

1166 BAY ROAD

SPT 2004-00023

1166 Bay Rd.

Repair

done / file



William J. Sieruta, P.E.
46 Upland Road
Holyoke, MA. 01040

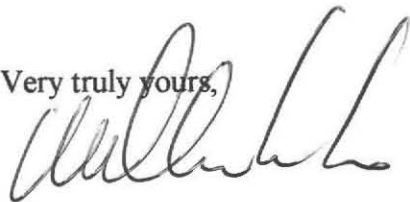
Board of Health
Town Hall
Boltwood Walk
Amherst, MA. 01002

May 23, 2004

Subject: As Built Inspection
E. Lipping
1166 Bay Road
South Amherst, MA.

An "as built" inspection was completed for the subject septic system. The system is in compliance with 310 CMR 15.0 and local board of health regulations. If you have any questions or need any further information, please do not hesitate to contact me.

Very truly yours,



William J. Sieruta, P.E.

2CC: Roy Johnson
Jones Town and Country Realty
200 Triangle Street
Amherst, MA.

WJS:mbs

1. The first part of the document discusses the importance of maintaining accurate records of all transactions. It emphasizes that this is crucial for ensuring the integrity of the financial statements and for providing a clear audit trail.

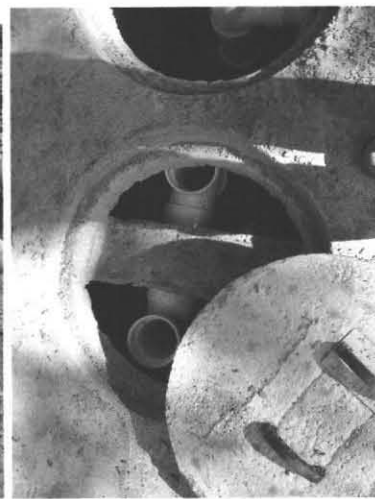
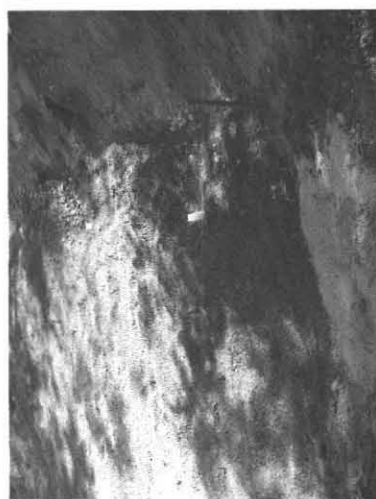
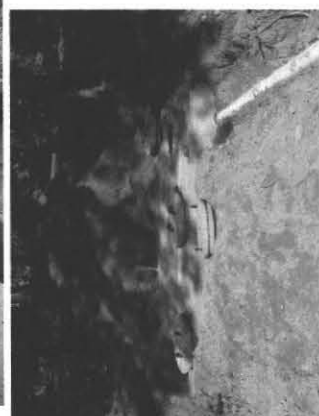
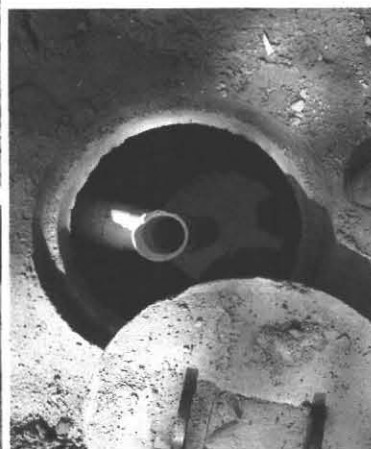
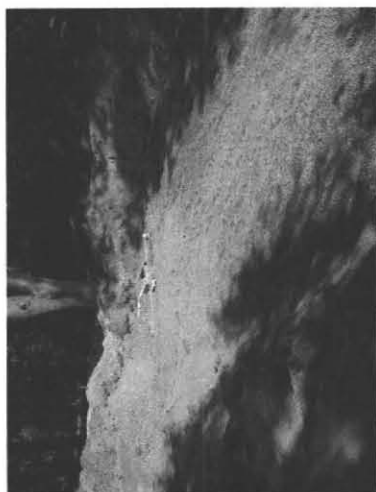
2. The second part of the document outlines the various methods used to collect and analyze data. It describes how different types of information are gathered and how they are processed to identify trends and anomalies. This section also covers the use of statistical techniques to interpret the data.

3. The third part of the document focuses on the results of the analysis. It presents a detailed breakdown of the findings, including a comparison of the current period with previous periods. This section also discusses the implications of the results and the steps that should be taken to address any issues identified.

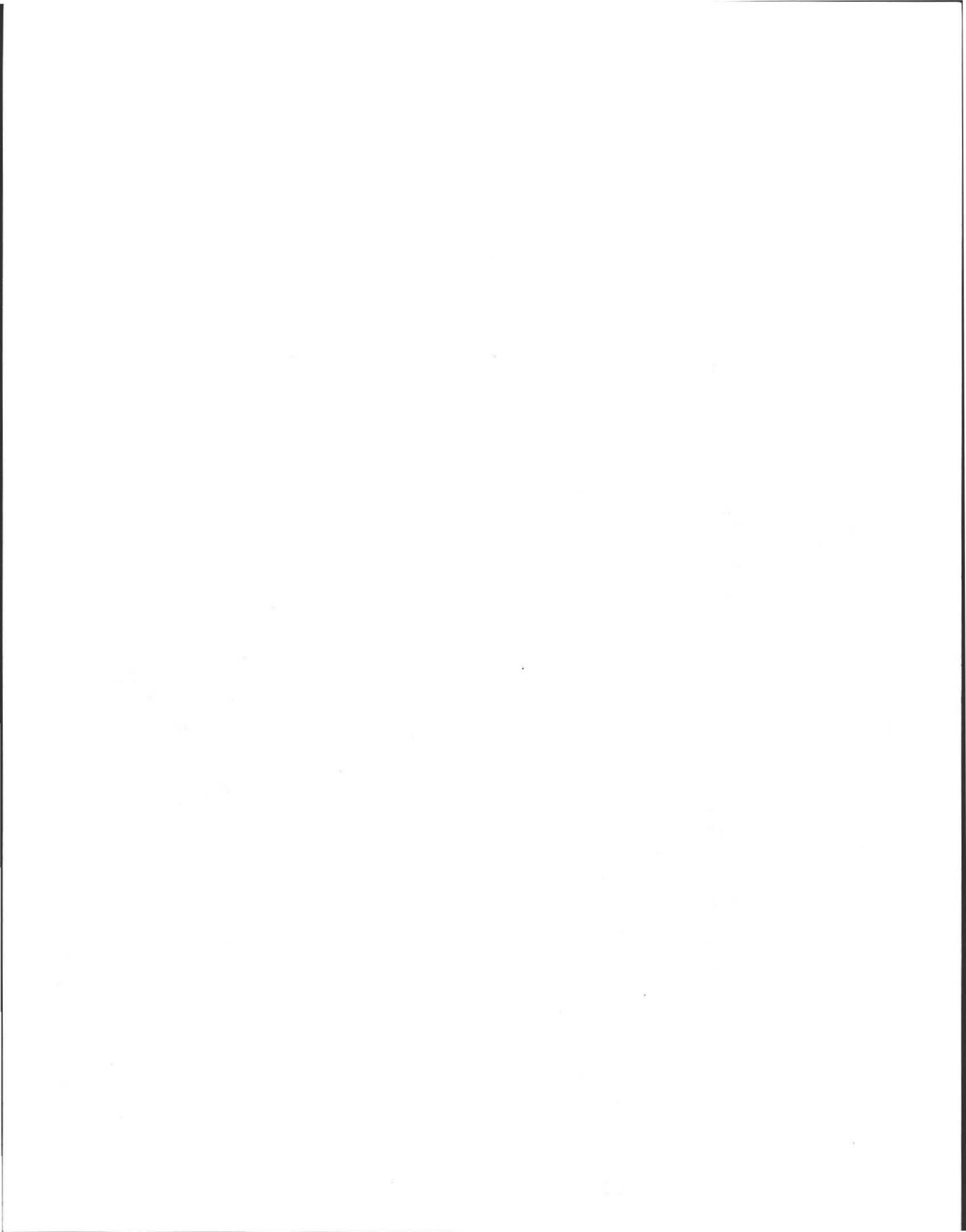
4. The fourth part of the document provides a summary of the key findings and conclusions. It highlights the most significant areas of concern and offers recommendations for future action. This section is intended to provide a clear and concise overview of the entire report.

5. The fifth part of the document contains a list of references and a bibliography. It includes citations for all the sources of information used in the report, ensuring that the work is properly documented and that credit is given to the original authors.

6. The final part of the document is a concluding statement. It reiterates the importance of the findings and expresses confidence in the accuracy of the analysis. It also provides contact information for anyone who may have questions or need further information.



