SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

PROPERTY LOCATION

City, Town, or Plantation	PORTLAND, PEAKS ISLAND
Street or Road	422 ISLAND AVENUE
Subdivision, Lot *	

OWNER/APPLICANT INFORMATION

Name (last, first, MI)		Owner
NELSON	MELISSA	
Mailing Address of ☐ Owner ☒ Applicant	98 Island Avenue Peaks Island, ME 04108	
Daytime Tel. *	207-766-2508	

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

9mp 10/8/08

PORTLAND PERMIT # 10777 TOWN COPY

Date Permit Issued: 10/8/08 $ 110.00 ☐ If Double Fee Charged FEE

Thomas Markley
Local Plumbing Inspector Signature

L.P.I. # 0174

70 D 11

Municipal Tax Map * 90, BLOCK D Lot * 13 Lat. N 43 40' 3" Lon. W 70 11' 30"

or Applicant Statement

I state and acknowle[dge] my knowledge and [belief] and/or Local Plumb[ing] he information submitted is correct to the best of [my] hat any falsification is reason for the Department to deny a permit.

Melissa Nelson 9/30/08
Signature of Owner Applicant Date

Caution: Inspections Required

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application.

(1st) Date Approved

Local Plumbing Inspector Signature

(2nd) Date Approved

PERMIT INFORMATION

TYPE OF APPLICATION

1. ☐ First Time System
2. ■ Replacement System
   Type Replaced: CESSPOOL
   Year Installed: PRE-1974
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. Replacement System Variance
   a. ■ Local Plumbing Inspector Approval
   b. ☐ State & Local Plumbing Inspector Approval
4. ☐ Minimum Lot Size Variance
5. ☐ Seasonal Conversion Approval

DISPOSAL SYSTEM COMPONENTS

1. ■ Complete Non-Engineered System
2. ☐ Primitive System(graywater & alt toilet)
3. ☐ Alternative Toilet, specify:
4. ☐ Non-Engineered Treatment Tank (only)
5. ☐ Holding Tank, Gallons
6. ☐ Non-Engineered Disposal Field (only)
7. ☐ Separated Laundry System
8. ☐ Complete Engineered System(2000gpd+)
9. ☐ Engineered Treatment Tank (only)
10. ☐ Engineered Disposal Field (only)
11. ☐ Pre-treatment, specify:
12. ☐ Miscellaneous components

SIZE OF PROPERTY

☐ sq. ft.
☐ acres

DISPOSAL SYSTEM TO SERVE

1. ■ Single Family Dwelling Unit, No. of Bedrooms: 3
2. ☐ Multiple Family Dwelling, No of Units:
3. ☐ Other:
   SPECIFY

SHORELAND ZONING

☐ Yes ■ No

Current Use ☐ Seasonal ■ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY

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

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

1. ■ Concrete
   a. ■ Regular
   b. ☐ Low Profile
2. ☐ Plastic
3. ☐ Other:

CAPACITY 1000 gallons

DISPOSAL FIELD TYPE & SIZE

1. ☐ Stone Bed 2. Stone Trench
3. ■ Proprietary Device
   c. ☐ Cluster array c. ■ Linear
   b. ■ Regular d. ☐ H-20 loaded
4. ☐ Other:

SIZE 912 ■ sq. ft. ☐ lin. ft.
19 ELJEN IN-DRAIN UNITS

GARBAGE DISPOSAL UNIT

1. ■ No 3. ☐ Maybe
2. ☐ Yes >> Specify one below:
   a. ☐ Multi-compartment tank
   b. ☐ _____tanks in series
   c. ☐ Increase in tank capacity
   d. ☐ Filter on tank outlet

DESIGN FLOW

270 gallons per day
BASED ON:
1. ■ Table 501.1 (dwelling unit(s))
2. ☐ Table 501.2 (other facilities)
SHOW CALCULATIONS
- for other facilities -

