

MIDDLE STREET FOLDER #2
15/101 - no numbers

No. 99-17

#510

THE COMMONWEALTH OF MASSACHUSETTS

FEE 160⁰⁰

BOARD OF HEALTH

Town Amherst OF

APPLICATION FOR DISPOSAL SYSTEM CONSTRUCTION PERMIT

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

Location <u>510 Middle St.</u>	Owner's Name <u>Lorraine Bogartz</u>
Map/Parcel # <u>2</u>	Address <u>510 Middle St, Amherst 01002</u>
Lot #	Telephone # <u>(413) 256-0226</u>
Installer's Name	Designer's Name <u>Richard E. Costa PE</u>
Address	Address <u>Amherst Civil Engineering</u>
Telephone #	Address <u>P.O. Box 3312, Amherst, MA 01004-3312</u>
	Telephone # <u>(413) 256-3480</u>

Type of Building: Single family house Lot Size _____ Sq. feet
 Dwelling — No. of Bedrooms _____ Garbage Grinder (No) - removed
 Other — Type of Building _____ No. of persons _____ Showers (), Cafeteria ()
 Other fixtures _____

Design Flow (min. required) 330 gpd Calculated design flow 370 gpd Design flow provided _____ gpd
 Plan: Date 8/3/99 Number of sheets 1 Revision Date _____
 Title Plan of Sewage Disposal System Repair

Description of Soil(s) _____
 Soil Evaluator Form No. _____ Name of Soil Evaluator Robert Staver Date of Evaluation 7/20/99

DESCRIPTION OF REPAIRS OR ALTERATIONS _____

The undersigned agrees to install the above described Individual Sewage Disposal System in accordance with the provisions of TITLE 5 and further agrees not to place the system in operation until a Certificate of Compliance has been issued by the Board of Health.

* Signed Lorraine Bogartz * Date 8/30/99
 Inspections _____

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

No. 99-17

THE COMMONWEALTH OF MASSACHUSETTS

FEE 160⁰⁰

Amherst BOARD OF HEALTH

CERTIFICATE OF COMPLIANCE

Description of Work: Individual Component(s) Complete System

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

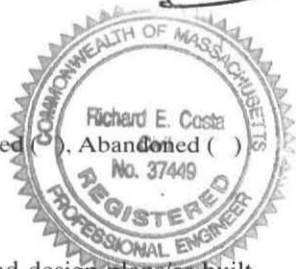
by: Lorraine Bogartz

at 510 Middle St.

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. 99-17 dated _____ Approved Design Flow _____ (gpd)

Installer Robert W. Staver

Designer for Amherst Civil Eng. 8/13/99 Inspector _____ Date _____



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

FORM 3 - CERTIFICATE OF COMPLIANCE DEP APPROVED FORM 5/96

No. 99-17

THE COMMONWEALTH OF MASSACHUSETTS

FEE 160⁰⁰

Amherst BOARD OF HEALTH

DISPOSAL SYSTEM CONSTRUCTION PERMIT

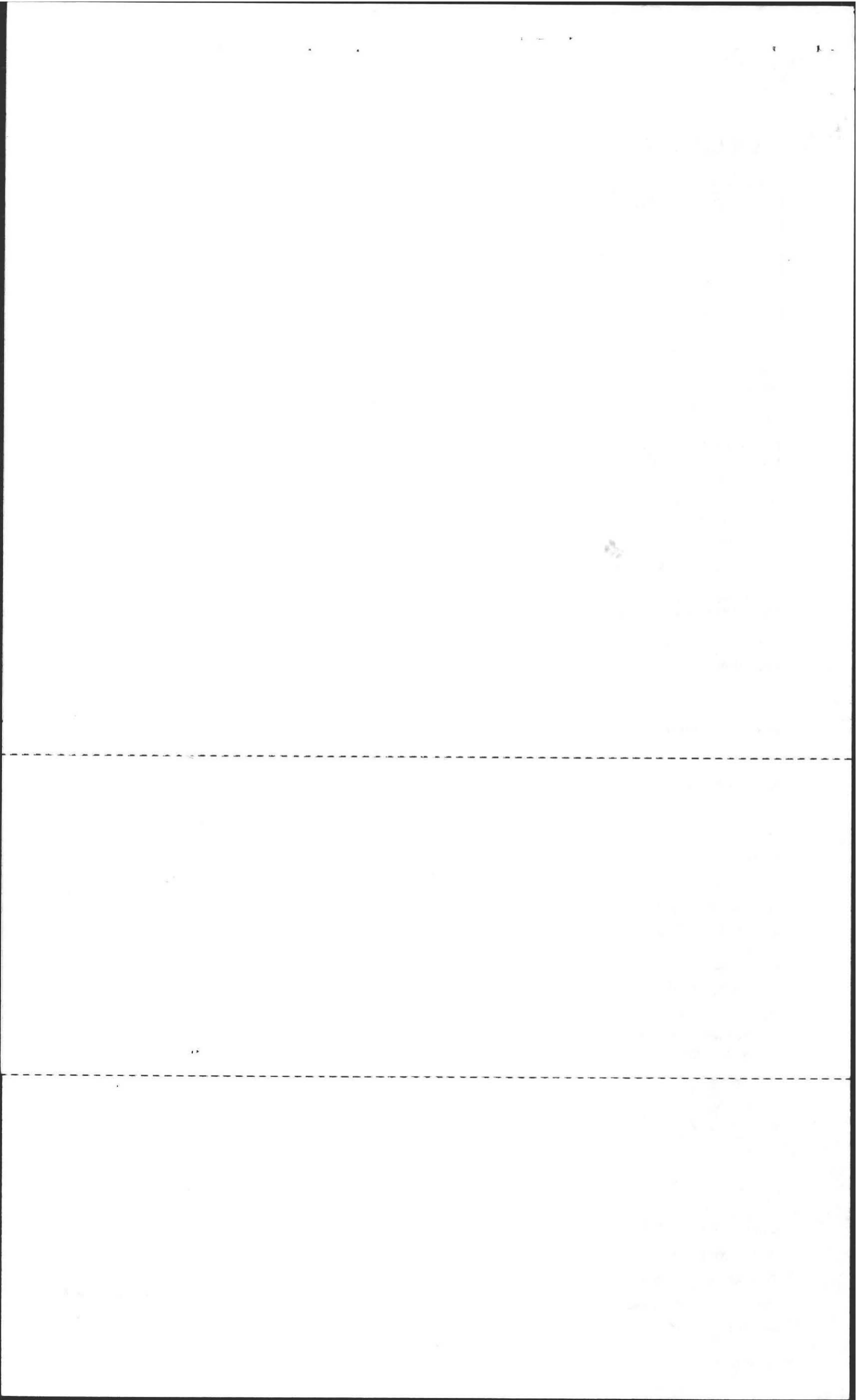
Permission is hereby granted to Construct () Repair (X) Upgrade () Abandon () an individual sewage disposal system at 510 Middle St. as described

in the application for Disposal System Construction Permit No. 99-17 dated Aug 3, 1999


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

Date August 3, 1999 Board of Health Jewel Bayona

FORM 2 - DSCP DEP APPROVED FORM 5/96



RECEIVED JUL 22 1999

AMITY REAL ESTATE TEL. 413-256-0226 30 BOLTWOOD WALK AMHERST, MA 01002	5-20/110	7778
PAY TO THE ORDER OF <u>Town of Amherst</u>	<u>7/22</u> 19 <u>99</u>	\$ <u>160.00</u>
<u>One hundred sixty</u>		DOLLARS
 Shawmut Bank Boston, Massachusetts	<u>Lorraine V. Boggs</u>	
FOR <u>Septic</u>		
⑆011000206⑆	36 223546	⑆ 7778

© HARLAND

RECEIVED

#570

CK # 7778

No. _____

Date: 7-20-99

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

Performed By: Bob Stover
Witnessed By: David Lurozinski

Date: 7-20-99

Location Address or Lot # <u>570 Middle St</u>	Owner's Name, Address, and Telephone # <u>Lorraine W. Bogartz</u> <u>570 Middle St.</u> <u>253-5162</u>
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) _____

