REPLACEMENT SYSTEM VARIANCE REQUEST

#200 F 6009

109 B 18

THE LIMITATIONS OF THE REPLACEMENT SYSTEM VARIANCE REQUEST

This form shall be attached to an application (HHE-200) for the proposed replacement system which requires a variance to the Rules. The LPI shall review the Replacement System Variance Request and HHE-200 and may approve the Request if all of the following requirements can be met, and the variance(s) requested fall within the limits of LPI's authority.

1. The proposed design meets the definition of a Replacement System as defined in the Rules (Sec. 2006)
2. There will be no change in use of the structure except as authorized for minor expansions outside the shoreland zone of major waterbodies/courses.
3. The replacement system is determined by the Site Evaluator and LPI to be the most practical method to treat and dispose of the wastewater.
4. The BOD5 plus S.S. content of the wastewater is no greater than that of normal domestic effluent.

GENERAL INFORMATION Town of Cliff Island (Portland)

Permit No. 10868 Date Permit Issued 1-27-09

Property Owner's Name: Bruce Dyer Tel. No.: 207-766-2917

System's Location: 139 Sunset Road

Property Owner's Address: PO Box 12 Sunset Road

(if different from above) Cliff Island, ME 04019

SPECIFIC INSTRUCTIONS TO THE:

LOCAL PLUMBING INSPECTOR (LPI):
If any of the variances exceed your approval authority and/or do not meet all of the requirements listed under the Limitations Section above, then you are to send this Replacement System Variance Request, along with the Application, to the Department for review and approval consideration before issuing a Permit. (See reverse side for Comments Section and your signature.)

SITE EVALUATOR:
If after completing the Application, you find that a variance for the proposed replacement system is needed, complete the Replacement Variance Request with your signature on reverse side of form.

PROPERTY OWNER:
If has been determined by the Site Evaluator that a variance to the Rules is required for the proposed replacement system. This variance request is due to physical limitations of the site and/or soil conditions. Both the Site Evaluator and the LPI have considered the site/soil restrictions and have concluded that a replacement system in total compliance with the Rules is not possible.

PROPERTY OWNER
I understand that the proposed system requires a variance to the Rules. Should the proposed system malfunction, I release all concerned provided they have performed their duties in a reasonable and proper manner, and I will promptly notify the Local Plumbing Inspector and make any corrections required by the Rules. By signing the variance request form, I acknowledge permission for representatives of the Department to enter onto the property to perform such duties as may be necessary to evaluate the variance request.

Bruce E. Dyer — SIGNATURE OF OWNER

12-16-08 — DATE

LOCAL PLUMBING INSPECTOR
I, Jeanie Bourke, the undersigned, [redacted] and have determined to the best of my knowledge that it cannot be installed in compliance with the Rules. As a result of my review of the Replacement Variance Request, the Application, and my on-site investigation, I (**check and complete either a or b**):

☐ a. (☒ approve, ☐ disapprove) the variance request based on my authority to grant this variance. Note: If the LPI does not give his approval, he shall list his reasons for denial in **Comments** Section below and return to the applicant.

--OR--

☐ b. find that one or more of the requested Variances exceeds my approval authority as LPI. I (☐ recommend, ☐ do not recommend) the Department's approval of the variances. Note: If the LPI does not recommend the Department's approval, she shall state his reasons in Comments Section below as to why the proposed replacement system is not being recommended.

Comments:

