

2016-018  
089-2006



Reviewed for Code Compliance  
Inspections Division  
Approved with Conditions  
Date: 07/27/16

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & H  
Div of Environmental H  
(207) 287-5672 FAX (

## PROPERTY LOCATION

City, Town, or Plantation: **PORTLAND (PEAKS ISLAND)**  
Street or Road: **0 LYNDON AVENUE / Frederick Ave**  
Subdivision, Lot #:

>>CAUTION: LPI APPROVAL REQUIRED<<

Town/City: **Portland** Permit # **2016-01842**  
Date Permit Issued: **11/16/13** Fee: **250.00** Double Fee Charged ( )

## OWNER/APPLICANT INFORMATION

Name (last, first, MI): **N/F KINNAIRD**  
Mailing Address of Applicant: **PAUL STENZEL & JUDITH WALSH  
749 FOREST AVENUE  
BUFFALO, N.Y. 14209**  
Daytime Tel. #: **(716) 882-3235**

Local Plumbing Inspector Signature: *[Signature]* LPI # **1081**

The Subsurface Wastewater Disposal System ~~shall~~ be installed until a Permit is issued 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.

Municipal Tax Map # **89** Lot # **D-6**

## OWNER OR APPLICANT STATEMENT

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

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

Signature of Owner/Applicant: \_\_\_\_\_ Date: \_\_\_\_\_

Local Plumbing Inspector Signature: \_\_\_\_\_ (1st) Date Approved: \_\_\_\_\_  
\_\_\_\_\_  
(2nd) Date Approved: \_\_\_\_\_

## PERMIT INFORMATION

<b>TYPE OF APPLICATION</b> <input checked="" type="checkbox"/> 1. First Time System <input type="checkbox"/> 2. Replacement System Type Replaced: _____ Year Installed: _____ <input type="checkbox"/> 3. Expanded System <input type="checkbox"/> a. <25% Expansion <input type="checkbox"/> b. >25% Expansion <input type="checkbox"/> 4. Experimental System <input type="checkbox"/> 5. Seasonal Conversion	<b>THIS APPLICATION REQUIRES</b> <input checked="" type="checkbox"/> 1. No Rule Variance <input type="checkbox"/> 2. First Time System Variance <input type="checkbox"/> a. Local Plumbing Inspector Approval <input type="checkbox"/> b. State & Local Plumbing Inspector Approval <input type="checkbox"/> 3. Replacement System Variance <input type="checkbox"/> a. Local Plumbing Inspector Approval <input type="checkbox"/> b. State & Local Plumbing Inspector Approval <input type="checkbox"/> 4. Minimum Lot Size Variance <input type="checkbox"/> 5. Seasonal Conversion Permit	<b>DISPOSAL SYSTEM COMPONENTS</b> <input checked="" type="checkbox"/> 1. Complete Non-Engineered System <input type="checkbox"/> 2. Primitive System (graywater & alt toilet) <input type="checkbox"/> 3. Alternative Toilet, specify: _____ <input type="checkbox"/> 4. Non-Engineered Treatment Tank (only) <input type="checkbox"/> 5. Holding Tank, _____ gallons <input type="checkbox"/> 6. Non-Engineered Disposal Field (only) <input type="checkbox"/> 7. Separated Laundry System <input type="checkbox"/> 8. Complete Engineered System (2000gpd+) <input type="checkbox"/> 9. Engineered Treatment Tank (only) <input type="checkbox"/> 10. Engineered Disposal Field (only) <input type="checkbox"/> 11. Pre-treatment, specify: _____ <input type="checkbox"/> 12. Miscellaneous components
<b>SIZE OF PROPERTY</b> +/- <b>1.43</b> <input type="checkbox"/> SQ. FT. <input checked="" type="checkbox"/> ACRES	<b>DISPOSAL SYSTEM TO SERVE</b> <input checked="" type="checkbox"/> 1. Single Family Dwelling Unit, No. of Bedrooms: _____ <input type="checkbox"/> 2. Multiple Family Dwelling, No of Units: _____ <input type="checkbox"/> 3. Other: _____ (specify) Current Use <input type="checkbox"/> Seasonal <input type="checkbox"/> Year Round <input checked="" type="checkbox"/> Undeveloped	<b>TYPE OF WATER SUPPLY</b> <input checked="" type="checkbox"/> 1. Drilled Well (PROPOSED) <input type="checkbox"/> 2. Dug Well <input type="checkbox"/> 3. Private <input checked="" type="checkbox"/> 4. Public (SEASONAL) <input type="checkbox"/> 5. Other: _____
<b>SHORELAND ZONING</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		