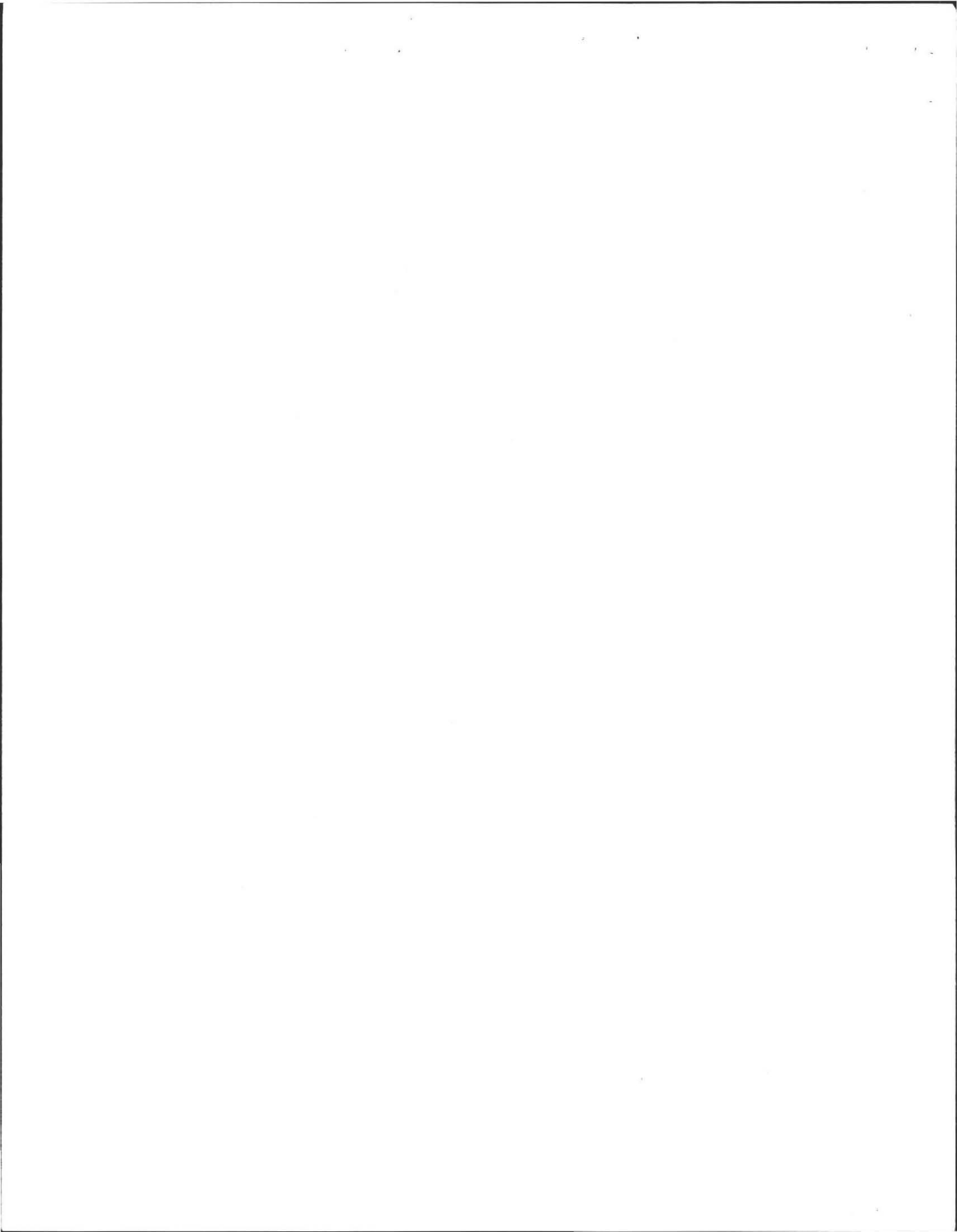
Wetlands Conservancy Program Map (map unit) _____

Current Water Resource Conditions (USGS): Month _____

Range :Above Normal Normal Below Normal

Other References Reviewed: _____





FORM 12 - PERCOLATION TEST

Location Address or Lot No. 570 Middle St

COMMONWEALTH OF MASSACHUSETTS

, Massachusetts

Percolation Test*		
Date:	<u>7-20-99</u>	Time: <u>9:00</u>
Observation Hole #	<u>1</u>	
Depth of Perc	<u>75"</u>	
Start Pre-soak	<u>9:10</u>	
End Pre-soak	<u>9:28</u>	
Time at 12"	<u>9:25</u>	
Time at 9"	<u>9:28</u>	
Time at 6"	<u>9:34, 45</u>	
Time (9"-6")	<u>6:45</u>	
Rate Min./Inch	<u>2 min ¹⁵ sec</u>	

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

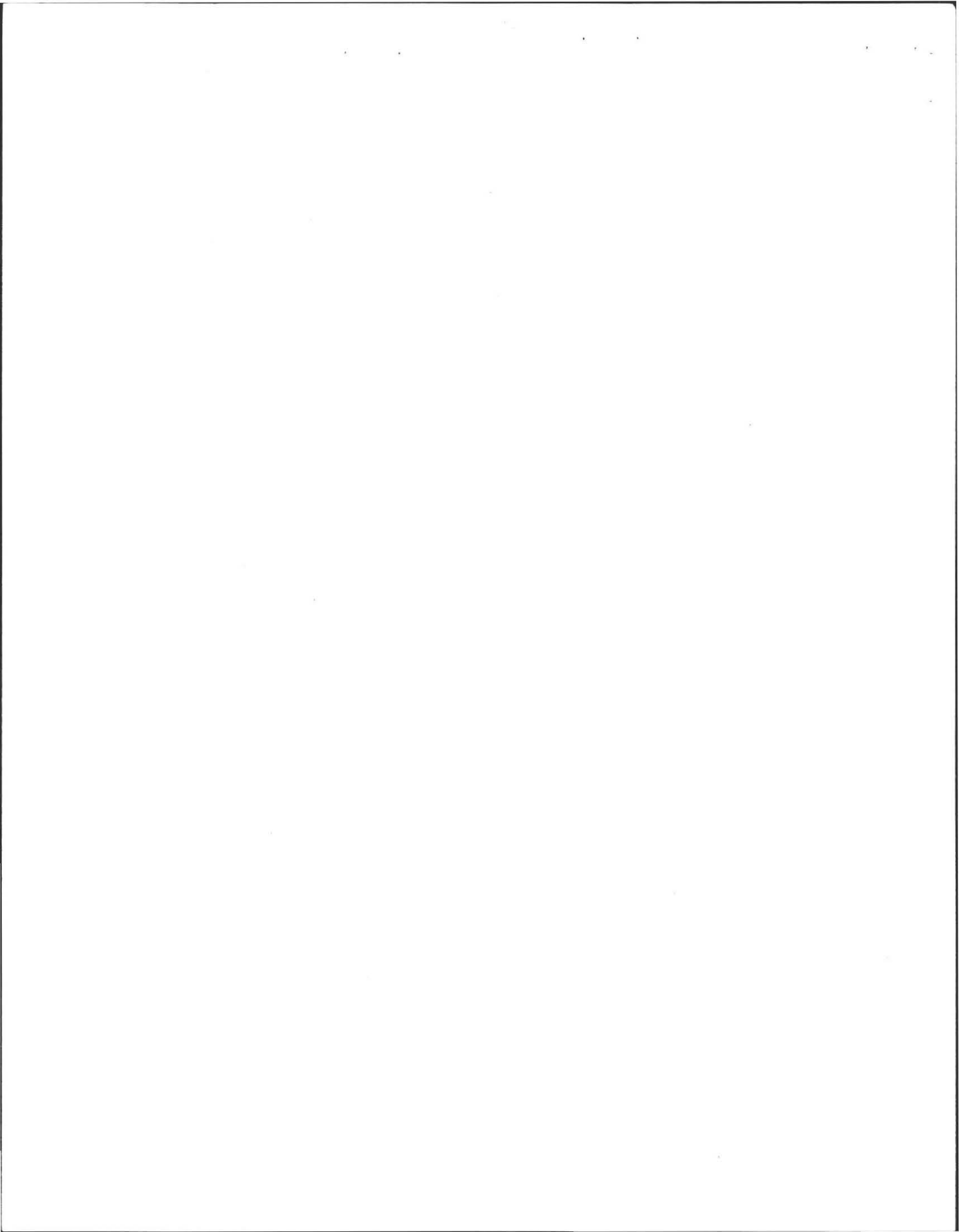
Site Passed Site Failed

Performed By: Bob Stover Civil Eng.

