

26 Wildflower



Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK, AMHERST, MA 01002
(413) 259-3077 (413) 259-2404 - FAX Environmental Health Division (413) 259-3078

May 17, 2011

RE: 26 Wildflower Drive, Geothermal Well

Dear Amherst Board of Health:

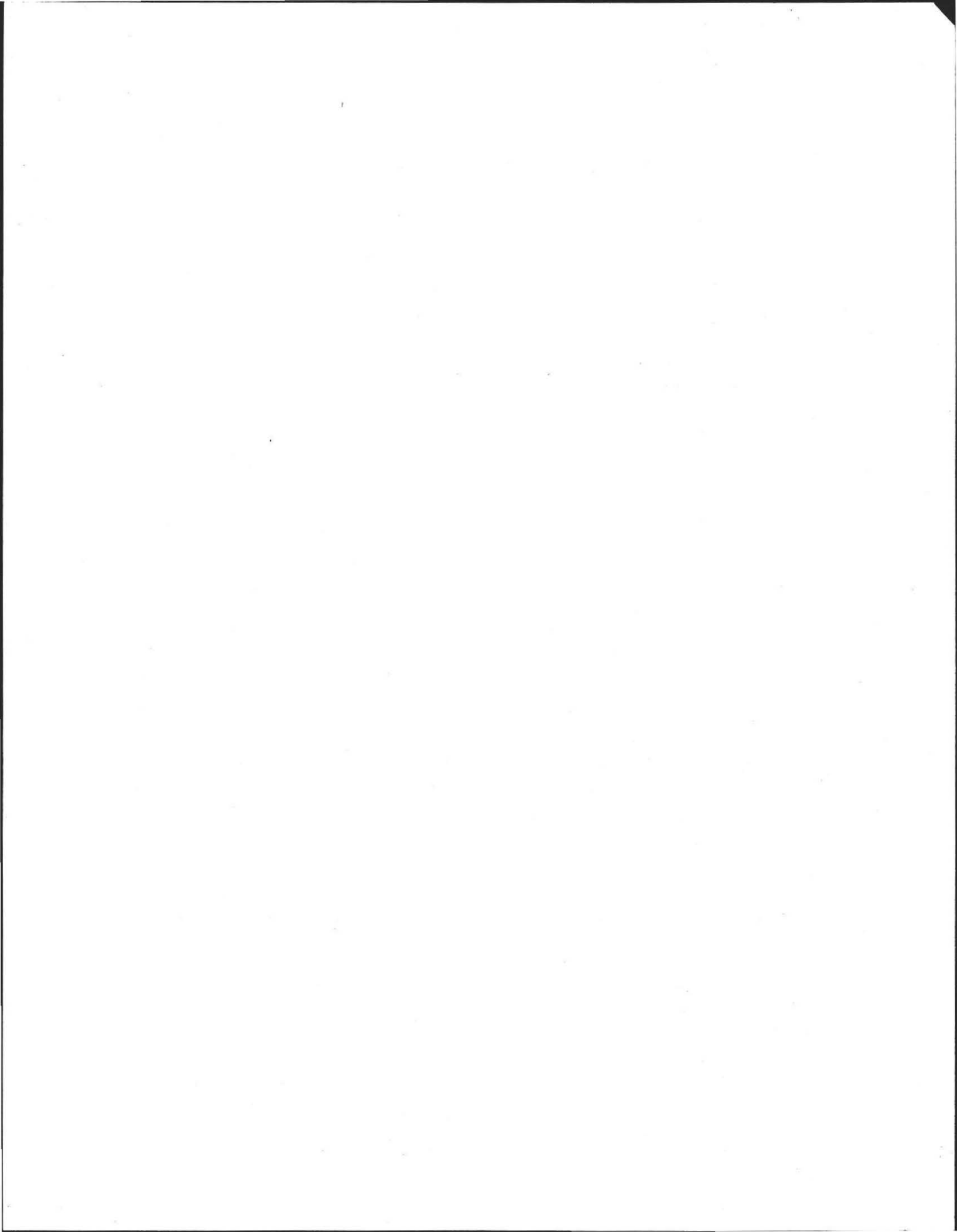
I have reviewed the plan for installation of a geothermal well at 26 Wildflower Drive, currently owned by Robert Jackson, Jr. In my opinion the proposed well plan design meets the requirements of the Amherst Board of Health Regulations for Private Wells as adopted on October 30, 2008, amended regulations effective March 15, 2011.

Mr. Michael Simonelli of Terraclime Geothermal has been invited to attend the 05/26/2011 BOH meeting to discuss and review the geothermal well site, and address any concerns or questions you may have.

Respectfully submitted by,

Javeria Mir, MPH, RS
Assistant Sanitarian

MAKE SMOKING HISTORY



Town of



AMHERST

Massachusetts

AMHERST HEALTH DEPARTMENT, 70 BOLTWOOD WALK,
AMHERST, MA 01002

(413) 259-3077 (413) 259-2404 - FAX

APPLICATION FOR A WELL CONSTRUCTION PERMIT

I hereby petition the Board of Health of the Town of Amherst for a Well Construction Permit (WCP) to install a private well in the Town of Amherst. **ATTACHED IS A PLAN SHOWING THE PROPOSED LOCATION OF THE WELL (WITH ORIGINAL DATE, STAMP AND SIGNATURE OF AN ENGINEER, REGISTERED SANITARIAN, OR REGISTERED LAND SURVEYOR) AND ALL OTHER REQUIREMENTS OF THE AMHERST BOARD OF HEALTH REGULATIONS FOR PRIVATE WELLS.**

- Address of Property: 26 Wildflower Drive
- Assessor of Parcel Number: 21D-6
- Name of Owner: Robert Jackson Jr. Telephone Number: 413-545-1386
Address of Owner: same
- Name of Well Driller: Henshaw Well Drilling (Kirke/Dan Henshaw) Reg. # 196
(Must be registered with Massachusetts Water Resources Commission)
- Purpose of Well: *Drinking () Agricultural Only () Ground Source Heat Pump (X)
\$100.00 \$50.00 \$50.00

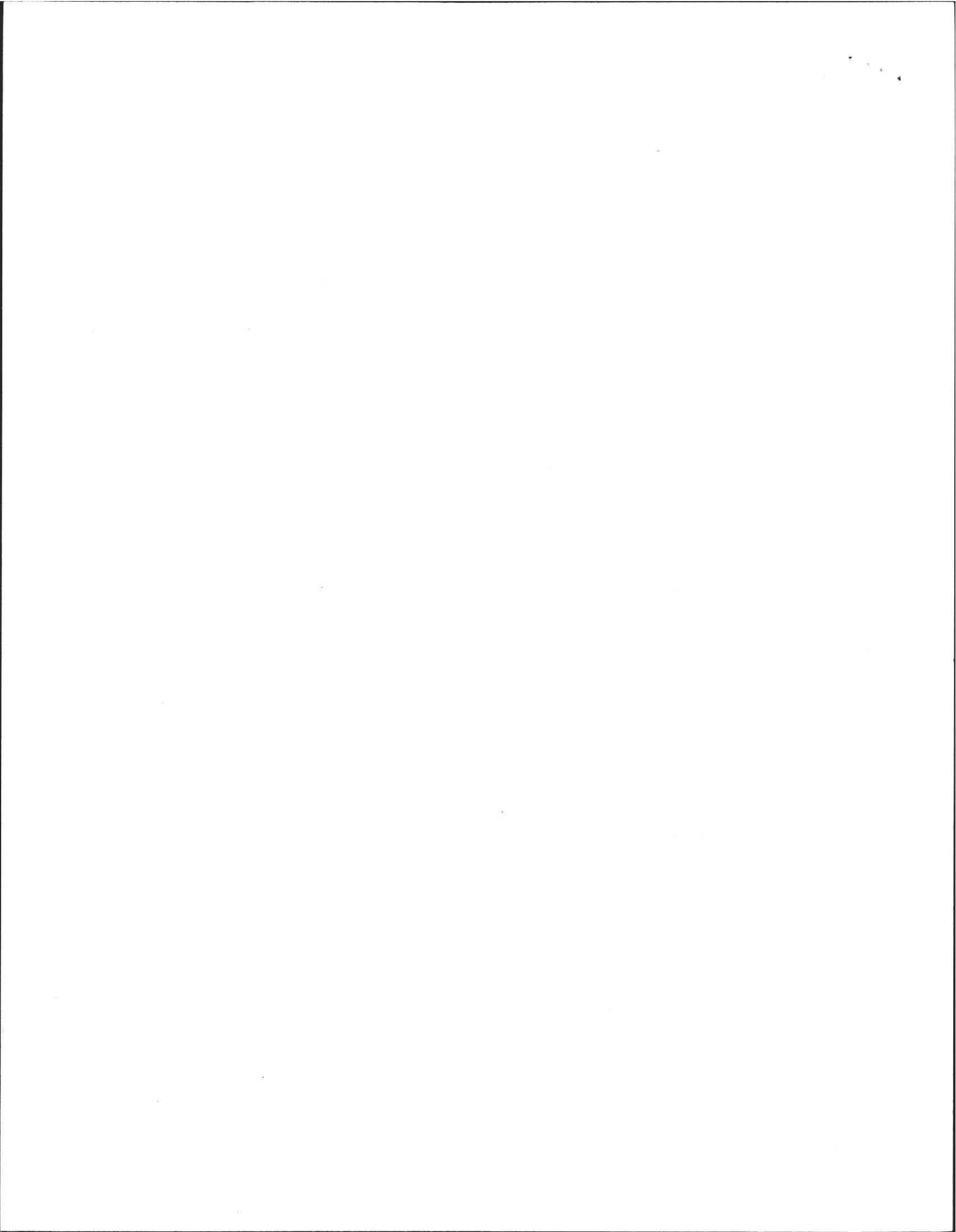
The undersigned acknowledges that he must, before commencing construction or use of the system which is the matter of this application, secure any and all other permits which may be required by the laws of the Town of Amherst and the Commonwealth of Massachusetts, and agree to abide by all regulations of the Town of Amherst and the Commonwealth of Massachusetts concerning private wells.

