SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, Station 10
(207) 287-5672 FAX (207) 287-4172

PROPERTY LOCATION

City, Town, or Plantation	PORTLAND
Street or Road	242 LANE AVE EXT.
Subdivision, Lot #	

OWNER/APPLICANT INFORMATION

Name (last, first, MI) — ☐ Owner X Applicant

HARTHAN, ERIC

Mailing Address of ☐ Owner X Applicant	70 MORNING ST.
	PORTLAND, MAINE
Daytime Tel. #	749-3246

>> Caution: Permit Required – Attach in Space Below <<

PORTLAND PERMIT # 9825 TOWN COPY

Date Permit Issued 5/24/06 $ 40.00 FEE ☐ If Double Fee Charged

Local Plumbing Inspector Signature L.P.I. # 01640

Municipal Tax Map # 308 Lot # A 003

Owner or Applicant Statement

I state that the information submitted is correct to the best of my knowledge and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

X [signature] 5/3/06
Signature of Owner or Applicant — Date

Caution: Inspection Required

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. 7/12/06 (1st) Date Approved

Local Plumbing Inspector Signature — (2nd) Date Approved

PERMIT INFORMATION

TYPE OF APPLICATION

1. ☐ First Time System
2. X Replacement System
   Type Replaced: STONE
   Year Installed: UNKNOWN
3. ☐ Expanded System
   a. ☐ Minor Expansion
   b. ☐ Major Expansion
4. ☐ Experimental System
5. ☐ Seasonal Conversion

THIS APPLICATION REQUIRES

1. ☐ No Rule Variance
2. ☐ First Time System Variance
   a. ☐ Local Plumbing Inspector Approval
   b. ☐ State & Local Plumbing Inspector Approval
3. X Replacement System Variance
   a. ☐ Local Plumbing Inspector Approval
   b. ☐ State & Local Plumbing Inspector Approval
4. ☐ Minimum Lot Size Variance
5. ☐ Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENT(S)

1. ☐ Complete Non-engineered System
2. ☐ Primitive System (graywater & alternative toilet)
3. ☐ Alternative Toilet, specify:
4. ☐ Non-engineered Treatment Tank (only)
5. ☐ Holding Tank, capacity: _____ gallons
6. X Non-engineered Disposal Field (only)
7. ☐ Separated Laundry System
8. ☐ Complete Engineered System (2000 gpd or more)
9. ☐ Engineered Treatment Tank (only)
10. ☐ Engineered Disposal Field (only)
11. ☐ Pre-treatment, specify: _____
12. X Miscellaneous components LIFT STATION

SIZE OF PROPERTY

10,008 X sq. ft. ☐ acres

SHORELAND ZONING

☐ Yes X No

DISPOSAL SYSTEM TO SERVE

1. X Single Family Dwelling Unit, No. of Bedrooms: 2
2. ☐ Multiple Family Dwelling, No. of Units:
3. ☐ Other:
   current use: ___ seasonal X year Round ___ undeveloped

TYPE OF WATER SUPPLY

1. ☐ Drilled Well 2. ☐ Dug Well 3. ☐ Private
4. X Public 5. ☐ Other:

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

1. X Concrete (existing)
   a. X Regular
   b. ☐ Low Profile
2. ☐ Plastic
3. ☐ Other: _____

CAPACITY: 1000 gallons

DISPOSAL FIELD TYPE & SIZE

1. X Stone Bed 2. ☐ Stone Trench
3. ☐ Proprietary Device
   a. ☐ Cluster array c. ☐ Linear
   b. ☐ Regular load d. ☐ H-20 Load
4. ☐ Other: _____

SIZE: 900 x sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT

1. X No 2. ☐ Yes 3. ☐ Maybe

>> If yes/maybe, specify one below:

a. ☐ Multi-Compartment Tank
b. ☐ ___ Tanks in Series
c. ☐ Increase inTank Capacity
d. ☐ Filter on Tank Outlet

DESIGN FLOW

180 gallons-per-day (gpd)

