

+

## **Green Environmental**

**19 Pine Needle Alley  
Wayne, ME 04284  
(207)725-4078**

November 03, 2019

Joseph Bradbury Shaw  
187 Water Street  
Augusta, ME 04338

Subject: Site Evaluation and Septic System Design, 819 Eastern Ave, Augusta, Maine

Dear Brad:

Attached is the replacement septic system plan for your property at 819 Eastern Ave in Augusta. The Maine Subsurface Wastewater Disposal Rules have been referenced on the plans and contain detailed specifications for the construction of the system.

The system was designed for a three bedroom home and the location is staked out on the site. The Elevation Reference Point is the bottom of the window trim on the side of the garage. A replacement system variance is required to reduce the setback from the garage from 15' down to 10'. A variance request form is included and needs to be signed.

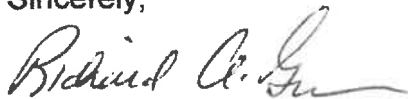
The existing 1000 gallon septic tank may be reused if it is of the proper volume and meets all current requirements. The tank should be pumped and repaired or replaced if necessary. A new septic tank effluent pump needs to be installed to lift wastewater to the new disposal area.

The plans contain sufficient information for a contractor to estimate the cost of construction and build the system. Before beginning construction a permit from the town must be obtained. Please bring the original and two copies of the HHE 200 to the City of Augusta's Local Plumbing Inspector for a permit sticker. The city will retain two copies and return one to you.

The property lines shown are approximate and should be verified before starting work.

If you have any questions, please feel free to contact me at (207) 725-4078.

Sincerely,



Richard A. Green  
Licensed Site Evaluator #195



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 <b>AUGUSTA</b>
Property Owner's Name: <b>BRAD SHAW</b>	Tel. No.: <b>(207) 485-0890</b>
System's Location: <b>819 EASTERN AVE</b>	
Property Owner's Address: <b>187 WATER STREET, AUGUSTA, ME</b>	Zip Code <b>04330</b>
e-mail address: _____	

The subsurface wastewater disposal system design for the subject property requires a  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. <b>REDUCE SETBACK FROM GARAGE TO 10'</b>	<b>Section 8</b>
2. _____	_____
3. _____	_____
<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.	
<b>Replacement system area is limited, setback reduction needed to avoid ledge</b>	
I, <b>Richard A. Green</b> 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.	
<i>Richard A. Green</i> SIGNATURE OF SITE EVALUATOR	<b>11/03/2019</b> DATE

<b>PROPERTY OWNER</b>	
I, _____ am the owner 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.	
<i>Brad Shaw</i> SIGNATURE OF OWNER AGENT FOR THE OWNER	<b>11.5-19</b> DATE

**LOCAL PLUMBING INSPECTOR - Approval at local level**

The local plumbing inspector shall review all variance requests prior to rendering a decision.

I, Keegen Ballard, the undersigned, have visited the above property and find that the variance request submitted by the applicant does not conform with certain provisions of the wastewater disposal rules. The variance request submitted by the applicant is the best alternative for a subsurface wastewater disposal system on this property. The proposed system ( does  does not) conflict with any provisions controlling subsurface wastewater disposal in the shoreland zone. Therefore, I (  do do not) approve the requested variance. I ( will will not) issue a permit for the system's installation as proposed by the application.

*Keegen Ballard*  
LPI Signature

11-5-19  
Date

**LOCAL PLUMBING INSPECTOR - Referral to the Department**

The local plumbing inspector shall review all variance requests prior to forwarding to the Division of Environmental Health.

I, \_\_\_\_\_, the undersigned, have visited the above property and find that the variance request submitted by the applicant does not conform with certain provisions of the wastewater disposal rules. The variance request submitted by the applicant is the best alternative for a subsurface wastewater disposal system on this property. The proposed system ( does does not) conflict with any provisions controlling subsurface wastewater disposal in the shoreland zone. Therefore, I ( do do not) recommend the issuance of a permit for the system's installation as proposed by the application.

\_\_\_\_\_  
LPI Signature

\_\_\_\_\_  
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

- Notes: 1. Variances for soil conditions may be approved at the local level as long as the total point assessment is at least the minimum allowed. (See Section 7.B.4 of the Subsurface Wastewater Disposal Rules for Municipal Review.)
2. Variances for other than soil conditions or soil conditions beyond the limit of the LPI's authority are to be submitted to the Department for review. (See Section 7.B.3 for Department Review.) The LPI's signature is required on these variance requests prior to sending them to the Department.