The undersigned also understands that if a private well is to be used for drinking purposes, a **BUILDING PERMIT** affecting the structure the well is to serves **WILL NOT BE ISSUED UNTIL A** Water Supply Certificate has been granted by the Amherst Board of Health.

Name of Applicant: Terraclime Geothermal

Applicant Signature: *Michael J. Simunelli* Date: 5-10-11

| | |
|--|---|
| For Office Use Only | |
| <input checked="" type="checkbox"/> Permit Issued By: <u>Amherst Board of Health</u> | <input type="checkbox"/> Permit Denied By: _____ |
| PERMIT NUMBER: _____ | REASON: _____ |
| DATE ISSUED: <u>May 24, 2011</u> | DATE DENIED: _____ |
| Inspected By: _____ | Fee Paid: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Amount <u>50.00</u> |
| Inspection Date: _____ | Cash/Check # <u>15117</u> |
| | Date of Payment <u>5-19-11</u> |





Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Drinking Water Program

UIC Registration Application for Closed-Loop Ground Source Heat Pump Well

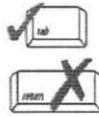
Registration Category

Registration of Underground Discharges to Injection Well(s)
Modification to an Existing UIC Registration

UIC Registration Fee - Exempt

For Modifications to an Existing UIC Registration

Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Check all that apply: Change of owner Change in # of discharge wells (+/-)

Enter UIC Registration Number issued by MassDEP for the initial UIC Registration (required for modifications): MAS11A008204-5CL
UIC Registration #

A. Site Information

Private Residence
Property name (enter "Private Residence" if unnamed)
26 Wildflower Dr Amherst
Property Street Address City/Town
MA 01002
State Zip Code

B. Owner Information

Robert Jackson 26 Wildflower Dr
Name of Owner Street Address
Amherst MA 01002
City/Town State Zip Code
413.253.9426 jackson@ecs.umass.edu
Telephone Number Email (optional)

C. Registered Well Driller

Kirk Henshaw / Dan Henshaw Reg. No. 196
Well Driller's Name MassDEP Well Driller Certification Number
Henshaw Well Drilling 413.296.4725
Name of Company Telephone Number

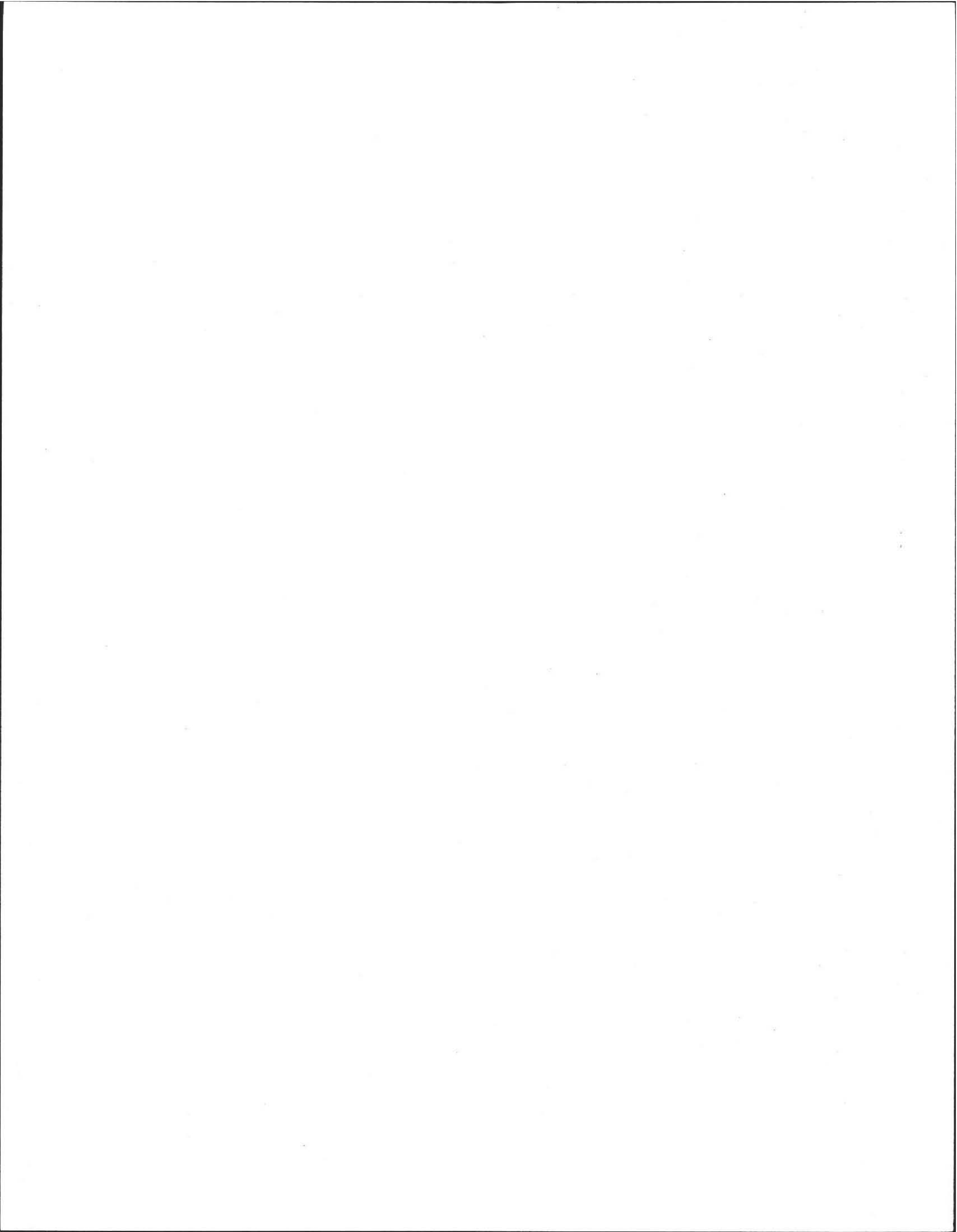
D. Injection Well Information

two 350' HDPE bores w/ u-loops
Total Number of Wells (existing plus proposed)
Type of Discharge: Direct Exchange Heat Pump Closed Loop Heat Pump

E. Preparer

Michael Simonelli 5/4/2011
Printed Name Date
413.233.9389 Project Manager
Telephone Number Position/Title
msimonelli@terraclimegeo.com
Email (optional)

Send a duplicate copy of this form to the local board of health.





- Property Map**
- Property Line
 - Hydrographic Property
 - Right of Way Line
 - Town Boundary
 - Other Property Lines
 - Former Property Line
 - Subdivision Lot Line
 - Easements
 - Basemap
- Driveways**
- Driveway, Paved
 - Driveway, Unpaved
- Transportation**
- Paved street polygons
 - Unpaved street polyg
- Bridges**
- Bridge decking and air
 - Foal Bridge
 - Rail Bridge

- Trails**
- Rail Lines
- Structures**
- Building
 - Foundation or in cont
 - Outbuilding or Miscall
 - Deck, Porch, Stairs or
 - Mobile Home, Trailer
 - Swimming Pool
 - Building Ruins
 - Water storage tank
 - Rivers and Streams
 - Streams
 - Hydro Connector
 - Headwalls, Floodwalls
- Landcover**
- Brush and scrub vege
 - Tree and forest vege
 - Cultivated field
 - Gravel pile
 - Quarry
 - Misc Impervious Surf
- Parking**
- Parking Paved
 - Parking Unpaved

Horizontal Datum: MA Stateplane Coordinate System,
Zone 4151, Datum: MADS, Feet
Vertical Datum: NAVD83, Feet

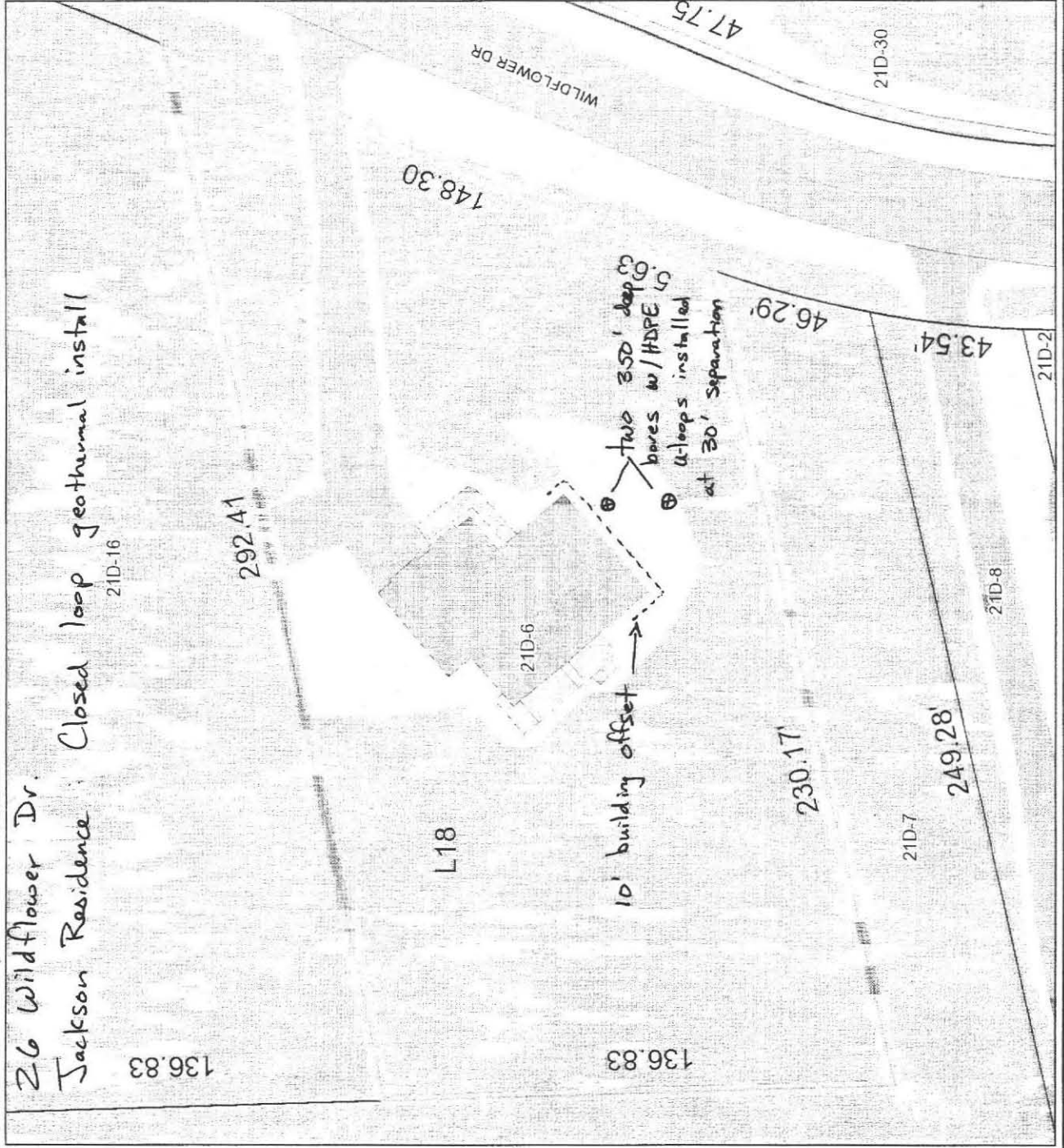
Planimetric & topographic basemap features compiled
at 1"-40' scale from April, 2009 Aerial Photography.
Parcels compiled to match the basemap;
revisions are ongoing.

