: 1
- leaching chambers, number:
- leaching galleries, number:
- leaching trenches, number, length:
- leaching fields, number, dimensions:
- overflow cesspool, number:
- innovative/alternative system Type/name of technology:

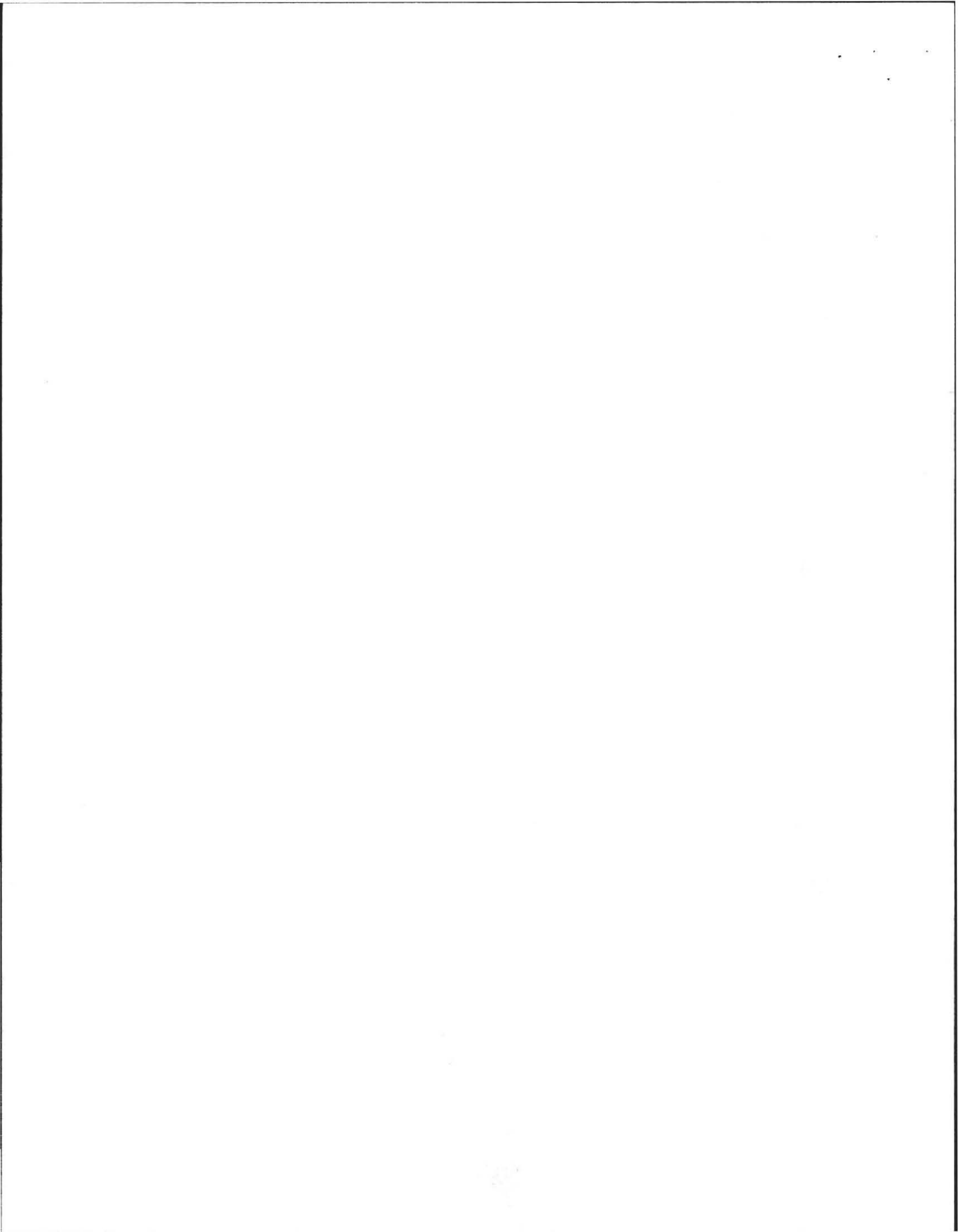
Comments (note condition of soil, signs of hydraulic failure, level of ponding, damp soil, condition of vegetation, etc.):
SOIL IS OK , YES SIGNS OF HYDRAULIC FAILURE, 100% PONDED , VEGETATION OK

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 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.):
-
-

