

DISPLAY THIS CARD ON PRINCIPAL FRONTAGE OF WORK



# CITY OF PORTLAND BUILDING PERMIT

This is to certify that SHEILA LOWRY DUNBAR

Located At 541 ISLAND AVE

Job ID: 2012-03-3579-SUBSRF

CBL: 090- R-005-001

has permission to Subsurface Complete Non-Engineered Replacement System.  
provided that the person or persons, firm or corporation accepting this permit shall comply with all of the provisions of the Statues of Maine and of the Ordinances of the City of Portland regulating the construction, maintenance and use of the buildings and structures, and of the application on file in the department.

Notification of inspection and written permission procured before this building or part thereof is lathed or otherwise closed-in. 48 HOUR NOTICE IS REQUIRED.

A final inspection must be completed by owner before this building or part thereof is occupied. If a certificate of occupancy is required, it must be

\_\_\_\_\_  
**Fire Prevention Officer**

  
\_\_\_\_\_  
**Code Enforcement Officer / Plan Reviewer**

04/20/2012

THIS CARD MUST BE POSTED ON THE STREET SIDE OF THE PROPERTY  
PENALTY FOR REMOVING THIS CARD

7/24/12  
Gayle  
Not sure why  
Mrs was in  
the stock?  
Lance sent out  
a while ago?  
JGR

# SUBSURFACE WASTE WATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services  
 Div of Environmental Health, 11 SHS  
 (207) 287-5672 Fax: (207) 287-4172

<b>PROPERTY LOCATION</b>		<b>&gt;&gt; CAUTION: LPI APPROVAL REQUIRED &lt;&lt;</b>	
City, Town, or Plantation	PORTLAND	Town/City	Portland
Street or Road	541 ISLAND AVE.	Permit #	2012-03-3579
Subdivision, Lot #	(PEAKS ISLAND)	Date Permit Issued	1/1
<b>OWNER/APPLICANT INFORMATION</b>		Fee: \$	Double Fee Charged [ ]
Name (last, first, MI)	DUNBAR SHEILA	Local Plumbing Inspector Signature	L.P.I. #
Mailing Address of Owner/Applicant	1819 PATRICK HENRY AVE. ARLINGTON, VA. 22205	The Subsurface Wastewater Disposal System shall not be installed until a Permit is issued by the Local Plumbing Inspector. This 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. #	90 TOM BLACKBURN 232-8134	Municipal Tax Map #	90RS MAR # 2 3 2012
<b>OWNER OR APPLICANT STATEMENT</b>		<b>CAUTION: INSPECTION REQUIRED</b>	
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 or Applicant _____ Date _____		Local Plumbing Inspector Signature _____ (1st) date approved _____	

## PERMIT INFORMATION

<b>TYPE OF APPLICATION</b>	<b>THIS APPLICATION REQUIRES</b>	<b>DISPOSAL SYSTEM COMPONENTS</b>
<input type="checkbox"/> 1. First Time System <input checked="" type="checkbox"/> 2. Replacement System Type replaced: <u>CESPOOL</u> Year installed: <u>PRE-1974</u> <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	<input 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 checked="" 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	<input checked="" type="checkbox"/> 1. Complete Non-engineered System <input type="checkbox"/> 2. Primitive System (graywater & aft. 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 (2000 gpd or more) <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>DISPOSAL SYSTEM TO SERVE</b>	<b>TYPE OF WATER SUPPLY</b>
9832 <input checked="" type="checkbox"/> SQ. FT. <input type="checkbox"/> ACRES SHORELAND ZONING <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	<input checked="" type="checkbox"/> 1. Single Family Dwelling Unit, No. of Bedrooms: <u>4</u> <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 type="checkbox"/> Undeveloped	<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