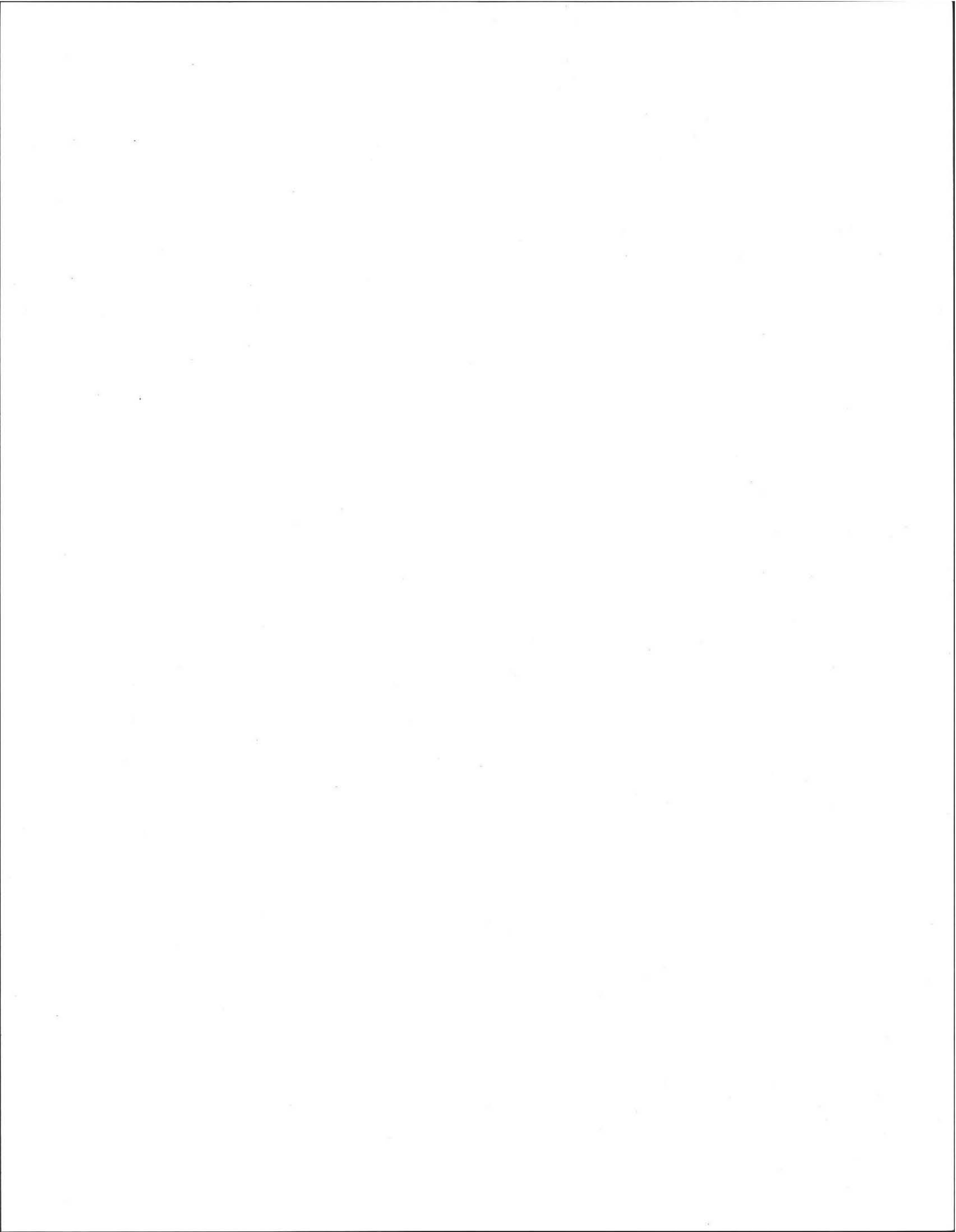
The information depicted on this map is for planning
purposes only. It may not be adequate for legal boundary
delineation or other purposes. Utility structures and underground utility
locations are approximate and require field verification.

THE TOWN OF AMHERST MAKES NO WARRANTIES,
EXPRESSED OR IMPLIED, CONCERNING THE
ACCURACY,
COMPLETENESS, RELIABILITY, OR SUITABILITY OF
THESE DATA. THE TOWN OF AMHERST DOES NOT
ASSUME ANY LIABILITY ASSOCIATED WITH THE
USE OR MISUSE OF THIS INFORMATION.



1" = 39 ft
Amherst GIS Viewer May 10, 2011





TOWN OF

LOT 18

Lower Dr

Important Information Regarding Your Private Sewage Disposal System

DISPLAY THIS DOCUMENT IN A PROMINENT PLACE

Owner PLANTATION VALLEY HOMES Address 123 MEADOWS ST FLORENCE

Installer KARLS ETC Address ~~JUNE 1983~~ RIVER DR. HADLEY

Date Installation Inspected and Approved JUNE 1983

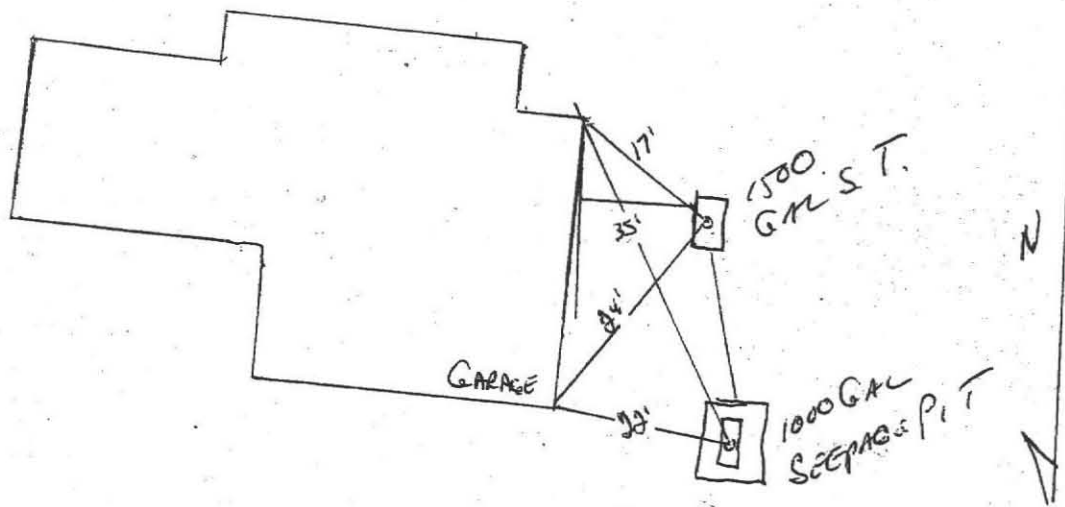
Description of System: Tank Capacity: 1500

Leach Field () Bed () Seepage Pit (X) Square Feet: 340

Garbage Grinder Yes (X) No () No. Bedrooms: 4 No. People 8

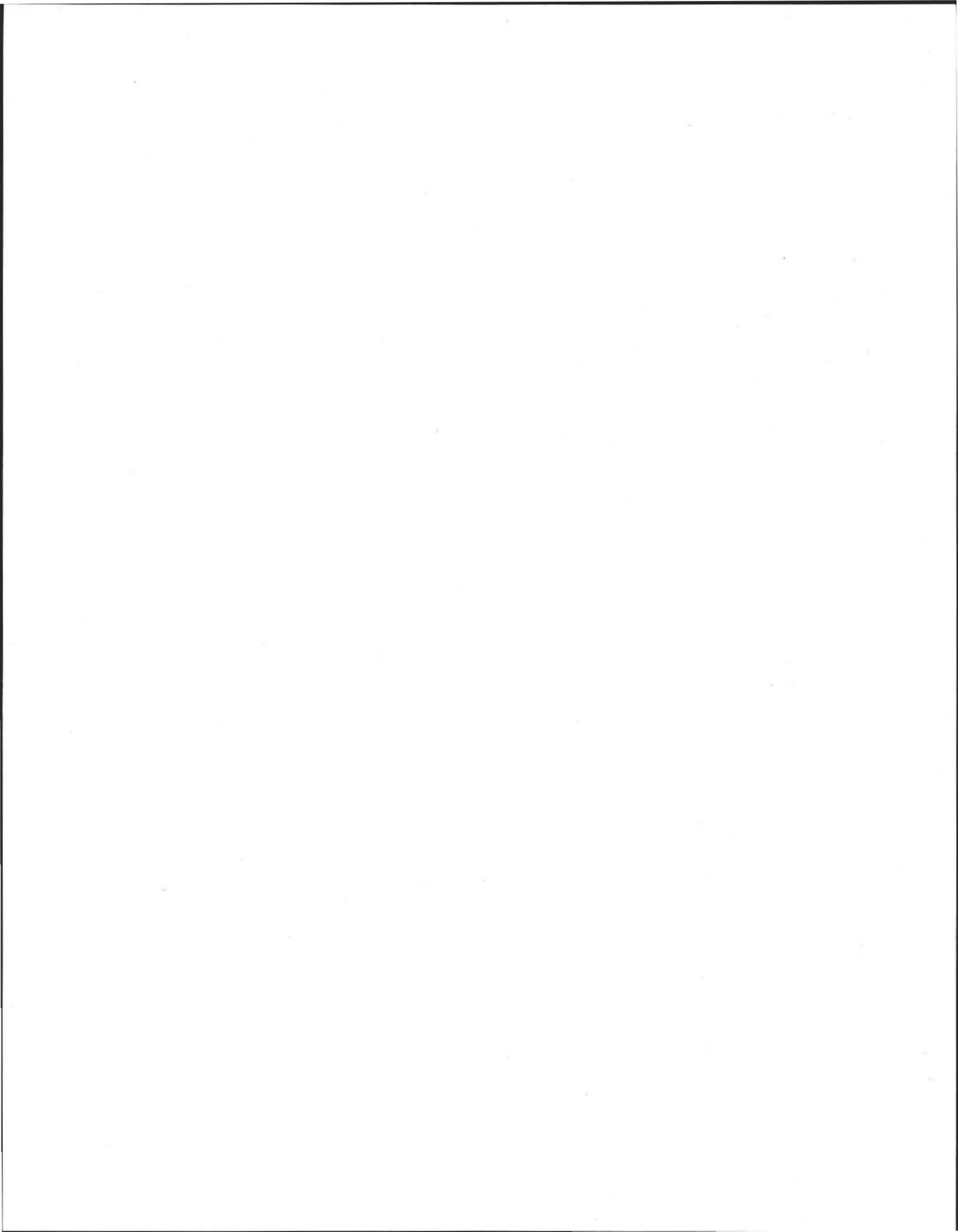
AS - BUILT PLAN:

