

# REPLACEMENT SYSTEM VARIANCE REQUEST

## THE LIMITATIONS OF THE REPLACEMENT SYSTEM VARIANCE REQUEST

This form must be attached to an application (HHE-200) for any 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 are met.

1. The proposed design meets the definition of a Replacement System as defined in the Rules (Sec. 1906.0)
2. The replacement system is determined by the Site Evaluator to be the most practical method to treat and dispose of the wastewater.
3. 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>Portland (Peaks Island)</u> |
| Permit No. _____  | Date Permit Issued _____               |
| Property Owner's Name: <u>Joanne MacIsaac</u>                 | Tel. No.: <u>(617)504-0303</u>         |
| System's Location: <u>499 Island Avenue (Map 90, Lot Q-1)</u> |  |
| Property Owner's Address: <u>22 Coolidge Road</u>             |  |
| (if different from above) <u>Medford, Ma. 02155</u>           |  |

## 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. The Site Evaluator has considered the site/soil restrictions and has 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 their duties as may be necessary to evaluate the variance request.

  
SIGNATURE OF OWNER

Feb 20, 2011  
DATE

## LOCAL PLUMBING INSPECTOR

I, \_\_\_\_\_, 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 ( 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.

Comments: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
LPI SIGNATURE

\_\_\_\_\_  
DATE

Replacement System Variance Request

| VARIANCE CATEGORY   |                    |                    |               |                    |                  |               | VARIANCE REQUESTED TO: |                 |              |
|---|--------------------|--------------------|---------------|--------------------|------------------|---------------|------------------------|-----------------|--------------|
| SOILS   |                    |                    |               |                    |                  |               |                        |                 |              |
| Soil Profile  |                    | Ground Water Table |               |                    | "                |               | inches                 |                 |              |
| Soil Condition  |                    | Restrictive Layer  |               |                    | "                |               | inches                 |                 |              |
| from HHE-200  |                    | Bedrock            |               |                    | "                |               | 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 system wells                               | 300 ft             | 300 ft             | 300 ft        | 150 ft             | 150 ft           | 150 ft        |                        |                 |              |
| Private Potable Water Supply  | 100 ft [a]         | 200 ft             | 300 ft        | 50 ft              | 100 ft           | 100 ft        |                        |                 |              |
| Water supply line   | 10 ft              | 20 ft              | 25 ft [g]     | 10 ft              | 10 ft            | 10 ft [g]     |                        |                 |              |
| Water course, major -   | 100 ft [c]         | 200 ft [c]         | 300 ft [c]    | 100 ft             | 100 ft           | 100 ft        |                        |                 |              |
| Water course, minor   | 50 ft [d]          | 100 ft [d]         | 150 ft [d]    | 50 ft [d]          | 50 ft [d]        | 50 ft [d]     |                        |                 |              |
| Drainage ditches  | 25 ft              | 50 ft              | 75 ft         | 25 ft              | 25 ft            | 25 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 [f]          | 18 ft [f]          | 25 ft [f]     | N/A                | N/A              | N/A           |                        |                 |              |
| No full basement [e.g. slab, frost wall, columns]   | 15 ft              | 30 ft              | 40 ft         | 8 ft               | 14 ft            | 20 ft         |                        |                 |              |
| Full basement [below grade foundation]  | 20 ft              | 30 ft              | 40 ft         | 8 ft               | 14 ft            | 20 ft         | 8'+-                   | 5'+-            |              |
| Property lines  | 10 ft [b]          | 18 ft [b]          | 20 ft [b]     | 10 ft [b]          | 15 ft [b]        | 20 ft [b]     | 6'                     |                 |              |
| 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. 3:1 slope required near property line, as necessary
- 2.
- 3.