BASED ON:
1. X Table 501.1 (dwelling unit(s)
2. ☐ Table 501.2 (other facilities)
   SHOW CALCULATIONS
   – for other facilities –
3. ☐ Section 503.0 (meter readings)
   ATTACH WATER-METER DATA

SOIL DATA & DESIGN CLASS

PROFILE 9 • CONDITION D • DESIGN 3

at Observation Hole # TB-1

Depth 11 "
OF MOST LIMITING SOIL FACTOR

DISPOSAL FIELD SIZING

1. ☐ Small – 2.0 sq. ft./gpd
2. ☐ Medium – 2.6 sq. ft./gpd
3. ☐ Medium-Large – 3.3 sq. ft./gpd
4. ☐ Large – 4.1 sq. ft./gpd
5. X Extra Large – 5.0 sq. ft./gpd

EFFLUENT/EJECTOR PUMP

1. ☐ Not Required
2. ☐ May Be Required
3. X Required >> Specify dose for engineered & experimental systems

DOSE: _____ gallons

Latitude and longitude

Lat 43 d 48 m 45 s
Lon 70 d 19 m 15 s

SITE EVALUATOR STATEMENT

I certify that on 1/3/06 I completed a site evaluation on this property and state that the data reported herein are accurate and that the proposed system is in compliance with the Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

[signature] — Site Evaluator Signature
345 — SE #
1/3/06 — Date

Michael Deyling — Site Evaluator Name Printed
(207)795-6009 — Telephone #
mdeyling@summitenv.com — E-Mail Address

STATE OF MAINE MICHAEL DEYLING No. 345 HHE 200 rev 4/05 LICENSED SITE EVALUATOR

Note: Changes or deviations from the design should be confirmed with the Site Evaluator.

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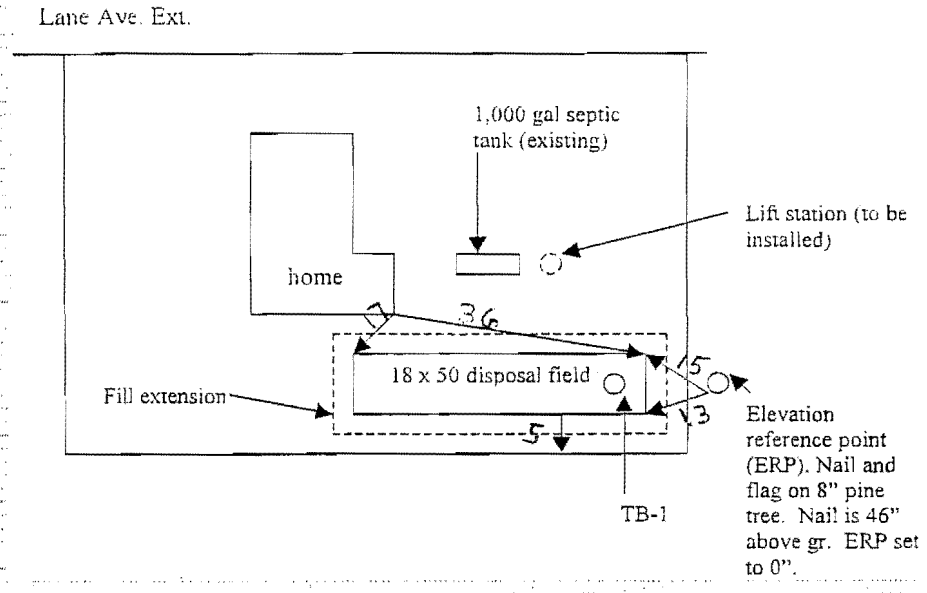
Town, City, Plantation	Street, Road, Subdivision	Owner or Applicant Name
PORTLAND	24 2 LANE AVE. EXT.	HARTHAN

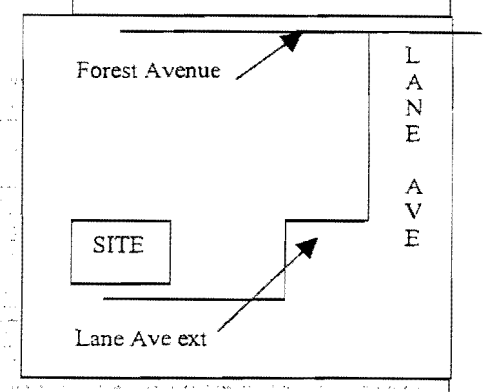
SITE PLAN

Scale: 1" = _____ ft.