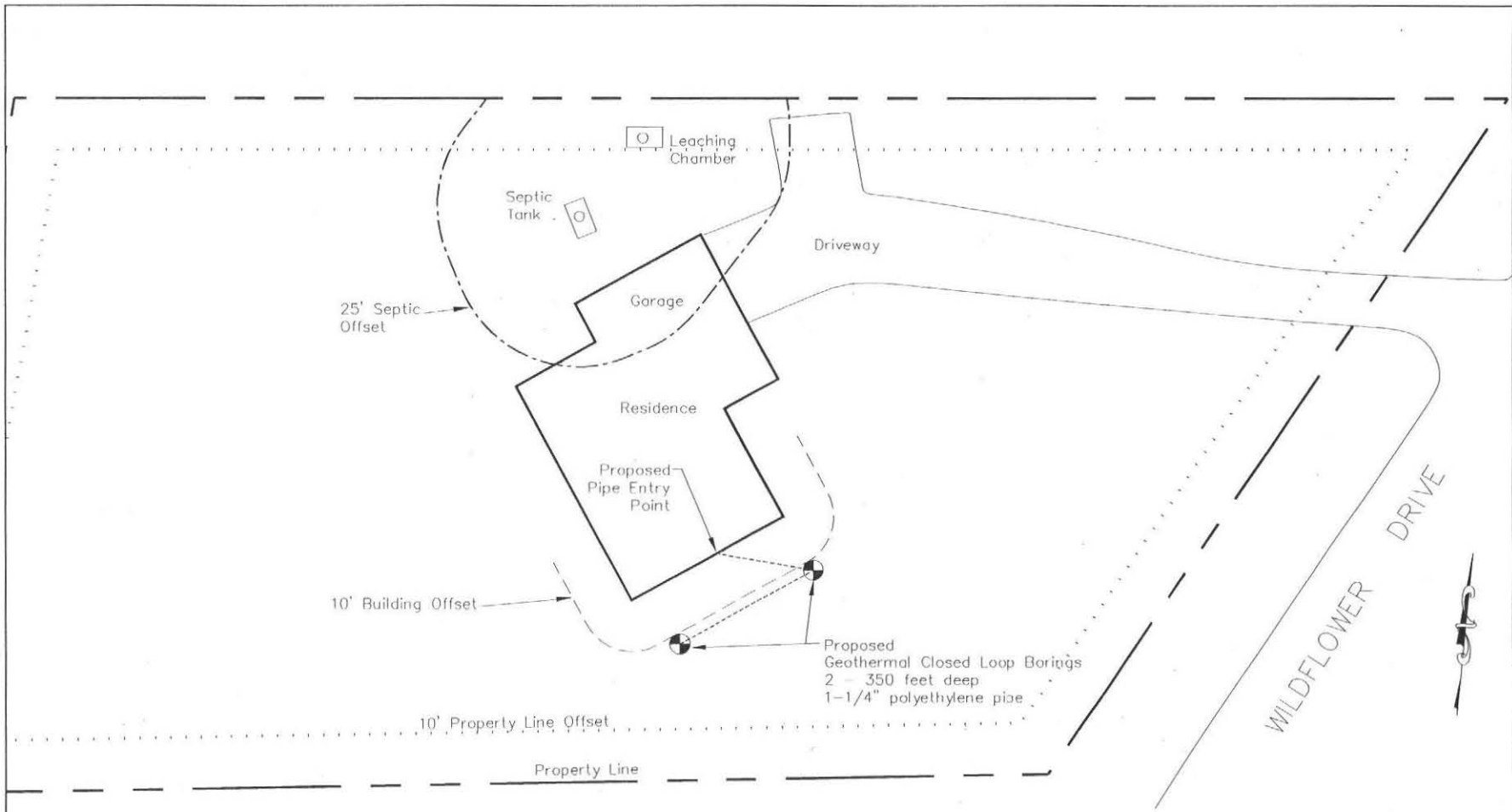
2-501 J03020A



PROPER MAINTENANCE OF YOUR PRIVATE SEWAGE DISPOSAL SYSTEM

1. This system must be inspected periodically and the tank pumped out at an interval not to exceed 3 years.
2. For your protection sanitary pumpers are licensed by the Amherst Board of Health.
3. Regular pumping is crucial to avoid early failure and costly repairs of the system.
4. DO NOT dispose into the system such items as rags, string, sanitary napkins, coffee grounds as they can cause it to clog and fail.
5. Further information can be obtained by contacting your Health Department at 253-7077.





Notes:

All locations are approximate.

Boring locations may be adjusted at time of installation to accommodate field conditions.

Plan developed from Amherst Assessors maps and plans of record and measurements by Terraclime Geothermal.



Terraclime
GEOTHERMAL

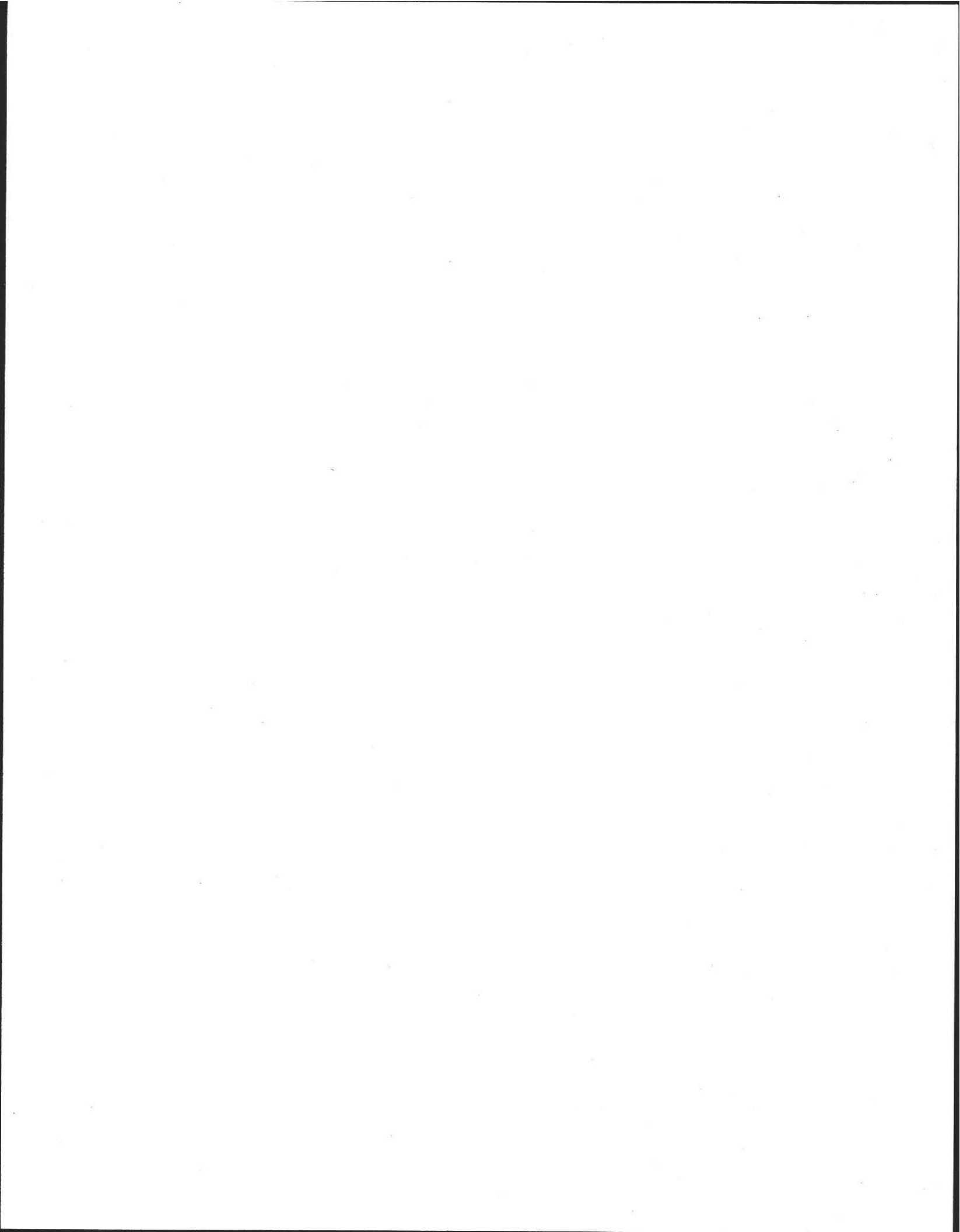
Phone: 1-877-372-5236 Web: www.terraclimegeo.com

| REVISIONS | | |
|-----------|------|-------------|
| No | Date | Description |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