Footnotes: [a.] Private Potable water Supply setbacks may be reduced as prescribed in Chapter 7  
 [b.] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.  
 [c.] Additional setbacks may be required by local Shoreland zoning.  
 [d.] Natural Resource Protection Act requires a 25 feet setback, on slopes of less than 20%, from the edge of soil disturbance and 100 feet on slopes greater than 20%. See Chapter 15.  
 [e.] May not be any closer to a private potable water supply than the existing disposal field or septic tank. This setback may be reduced for single family houses with Department approval. See Section 702.3.  
 [f.] The fill extension shall reach the existing ground before the 3:1 slope or within 100 feet of the disposal field.  
 [g.] See Section 1402.8 for special procedures when these minimum setbacks cannot be achieved.

*Albert Feick*  
 \_\_\_\_\_  
 SITE EVALUATOR'S SIGNATURE

8/13/2010  
 \_\_\_\_\_  
 DATE

**FOR USE BY THE DEPARTMENT ONLY**

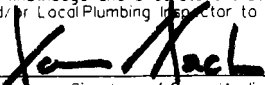
The Department has reviewed the variance(s) and (i does | does not) give its approval. Any additional requirements, recommendations, or reasons for the Variance denial, are given in the attached letter.

\_\_\_\_\_  
 SIGNATURE OF THE DEPARTMENT

\_\_\_\_\_  
 DATE

# 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   |  | >> Caution: Permit Required - Attach in Space Below <<  |              |
| City, Town, or Plantation   | PORTLAND (PEAKS ISLAND)                | The Subsurface Wastewater Disposal System <b>shall not</b> 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  | 499 ISLAND AVENUE                      |   |              |
| Subdivision, Lot *  |  |   |              |
| OWNER/APPLICANT INFORMATION   |  |   |              |
| Name (last, first, MI)  | MACISAAC JOANNE                        | Owner   | Applicant    |
| Mailing Address of  | 22 COOLIDGE ROAD<br>MEDFORD, MA. 02155 |   |              |
| Daytime Tel. *  | (617) 504-0303                         | Municipal Tax Map *   | 90 Lot * Q-1 |
| Owner or Applicant Signature  |  | Caution: Inspections Required   |              |
| I state and acknowledge that the information reported is correct to the best of my knowledge and understand that any violation is reason for the Department and/or Local Plumbing Inspector to deny a permit. |  | I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application   |              |
| <br>Signature of Owner/Applicant  |  | Date <u>Feb 20, 2011</u><br>Local Plumbing Inspector Signature _____<br>(1st) Date Approved _____<br>(2nd) Date Approved _____  |              |

