

5876



John Elias Baldacci  
Governor

# Maine Department of Health and Human Services

Maine Center for Disease Control and Prevention  
286 Water Street, 3<sup>rd</sup> Floor  
11 State House Station  
Augusta, ME 04333-0011

Brenda M. Harvey,  
Commissioner

Dora Anne Mills, MD, MPH  
Public Health Director  
Maine CDC Director

September 15, 2006

Stanley Sorbus  
406 Cony Road  
Augusta, ME 04330

Subject: Approval, Replacement System Variance Request, Sorbus Property, 406 Cony Road, Augusta

Dear Mr. Sorbus:

We have completed our review of an HHE-200 Form dated 08/05/06 by Kane P. Coffin, S.E. for your property at 409 Cony Road. You are proposing to replace a steel septic tank and trench, with a 1,000 gallon septic tank and a 15 foot by 30 foot stone bed. The HHE-200 Form lacks the disposal area location data required under Section 401.6.1 of the Subsurface Wastewater Disposal Rules. The following variances to the Maine Subsurface Wastewater Disposal Rules, CMR 241 are requested:

**Variations within the authority of the Local Plumbing Inspector:**

- 1. To install a disposal area in soils with a depth to the seasonal high groundwater table of seven inches.

**Variations beyond the authority of the Local Plumbing Inspector:**

- 1. To install a disposal area with fill extensions set back eight feet from a wetland.

By copy of this letter we hereby authorize the Local Plumbing Inspector to issue a permit for the replacement system installation as proposed on the above referenced HHE-200 Form, with the following conditions:

- 1. Prior to issuance of a permit, the Site Evaluator shall provide the Local Plumbing Inspector with a revised page 1 of the HHE-200 Form containing the latitude and longitude for the disposal area.
- 2. The disposal area and fill extensions shall be immediately stabilized against erosion; in particular the down slope fill extension shall be stabilized with coco-mat or a similarly effective material. Siltation fence shall be installed down grade of the disposal area, keyed into the ground and maintained until the fill extensions are vegetated.

Work must be completed within two years of permit issue and you or your installer are responsible to notify the local plumbing inspector when you are ready for the necessary construction inspections. In all aspects beyond those noted in this letter the installation shall conform to the requirements of the Rules.

Because installation and owner maintenance has a significant effect on the working order of onsite sewage disposal systems, including their components, the Division makes no representation or guarantee as to the efficiency and/or operation of the system.

Should you or others have any questions, please feel free to contact me at 287-5695.

Sincerely,

*James A. Jacobsen*  
 James A. Jacobsen, Environmental Specialist IV  
 Subsurface Wastewater Program  
 Division of Environmental Health  
 e-mail: james.jacobsen@maine.gov

/jaj

xc: File  
George Soucy, Jr., LPI  
Kane Coffin, SE

*Modified  
10/23/06  
[Signature]*

*Our vision is Maine people enjoying safe, healthy and productive lives.*

# 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.

<b>GENERAL INFORMATION</b>		Town of <u>Augusta</u>
Permit No. <u>5876</u>		Date Permit Issued _____
Property Owner's Name: <u>Stanley J. Sobus</u>		Tel. No.: <u>622-3426</u>
System's Location: <u>406 Cedar Road</u>		
Property Owner's Address: <u>Sobus</u>		
(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.

Stanley J. Sobus  
SIGNATURE OF OWNER

9/6/06  
DATE

## LOCAL PLUMBING INSPECTOR

I, Gregory H. Bryant, the undersigned, have visited the above property and 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:

Gregory H. Bryant  
LPI SIGNATURE

9/6/06  
DATE

# Replacement System Variance Request

VARIANCE CATEGORY		LIMIT OF LPI'S APPROVAL AUTHORITY			VARIANCE REQUESTED TO:				
<b>SOILS</b>									
Soil Profile	Ground Water Table			to 7"			7 inches		
Soil Condition	Restrictive Layer			to 7"			7 inches		
from HHE-200	Bedrock			to 12"			inches		
<b>SETBACK DISTANCES (in feet)</b>		<b>Disposal Fields</b>			<b>Septic Tanks</b>			<b>Disposal Fields</b>	<b>Septic Tanks</b>
<b>From</b>	<b>Less than 1000 gpd</b>	<b>1000 to 2000 gpd</b>	<b>Over 2000 gpd</b>	<b>Less than 1000 gpd</b>	<b>1000 to 2000 gpd</b>	<b>Over 2000 gpd</b>	<b>To</b>	<b>To</b>	
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]	8'		
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			
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]			
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			

**OTHER**

1. Fill extension Grade - to 3:1

2. \_\_\_\_\_

3. \_\_\_\_\_

- Footnotes:
- a. This setback distance cannot be reduced by the LPI, but may be considered for reduction by State variance.
  - b. May not be any closer to neighbor's well than the existing disposal field or septic tank unless written permission is granted by the neighbor.
  - c. Sufficient distance shall be maintained to assure that the toe of the fill does not extend to the 3:1 slope or property line.
  - d. Natural Resources Protection Act requires a 25 foot setback on slopes with less than 20% from the edge of disturbance and 100 feet on slopes greater than 20% except for the repair or installation of a replacement system when no practical alternative exists.

Karen P. Callan  
SITE EVALUATOR'S SIGNATURE

August 5, 2006  
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

Called 9/20 2:45

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

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

## PROPERTY LOCATION

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

City, Town, or Plantation	Augusta
Street or Road	406 Cony Road
Subdivision, Lot #	

AUGUSTA PERMIT # 5876 TOWN COPY

Date Permit Issued: 9/20/06 \$ 111.20  if Double Fee Charged

Local Plumbing Inspector Signature: [Signature] L.P.I. # 872

## OWNER/APPLICANT INFORMATION

Name (last, first, MI)	Sobus, Stanley J>	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Applicant
Mailing Address of Owner/Applicant	406 Cony Road Augusta, ME 04330	
Daytime Tel. #	(207) 622-2426	

Municipal Tax Map # 13 Lot # 16

## Owner/Applicant Statement

I state and acknowledge that the information submitted is correct to the best of my knowledge, that I have read and agree with the conditions on the back of this form, and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.

[Signature] 9/6/06  
Signature of Owner/Applicant Date

## Caution: Inspections Required

I have inspected the installation authorized above and on back of this form and found it to be in compliance with the Subsurface Wastewater Disposal Rules and local ordinances.

(1<sup>st</sup>) Date Approved \_\_\_\_\_  
Local Plumbing Inspector Signature \_\_\_\_\_  
(2<sup>nd</sup>) Date Approved \_\_\_\_\_

## PERMIT INFORMATION

<b>TYPE OF APPLICATION</b> 1. <input type="checkbox"/> First Time System 2. <input checked="" type="checkbox"/> Replacement System Type Replaced: <u>Stone Trench</u> Year Installed: <u>1960's</u> 3. <input type="checkbox"/> Expanded System a. <input type="checkbox"/> Minor Expansion b. <input type="checkbox"/> Major Expansion 4. <input type="checkbox"/> Experimental System 5. <input type="checkbox"/> Seasonal Conversion	<b>THIS APPLICATION REQUIRES</b> 1. <input type="checkbox"/> No Rule Variance 2. <input type="checkbox"/> First Time System Variance a. <input type="checkbox"/> Local Plumbing Inspector Approval b. <input type="checkbox"/> State & Local Plumbing Inspector Approval 3. Replacement System Variance a. <input checked="" type="checkbox"/> Local Plumbing Inspector approval b. <input type="checkbox"/> State & Local Plumbing Inspector approval 5. <input type="checkbox"/> Minimum Lot Size Variance 6. <input type="checkbox"/> Seasonal Conversion Variance	<b>DISPOSAL SYSTEM COMPONENT(S)</b> 1. <input checked="" type="checkbox"/> Complete non-Engineered System 2. <input type="checkbox"/> Primitive System (graywater & alt toilet) 3. <input type="checkbox"/> Alternative Toilet, specify: _____ 4. <input type="checkbox"/> Non-Engineered Disposal Area 5. <input type="checkbox"/> Holding Tank, _____ gallons 6. <input type="checkbox"/> Non-Engineered Disposal Field (only) 7. <input type="checkbox"/> Separated Laundry System 8. <input type="checkbox"/> Complete Engineered System (+2000 gpd) 9. <input type="checkbox"/> Engineered Treatment Tank (only) 10. <input type="checkbox"/> Engineered Disposal Field (only) 11. <input type="checkbox"/> Pre-treatment, specify: _____ 12. <input type="checkbox"/> Miscellaneous components
<b>SIZE OF PROPERTY</b> <input type="checkbox"/> sq. ft. 2 <input checked="" type="checkbox"/> acres	<b>DISPOSAL SYSTEM TO SERVE:</b> 1. <input checked="" type="checkbox"/> Single Family Dwelling Unit, No. of Bedrooms: <u>3</u> 2. <input type="checkbox"/> Multiple Family Dwelling, No. of Units: _____ 3. <input type="checkbox"/> Other: _____ Specify _____ Current Use <input type="checkbox"/> Seasonal <input checked="" type="checkbox"/> Year Round <input type="checkbox"/> Undeveloped	<b>TYPE OF WATER SUPPLY</b> 1. <input checked="" type="checkbox"/> Drilled Well 2. <input type="checkbox"/> Dug Well 3. <input type="checkbox"/> Private 4. <input type="checkbox"/> Public 5. <input type="checkbox"/> Other: _____
<b>SHORELAND ZONING</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

## DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

<b>TREATMENT TANK</b> 1. <input checked="" type="checkbox"/> Concrete <input checked="" type="checkbox"/> Regular <input type="checkbox"/> Low Profile 2. <input type="checkbox"/> Plastic 3. <input type="checkbox"/> Other: _____ CAPACITY: <u>1000</u> Gallons	<b>DISPOSAL AREA TYPE/SIZE</b> 1. <input checked="" type="checkbox"/> Stone Bed 2. <input type="checkbox"/> Stone Trench 3. <input type="checkbox"/> Proprietary Device <input type="checkbox"/> Cluster array <input type="checkbox"/> Linear <input type="checkbox"/> Regular load <input type="checkbox"/> H-20 load 4. <input type="checkbox"/> Other: _____ SIZE: <u>1350</u> <input checked="" type="checkbox"/> sq. ft. <input type="checkbox"/> lin. ft.	<b>GARBAGE DISPOSAL UNIT</b> 1. <input type="checkbox"/> No 2. <input type="checkbox"/> Yes 3. <input checked="" type="checkbox"/> Maybe If Yes or Maybe, specify one below: <input type="checkbox"/> Multi-compartment tank <input type="checkbox"/> _____ Tanks in series <input type="checkbox"/> Increase in tank capacity <input checked="" type="checkbox"/> Filter on tank outlet	<b>DESIGN FLOW</b> <u>270</u> gallons per day BASED ON: 1. <input checked="" type="checkbox"/> Table 501.1 (dwelling unit(s)) 2. <input type="checkbox"/> Table 501.2 (other facilities) SHOW CALCULATIONS --for other facilities--
<b>SOIL DATA &amp; DESIGN CLASS</b> PROFILE CONDITION DESIGN <u>9 / D / 9D</u> at Observation Hole # <u>TP 1</u> Depth: <u>7"</u> OF MOST LIMITING SOIL FACTOR	<b>DISPOSAL FIELD SIZING</b> 1. <input type="checkbox"/> Small 2.0 sq. ft./gpd. 2. <input type="checkbox"/> Medium 2.6 sq. ft./gpd. 3. <input type="checkbox"/> Medium Large 3.3 sq. ft./gpd. 4. <input type="checkbox"/> Large 4.1 sq. ft./gpd. 5. <input checked="" type="checkbox"/> Extra-Large 5.0 sq. ft./gpd.	<b>EFFLUENT/EJECTOR PUMP</b> 1. <input type="checkbox"/> Not required 2. <input checked="" type="checkbox"/> May be required 3. <input type="checkbox"/> Required >> Specify only for engineered or experimental systems Dose _____ Gallons	3. <input type="checkbox"/> Section 503.0 (meter read.) ATTACH WATER-METER DATA

## SITE EVALUATOR COMMENTS

System-15' by 90' stone bed for existing 3 bedroom dwelling to replace falling stone trench

**SITE EVALUATOR STATEMENT**

I Certify that on July 9, 2006 (date) I completed a site evaluation on this project and state that the data reported is accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241) as interpreted by me.

Kane P. Coffin  
 Kane P. Coffin, an agent of E.S. Coffin Engineering & Surveying, Inc.  
 E.S. Coffin Engineering & Surveying, Inc.  
 432 Cony Road P.O. Box 4687  
 Augusta, Maine 04330-1687