**SOIL, SITE AND ENGINEERING FACTORS FOR FIRST TIME SYSTEM VARIANCE ASSESSMENT WITH LIMITING SOIL DRAINAGE CONDITIONS (SEE TABLES 7C THROUGH 7M).**

	CHARACTERISTIC	POINT ASSESSMENT
Soil Profile		
Depth to Groundwater/Restrictive Layer		
Terrain		
Size of Property		
Waterbody Setback		
Water Supply		
Type of Development		
Disposal Area Adjustment		
Vertical Separation Distance		
Additional Treatment		
<b>TOTAL POINT ASSESSMENT:</b>		

Minimum Points (Check One):    Outside Shoreland Zone-50    Inside Shoreland Zone-65    Subdivision-65

AF 11/5/19

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

**PROPERTY LOCATION**

City, Town, or Plantation: **AUGUSTA**

Street or Road: **819 EASTERN AVE**

Subdivision, Lot #: **14/10**

**OWNER/APPLICANT INFORMATION**

Name (Last, First, MI): **JOSEPH BRADBURY SHAW**  Owner  Applicant

Mailing Address of Owner/Applicant: **187 WATER STREET  
AUGUSTA, ME 04330**

Daytime Tel. #: **(207) 485-0890**

AUGUSTA PERMIT #7748 TOWN COPY 1

Date Permit Issued: **11/5/19** \$ **170.00** fee -

*Cheryl B. Bell* LPI # **1241**

Municipal Tax Map # **14** Lot # **10**

**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.

*J. Bradbury Shaw* **11-19-19**  
Signature of Owner/Applicant Date

**CAUTION: INSPECTION REQUIRED**

I have inspected the installation authorized above and found it to be in compliance with the Subsurface Wastewater Disposal Application.

(1st) Date Approved \_\_\_\_\_  
(2nd) Date Approved \_\_\_\_\_

Local Plumbing Inspector Signature \_\_\_\_\_

## PERMIT INFORMATION

**TYPE OF APPLICATION**

1. First Time System

2. Replacement System

Type Replaced: **TRENCH**

Year Installed: **Unknown**

3. Expanded System

a. <25% Expansion

b. >25% 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 Approval

3. Replacement System Variance

a. Local Plumbing Inspector Approval

b. State & Local Plumbing Inspector Approval

4. Minimum Lot Size Variance

5. Seasonal Conversion Variance

**DISPOSAL SYSTEM COMPONENTS**

1. Complete Non-Engineered System

2. Primitive System (greywater & 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)

9. Engineered Treatment Tank (only)

10. Engineered Disposal Field (only)

11. Pretreatment, specify: \_\_\_\_\_

12. Miscellaneous Components

**SIZE OF PROPERTY**

**0.16**  sq. ft.  acres

**SHORELAND ZONING**

Yes  No

**DISPOSAL SYSTEM TO SERVE**

1. Single Family Dwelling Unit, No. of Bedrooms: **3**

2. Multiple Family Dwelling Unit, 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 **USE**

3. Other **EXISTING**

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 **24 ELJEN GSF UNITS**

SIZE **1152**  sq. ft.  lin. ft.

**GARBAGE DISPOSAL UNIT**

1. No  2. Yes  3. Maybe

If Yes or Maybe, Specify one below:

a. Multicompartment Tank

b. Tanks in Series

c. Increase in Tank Capacity

d. Filter on Tank Outlet

**DESIGN FLOW**

**270** gallons per day

BASED ON:

1. Table 501.1 (dwelling units)

2. Table 501.2 (other facilities)

SHOW CALCULATIONS for other facilities

**SOIL DATA & DESIGN CLASS**

PROFILE **12/8** / CONDITION **C**

at Observation Hole # **TB**

Depth **15"**

of most limiting Soil Factor

**DISPOSAL FIELD SIZING**

2. Medium - 2.6 sq. ft./gpd

3. Medium-Large - 3.3 sq. ft./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

3. Section 503.0 (meter readings)

ATTACH WATER METER DATA

**LATITUDE AND LONGITUDE**

at center of disposal area

Lat. **44** d **17** m **18.3** s

Lon. **69** d **42** m **5.4** s

if g.p.s. state margin of error: \_\_\_\_\_

## SITE EVALUATOR'S STATEMENT

I certify that on **11/2/2019** (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 A. Green* **195** **11/02/2019**  
Site Evaluator Signature SE# Date