## PERMIT INFORMATION

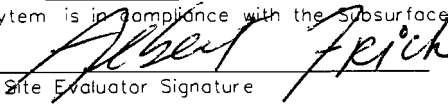
|   |  |   |
|---|--|---|
| <b>TYPE OF APPLICATION</b><br>1. <input type="checkbox"/> First Time System<br>2. <input type="checkbox"/> Replacement System<br>Type Replaced: <u>UNKNOWN</u><br>Year Installed: <u>UNKNOWN</u><br>3. <input checked="" type="checkbox"/> Expanded System<br>a. <input checked="" type="checkbox"/> Minor Expansion<br>b. <input type="checkbox"/> Major Expansion<br>4. <input type="checkbox"/> Experimental System<br>5. <input type="checkbox"/> Seasonal Conversion | <b>THIS APPLICATION REQUIRES</b><br>1. <input type="checkbox"/> No Rule Variance<br>2. <input type="checkbox"/> First Time System Variance<br>a. <input type="checkbox"/> Local Plumbing Inspector Approval<br>b. <input type="checkbox"/> State & Local Plumbing Inspector Approval<br>3. Replacement System Variance<br>a. <input checked="" type="checkbox"/> Local Plumbing Inspector Approval<br>b. <input type="checkbox"/> State & Local Plumbing Inspector Approval<br>4. <input type="checkbox"/> Minimum Lot Size Variance<br>5. <input type="checkbox"/> Seasonal Conversion Approval | <b>DISPOSAL SYSTEM COMPONENTS</b><br>1. <input checked="" type="checkbox"/> Complete Non-Engineered System<br>2. <input type="checkbox"/> Primitive System (graywater & old toilet)<br>3. <input type="checkbox"/> Alternative Toilet, specify: _____<br>4. <input type="checkbox"/> Non-Engineered Treatment Tank (only)<br>5. <input type="checkbox"/> Holding Tank, _____ Gallons<br>6. <input type="checkbox"/> Non-Engineered Disposal Field (only)<br>7. <input type="checkbox"/> Separated Laundry System<br>8. <input type="checkbox"/> Complete Engineered System (2000 gpd)<br>9. <input type="checkbox"/> Engineered Treatment Tank (only)<br>10. <input type="checkbox"/> Engineered Disposal Field (only)<br>11. <input type="checkbox"/> Pre-treatment, specify: _____<br>12. <input type="checkbox"/> Miscellaneous components |
| <b>SIZE OF PROPERTY</b><br>+/- <u>6,180</u> <input checked="" type="checkbox"/> sq. ft.<br><input type="checkbox"/> acres   | <b>DISPOSAL SYSTEM TO SERVE</b><br>1. <input checked="" type="checkbox"/> Single Family Dwelling Unit, No. of Bedrooms: <u>3</u><br>2. <input type="checkbox"/> Multiple Family Dwelling, No. of Units: _____<br>3. <input type="checkbox"/> Other: _____<br>SPECIFY<br>Current Use <input checked="" type="checkbox"/> Seasonal <input type="checkbox"/> Year Round <input type="checkbox"/> Undeveloped  | <b>TYPE OF WATER SUPPLY</b><br>1. <input type="checkbox"/> Drilled Well 2. <input type="checkbox"/> Dug Well 3. <input type="checkbox"/> Private<br>4. <input checked="" type="checkbox"/> Public 5. <input type="checkbox"/> Other   |
| <b>SHORELAND ZONING</b><br><input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  |  |   |

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

|  |  |   |  |
|--|--|---|--|
| <b>TREATMENT TANK</b><br>1. <input checked="" type="checkbox"/> Concrete<br>a. <input checked="" type="checkbox"/> Regular<br>b. <input type="checkbox"/> Low Profile<br>2. <input type="checkbox"/> Plastic<br>3. <input type="checkbox"/> Other: _____<br>CAPACITY <u>1000</u> gallons | <b>DISPOSAL FIELD TYPE &amp; SIZE</b><br>1. <input type="checkbox"/> Stone Bed 2. Stone Trench<br>3. <input checked="" type="checkbox"/> Proprietary Device<br>a. <input type="checkbox"/> Cluster array c. <input checked="" type="checkbox"/> Linear<br>b. <input checked="" type="checkbox"/> Regular d. <input type="checkbox"/> H-20 loaded<br>4. <input type="checkbox"/> Other: _____<br>SIZE <u>1008</u> <input checked="" type="checkbox"/> sq. ft. <input type="checkbox"/> lin. ft.<br><u>21 ELJEN IN-DRAIN UNITS</u> | <b>GARBAGE DISPOSAL UNIT</b><br>1. <input checked="" type="checkbox"/> No 3. <input type="checkbox"/> Maybe<br>2. <input type="checkbox"/> Yes >> Specify one below:<br>a. <input type="checkbox"/> Multi-compartment tank<br>b. <input type="checkbox"/> _____ tanks in series<br>c. <input type="checkbox"/> Increase in tank capacity<br>d. <input type="checkbox"/> Filter on tank outlet | <b>DESIGN FLOW</b><br><u>270</u> gallons per day<br>BASED ON:<br>1. <input type="checkbox"/> Table 501.1 (dwelling units)<br>2. <input type="checkbox"/> Table 501.2 (other facilities)<br>SHOW CALCULATIONS - for other facilities -<br><b>EXISTING 2 BEDROOM<br/>EXPANSION TO 3 BEDROOM<br/>90 GALLONS PER<br/>DAY EACH</b><br>3. <input type="checkbox"/> Section 503.0 (meter readings; ATTACH WATER-METER DATA) |
| <b>SOIL DATA &amp; DESIGN CLASS</b><br>PROFILE <u>3</u> / AIII/C / <u>1</u><br>AT Observation Hole * <u>TP 1</u><br>Depth <u>36</u> " Elevation <u>-54</u> "<br>OF MOST LIMITING SOIL FACTOR   | <b>DISPOSAL FIELD SIZING</b><br>1. <input type="checkbox"/> Small - 2.0 sq.ft./gpd<br>2. <input type="checkbox"/> Medium - 2.6 sq.ft./gpd<br>3. <input checked="" type="checkbox"/> Medium-Large - 3.3 sq.ft./gpd<br>4. <input type="checkbox"/> Large - 4.1 sq.ft./gpd<br>5. <input type="checkbox"/> Extra-Large - 5.0 sq.ft./gpd  | <b>EFFLUENT/EJECTOR PUMP</b><br>1. <input type="checkbox"/> Not required<br>2. <input checked="" type="checkbox"/> May be required<br>3. <input type="checkbox"/> Required<br>Specify only for engineered systems:<br>DOSE: _____ Gallons   | <b>LATITUDE AND LONGITUDE</b><br>at center of disposal area<br>Lat <u>N 43</u> d <u>40</u> m <u>50</u> s<br>Lon. <u>W 70</u> d <u>11</u> m <u>69</u> s<br>if g.p.s. state margin of error  |