1166 Bay Road 5/20/04
 Engineer: W. Sieruta
 Installer: W. Sieruta





04-04

FEE 275⁰⁰
5/9/04
275⁰⁰
Roy Johnson
04-2055

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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

Location <u>E LIPPING</u>	Owner's Name <u>E LIPPING</u>
Map/Parcel# <u>1166 BAY ROAD</u>	Address <u>1166 BAY ROAD</u>
Lot# <u>So. Amherst MASS</u>	Telephone# <u>50 AMHERST MASS</u>
Installer's Name	Designer's Name <u>WJ SIERUTA</u>
Address	Address <u>46 UPLAND RD</u>
Telephone#	Telephone# <u>1064060 MASS</u> <u>532 0525</u>

Type of Building RESIDENTIAL HOME Lot Size EXIST sq. ft.
 Dwelling - No. of Bedrooms 4 BEDROOM NO DISPOSAL Garbage grinder () NO
 Other - Type of Building WALKOUT SINGLE FAMILY No. of persons 8 Showers () 2 Cafeteria () NO
 Other Fixtures _____
 Design Flow (min. required) 110 x 4 gpd Calculated design flow 440 Design flow provided 452 gpd
 Plan: Date APRIL 27 2004 Number of sheets 1 Revision Date _____
 Title SEPTIC SYSTEM DESIGN FOR E LIPPING 1166 BAY RD
 Description of Soil(s) See
 Soil Evaluator Form No. 11 Name of Soil Evaluator WJ SIERUTA PE Date of Evaluation 4/13/04

DESCRIPTION OF REPAIRS OR ALTERATIONS _____
AGENT: JONES REAL ESTATE
CONTACT: ROY JOHNSON 200 TRIANGLE ST 237-7757
 The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees to not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.
 Signed X Roy Johnson Date 5/9/04

Inspections _____

No. 04-04

FEE 275⁰⁰

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) Complete System

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

by: _____
at 1166 Bay Road

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. 04-04, dated _____, Approved Design Flow _____ (gpd)

Installer Walter
Designer: Walter Inspector: Sonal Jagwani Date: 5/20/04

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

No. 04-04

FEE 275⁰⁰
04-2055

COMMONWEALTH OF MASSACHUSETTS

Board of Health, Amherst, MA.

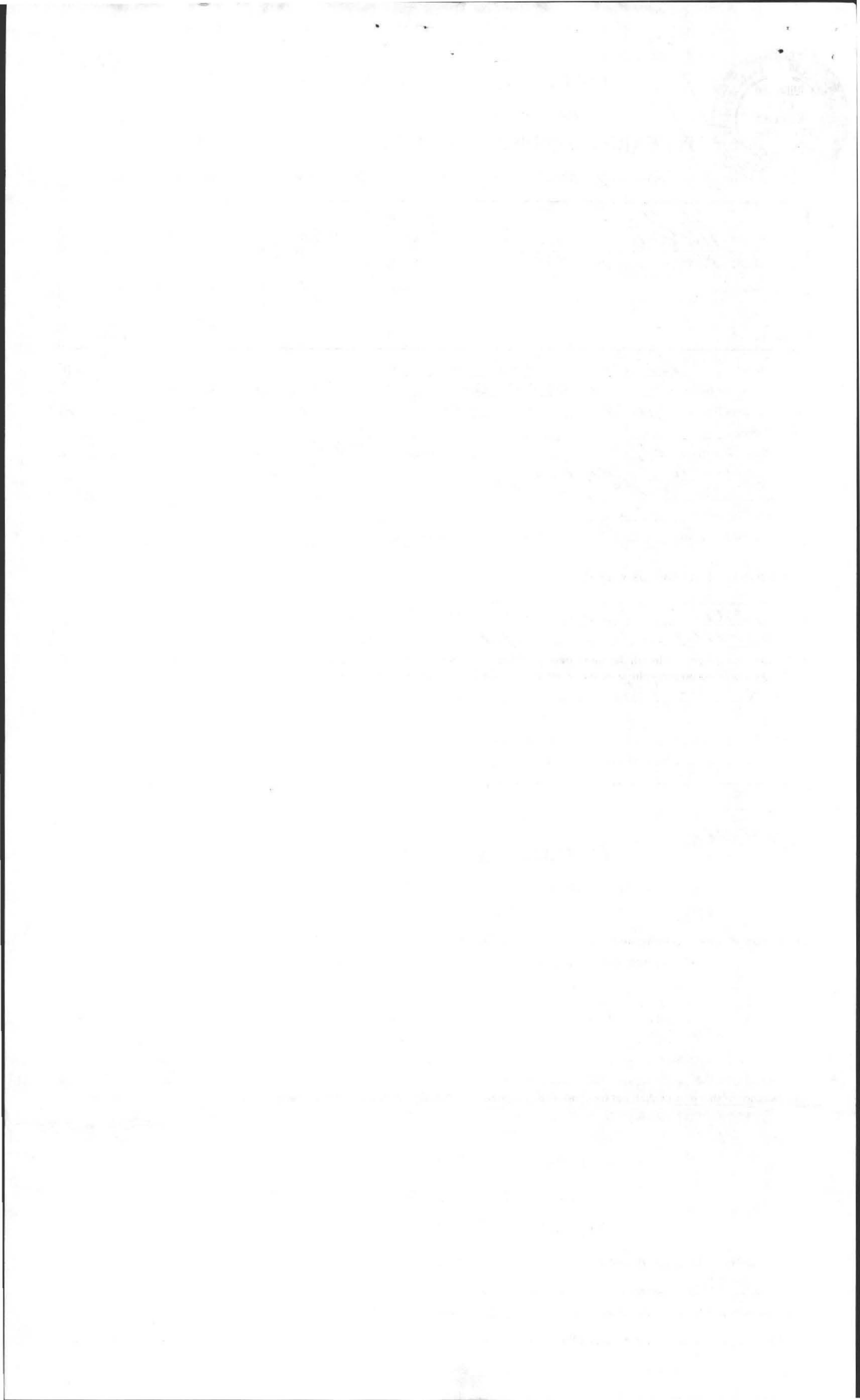
DISPOSAL SYSTEM CONSTRUCTION PERMIT

Permission is hereby granted to; Construct () Repair () Upgrade () Abandon () an individual sewage disposal system at 1166 Bay Road as described in the application for

Disposal System Construction Permit No. 04-04, dated 05/10/04

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

Form 1255 Rev. 5/96 A.M. Sulkin Co. Boston, MA Date 05/10/04 Board of Health Sonal Jagwani



Commonwealth of Massachusetts

Town of Amherst

Soil Suitability Assessment : On-Site Sewage Disposal

Performed By: Bill Scurta Date: _____
 Witnessed By: David Zarozinski

Location Address of: Lot # <u>1166 BAY ROAD</u>	Owner's Name: <u>E. LAPPING</u> Address of: <u>1166 BAY ROAD</u> Telephone: _____
New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	

Office Review

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

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

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

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

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

Other Reference Reviewed:

Determination: Seasonal High Water Table

Methods Used:

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

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

Depth of Naturally Occurring Previous Material

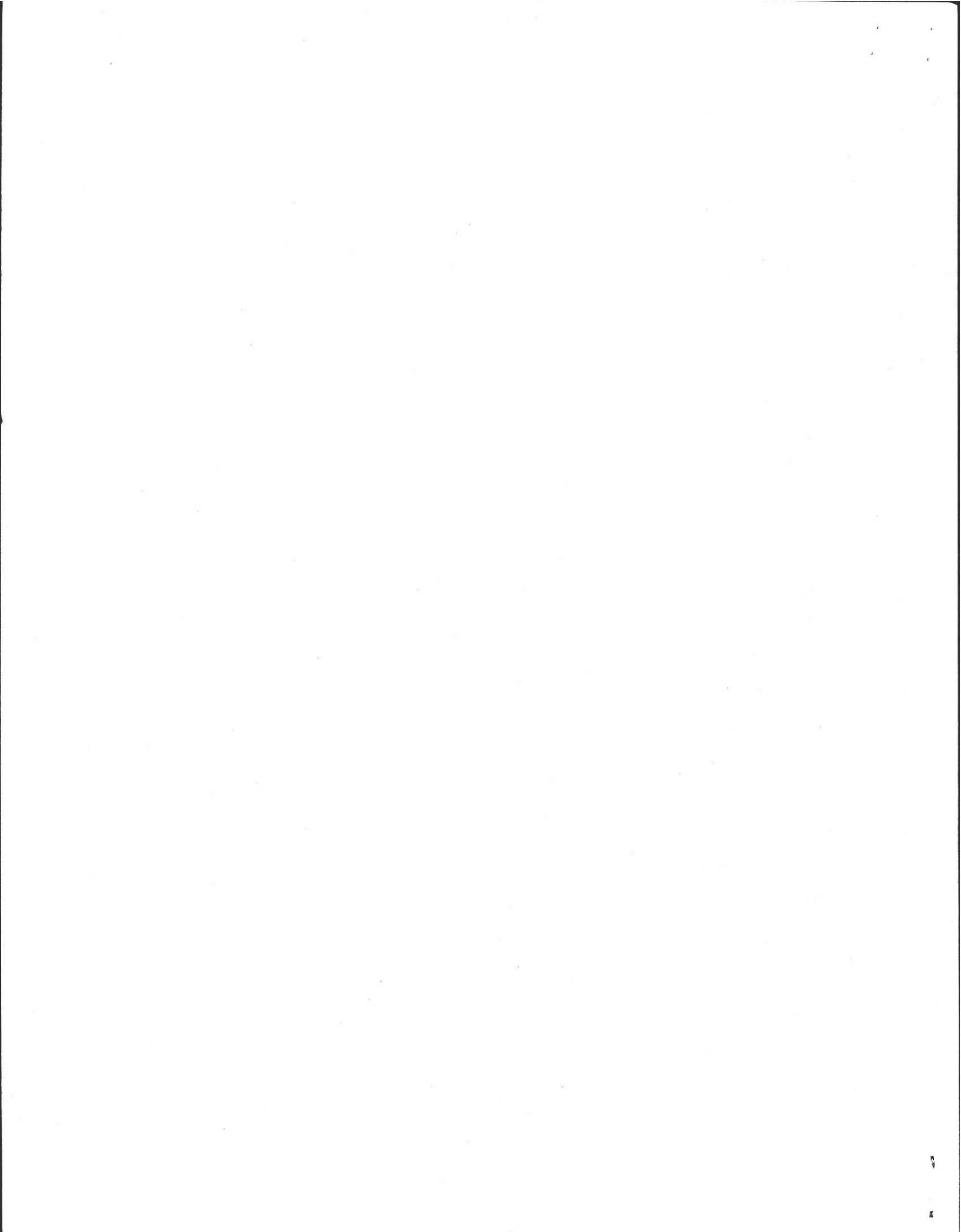
Does at least four feet of naturally occurring previous materials exist in all areas observed throughout the area proposed for this soil absorption system? _____