**RICHARD A. GREEN** **(207) 725-4078** **richard.a.green@roadrunner.com**  
Site Evaluator Name Printed Telephone Number E-mail Address

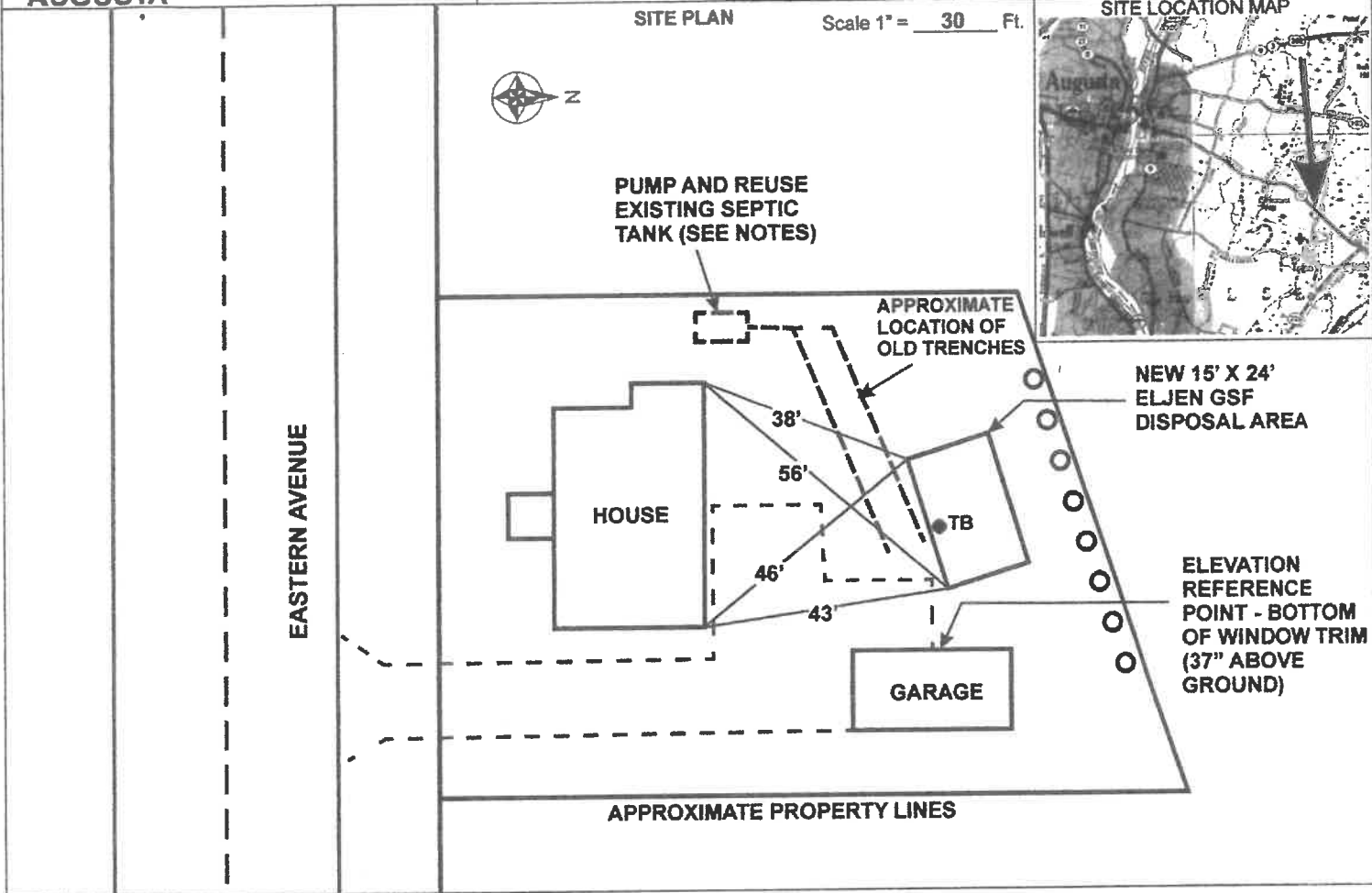
# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