Witnessed By: David Zarozinski

Comments: _____





Location Address or Lot No. 510 Middle St

On-site Review

Deep Hole Number _____ Date: 7-20-99 Time: _____ Weather SUNNY
 Location (identify on site plan) _____
 Land Use _____ Slope (%) _____ Surface Stones _____
 Vegetation _____
 Landform _____
 Position on landscape (sketch on the back) _____
 Distances from:
 Open Water Body _____ feet Drainage way _____ 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"	Fill LOAM	LOAM	10YR 5/4	None	Fine
34"	Fill	USL	10YR 6/6	2.5Y 5/2	Mottles Due to fill NOT WEATNESS
40"	AB	FSL	10YR 3/3	10YR 5/8	
54"	Bwv		10YR 4/6		Mottles 84" 5YR 4/6
96"	C1	FSL	10YR 4/4		
120"	C2	USL (FIRM)	2.5Y 4/2	10YR 4/6	

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) _____ Depth to Bedrock: _____
 Depth to Groundwater: Standing Water in the Hole: NO Weeping from Pit Face: X/1
 Estimated Seasonal High Ground Water: N/O





Location Address or Lot No. _____

On-site Review

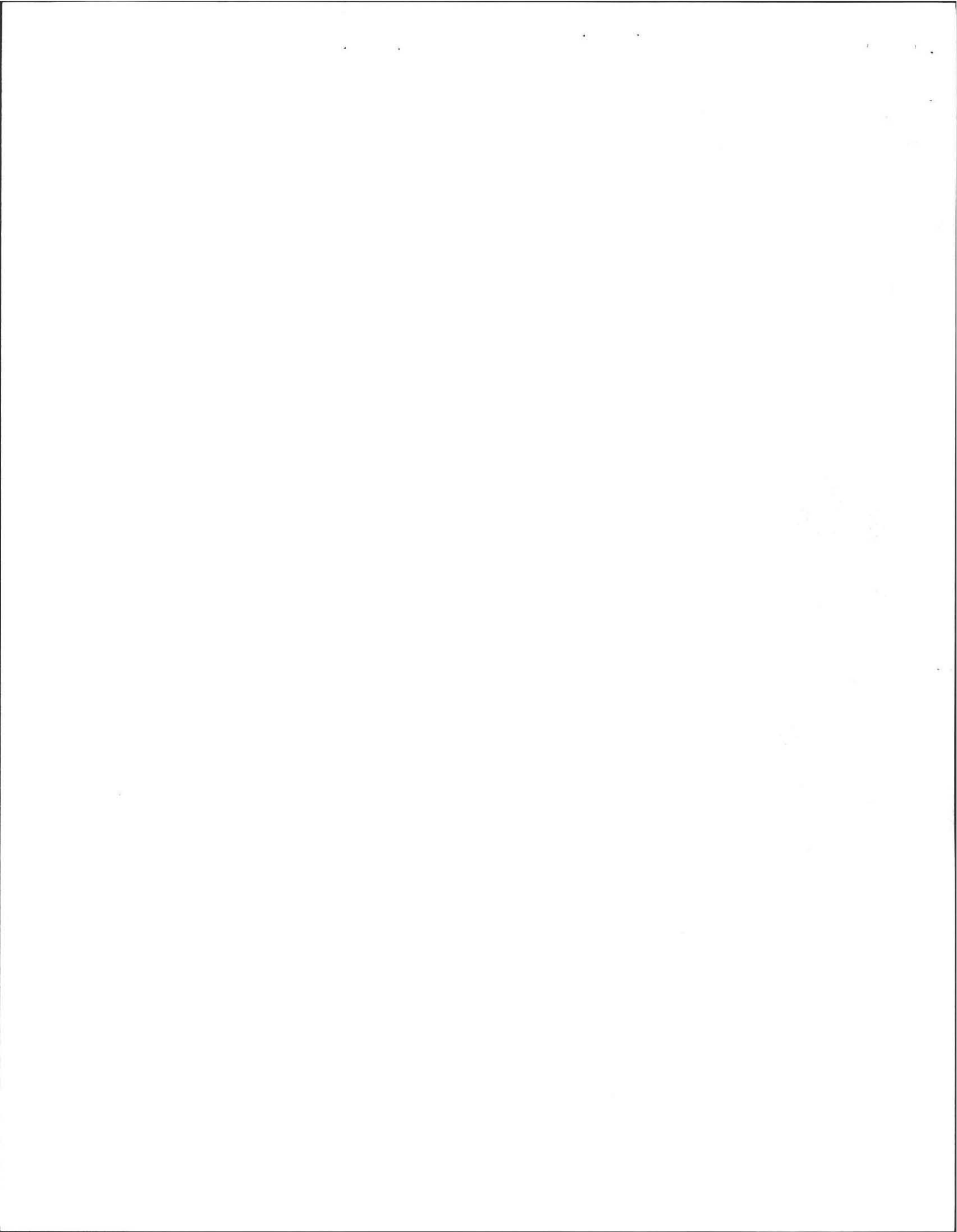
Deep Hole Number _____ Date: _____ Time: _____ Weather _____
 Location (identify on site plan) _____
 Land Use _____ Slope (%) _____ Surface Stones _____
 Vegetation _____
 Landform _____
 Position on landscape (sketch on the back) _____
 Distances from:
 Open Water Body _____ feet Drainage way _____ 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)

* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

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





No. _____

Date: 7/20/99

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

Performed By: Robert Stover
Witnessed By: David Zarozinski

Date: 7/20/99

Location Address or Lot # <u>510 Middle St Subdiv. Lot 2</u>	Owner's Name, Address, and Telephone # <u>Lorraine Bogartz 510 Middle St. Amherst, MA 01002</u>
New Construction <input type="checkbox"/> Repair <input checked="" type="checkbox"/>	

Office Review

Published Soil Survey Available: No Yes
Year Published 12/1981 Publication Scale 1:15840 Soil Map Unit MeB
Drainage Class A Soil Limitations poor filter

Surficial Geologic Report Available: No Yes
Year Published _____ Publication Scale _____

Geologic Material (Map Unit) _____
Landform Kame Terrace

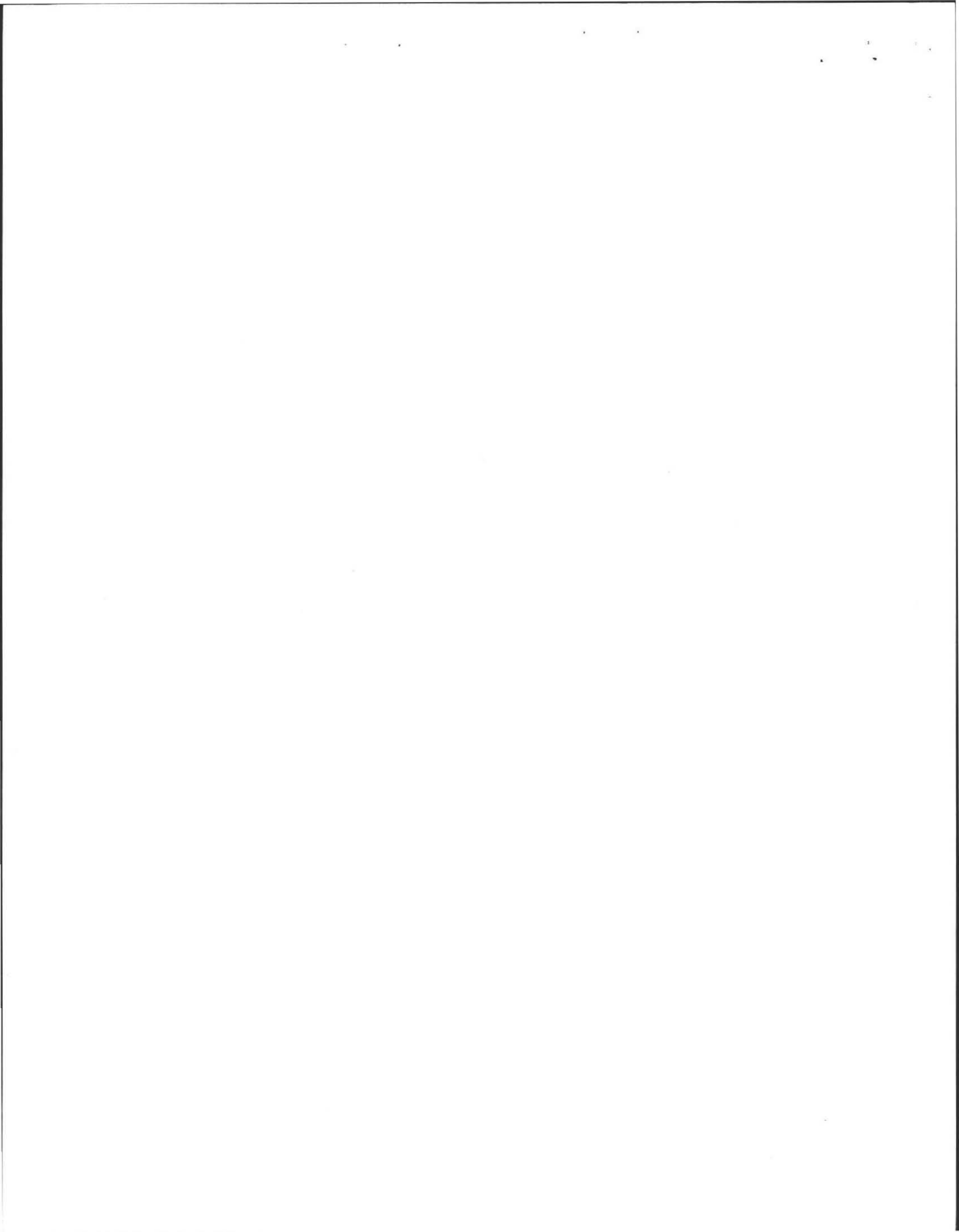
Flood Insurance Rate Map:
Above 500 year flood boundary No Yes
Within 500 year flood boundary No Yes
Within 100 year flood boundary No Yes