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

Certification

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

Signature _____
 Date _____



On-Site Review

Deep Hole Number 1 Date: 4/13/11 Time 9:00
 Weather overcast
 Location (identify on site plan) _____
 Land Use res Slope (%) _____
 Surface Stone _____
 Vegetation: grass

Landform: cutwash fan

Position on Landscape (sketch on back) _____

Distances from:
 Open Water Body _____ feet Drainageway _____ feet
 Possible Wet Area _____ feet Property Line 30 feet
 Drinking Water Well _____ feet Other 22

DEEP OBSERVATION HOLE LOG					
depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsell)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
18	A _p	SL	10YR 3/2		
24	B _w	LS	7.5Y 6/8	10YR 5/8	MC S rka massive
76	C ₁	S fine to med	5YR 6/6	10YR 4/1	2/ gravel
124	C ₂	Sand fine med	6/6	7.5	MC S rka massive fine

Parent Material (geologic) cutwash fce
 Depth to Bedrock 126
 Depth to Groundwater: _____
 Standing Water in the Hole _____
 Weeping from Pit Face _____
 Estimated Seasonal High Water 2'

On-Site Review

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

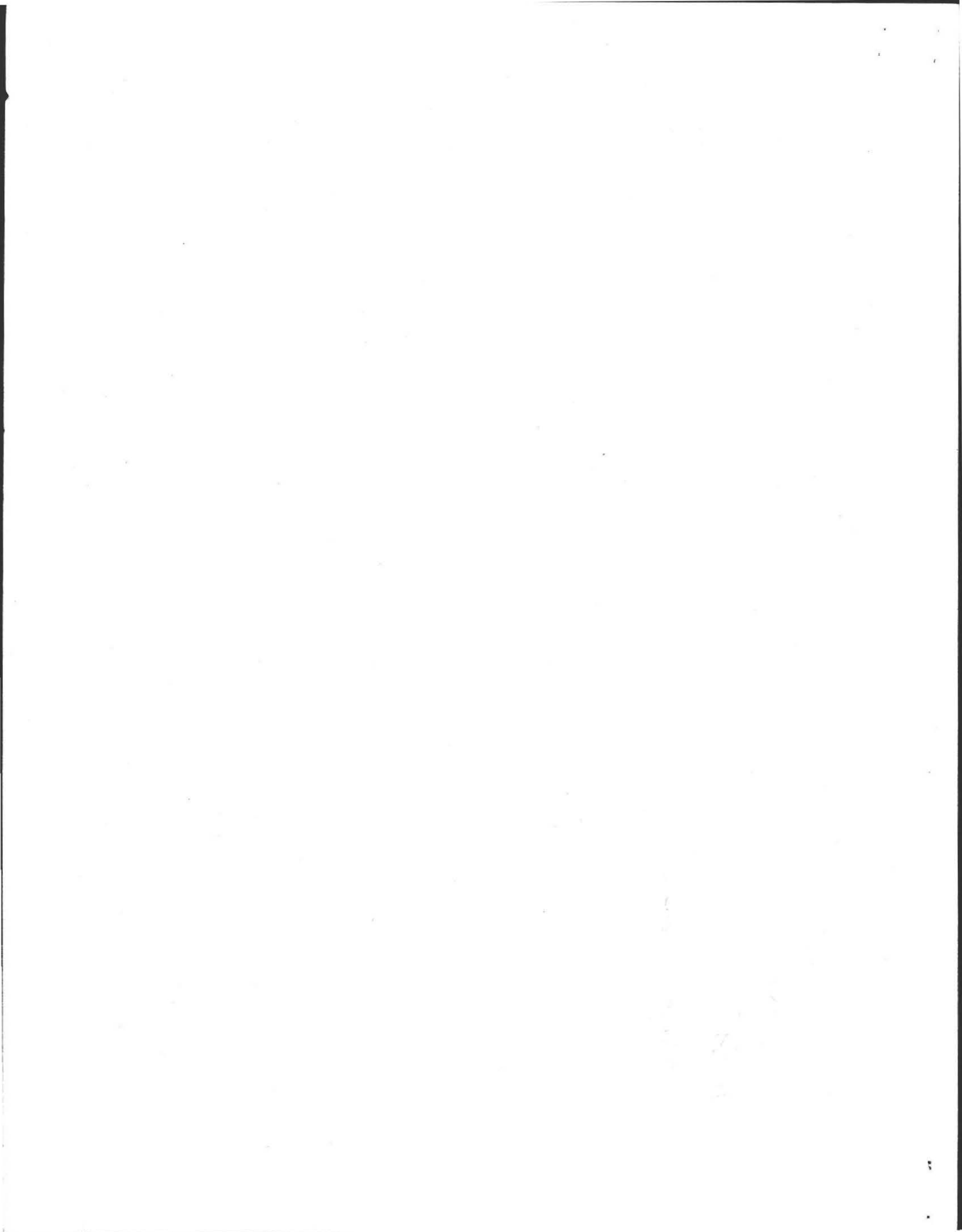
Landform: _____

Position on Landscape (sketch on back) _____

Distances from:
 Open Water Body _____ feet Drainageway _____ feet
 Possible Wet Area _____ feet Property Line _____ feet
 Drinking Water Well _____ feet Other _____

DEEP OBSERVATION HOLE LOG					
depth from surface (inches)	soil horizon	soil texture (USDA)	soil color (Munsell)	soil mottling	other (structure, stones, boulders) Consistency, % gravel
18					
24					
52					

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



FORM 12: Percolation Test

Location Address or Lot # 1166 Bay Road

Commonwealth of Massachusetts
Town of Amburst

PERCOLATION TEST *		
	DATE:	TIME:
Observation Hole #	<u>10</u>	
Depth of Perc	<u>52</u>	
Start Pre-soak	<u>9:11</u>	
End Pre-soak	<u>9:16 249L</u>	
Time at 12"	<u>9:11</u>	
Time at 9"	<u>9:16</u>	
Time at 6"	<u>9:26</u>	
Time (9"-6")	<u>10</u>	
Rate Min./Inch	<u>4</u>	

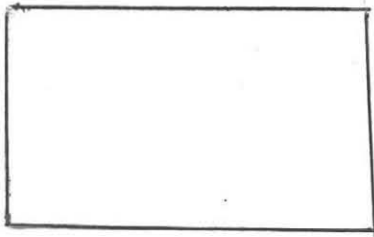
*Minimum of one percolation test must be performed in both the primary area and reserve area.