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

Town, City, Plantation  
**AUGUSTA**

Street, Road, Subdivision  
**819 EASTERN AVE**

Owner or Applicant Name  
**SHAW, BRAD**



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

Observation Hole # TB  Test Pit  Boring

\_\_\_\_\_ \* Depth of Organic Horizon Above Mineral Soil

Depth (ft)	Texture	Consistency	Color	Mottling
0				
6	FILL	FRIABLE		
10	GRAVEL, CLAY, ROCKS		BROWN	
15				
20				ASSUMED FOR DESIGN 15"
30	SILTY CLAY LOAM	SOMEWHAT FIRM	OLIVE GRAY	
40				
50				

Soil Classification: **12/8 C**  
 Slope: **3** %  
 Limiting Factor: **15** "

Ground Water  
 Restrictive Layer  
 Bedrock

Observation Hole # TP  Test Pit  Boring

\_\_\_\_\_ \* Depth of Organic Horizon Above Mineral Soil

Depth (ft)	Texture	Consistency	Color	Mottling
0				
6				
10				
15				
20				
30				
40				
50				

Soil Classification: \_\_\_\_\_  
 Slope: \_\_\_\_\_ %  
 Limiting Factor: \_\_\_\_\_ "

Ground Water  
 Restrictive Layer  
 Bedrock

*Richard A. Lynn*  
 Site Evaluator Signature

**195**  
 SE #

**11/02/2019**  
 Date

Page 2 of 3  
 HHE-200 Rev. 10/02

# SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION

Maine Department of Human Services  
Division of Health Engineering, Station 10  
(207) 287-6672 Fax: (207) 287-3185

Town, City, Plantation

**AUGUSTA**

Street, Road, Subdivision

**819 EASTERN AVE**

Owner or Applicant Name

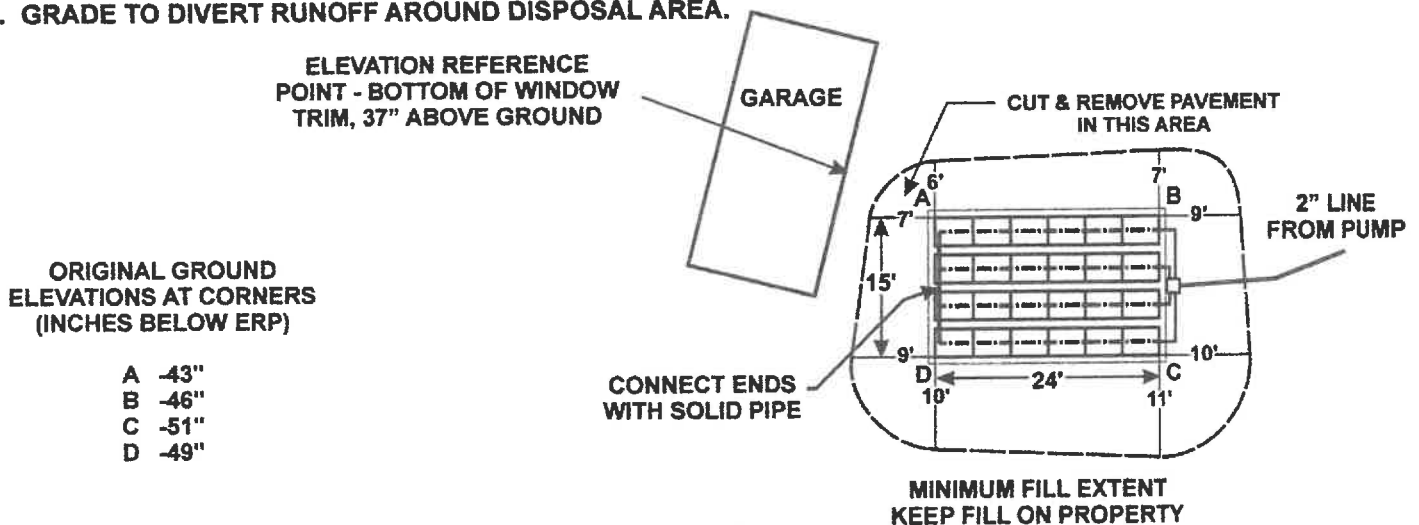
**SHAW, BRAD**

## SUBSURFACE WASTEWATER DISPOSAL PLAN

Scale: 1" = 20 ft.