3 BEDROOMS AT 90 GALLONS PER DAY EACH

3. ☐ Section 503.0 (meter readings)
ATTACH WATER-METER DATA

SOIL DATA & DESIGN CLASS

PROFILE	CONDITION	DESIGN
3	FILL OVER C	I

AT Observation Hole * TP 1
Depth 24 "
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. ☐ Extra-Large - 5.0 sq.ft./gpd

EFFLUENT/EJECTOR PUMP

1. ☐ Not required
2. ■ May be required
3. ☐ Required >>Specify only for engineered or experimental systems:

DOSE: Gallons

SITE EVALUATOR STATEMENT

I Certify that on 6/24/2003 (date) I completed a site evaluation on this property and state that the data reported is accurate and that the proposed sytem is in compliance with the Subsurface Wastewater Disposal Rules (10-144A CMR 241).

Albert Frick
Site Evaluator Signature

163
SE *

9/26/2008
Date

SEP 29 2008

ALBERT FRICK
Site Evaluator Name Printed

(207) 839-5563
Telephone Number

AFA@MAINERR.COM
E-mail Address

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD ROAD GORHAM, MAINE 04038 – (207) 839-5563

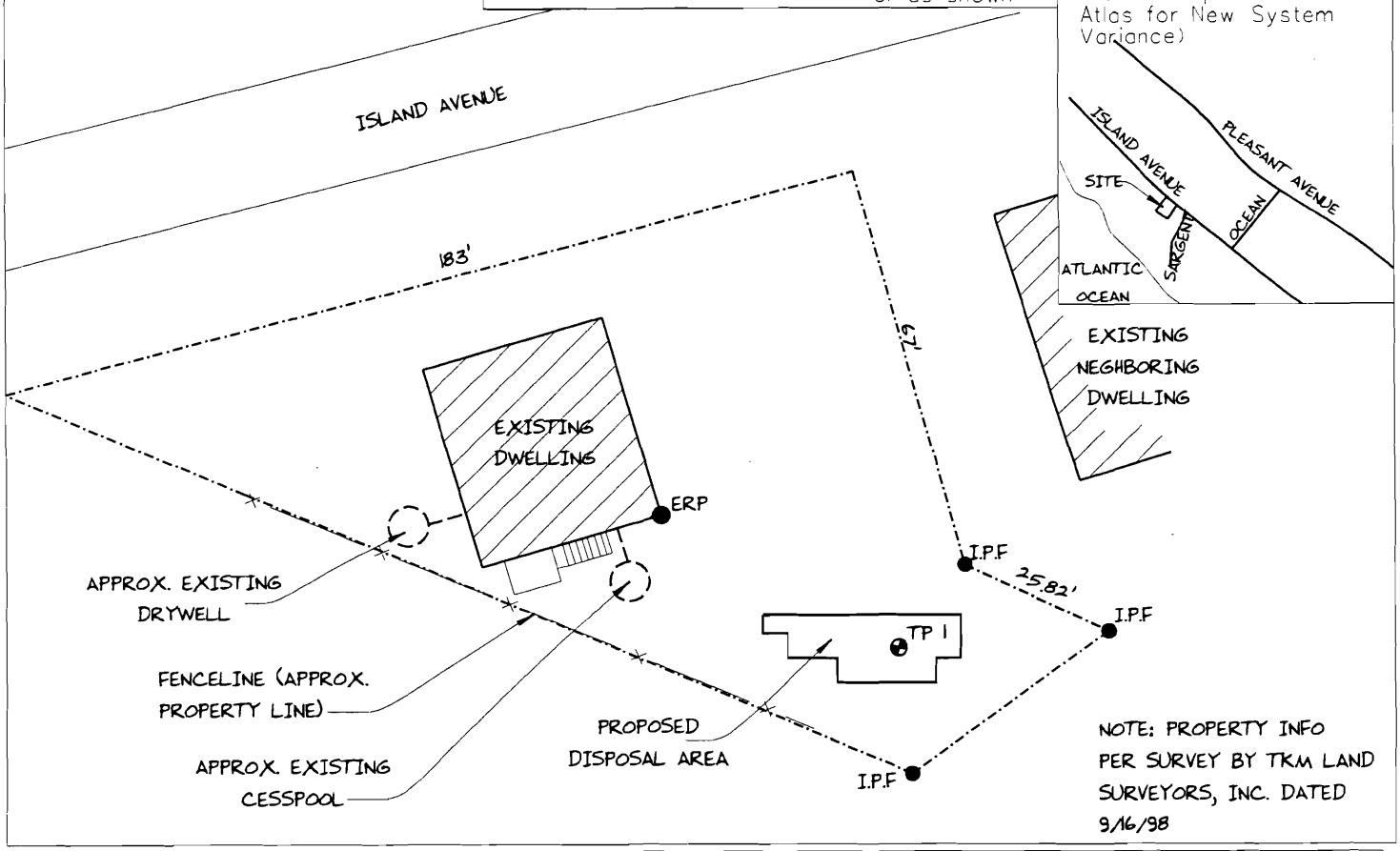
Note: Changes to or deviations from the design should be confirmed with the Site Evaluator