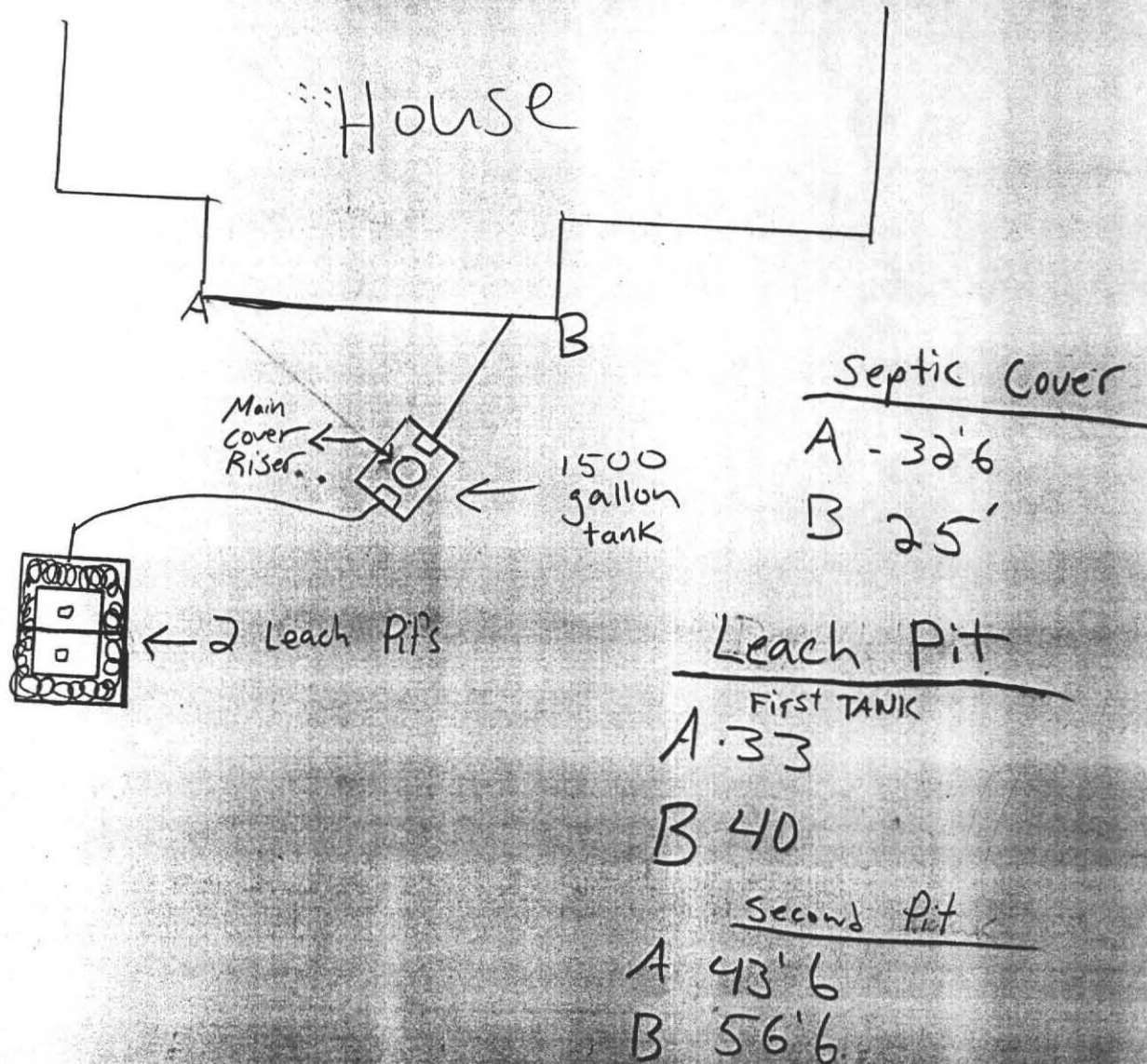


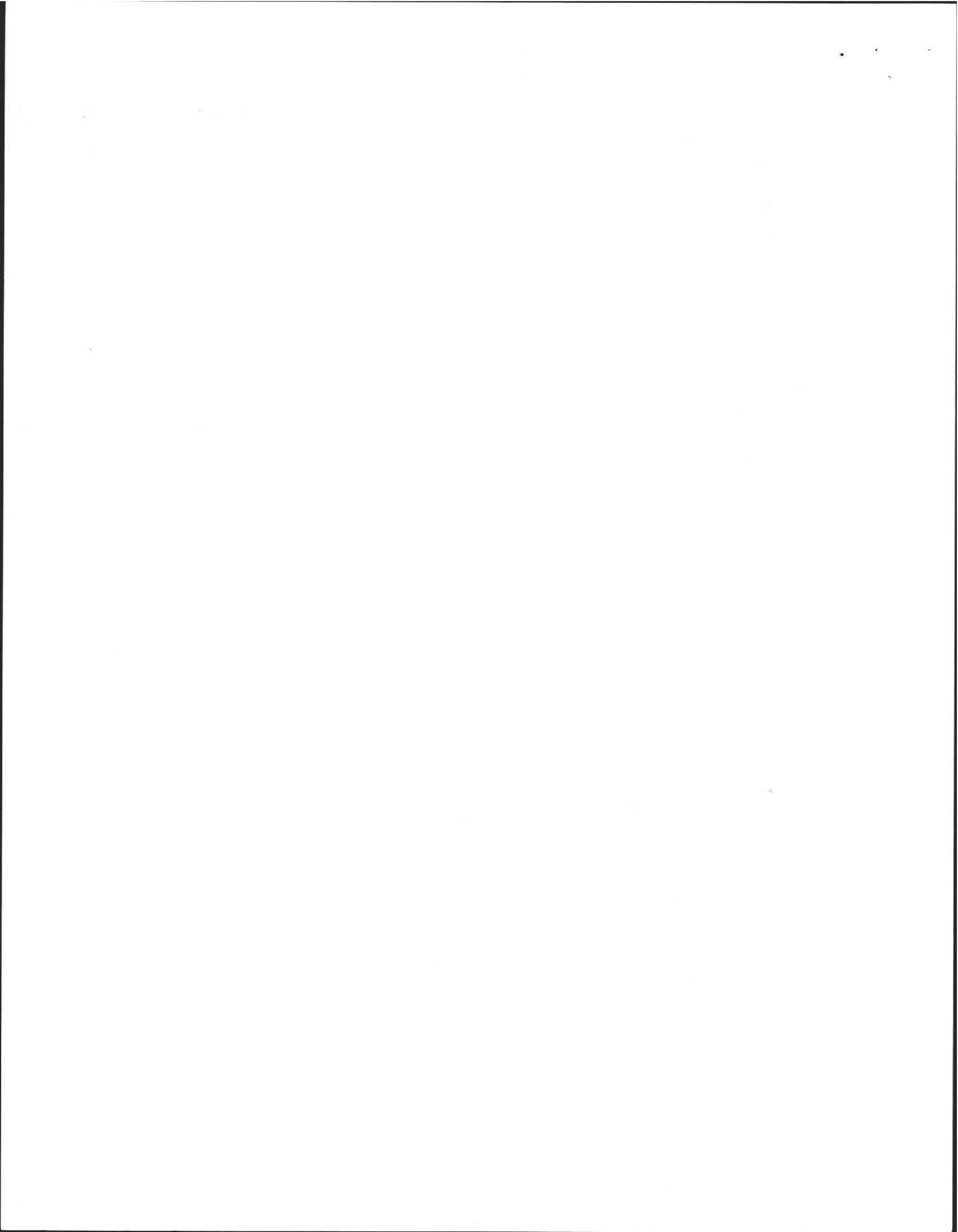
OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 80 Woodlot Rd
Amherst
Owner: Brandt
Date of Inspection: 7/22/08

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.





OFFICIAL INSPECTION FORM – NOT FOR VOLUNTARY ASSESSMENTS
SUBSURFACE SEWAGE DISPOSAL SYSTEM INSPECTION FORM
PART C
SYSTEM INFORMATION (continued)

Property Address: 80 WOODLOT RD
AMHERST, MA
Owner: BRANDT
Date of Inspection: 7/22/02

SITE EXAM

- Slope
- Surface water
- Check cellar
- Shallow wells

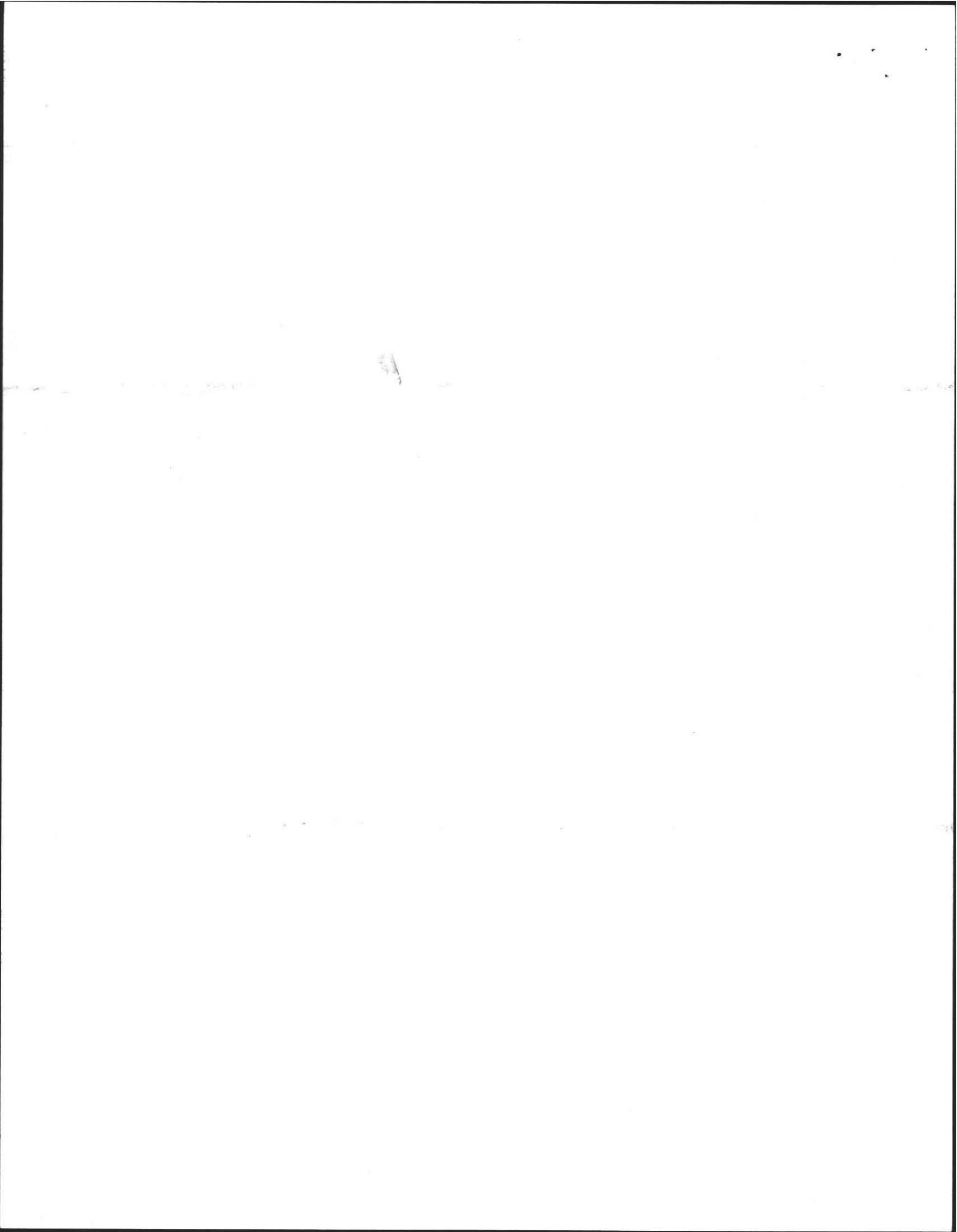
Estimated depth to ground water NONE @ 6' feet