## SITE EVALUATOR STATEMENT

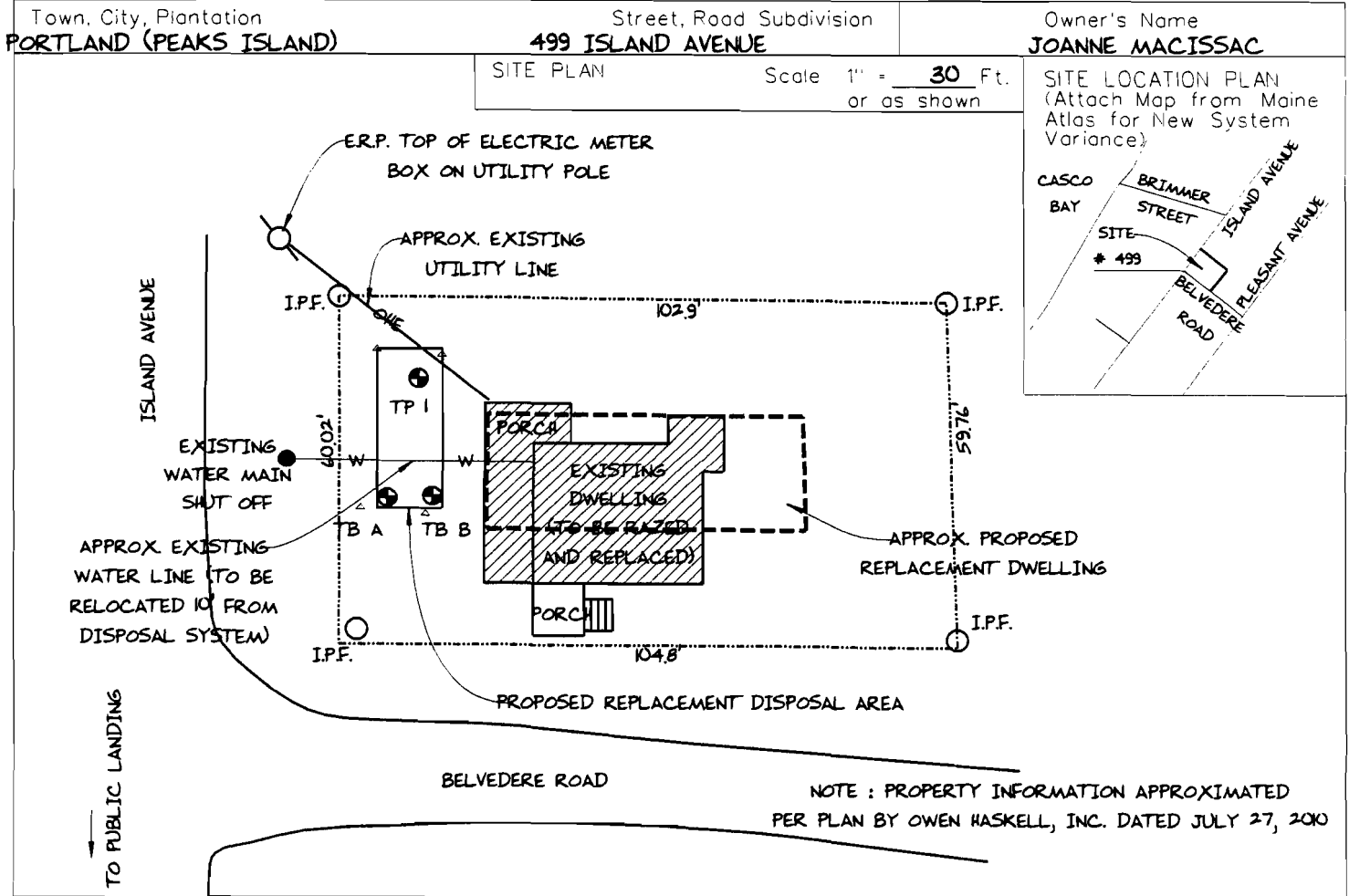
I certify that on 5/28/10 (date) I completed a site evaluation on this property and state that the data reported is accurate and that the proposed system is in compliance with the Subsurface Wastewater Disposal Rules (10-144A CMR 241).