SE #331  
 Licensed Site Evaluator  
 (207) 623-9475 or 1-800-244-9475

August 5, 2006  
 Date  
 Fax (207)623-0016

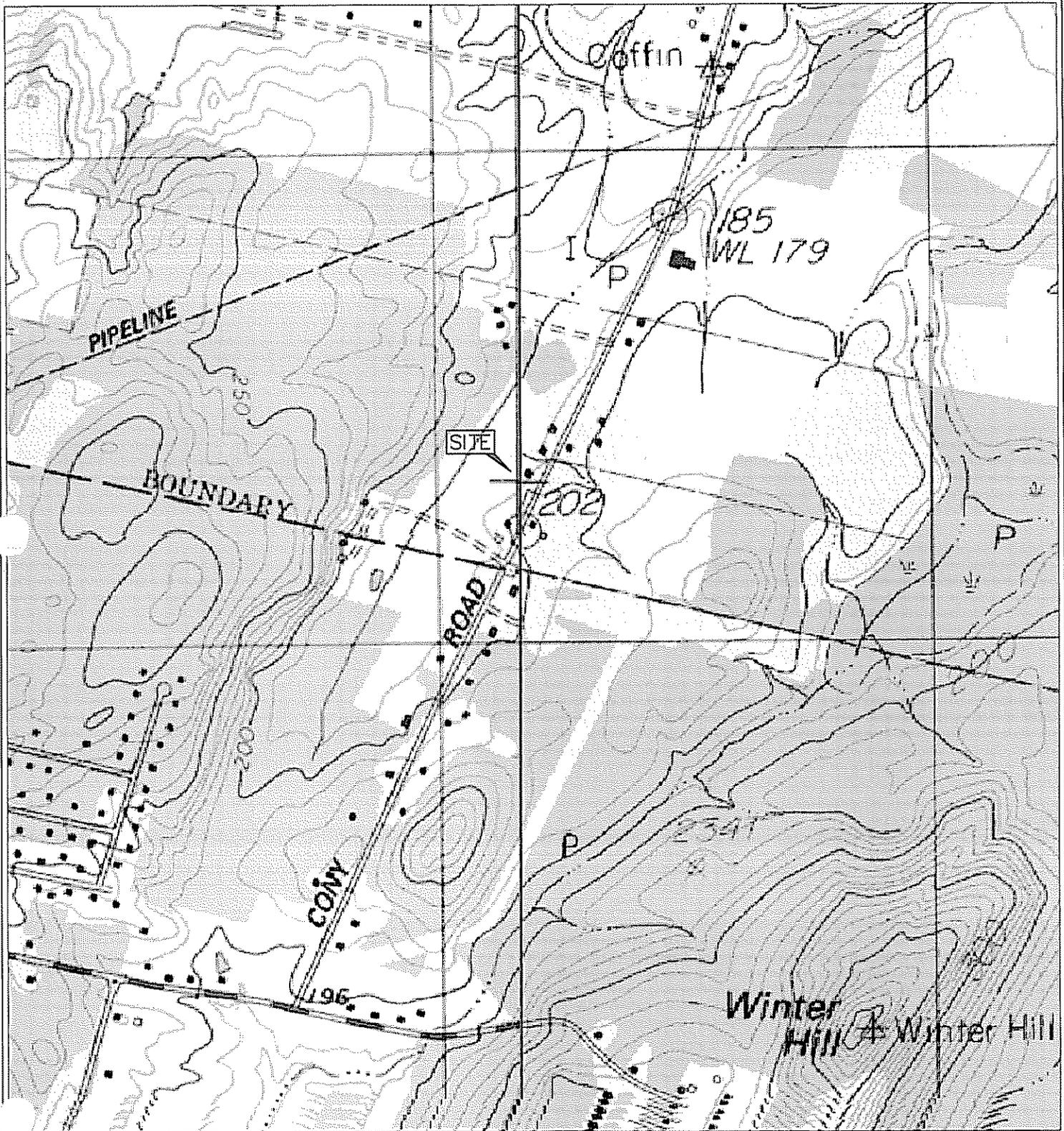
## **ATTACHMENT FOR HHE-200 FORM**

1. The OWNER/APPLICANT, by signing the front of this form, agrees to provide payment for services rendered as quoted and billed by COFFIN ENGINEERING & SURVEYING (CE&S). Payment on all billings are due within 30 days of billing date, otherwise a late charge of 1.5% per month (18% per year), simple interest, will be added to the total amount. In the event that any portion, or all of the final billing, remains unpaid for a period of 60 days, the OWNER/APPLICANT shall pay all costs of collection, including an attorney's fees, court costs, CE&S's cost to collect bill. PLEASE NOTE THAT THE PERSON SIGNING THIS FORM UNLESS THE OWNER/APPLICANT IS RESPONSIBLE FOR PAYMENT OF SERVICES AND SHOULD CONTACT CE&S IF HE/SHE HAS NOT RECEIVED A BILL.
2. All construction shall conform with Title 22 MRSA, §42, 10-144A CMR 241 "Maine-Subsurface Waste Water Disposal Rules," and all other pertinent sections. The OWNER/APPLICANT is responsible for the contractor installing the proposed septic system correctly and for obtaining all necessary permits. The OWNER/APPLICANT shall carefully examine all documents submitted by CE&S and promptly notify CE&S upon becoming aware of any defects. The OWNER/APPLICANT agrees to limit the liability of the site evaluator and/or CE&S to the amount of the total fee paid to CE&S and to a limit of five years from the date of this form. Visits to the site will be for information purposes only. CE&S will not be responsible for any site inspection duties.
3. This disposal system form shall not be transferable and becomes invalid if the authorized work has not commenced within two years after the issue date of the disposal system.
4. The OWNER/APPLICANT shall accurately describe the intended uses (present and future) for the system to the site evaluator. By signing the front of this form, the OWNER/APPLICANT agrees that the uses shown on said form is what was described to the site evaluator. Any change from the intended use described on this form requires a new design. Applicability of design must be reevaluated when location of structures are substantially different from those shown on the site plan or when other structures, additions, or appurtenances (i.e. swimming pools, garbage disposals) are considered.
5. The LPI shall inform the owner and designer of any local ordinance exceeding the Rules (Chapter 241) prior to issuing a permit, so that the application may be properly amended to conform to such ordinances.
6. The most recent revision of the Maine State Plumbing Code is hereby made a part of this HHE-200 Form and shall be consulted by the disposal system installer for further construction details, material specifications, cautions, and other related details pertinent to the installation of this disposal system.
7. This HHE-200 form is intended to represent facts pertinent to the Plumbing Code only. The owner/applicant must check local, state, and federal regulations before considering this an approvable site. All information shown on this form relating to property lines, structures, and subsurface structures (such as, but not limited to water lines, septic tanks, cess pools, cellar drains, utility lines, wells, leach fields, etc.) are noted, shown, or left off as not affecting the system based on information provided by the owner/applicant or his agent. The OWNER/APPLICANT acknowledges and understands that CE&S's submissions may represent imperfect data and may contain errors, omissions, conflicts, inconsistencies, code violations, and improper use of materials. Such deficiencies will be corrected when identified. The OWNER/APPLICANT agrees to carefully study and compare the submissions and report at once in writing to CE&S any deficiencies discovered. The OWNER/APPLICANT further agrees to require each contractor or subcontractor to likewise study the submissions and report at once any deficiencies discovered. It is the responsibility of the owner/applicant or his agent to confirm, BEFORE CONSTRUCTION BEGINS, the above and/or any other features which may affect (or be adversely affected by) the installation of this system.
8. When a gravity system is proposed, BEFORE CONSTRUCTION BEGINS, the disposal system installer and building contractor shall review the relative elevation of all points given in this HHE-200 Form and the elevation of the existing or proposed building drain and septic tank openings for compatibility to the minimum code pitch requirements. Any questions that arise should be directed to the local plumbing inspector or designer. When a pump system is installed, provisions shall be made to keep the tank and lift station outlets above the high water table.
9. The Septic System Owner's Manual written by the designer is made a part of this HHE-200 Form and shall be consulted by the owner/applicant and disposal system installer for other facts pertinent to the installation and operation of this disposal system.
10. The OWNER/APPLICANT bears the responsibility to show the location of property lines, subsurface structures (such as, but not limited to water lines, septic tanks, cess pools, cellar drains, utility lines), and wells to the Site Evaluator. Actual property lines must be confirmed by a boundary survey. By signing the front of this form, the OWNER/APPLICANT agrees that the property lines and wells on the accompanying plan(s) are shown correctly and any discrepancy found in the future is the responsibility of the OWNER/APPLICANT.
11. The actual water flow or number of bedrooms shall not exceed the design criteria indicated on this HHE-200 Form without a re-evaluation of the system.
12. CE&S is not responsible for the actions of others, who affect the ultimate cost of the PROJECT; by vandalism, marker removal, changes in scope of work, approval agencies, redesign of septic system, etc. (OWNER/APPLICANT to be notified of any cost increase).
13. The laws of Maine will apply concerning the interpretation and performance of this AGREEMENT. If an item in this AGREEMENT is found to be in violation of any prevailing laws, it will not void the entire AGREEMENT. This AGREEMENT is superior and over-rides any Standard Subcontract Agreement signed by the parties involved in this AGREEMENT for this PROJECT when referenced in said Standard Subcontract Agreement.
14. CE&S is responsible for the actions of its' employees only. Insurance is provided for: vehicles, general liability, errors and omissions, and workman's comp. All other entities on the site are responsible for their own safety, work product, actions, conduct, etc.
15. CE&S is not responsible for any actual, alleged, or threatened, pollutant damage in regard to the services performed. Pollutants are defined as any environmentally threatening contaminants commonly regulated in this state.
16. In the event that the OWNER/APPLICANT hires subcontractors, workers, orders material, etc., and governs, directly or indirectly, the overall operation on the work site; then the OWNER/APPLICANT is deemed to be acting as his own general contractor, having greater responsibility for the work site.
17. Other than the procedure of collections described above in (1), should the parties of this AGREEMENT have differences involving either the work site, or the PROJECT, that cannot be resolved between them; then the procedures of Alternate Dispute Resolution will be the only method of resolving those differences.



# SITE LOCATION MAP

SCALE 1" = 1000'



**HHE-200**

ENGINEERING  
**E.S. COFFIN**  
 SURVEYING  
INC.  
 E.S. COFFIN ENGINEERING & SURVEYING, INC.  
 412 Cony Road P.O. Box 4007 Augusta, Maine 04330  
 Ph. (207) 623-9475 Fax (207) 623-0016 Toll Free 1 800 244 9475

CLIENT PROJECT:	Stanley J. Sobus SEPTIC SYSTEM DESIGN	SHEET TITLE:	SITE LOCATION MAP
LOCATION:	406 CONY ROAD	SCALE:	AS SHOWN
TOWN:	AUGUSTA	COUNTY:	KENNEBEC STATE: MAINE
DATE:	AUGUST 5, 2006		

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services (207) 287-5672  
 Division of Health Engineering (207) 287-4172 (FAX)

Town, City, Plantation  
 Augusta

Street, Road, Subdivision  
 406 Cony Road

Owner's Name  
 Stanley J. Sobus

SITE PLAN

Scale: 1" = \_\_\_ feet

TEXTURE TERMS

Sand  
 Loamy sand  
 Sandy loam  
 Loam  
 Silt loam  
 Silty clay loam  
 Silty clay  
 Bedrock

TEXTURE

ABUNDANCE  
 Very-36-60%  
 Extremely-61-90%

MODIFIER TERMS

VF-very fine  
 F-fine  
 M-medium  
 C-course  
 ROCK  
 Gravely-0.1-3"  
 Cobbly-3-10"  
 Stony-+10"

MOTTLING

CONTRAST  
 Faint  
 Distinct  
 Prominent

ABUNDANCE  
 None  
 Few-<2%  
 Common-2-20%  
 Many->20%

CONSISTENCE

TERMS  
 Loose  
 Friable  
 Firm  
 Very Firm  
 Cemented

SOIL DESCRIPTION AND CLASSIFICATION

Observation Hole TP 1 & 2  Test Pit  Boring  
1 " Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling
Silty Clay Loam	Frable	Dk Olive Grey	None
Silty Clay	Firm	Lt Ol Grey	Common Distinct

DEPTH BELOW MINERAL SOIL (INCHES)

Soil Classification	Slope	Limiting Factor	<input checked="" type="checkbox"/> Ground Water
<u>9</u> <u>D</u>	<u>5</u> %	<u>7</u> "	<input type="checkbox"/> Restrictive Layer
Profile Condition			<input type="checkbox"/> Bedrock
			<input type="checkbox"/> Pit Depth

Observation Hole \_\_\_\_\_  Test Pit  Boring  
 \_\_\_\_\_ " Depth of Organic Horizon Above Mineral Soil

Texture	Consistency	Color	Mottling

DEPTH BELOW MINERAL SOIL (INCHES)

Soil Classification	Slope	Limiting Factor	<input type="checkbox"/> Ground Water
			<input type="checkbox"/> Restrictive Layer
Profile Condition			<input type="checkbox"/> Bedrock
			<input type="checkbox"/> Pit Depth

Site Evaluator's Signature *Karen P. Coffin*

SE # 331

Date: 08/05/06

HHE-200

**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

Department of Human Services  
Division of Health Engineering

Town, City, Plantation  
**Augusta**

Street, Road, Subdivision  
**406 Cony Road**

Owner's Name

**Stanley J. Sobus**

**FILL REQUIREMENTS**

Depth of Fill (Upslope) 33-35"  
Depth of Fill (Downslope) 44-44"

**CONSTRUCTION ELEVATIONS**

Reference Elevation is 00"  
Bottom of Disposal Area -39"  
Top of distribution lines -28"

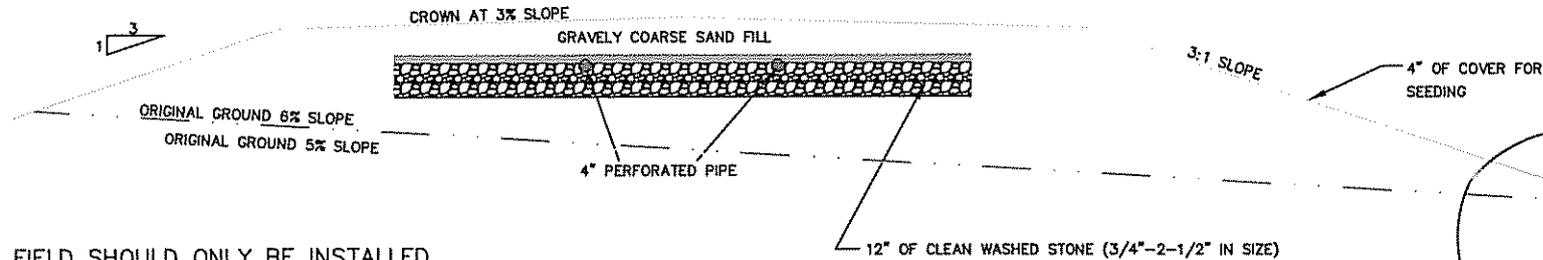
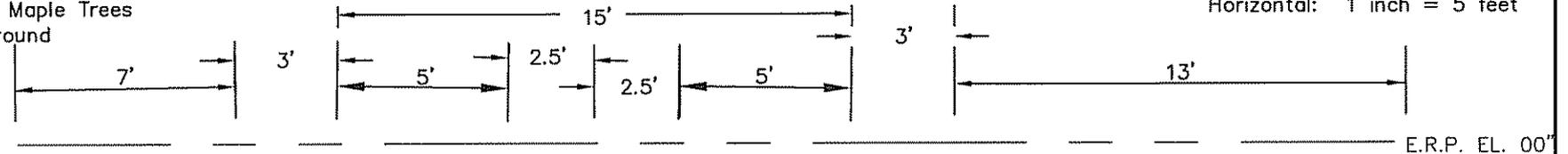
**ELEV. REF. PT:**