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

<b>TREATMENT TANK</b>	<b>DISPOSAL FIELD TYPE &amp; SIZE</b>	<b>GARBAGE DISPOSAL UNIT</b>	<b>DESIGN FLOW</b>
<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: <u>1000</u> GAL	<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 load <input type="checkbox"/> d. H-20 load <input type="checkbox"/> 4. Other: _____ SIZE: <u>1344</u> sq. ft. <input type="checkbox"/> lin. ft.	<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	<u>360</u> 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>SOIL DATA &amp; DESIGN CLASS</b>	<b>DISPOSAL FIELD SIZING</b>	<b>EFFLUENT/EJECTOR PUMP</b>	<b>LATITUDE AND LONGITUDE</b>
PROFILE CONDITION <u>2.1 B</u> at Observation Hole # <u>TPI</u> Depth <u>248</u> of Most Limiting Soil Factor: _____	<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	<input type="checkbox"/> 1. Not Required <input type="checkbox"/> 2. May Be Required <input checked="" type="checkbox"/> 3. Required Specify only for engineered systems: DOSE: _____ gallons	at center of disposal area Lat. <u>43</u> d <u>40</u> m <u>07.3</u> s Lon. <u>70</u> d <u>11</u> m <u>23.4</u> s if g.p.s, state margin of error: <u>10'</u>

## SITE EVALUATOR STATEMENT

I certify that on 2/9/12 (date) I completed a site evaluation on this property and state that the data reported are accurate and that the proposed system is in compliance with the State of Maine Subsurface Wastewater Disposal Rules (10-144A CMR 241).

James G. Mancini Site Evaluator Signature  
JAMES G. MANCINI Site Evaluator Name Printed  
247 SE #  
892-9498 Telephone Number  
FEB. 9, 2012 Date  
 \_\_\_\_\_ E-mail Address

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

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Department of Water Services  
Division of Health Engineering  
0071 287-5672 FAX (207) 287-4372