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

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

TO BE DETERMINED AT PERC TEST



Location Address or Lot No. 80 WOODLOT Rd.

Location Address or Lot No. 80 WOODLOT Rd.

Determination for Seasonal High Water Table

COMMONWEALTH OF MASSACHUSETTS
Amherst, Massachusetts

Method Used:

- Depth observed standing in observation hole 6 inches
- Depth weeping from side of observation hole 9 inches
- Depth to soil mottles 0 inches
- Ground water adjustment 9 feet

Index Well Number _____ Reading Date _____ Index well level _____
Adjustment factor _____ Adjusted ground water level _____

Depth of Naturally Occurring Pervious Material

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

Certification

I certify that on JUNE '95 (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 RCJ Date 7-30-02

Percolation Test*		
Date: <u>7/29/02</u> Time: <u>8:55</u>		
Observation Hole #	<u>1</u>	
Depth of Perc	<u>50"</u>	
Start Pre-soak	<u>8:55</u>	
End Pre-soak	<u>9:11</u>	
Time at 12"	<u>9:11</u>	
Time at 9"	<u>9:26</u>	
Time at 6"	<u>9:41</u>	
Time (9"-6")	<u>15</u>	
Rate Min./Inch	<u>5 min/in</u>	

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

Site Passed Site Failed

Performed By: Robert Cafarelli (CEA)

Witnessed By: DAVE ZAROZIUSKI

Comments:



No. _____

Date: 7/29/02

Commonwealth of Massachusetts
Amherst, Massachusetts
Soil Suitability Assessment for On-site Sewage Disposal

Performed By: Robert CAFARELLI

Date: 7/29/02

Witnessed By: DAVE ZARZINSKI

Location Address or Lot # <u>80 Woodlot Rd</u>	Owner's Name: <u>MARY & Michael BRANT</u>
	Address and Telephone # <u>80 WOODLOT Rd.</u>
	<u>AMHERST, MA</u>

New Construction Repair

256-0888

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 References Reviewed: _____



Location Address or Lot No. 80 WOODLOT Rd.

On-site Review

Deep Hole Number _____ Date: 7/29/02 Time: 8:55 Weather Sunny

Location (identify on site plan) _____

Land Use RES

Slope (%) 0-2 Surface Stones _____

Vegetation LAWN

Landform OUTWASH

Position on landscape (sketch on the back) _____

Distances from:

Open Water Body >100 feet

Drainage way >50 feet

Possible Wet Area >100 feet

Property Line >10 feet

Drinking Water Well >100 feet

Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Moisture	Other (Structure, Stones, Boulders, Consistency, % Gravel)
<u>0-7</u>	<u>A</u>	<u>SLs</u>	<u>10YR 3/2</u>		
<u>7-18</u>	<u>B</u>	<u>LS</u>	<u>10YR 4/4</u>	<u>None</u>	
<u>18-90</u>	<u>C1</u>	<u>LS</u>	<u>10YR 4/6</u>		
<u>90-120</u>	<u>C2</u>	<u>S</u>	<u>7.5 YR 5/6</u>		

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) OUTWASH

Depth to Bedrock: >120

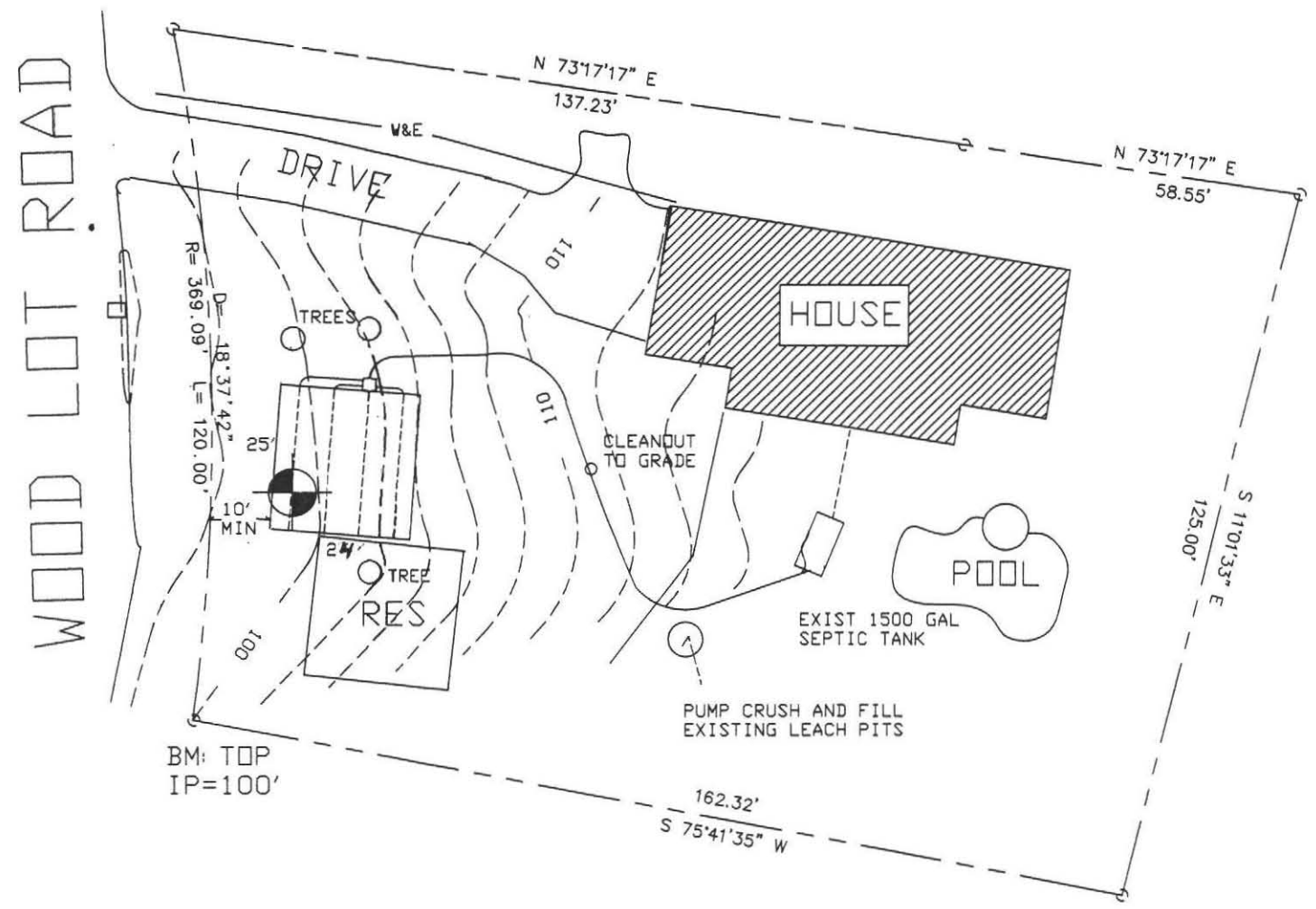
Depth to Groundwater: Standing Water in the Hole: 0