SITE LOCATION MAP

(Attach map from Maine Atlas for First Time System Variance)



SOIL PROFILE DESCRIPTION AND CLASSIFICATION (Location of Observation Holes Shown Above)

Observation Hole # TP-1 ◀ Test Pit ☐ Boring

1 " Depth of organic horizon above mineral soil

Depth below mineral soil surface (inches)

	Texture	Consistency	Color	Mottling
0–6	SAND & GRAVEL FILL	GRANULAR	BROWN	
6–12				
12–18				COMMON @ 11"
18–24	SILTY CLAY LOAM	FIRM TO PLATY	GRAY	WET @ 11"
24–30				
30–36				
36–42				
42–48				

Soil	Classificati	Slope	Limiting Factor	
9 Profile	D Condition	0-2 Percent	11 " Depth	X Groundwate ◀RESTRICT ☐ Bedrock

Observation Hole # _ ☐ Test Pit ☐ Boring

_____ " Depth of organic horizon above mineral soil

	Texture	Consistency	Color	Mottling
0–6				
6–12				
12–18				
18–24				
24–30				
30–36				
36–42				
42–48				

Soil	Classification	Slope	Limiting Factor	
Profile	Condition	Percent	" Depth	☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Michael Dyling
Site Evaluator Signature

345
SE #

1/3/06
Date

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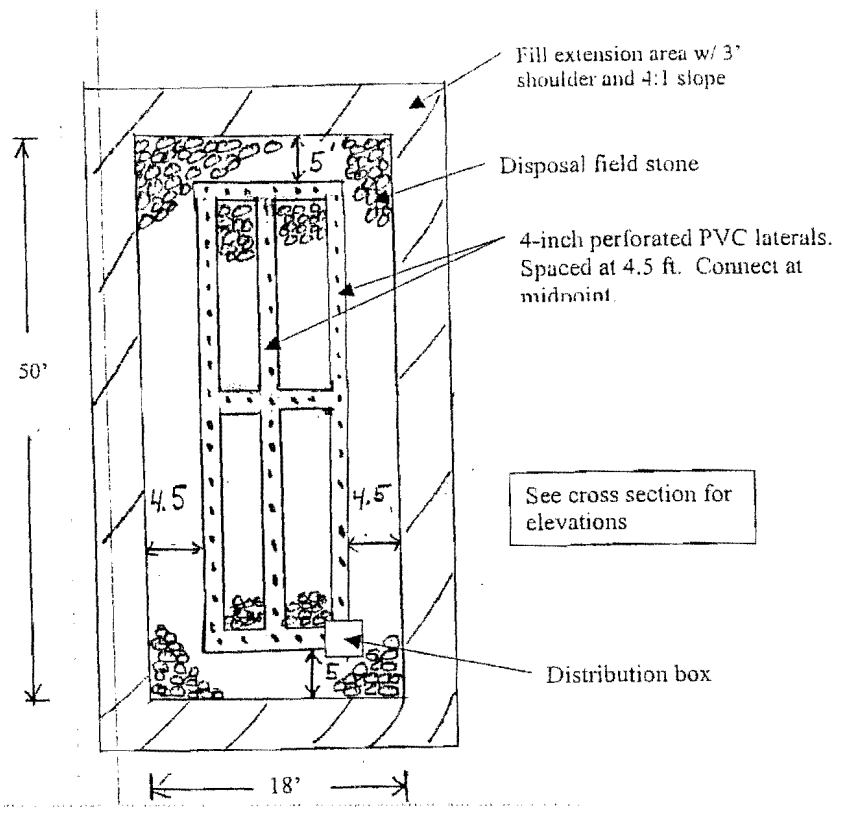
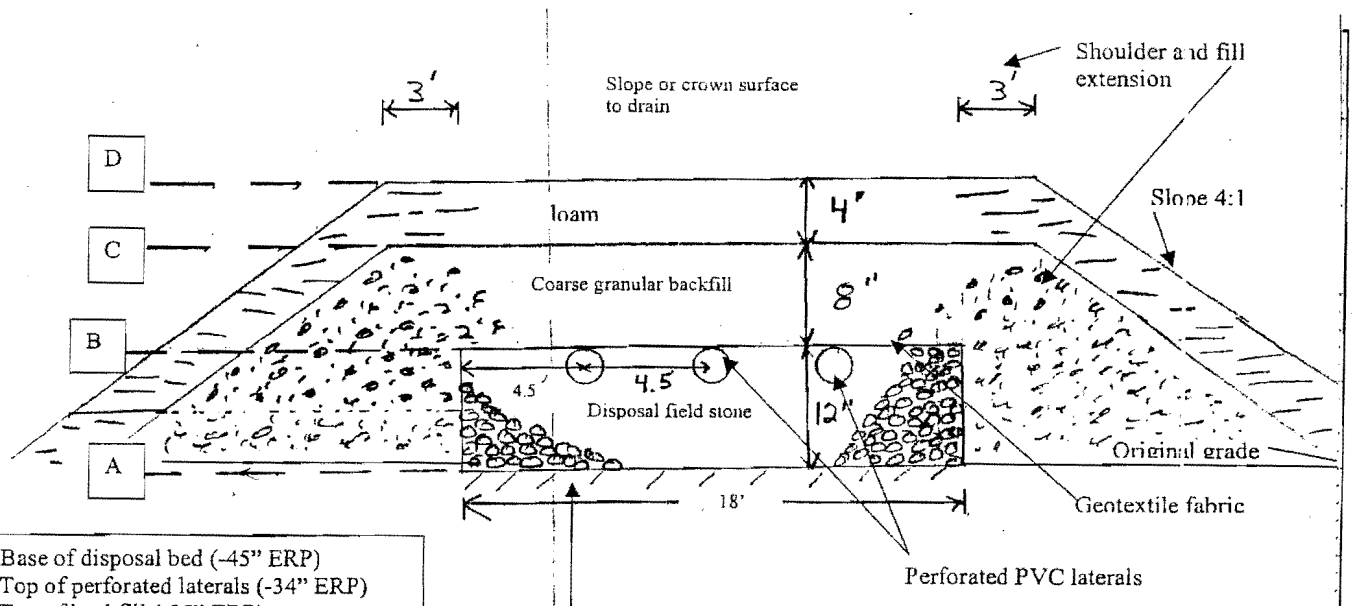


BACKFILL REQUIREMENTS
Depth of Backfill (upslope) 24+/-"
Depth of Backfill (downslope) 24+/-"
Depths at cross section (shown below)