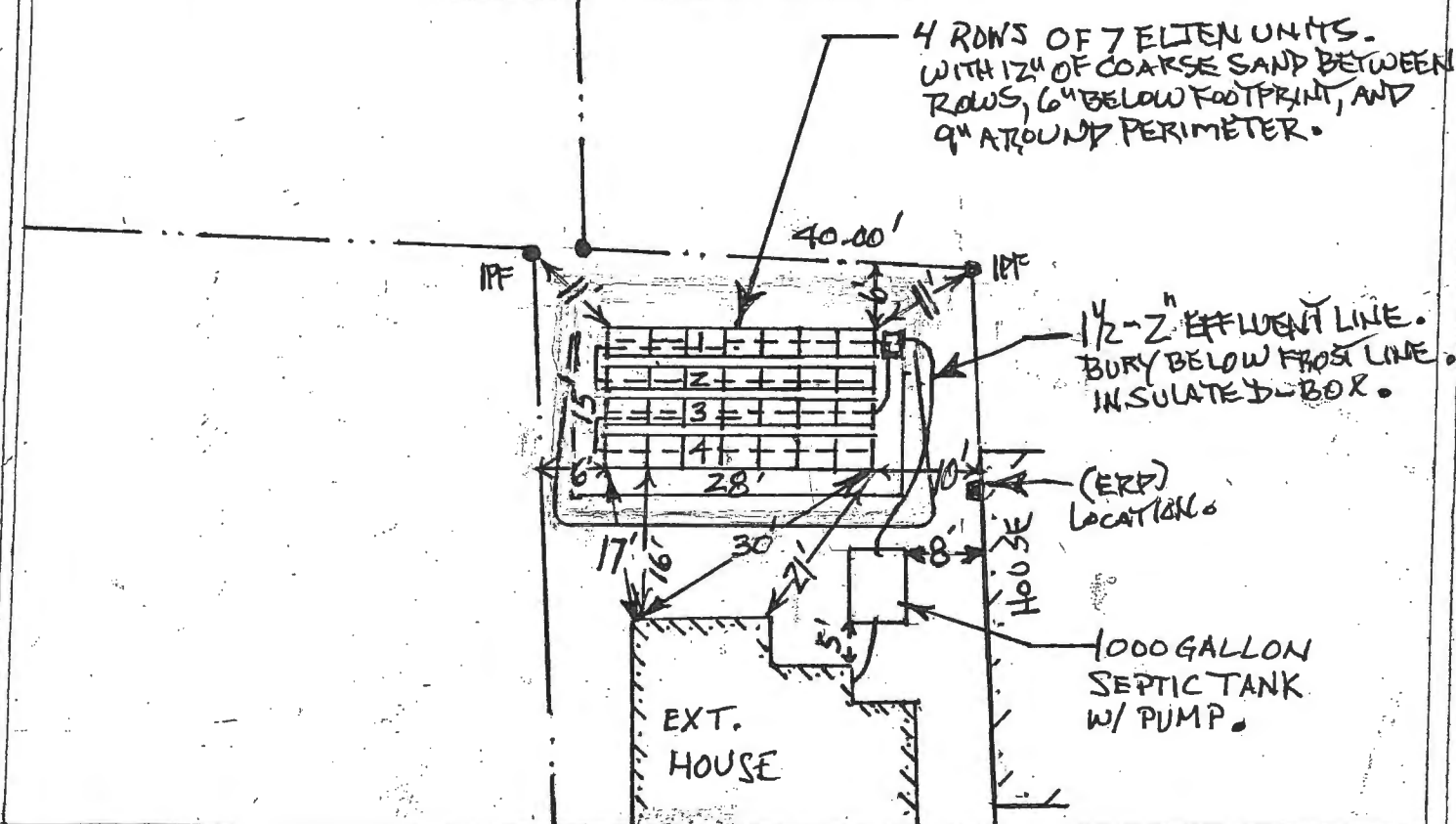
Town, City, Plantation  
**PORTLAND**

Street, Road, Subdivision  
**541 ISLAND AVE.**

Owner's Name  
**DUNBAR, SHEILA**

SUBSURFACE WASTEWATER DISPOSAL PLAN

SCALE 1" = 30 FT.



FILL REQUIREMENTS

Depth of Fill (Upslope)  
Depth of Fill (Downslope)

0"  
5"

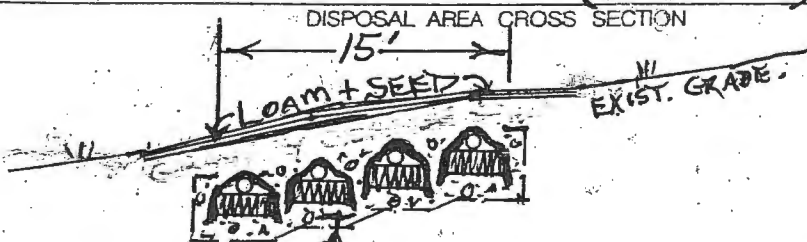
CONSTRUCTION ELEVATIONS

Finished Grade Elevation  
Top of Distribution Pipe, or Proprietary Device  
Bottom of Disposal Area (6" SAND BASE)

ELEVATION REFERENCE POINT

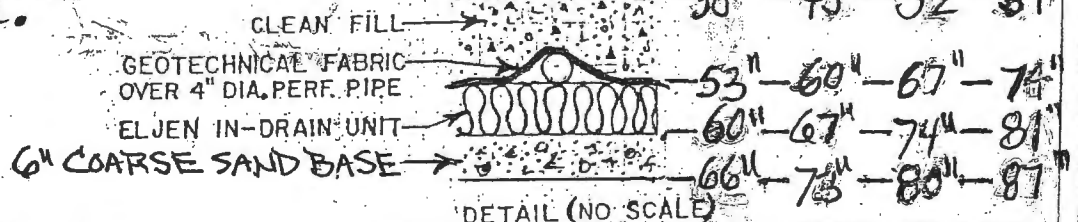
"SEE DETAIL" BELOW  
Location & Description  
Reference Elevation  
TOP OF METER BOX ON NEIGHBORS HOUSE - AT 00"

DISPOSAL AREA CROSS SECTION



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

COARSE SAND ENVELOPE.