Weeping from Pit Face: 0

Estimated Seasonal High Ground Water: 0



1. THIS PLAN IS FOR THE INSTALLATION OF THE PROPOSED SEPTIC SYSTEM ONLY AND IS NOT TO BE USED TO ESTABLISH PROPERTY LINES, PINS, FENCES, HEDGES, ETC. OR TO BE USED FOR ANY PURPOSE OTHER THAN ITS ORIGINAL INTENT.
2. LOT LAYOUT AND PROPERTY LINE DIMENSIONS ACQUIRED FROM DEED



INSTALL 25' BY 24' BED PUMP EXISTING SEPTIC TANK AND INSTALL NEW OUTLET TEE AND GAS BAFFLE

PLAN VIEW
SCALE: 1" = 30'-0"

NOTES:
NO OTHER WELLS OR WETLANDS LOCATED WITHIN 150' OF LEACHING FACILITY.

LEGEND:	
EXISTING CONTOUR	-----
PROPOSED CONTOUR	—————
PROPERTY LINE	-----
STONEWALL	~~~~~
UTILITY LINE (W, G, E, ETC.)	——— UL ———
PERCOLATION TEST HOLE	⊙

CEA CIVIL ENGINEERING ASSOCIATES
CIVIL ENGINEERS • LAND/SITE PLANNERS
10 Crane Avenue
East Longmeadow, MA 01028
Tel (413) 525-2874
Fax (413) 525-3695



DESIGNED BY: R.M.C	HORIZONTAL SCALE: AS NOTED
DRAWN BY: R.M.C.	VERTICAL SCALE: NONE
CHECKED BY: R.M.C	DATE: 07/30/02
APPROVED BY: R.M.C	PROJECT NUMBER: 02-501

