

# REPLACEMENT SYSTEM VARIANCE REQUEST

## THE LIMITATIONS OF THE REPLACEMENT SYSTEM VARIANCE REQUEST

This form shall be attached to an application for the proposed replacement system which does not comply with the Rules. The LPI shall review the Replacement System Variance Request and Application 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 from the rules.
2. A system cannot be designed and installed in total compliance with the Rules.
3. The design flow is less than 500 GPD.
4. There will be no change in use of the structure.
5. The replacement system is determined by the Site Evaluator and LPI to be the most practical method to treat and dispose of the wastewater.

## GENERAL INFORMATION

Permit No. 3498 E Town of Augusta  
 Date Permit Issued 7/12/90  
MONTH/DAY/YEAR  
 Property Owner's Name: John Wilson Tel. No. \_\_\_\_\_  
 System's Location: Young Road STREET  
Augusta TOWN Maine 04330 ZIP  
 Property Owner's Address: 19 West Main Street, Unit #6 STREET  
 (if different from above) Merrimac TOWN Massachusetts STATE 01854 ZIP

## SPECIFIC INSTRUCTIONS TO THE:

### 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, they 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, then complete the Replacement Variance Request with your signature on reverse side of form.

### PROPERTY OWNER:

It 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.

The OWNER shall sign this statement. Therefore, having read both this Replacement Variance Request and the attached Application, I understand that the proposed system is not in total compliance with the Rules and hereby release all those concerned with this Variance, provided they have performed their duties in a reasonable and proper manner.

John P. Wilson PROPERTY OWNER'S SIGNATURE 7-12-90 DATE  
 check 1959A John Coffin Engineering PC

VARIANCE CATEGORY	VARIANCE REQUESTED	LIMIT OF LPI'S APPROVAL AUTHORITY		VARIANCE REQUESTED TO:	
SOILS Soil Profile 12 Soil Condition B from HHE-200	Ground Water Table	to 6"		inches	
	Restrictive Layer	to 6"		inches	
	Bedrock	to 10"		inches	
SETBACK DISTANCES (IN FEET)	FROM:	TREATMENT TANK	DISPOSAL AREA	TREATMENT TANK	DISPOSAL AREA
Potable Water Supplies	1. Well: > 2000 gal/day	100'	300'		
	2. Well: < 2000 gal/day				
	a. Neighbor's	50' <sup>b</sup>	60' <sup>b</sup>		
	b. Property Owner's	25'	50'		
	3. Water Supply Line	See note 'a'			
Waterbodies	1. Perennial	50'	60'	70'	90'
	2. Intermittent	15'	20'		22'
	3. Manmade drainage ditch	10'	15'		
Downhill Slope	Greater than 3:1 (33%)	5' <sup>c</sup>	10' <sup>c</sup>		
Buildings	1. With Basement	5'	10'		
	2. Without Basement	5'	10'		11'
Property Line		4'	5'		

**OTHER**

1. Fill extension Grade—to 3:1
2. Distance to Tague's Pond & Stream from leachfield & tank
3. Distance to house from leach field

Footnotes:

- a. This setback distance cannot be reduced by variance. See Table 6-2.
- b. Written Permission from the owner of a well is required when a replacement system will be located less than 100 feet but closer to that well than the system it is replacing.
- c. Sufficient distance shall be maintained to assure that the toe of the fill does not extend to the 3:1 slope.

James P. Coffin  
SITE EVALUATOR'S SIGNATURE

6/29/96  
DATE

**LPI STATEMENT**

I, George A. Sorce, Jr., LPI for the Town of Augusta have conducted an on-site inspection for the proposed replacement system and have determined to the best of my knowledge, that it cannot be installed in total compliance with the Rules, applicable Municipal Wastewater Disposal Ordinances, or the Local Shoreland Zoning Ordinance. As a result of my review of the Replacement System 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, he shall state his reasons in Comments Section below as to why the proposed replacement system is not being recommended.