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

<b>TREATMENT TANK</b> <input checked="" type="checkbox"/> 1. Concrete <input type="checkbox"/> a. Regular <input checked="" type="checkbox"/> b. Low Profile (IF NEC.) <input type="checkbox"/> 2. Plastic <input type="checkbox"/> 3. Other: _____ CAPACITY: <b>1000</b> GAL.	<b>DISPOSAL FIELD TYPE &amp; SIZE</b> <input type="checkbox"/> 1. Stone Bed <input type="checkbox"/> 2. Stone Trench <input checked="" type="checkbox"/> 3. Proprietary Device <input type="checkbox"/> a. Cluster array <input type="checkbox"/> c. Linear <input checked="" type="checkbox"/> b. Regular <input type="checkbox"/> d. H-20 loaded <input type="checkbox"/> 4. Other: _____ SIZE: <b>1152</b> sq. ft. <input type="checkbox"/> lin. ft. <b>24 ELJEN IN-DRAIN UNITS</b>	<b>GARBAGE DISPOSAL UNIT</b> <input checked="" type="checkbox"/> 1. No <input type="checkbox"/> 2. Yes <input type="checkbox"/> 3. Maybe If Yes or Maybe, specify one below: <input type="checkbox"/> a. Multi-compartment tank <input type="checkbox"/> b. _____ tanks in series <input type="checkbox"/> c. Increase in tank capacity <input type="checkbox"/> d. Filter on tank outlet	<b>DESIGN FLOW</b> <b>270</b> gallons per day BASED ON: <input checked="" type="checkbox"/> 1. Table 4A (dwelling unit(s)) <input type="checkbox"/> 2. Table 4C (other facilities) SHOW CALCULATIONS for other facilities  <b>3 BEDROOMS AT 90 GALLONS PER DAY EACH</b>
<b>SOIL DATA &amp; DESIGN CLASS</b> PROFILE CONDITION: <b>2 / AJJI</b> at Observation Hole # <b>TB B</b> Depth <b>20</b> " of Most Limiting Soil Factor	<b>DISPOSAL FIELD SIZING</b> <input type="checkbox"/> 1. Medium - 2.6 sq.ft./gpd <input checked="" type="checkbox"/> 2. Medium-Large - 3.3 sq.ft./gpd <input type="checkbox"/> 3. Large - 4.1 sq.ft./gpd <input type="checkbox"/> 4. Extra-Large - 5.0 sq.ft./gpd	<b>EFFLUENT/EJECTOR PUMP</b> <input type="checkbox"/> 1. Not required <input checked="" type="checkbox"/> 2. May be required <input type="checkbox"/> 3. Required Specify only for engineered systems: DOSE: _____ gallons	<b>LATITUDE AND LONGITUDE</b> at center of disposal area Lat. <b>N 43 d 39 m 49.88 s</b> Lon. <b>W 70 d 10 m 59.70 s</b> If g.p.e., state margin of error

## SITE EVALUATOR STATEMENT

I Certify that on **11/15/13** (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).

Site Evaluator Signature: *[Signature]* SE # **163** Date: **11/26/2013**  
ALBERT FRICK  
Site Evaluator Name Printed  
(207) 839-5563 Telephone Number  
ALBERT@ALBERTFRICK.COM E-mail Address



# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

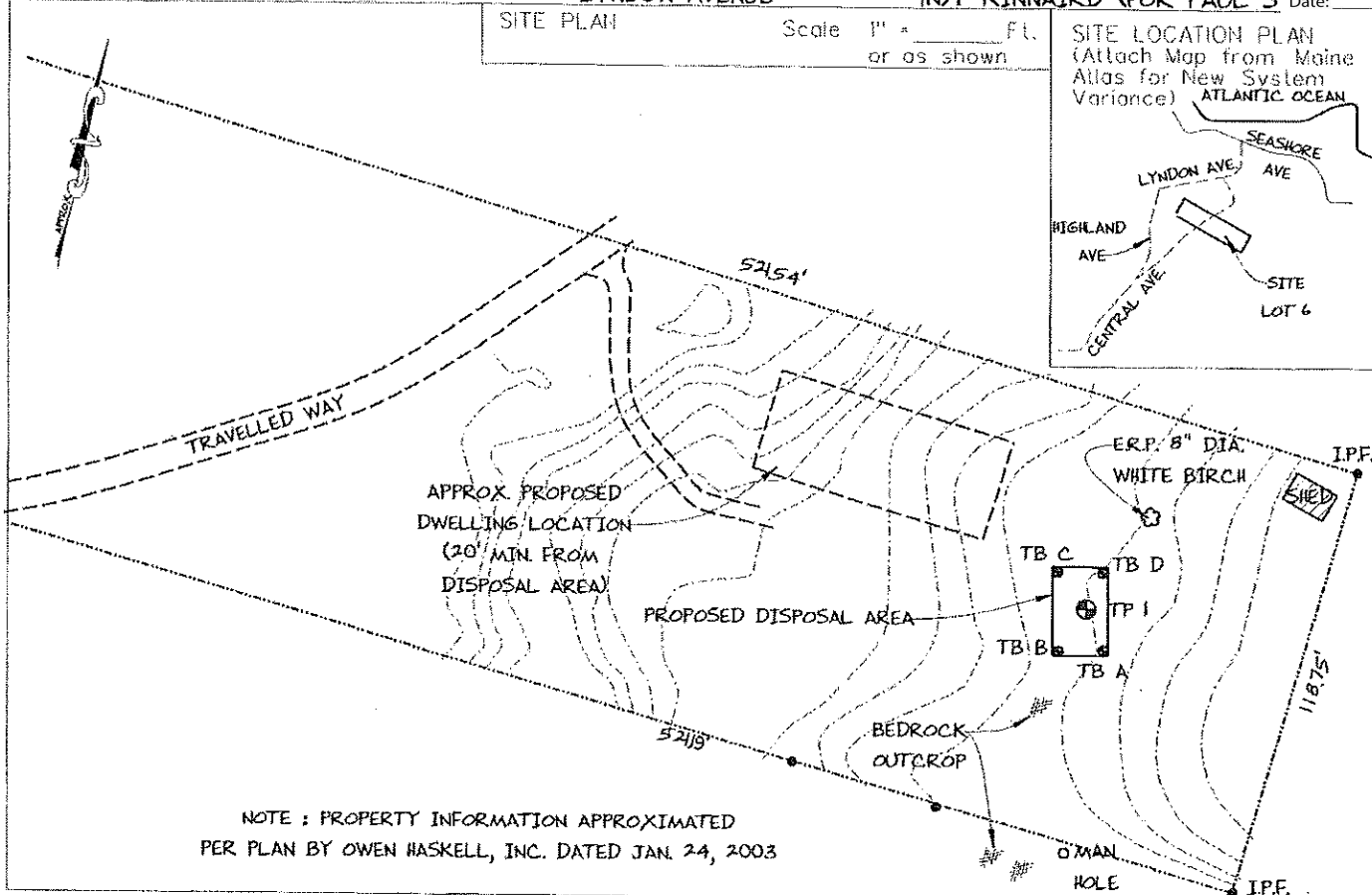
Maine Department of Human Services  
 Division of Health Engineering, 3101  
 (207) 287-5672 FAX (207) 21

Reviewed for Code Compliance  
 Inspections Division  
 Approved with Conditions  
 Date: 07/27/16

Town, City, Plantation  
**PORTLAND (PEAKS ISLAND)**

Street, Road Subdivision  
**O LYNDON AVENUE**

Owner's Name  
**N/E KINNAIRD (FOR PAUL S**



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

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

DEPTH BELOW MINERAL SOIL SURFACE (feet)	Texture	Consistency	Color	Mottling
0	SANDY		DARK	
	LOAM		BROWN	
10	GRAVELLY	FRIABLE	DARK	
	SANDY		YELLOWISH	
	LOAM		BROWN	
20	BEDROCK			
30				
40				
50				