CONSTRUCTION ELEVATIONS
Finished Grade Elevation –21" ERP
Top of perf pipe -34" ERP (cover pipe w/ 1" of stone)
Bottom of Disposal -45" ERP

ELEVATION REFERENCE POINT
Location & Description nail and pink flagging on 8" Pine tree . Nail is 46" above gr_
Reference Elevation is: 0.0"



Site Evaluator Signature SE # Date HHE-200 Rev.10/02

REPLACEMENT SYSTEM VARIANCE REQUEST

THE LIMITATIONS OF THE REPLACEMENT SYSTEM VARIANCE REQUEST

This form shall be attached to an application (HHE-200) for the proposed replacement system which requires a variance to the Rules. The LPI shall review the Replacement System Variance Request an HHE-200 and may approve the Request if all of the following requirements can be met, and the variance(s) requested fall within the limits of LPI's authority.

1. The proposed design meets the definition of a Replacement System as defined in the Rules (Sec. 2006)
2. There will be no change in use of the structure except as authorized for minor expansions outside the shoreland zone of major waterbodies/courses.
3. The replacement system is determined by the Site Evaluator and LPI to be the most practical method to treat and dispose of the wastewater.
4. The BOD5 plus S.S. content of the wastewater is no greater than that of normal domestic effluent.