Jeanne Bourke — LPI SIGNATURE

1/16/09 — DATE

DEC 2 2 2008

VIA Postal mail

Replacement System Variance Request

VARIANCE CATEGORY	LIMIT OF LPI'S APPROVAL AUTHORITY						VARIANCE REQUESTED TO:	
SOILS								
Soil Profile	Ground Water Table			to 7"				inches
Soil Condition	Restrictive Layer			to 7"				inches
from HHE-200	Bedrock			to 12"				inches
SETBACK DISTANCES (in feet)	**Disposal Fields (total design flow)**			**Septic Tanks (total design flow)**			**Disposal Fields**	**Septic Tanks**
From	**Less than 1000 gpd**	**1000 to 2000 gpd**	**Over 2000 gpd**	**Less than 1000 gpd**	**1000 to 2000 gpd**	**Over 2000 gpd**	**To**	**To**
Wells with water usage of 2000 or more gpd or public water supply wells	300 ft	300 ft	300 ft	150 ft	150 ft	150 ft		
Owner's wells	100 down to 60 ft [a]	200 down to 100 ft	300 down to 150 ft	100 down to 50 ft [b]	100 down to 50 ft	100 down to 50 ft		
Neighbor's wells	100 down to 60 ft [f]	200 down to 120 ft [f]	300 down to 180 ft [f]	100 down to 50 ft [f]	100 down to 75 ft [f]	100 down to 75 ft [f]		
Water supply line	10 ft	20 ft	25 ft [h]	10 ft	10 ft	10 ft [h]		
Water course, major - for replacements only, see Table 400.4 for major expansions	100 down to 60 ft [d]	200 down to 120 ft [d]	300 down to 180 ft [d]	100 down to 50 ft [b]	100 down to 50 ft	100 down to 50 ft		
Water course, minor	50 down to 25 ft [e]	100 down to 50 ft [e]	150 down to 75 ft [e]	50 down to 25 ft [e]	50 down to 25 ft [e]	50 down to 25 ft [e]		
Drainage ditches	25 down to 12 ft	50 down to 25 ft	75 down to 35 ft	25 down to 12 ft	25 down to 12 ft	25 down to 12 ft		
Edge of fill extension – Coastal wetlands, special freshwater wetlands, great ponds, rivers, streams	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]	25 ft [e]		
Slopes greater than 3:1	10 ft [g]	18 ft [g]	25 ft [g]	N/A	N/A	N/A		
No full basement [e.g. slab, frost wall, columns]	15 down to 7 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft		
Full basement [below grade foundation]	20 down to 10 ft	30 down to 15 ft	40 down to 20 ft	8 down to 5 ft	14 down to 7 ft	20 down to 10 ft	10'	5'
Property lines	10 down to 5 ft [c]	18 down to 9 ft [c]	20 down to 10 ft [c]	10 down to 4 ft [c]	15 down to 7 ft [c]	20 down to 10 ft [c]		
Burial sites or graveyards, measured from the down toe of the fill extension	25 ft	25 ft	25 ft	25 ft	25 ft	25 ft		

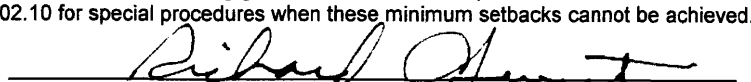
OTHER

1. Fill extension Grade - to 3:1

2.

3.

Footnotes: [a.] Single-family well setbacks may be reduced as prescribed in Section 701.2.
[b.] This distance may be reduced to 25 feet, if the septic or holding tank is tested in the plumbing inspector's presence and shown to be watertight or of monolithic construction.
[c.] Additional setbacks may be needed to prevent fill material extensions from encroaching onto abutting property.
[d.] Additional setbacks may be required by local Shoreland zoning.
[e.] 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.
[f.] May not be any closer to neighbors well than the existing disposal field or septic tank unless written permission is granted by the neighbor. This setback may be reduced for single family houses with Department approval. See Section 702.3.
[g.] The fill extension shall reach the existing ground before the 3:1 slope or within 100 feet of the disposal field.
[h.] See Section 1402.10 for special procedures when these minimum setbacks cannot be achieved.



SITE EVALUATOR'S SIGNATURE

10-30-08
DATE

FOR USE BY THE DEPARTMENT ONLY

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

SIGNATURE OF THE DEPARTMENT

DATE

#9008 6009

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, 10 SHS
(207) 287-5672 Fax: (207) 287-3165

PROPERTY LOCATION

City, Town, or Plantation	Cliff Island
Street or Road	139 Sunset Road
Subdivision, Lot #	04019

CAUTION: PERMIT REQUIRED - ATTACH IN SPACE BELOW

PORTLAND

Date Permit Issued: 2/27/09

Joanne Banks
Local Plumbing Inspector Signature

PERMIT # 10868 TOWN COPY

$ 110 FEE ☐ If Double Fee Charged

L.P.I. # 0132

OWNER/APPLICANT INFORMATION

Name (last, first, MI): Dyer, Bruce ■ Owner ☐ Applicant

Mailing Address of Owner/Applicant	PO Box 12 Cliff Island Me 04019
Daytime Tel. #	207-766-2917

Municipal Tax Map # 109B Lot # E-018

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.