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

Town, City, Plantation	Street, Road Subdivision	Owner's Name
PORTLAND, PEAKS ISLAND	422 ISLAND AVENUE	MELISSA NELSON

SITE PLAN Scale 1" = 30 Ft. or as shown



SITE LOCATION PLAN (Attach Map from Maine Atlas for New System Variance)

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

Observation Hole TP 1 ■ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10	SANDY LOAM AND LOAMY SAND (FILL)	FRIABLE	DARK BROWN	
10–30	LOAMY SAND	SOMEWHAT FIRM	MIXED OLIVE BROWN	COMMON, FAINT
30–50				

Soil Classification	Slope	Limiting Factor	
3 FILL OVER C (Profile / Condition)	____ %	24"	■ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Observation Hole _____ ☐ Test Pit ☐ Boring
_____" Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)

	Texture	Consistency	Color	Mottling
0–10				
10–30				
30–50				

Soil Classification	Slope	Limiting Factor	
Profile / Condition	____ %	-	☐ Ground Water ☐ Restrictive Layer ☐ Bedrock ☐ Pit Depth

Albert Frick
Site Evaluator Signature

163
SE *

9/26/2008
Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD ROAD GORHAM, MAINE 04038 – (207) 839-5563

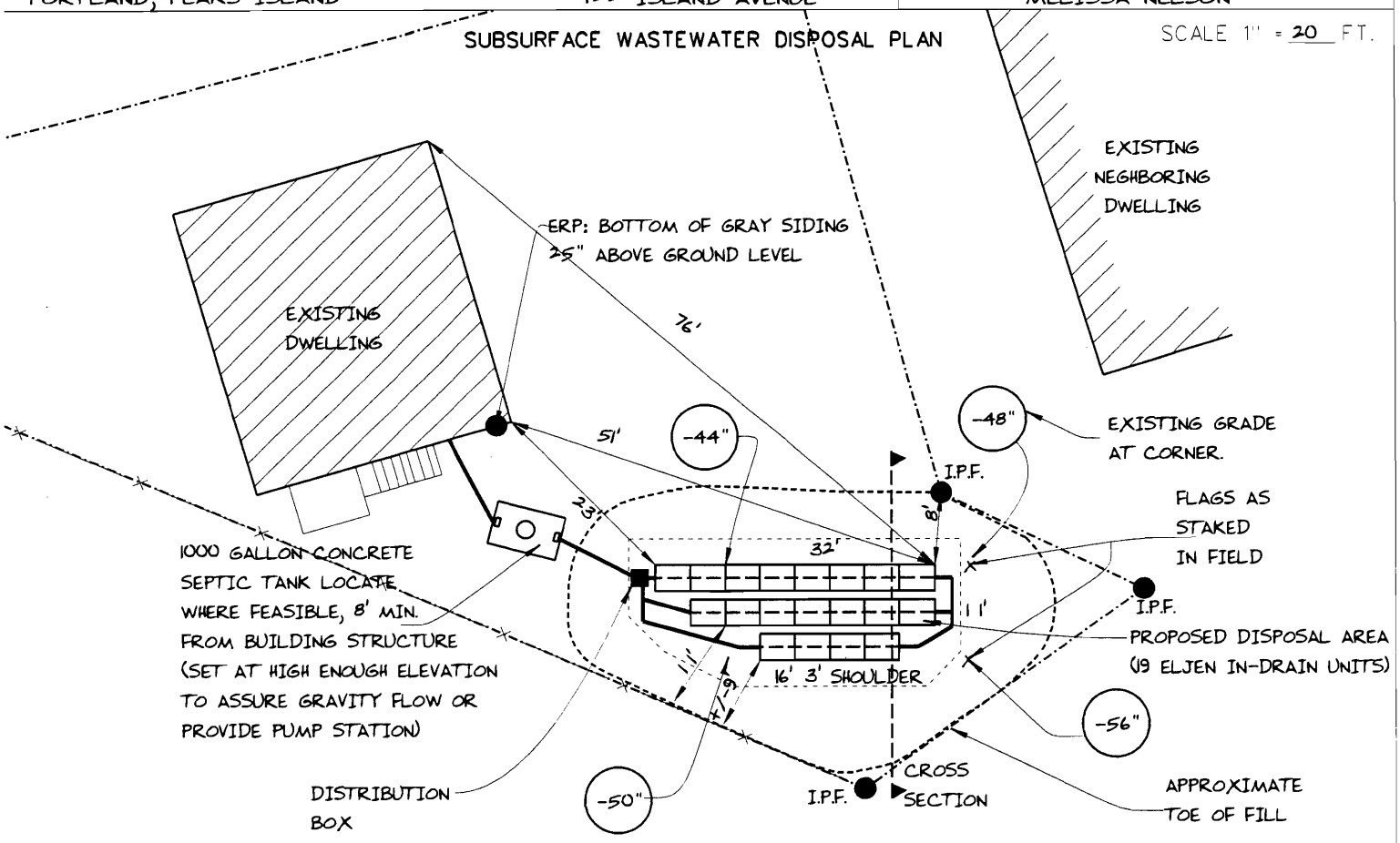
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

Town, City, Plantation	Street, Road, Subdivision	Owner's Name
PORTLAND, PEAKS ISLAND	422 ISLAND AVENUE	MELISSA NELSON

SUBSURFACE WASTEWATER DISPOSAL PLAN

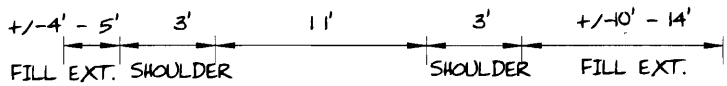
SCALE 1" = 20 FT.

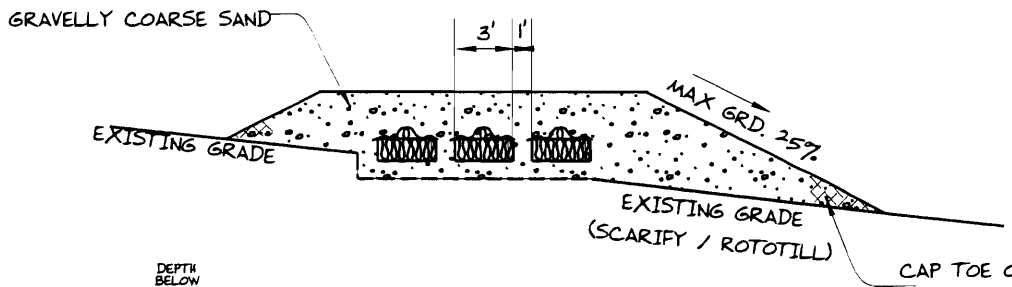


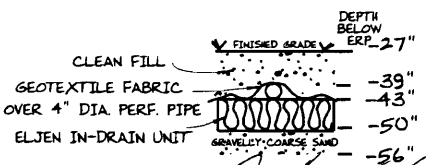
FILL REQUIREMENTS		CONSTRUCTION ELEVATIONS		ELEVATION REFERENCE POINT
Depth of Fill (Upslope)	: 17" - 21"	Finished Grade Elevation	——	Location & Description BOTTOM OF GRAY SIDING, 25" ABOVE GRADE
Depth of Fill (Downslope)	: 23" - 29"	Top of Distribution Pipe or Proprietary Device	——	Reference Elevation is: 0.0" or _____
DEPTHS AT CROSS-SECTION (shown below)		Bottom of Disposal Area	——	