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. 510 Middle St. Amherst
 (Corraine Bojartz)

On-site Review

Deep Hole Number 1 Date: 7/20/99 Time: 11:00 Weather clear 85°

Location (identify on site plan) see plan

Land Use lawn Slope (%) 3-10 Surface Stones none

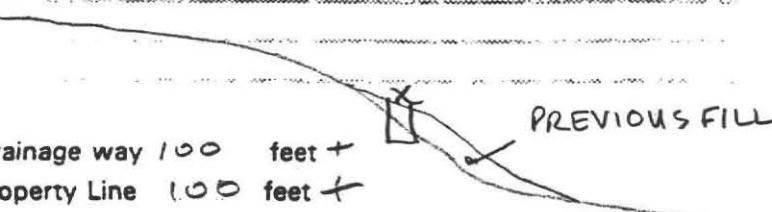
Vegetation grass

Landform Kame terrace

Position on landscape (sketch on the back)

Distances from:

- Open Water Body 150 feet ±
- Possible Wet Area 100 feet ±
- Drinking Water Well 200 feet ±
- Town Water
- Drainage way 100 feet +
- Property Line 100 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	Fill Loam	Loamy	10YR5/4	none	Friable
18-34	Fill	VFSL	10YR6/6	2.5Y5/2 10YR5/8	mottles due to fill not wetness.
34-40	Ab	FSL	10YR3/3	none	
40-54	Bwb	FLS	10YR4/6	none	Friable
54"-8'	C1	FLS	10YR4/4	@ 84 5YR4/6	Firm
8-10'	C2	VFSL	2.5Y4/2	10YR4/6	Firm

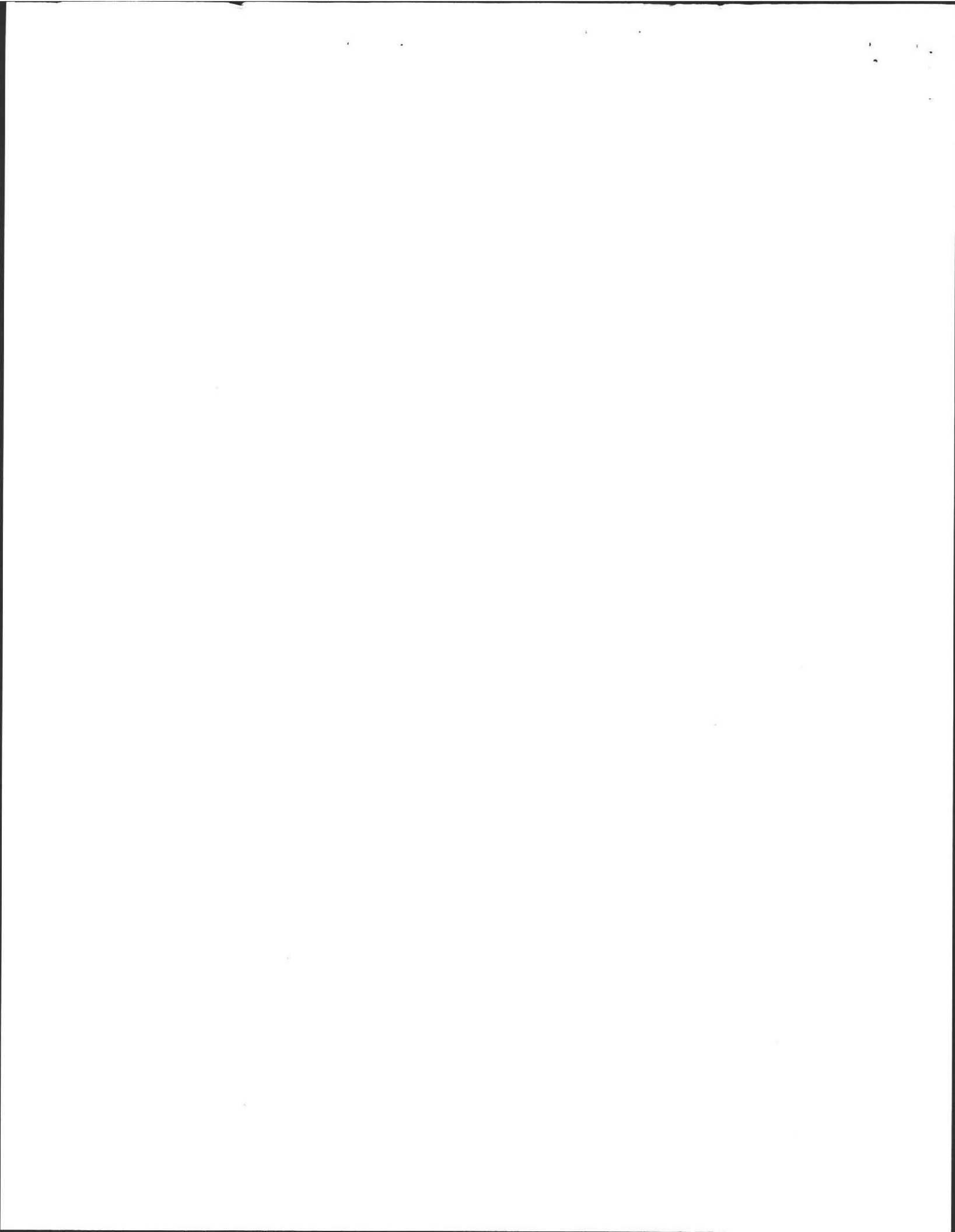
* MINIMUM OF 2 HOLES REQUIRED AT EVERY PROPOSED DISPOSAL AREA

Parent Material (geologic) astrotash Depth to Bedrock: >10'

Depth to Groundwater: Standing Water in the Hole: none Weeping from Pit Face: none

Estimated Seasonal High Ground Water: 84"





FORM 12 - PERCOLATION TEST

Location Address or Lot No. 510 Middle St

COMMONWEALTH OF MASSACHUSETTS
Amherst, Massachusetts

Percolation Test*		
Date:	<u>7/20/99</u>	Time: <u>9:00 AM</u>
Observation Hole #	<u>1</u>	
Depth of Perc	<u>75"</u>	
Start Pre-soak	<u>9:10</u>	
End Pre-soak	<u>9:25</u>	
Time at 12"	<u>9:25</u>	
Time at 9"	<u>9:28</u>	
Time at 6"	<u>9:34:45</u>	
Time (9"-6")	<u>6:45</u>	
Rate Min./Inch	<u>2:15</u>	