Bruce E. Dyer 1-28-09
Signature of Owner or Applicant — Date

CAUTION: INSPECTION REQUIRED

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Rules Application. _____ (1st) date approved

_____ Local Plumbing Inspector Signature — _____ (2nd) date approved

PERMIT INFORMATION

TYPE OF APPLICATION

☐ 1. First Time System
■ 2. Replacement System
Type replaced: Overboard Discharge
Year installed: _____
☐ 3. Expanded System
☐ a. Minor Expansion
☐ b. Major Expansion
☐ 4. Experimental System
☐ 5. Seasonal Conversion

THIS APPLICATION REQUIRES

☐ 1. No Rule Variance
☐ 2. First Time System Variance
☐ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector
■ 3. Replacement System Variance
■ a. Local Plumbing Inspector Approval
☐ b. State & Local Plumbing Inspector
☐ 4. Minimum Lot Size Variance
☐ 5. Seasonal Conversion Permit

DISPOSAL SYSTEM COMPONENTS

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

SIZE OF PROPERTY

+- 3.5 ☐ SQ. FT. ■ ACRES

SHORELAND ZONING

☐ Yes ■ No

DISPOSAL SYSTEM TO SERVE

■ 1. Single Family Dwelling Unit, No. of Bedrooms: 3
☐ 2. Multiple Family Dwelling, No. of Units: _____
☐ 3. Other: _____ (specify)

Current Use ☐ Seasonal ■ Year Round ☐ Undeveloped

TYPE OF WATER SUPPLY

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

DESIGN DETAILS (SYSTEM LAYOUT SHOWN ON PAGE 3)

TREATMENT TANK

☐ 1. Concrete
■ a. Regular
☐ b. Low Profile
■ 2. Plastic
☐ 3. Other: _____
CAPACITY: 1000 GAL

DISPOSAL FIELD TYPE & SIZE

☐ 1. Stone Bed ☐ 2. Stone Trench
■ 3. Proprietary Device
☐ a. cluster array ☐ c. Linear
■ b. regular load ☐ d. H-20 load
☐ 4. Other: _____
SIZE: 900 ■ sq. ft. ☐ lin. ft.

GARBAGE DISPOSAL UNIT

☐ 1. No ■ 2. Yes ☐ 3. Maybe
If Yes of Maybe, specify one below:
☐ a. multi-compartment tank
☐ b. ___ tanks in series
☐ c. increase in tank capacity
☐ d. Filter on Tank Outlet

DESIGN FLOW

273 gallons per day
BASED ON:
■ 1. Table 501.1 (dwelling unit(s))
☐ 2. Table 501.1 (other facilities)
SHOW CALCULATIONS
— for other facilities —
☐ 3. Section 503.0 (meter readings)
ATTACH WATER METER DATA

SOIL DATA & DESIGN CLASS

PROFILE / CONDITION / DESIGN
3 / C / 1
at Observation Hole # TP-1
Depth 34 "
of Most Limiting Soil Factor
Groundwater

DISPOSAL FIELD SIZING

☐ 1. Small—2.0 sq. ft. / gpd
☐ 2. Medium—2.6 sq. ft. / gpd
■ 3. Medium—Large 3.3 sq. f.t / gpd
☐ 4. Large—4.1 sq. ft. / gpd
☐ 5. Extra Large—5.0 sq. ft. / gpd

EFFLUENT/EJECTOR PUMP

■ 1. Not Required
☐ 2. May Be Required
☐ 3. Required
Specify only for engineered systems:
DOSE: _____ gallons

LATITUDE AND LONGITUDE

at center of disposal area
Lat. N43 d 41 m 53.47 s
Lon. W70 d 06 m 17.55 s
if g.p.s. state margin of error: 20'

SITE EVALUATOR STATEMENT

I certify that on 10-8-08 (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).