|   |                  |                       |
|---|------------------|-----------------------|
| <br>Site Evaluator Signature | SE # <u>163</u>  | Date <u>8/13/2010</u> |
| ALBERT FRICK  | (207) 839-5563   | AFA@MAINERR.COM       |
| Site Evaluator Name Printed   | Telephone Number | 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



## 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   | SANDY LOAM |             | DARK BROWN      |               |
| 10  |            | FRIABLE     |                 |               |
| 20  | LOAMY SAND |             | YELLOWISH BROWN |               |
| 30  |            | FIRM        |                 | FEW, DISTINCT |
| 40  | BEDROCK    |             |                 |               |

Soil Classification: **3 AIII/C** Profile: **3** Condition: **AIII/C**  
 Slope: \_\_\_\_\_ %  
 Limiting Factor: **36"**  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

Observation Hole TB A-B  Test Pit  Boring  
 " Depth of Organic Horizon Above Mineral Soil

| DEPTH BELOW MINERAL SOIL SURFACE (inches) | Texture | Consistency | Color | Mottling |
|---|---------|-------------|-------|----------|
| 0   |         |             |       |          |
| 10  |         |             |       |          |
| 20  |         |             |       |          |
| 30  |         |             |       |          |
| 40  |         |             |       |          |
| 50  |         |             |       |          |

TB A = 40" + TO BEDROCK  
 TB B = 40" + TO BEDROCK

Soil Classification: \_\_\_\_\_ Profile: \_\_\_\_\_ Condition: \_\_\_\_\_  
 Slope: \_\_\_\_\_ %  
 Limiting Factor: \_\_\_\_\_  
 Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

*Albert Frick*  
 Site Evaluator Signature

163  
 SE

8/13/2010  
 Date

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# 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)