Soil Classification: 2 Profile, AIII Condition, Slope: 11%, Limiting Factor: 22"

Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

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

DEPTH BELOW MINERAL SOIL SURFACE (feet)	Texture	Consistency	Color	Mottling
0				
10	TB A = 21" TO BEDROCK			
20	TB B = 20" TO BEDROCK			
30	TB C = 22" TO BEDROCK			
40	TB D = 23" TO BEDROCK			
50				

Soil Classification: 2 Profile, AIII Condition, Slope: 6.7%, Limiting Factor: 20"

Ground Water  
 Restrictive Layer  
 Bedrock  
 Pit Depth

*Albert Frick*  
 Site Evaluator Signature

163  
 SE \*

11/26/2013  
 Date

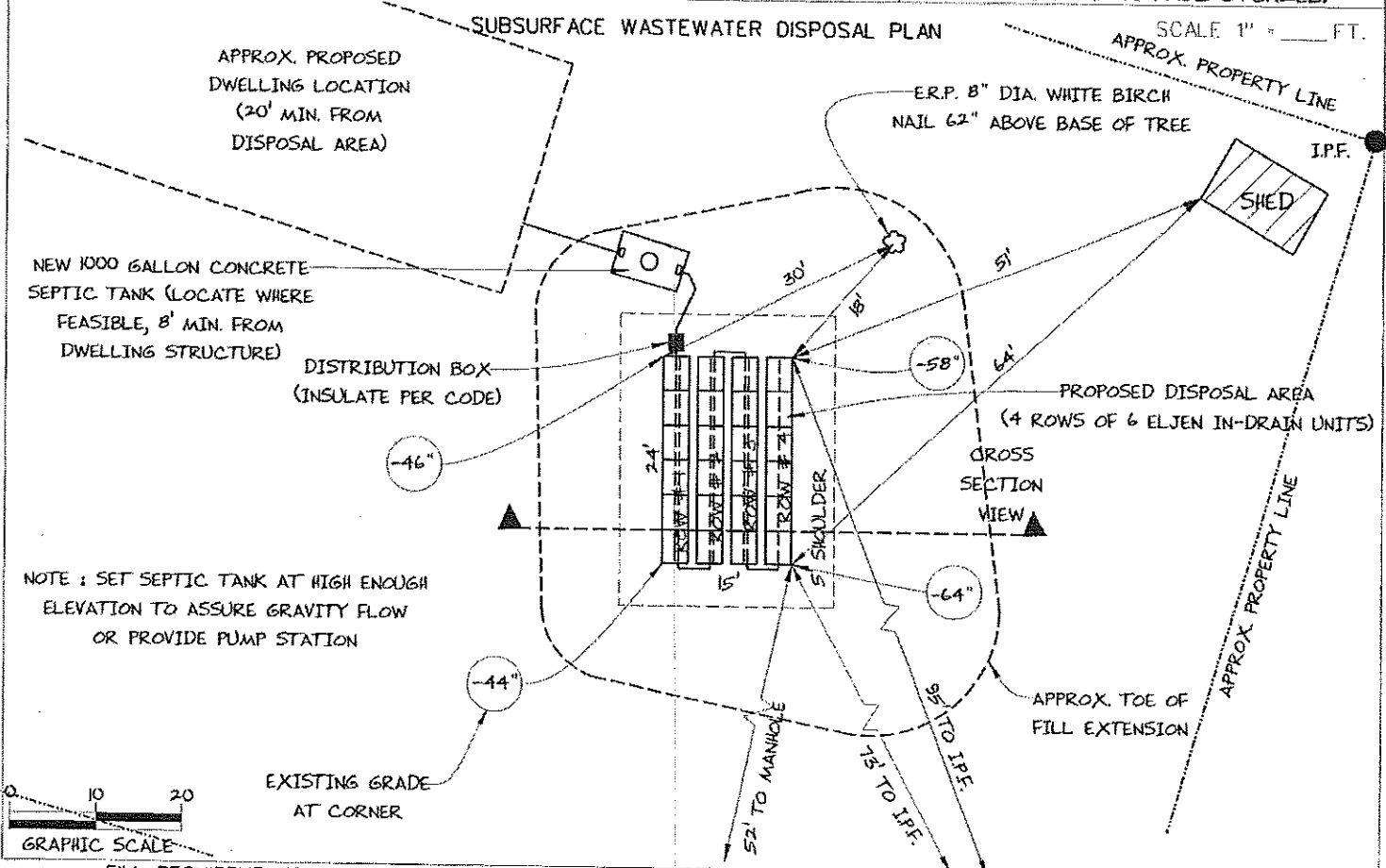


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# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Resources  
Division of Health Engineering, St. Paul, Maine  
(207) 287-5672 FAX (207) 287-5673

Town, City, Plantation: **PORTLAND (PEAKS ISLAND)**  
Street, Road, Subdivision: **O LYNDON AVENUE**  
Owner's Name: **N/F KINNAIRD (FOR PAUL STENZEL)**



### FILL REQUIREMENTS

Depth of Fill (Upslope) : 27" - 29"  
Depth of Fill (Downslope) : 29" - 35"  
DEPTHS AT CROSS-SECTION (shown below)

### CONSTRUCTION ELEVATIONS

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

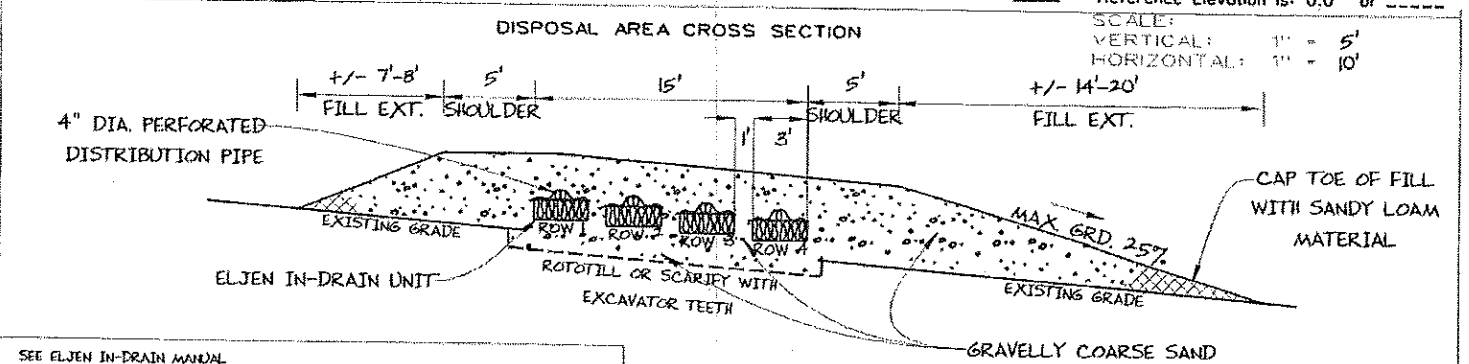
SEE  
DETAIL  
BELOW