*James H. Mancini*  
Site Evaluator Signature

247  
SE

FEB. 9, 2012  
Date

## 1.0 Basic System Design

- 1.1 **Design and Installation:** Design and installation of In-Drain systems shall comply with all state and local regulations and the requirements of this manual.
- 1.2 **System sizing:** In-Drain systems must be sized on the basis of Table 600.1 of the Maine Subsurface WasteWater Disposal Rules (Maine Rules). Disposal field sizing is based on an **approved credit of 1 sq.ft. of In-Drain bottom area equal to 4 sq.ft. of stone bed.** Use In-Drain sizing Table #1 to determine the number of Type B units for a given design flow and disposal field size group. The 4 to 1 credit applied for all systems, commercial and non-commercial. The number of In-Drains required is the same for trench or Eljen's spaced cluster configurations. Please refer to section 5 for additional design information on commercial systems. **Increase septic tank size by 50% and system size by 30% when garbage disposal is used.**
- 1.3 **Trench Configurations:** Trench configurations shall provide a minimum spacing of 6' center to center (3 feet between units) with 6" of sand (see section 1.7 for sand specifications) below the In-Drain and 9" of sand around the outer edge of Type B units. Trench configurations utilize the same number of In-Drains as clustered configurations. Most designs utilize cluster configurations unless the site designer feels that the site has some unusual hydraulic capacity characteristics.
- 1.4 **Clustered Configurations:** In-Drains may be installed in a clustered configuration with a minimum of 12" of sand (See section 1.7 for sand specification) between rows, 9" of sand around the outer edge of the In-Drains and 6" of sand below the In-Drain rows.
- 1.5 **Experimental Systems:** Use of In-Drains at a higher loading rate than the stated in Section 1.2 and/or less than 12" of spacing between the rows of In-Drains, are considered experimental systems under Chapter 18 of the Maine Rules. Installations on some sites may result in reduced capacity due to mounding and/or the hydraulic capacity of the site. Special care must be given on sites with A1, AII, D or E conditions.
- 1.6 **Depth to seasonal Ground Water Table:** Maine rules require 12", 18" or 24" from disposal bed bottom to MLF depending on Design Class and depth to ledge. Eljen's conservative leach field design specifies a receiving sand bed layer (level to within 1/2 inch) directly beneath the In-Drain assembly as shown in Figures 3, 4, and 5. The bottom of the disposal area is the bottom of the In-Drain unit. **The vertical separation from the bottom of the In-Drain unit to the MLF shall not be less than 18".** In-Drain's low profile results in a system finished grade comparable to or lower than conventional disposal fields.
- 1.7 **Sand and Fill Specifications:**
- a. The first 6" directly beneath the In-Drains shall be a medium to coarse sand, with an effective size of 0.25 to 2.0 mm, no greater than 5% passing a #200 sieve, and no particles larger than 3/4 inch; or materials meeting the ASTM C-33 specifications. Washed concrete sand easily meets the above specification and is a reliable choice. Suitability of bank run sand must be verified.

