

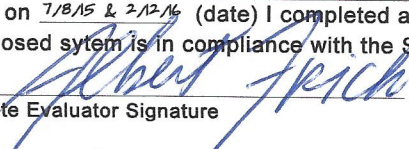
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services
Div of Environmental Health, 11 SHS
(207) 287-5672 FAX (207) 287-3165

PROPERTY LOCATION		>>CAUTION: LPI APPROVAL REQUIRED<<	
City, Town, or Plantation	PORTLAND; GREAT DIAMOND ISLAND	Town/City _____	Permit # _____
Street or Road	CRESCENT AVENUE	Date Permit Issued ___ / ___ / ___	Fee \$ _____ Double Fee Charged []
Subdivision, Lot #		LPI # _____	
OWNER/APPLICANT INFORMATION			
Name (last, first, MI)	LUEDKE JAMES & KATHERINE	<input checked="" type="checkbox"/> Owner <input type="checkbox"/> Applicant	
Mailing Address of Owner	136 LASSEN DRIVE SAN BRUNO, CA 94066-2516	The Subsurface Wastewater Disposal System <i>shall not</i> 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.	
Daytime Tel. #	408-396-3688		
OWNER OR APPLICANT STATEMENT		CAUTION: INSPECTION REQUIRED	
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.		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 _____ (2nd) Date Approved _____	

PERMIT INFORMATION		
TYPE OF APPLICATION <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	THIS APPLICATION REQUIRES <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	DISPOSAL SYSTEM COMPONENTS <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
SIZE OF PROPERTY 1.02 +/- <input type="checkbox"/> SQ. FT. <input checked="" type="checkbox"/> ACRES	DISPOSAL SYSTEM TO SERVE <input checked="" type="checkbox"/> 1. Single Family Dwelling Unit, No. of Bedrooms: 3 or 4 <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	TYPE OF WATER SUPPLY <input type="checkbox"/> 1. Drilled Well <input type="checkbox"/> 2. Dug Well <input type="checkbox"/> 3. Private <input checked="" type="checkbox"/> 4. Public <input type="checkbox"/> 5. Other: _____
SHORELAND ZONING <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)			
TREATMENT TANK <input checked="" type="checkbox"/> 1. Concrete <input checked="" type="checkbox"/> a. Regular <input type="checkbox"/> b. Low Profile <input type="checkbox"/> 2. Plastic <input type="checkbox"/> 3. Other: _____ CAPACITY: 1000 GAL.	DISPOSAL FIELD TYPE & SIZE <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 checked="" type="checkbox"/> c.Linear <input checked="" type="checkbox"/> b. Regular <input type="checkbox"/> d. H-20 loaded <input type="checkbox"/> 4. Other: _____ SIZE: 1344 sq. ft. <input type="checkbox"/> lin. ft. 28 ELJEN GSF UNITS	GARBAGE DISPOSAL UNIT <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	DESIGN FLOW 360 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 3 or 4 BEDROOMS AT 90 GALLONS PER DAY EACH
SOIL DATA & DESIGN CLASS PROFILE CONDITION 2 / C at Observation Hole # TP A Depth 26" of Most Limiting Soil Factor	DISPOSAL FIELD SIZING <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	EFFLUENT/EJECTOR PUMP <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	<input type="checkbox"/> 3. Section 4G (meter readings) ATTACH WATER-METER DATA LATITUDE AND LONGITUDE at center of disposal area Lat. N 43 d 40 m 49.25 s Lon. W 70 d 12 m 13.68 s if g.p.s., state margin of error

SITE EVALUATOR STATEMENT		
I Certify that on 7/8/15 & 2/12/16 (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 	163 SE #	2/18/2016 Date
ALBERT FRICK	(207) 839-5563	ALBERT@ALBERTFRICK.COM
Site Evaluator Name Printed	Telephone Number	E-mail Address

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: **PORTLAND; GREAT DIAMOND ISLAND**
 Street, Road Subdivision: **CRESCENT AVENUE**
 Owner's Name: **JAMES & KATHERINE LUEDKE**

PROPERTY INFORMATION PER PORTION OF UNDATED, UNNAMED SURVEY PLAN PROVIDED BY OWNER. VERIFY TO ASSURE SETBACKS SHOWN

SITE PLAN Scale 1" = 60 Ft. or as shown

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

NOTE: PROVIDE EROSION AND SEDIMENT CONTROL MEASURES PER D.E.P. BEST MANAGEMENT PRACTICES

APPROX. PROPOSED DWELLING LOCATION (MIN. 20' FROM DISPOSAL AREA)

PROPOSED DISPOSAL AREA

FLAGGED 75' SETBACK FROM BLUFF

107' TO APPROX HIGH WATER MARK

BAY AVENUE (PAPER STREET)

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

Observation Hole TP A Test Pit Boring
 " Depth of Organic Horizon Above Mineral Soil

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0			BROWN	
5	SANDY			
10	LOAM			
15		FRIABLE	YELLOW	
20			BROWN	
25	LOAMY			
30	SAND			FEW, FAINT
35		SOMEWHAT	LIGHT	
40		FIRM	YELLOW	
45			BROWN	
50				