### ELEVATION REFERENCE POINT

Location & Description NAIL IN 8" DIA. WHITE BIRCH, 62" ABOVE BASE OF TREE  
Reference Elevation is: 0.0" or -----

### DISPOSAL AREA CROSS SECTION

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



SEE ELJEN IN-DRAIN MANUAL ON SERIAL DISTRIBUTION ON SLOPES FOR PROPER PIPING

DEPTH BELOW ERP:	ROW 1	2	3	4
CLEAN FILL	-17"	-21"	-25"	-29"
GEOTEXTILE FABRIC OVER 4" DIA. PER. PIPE	-29"	-33"	-37"	-41"
ELJEN IN-DRAIN UNIT	-33"	-37"	-41"	-45"
GRAVELLY COARSE SAND	-40"	-44"	-48"	-52"
DETAIL (NO SCALE)	-46"	-50"	-54"	-58"

Site Evaluator Signature

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

163  
SE

11/26/2013  
Date

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HHE-200 Rev. 10/02



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



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PORTLAND (PEAKS ISLAND)      O LYNDON AVENUE      N/F KINNAIRD (FOR PAUL STENZEL)

TOWN      LOCATION      APPLICANT'S NAME

1) The Plumbing and Subsurface Wastewater Disposal Rules adopted by the State of Maine, Division of Health and 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 law) 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 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 per the "Rules" to allow for easy maintenance of filter.