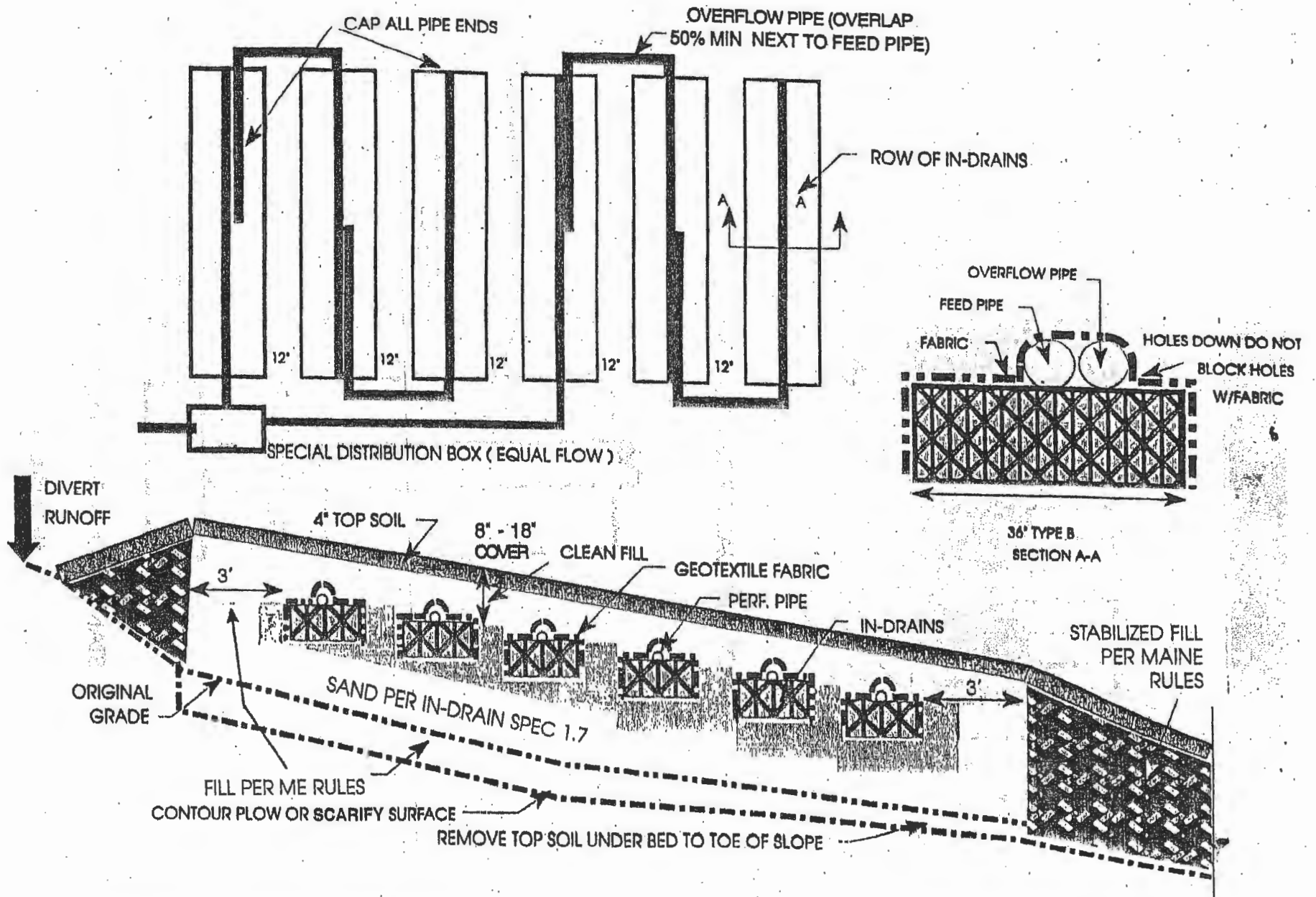


FIGURE 5. RAISED BED ON SLOPE WITH SERIAL DISTRIBUTION

Typical design requires 24" of compacted and properly graded material. Distribution pipe with at least SDR35 rating is required. **Systems can easily be engineered to handle H2O loading. Please consult with Eljen's Maine technical representative for design subject to vehicular traffic.**

## 2.0 Systems for Level Sites

- 2.1 **System Configuration:** Level systems layout may employ all leach field configurations. Bottom of systems, In-Drains and distribution pipes are installed level at their design elevations. Flow equalizers are recommended in **non-pumped** systems using distribution boxes. Non perforated interconnecting pipes between rows of In-Drains at midpoints (in systems over 40' long) and at ends to form pipe loops to insure long term system capacity. Refer to Figures 2 & 3 for section and plan views of in-ground and raised bed designs.
- 2.2 **In-Ground Systems:** The First 6" of material directly under and 9" beside the In-Drains must conform to Section 1.7a of this manual.
- 2.3 **Raised Systems:** Fill material used in raised systems must conform to Section 1.7a and 1.7b of this manual.

## 3.0 Systems for Sloped Sites

- 3.1 **System Configuration:** Sloping sites are best served by serial distribution with In-Drain cluster or trench layouts. Field sizing is the same as for level systems. A **securely anchored** distribution box is recommend between the septic tank and the leach areas as an access port and for flow velocity reduction.
- 3.2 **Cluster Row Spacing:** Minimum spacing between adjacent rows of In-Drains is 12" for sites with 0 to 15% slope. **Sites with over 15% slope should have minimum spacing of 24" between rows.**
- 3.3 **Distribution piping:** The distribution pipe is capped at the end of each row of In-Drains. Overflow is achieved by placing an end-capped length of perforated pipe (minimum of 10' or 50% of the In-Drain row length which ever is longer) at the end of each row next to the distribution pipe and connecting it with solid pipe to the next lower elevation row of In-Drains as shown in the Eljen Installation Instruction sheet. This procedure continues until the end of the last row of In-Drains. Refer to Figure 5 for sloped field design and section detail of over flow pipe.
- 3.4 **Sand and Fill Specifications:** Fill material, sand bed bottom and backfill are the same as in level systems.