Site Passed Site failed

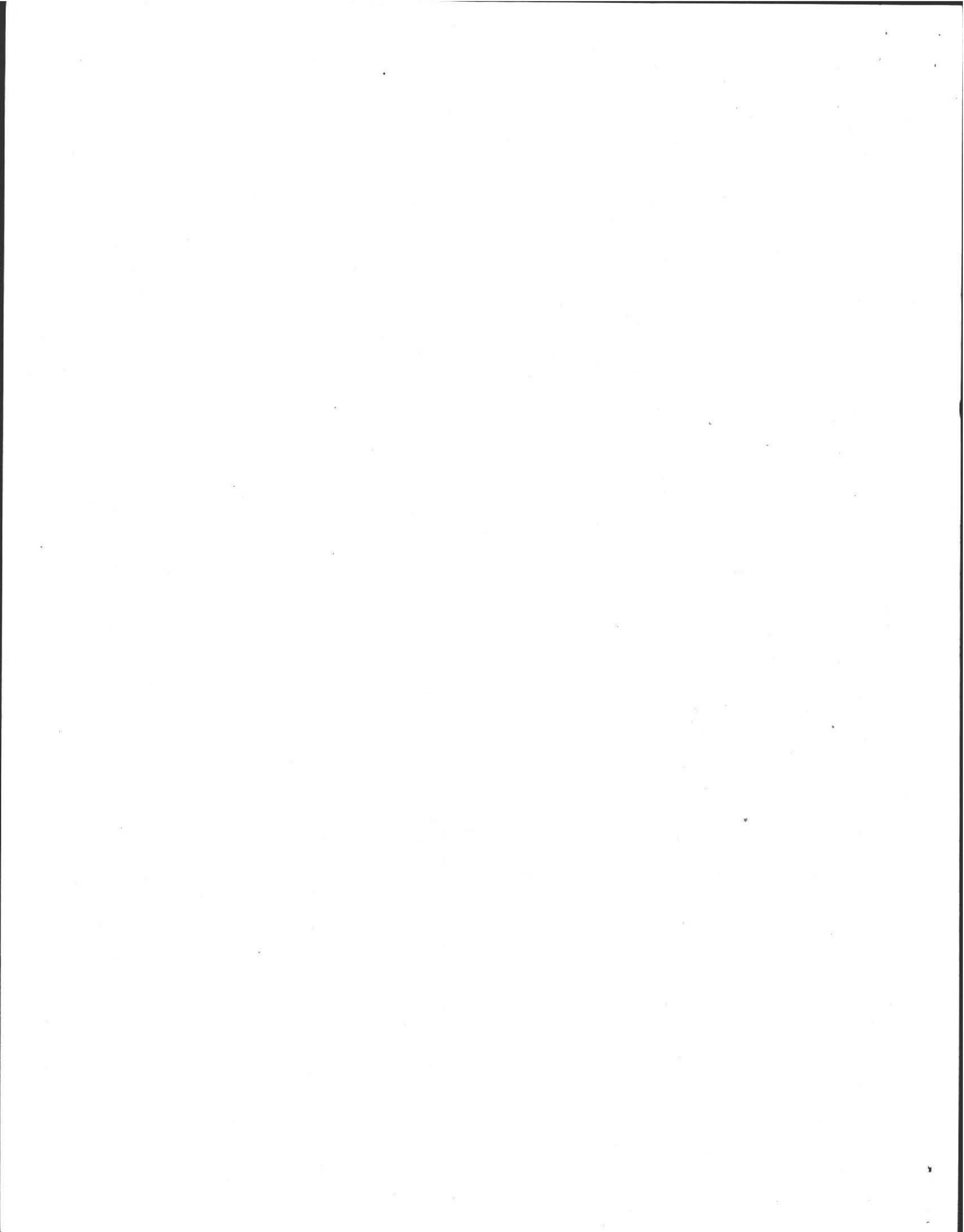
Performed by Bill Scurta

Witnessed by David Zarozinski

Comments:



BAY RD.



No. _____

Date: 4/13/04

Commonwealth of Massachusetts
Massachusetts

Soil Suitability Assessment for On-site Sewage Disposal

Performed By: WILLIAM SIAGUTA DE EVAL Date: 4/13/04
Witnessed By: DAVID ZARAZINSKI BOH

Location Address or Lot # <u>E. LIPPING 1166 BAY ROAD SOUTH AMHERST MA</u>	Owner's Name Address, and Telephone # <u>E. LIPPING 1166 BAY ROAD SOUTH AMHERST MA</u>
New Construction <input type="checkbox"/> Repair <input type="checkbox"/>	

Office Review

Published Soil Survey Available: No Yes

Year Published Publication Scale

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)

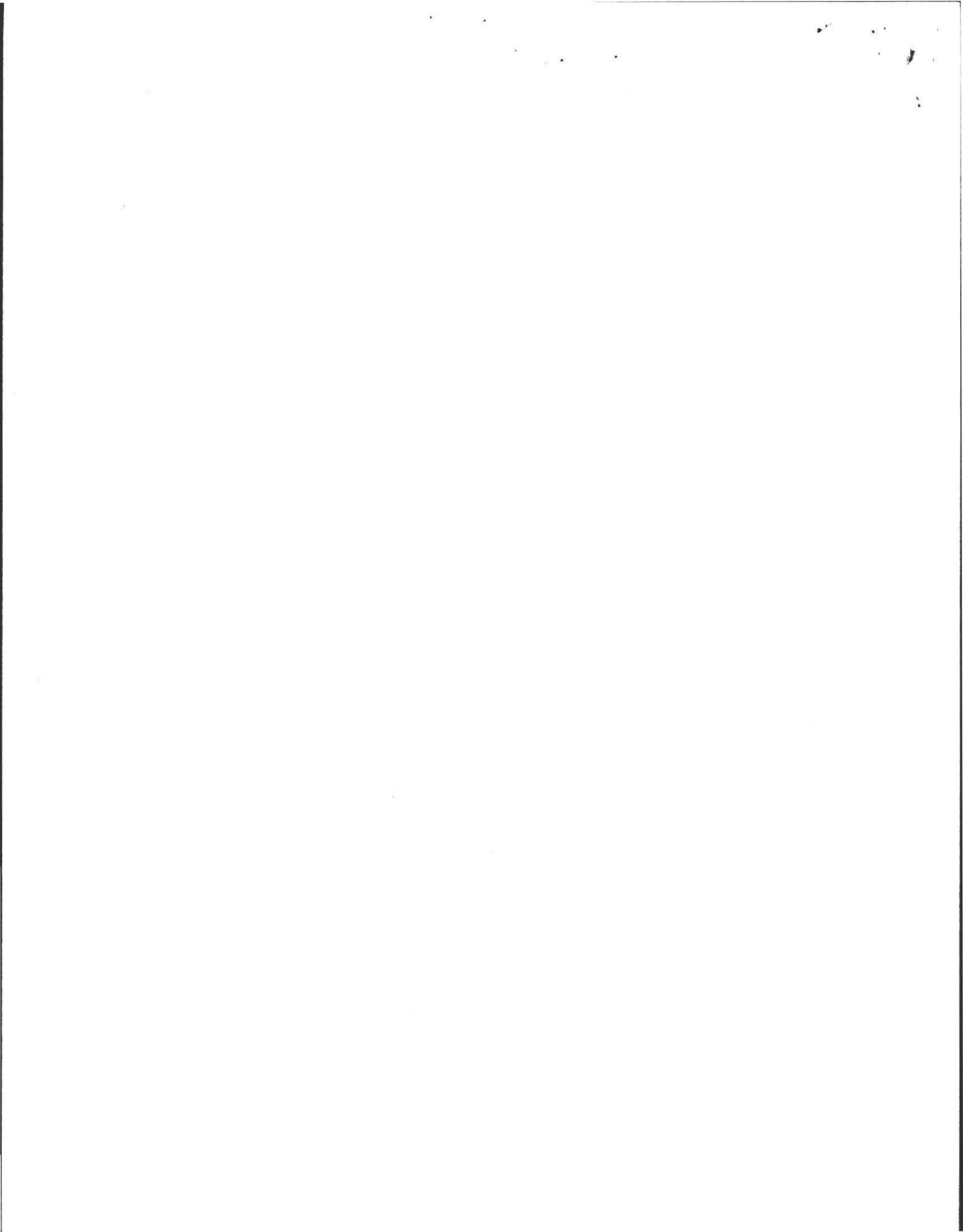
Current Water Resource Conditions (USGS): Month

Range: Above Normal Normal Below Normal

Other References Reviewed: _____

*CDI Real Estate
AGENT
Soil Map Unit*





1166 BAY ROAD
SOUTH AMHERST

Location Address or Lot No.

On-site Review

Deep Hole Number TP-1 Date: 4/13/04 Time: 800 Weather: 41° RAIN COOL
 Location (Identify on site plan) _____
 Land Use RESIDENTIAL Slope (%) 2% Surface Stones SOME NOLED
 Vegetation LAWN AREA
 Landform OUTWASH TILL TERRACE
 Position on landscape (sketch on the back) _____
 Distances from:
 Open Water Body DNA feet Drainage way DNA feet
 Possible Wet Area DNA feet Property Line 30' feet
 Drinking Water Well _____ feet Other _____

DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-18	AP	S/L	10YR 3-3		
18-24	BW	L/SAUD	7.5YR 6-4		MASSIVE FRIABLE STRUCTURELESS
24-76	C1	SAND FINE TO MED	5YR 6-3		NO STONE
76-126	C2	SAND MED TO COARSE	5YR 6-6		2% GRAVEL MASSIVE FRIABLE STRUCTURELESS NO COBBLES

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA
 Parent Material (geologic) OUTWASH TILL Depth to Bedrock: DNA
 Depth to Groundwater: Standing Water in the Hole: DRY Weeping from Pit Face: DRY
 Estimated Seasonal High Ground Water: _____

EWWT 76



1166 BAY ROAD
SOUTH AMHERST

Location Address or Lot No.