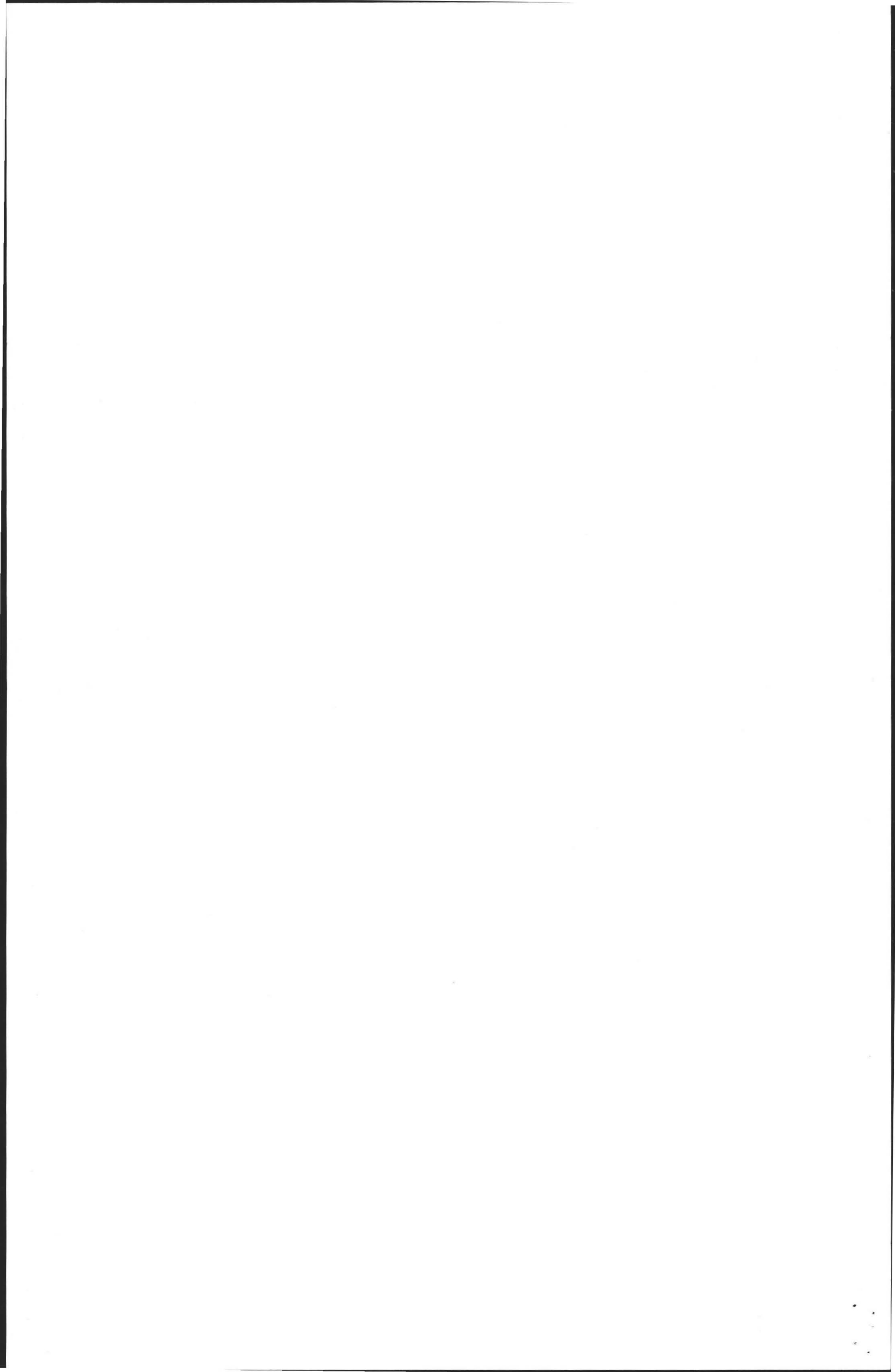
NO.	DATE	REVISION

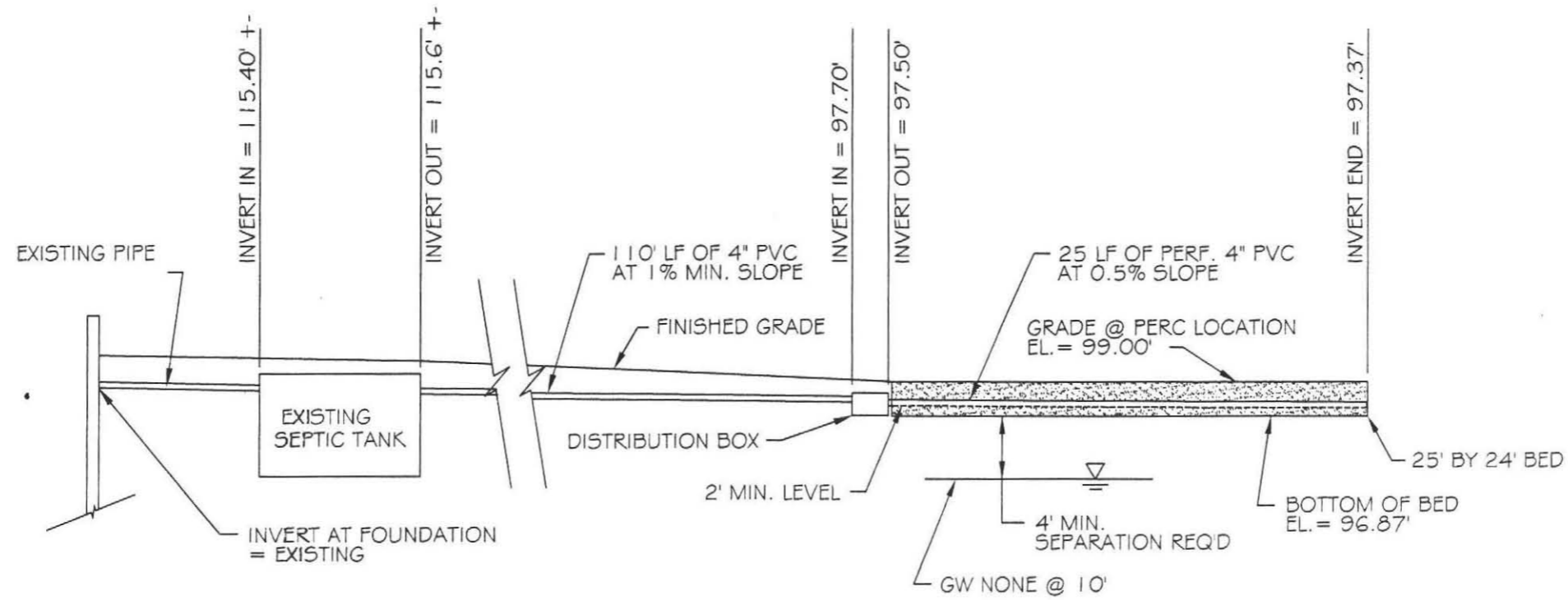
**PROPOSED SEWAGE DISPOSAL SYSTEM
PREPARED FOR:**
MARY & MICHAEL BRANDT
80 WOOD LOT ROAD
AMHERST, MASSACHUSETTS