Vert. 50d Spike in Root  
of Twin 14" Maple Trees  
4" above ground

**DISPOSAL AREA CROSS SECTION**

**SCALE:**

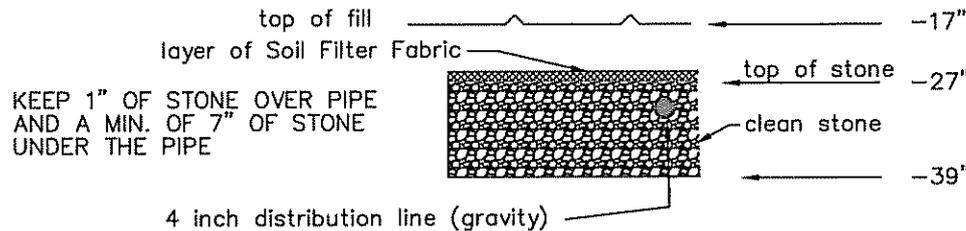
Vertical: 1 inch = 5 feet  
Horizontal: 1 inch = 5 feet



DISPOSAL FIELD SHOULD ONLY BE INSTALLED  
ACCORDING TO THE MAINE SUBSURFACE  
WASTE WATER DISPOSAL RULES 144A CMR 241  
UNDER TITLE 22 MRSA 42.

REMOVE VEGETATION AND ROTO-TILL GRAVELLY COARSE  
SAND INTO ORIGINAL GROUND TO A DEPTH OF 6-8 INCHES

E.R.P.  
elev.



**STONE BED DETAIL (no scale)**

INSTALL 15' BY 90' STONE BED

*Handwritten notes:*  
APR 10 10 23 AM '06  
[Signature]

Site Evaluator's Signature

SE # 331

Date: 08/05/06

HHE-200

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Human Services (207) 287-5672  
 Division of Health Engineering (207) 287-4172 (fax)

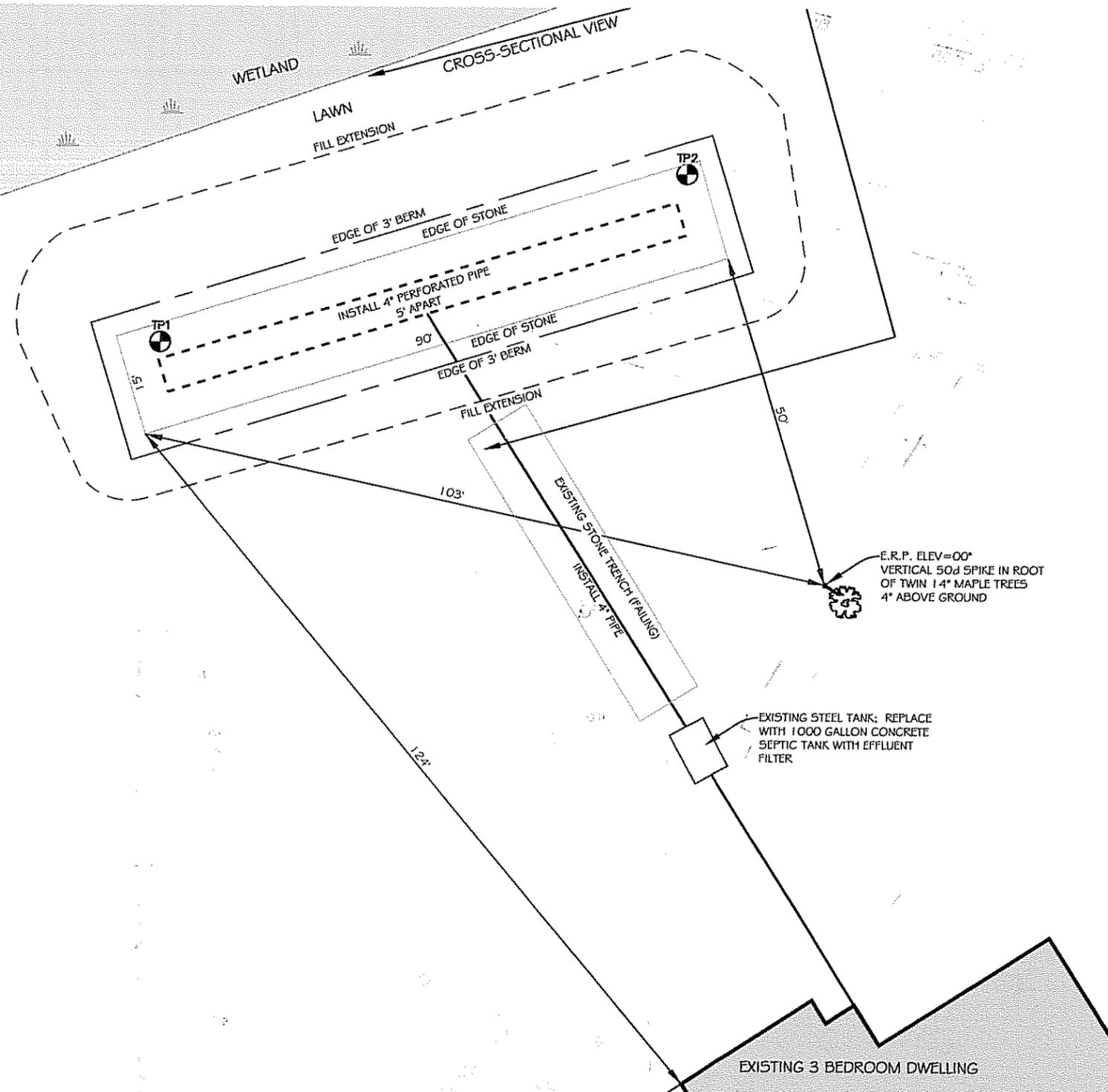
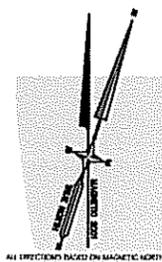
Town, City, Plantation  
**Augusta**

Street, Road, Subdivision  
**406 Cony Road**

Owner's Name  
**Stanley J. Sobus**

## SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE: 1" = 20'



- DISPOSAL FIELD CONSTRUCTION TECHNIQUES**
1. Vegetation shall be cut and removed from the area where backfill material is to be placed.
  2. The area under the disposal field and backfill extensions shall be roto-tilled with gravely coarse sand fill to a depth of 6-8 inches to form a Transitional Horizon.
  3. Fill large holes that are left as a result of stump or stone removal with gravely coarse sand fill.
  4. Surface water (from roofs or upland) must be diverted away from the disposal field.
  5. Septic tank(s), grease trap, pumping station, and lines may be relocated to accommodate site conditions as long as setbacks and intent of design are met.
  6. All construction shall conform with Title 22 MRSA, Section 42, 10-144A-CMR 241 "Maine Subsurface Waste Water Disposal Rules" and other pertinent sections.
  7. The owner/contractor shall carefully observe the vertical distance between the E.R.P. and the bottom of the leach field and notify the Site Evaluator promptly if separation distance appears to be at odds with the original ground.
  8. The owner/applicant is responsible for the contractor installing the proposed septic system correctly and for obtaining all necessary permits.

ELEVATION REFERENCE POINT	ELEVATION: 00'
	DESCRIPTION: Vert. 50d spike in 1.4" Twin Maple Trees (4" above ground)
SHEET TITLE:	PLAN VIEW
	SCALE: 1" = 20'
PROJECT:	STANLEY J. SOBUS
LOCATION:	406 CONY ROAD
TOWN:	AUGUSTA
COUNTY:	KENNEBEC
STATE:	MAINE
DATE:	AUGUST 5, 2006
E.S. COFFIN ENGINEERING & SURVEYING, INC. 413 Cony Road, P.O. Box 487, Augusta, Maine 04310 Ph. (207) 633-9173 Fax (207) 633-0016 Toll Free 1-800-544-8173	
PROJ. NO. 2006-214	

Site Evaluator's Signature

*Kane P. Coffin*

SE # 331

Date: 08/05/06

HHE-200



John Elias Baldacci  
Governor

## Maine Department of Health and Human Services

Maine Center for Disease Control and Prevention  
286 Water Street, 3<sup>rd</sup> Floor  
11 State House Station  
Augusta, ME 04333-0011

Brenda M. Harvey,  
Commissioner

Dora Anne Mills, MD, MPH  
Public Health Director  
Maine CDC Director

September 15, 2006

Stanley Sorbus  
406 Cony Road  
Augusta, ME 04330

Subject: Approval, Replacement System Variance Request, Sorbus Property, 406 Cony Road, Augusta

Dear Mr. Sorbus:

We have completed our review of an HHE-200 Form dated 08/05/06 by Kane P. Coffin, S.E. for your property at 409 Cony Road. You are proposing to replace a steel septic tank and trench, with a 1,000 gallon septic tank and a 15 foot by 30 foot stone bed. The HHE-200 Form lacks the disposal area location data required under Section 401.6.1 of the Subsurface Wastewater Disposal Rules. The following variances to the Maine Subsurface Wastewater Disposal Rules, CMR 241 are requested:

**Variations within the authority of the Local Plumbing Inspector:**

1. To install a disposal area in soils with a depth to the seasonal high groundwater table of seven inches.

**Variations beyond the authority of the Local Plumbing Inspector:**

1. To install a disposal area with fill extensions set back eight feet from a wetland.

By copy of this letter we hereby authorize the Local Plumbing Inspector to issue a permit for the replacement system installation as proposed on the above referenced HHE-200 Form, with the following conditions:

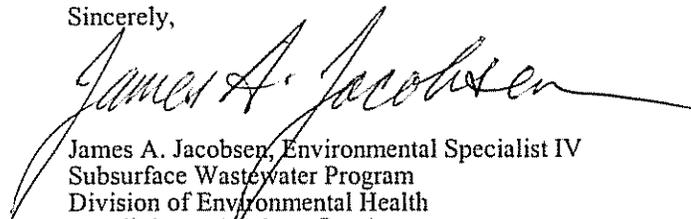
1. Prior to issuance of a permit, the Site Evaluator shall provide the Local Plumbing Inspector with a revised page 1 of the HHE-200 Form containing the latitude and longitude for the disposal area.
2. The disposal area and fill extensions shall be immediately stabilized against erosion; in particular the down slope fill extension shall be stabilized with coco-mat or a similarly effective material. Siltation fence shall be installed down grade of the disposal area, keyed into the ground and maintained until the fill extensions are vegetated.

Work must be completed within two years of permit issue and you or your installer are responsible to notify the local plumbing inspector when you are ready for the necessary construction inspections. In all aspects beyond those noted in this letter the installation shall conform to the requirements of the Rules.

Because installation and owner maintenance has a significant effect on the working order of onsite sewage disposal systems, including their components, the Division makes no representation or guarantee as to the efficiency and/or operation of the system.

Should you or others have any questions, please feel free to contact me at 287-5695.

Sincerely,



James A. Jacobsen, Environmental Specialist IV  
Subsurface Wastewater Program  
Division of Environmental Health  
e-mail: james.jacobsen@maine.gov

/jaj

xc: File  
George Soucy, Jr., LPI  
Kane Coffin, SE

*Our vision is Maine people enjoying safe, healthy and productive lives.*

Phone: (207) 287-5695

Fax: (207) 287-3165

TTY: (207) 287-8015

REPLACEMENT SYSTEM VARIANCE REQUEST

SEP 07 2006

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.

WASTEWATER & PLUMBING PROGRAM

GENERAL INFORMATION: Town of Augusta, Date Permit Issued, Permit No., Property Owner's Name: Stanley T. Sobus, System's Location: 406 Cedar Road, Property Owner's Address: Suite 2

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.

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:

It 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.

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.

SIGNATURE OF OWNER: [Signature] DATE: 9/6/06

LOCAL PLUMBING INSPECTOR

I, [Signature], the undersigned, have visited the above property and have determined to the best of my knowledge that it cannot be installed in compliance with the Rules.

- a. [ ] approve, [ ] disapprove, the variance request based on my authority to grant this variance.
OR
b. [x] find that one or more of the requested Variances exceeds my approval authority as LPI. I, [x] recommend, [ ] do not recommend, the Department's approval of the variances.

Comments:

LPI SIGNATURE: [Signature] DATE: 9/6/06

# Replacement System Variance Request

VARIANCE CATEGORY		LIMIT OF LPI'S APPROVAL AUTHORITY			VARIANCE REQUESTED TO:			
<b>SOILS</b>								
Soil Profile	Ground Water Table			to 7"			7 inches	
Soil Condition	Restrictive Layer			to 7"			7 inches	
from HHE-200	Bedrock			to 12"				
<b>SETBACK DISTANCES (in feet)</b>	<b>Disposal Fields</b>			<b>Septic Tanks</b>			<b>Disposal Fields</b>	<b>Septic Tanks</b>
<b>From</b>	<b>Less than 1000 gpd</b>	<b>1000 to 2000 gpd</b>	<b>Over 2000 gpd</b>	<b>Less than 1000 gpd</b>	<b>1000 to 2000 gpd</b>	<b>Over 2000 gpd</b>	<b>To</b>	<b>To</b>
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]	8'	
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		
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]		
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		

**OTHER**

1. Fill extension Grade - to 3:1
2. \_\_\_\_\_
3. \_\_\_\_\_

- Footnotes:
- a. This setback distance cannot be reduced by the LPI, but may be considered for reduction by State variance.
  - b. May not be any closer to neighbor's well than the existing disposal field or septic tank unless written permission is granted by the neighbor.
  - c. Sufficient distance shall be maintained to assure that the toe of the fill does not extend to the 3:1 slope or property line.
  - d. Natural Resources Protection Act requires a 25 foot setback on slopes with less than 20% from the edge of disturbance and 100 feet on slopes greater than 20% except for the repair or installation of a replacement system when no practical alternative exists.

*Lawrence J. Coffey*  
 \_\_\_\_\_  
 SITE EVALUATOR'S SIGNATURE

August 5, 2006  
 \_\_\_\_\_  
 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.

*James A. Proctor*  
 \_\_\_\_\_  
 SIGNATURE OF THE DEPARTMENT

09/15/06  
 \_\_\_\_\_  
 DATE

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

<b>PROPERTY LOCATION</b>		<b>&gt;&gt; Caution: Permit Required – Attach in Space Below &lt;&lt;</b>
City, Town, or Plantation	Augusta	The Subsurface Wastewater Disposal System <i>shall not</i> be installed until a Permit is attached HERE by the Local Plumbing Inspector. The Permit shall authorize the owner or installer to install the disposal system in accordance with this application and the Maine Subsurface Wastewater Disposal Rules.
Street or Road	406 Cony Road	
Subdivision, Lot #	Lat N 44-17-30.89 Long W 69-45-1.23	
<b>OWNER/APPLICANT INFORMATION</b>		
Name (last, first, MI)	Sobus, Stanley J>	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Applicant
Mailing Address of Owner/Applicant	406 Cony Road Augusta, ME 04330	
Daytime Tel. #	(207) 622-2426	Municipal Tax Map # _____ Lot # _____
<b>Owner/Applicant Statement</b>		<b>Caution: Inspections Required</b>
I state and acknowledge that the information submitted is correct to the best of my knowledge, that I have read and agree with the conditions on the back of this form, and understand that any falsification is reason for the Department and/or Local Plumbing Inspector to deny a Permit.		I have inspected the installation authorized above and on back of this form and found it to be in compliance with the Subsurface Wastewater Disposal Rules and local ordinances
Signature of Owner/Applicant _____		<i>Charles H. Lyman, Designer</i> _____ (1 <sup>st</sup> ) Date Approved
Date _____		_____ (2 <sup>nd</sup> ) Date Approved

PERMIT INFORMATION		
<b>TYPE OF APPLICATION</b> 1. <input type="checkbox"/> First Time System 2. <input checked="" type="checkbox"/> Replacement System Type Replaced: <u>Stone Trench</u> Year Installed: <u>1960's</u> 3. <input type="checkbox"/> Expanded System a. <input type="checkbox"/> Minor Expansion b. <input type="checkbox"/> Major Expansion 4. <input type="checkbox"/> Experimental System 5. <input type="checkbox"/> Seasonal Conversion	<b>THIS APPLICATION REQUIRES</b> 1. <input type="checkbox"/> No Rule Variance 2. <input type="checkbox"/> First Time System Variance a. <input type="checkbox"/> Local Plumbing Inspector Approval b. <input type="checkbox"/> State & Local Plumbing Inspector Approval 3. Replacement System Variance a. <input checked="" type="checkbox"/> Local Plumbing Inspector approval b. <input type="checkbox"/> State & Local Plumbing Inspector approval 5. <input type="checkbox"/> Minimum Lot Size Variance 6. <input type="checkbox"/> Seasonal Conversion Variance	<b>DISPOSAL SYSTEM COMPONENT(S)</b> 1. <input checked="" type="checkbox"/> Complete non-Engineered System 2. <input type="checkbox"/> Primitive System (graywater & alt toilet) 3. <input type="checkbox"/> Alternative Toilet, specify: _____ 4. <input type="checkbox"/> Non-Engineered Disposal Area 5. <input type="checkbox"/> Holding Tank, _____ gallons 6. <input type="checkbox"/> Non-Engineered Disposal Field (only) 7. <input type="checkbox"/> Separated Laundry System 8. <input type="checkbox"/> Complete Engineered System (+2000 gpd) 9. <input type="checkbox"/> Engineered Treatment Tank (only) 10. <input type="checkbox"/> Engineered Disposal Field (only) 11. <input type="checkbox"/> Pre-treatment, specify: _____ 12. <input type="checkbox"/> Miscellaneous components
<b>SIZE OF PROPERTY</b> _____ sq. ft. 2 <input checked="" type="checkbox"/> acres	<b>DISPOSAL SYSTEM TO SERVE:</b> 1. <input checked="" type="checkbox"/> Single Family Dwelling Unit, No. of Bedrooms: <u>3</u> 2. <input type="checkbox"/> Multiple Family Dwelling, No. of Units: _____ 3. <input type="checkbox"/> Other: _____ Specify Current Use <input type="checkbox"/> Seasonal <input checked="" type="checkbox"/> Year Round <input type="checkbox"/> Undeveloped	<b>TYPE OF WATER SUPPLY</b> 1. <input checked="" type="checkbox"/> Drilled Well 2. <input type="checkbox"/> Dug Well 3. <input type="checkbox"/> Private 4. <input type="checkbox"/> Public 5. <input type="checkbox"/> Other: _____
<b>SHORELAND ZONING</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