On-site Review

Deep Hole Number TP-2 Date: 4/13/04 Time: 800 Weather: 41° RAIN COOL
 Location (Identify on site plan) _____
 Land Use RESIDENTIAL Slope (%) 2% Surface Stones SOME NOLED
 Vegetation LAWN AREA
 Landform OUTWASH TILL TERRACE
 Position on landscape (sketch on the back) _____
 Distances from:
 Open Water Body DNA feet Drainage way DNA feet
 Possible Wet Area DNA feet Property Line 30' feet
 Drinking Water Well _____ feet Other _____

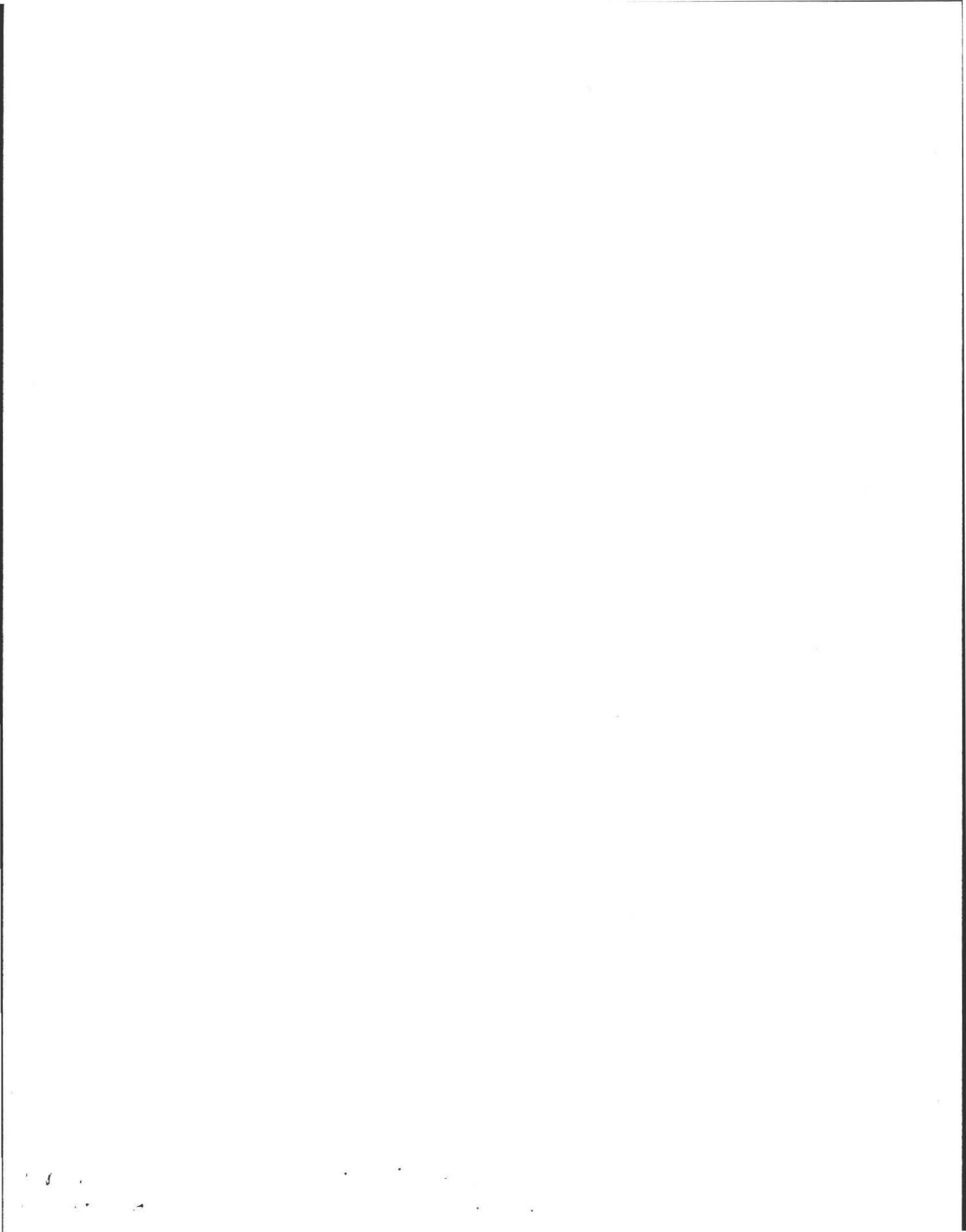
DEEP OBSERVATION HOLE LOG

Depth from Surface (Inches)	Soil Horizon	Soil Texture (USDA)	Soil Color (Munsell)	Soil Mottling	Other (Structure, Stones, Boulders, Consistency, % Gravel)
0-18	AP	S/L	10YR 3-3		
18-24	BW	S	7.5YR 6-4		
24-76	C1	SAND FINE TO MED	5YR 6-3	76"	2% GRAVEL MASSIVE FRIABLE
76	C2	SAND MED TO COARSE	5YR 6-6		FRIABLE

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA
 Parent Material (geologic) OUTWASH TILL Depth to Bedrock: DNA
 Depth to Groundwater: Standing Water in the Hole: _____ Weeping from Pit Face: _____
 Estimated Seasonal High Ground Water: _____

EWWT 76"





Percolation Test

Test No. perc 1 TP-1
 Reading _____ Time 24 gals
 Saturation (15 min) _____
 _____ 911
 _____ 5/3 = 1.66
 _____ 916
 _____ 8/3 = 2.66
 _____ 924
 _____ Design rate
 Perc Rate 5.0 Min/inch
 Ground Elev. _____
 Depth of Hole 52"

TP-2

Test No. perc 2
 Reading _____ Time _____
 Saturation (15 min) _____
 _____ 12
 _____ 11 CONSISTENT SOILS
 _____ 10 WAIVED
 _____ 9 BY BOTT
 _____ 8 VERY LIMITED
 _____ 7 AREA
 _____ 6 Design rate
 Perc. Rate _____ Min/inch
 Ground Elev. 5.0 _____
 Depth of Hole _____

Test Pit TP-1 Deep Test Pit/s
 Depth Soil Description
0-18 OTS LOAM
18-24 SILTY SAND SUB SOIL
24-76 FINE TO MED SAND
76-126 MED TO COARSE SAND
 Groundwater Depth dry Elev. _____
 Bedrock Depth _____ Elev. _____
 Ground Elev. EHWT 76"

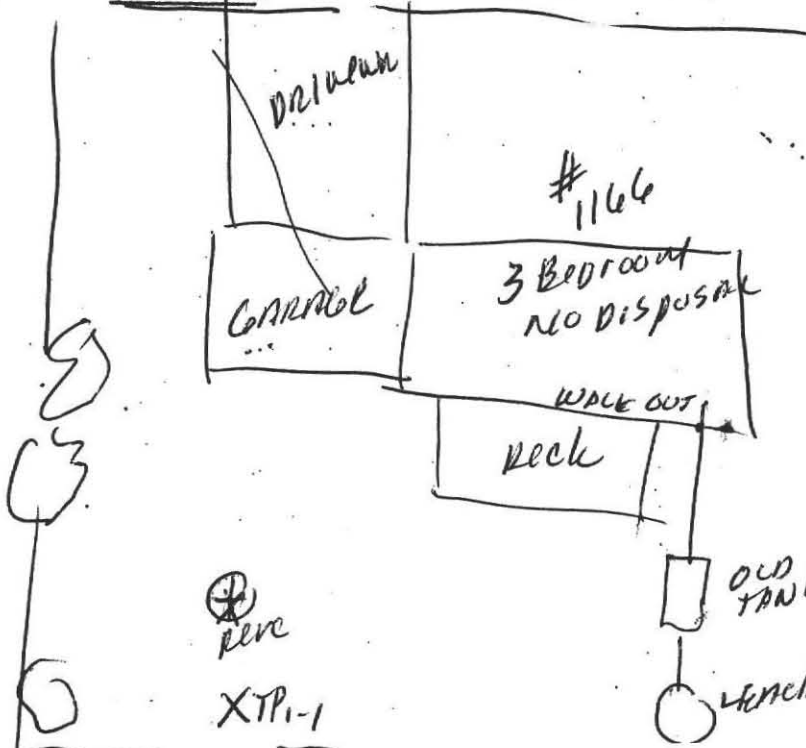
Test Pit TP-2
 Depth Soil Description
0-18 OTS LOAM
18-24 SILTY SAND SUB
24-76 FINE TO MED SAND
76-126 MED TO COARSE SAND
 Groundwater Depth dry Elev. _____
 Bedrock Depth _____ Elev. _____
 Ground Elev. EHWT