GENERAL INFORMATION Town of Portland

Permit No. _____ Date Permit Issued _____

Property Owner's Name: ERIC HARTHAN Tel. No.: 749-3246

System's Location: 242 Lane Ave. Ext. Portland, Maine 04101

Property Owner's Address: 70 Morning St., Portland, Maine

(if different from above)

SPECIFIC INSTRUCTIONS TO THE:

LOCAL PLUMBING INSPECTOR (LPI):

If any of the variances exceed your approval authority and/or do not meet all of the requirements listed under the Limitations Section above, then you are to send this Replacement System Variance Request, along with the Application, to the Department for review and approval consideration before issuing a Permit. (See reverse side for Comments Section and your signature.)

SITE EVALUATOR:

If after completing the Application, you find that a variance for the proposed replacement system is needed, complete the Replacement Variance Request with your signature on reverse side of form.

PROPERTY OWNER:

If has been determined by the Site Evaluator that a variance to the Rules is required for the proposed replacement system. This variance request is due to physical limitations of the site and/or soil conditions. Both the Site Evaluator and the LPI have considered the site/soil restrictions and have concluded that a replacement system in total compliance with the Rules is not possible.

PROPERTY OWNER

I understand that the proposed system requires a variance to the Rules. Should the proposed system malfunction, I release all concerned provided they have performed their duties in a reasonable and proper manner, and I will promptly notify the Local Plumbing Inspector and make any corrections required by the Rules. By signing the variance request form, I acknowledge permission for representatives of the Department to enter onto the property to perform such duties as may be necessary to evaluate the variance request.

X Eric Harthan — SIGNATURE OF OWNER

5/3/06 — DATE

LOCAL PLUMBING INSPECTOR

I, Mike Nugent, the undersigned, [redacted] have determined to the best of my knowledge that it cannot be installed in compliance with the Rules. As a result of my review of the Replacement Variance Request, the Application, and my on-site investigation, I **(check and complete either a or b)**:

a. (approve, disapprove) the variance request based on my authority to grant this variance. Note: If the LPI does not give his approval, he shall list his reasons for denial in **Comments** Section below and return to the applicant.

--OR--

b. find that one or more of the requested Variances exceeds my approval authority as LPI. I (recommend, do not recommend) the Department's approval of the variances. Note: If the LPI does not recommend the Department's approval, she shall state his reasons in Comments Section below as to why the proposed replacement system is not being recommended.

Comments:

LPI SIGNATURE

DATE 5/1/06

Replacement System Variance Request

VARIANCE CATEGORY	LIMIT OF LPI'S APPROVAL AUTHORITY						VARIANCE REQUESTED TO:	
SOILS								
Soil Profile	Ground Water Table			to 7"				inches
Soil Condition	Restrictive Layer			to 7"				inches
from HHE-200	Bedrock			to 12"				inches
SETBACK DISTANCES (in feet)	**Disposal Fields (total design flow)**			**Septic Tanks (total design flow)**			**Disposal Fields**	**septic Tank**
From	**Less than 1000 gpd**	**1000 to 2000 gpd**	**Over 2000 gpd**	**Less than 1000 gpd**	**1000 to 2000 gpd**	**Over 2000 gpd**	**To**	**To**
Wells with water usage of 2000 or more gpd or public water supply wells	300 ft [a]	300 ft [a]	300 ft [a]	100 ft [a]	100 ft [a]	100 ft [a]		
Owner's wells	100 down to 60 ft	200 down to 100 ft	300 down to 150 ft	100 down to 50 ft [b]	100 down to 50 ft	100 down to 50 ft		
Neighbor's wells	100 down to 60 ft [b]	200 down to 120 ft [b]	300 down to 180 ft [b]	100 down to 50 ft [b]	100 down to 75 ft [b]	100 down to 75 ft [b]		
Water supply line	10 ft [a]	20 ft [a]	25 ft [a]	10 ft [a]	10 ft [a]	10 ft [a]		
Water course, major - for replacements only, see Table 400.4 for major expansions	100 down to 60 ft	200 down to 120 ft	300 down to 180 ft	100 down to 50 ft	100 down to 50 ft	100 down to 50 ft		
Water course, minor	50 down to 25 ft	100 down to 50 ft	150 down to 75 ft	50 down to 25 ft	50 down to 25 ft	50 down to 25 ft		
Drainage ditches	25 down to 12 ft	50 down to 25 ft	75 down to 35 ft	25 down to 12 ft	25 down to 12 ft	25 down to 12 ft		
Edge of fill extension -- Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams	25 ft [d]	25 ft [d]	25 ft [d]	25 ft [d]	25 ft [d]	25 ft [d]		
Slopes greater than 3:1	10 ft	18 ft	25 ft	N/A	N/A	N/A		
No full basement [e.g. slab, frost wall, columns]	15 down to 7 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft	8	
Full basement [below grade foundation]	20 down to 10 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft		
Property lines	10 down to 5 ft [c]	18 down to 9 ft [c]	20 down to 10 ft [c]	10 down to 4 ft [c]	15 down to 7 ft [c]	20 down to 10 ft [c]	5	
Burial sites or graveyards, measured from the down toe of the fill extension	25 ft	25 ft	25 ft	25 ft	25 ft	25 ft		