## 4.0 Combination Systems

- 4.1 **Dosing:** Use an appropriate dosing device to assure proper effluent distribution to each field. If standard distribution boxes are used, anchor them adequately on stable compacted fill or place on a concrete pad not subject to frost heaving. The use of flow equalizers are



Maine Center for Disease Control and Prevention  
An Office of the Department of Health and Human Services

Department of Health and Human Services  
Maine Center for Disease Control and Prevention  
286 Water Street  
# 11 State House Station  
Augusta, Maine 04333-0011  
Tel: (207) 287-5672  
Fax: (207) 287-4172; TTY: 1-800-606-0215

## SUBSURFACE WASTEWATER DISPOSAL SYSTEM VARIANCE REQUEST

This form must accompany an application (HHE-200 Form) for any subsurface wastewater disposal system which requires a variance to provisions of the Subsurface Wastewater Disposal Rules. The Local Plumbing Inspector must not issue a permit for the installation of a subsurface wastewater disposal system requiring a variance from the Department of Health and Human Services until approval has been received from the Department.

<b>GENERAL INFORMATION</b>		Town of <u>PORTLAND</u>
Property Owner's Name: <u>SHEILA DUNBAR</u>	Tel. No.:	<u>96 TOM BLACKBURN</u> <u>232-8134</u>
System's Location: <u>541 ISLAND AVE. (PEAKS ISL.)</u>		
Property Owner's Address: <u>1819 PATRICK HENRY AVE., ARLINGTON VA.</u>	Zip Code	<u>22205</u>
e-mail address: _____		

The subsurface wastewater disposal system design for the subject property requires  replacement system variance  first time system variance to the Subsurface Wastewater Disposal Rules. This variance requires  local approval  local and state approval.

<b>SPECIFIC VARIANCE REQUESTED</b> (To be filled in by Site Evaluator. Use additional sheets if needed.)	<b>SECTION OF RULE</b>
1. <u>16' FROM OWNERS FOUNDATION, 10' FROM NEIGHBORS FOUNDATION (FIELD)</u>	<u>TABLE 7B</u>
2. <u>6' FROM PROPERTY LINES (FIELD)</u>	<u>TABLE 7B</u>
3. <u>SEPTIC TANK 5' FROM FOUNDATION, 8' FROM PROPERTY LINE.</u>	<u>TABLE 7B</u>
<b>SITE EVALUATOR</b>	

When a property is found to be unsuitable for subsurface wastewater disposal by a licensed Site Evaluator, the Evaluator shall so inform the property owner. If the property owner, after exploring all other alternatives, wishes to request a variance to the Rules, and the Evaluator in his professional opinion feels the variance request is justified and the site limitations can be overcome, he shall document the soil and site conditions on the Application. The Evaluator shall list the specific variances necessary plus describe below the proposed system design and function. The Evaluator shall further describe how the specific site limitations are to be overcome, and provide any other support documentation as required prior to consideration by the Department. Attach a separate sheet if necessary.

SETBACK DISTANCES MAXIMIZED.

I, JAMES G. MANCINI, S.E., certify that a variance to the Rules is necessary since a system cannot be installed which will completely satisfy all the Rule requirements. In my judgment, the proposed system design on the attached Application is the best alternative available; enhances the potential of the site for subsurface wastewater disposal; and that the system should function properly.