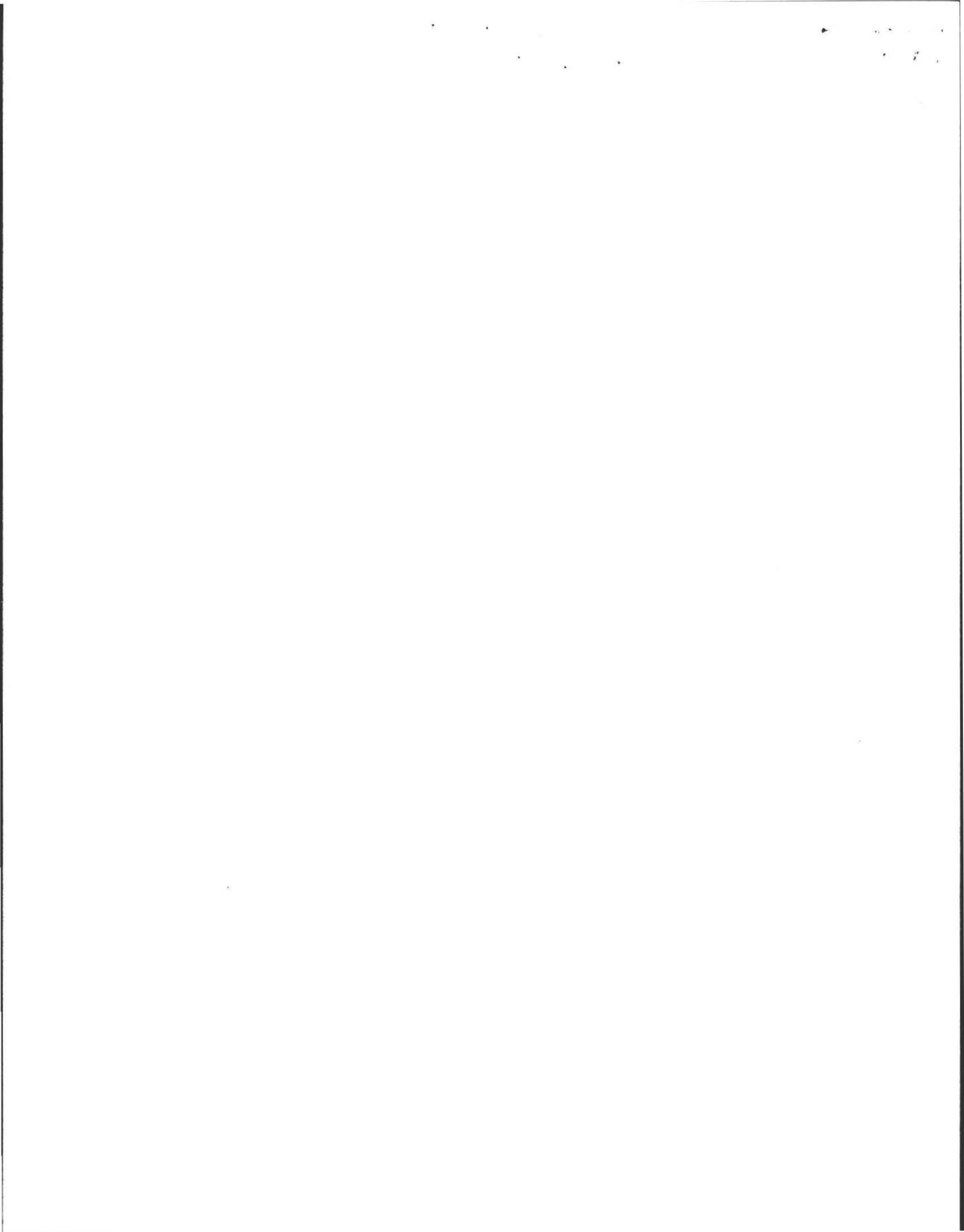
S.C.S. Soil Description OUT Seasonal High Water Table? AS NOTED
WASIT 1.11
 Bench Mark: Elev. _____ Description _____

COMMENTS:

BRAY ROAD

Date: 4/13/04
 Client: E LIPPING
1166 BRAY ROAD
SOUTH AMHERST MASS
 Engineer: WJ SIERNITA PE.
 Witness: D. ZARAZINSKI
 Location of Perc: 1166 BRAY ROAD
SOUTH AMHERST
MASS





E. LIPPING FORM 12 - PERCOLATION TEST
 1166 BAY ROAD
 SOUTH Amherst

Location Address or Lot No.

COMMONWEALTH OF MASSACHUSETTS
 South Amherst, Massachusetts

Percolation Test		
Date:	4/13/04	Time:
Observation Hole #	TP1-1	TP1-2
Depth of Perc	52"	49"
Start Pre-soak	24 gals	
End Pre-soak	9"	
Time at 12"	9"	
Time at 9"	9:16	
Time at 6"	9:24	
Time (9"-6")	0/3 = 2:66	
Rate Min./Inch	5.0	5.0

CLASS I
 SOIL

48" separation REQD

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

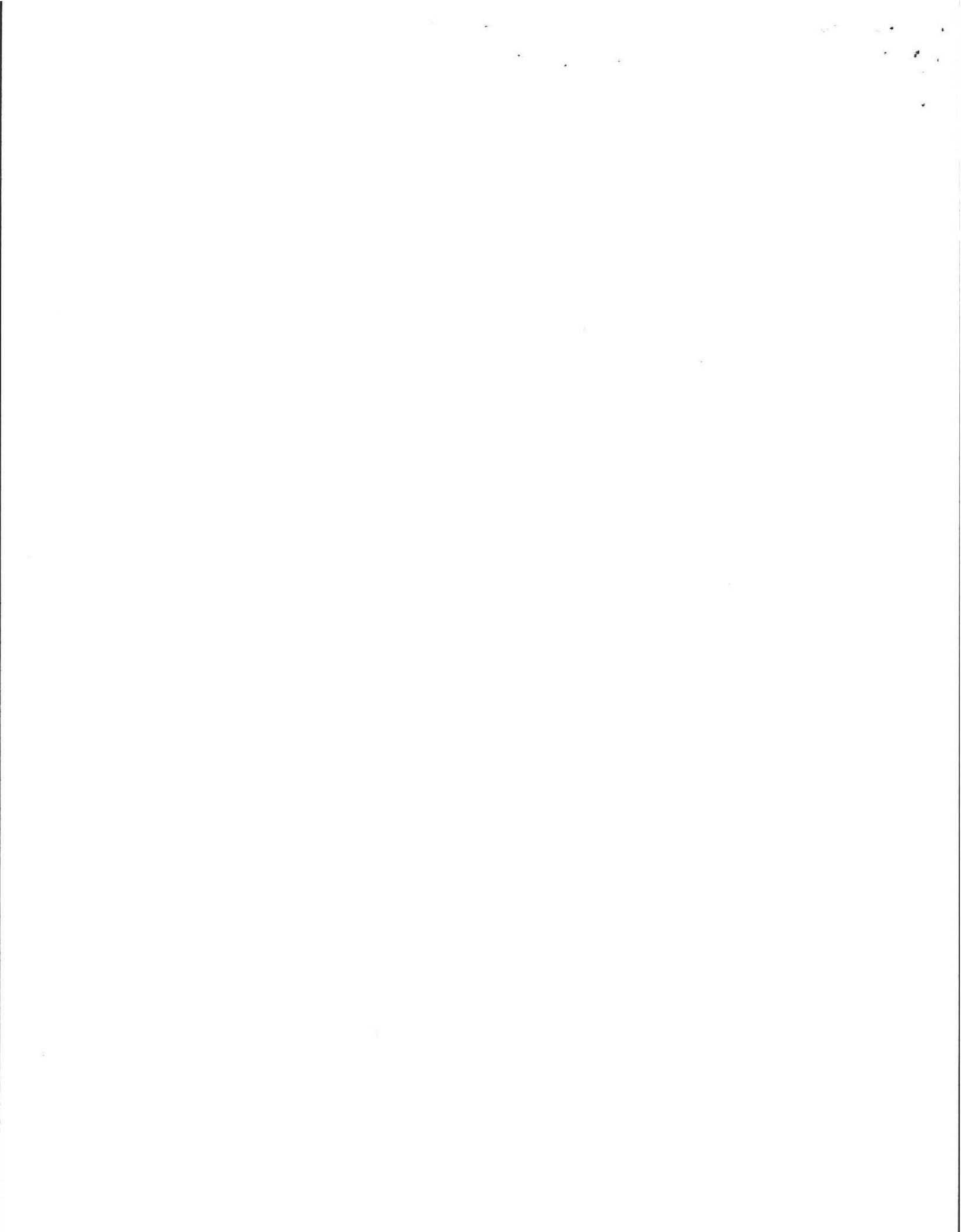
Site Passed Site Failed

Performed By: WILLIAM SIENUTA PE EVAL

Witnessed By: DAVID ZARASINSKI BOH

Comments:





E. LIPPING
1166 BAY ROAD
Location Address or Lot No. SOUTH AMHERST MA

Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole inches TP1-1 TP1-2
dry dry
- Depth weeping from side of observation hole inches dry dry
- Depth to soil mottles inches MOTTLING EHWI
- Ground water adjustment feet 10425-8 10424-1