SCALE:
VERTICAL: 1" = 5 FT
HORIZONTAL: 1" = 10 FT

DISPOSAL AREA CROSS SECTION







Albert Frick — Site Evaluator Signature

163 — SE #

9/26/2008 — Date

ALBERT FRICK ASSOCIATES – 95A COUNTY ROAD ROAD GORHAM, MAINE 04038 – (207) 839-5563

Albert Frick Associates, Inc.
Soil Scientists & Site Evaluators
95A County Road Gorham, Maine 04038
(207) 839-5563

PORTLAND, PEAKS ISLAND	422 ISLAND AVENUE	MELISSA NELSON
TOWN	LOCATION	APPLICANT'S NAME

1) The Plumbing and Subsurface Wastewater Disposal Rules adopted by the State of Maine, Department of Human Services pursuant to 22 M.R.S.A. § 42 (the "Rules") are incorporated herein by reference and made a part of this application and shall be consulted by the owner/applicant, the system installer and/or building contractor for further construction details and material specifications. The system Installer should contact Albert Frick Associates, Inc. 839-5563, if there are any questions concerning materials, procedures or designs. The system installer and/or building contractor installing the system shall be solely responsible for compliance with the Rules and with all state and municipal laws and ordinances pertaining to the permitting, inspection and construction of subsurface wastewater disposal systems.

2) This application is intended to represent facts pertinent to the Rules only. It shall be the responsibility of the owner/applicant, system Installer and/or building contractor to determine compliance with and to obtain permits under all applicable local, state and/or federal laws and regulations (including, without limitation, Natural Resources Protection Act, wetland regulations, zoning ordinances, subdivision regulations, Site Location of Development Act and minimum lot size laws) before installing this system or considering the property on which the system is to be installed a "buildable" lot. It is recommended that a wetland scientist be consulted regarding wetland regulations. Prior to the commencement of construction/installation, the local plumbing inspector or Code Enforcement Officer shall inform the owner/applicant and Albert Frick Associates, Inc of any local ordinances which are more restrictive than the Rules in order that the design may be amended. All designs are subject to review by local, state and/or federal authorities. Albert Frick Associates, Inc.'s liability shall be limited to revisions required by regulatory agencies pursuant to laws or regulations in effect at the time of preparation of this application.

3) All information shown on this application relating to property lines, well locations, subsurface structures and underground facilities (such as utility lines, drains, septic systems, water lines, etc.) are based solely upon information provided by the owner/applicant and has been relied upon by Albert Frick Associates, Inc. in preparing this application. The owner/applicant shall review this application prior to the start of construction and confirm this information. Well locations on abutting properties but not readily visible above grade should be confirmed by the owner/applicant prior to system installation to assure minimum setbacks.

4) Installation of a garbage (grinder) disposal is not recommended. If one is installed, an additional 1000 gallon septic tank or a septic tank filter shall be connected in series to the proposed septic tank. Risers and covers should be installed over the septic tank outlet to allow for easy maintenance.

5) The system user shall avoid introducing kitchen grease or fats into this system. Chemicals such as septic tank cleaners and/or chlorine (such as from water treatment units) and controlled or hazardous substances shall not be disposed of in this system. Additives such as yeast or enzymes are discouraged, since they have not been proven to extend system life.

6) The septic tank should be pumped within two years of installation and subsequently as recommended by the pump service, but in no event should the septic tank be pumped less often than every three years. All septic tanks, pump stations and additional treatment tanks shall be installed to prevent ground water and surface water infiltration. Risers and covers should be properly installed to provide access while preventing surface water intrusion.