### NOTES:

1. INSTALL ACCORDING TO LATEST VERSION OF SUBSURFACE WASTEWATER DISPOSAL RULES.
2. EXISTING TANK MAY BE REUSED IF PROPER VOLUME AND MEETS ALL SPECIFICATIONS OF A NEW TANK. REPAIR OR REPLACE AS NECESSARY. SEE SEPTIC INSPECTION REPORT FOR RECOMMENDED REPAIRS. INSTALL NEW PUMP STATION DOWNSTREAM OF SEPTIC TANK TO LIFT WATER TO NEW DISPOSAL AREA.
3. SOIL CONSISTS OF OLD FILL. REMOVE LARGE BOULDERS OR ANY OTHER UNSUITABLE MATERIALS AND REFILL WITH CLEAN BACKFILL. REMOVE PORTIONS OF OLD DISPOSAL AREA IF NEEDED. CUT AND REMOVE PAVEMENT WHERE UNDER NEW DISPOSAL AREA AND FILL EXTENSION FOOTPRINT.
4. INSTALL ELJEN SYSTEM ACCORDING TO THE MANUFACTURER'S INSTRUCTIONS.
5. SPECIFIED SAND AROUND GSF UNITS MUST MEET THE ASTM C33 SPEC FOR CONCRETE SAND OR AS SPECIFIED BY ELJEN. A SIEVE ANALYSIS FROM THE SAND SUPPLIER SHOULD BE PROVIDED AND ATTACHED TO THE PERMIT.
6. OTHER BACKFILL SHALL BE COARSE SAND TO GRAVELLY COARSE SAND MEETING THE REQUIREMENTS OF TABLE 11A OF THE SUBSURFACE WASTEWATER DISPOSAL RULES.
7. GRADE TO DIVERT RUNOFF AROUND DISPOSAL AREA.



### BACKFILL REQUIREMENTS

Depth of Backfill (upslope) 21-24 "  
Depth of Backfill (downslope) 27-29 "  
DEPTHS AT CROSS-SECTION (shown below)

### CONSTRUCTION ELEVATIONS

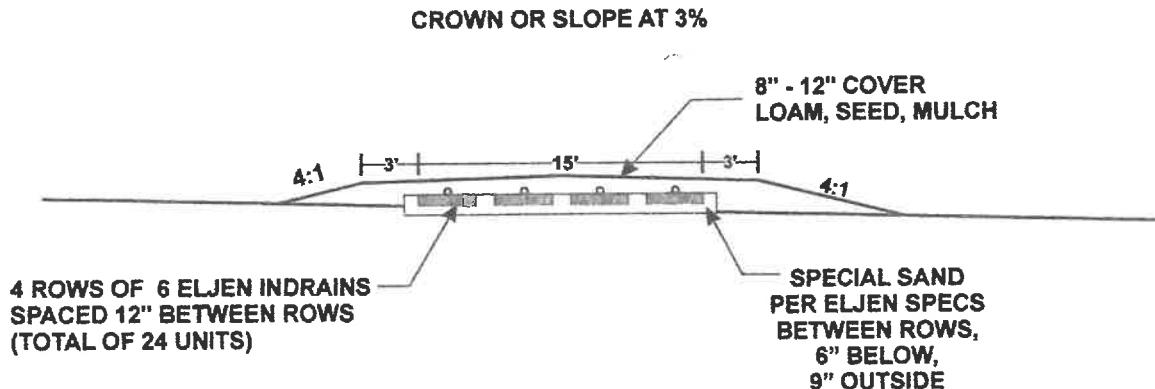
Finished Grade Elevation -22 to -27"  
Top of Distribution Pipes -35 "  
Top of Eljen Indrains -39 "  
Bottom of Eljen Indrains -45 "

### ELEVATION REFERENCE POINT

Location & Description: Bottom of Garage Window Trim  
Reference Elevation Is 0.0" or:

### DISPOSAL FIELD CROSS SECTION

Scales  
Vertical: 1" = 10 ft.  
Horizontal: 1" = 10 ft.



REMOVE ORGANIC LAYER AND SCARIFY SOIL UNDER ENTIRE FILL AREA  
MIX 4-6" SANDY FILL WITH UPPER SOIL LAYER TO CREATE TRANSITION HORIZON

*Richard A. Shaw*  
Site Evaluator Signature

195  
SE#

11/02/2019  
Date

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