PROJECT: **Jackson Residence**
26 Wildflower Driver
Amherst, Massachusetts

TITLE: **Site Plan**

| | | | |
|----------------------------------|--------------|-------------|--------------|
| COMPUTER CADFILE : 215604geo.dwg | | | |
| DRAWN BY: | DESIGNED BY: | CHECKED BY: | APPROVED BY: |
| RAS | MS | MS | MS |
| SCALE: | DATE: | JOB NO.: | FIGURE NO.: |
| 1" = 30' | 5/19/11 | 215604 | 1 |



No. 83-3

#26 \$90

FEE 90

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

Town OF Amherst

Application for Disposal Works Construction Permit



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

26 Wildflower Drive (Amh Woods) Location - Address
Plantation Valley Homes 123 Meadow St. Florence Ma or Lot No. Address
Ed Stone Owner Address

Type of Building Dwelling - No. of Bedrooms 4 Expansion Attic () Garbage Grinder (X)
Other - Type of Building No. of persons Showers () - Cafeteria ()
Other fixtures

Design Flow 55 gallons per person per day. Total daily flow 440 gallons.
Septic Tank - Liquid capacity 1500 gallons Length Width Diameter Depth

Disposal Trench - No. Width Total Length Total leaching area 204 sq. ft.
Seepage Pit No. 2 Diameter 10 1/2 x 7 Depth below inlet 3 Total leaching area 147 sq. ft. sides bottom

Other Distribution box (X) Dosing tank ()
Percolation Test Results Performed by Frederick Filios Date Mar. 15 1981
Test Pit No. 1 2 minutes per inch Depth of Test Pit 10 Depth to ground water none
Test Pit No. 2 minutes per inch Depth of Test Pit Depth to ground water

Description of Soil enclosed & NOTE - may use 1,000 Gallon leach tank instead of 2 1/2 tanks. Eliminate D-box

Nature of Repairs or Alterations - Answer when applicable

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

Signed Plantation Valley Homes by Frederick Filios, R.S.

Application Approved By [Signature] Date 3-18-83

Application Disapproved for the following reasons: Date

Permit No. Issued Date

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

OF

Certificate of Compliance

THIS IS TO CERTIFY, That the Individual Sewage Disposal System constructed () or Replaced () by Installer

at has been installed in accordance with the provisions of TITLE 5 of The State Sanitary Code as described in the application for Disposal Works Construction Permit No. dated

THE ISSUANCE OF THIS CERTIFICATE SHALL NOT BE CONSTRUED AS A GUARANTEE THAT THE SYSTEM WILL FUNCTION SATISFACTORY.

DATE Inspector

THE COMMONWEALTH OF MASSACHUSETTS

BOARD OF HEALTH

Town OF Amherst

No. 83-3

\$90 FEE

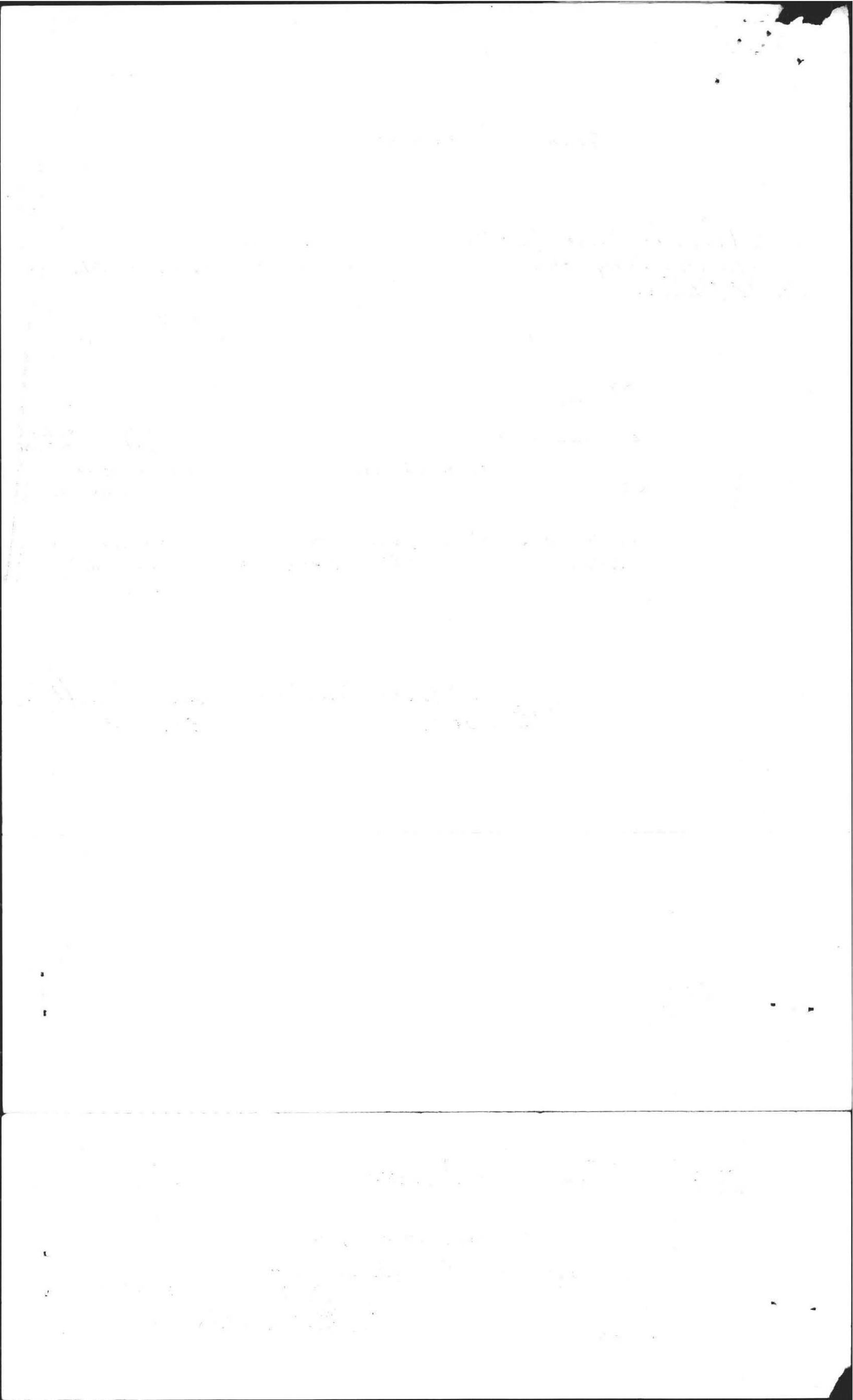
Disposal Works Construction Permit

Permission is hereby granted Plantation Valley Homes by to Construct (X) or Repair () an Individual Sewage Disposal System at No. 123 Meadow St. Wildflower Dr.

as shown on the application for Disposal Works Construction Permit No. 83-3 Dated 3-18-83

DATE 3-18-83 Board of Health [Signature]