Soil Classification 2	Slope 0-3 %	Limiting Factor 26"	<input checked="" type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
Profile	Condition		

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

DEPTH BELOW MINERAL SOIL SURFACE (inches)	Texture	Consistency	Color	Mottling
0				
5	SANDY		DARK	
10	LOAM		BROWN	
15		FRIABLE	YELLOW	
20	LOAMY		BROWN	
25	SAND			FEW, FAINT
30			LIGHT	
35			OLIVE BROWN	
40	LOAMY			FEW,
45	SAND	SOMEWHAT	OLIVE	DISTINCT
50	SAND	FIRM	BROWN	
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1000				

Soil Classification 3	Slope 0-3 %	Limiting Factor 22"	<input checked="" type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input type="checkbox"/> Pit Depth
Profile	Condition		

Albert Frick
 Site Evaluator Signature

163
 SE *

2/18/2016
 Date

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Town, City, Plantation

Street, Road, Subdivision

Owner's Name

PORTLAND; GREAT DIAMOND ISLAND

CRESCENT AVENUE

JAMES & KATHERINE LUEDKE

NOTE: THOROUGHLY SCARIFY UNDER ENTIRE DISPOSAL FIELD, SHOULDER AREA, & FILL EXTENSION AREA PRIOR TO FILL PLACEMENT, THEN BLEND FIRST 6" LIFT OF FILL INTO EXISTING SOIL SURFACE TO PROMOTE MIXING

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE 1" = 20 FT.

APPROX. PROPOSED DWELLING LOCATION (MIN. 20' FROM DISPOSAL AREA)

IF PUMPING USE
 1 1/2" TO 2" DIA.
 EFFLUENT LINE BURIED BELOW FROST OR INSULATE TO PROTECT FROM FREEZING OR IF GRAVITY FLOW USE 4" DIA. SDR35 SOLID PVC (ASSURE WATERTIGHTNESS)

PROPOSED DISPOSAL AREA (4 ROWS OF 7 ELJEN GSF UNITS EACH)
 NOTE: DOUBLE PERFORATED PIPE ENTIRE LENGTH OF ROWS 1 & 3 FOR OVERFLOW. LAID ADJACENT TO DISTRIBUTION PIPE (SEE DETAIL BELOW)

NEW 1000 GALLON CONCRETE SEPTIC TANK LOCATE WHERE FEASIBLE, 8' MIN. FROM BUILDING STRUCTURE SET AT HIGH ENOUGH ELEVATION TO PROVIDE GRAVITY FLOW OR PROVIDE PUMP STATION

ERP: NAIL IN 36" DIA. FLAGGED OAK 45" ABOVE GROUND LEVEL

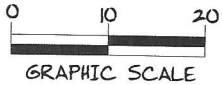
DISTRIBUTION BOX (INSULATE PER CODE)

APPROX. PROPERTY LINE (VERIFY TO ASSURE PROPER SETBACKS)

FLAGGED 75' SETBACK FROM BLUFF

PROVIDE SURFACE WATER RUNOFF AROUND DISPOSAL AREA

EXISTING GRADE AT CORNER



APPROXIMATE TOE OF FILL

FILL REQUIREMENTS

Depth of Fill (Upslope) : 9" - 12"
 Depth of Fill (Downslope) : 18" - 21"
 DEPTHS AT CROSS-SECTION (shown below)

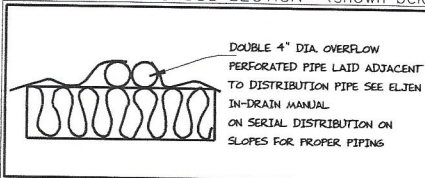
CONSTRUCTION ELEVATIONS

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

SEE DETAIL BELOW

ELEVATION REFERENCE POINT

Location & Description 36" DIA. OAK NAIL 45" ABOVE BASE
 Reference Elevation is: 0.0' or -----



DISPOSAL AREA CROSS SECTION

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



GRAVELLY COARSE SAND

EXISTING GRADE

SCARIFY (SEE NOTE ABOVE)

CAP TOE OF FILL WITH SANDY LOAM MATERIAL TO PREVENT WASTEWATER BREAKOUT

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

DEPTH BELOW ERP:

	ROW 1	2	3	4
FINISHED GRADE	-33"	-39"	-45"	-51"
CLEAN FILL	-45"	-51"	-57"	-63"
GEOTEXTILE FABRIC OVER 4" DIA. PERF. PIPE	-49"	-55"	-61"	-67"
ELJEN IN-DRAIN UNIT	-56"	-62"	-68"	-74"
GRAVELLY COARSE SAND	-62"	-68"	-74"	-80"

Site Evaluator Signature

163 SE #

Date

Page 3 of 3
 HHE-200 Rev. 10/02



PORTLAND; GREAT DIAMOND ISLAND CRESCENT AVENUE JAMES & KATHERINE LUEDKE

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

PORTLAND; GREAT DIAMOND ISLAND

CRESCENT AVENUE

JAMES & KATHERINE LUEDKE

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 04038
(207) 839-5563