James G. Mancini 2/9/12  
SIGNATURE OF SITE EVALUATOR DATE

<b>PROPERTY OWNER</b>	
I, <u>Sheila Dunbar</u> , am the <input checked="" type="checkbox"/> owner <input type="checkbox"/> agent for the owner of the subject property. I understand that the installation on the Application is not in total compliance with 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.	
<u>Sheila Dunbar</u>	<u>2/27/12</u>
<input checked="" type="checkbox"/> SIGNATURE OF OWNER	DATE
<input type="checkbox"/> AGENT FOR THE OWNER	

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Dept. Health & Human Services  
 Division of Environmental Health  
 (207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation

Street, Road, Subdivision

Owner's Name

PORTLAND

541 ISLAND AVE.

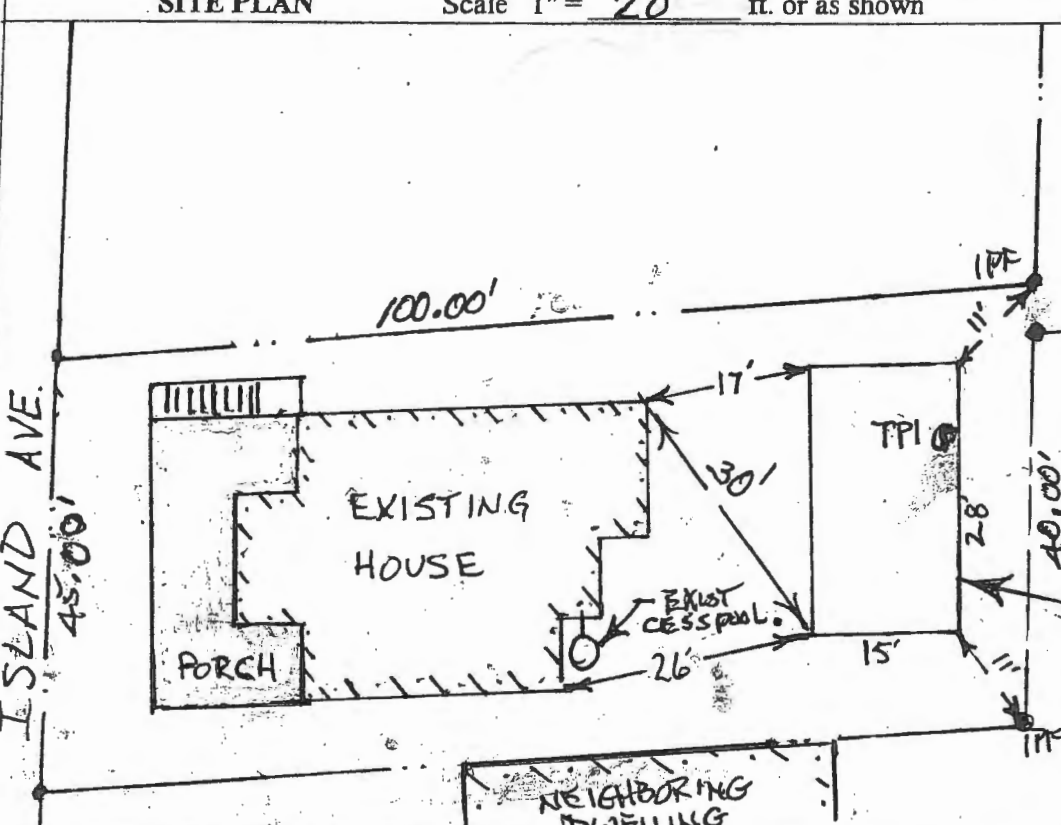
DUNBAR, SHEILA

SITE PLAN

Scale 1" = 20' ft. or as shown

## SITE LOCATION PLAN

(map from Maine Atlas recommended)



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

Observation Hole TP1  Test Pit  Boring  
 " Depth of Organic Horizon Above Mineral Soil

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

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0	COBBLY		DARK	
10	GRAVELLY	FLUFFY	BROWN	
20	VERY SANDY			
30	LOAM			
40	LEVEL OF ESCAVATION			
50	PROBED DEPTH			

Depth Below Mineral Soil Surface (inches)	Texture	Consistency	Color	Mottling
0				
10				
20				
30				
40				
50				

Soil Classification	Slope	Limiting Factor	<input type="checkbox"/> Ground Water <input type="checkbox"/> Restrictive Layer <input type="checkbox"/> Bedrock <input checked="" type="checkbox"/> Pit Depth
<b>2 B</b>	<b>4%</b>	<b>ZH</b>	
Profile	Condition		

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

Yanos A. Marcini 247 FEB-9, 2012