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

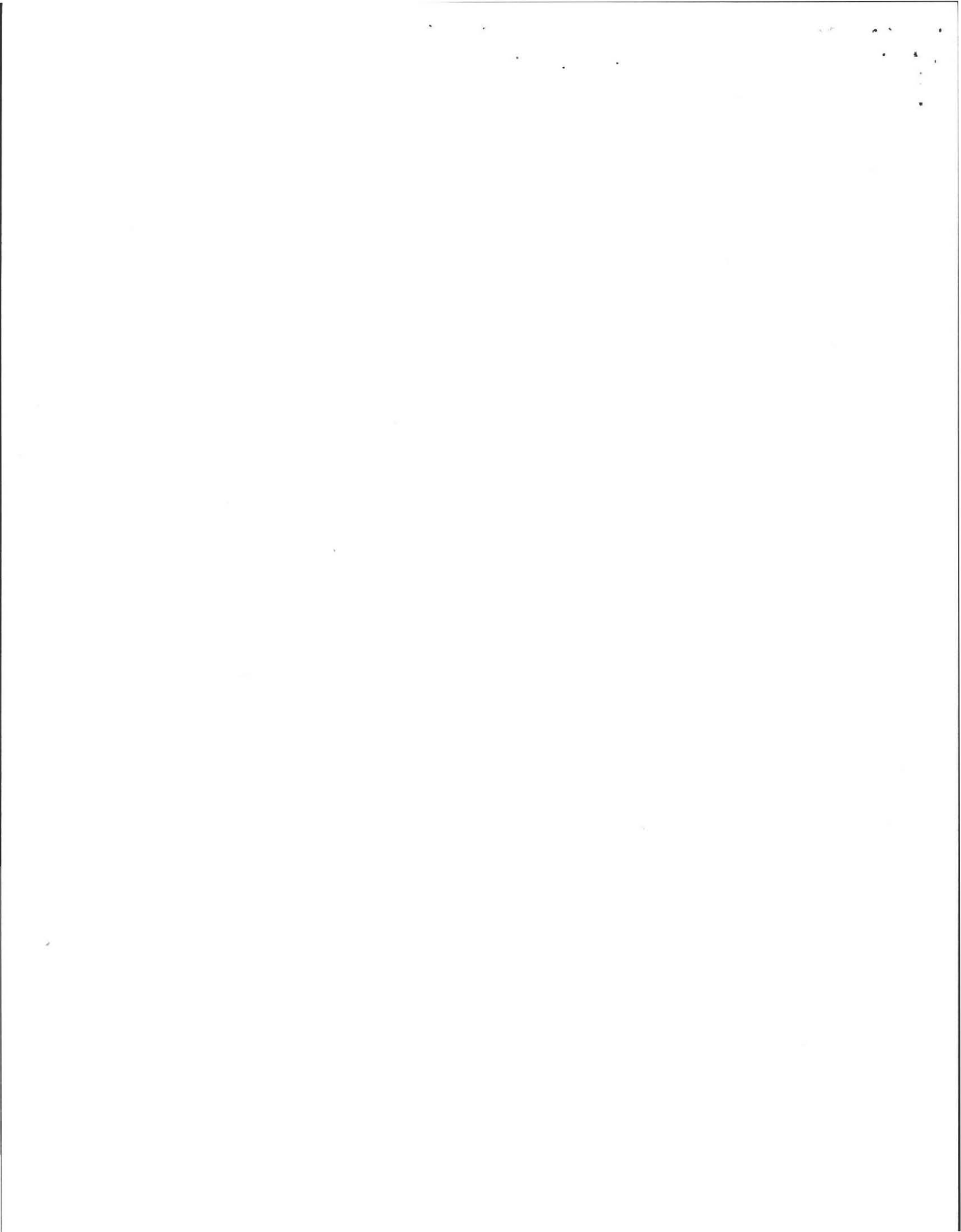
If not, what is the depth of naturally occurring pervious material? _____

Certification

I certify that on 5/95 (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 [Signature] Date 4/13/04





TEST PIT INFORMATION

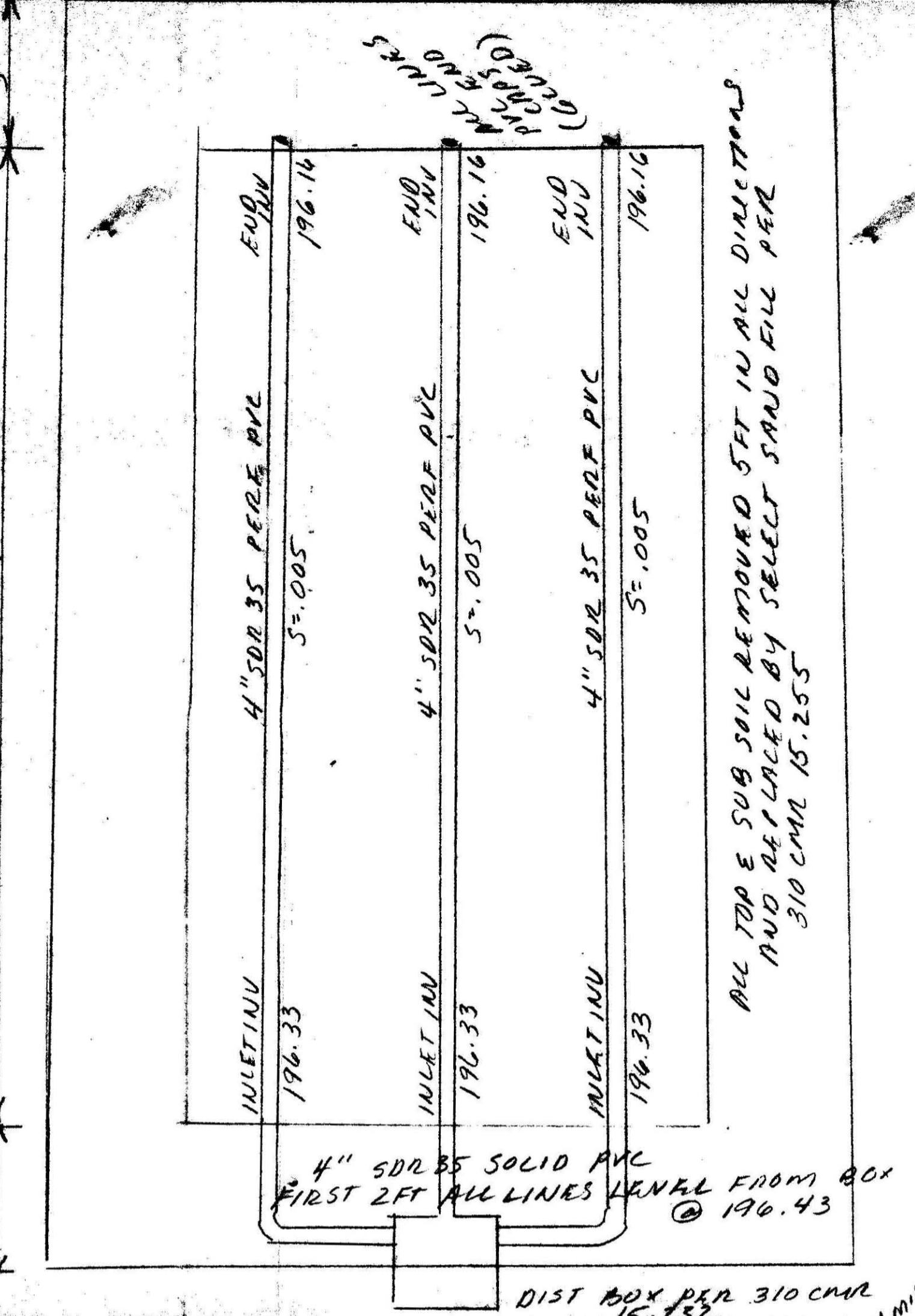
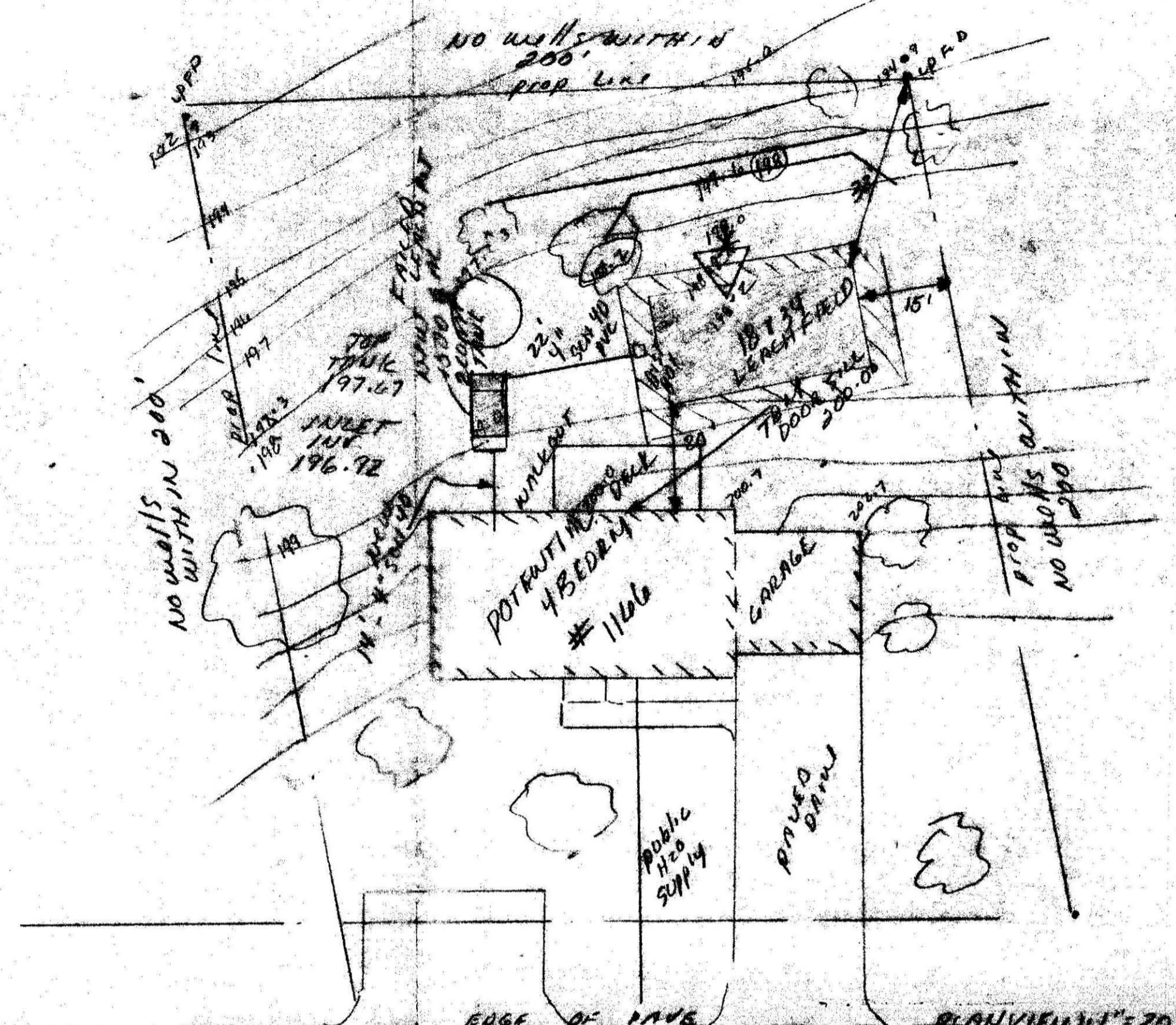
TEST PIT TPI-1		TEST PIT TPI-2	
18" OTS LOAM	AP SANDY LOAM 10.4R 3-3	0-18	0-18
40" SILTY SAND SUB SOIL	BW LOAMY SAND 7.54R 6-4	18-24	18-24
52" SAND FINE TO MED	C1 SAND FINE TO MED 5.4R 6-3	24-76	24-76
30" SAND MED TO COARSE	C2 SAND MED TO COARSE 5.4R 6-6	76-126	76-126