Comments:

George A. Sorce, Jr.  
LPI'S SIGNATURE

7/23/96  
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

M72 L11A

Department of Human Services  
Division of Health Engineering  
(207) 287-5672 FAX (207) 287-4172

PROPERTY ADDRESS	
Town Or Planjation	Augusta
Street	Young Road
Subdivision Lot #	

Date Permit Issued: 7-12-96 \$ 100.00  If Double Fee Charged  
 Local Plumbing Inspector Signature: [Signature] L.P.I. # 1009

PROPERTY OWNERS NAME	
Last: Wilson	First: Jack
Mailing Address of Owner/Applicant (If Different)	19 West Main Street, Unit 16 Merrimac, Massachusetts
Daytime Tel. #	

Municipal Tax Map # 72 Lot # 11A

<b>Owner/Applicant Statement</b> I certify that the information submitted is correct to the best of my knowledge, that I have read and agree with the conditions on the back of this form and understanding that any falsification is reason for the Local Plumbing Inspector to deny a Permit. <u>[Signature]</u> x <u>7-12-96</u> Signature of Owner/Applicant Date	<b>Caution: Inspection Required</b> I have inspected the installation authorized above and on back of this form and found it to be in compliance with the Subsurface Wastewater Disposal Rules and local ordinances. <u>[Signature]</u> <u>12/4/96</u> Local Plumbing Inspector Signature Date Approved
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PERMIT INFORMATION		
<b>THIS APPLICATION IS FOR:</b> 1. <input type="checkbox"/> First Time System 2. <input type="checkbox"/> Multi-User System 3. <input checked="" type="checkbox"/> Replacement System 4. <input type="checkbox"/> Expanded System a. <input type="checkbox"/> One-time exempted b. <input type="checkbox"/> Non-exempted 5. <input type="checkbox"/> Experimental System 6. <input type="checkbox"/> Seasonal Conversion	<b>THIS APPLICATION REQUIRES:</b> 1. <input type="checkbox"/> No Rule Variance 2. <input type="checkbox"/> First Time System Variance (Municipal) 3. <input type="checkbox"/> First Time System Variance (State) 4. <input checked="" type="checkbox"/> Replacement System Variance a. <input checked="" type="checkbox"/> Local Plumbing Inspector approval b. <input type="checkbox"/> State & Local Plumbing Inspector approval 5. <input type="checkbox"/> Minimum Lot Size Variance 6. <input type="checkbox"/> Seasonal Conversion Variance	<b>DISPOSAL SYSTEM COMPONENT(S)</b> 1. <input checked="" type="checkbox"/> Non-Engineered System 2. <input type="checkbox"/> Primitive System 3. <input type="checkbox"/> Alternative Toilet Specify _____ 4. <input type="checkbox"/> Non-Engineered Treatment Tank 5. <input type="checkbox"/> Holding Tank _____ Gallons 6. <input type="checkbox"/> Non-Engineered Disposal Area (only) 7. <input type="checkbox"/> Separated Laundry System 8. <input type="checkbox"/> Engineered System (+2000 gpd) 9. <input type="checkbox"/> Engineered Treatment Tank (only) 10. <input type="checkbox"/> Engineered Disposal Area (only)
<b>SIZE OF PROPERTY</b> 0.2 acres	<b>DISPOSAL SYSTEM TO SERVE:</b> 1. <input checked="" type="checkbox"/> Single Family Dwelling Unit 2. <input type="checkbox"/> Multiple Family Dwelling Unit Number of Units _____ 3. <input type="checkbox"/> Other specify _____	<b>TYPE OF WATER SUPPLY</b> water from lake
<b>SHORELAND ZONING</b> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		

DESIGN DETAILS (system layout shown on another page)			
<b>TREATMENT TANK</b> 1. <input checked="" type="checkbox"/> Concrete <input checked="" type="checkbox"/> Regular <input type="checkbox"/> Low Profile 2. <input type="checkbox"/> Plastic SIZE: <u>1,000</u> Gallons	<b>DISPOSAL AREA TYPE/SIZE</b> 1. <input type="checkbox"/> Stone Bed _____ Sq. Ft. 2. <input checked="" type="checkbox"/> Proprietary Device 891 Sq. Ft. <input checked="" type="checkbox"/> Clustered <input type="checkbox"/> Linear <input type="checkbox"/> Regular <input checked="" type="checkbox"/> H-20 3. <input type="checkbox"/> Trench _____ Linear Ft. 4. <input type="checkbox"/> Other _____	<b>GARBAGE DISPOSAL UNIT</b> 1. <input checked="" type="checkbox"/> No 2. <input type="checkbox"/> Yes <input type="checkbox"/> Multi-compartment tank <input type="checkbox"/> Tank in series <input type="checkbox"/> Increase in tank capacity <input type="checkbox"/> Filter on tank outlet	<b>CRITERIA USED FOR DESIGN FLOW</b> (Show Calculations)  3 Bedroom Dwelling  (USED PROFILE 2 FOR DESIGN)  DESIGN FLOW: <u>270</u> (Gallons/Day)
<b>PROFILE &amp; DESIGN CLASS</b> PROFILE (using 2) <u>12</u> DESIGN <u>B</u> DEPTH TO MOST LIMITING FACTOR <u>24"</u>	<b>DISPOSAL AREA SIZING</b> 1. <input type="checkbox"/> Small 2.0 2. <input type="checkbox"/> Medium 2.60 3. <input checked="" type="checkbox"/> Medium-Large 3.30 4. <input type="checkbox"/> Large 4.10 5. <input type="checkbox"/> Extra-Large 5.00	<b>PUMPING</b> 1. <input type="checkbox"/> Not required 2. <input checked="" type="checkbox"/> May be required 3. <input type="checkbox"/> Required Dose _____ Gallons	