499 ISLAND AVENUE

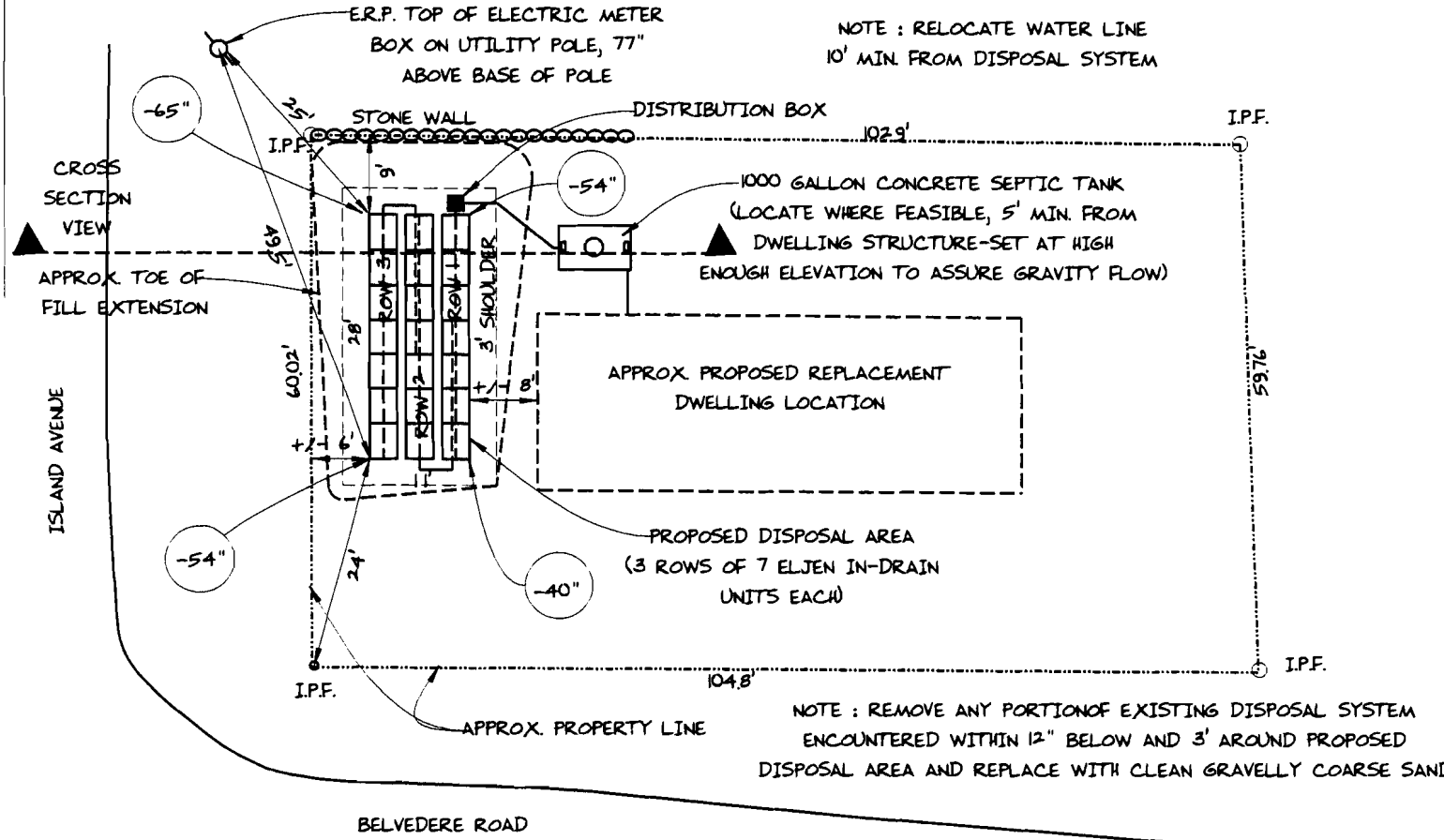
JOANNE MACISSAC

## SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE 1" = 20 FT

ERP. TOP OF ELECTRIC METER  
 BOX ON UTILITY POLE, 77"  
 ABOVE BASE OF POLE

NOTE: RELOCATE WATER LINE  
 10' MIN. FROM DISPOSAL SYSTEM



NOTE: REMOVE ANY PORTION OF EXISTING DISPOSAL SYSTEM  
 ENCOUNTERED WITHIN 12" BELOW AND 3' AROUND PROPOSED  
 DISPOSAL AREA AND REPLACE WITH CLEAN GRAVELLY COARSE SAND