DATE: 4-13-04
 ENGR: W.J. SIERUJA PE EIT
 WITNESS: DAVID ZAROZINSKI

PERMEABILITY PERC RESULTS
 PERC @ TPI-1
 DEPTH 52"
 ACTUAL RATE 2.66 min/inch
 DESIGN RATE 5.0 min/inch
 48" SEPARATION REQD PER 310 CMR 15.212

STOPPED HOLE USED AS PERC HOLE
 VERY LIMITED AREA

PERC TEST 2
 WAIVED BY BOH
 VERY LIMITED AREA



DESIGN INFORMATION
 ALL CONSTRUCTION TO BE IN ACCORDANCE WITH 310 CMR 15.0 TITLE 5 AND ALL LOCAL BOARD OF HEALTH REGULATIONS

FINISH GARDING TO BE AS SHOWN ON PLAN VIEW. ALL DISTURBED AREA TO BE CORDED AND SEEDED.

DESIGN CRITERIA
 USE: EXISTING SINGLE FAMILY RESIDENTIAL HOME. NO DISPOSAL USE 4 BEDROOM DESIGN WALK OUT UNIT

DESIGN FLOW: 310 CMR 15.203
 REQD 110 x 4' = 440 GALS/DAY
 NO DISPOSAL UNIT

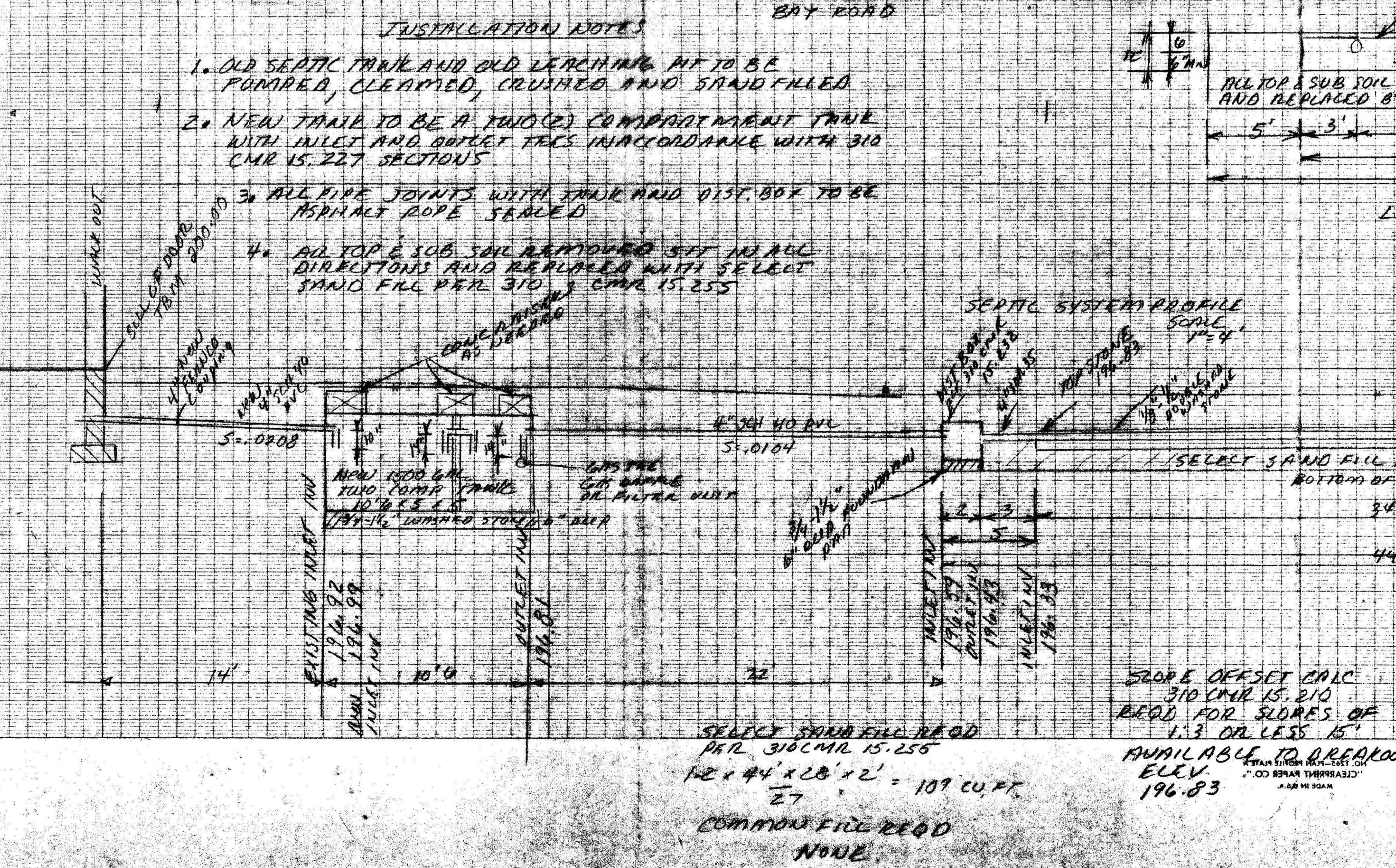
SEPTIC TANK: 310 CMR 15.203
 REQD 440 GALS x 200% = 880 GALS DAY
 MINIMUM TANK SIZE PERMITTED 1500 GALS USE A NEW PRECAST CONC. TANK 2 COMPARTMENT

LEACHING SYSTEM:
 DUE TO SOIL CONDITIONS A LEACHFIELD DESIGN IS TO BE USED PER 310 CMR 15.252

EFFECTIVE DEPTH 6" MIN
 EFFECTIVE WIDTH 18'
 EFFECTIVE LENGTH 34'

BOTTOM AREA 18' x 34' = 612'
 PERMEABILITY 310 CMR 15.242
 PERC INFO 2.66 min/inch
 ACTUAL RATE 5.0 min/inch
 DESIGN RATE CLASS I SOIL
 BOTTOM 2.5 INCHES AREA 174 GALS/FT²

TBM SET AT DOOR SILL
 ELEVATION 200.00
 WALK OUT DOOR.



INSTALLATION NOTES

1. OLD SEPTIC TANK AND OLD LEACHING PIT TO BE PUMPED, CLEANED, CRUSHED AND SAND FILLED
2. NEW TANK TO BE A TWO (2) COMPARTMENT TANK WITH INLET AND OUTLET TEES IN ACCORDANCE WITH 310 CMR 15.227 SECTIONS
3. ALL PIPE JOINTS WITH TANK AND DIST. BOX TO BE ASPHALT ROPE SEALED
4. ALL TOP & SUB SOIL REMOVED 5 FT IN ALL DIRECTIONS AND REPLACED WITH SELECT SAND FILL PER 310 CMR 15.255

LEACHFIELD DETAIL
 SCALE 1" = 2 FT VERT
 1" = 4 FT HORIZ

SEPTIC SYSTEM PROFILE
 SCALE 1" = 4'

SELECT SAND FILL PER 310 CMR 15.255 BOTTOM OF P.C. 196.66

AVAILABLE TO BREAKOUT
 ELEV. 196.83

SEPTIC SYSTEM DESIGN FOR
 E. LIPPING
 1166 BAY ROAD
 SOUTH AMHERST, MASS

ENGR: W.J. SIERUJA PE
 DATE: APRIL 27, 2004