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

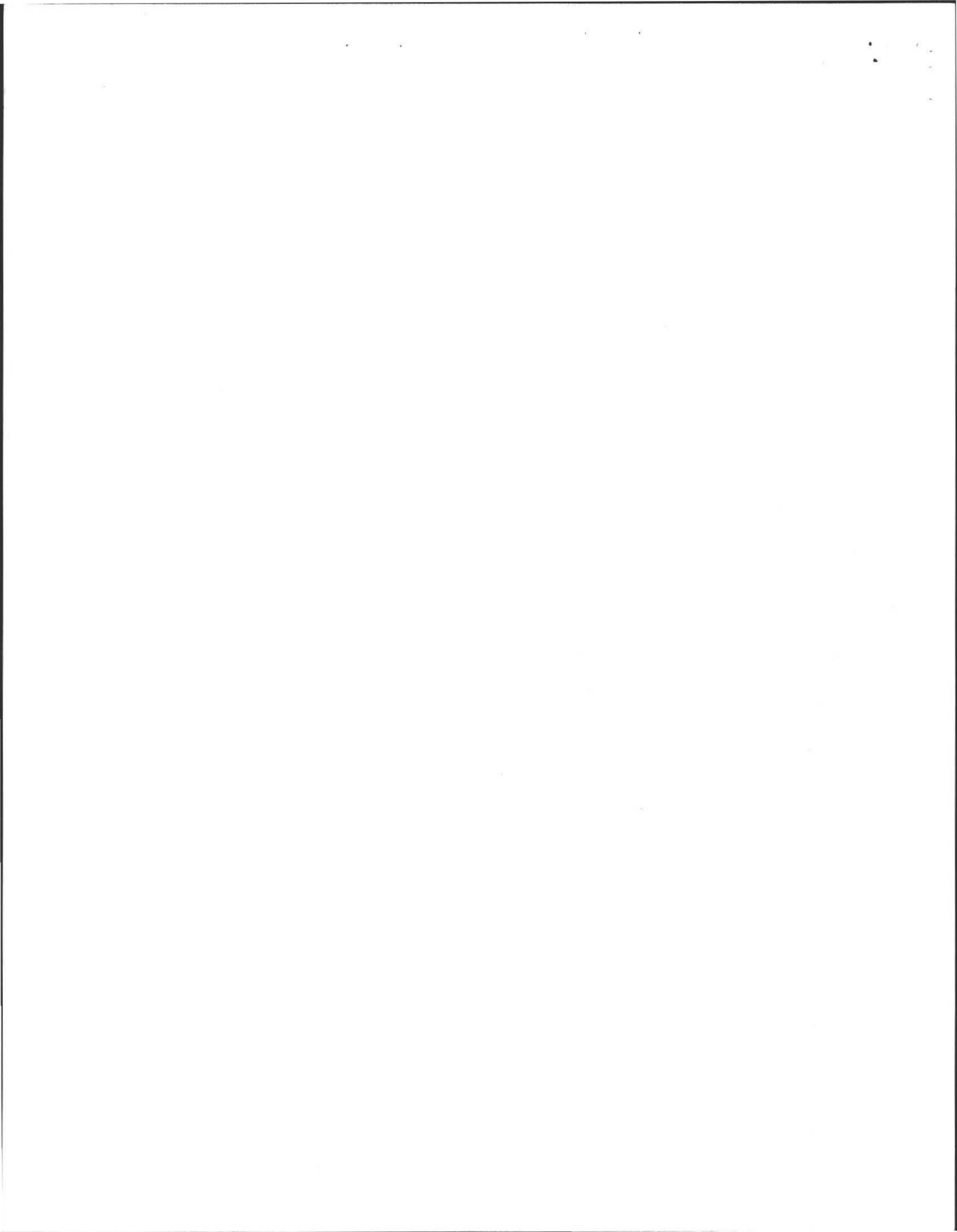
Site Passed Site Failed

Performed By: Robert Stover

Witnessed By: David Zarozinski

Comments: _____





Location Address or Lot No. 510 Middle St., Amherst
(Lorraine Bogart 2)

Determination for Seasonal High Water Table

Method Used:

- Depth observed standing in observation hole inches
- Depth weeping from side of observation hole inches
- Depth to soil mottles 84 inches
- Ground water adjustment 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

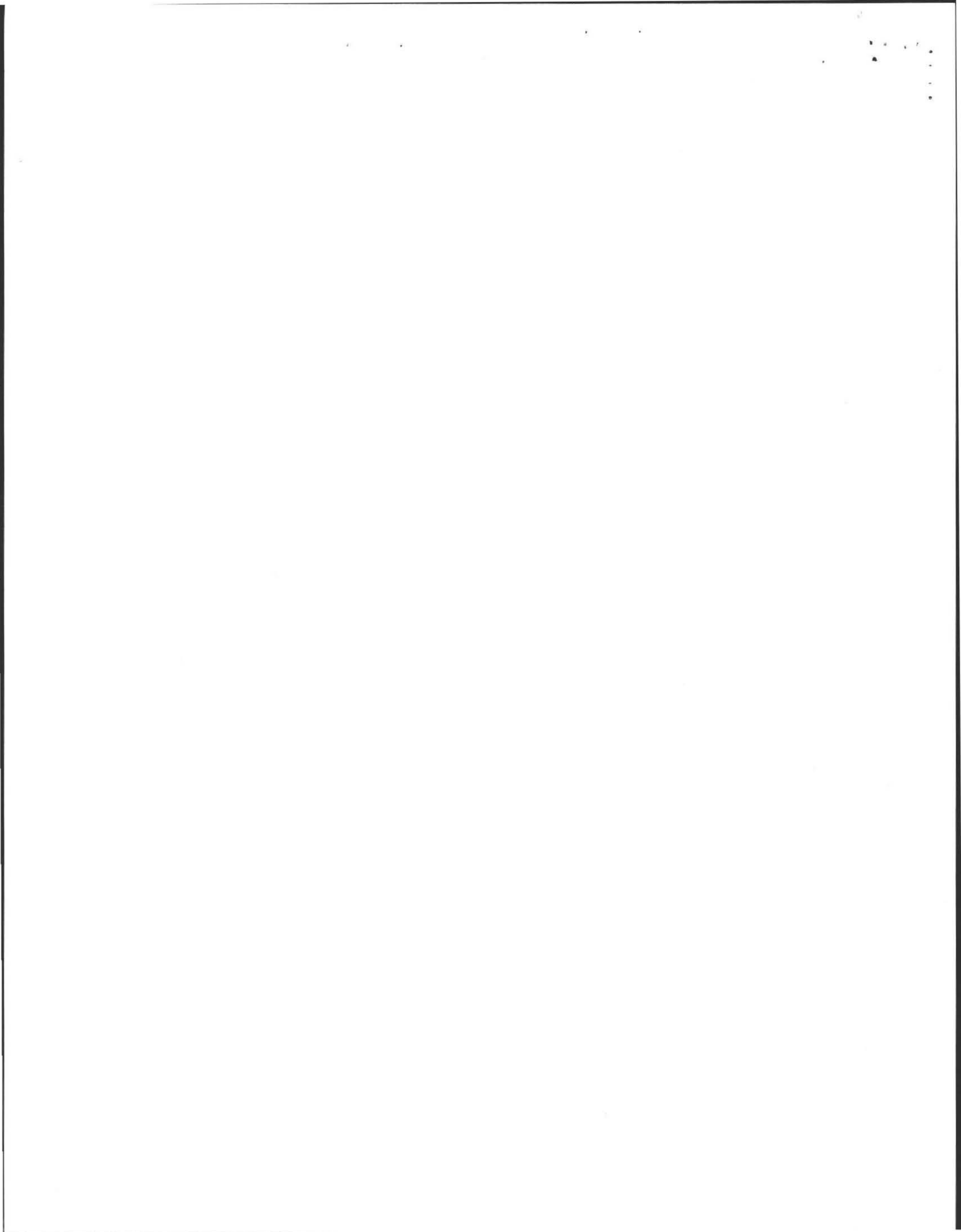
If not, what is the depth of naturally occurring pervious material?

Certification

I certify that on 6/1993 (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.