CHECK OR FILL IN WHERE APPLICABLE



Amliers Woods

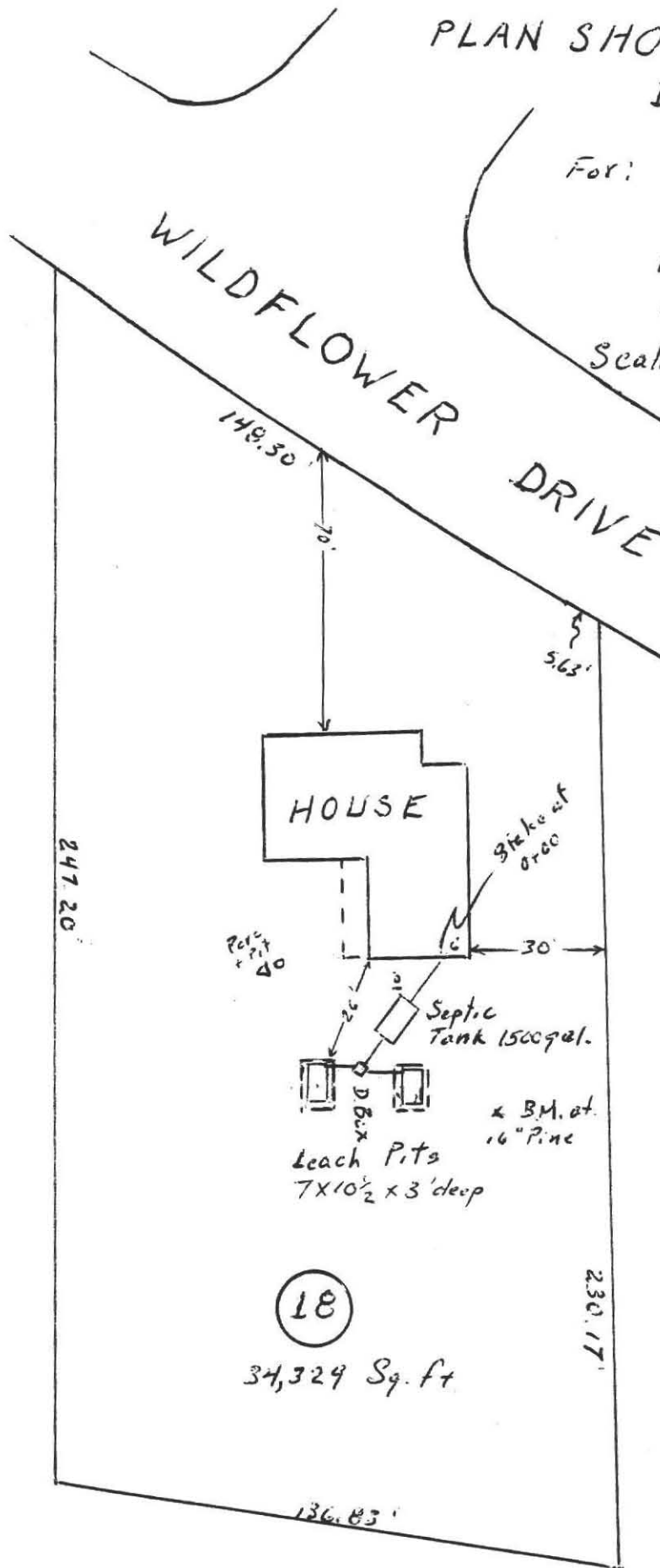
PLAN SHOWING SEWAGE DISPOSAL

For: Plantation Valley Homes

123 Meadow St
Florence Ma

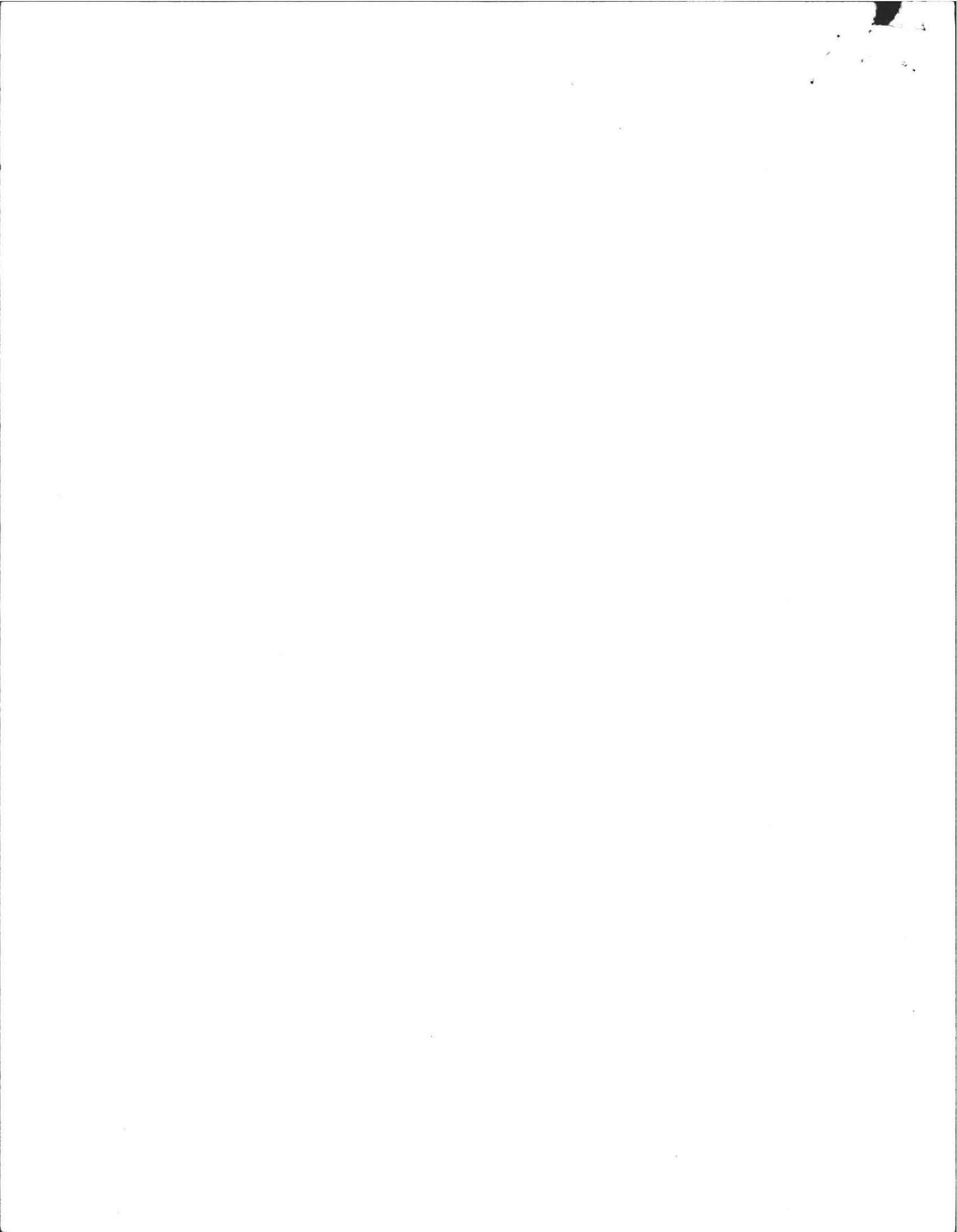
Scale: 1" = 40'

By: Frederick Filios



F. Filios



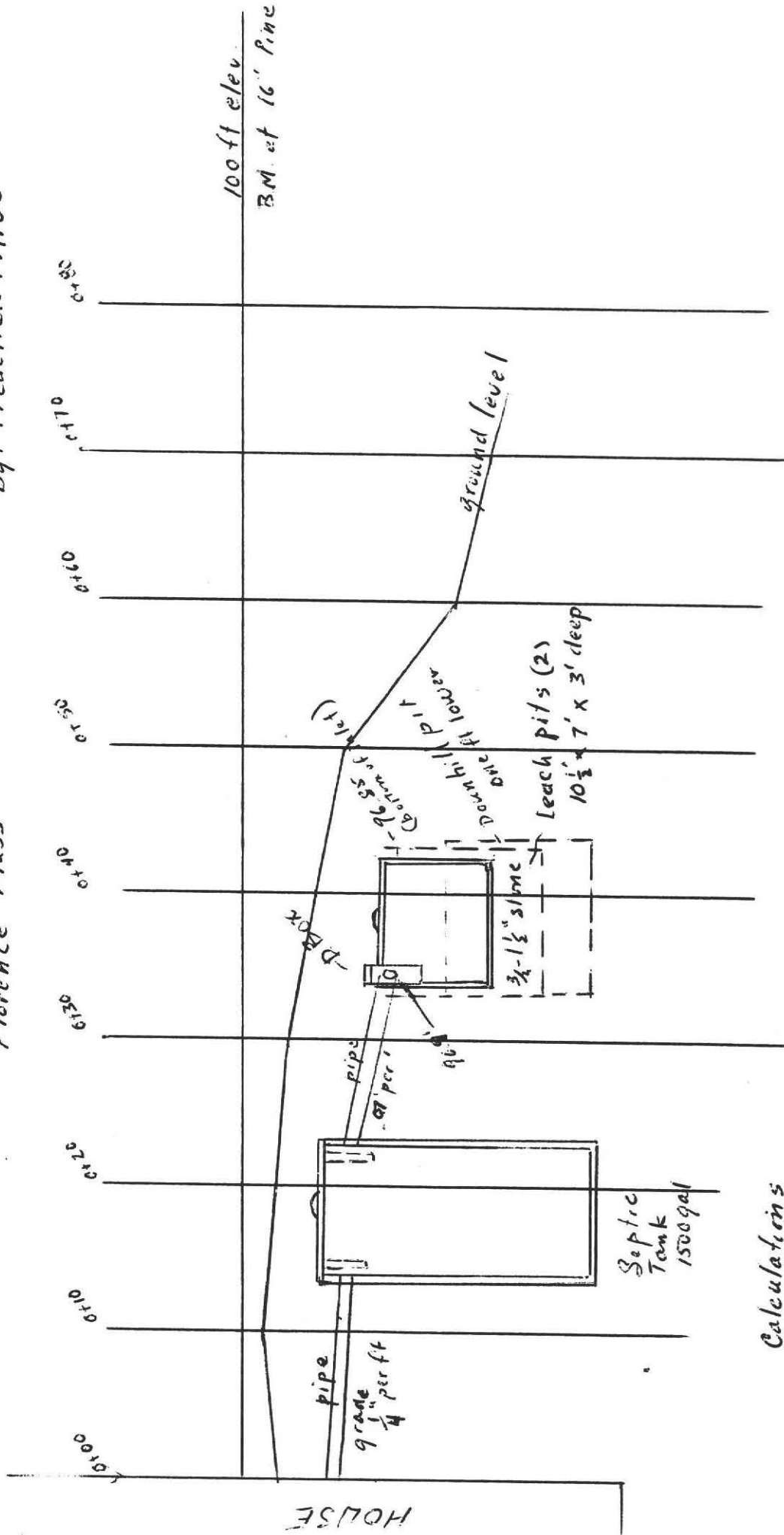


Feb. 1983

PROFILE OF SEPTIC SYSTEM

For Plantation Valley Homes
 123 Meadow St
 Florence Mass

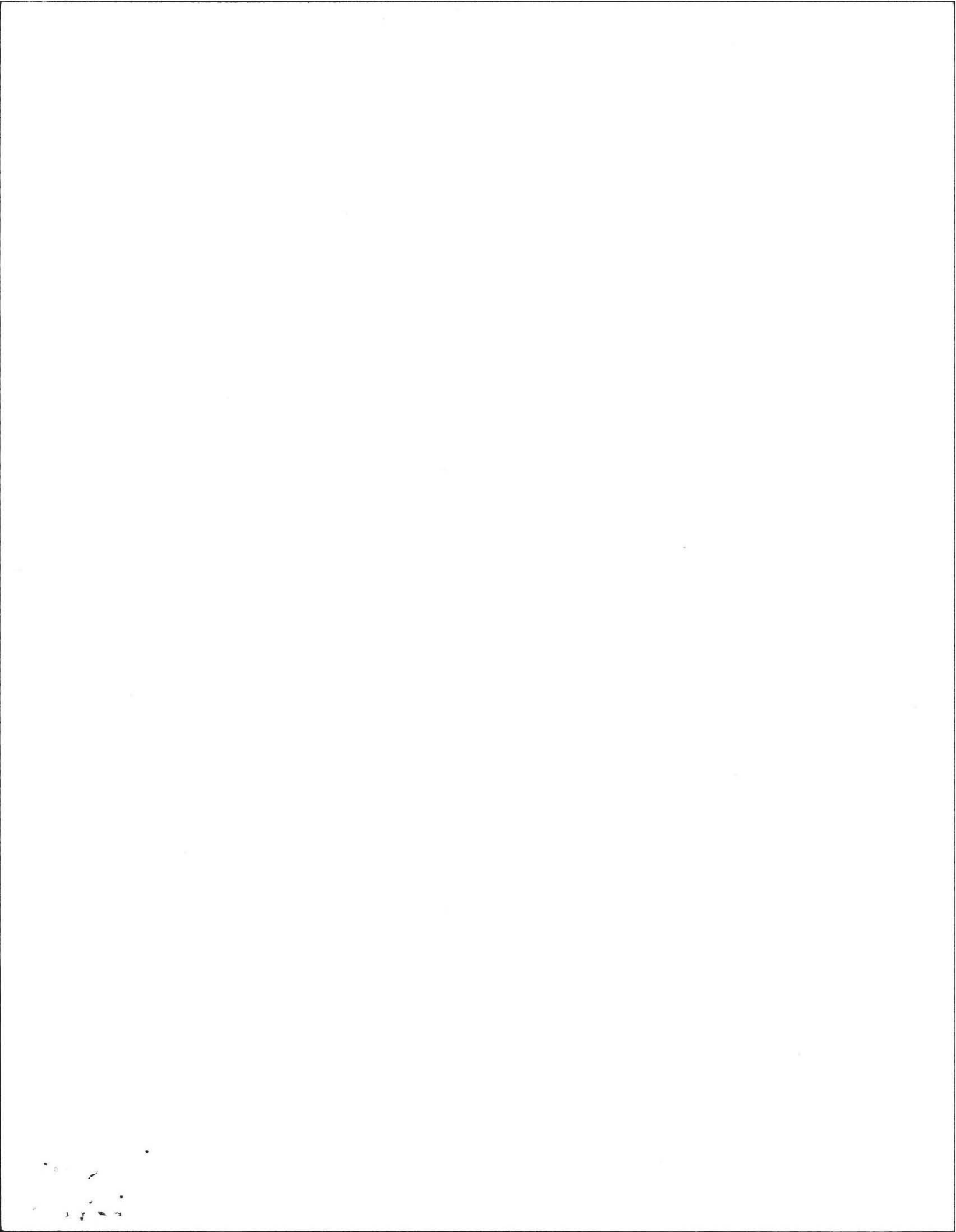
Scale: Horizontal, 1" = 10'
 Vertical, 1" = 3'
 By: Frederick Filios