PLAN VIEW

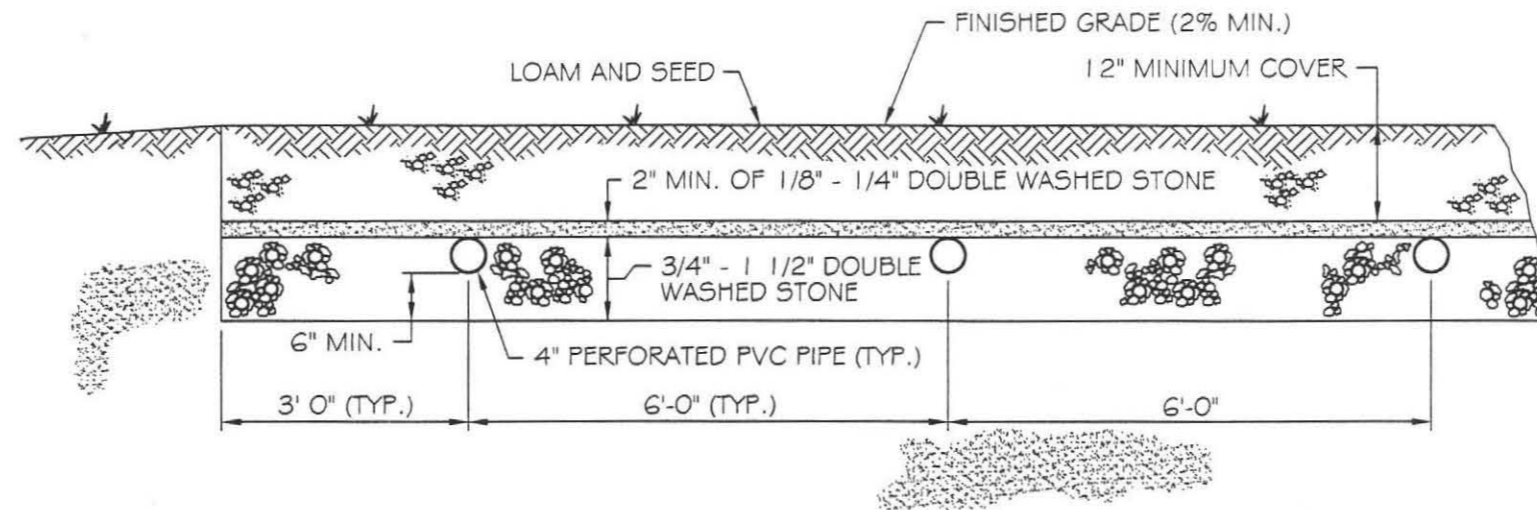
SHEET NUMBER

1 OF 4





PROFILE
SCALE: NONE



**LEACHING FIELD
CROSS SECTION**
SCALE: 1/2" = 1'-0"

CEA CIVIL ENGINEERING ASSOCIATES

CIVIL ENGINEERS • LAND/SITE PLANNERS

10 Crane Avenue
East Longmeadow, MA 01028
Tel (413) 525-2874
Fax (413) 525-3695



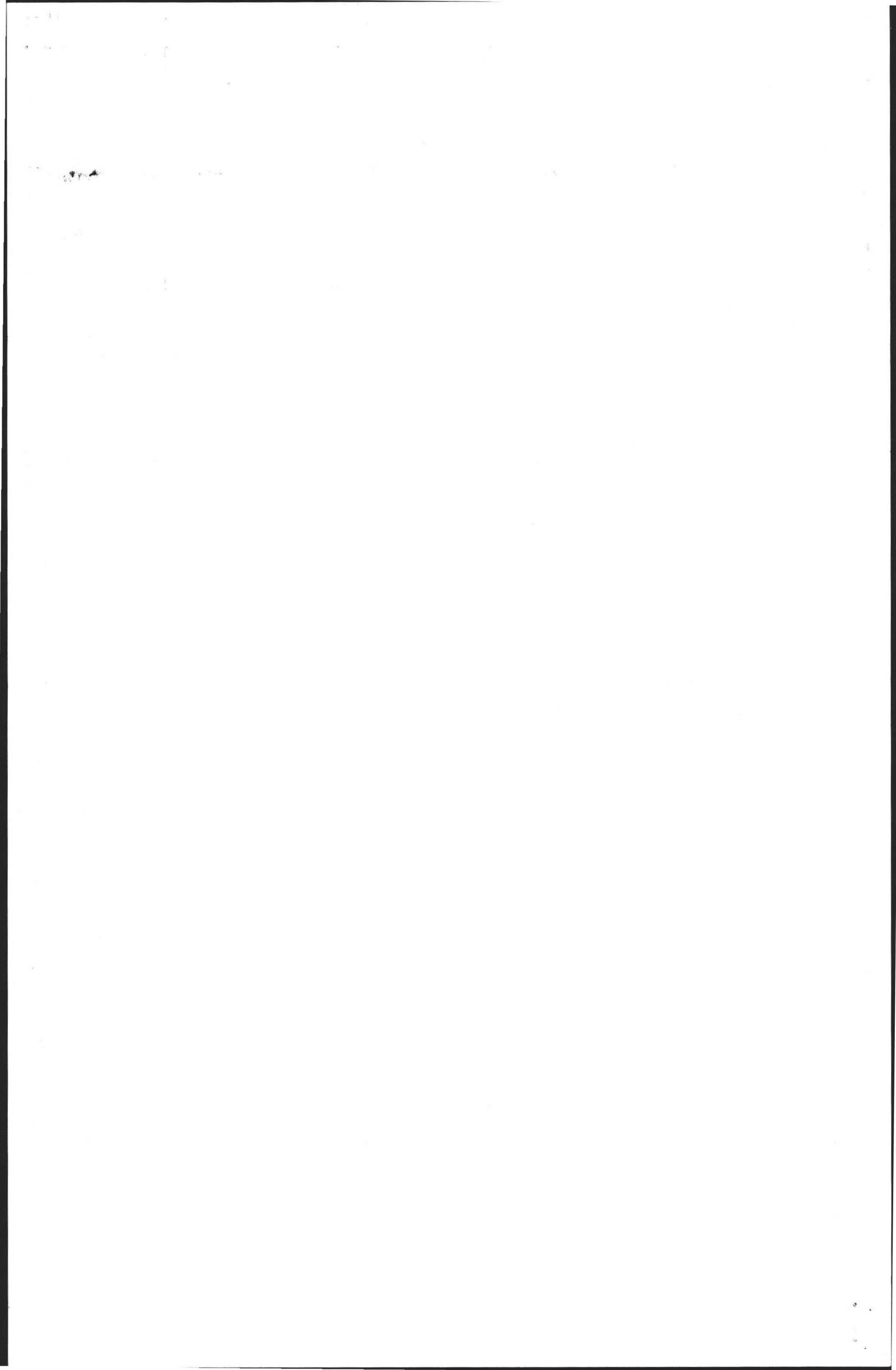
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R.M.C.	AS NOTED			
DRAWN BY:	VERTICAL SCALE:			
R.M.C.	AS NOTED			
CHECKED BY:	DATE:			
R.M.C.	07/30/02			
APPROVED BY:	PROJECT NUMBER:			
R.M.C.	02-501			

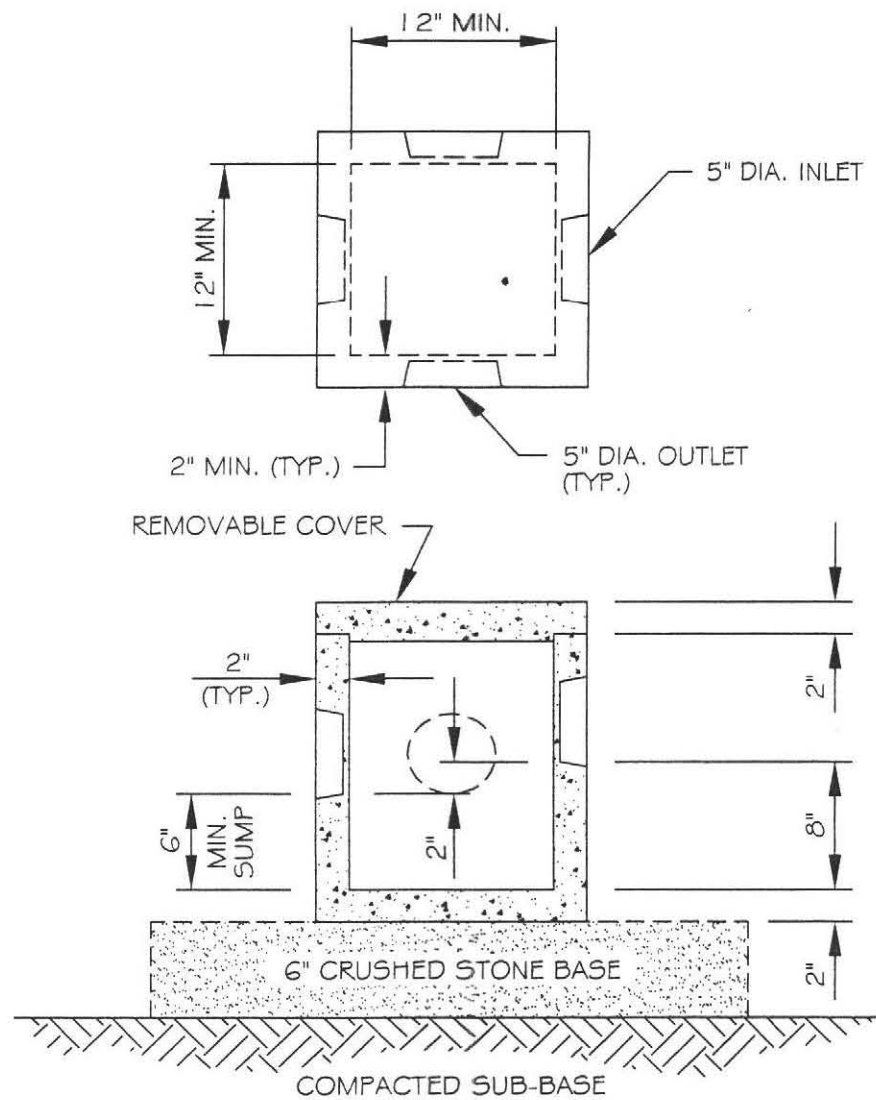
**PROPOSED SEWAGE DISPOSAL SYSTEM
PREPARED FOR:**
MARY & MICHAEL BRANDT
80 WOOD LOT ROAD
AMHERST, MASSACHUSETTS