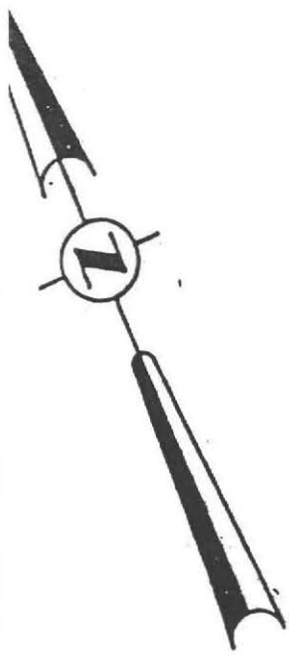
Signature Robert J. Hower Date 7/20/99





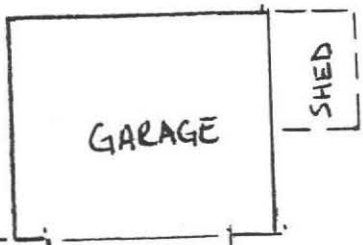
2

3.759 ACRE



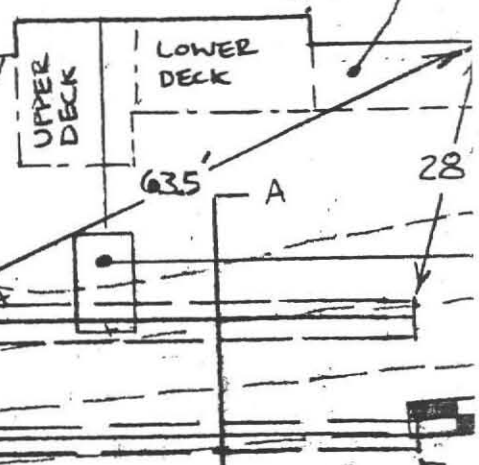
254.51'

DRIVEWAY



BLK HOUSE

CONC. PAD



OP. SEPTIC TANK
500 GAL.

OP. DISTRIBUTION
BOX

98

W

33'

635'