Calculations

Rate: < 2 min./inch
 Sides: $2.50 \times 10 \frac{1}{2} \times 3 \times 4 = 315 \text{ gal.}$
 Ends: $2.50 \times 7 \times 3 \times 4 = 210 \text{ gal.}$
 Bottoms: $1.0 \times 10 \frac{1}{2} \times 7 \times 2 = 147 \text{ gal.}$
 Required = 672 gal.
 Proposed = 672 gal.

Frederick Filios



DEEP SOIL LOGS

OWNER Amherst Woods Phase I

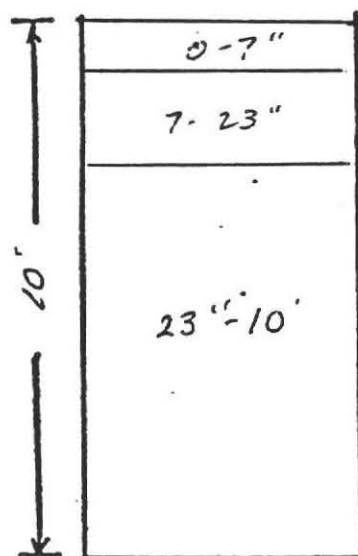
Date Mar 15 1981

LOCATION Wildflower Drive

OBSERVER F.A. Filios

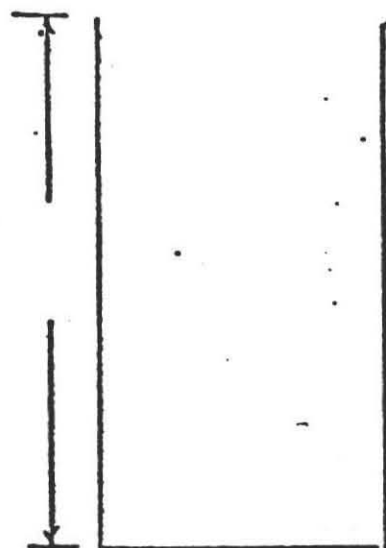
Soil

Lot #18



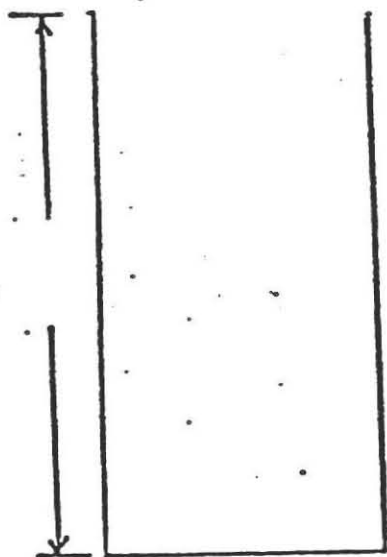
Topsoil
Subsoil; medium
sandy w/ gravel

Coarse sand with
few cobbles

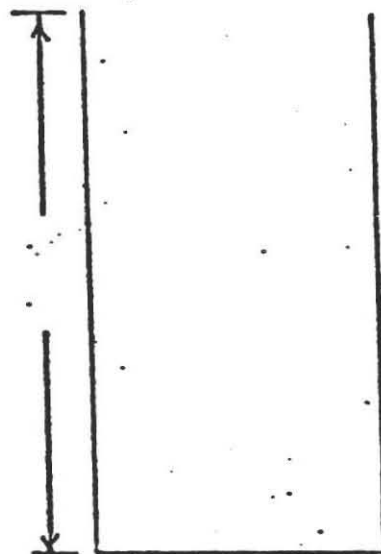


Ground Water none

Ground Water _____



Ground Water _____



Ground Water _____

Percolation at 33"

25 minutes/inch



1000
1000
1000
1000
1000



Request for Public Documents

Date of Request: 5-11-11

The undersigned hereby requests public information in accordance with the Massachusetts Public Records Law:

NAME: Charlotte Jackson

ADDRESS: 26 Wildflower Dr
Amherst, MA 01002

PHONE: 413-253-9426

INFORMATION REQUESTED: *(Please be as specific as possible)* _____

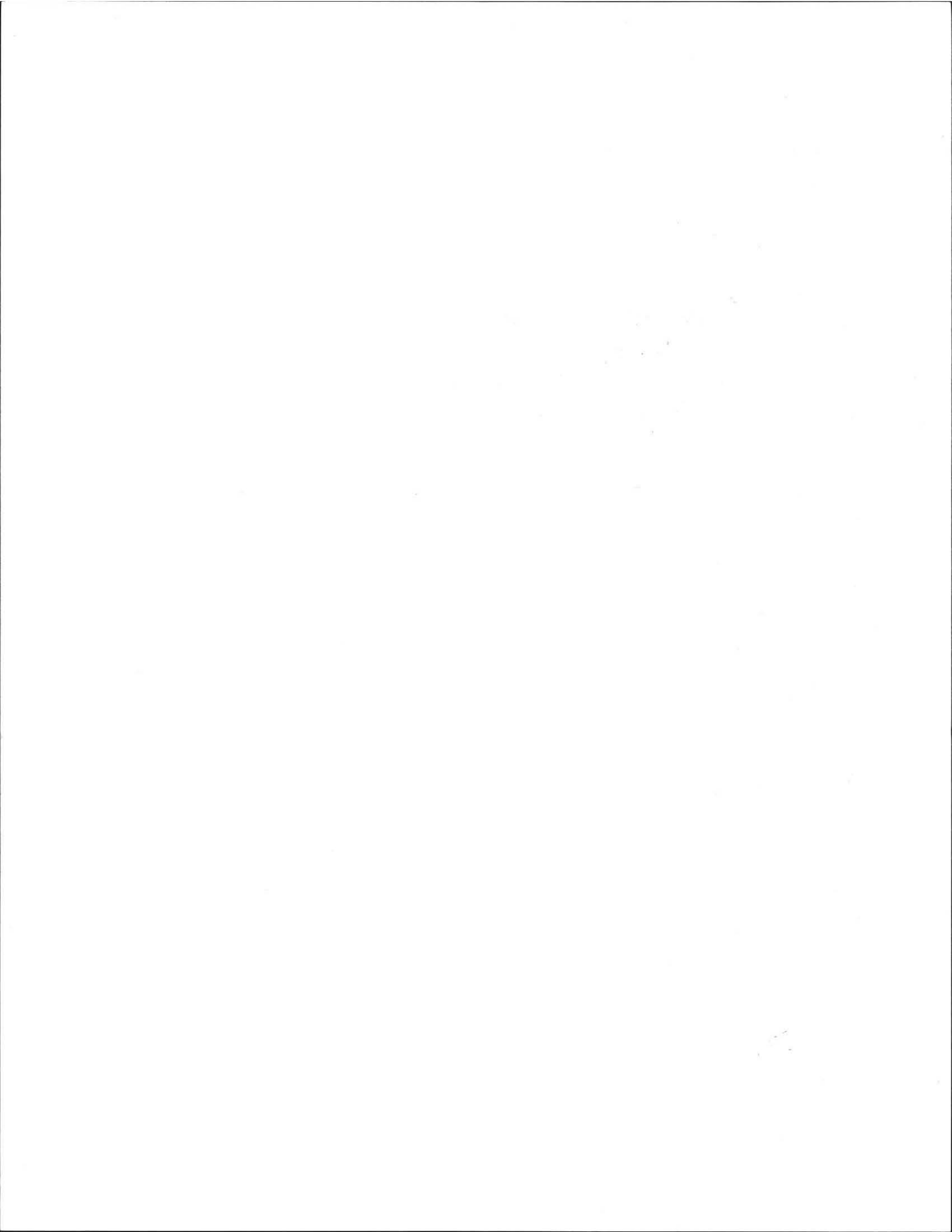
Septic system plan for 26 Wildflower Drive

According to the Massachusetts Public Records Law, requests will be responded to within ten days. The response will be either an offer to provide the requested material or a written denial. The Town will charge fees to recover the costs of complying with a public record request. The fees may include the time involved to search for the material and the time involved reviewing the material to remove exempt items from a requested record. The fees will be based on the hourly rate of the lowest paid employee who is capable of performing the task. Additionally, a twenty cents (\$.20) per page copying fee will be charged for photocopying and fifty cents (\$.50) per page for a computer printout. The actual cost of reproduction may be charged for materials which are not susceptible to ordinary means of reproduction e.g. slides or computer disks.