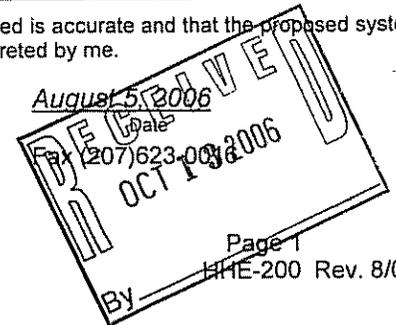
DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
<b>TREATMENT TANK</b> 1. <input checked="" type="checkbox"/> Concrete <input checked="" type="checkbox"/> Regular <input type="checkbox"/> Low Profile 2. <input type="checkbox"/> Plastic 3. <input type="checkbox"/> Other: _____ CAPACITY: <b>1000</b> Gallons	<b>DISPOSAL AREA TYPE/SIZE</b> 1. <input checked="" type="checkbox"/> Stone Bed 2. <input type="checkbox"/> Stone Trench 3. <input type="checkbox"/> Proprietary Device <input type="checkbox"/> Cluster array <input type="checkbox"/> Linear <input type="checkbox"/> Regular load <input type="checkbox"/> H-20 load 4. <input type="checkbox"/> Other: _____ SIZE: <u>1350</u> <input checked="" type="checkbox"/> sq. ft. <input type="checkbox"/> lin. ft.	<b>GARBAGE DISPOSAL UNIT</b> 1. <input type="checkbox"/> No 2. <input type="checkbox"/> Yes 3. <input checked="" type="checkbox"/> Maybe If Yes or Maybe, specify one below: <input type="checkbox"/> Multi-compartment tank <input type="checkbox"/> _____ Tanks in series <input type="checkbox"/> Increase in tank capacity <input checked="" type="checkbox"/> Filter on tank outlet	<b>DESIGN FLOW</b> 270 gallons per day BASED ON: 1. <input checked="" type="checkbox"/> Table 501.1 (dwelling unit(s)) 2. <input type="checkbox"/> Table 501.2 (other facilities) SHOW CALCULATIONS --for other facilities--
<b>SOIL DATA &amp; DESIGN CLASS</b> PROFILE CONDITION DESIGN <u>9</u> / <u>D</u> / <u>9D</u> at Observation Hole # <u>TP 1</u> Depth: <u>7"</u> OF MOST LIMITING SOIL FACTOR	<b>DISPOSAL FIELD SIZING</b> 1. <input type="checkbox"/> Small 2.0 sq. ft./gpd. 2. <input type="checkbox"/> Medium 2.6 sq. ft./gpd. 3. <input type="checkbox"/> Medium Large 3.3 sq. ft./gpd. 4. <input type="checkbox"/> Large 4.1 sq. ft./gpd. 5. <input checked="" type="checkbox"/> Extra-Large 5.0 sq. ft./gpd.	<b>EFFLUENT/EJECTOR PUMP</b> 1. <input type="checkbox"/> Not required 2. <input checked="" type="checkbox"/> May be required 3. <input type="checkbox"/> Required >> Specify only for engineered or experimental systems Dose _____ Gallons	

SITE EVALUATOR COMMENTS
System-15' by 90' stone bed for existing 3 bedroom dwelling to replace failing stone trench
SITE EVALUATOR STATEMENT

I Certify that on July 9, 2006 (date) I completed a site evaluation on this project and state that the data reported is accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241) as interpreted by me.

Kane P. Coffin  
 Kane P. Coffin, an agent of E.S. Coffin Engineering & Surveying, Inc.  
 E.S. Coffin Engineering & Surveying, Inc.  
 432 Cony Road P.O. Box 4687  
 Augusta, Maine 04330-1687

SE #331  
 Licensed Site Evaluator  
 (207) 623-9475 or 1-800-244-9475



Note: Changes to or deviations from the design should be confirmed with the Site Evaluator  
 See back of this form for conditions of permit



**Design Notes** for Subsurface Wastewater Disposal System Application (Form HHE-200)

**Owner/Applicant:**

**NOTE:**

- A. Elevation Reference Point (ERP) location is described on page 3 of the HHE-200 form. It is to be used by the installer to place the bottom of the leachfield at the correct depth. Disposal area shall be no lower than indicated.
- B. Sewer Pipes: Use 3" diameter (minimum) approved, watertight materials, schedule 40 PVC pipe. Insulate as necessary to protect from freezing; bury at least 1' deep, seed disturbed area.
  - 1. Building Sewer: For gravity flow from building to septic tank, maintain minimum pitch of 1/4"/ft. (1/8"/ft. allowed with LPI's approval if using 4" diameter pipe). The building sewer may not be smaller than the building drain.
  - 2. Effluent Line: For gravity flow below septic tank, maintain minimum pitch of 1/8"/ft. For pumped effluent, follow pump manufacturers specifications for pressurized effluent line.
- C. Pump Needed: Gravity flow to disposal area not feasible. Follow manufacturer instructions for pump specifications.
- D. Distribution Box (OPTIONAL): Serves as an access point to disposal area. Level box on a firm base, cover with insulation to protect from freezing.
- E. Septic Tank: Setback requirements must be met when installing a septic tank. Applicable setbacks are stated on the design. Further information on setbacks can be found in the Maine Subsurface Wastewater Disposal Rules, Tables 700.2, 700.3 and 700.4.
- F. Disposal Area: Setback requirements must be met when installing a disposal field. Applicable setbacks are stated on the design. Further information on setbacks can be found in the Maine Subsurface Wastewater Disposal Rules, Tables 700.2, 700.3 and 700.4.
- G. Disposal Area Construction Details:
  - 1. The vegetation in the proposed disposal area and fill extensions shall be removed. The area shall then be scarified to a depth of 6 to 8 inches, parallel to the topographic contour. If the backfill material is coarser than the original soil, a minimum of 4 inches of backfill materials must be mixed into the original soil to form a transitional horizon.
  - 2. The disposal area bottom and distribution line shall be level with a maximum grade tolerance of 2in/100 ft.
  - 3. Backfill Standards: Backfill material shall be a coarse sand to a gravelly coarse sand meeting the following requirements: the upper limit of rocks greater than 3" in diameter shall be approx. 5% by volume, and the backfill shall contain approx. 15% - 20% (by weight) coarse fragments (gravel).

4. The finished grade of the backfill over the disposal area shall be crowned from the center of the disposal area at a 3% slope extending 3 ft. beyond the edge of the disposal field (shoulder). The fill shall then be sloped at a uniform grade of at least 4 horizontal feet per 1 vertical foot drop (fill extension) unless specified by variance. For further information, see Tables 600.2, 600.3 and 600.4 of the Maine Subsurface Wastewater Disposal Rules.
5. The land adjacent to the disposal area shall be graded to prevent both the accumulation of surface water on or next to the disposal field, and the flow of surface water across it. Cellar and roof drains must be diverted away from the disposal area.
6. The finished disposal area and fill extensions shall be immediately seeded or sodded to establish vegetation to prevent erosion. Grasses and herbaceous plant material are acceptable for use over disposal fields. Woody plant material (trees and shrubs) are not acceptable on the disposal field area but may be used with herbaceous plant materials in the fill extensions. See sections 806.4 of the Maine Subsurface Wastewater Disposal Rules for specifications.

H. Bed or Trench Disposal Area Construction Details:

1. Disposal area stone depth shall extend at least 7" beneath the bottom and 1" above the top of the distribution pipes. Stone shall be washed before delivery to the site, uniform in size and free of fines, dust, clay or ashes. It shall be no smaller than 3/4" and no larger than 2 1/2" in size. See section 805.2 of the Maine Subsurface Wastewater Disposal Rules for stone requirements.
2. The disposal field stone shall be covered with a layer of filter fabric or 2" of compressed hay as the laying of the distribution pipes progresses. See section 805.3 of the Maine Subsurface Wastewater Disposal Rules for fabric requirements.
3. A minimum of 8" of backfill is required above the filter fabric or hay. This includes a cover material of 4" of soil/soil amendment mix suitable for the establishment of a good vegetative cover. See section 804.2 of the Maine Subsurface Wastewater Disposal Rules for cover requirements.

I. Chamber Disposal Area Construction Details: Install approved chambers in accordance with manufacturer specifications and Appendix B of the Maine Subsurface Wastewater Disposal Rules.