28

A

E

W

E

W

E

W

E

W

E

W

E

W

E

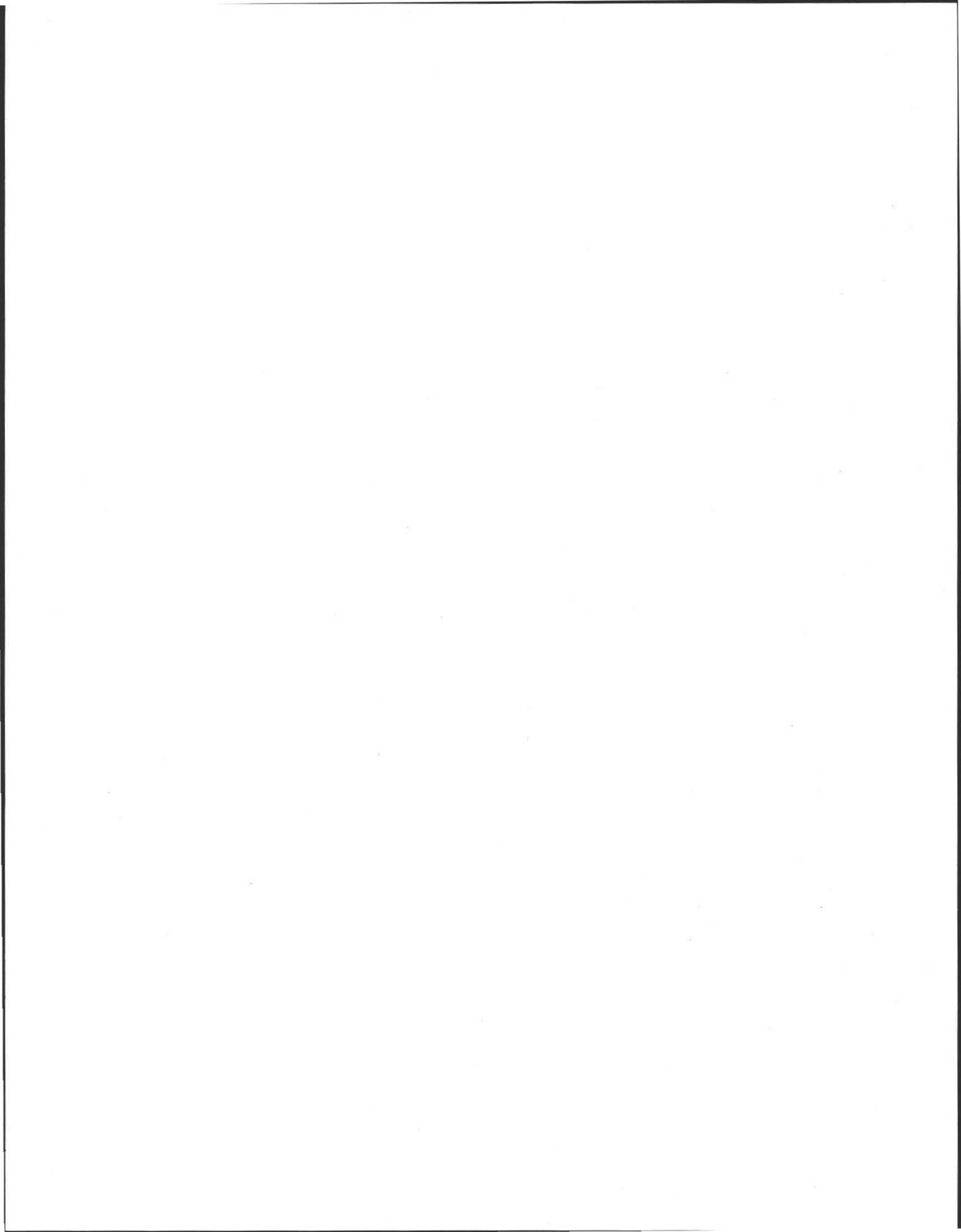
W

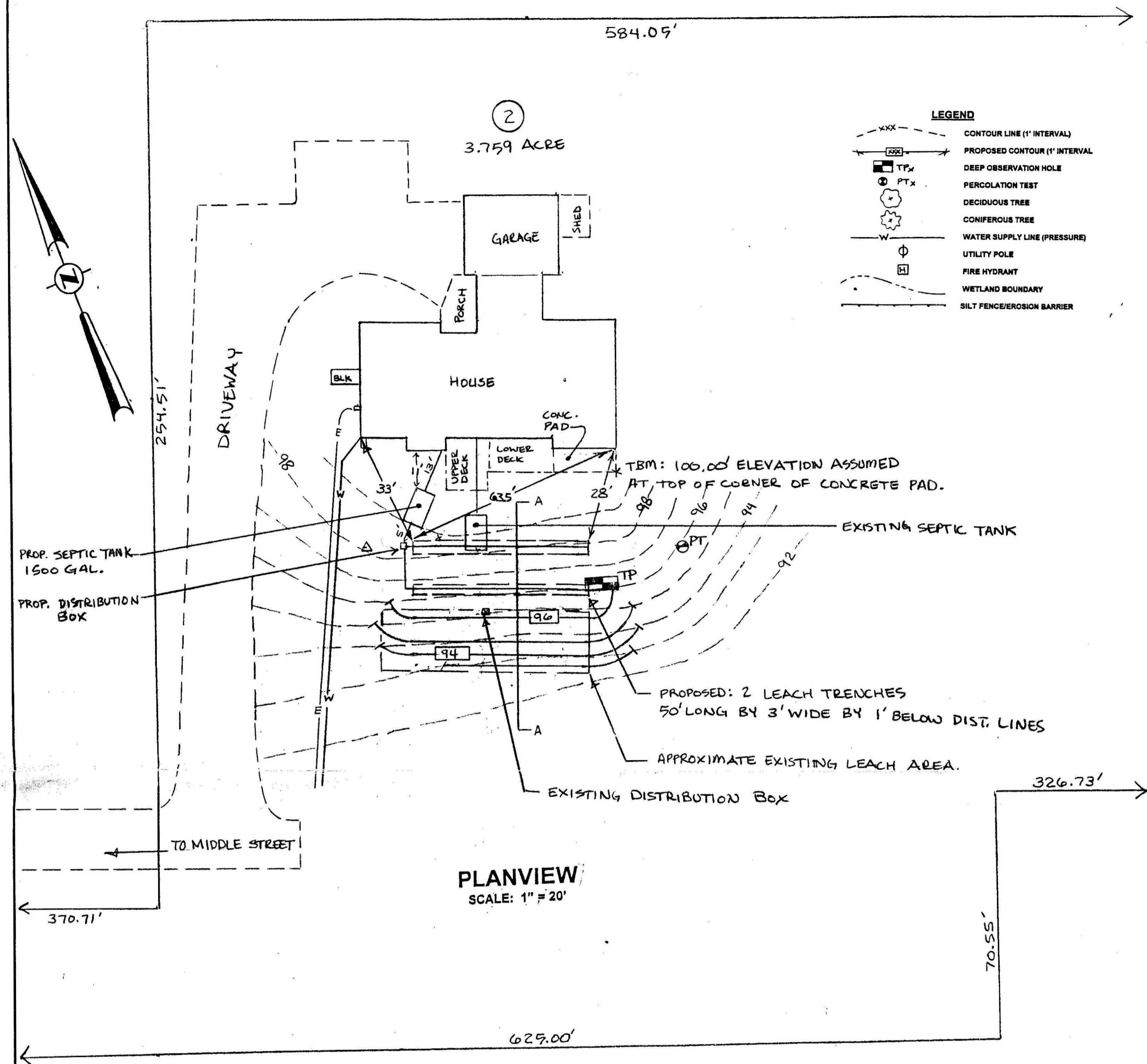
E

94

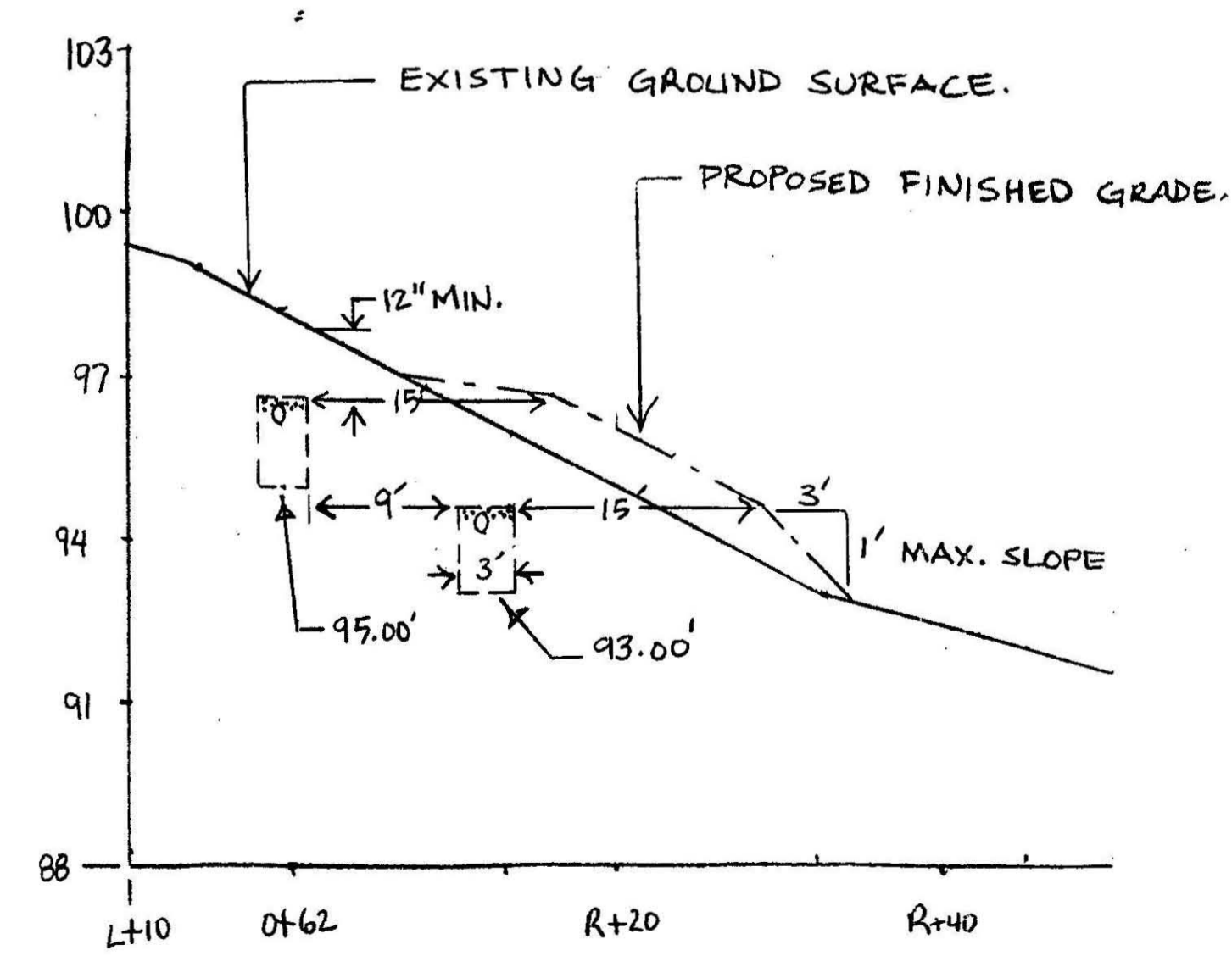
96

A



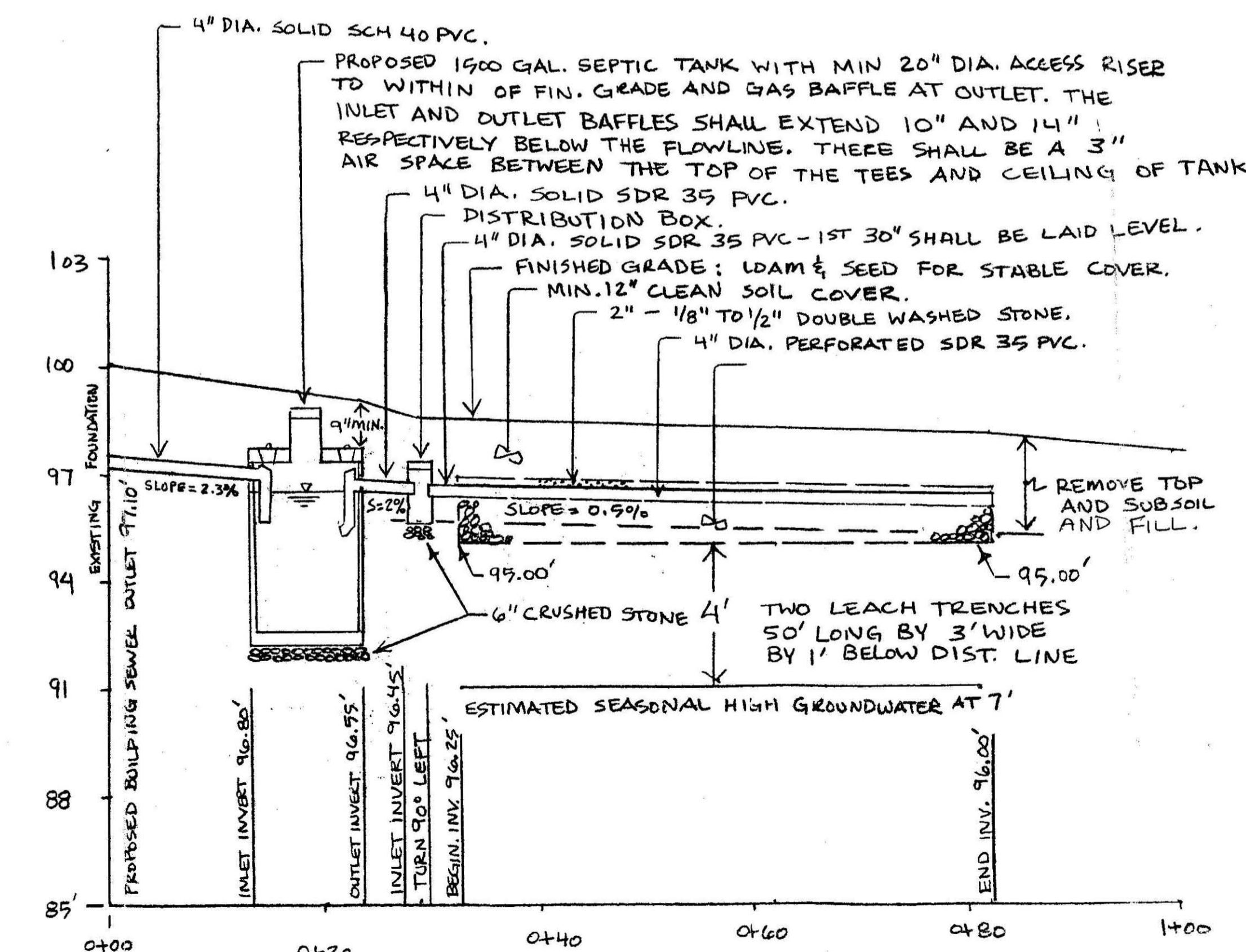


PLANVIEW
SCALE: 1" = 20'