PROFILE AND CROSS SECTION

SHEET
NUMBER

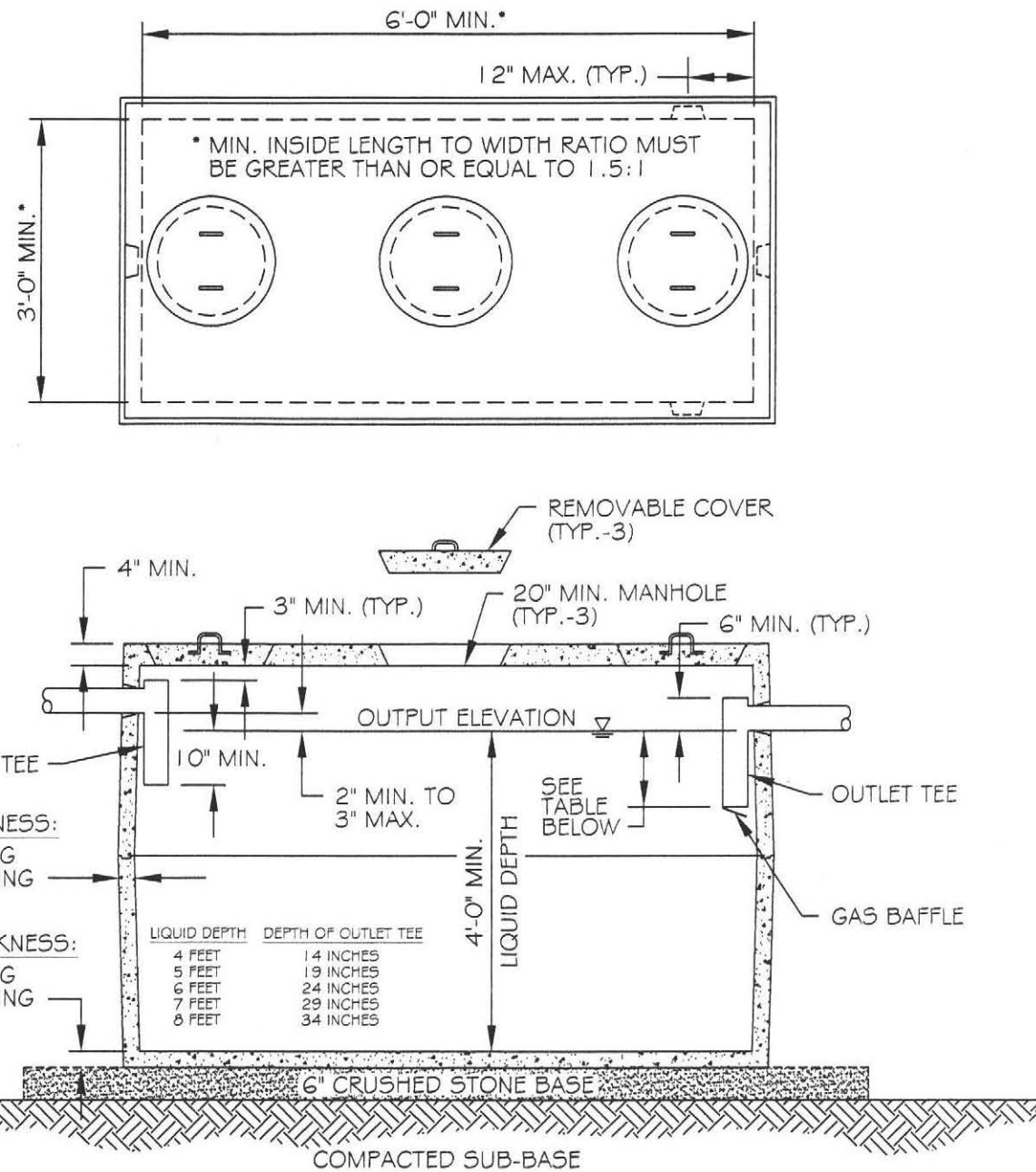
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**PRECAST CONCRETE
DISTRIBUTION BOX**

SCALE: 1" = 1'-0"



**PRECAST CONCRETE
SEPTIC TANK**

SCALE: 3/8" = 1'-0"

TEES TO BE SCHEDULE 40 PIPE

MINIMUM REQUIREMENTS FOR D. BOX & TANK:

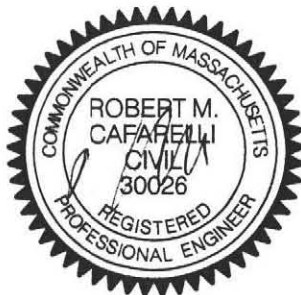
1. CONCRETE STRENGTH OF 4000 PSI AT 28 DAYS.
2. REINFORCING PER ASTM A615 FOR WIRE FABRIC, GRADE 40 OR 60 WITH 1" COVER.



**CIVIL ENGINEERING
ASSOCIATES**

CIVIL ENGINEERS • LAND/SITE PLANNERS

10 Crane Avenue
East Longmeadow, MA 01028
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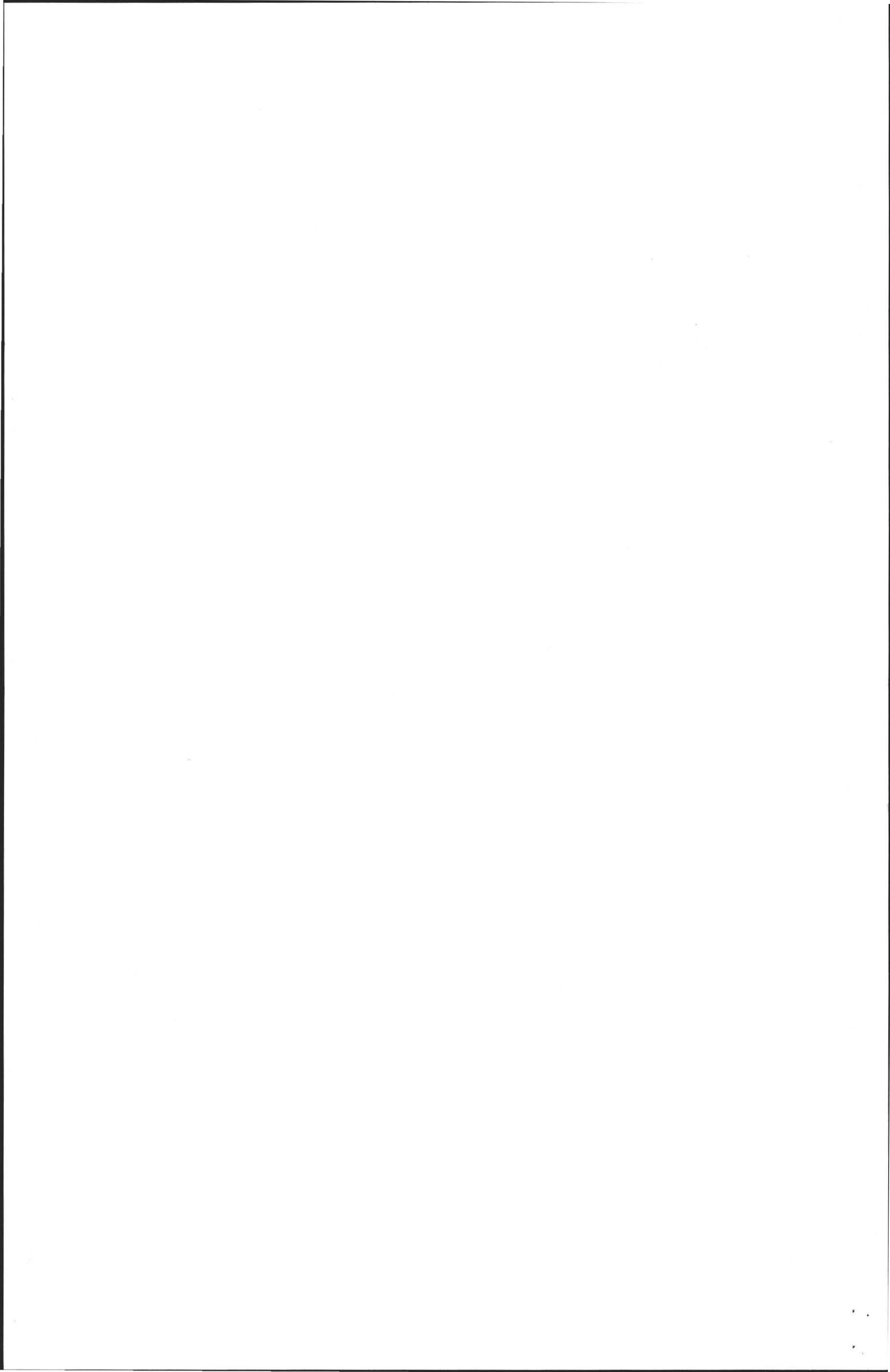
**PROPOSED SEWAGE DISPOSAL SYSTEM
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80 WOOD LOT ROAD
AMHERST, MASSACHUSETTS