Received: 05/12/11

Action must be taken by: _____

Distributed to: _____



BOARD OF HEALTH

TOWN OF AMHERST, MASSACHUSETTS

LOT # 7 ALYSSUM LANE

Important Information Regarding Your Private Sewage Disposal System

DISPLAY THIS DOCUMENT IN A PROMINENT PLACE

Owner DOUGLAS GAGNON Address GULFRO PELHAM

Installer EO STONE Address MONTAGUE MA

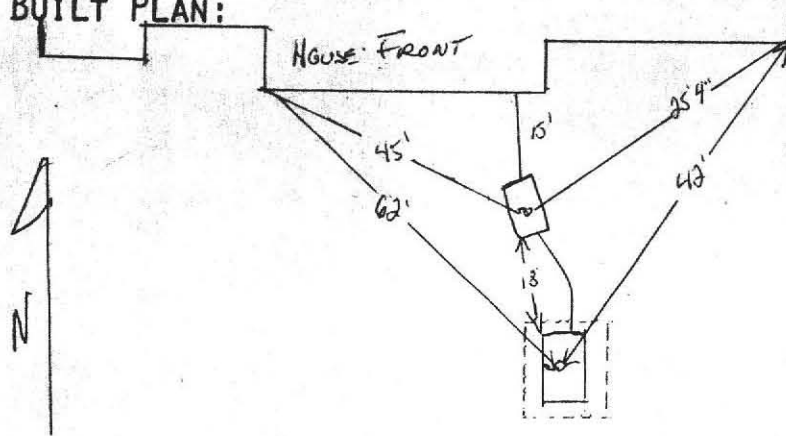
Date Installation Inspected and Approved 7/21/83

Description of System: Tank Capacity: 1000

Leach Field () Bed () Seepage Pit (X) Square Feet: 275

Garbage Grinder Yes () No (X) No. Bedrooms: 3 No. People 6

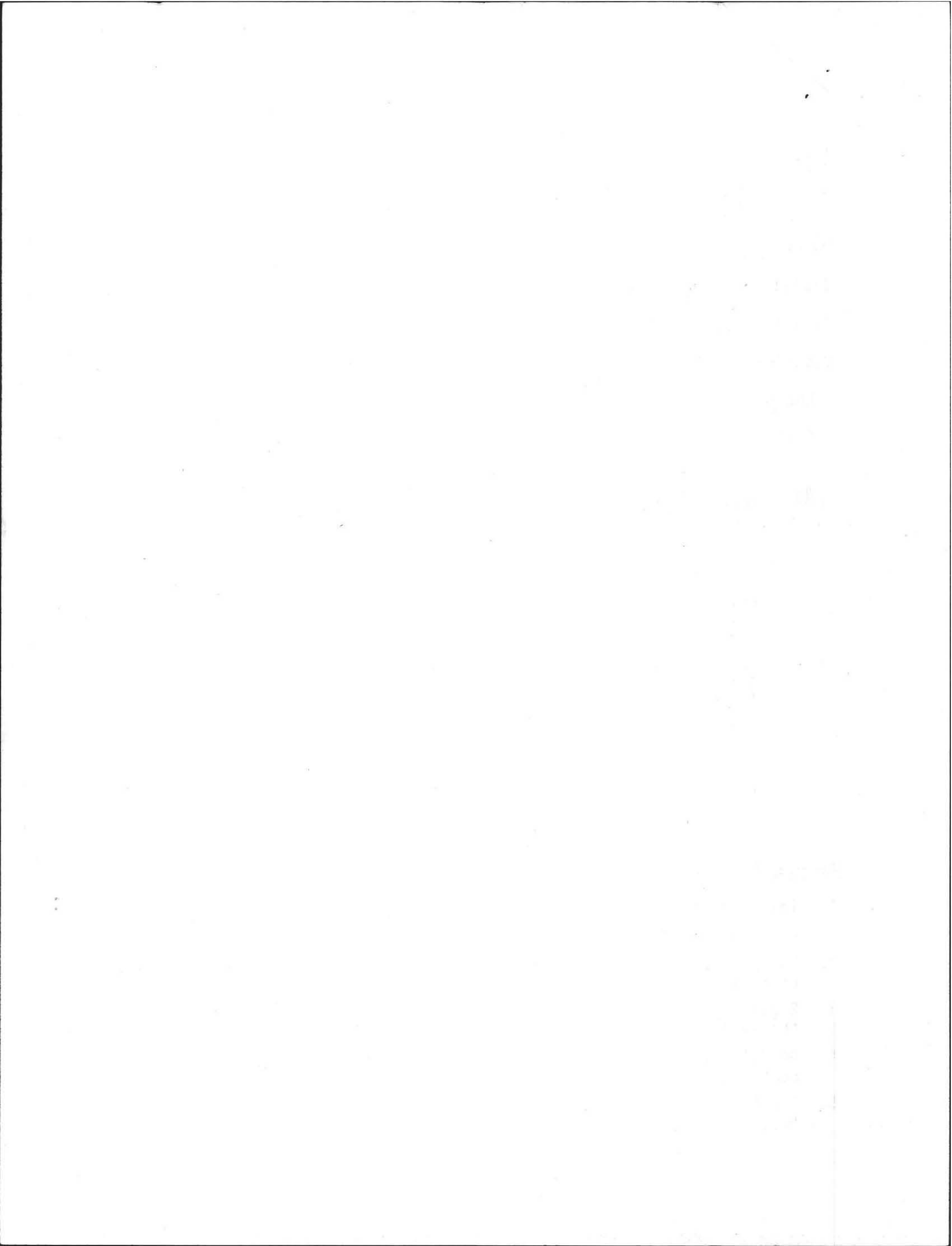
AS - BUILT PLAN:



TO
ALYSSUM LANE

PROPER MAINTENANCE OF YOUR PRIVATE SEWAGE DISPOSAL SYSTEM

1. This system must be inspected periodically and the tank pumped out at an interval not to exceed 3 years.
2. For your protection sanitary pumpers are licensed by the Amherst Board of Health.
3. Regular pumping is crucial to avoid early failure and costly repairs of the system.
4. DO NOT dispose into the system such items as rags, string, sanitary napkins, coffee grounds as they can cause it to clog and fail.
5. Further information can be obtained by contacting your Health Department at 253-7077.



KEITH JENKINS
611 FEDERAL ST

SOME 845

6" OTS

12" 90'

18" SUBSOIL

9" 915

30" GRAVEL

6" 939

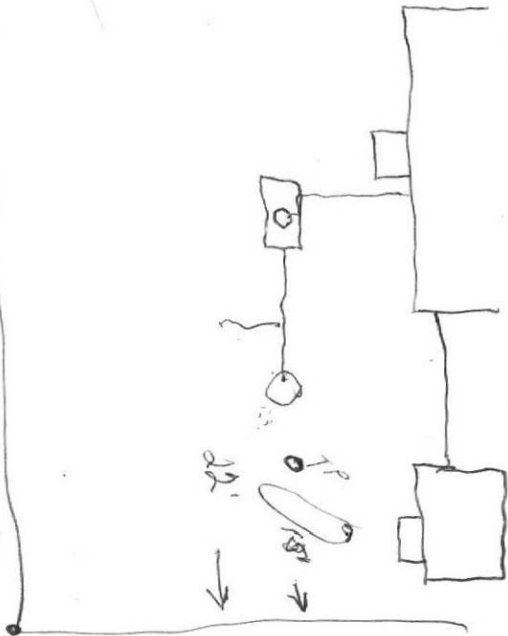
~~24"~~ MOD. TIC



12" TIGHT

ZBR. No 66

303-6553



Important Information Regarding Your Private Sewage Disposal System

DISPLAY THIS DOCUMENT IN A PROMINENT PLACE

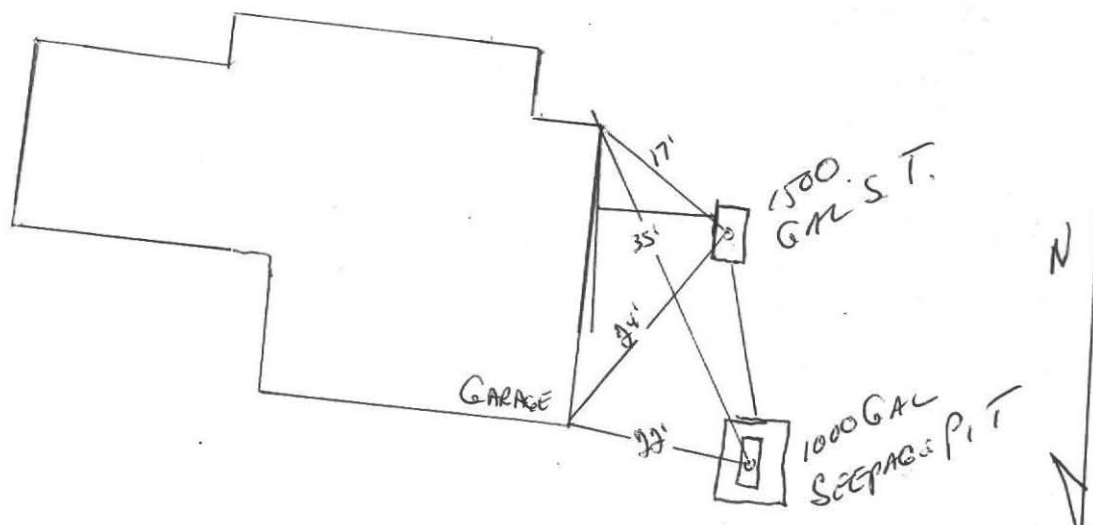
Owner PLANTATION VALLEY HOMES Address 123 MEADOW ST FLORENCE
Installer KARL'S ETC Address ~~JUNE 1983~~ RIVER DR. HADLEY
Date Installation Inspected and Approved JUNE 1983
Description of System: Tank Capacity: 1500

Leach Field () Bed () Seepage Pit (X) Square Feet: 340

Garbage Grinder Yes (X) No () No. Bedrooms: 4 No. People 8

AS - BUILT PLAN:

W-50 FT 103 RD



PROPER MAINTENANCE OF YOUR PRIVATE SEWAGE DISPOSAL SYSTEM

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