Richard Sweet — Site Evaluator Signature
034 — SE #
10/30/08 — Date

Richard A. Sweet — Site Evaluator Name Printed
797-2110 — Telephone Number
dick@sweetassociates.com — Email Address

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

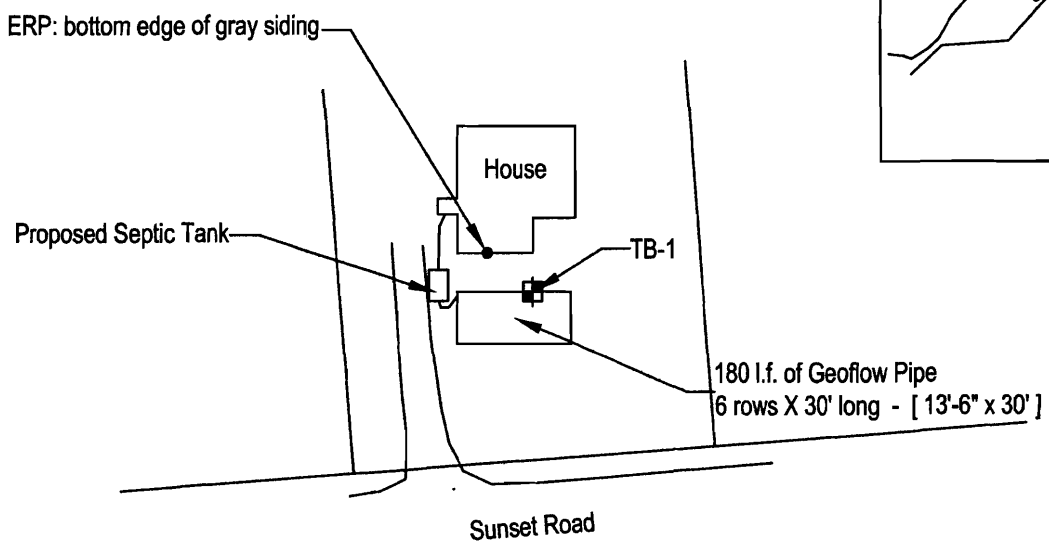
Designed with SeptiCAD
HHE-200 Rev. 4/05

SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

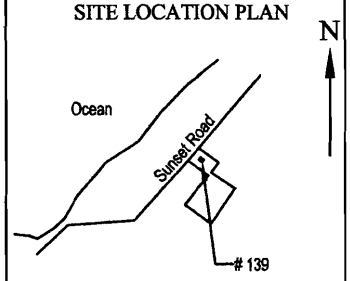
Maine Department of Human Services
Division of Health Engineering, Station 10
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner or Applicant Name
Cliff Island	139 Sunset Road	Bruce Dyer

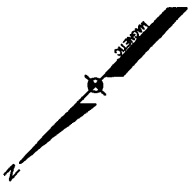
SITE PLAN Scale 1" = 50 ft.



SITE LOCATION PLAN



NOTES:
1. All property lines are approximate.
2. Scarify all ground to be filled.
3. Insulate the Distribution Box (D-Box).
4. Min. 1/4"/ft slope of pipe from building to septic tank.
5. Min. 1/8"/ft slope of pipe from septic tank to disposal field.
6. Create transitional horizon beneath disposal field by thoroughly mixing gravelly coarse sand with 6" of the soil beneath system.
7. Remove existing septic tank within proposed disposal field area.