DIST. BOX & SEPTIC TANK DETAILS

SHEET
NUMBER

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GENERAL NOTES

- ALL UNDERGROUND UTILITIES (WATER, GAS, ETC.) SHOWN ON THIS PLAN ARE APPROXIMATE ONLY. AS REQUIRED BY STATE LAWS, THE INSTALLER MUST CONTACT "DIG-SAFE" (1-800-DIGSAFE) THREE BUSINESS DAYS PRIOR TO ANY DIGGING.
- ALL WORK & MATERIALS SHALL CONFORM TO THE STATE ENVIRONMENTAL CODE, TITLE 5 (310 CMR 15.00) PLUS ALL OTHER BOARD OF HEALTH REGULATIONS APPLICABLE TO THE INSTALLATION OF THIS SYSTEM.
- THE INSTALLER SHALL VERIFY LOCATION OF PROPERTY LINES AND ALL SITE CONDITIONS & DIMENSIONS PRIOR TO THE INSTALLATION OF THE SEWAGE DISPOSAL SYSTEM. THE ENGINEER SHALL BE NOTIFIED IMMEDIATELY UPON THE DISCOVERY OF DIFFERING CONDITIONS BETWEEN THE REQUIREMENTS OF THIS PLAN AND THE SITE.
- THE ELEVATIONS SHOWN ON PLAN ARE BASED ON A TEMPORARY BENCH MARK (TBM) VALUE AS ESTABLISHED BY THE ENGINEER, REFER TO PLAN FOR LOCATION OF TBM AND GIVEN DATUM VALUE.
- AT NO TIMES SHALL HEAVY CONSTRUCTION EQUIPMENT OR TRUCKS PASS OVER ANY PART OF THE SEWAGE DISPOSAL SYSTEM. IF THE INSTALLER REQUIRES CROSS-OVERS, THE ENGINEER MUST BE NOTIFIED.
- A MINIMUM OF 24 HOURS NOTICE MUST BE GIVEN TO THE ENGINEER PRIOR TO ANY INSPECTIONS OF THE SEWAGE DISPOSAL SYSTEM.
- THE SYSTEM SHALL BE LEFT OPEN FOR AN INSPECTION BY THE ENGINEER AND THE BOARD OF HEALTH AGENT AND WILL NOT BE BACKFILLED UNTIL A CERTIFICATE OF COMPLIANCE HAS BEEN ISSUED.

8. Engineer must conduct a sub-grade inspection.

CONSTRUCTION NOTES

- PUMP EXISTING SEOTIC TANK AND INSTALL NEW SCHD 40 OUTLET TEE AND GAS BAFFLE.
- ALL PIPING DOWNSTREAM OF THE SEPTIC TANK SHALL BE PVC SDR 35 SEWER PIPE. THE INSTALLATION SHALL CONFORM TO THE REQUIREMENTS OF ASTM STANDARD D2321.
- INSTALL ONE (1) NEW PRECAST CONCRETE DISTRIBUTION BOX MEETING THE REQUIREMENTS SHOWN IN DISTRIBUTION BOX DETAIL.
- INSTALL ONE (1) 25' BY 24' LEACHING BED AS SHOWN ON PLAN. REFER TO PROFILE FOR REQUIRED ELEVATIONS.
- LINES OUT OF DISTRIBUTION BOX SHALL BE LEVEL FOR A MINIMUM OF TWO FEET AND SHALL HAVE A SLOPE OF 0.005 BEYOND THE MINIMUM TWO FEET.
- 4" END CAPS SHALL BE INSTALLED ON ALL 4" DISTRIBUTION LINES.

DESIGN CALCULATIONS

ESTIMATED SEWAGE FLOW:

TYPE OF ESTABLISHMENT: Family Dwelling, Single UNIT: per bedroom

NUMBER OF UNITS: 4 REQUIRED FLOW PER UNIT: 110 GPD/UNIT

EXISTING OR PROPOSED GARBAGE GRINDER?: NO

4 BEDROOMS x 110 GPD/BEDROOM = 440 GPD

PERC & SOIL DATA:

PERC RATE: 5 MIN./INCH SOIL CLASS: 1

SOIL TEXTURE: LS EFFLUENT LOADING RATE: 0.74 GPD/SF

VOLUME OF SEPTIC TANK:

440 GPD x 2 (200% OF DESIGN FLOW) = 880 GPD; ∴ USE EXIST 1500 GALLON CONCRETE SEPTIC TANK.

LEACHING AREA REQUIREMENTS: 74

MIN. REQUIRED LEACHING AREA: (440 GPD) / (.53 GPD/SF) = 595 SF

SIDEWALL CAPACITY: NONE

BOTTOM CAPACITY: 0.74 GPD/SF x 24' WIDE x 1' LENGTH = 17.76 GPD/LF

TOTAL CAPACITY PER LINEAR FOOT: 0.0 GPD/LF + 17.76 GPD/LF = 17.76 GPD/LF

REQUIRED LENGTH OF LEACHING FACILITY: (440 GPD) / (17.76 GPD/LF) = 24.8 LF, ∴ USE 25 LF

TOTAL LEACHING CAPACITY PROVIDED: 25 LF x 17.76 GPD/LF = 444 GPD > 440 GPD (OK)

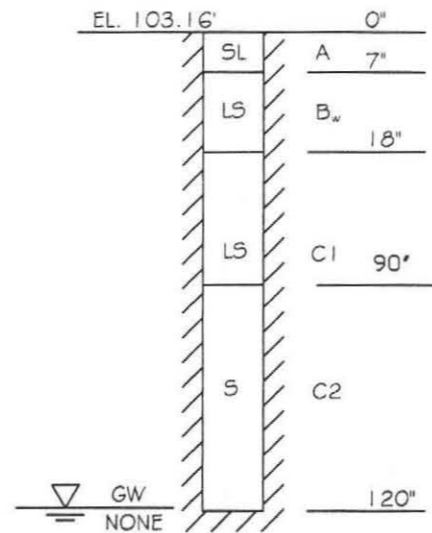
TOTAL LEACHING AREA: 0 + (25' x 24') = 600 SF > 595 SF (OK)

*(1.0 FOR NO GARBAGE GRINDER; 1.5 WITH GARBAGE GRINDER)

NOTES:

- SOIL EVALUATIONS PERFORMED BY ROBERT M. CAFARELLI, P.E.,
- SOIL EVALUATIONS WITNESSED BY D. ZAROZYNSKI, AMHERST HEALTH AGENT
- SEE ATTACHED SOIL EVALUATION SHEET FOR ADDITIONAL INFORMATION.

DEEP OBSERVATION HOLE #1



PERC. DEPTH = 50"
PERC. RATE = 5 MIN./INCH

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PROPOSED SEWAGE DISPOSAL SYSTEM

PREPARED FOR:

MARY & MICHAEL BRANDT
80 WOOD LOT ROAD
AMHERST, MASSACHUSETTS

NOTES & DESIGN CALCULATIONS

SHEET NUMBER

4 OF 4