## SEPTIC SYSTEM USER NOTES

1. This septic system has been designed to meet requirements of the State of Maine Subsurface Wastewater Disposal Rules, 10-144A CMR 241. Because site evaluators are not notified when local ordinances are enacted which exceed state requirements, it is the septic system owners responsibility to ensure that this septic system design (HHE-200 form) is in compliance with applicable local ordinances. This can be done by contacting your local plumbing inspector and asking about local ordinances which differ from those required in the Rules.
2. It is the septic system owner's responsibility to obtain any local, state, or federal permit(s) that may be required for the installation of this septic system (work within or adjacent to a wetland may require a state and/or federal permit). Contact the Maine Department of Environmental Protection at 287-2111 and the Army Corps of Engineers at 623-8367 if you have any questions.
3. The use of a garbage grinder on a septic system is not recommended. Depending on use patterns, they can contribute a significant amount of particulate matter and grease to the system. Excessive use may result in premature failure. If a garbage grinder is to be used, additional septic tank capacity, a multi compartment septic tank is required, and/or more frequent septic tank pumping is recommended.
4. For new construction, it is recommended that the septic system owner install low volume toilets (1 1/2 gallons per flush or less) and other flow reducing fixtures such as low volume shower heads and faucets to minimize water consumption. A reduction in water usage will generally result in extended life of your septic system.
5. It is the septic system owner's responsibility to limit water consumption and wastewater generation so that the septic system design capacity (design flow on the HHE-200 form) is not exceeded on any day. Activities which generate large amounts of wastewater should be spread out over several days where possible. Excessive use of a septic system on any day can cause the system to fail even though your use, averaged over a week or month, is below design volume.
6. Do not connect floor or roof drains to a septic system. Your septic system is not designed to handle this water and it will likely cause premature failure.
7. Do not dispose of backwash from water softeners or water treatment devices in your septic system. Large amounts of water can be generated from these devices which can overload a septic system.
8. Do not dispose of any hazardous or toxic substances in a septic system such as paint thinner, paints, varnishes, photographic solutions, pesticides, insecticides, organic solvents or degreasers and drain openers. Septic systems depend on living organisms to function properly. Toxic or hazardous material can, in effect, "kill" the system and are a threat to pollution of surface or groundwater resources. Instead of using a commercial degreaser or drain opener, which can be toxic, use one of the following:
  - A. A plunger or mechanical snake; or
  - B. Pour one handful of baking soda and 1/2 cup of white vinegar down the drainpipe and cover tightly for one minute. Repeat as necessary; or

- C. Pour 1/2 cup salt and 1/2 cup baking soda down the drain followed by 6 cups of boiling water. Let sit for several hours or overnight, then flush with water.
9. Do not dispose of any inert or non-biodegradable substances into your septic system such as disposable diapers, cat box litter, coffee grounds, cigarette filters, sanitary napkins, facial tissues and wet strength paper towels.
  10. Do not dispose of large quantities of fats or grease into your septic system unless an external grease trap has been designed for that purpose. Generally, an internal grease trap is inadequate to handle excessive amounts of grease or fat.
  11. Do not add any septic tank cleaner or additive to your septic system to improve its function or prolong its useful operating life (this includes yeast, horse manure or commercial products). No effective product or material is recognized by State authorities and, in fact, some of these products can actually cause your septic system to fail.
  12. Maintain your septic system by regularly having the septic tank pumped. Some biological breakdown of solids and grease occurs in septic tanks but the rate of accumulation virtually always exceeds the rate of biologic breakdown. If your septic tank is not pumped out often enough, solids and greases may build up to the point where they enter your disposal areas. Once this material reaches the disposal area, it will clog the soil surface and likely cause premature failure.
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**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

#5876 issued 9/20/06

Department of Human Services  
Division of Health Engineering  
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

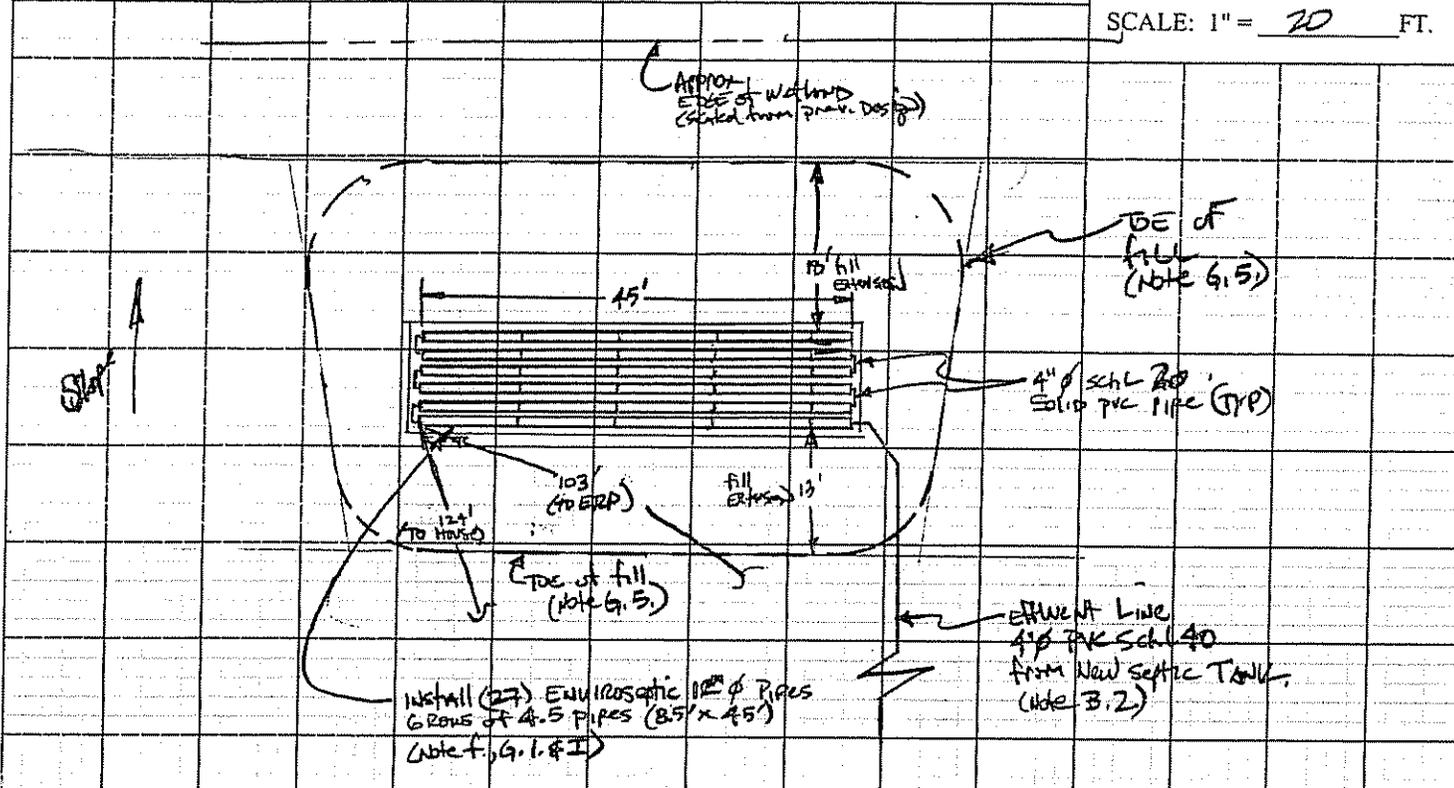
Augusta

406 CONY ROAD

Sobus, Stanley J.

**SUBSURFACE WASTEWATER DISPOSAL PLAN**

SCALE: 1" = 20 FT.



**FILL REQUIREMENTS**

**CONSTRUCTION ELEVATIONS**

**ELEVATION REFERENCE POINT**

Depth of Fill (Upslope) 33'-35"  
Depth of Fill (Downslope) 4'-4"

Finished Grade Elevation -17  
Top of Distribution Pipe or Proprietary Device -27  
Bottom of Disposal Area Proprietary Device -39

Location & Description: MAIL STOP 14" maple (4" above ground).  
Reference Elevation: 0.0"

**Notes**

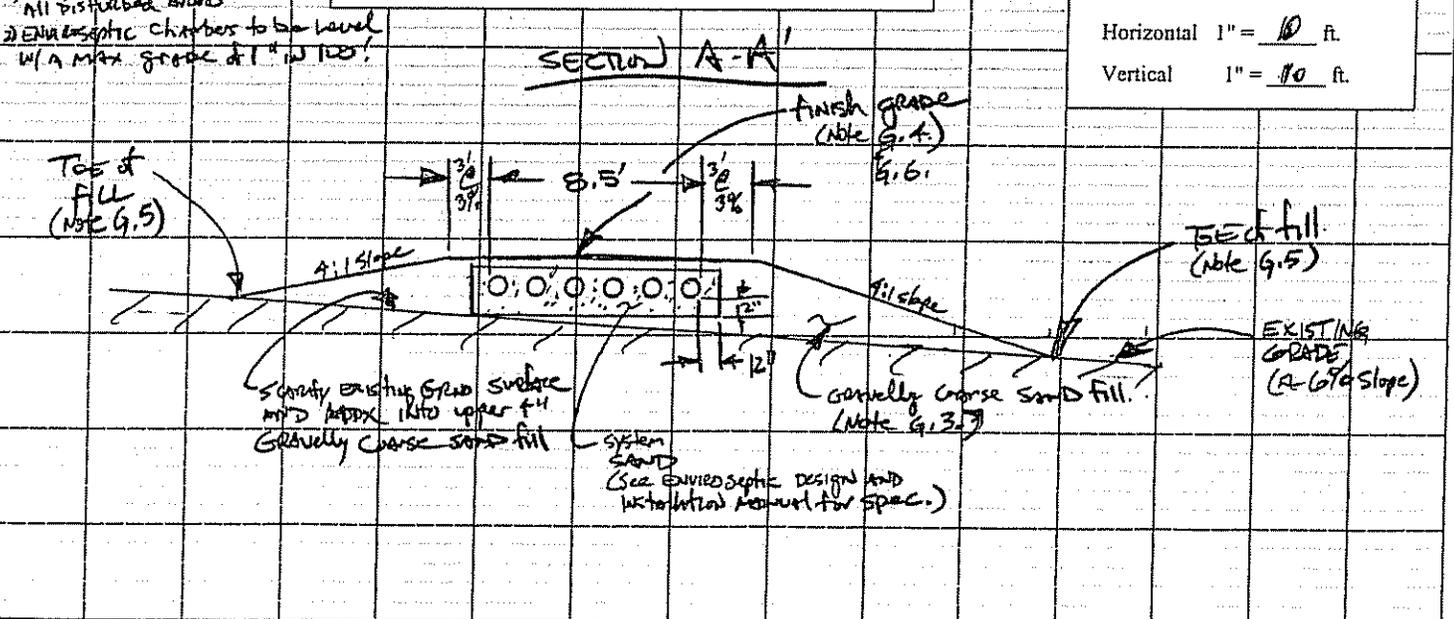
- 1) Limb, fertilize, seed and mulch. All disturbed areas.
- 2) Environmental chambers to be level w/ a max. grade of 1" in 100'.