5) 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.

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) 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 to within 6" of a finished ground surface.

Vehicular traffic over disposal system is prohibited unless specifically designed with H-20 rated components.

ATTACHMENT TO SUBSURFACE WASTEWATER DISPOSAL APPLICATION



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TOWN    LOCATION    APPLICANT'S NAME

- 7) The actual waste 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
- 8) The general minimum setbacks between a well (public or private) 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 pitch requirements. In gravity systems, the invert of the septic tank(s) outlet(s) should be at least 4 inches above the invert of the distribution box outlet at the disposal area.
- 10) When an effluent pump is required: Pump stations should be sized per manufacturer's specifications to meet lift requirements and friction loss. 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. Additional fill beyond indicated on plan may be necessary to replace organic matter. 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 settling). 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, with 4" min. soil or soil amendment mix suitable for growing, 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) 839-5563



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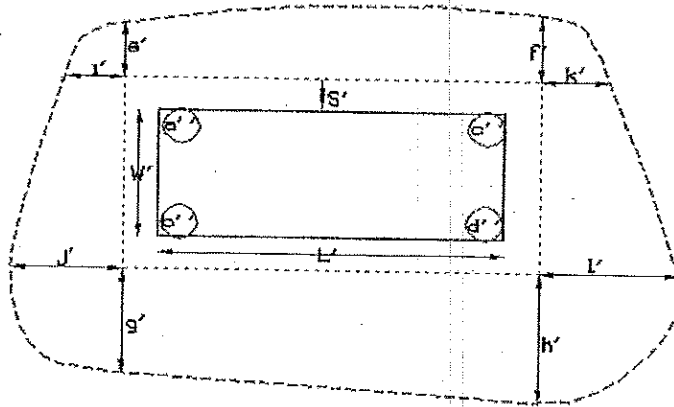
## Fill Estimation Worksheet

Albert Frick Associates II  
 95A County Road

Gorham, Me 040  
 839-5563 FAX - 839-5564  
 E-Mail - Albert@albertfrick.Com  
 www.albertfrick.com

Town: Portland (Peaks Island)  
 Project owner/applicant: Paul Stenzel  
 0 Lyndon Avenue  
 Portland (Peaks Island)

This worksheet is being provided as a complimentary tool to assist in estimating the **approximate** amount of fill required to construct the proposed system. This worksheet does not substitute for a personal visit to the site for your own estimate. These calculations are intended to serve as a check to your work. Site features beyond the model (terrain) can vary to affect model projections.



Length (L)	<u>24.00</u> feet
Width (W)	<u>15</u> feet
Shoulder (S)	<u>5</u> feet
<i>Depth of fill:</i>	
upper left (a)	<u>27</u> inches
upper right (c)	<u>29</u> inches
lower left (b)	<u>35</u> inches
lower right (d)	<u>29</u> inches
<i>Fill Extension:</i>	
left up (e)	<u>7</u> feet
right up (f)	<u>8</u> feet
left down (g)	<u>20</u> feet
right down (h)	<u>14</u> feet
upper left (i)	<u>7</u> feet
lower left (j)	<u>20</u> feet
upper right (k)	<u>8</u> feet
lower right (l)	<u>14</u> feet
Cost of fill per yard= \$ 0.00	

Body	<b>79 cubic yards</b>
Fill Down	<b>29 cubic yards</b>
Fill Up	<b>12 cubic yards</b>
Fill left	<b>17 cubic yards</b>
Fill right	<b>13 cubic yards</b>
Fill upleft	<b>2 cubic yards</b>
Fill upright	<b>2 cubic yards</b>
Fill downleft	<b>12 cubic yards</b>
Fill downright	<b>5 cubic yards</b>

**SubTotal= 171 cubic yards**

**Shrinkage %= 15 %**

**Total Backfill 197 cubic yards**

**Adjusted cost of Total Backfill=**

**\$ -**