SOIL PROFILE 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				
6	Sandy Loam	Friable	Dark Brown	
12				
18	Sandy Loam	Friable	Brown	
24				
30				
36	Sandy Loam	Firm	Gray	Few and Faint
42	Limit of Excavation at 40 inches			
48				

Soil Profile	Classification Condition	Slope Percent	Limiting Factor Depth	
3	C	11	34"	■ Groundwater ☐ Restrictive Layer ☐ Bedrock

Observation Hole # _____ ☐ Test Pit ☐ Boring

" Depth of organic horizon above mineral soil

Depth below mineral soil surface (inches)	Texture	Consistency	Color	Mottling
0				
6				
12				
18				
24				
30				
36				
42				
48				

Soil Profile	Classification Condition	Slope Percent	Limiting Factor Depth	
				☐ Groundwater ☐ Restrictive Layer ☐ Bedrock

Site Evaluator Signature | 034 SE # | 10/30/08 Date

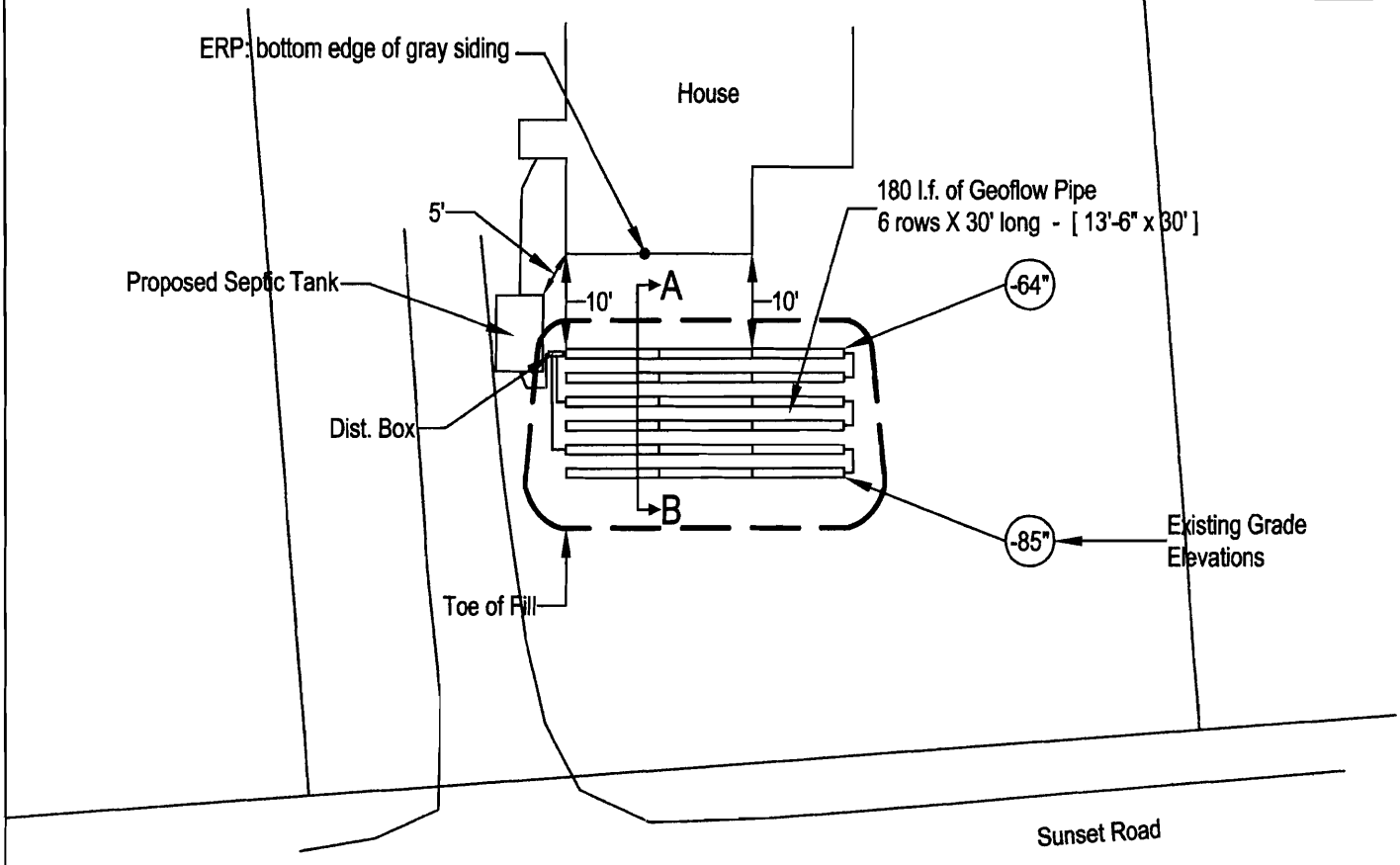
SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services
Division of Health Engineering, Station 10
(207) 287-5672 Fax: (207) 287-3165