ATTACHMENT TO SUBSURFACE WASTEWATER DISPOSAL APPLICATION

PORTLAND, PEAKS ISLAND	422 ISLAND AVENUE	MELISSA NELSON
TOWN	LOCATION	APPLICANT'S NAME

7) The actual water flow or number of bedrooms shall not exceed the design criteria indicated on this application without a re-evaluation of the system as proposed. If the system is supplied by public water or a private service with a water meter, the water consumption per period should be divided by the number of days to calculate the average daily water consumption [water usage (cu. ft.) x 7.48 cu. ft. (gallons per cu. ft.) ÷ (# of days in period) = gals per day].

8) The general minimum setbacks between a well and septic system serving a single family residence is 100-300 feet, unless the local municipality has a more stringent requirement. A well installed by an abutter within the minimum setback distances prior to the issuance of a permit for the proposed disposal system may void this design.

9) When a gravity system is proposed: BEFORE CONSTRUCTION/INSTALLATION BEGINS, the system installer or building contractor shall review the elevations of all points given in this application and the elevation of the existing and/or proposed building drain and septic tank inverts for compatibility to minimum slope requirement. In gravity systems, the invert of the septic tank(s) outlet(s) shall be at least 4 inches above the invert of the distribution box outlet at the disposal area.

10) When an effluent pump is required: Provisions shall be made to make certain that surface and ground water does not enter the septic tank or pump station, by sealing/grouting all seams and connections, and by placement of a riser and lid at or above grade. An alarm device warning of a pump failure shall be installed. Also, when pumping is required of a chamber system, install a "T" connection in the distribution box and place 3 inches of stone or a splash plate in the first chamber. Insulate gravity pipes, pump lines and the distribution box as necessary to prevent freezing.

11) On all systems, remove the vegetation, organic duff and old fill material from under the disposal area and any fill extension. On sites where the proposed system is to be installed in natural soil, scarify the bottom and sides of the excavated disposal area with a rake. Do not use wheeled equipment on the scarified soil surface. For systems installed in fill, scarify the native soil by roto-tilling or scarifying with teeth of backhoe to a depth of at least 8 inches over the entire disposal and fill extension area to prevent glazing and to promote fill bonding. Place fill in loose layers no deeper that 8 inches and compact before placing more fill (this ensures that voids and loose pockets are eliminated to minimize the chance of leakage or differential setting). Do not use wheeled equipment on the scarified soil area until after 12 inches of fill is in place. Keep equipment off proprietary devices. Divert the surface water away from the disposal area by ditching or shallow landscape swales.

12) Unless noted otherwise, fill shall be gravelly coarse sand which contains no more that 5% fines (silt and clay). Crushed stone shall be clean and free of any rock dust from the crushing process.

13) Do not install systems on loamy, silty, or clayey soils during wet periods since soil smearing/glazing may seal off the soil interface.

14) Seed all filled and disturbed surfaces with perennial grass seed, then mulch with hay or equivalent material to prevent erosion. Alternatively, bark or permanent landscape mulch may be used to cover system. Woody trees or shrubs are not permitted on the disposal area or fill extensions.

15) If an advanced wastewater treatment unit is part of the design, the system shall be operated and maintained per manufacturer's specifications.

Albert Frick Associates, Inc.
Soil Scientists & Site Evaluators
95A County Road Gorham, Maine 04038
(207) 839-5563

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 and 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, Peaks Island

Permit No. _____ Date Permit Issued _____

Property Owner's Name: Melissa Nelson Tel. No.: _____

System's Location: 422 Island Avenue

Property Owner's Address: _____

(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.

Melissa Nelson — SIGNATURE OF OWNER

9/30/08 — DATE

LOCAL PLUMBING INSPECTOR

I, Thomas A. MARCLEY, 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:

Thomas A Marcley — LPI SIGNATURE

SEP 29 2008

10/8/08 — DATE

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**			**Septic Tanks**			**Disposal Fields**	**Septic Tanks**
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		
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]	8'	
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 NEAR PROPERTY LINES, AS NECESSARY

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.

Albert Frick — 7/11/2003

SITE EVALUATOR'S SIGNATURE — DATE

8/21/2008 revised 9/26/2008

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