**SITE EVALUATOR STATEMENT**

On JUNE 28, 1996 (date) I conducted a site evaluation for this project and certify that the data reported is accurate. The system I propose is in accordance with the Subsurface Wastewater Disposal Rules.

[Signature]  
Kane P. Coffin, an agent of Coffin Engineering & Surveying

SE #331

JUNE 29, 1996  
Date

Coffin Engineering & Surveying  
(207) 623-9475

RFD #2, Box 887A  
Augusta, Maine 04330

See back of this form for conditions of permit

## ATTACHMENT FOR HHE-200 FORM

1. The OWNER/APPLICANT, by signing the front of this form, agrees to provide payment for services rendered as quoted and billed by COFFIN ENGINEERING & SURVEYING (CE&S). Payment on all billings are due within 30 days of billing date, otherwise a late charge of 1.5% per month (18% per year), simple interest, will be added to the total amount. In the event that any portion, or all of the final billing, remains unpaid for a period of 60 days, the OWNER/APPLICANT shall pay all reasonable costs of collection, including actual attorney's fees, court costs, CE&S's cost to collect bill. PLEASE NOTE THAT THE PERSON SIGNING THIS FORM UNDER OWNER/APPLICANT IS RESPONSIBLE FOR PAYMENT OF SERVICES AND SHOULD CONTACT CE&S IF HE/SHE HAS NOT RECEIVED A BILL.
2. All construction shall conform with Title 22 MRSA, §42, 144A CMR "Maine-Subsurface Waste Water Disposal Rules," and all other pertinent sections. The OWNER/APPLICANT is responsible for the contractor installing the proposed septic system correctly and for obtaining all necessary permits. The OWNER/APPLICANT shall carefully examine all documents submitted by CE&S and promptly notify CE&S upon becoming aware of any defects. The OWNER/APPLICANT agrees to limit the liability of the site evaluator and CE&S to the amount of the total fee paid to CE&S.
3. This disposal system form shall not be transferable and becomes invalid if the authorized work has not commenced within two years after the issue date of the disposal system.
4. The OWNER/APPLICANT shall accurately describe the intended uses (present and future) for the system to the site evaluator. Any change from the intended use described on this form requires a new design. Applicability of design must be reevaluated when location of structures are substantially different than those shown on the site plan or when other structures, additions, or appurtenances (i.e. swimming pools, garbage disposals) are considered. Property lines shown are as provided by the owner, or his agent and no guarantee of accuracy is implied. Actual property lines must be confirmed by boundary survey.