**DISPOSAL AREA CROSS SECTION**

Scale

Horizontal 1" = 10 ft.

Vertical 1" = 10 ft.



Charles H. Legma

367

10/23/06

Site Evaluator Signature

SE #

Date

Request by S.J. Sobus to change leach field to ENVIRONMENTAL SEPTIC DESIGN. Originally Designed by K.P. Cottin (#331) DATE AUGUST 5, 2006.

**Design Notes** for Subsurface Wastewater Disposal System Application (Form HHE-200)

**Owner/Applicant:**

**NOTE:**

- A. Elevation Reference Point (ERP) location is described on page 3 of the HHE-200 form. It is to be used by the installer to place the bottom of the leachfield at the correct depth. Disposal area shall be no lower than indicated.
- B. Sewer Pipes: Use 3" diameter (minimum) approved, watertight materials, schedule 40 PVC pipe. Insulate as necessary to protect from freezing; bury at least 1' deep, seed disturbed area.
  1. Building Sewer: For gravity flow from building to septic tank, maintain minimum pitch of 1/4"/ft. (1/8"/ft. allowed with LPI's approval if using 4" diameter pipe). The building sewer may not be smaller than the building drain.
  2. Effluent Line: For gravity flow below septic tank, maintain minimum pitch of 1/8"/ft. For pumped effluent, follow pump manufacturers specifications for pressurized effluent line.
- C. Pump Needed: Gravity flow to disposal area not feasible. Follow manufacturer instructions for pump specifications.
- D. Distribution Box (OPTIONAL): Serves as an access point to disposal area. Level box on a firm base, cover with insulation to protect from freezing.
- E. Septic Tank: Setback requirements must be met when installing a septic tank. Applicable setbacks are stated on the design. Further information on setbacks can be found in the Maine Subsurface Wastewater Disposal Rules, Tables 700.2, 700.3 and 700.4.
- F. Disposal Area: Setback requirements must be met when installing a disposal field. Applicable setbacks are stated on the design. Further information on setbacks can be found in the Maine Subsurface Wastewater Disposal Rules, Tables 700.2, 700.3 and 700.4.
- G. Disposal Area Construction Details:
  1. The vegetation in the proposed disposal area and fill extensions shall be removed. The area shall then be scarified to a depth of 6 to 8 inches, parallel to the topographic contour. If the backfill material is coarser than the original soil, a minimum of 4 inches of backfill materials must be mixed into the original soil to form a transitional horizon.
  2. The disposal area bottom and distribution line shall be level with a maximum grade tolerance of 2in/100 ft.
  3. Backfill Standards: Backfill material shall be a coarse sand to a gravelly coarse sand meeting the following requirements: the upper limit of rocks greater than 3" in diameter shall be approx. 5% by volume, and the backfill shall contain approx. 15% - 20% (by weight) coarse fragments (gravel).

4. The finished grade of the backfill over the disposal area shall be crowned from the center of the disposal area at a 3% slope extending 3 ft. beyond the edge of the disposal field (shoulder). The fill shall then be sloped at a uniform grade of at least 4 horizontal feet per 1 vertical foot drop (fill extension) unless specified by variance. For further information, see Tables 600.2, 600.3 and 600.4 of the Maine Subsurface Wastewater Disposal Rules.
5. The land adjacent to the disposal area shall be graded to prevent both the accumulation of surface water on or next to the disposal field, and the flow of surface water across it. Cellar and roof drains must be diverted away from the disposal area.
6. The finished disposal area and fill extensions shall be immediately seeded or sodded to establish vegetation to prevent erosion. Grasses and herbaceous plant material are acceptable for use over disposal fields. Woody plant material (trees and shrubs) are not acceptable on the disposal field area but may be used with herbaceous plant materials in the fill extensions. See sections 806.4 of the Maine Subsurface Wastewater Disposal Rules for specifications.

H. Bed or Trench Disposal Area Construction Details:

1. Disposal area stone depth shall extend at least 7" beneath the bottom and 1" above the top of the distribution pipes. Stone shall be washed before delivery to the site, uniform in size and free of fines, dust, clay or ashes. It shall be no smaller than 3/4" and no larger than 2 1/2" in size. See section 805.2 of the Maine Subsurface Wastewater Disposal Rules for stone requirements.
2. The disposal field stone shall be covered with a layer of filter fabric or 2" of compressed hay as the laying of the distribution pipes progresses. See section 805.3 of the Maine Subsurface Wastewater Disposal Rules for fabric requirements.
3. A minimum of 8" of backfill is required above the filter fabric or hay. This includes a cover material of 4" of soil/soil amendment mix suitable for the establishment of a good vegetative cover. See section 804.2 of the Maine Subsurface Wastewater Disposal Rules for cover requirements.

I. Chamber Disposal Area Construction Details: Install approved chambers in accordance with manufacturer specifications and Appendix B of the Maine Subsurface Wastewater Disposal Rules.

## SEPTIC SYSTEM USER NOTES

1. This septic system has been designed to meet requirements of the State of Maine Subsurface Wastewater Disposal Rules, 10-144A CMR 241. Because site evaluators are not notified when local ordinances are enacted which exceed state requirements, it is the septic system owners responsibility to ensure that this septic system design (HHE-200 form) is in compliance with applicable local ordinances. This can be done by contacting your local plumbing inspector and asking about local ordinances which differ from those required in the Rules.
2. It is the septic system owner's responsibility to obtain any local, state, or federal permit(s) that may be required for the installation of this septic system (work within or adjacent to a wetland may require a state and/or federal permit). Contact the Maine Department of Environmental Protection at 287-2111 and the Army Corps of Engineers at 623-8367 if you have any questions.
3. The use of a garbage grinder on a septic system is not recommended. Depending on use patterns, they can contribute a significant amount of particulate matter and grease to the system. Excessive use may result in premature failure. If a garbage grinder is to be used, additional septic tank capacity, a multi compartment septic tank is required, and/or more frequent septic tank pumping is recommended.
4. For new construction, it is recommended that the septic system owner install low volume toilets (1 1/2 gallons per flush or less) and other flow reducing fixtures such as low volume shower heads and faucets to minimize water consumption. A reduction in water usage will generally result in extended life of your septic system.
5. It is the septic system owner's responsibility to limit water consumption and wastewater generation so that the septic system design capacity (design flow on the HHE-200 form) is not exceeded on any day. Activities which generate large amounts of wastewater should be spread out over several days where possible. Excessive use of a septic system on any day can cause the system to fail even though your use, averaged over a week or month, is below design volume.
6. Do not connect floor or roof drains to a septic system. Your septic system is not designed to handle this water and it will likely cause premature failure.
7. Do not dispose of backwash from water softeners or water treatment devices in your septic system. Large amounts of water can be generated from these devices which can overload a septic system.
8. Do not dispose of any hazardous or toxic substances in a septic system such as paint thinner, paints, varnishes, photographic solutions, pesticides, insecticides, organic solvents or degreasers and drain openers. Septic systems depend on living organisms to function properly. Toxic or hazardous material can, in effect, "kill" the system and are a threat to pollution of surface or groundwater resources. Instead of using a commercial degreaser or drain opener, which can be toxic, use one of the following:
  - A. A plunger or mechanical snake; or
  - B. Pour one handful of baking soda and 1/2 cup of white vinegar down the drainpipe and cover tightly for one minute. Repeat as necessary; or

- C. Pour 1/2 cup salt and 1/2 cup baking soda down the drain followed by 6 cups of boiling water. Let sit for several hours or overnight, then flush with water.
9. Do not dispose of any inert or non-biodegradable substances into your septic system such as disposable diapers, cat box litter, coffee grounds, cigarette filters, sanitary napkins, facial tissues and wet strength paper towels.
  10. Do not dispose of large quantities of fats or grease into your septic system unless an external grease trap has been designed for that purpose. Generally, an internal grease trap is inadequate to handle excessive amounts of grease or fat.
  11. Do not add any septic tank cleaner or additive to your septic system to improve its function or prolong its useful operating life (this includes yeast, horse manure or commercial products). No effective product or material is recognized by State authorities and, in fact, some of these products can actually cause your septic system to fail.
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