Note:
1)
2.

Footnotes: [a.] Single-family well setbacks may be reduced as prescribed in Section 701.2.
[b.] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the plumbing inspector's presence and shown to be watertight or of monolithic construction .
[c.] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.
[d.] Additional setbacks may be required by local Shoreland zoning.
[e.] Natural Resource Protection Act requires a 25 feet setback, on slopes of less than 20%, from the edge of soil disturbance and 100 feet on slopes greater than 20%. See Chapter 15.
[f.] May not be any closer to neighbors well than the existing disposal field or septic tank unless written permission is granted by the neighbor. This setback may be reduced for single family houses with Department approval. See Section 702.3.
[g.] The fill extension shall reach the existing ground before the 3:1 slope or within 100 feet of the disposal field.
[h.] See Section 1402.10 for special procedures when these minimum setbacks cannot be achieved.

Michael Dephuy — SITE EVALUATOR'S SIGNATURE
1/4/06 — DATE

FOR USE BY THE DEPARTMENT ONLY

The Department has reviewed the variance(s) and (does does not) give its approval. Any additional requirements, recommendations, or reasons for the Variance denial, are given in the attached letter.

SIGNATURE OF THE DEPARTMENT — DATE

CONSTRUCTION NOTES

1) The disposal field is 18' x 50' in size. The area was staked at the site and is shown on the Site Plan. Check baffle in existing concrete tank, repair/replace baffle if needed. Install lift station beyond tank outlet.

2) The elevation reference point (ERP) is a nail and pink flagging on a 8" Pine tree adjacent to the disposal field. The ERP is set at "0" inches. The nail is approximately 46 inches above ground.

The bottom of the disposal bed is at -45 ERP, the top of the distribution laterals is at -34" ERP. The perforated laterals shall be covered with a minimum 1 inch of stone. The base of the disposal bed and the perforated laterals shall be placed level. A slope of up to 0.5 inch in 25 feet is allowable by subsurface wastewater disposal Rules. The contractor shall verify all elevation measurements prior to and during construction. A vent is required to enhance system performance on pumped systems.

Backfill used to establish grade, in the fill extension area or in backfill above the stone bed shall be a coarse granular backfill with no more than 5% silt and clay sized particles. No stones larger than 3" in diameter shall be present in the backfill. See drawings for backfill areas.

3) Vegetation and loam shall be removed from the disposal field and fill extension footprint prior to constructing the field. A 4 to 6-inch thick transition zone shall be established at the base of the disposal bed. Compaction of the disposal field area shall be avoided. If compaction occurs due to equipment moving across the field, the bottom of the disposal bed shall be scarified to provide a non-compacted transition zone between the disposal bed base and underlying material.

4) The stone disposal bed shall consist of clean uniform stone greater than 3/4 inch in size but no greater than 2.5 inches in size.