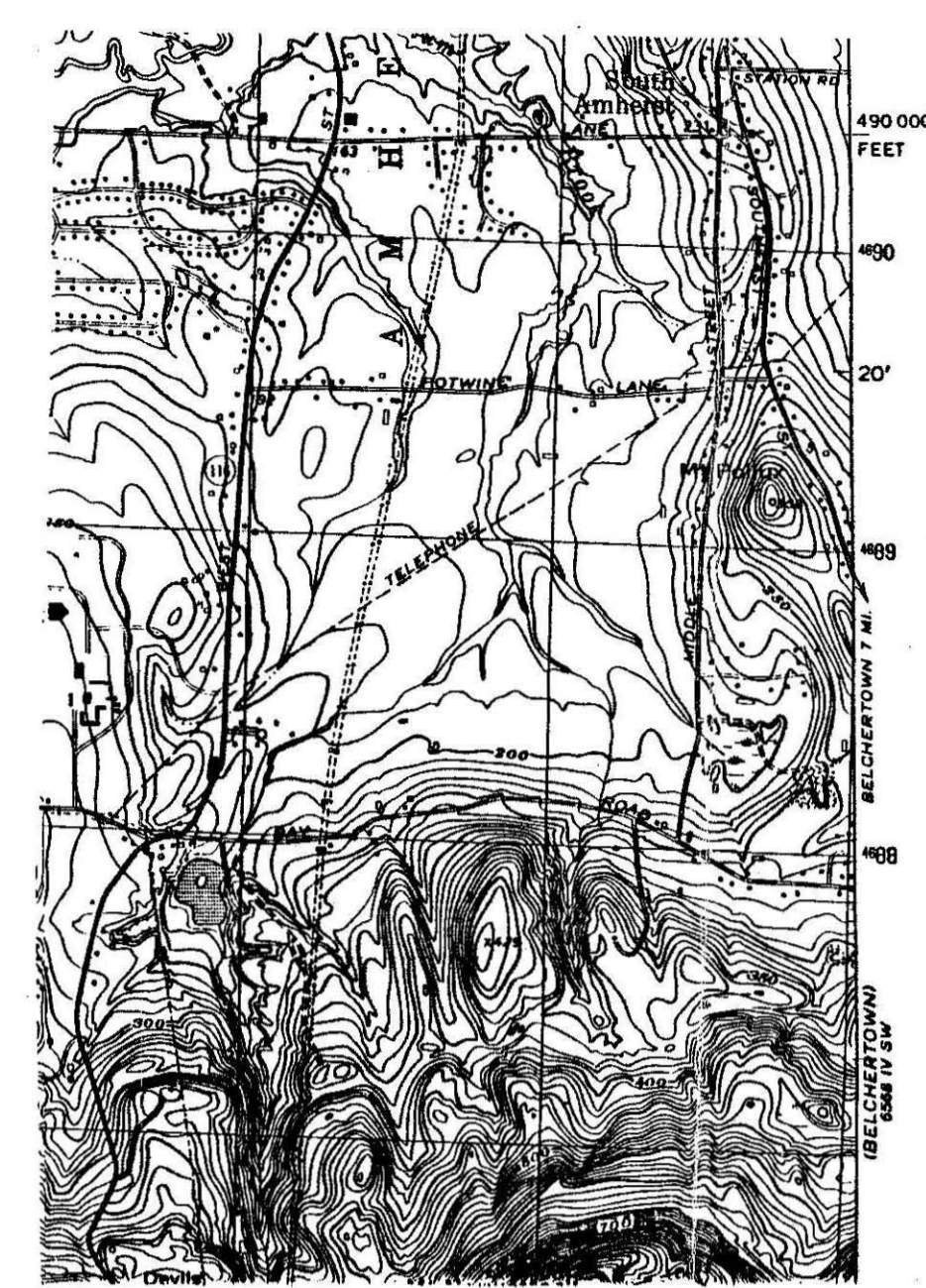


SECTION AT "A - A": LEACH TRENCHES
SCALE: H: 1" = 10' V: 1" = 3'

INVERT ELEVATIONS OF DIST. LINES		
TRENCH	BEGINNING	END
UPPER	96.25'	96.00'
LOWER	94.25'	94.00'



PROFILE OF SYSTEM
SCALE: H: 1" = 10' V: 1" = 3'



PROJECT LOCATION
LOCUS PLAN
USGS' MT HOLYOKE, MASS. QUAD
SCALE = 1: 2500

SOIL INVESTIGATION

Test Pit EL. 96.00'
Estimated Seasonal High Ground Water EL. 89.00'
Bedrock EL. 78.00'
Class I soils.
Water supply wells within 200 feet and wetland resource areas within 100 feet of the proposed soil absorption system are as shown on the planview. Deep observation hole log and percolation test results are in attached Soil Suitability Report. Soil investigation and percolation testing by Robert Stover, Certified Soil Evaluator, and witnessed for the Board of Health by David Zarazinski on 7/20/99.

DESIGN CRITERIA

Design flow is for a 3 bedroom house without a garbage grinder.
Proposed septic tank: 1500 gallons. Garbage grinders to be removed.

DESIGN CALCULATION

Required Flow: 110 gpd per bedroom.
Total required flow = 330 gpd.
Effluent Loading Rate: Percolation Rate = ≤ 5 minutes per inch. Class I soils.
Effluent Loading Rate = 0.74 gpd/sf.
Proposed soil absorption system: 2 leach trenches
50' long by 3' wide by 1' below dist. line
Bottom Area: (50' x 3') 2 trenches = 300 sf
Sidewall Area: (50' x 1') 4 sides = 200 sf
Total Leaching Area: = 500 sf
500 sf x 0.74 gpd/sf = 370 gpd
Total Required Capacity = 330 gpd (OK)

GENERAL CONDITIONS

- This system repair plan is prepared in accordance with Title 5, 310 CMR 15.00. Construction shall conform to these regulations.
- The installer shall notify the designer of any unusual conditions and shall not modify the plan without the written consent of the designer.
- All debris in the site area shall be removed and disposed of in accordance with the law.
- There is no guarantee expressed or implied to any user of a system installed pursuant to this plan.
- The installer shall notify the designer when the system excavation is ready for inspection and the designer and the Board of Health when the system installation is complete and prior to placement of the cover material for final inspection. Notification shall be 48 hours prior to the time of inspection.
- The on-site sewage disposal system shall be pumped and inspected as necessary and at least once every 3 years.

CONSTRUCTION NOTES

- Any topsoil, subsoil, stumps, stones, debris or other impervious materials encountered during excavation shall be removed from the area of the leaching trenches, from five feet around the trenches and from wherever fill is to be placed. Any fill placed in or adjacent to the trenches shall be a clean granular sand & conform to the specifications of Title 5, 310 CMR 15.25(3).
- The finished grade above the soil absorption system shall have a minimum two percent slope to shed surface runoff away from the system.
- Disturbed areas shall be loamed, seeded and mulched until stable vegetation is established.
- The pipes exiting the distribution box shall have the same invert elevation and shall be level for a minimum of the first two feet.
- Existing septic tank shall be pumped, sealed, and filled with sand and removed.
- Any part of existing soil absorption system encountered during excavation shall be disposed of in accordance with the requirements of the Board of Health.

Richard Stover 8/3/99

PLAN OF SEWAGE DISPOSAL SYSTEM REPAIR
510 MIDDLE STREET, AMHERST, MASS.

LORRAINE W. BOGARTZ
510 MIDDLE ST., AMHERST, MA 01002

SCALE: AS SHOWN APPROVED BY: DRAWN BY: RWS
DATE: 8/3/99
AMHERST CIVIL ENGINEERING
RICHARD COSTA, P.E. / ROBERT STOVER
P.O. BOX 3312, AMHERST, MA 01004-3312 DRAWING NUMBER
(413)256-3400