Town, City, Plantation	Street, Road, Subdivision	Owner or Applicant Name
Cliff Island	139 Sunset Road	Bruce Dyer

SUBSURFACE WASTEWATER DISPOSAL PLAN

Scale: 1" = 20 ft



BACKFILL REQUIREMENTS

Depth of Backfill (upslope) 0-0"
Depth of Backfill (downslope) 4-4"

CONSTRUCTION ELEVATIONS

Finished Grade Elevation (at Row 1) -64.7"
Top of Proprietary Device (at Row 1) -74"
Bottom of Disposal Field (at Row 1) -86"

ELEVATION REFERENCE POINT

Location & Description: bottom edge of gray siding

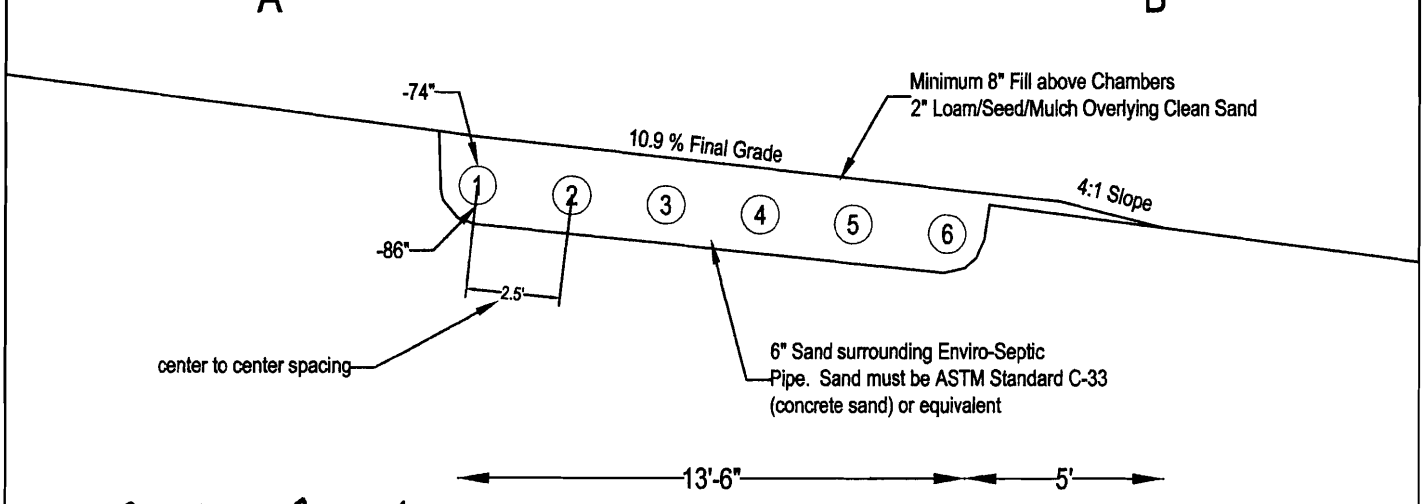
Reference Elevation is 0.0" or: _____

NOTE: SCARIFY ALL GROUND SURFACE TO BE FILLED. USE GRAVELLY COARSE SAND WITHIN 3' OF ENVIROSEPTIC PIPE. REMAINING FILL: LOAMY SAND (no clay)

DISPOSAL FIELD CROSS SECTION

ROW #	1	2	3	4	5	6
TOP	-74"	-77"	-80"	-83"	-86"	-89"
BOTTOM	-86"	-89"	-92"	-95"	-98"	-101"

Scales:
Verticle: 1" = 5
Horizontal: 1" = 5



Site Evaluator Signature | 034 SE # | 10/30/08 Date