5) It is preferred that a geotextile filter fabric be placed over the stone disposal bed. A 2" layer of compacted hay is an acceptable alternative.

6) Final grades shall be such that surface water (precipitation) will drain away from the disposal area. Upon completion, the area shall be seeded and mulched.

7) See Chapter 8 of Subsurface Waste Water Disposal Rules (144 CMR 241) for disposal field construction and installation requirements.

Wastewater and Plumbing ontrol Program Top Ten Tips

Ten Tips for Maintaining Your Septic System

1. Pump your septic tank every two to five years, depending how heavily the system is used. Insist that the pumper clean your septic tank through the manhole in the center of the top of your septic tank, rather than the inspection ports above the inlet and outlet baffles.

2. If you use a garbage grinder (a.k.a. "dispose-all"), pump your tank every year. Or, better yet, remove the garbage grinder and compost your kitchen scraps. Garbage grinder use leads to buildups of grease from meat scraps and bones, and insoluble vegetable solids such as cellulose.

3. Keep kitchen grease, such as bacon fat and deep fryer oil, out of your septic system. It is not broken down easily by your system, can clog your drain field, and can not be dissolved by any readily available solvent that is legal to introduce to groundwater.

4. Space out laundry loads over the course of the week and wash only full loads. The average load of laundry uses 47 gallons of water. One load per day rather than 7 loads on Saturday makes a big difference to your septic system. Also, front loading washers use less water than top loading machines.

5. Install low usage water fixtures. By installing low water usage showerheads (2.5 gallons/minute), toilets (1.6 gallons), dishwashers (5.3 gallons) and washing machines (14 gallons) an average family can reduce the amount of water entering the septic system by 20,000 gallons per year! Low flow showerheads and toilets can be purchased at local lumberyards. Water saving dishwashers and washing machines can be purchased at better appliance stores.

6. Install a septic tank outlet filter in your tank. These generally sell for $100 to $200 depending upon brand and model. They catch small floating particles and lightweight solids, such as hair, before they can make it out to the disposal area and cause trouble. Some models are also designed to capture suspended grease.

7. Use liquid laundry detergent. Powered laundry detergents use clay as a "carrier." This clay can hasten the buildup of solids in the septic tank and potentially plug the disposal area.

8. Minimize the amount of household cleaners (bleach, harsh cleaners, and similar potentially toxic substances entering the septic system. Pump your septic tank every 6 to 12 months if you do lots of painting or staining, as with a home remodel or renovation, and you wash the tools in a sink or basin which drains to the septic system. Note: some substances are not allowed to be introduced into septic systems or groundwater tables. If in doubt, contact the Local Plumbing Inspector for more information.

9. Do not use disinfecting automatic toilet bowl cleaners, such as those containing bleach or acid compounds. The continuous slow release of these chemicals into the septic system kills the micro-organisms which treat your waste water.

10. You do not need to put special additives into your septic system. In fact, some can do more harm than good. Those which advertise that they will remove solids from your tank, usually do. The problem is that the solids exit the tank and end up in the disposal field. Once there, the solids seal off the disposal area, and the system malfunctions. Also, although it hurts nothing, it is not necessary to "seed" a new system with yeast, horse manure, and so forth. Normal human waste contains enough bacteria for the septic tank, and other microbes are already present in the soil and stones of the disposal area.

CITY OF PORTLAND, MAINE

Department of Building Inspections

April 3 2006

Received from Eric Hartman

Location of Work 242 Lane

Cost of Construction $

Permit Fee $ 110.00

Building (IL) ___ Plumbing (I5) X Electrical (I2) ___ Site Plan (U2) ___

Other Subsurface

CBL: 308 A 003

Check #: Cash Total Collected $ 110.00

THIS IS NOT A PERMIT

No work is to be started until PERMIT CARD is actually posted upon the premises. Acceptance of fee is no guarantee that permit will be granted. PRESERVE THIS RECEIPT. In case permit cannot be granted the amount of the fee will be refunded upon return of the receipt less $10.00 or 10% whichever is greater.

WHITE - Applicant's Copy
YELLOW - Office Copy
PINK - Permit Copy