### FILL REQUIREMENTS

### CONSTRUCTION ELEVATIONS

### ELEVATION REFERENCE POINT

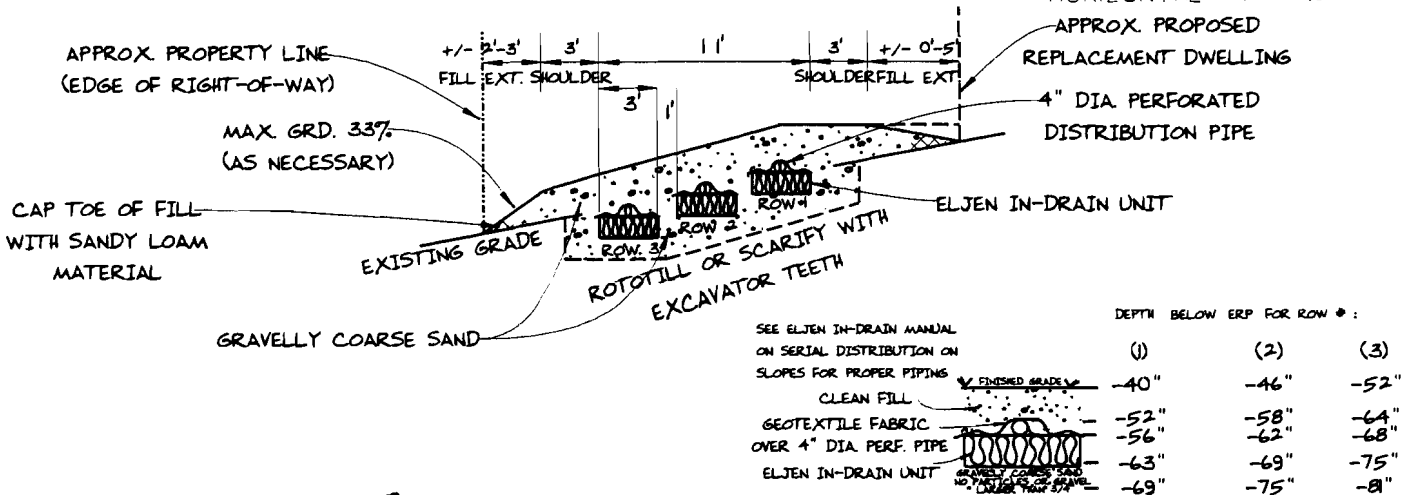
Depth of Fill (Upslope) : 0" - 14"  
 Depth of Fill (Downslope) : 2" - 13"  
 DEPTHS AT CROSS-SECTION (shown below)

Finished Grade Elevation  
 Top of Distribution Pipe or Proprietary Device  
 Bottom of Disposal Area

SEE  
 DETAIL  
 BELOW  
 Location & Description TOP OF ELECTRIC  
 METER BOX ON C.M.P. POLE, 77" ABOVE BASE  
 OF POLE  
 Reference Elevation is: 0.0" or -----

### DISPOSAL AREA CROSS SECTION

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



| DEPTH BELOW ERP FOR ROW #:                | (1)  | (2)  | (3)  |
|---|------|------|------|
| FINISHED GRADE                            | -40" | -46" | -52" |
| CLEAN FILL                                | -52" | -58" | -64" |
| GEOTEXTILE FABRIC OVER 4" DIA. PERF. PIPE | -56" | -62" | -68" |
| ELJEN IN-DRAIN UNIT                       | -63" | -69" | -75" |
| GRAVELLY COARSE SAND                      | -69" | -75" | -81" |

*Albert Frick*  
 Site Evaluator Signature

163  
 SE

8/13/2010  
 Date

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 HHE-200 Rev 10-02



**Albert Frick Associates, Inc.**

**Soil Scientists & Site Evaluators**

95A County Road Gorham, Maine 04058

(207) 839-5563

PORTLAND (PEAKS ISLAND)

499 ISLAND AVENUE

JOANNE MACISSAC

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.

|                         |                   |                  |
|-------------------------|-------------------|------------------|
| PORTLAND (PEAKS ISLAND) | 499 ISLAND AVENUE | JOANNE MACISSAC  |
| 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 than 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 than 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 04058  
(207) 839-5565