## **INSTALLATION REQUIREMENTS**

1. SETBACKS (under 1000 gpd) - Keep tank and leach fields 100 feet from wells, 50 feet from minor water courses, 100 feet from major water courses, and 10 feet from property lines, unless noted elsewhere on the forms. Septic tanks shall be a minimum of 8 feet from buildings and leach fields shall be 20 feet from buildings with basements and 15 feet from buildings with no full basement.
2. DRAINAGE - water runoff and drainage from basements, footings, or roofs shall not drain into the septic system and shall be diverted away from the disposal field.
3. DISCHARGE - hot tubs shall not discharge into any disposal system utilized for any other waste water, but may be discharged into a separate laundry disposal field. No paint, paint thinner, commercial grease and oil, darkroom chemicals, etc. shall be disposed of in the disposal field.
4. CONDITIONS - excavations shall not be carried out when the soil moisture content is above the plastic limit. Disposal fields should not be installed in frozen ground or when the ambient air temperature is below freezing.
5. SITE PREPARATION - prior to placing backfill material, the vegetation shall be cut and removed. In areas adjacent to water bodies or wetland, erosion and sediment control measures shall be employed. The area under the disposal field and backfill extensions shall be plowed or disked to produce a thoroughly roughened surface to a depth of 6 to 8 inches. Surface water shall be diverted away from the disposal field.
6. EXCAVATION - the bottom of the each disposal field shall be installed at the elevation specified on this form. Avoid compaction of both sidewalls and bottom area. Make sure heavy equipment is not driven over the exposed bottom of the disposal field. If any portion of the bottom or sidewalls becomes smeared or compacted, that portion must be scarified to reopen soil pores.
7. BACKFILLING - At least 4 inches of cover material, suitable for establishment of a good vegetative cover shall be placed over the entire filled area including the fill material extensions. Backfill material shall be a minimum of 8 inches in thickness and consist of a coarse sand to a gravelly coarse sand. Final grading shall be completed so that surface water will not collect over the disposal field. Immediately after completion of final grading, the fill material surface shall be stabilized by mulching and seeding to establish a good vegetative cover to prevent erosion. Grass, clover, trefoil, vetch, perennial wild flowers, or other herbaceous perennials may be utilized for disposal field surfaces. Woody shrubs or trees are unacceptable on disposal field surfaces.
8. SEPTIC TANK - The septic tank must be installed level and all joints, inspection covers, etc. must be water tight (the same is necessary for a pump tank if the system requires one). The outlet invert elevation should be equal to or higher than the finish grade of the septic field to avoid flooding of the tank and solids entering the field. Install a Zabel Industries, Inc. filter or equivalent on the outlet end of the septic tank when possible. Provide low profile septic tank when determined as necessary in the field. Septic tanks should be pumped out and checked every three years or more often to prolong the life of the waste water system.
9. FREEZING - Protect tanks, force mains, pump stations, D-boxes, etc. from freezing by either adequate ground cover or insulating.
10. The LPI shall inform the owner and designer of any local ordinance exceeding the Rules (Chapter 241) prior to issuing a permit, so that the application may be properly amended to conform to such ordinances.

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71

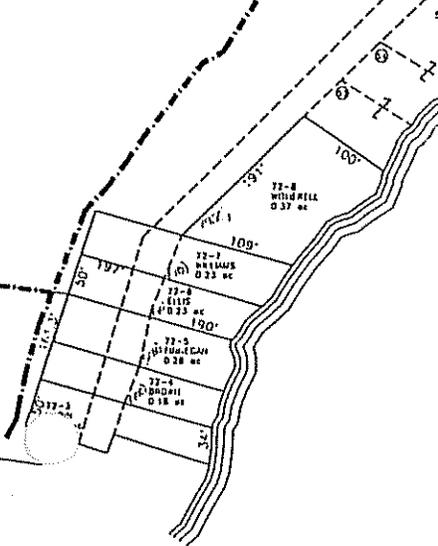
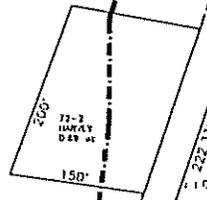
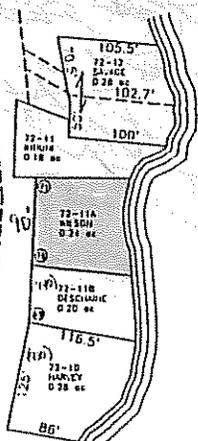
RPDS

Lake

WORRINGTONS

YOUNG ROAD

SEE MAP B  
LOT 85



PROPERTY MAP  
CITY OF AUGUSTA  
KENNEBEC COUNTY, MAINE

JAMES W. SEWELL COMPANY OLD TOWN, MAINE  
SCALE 1 inch = 100 feet REVISED 1/17

72



**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

Owner's Name

Jack Wilson

Street, Road, Subdivision

Yonda Rd

Town, City, Plantation

Augusta

Department of Human Services  
Division of Health Engineering

Zoning

Shoreland

**SOIL DESCRIPTION AND CLASSIFICATION**

Observation Hole TP#1

Test Pit  Boring

Soil Profile 1Z

Classification B

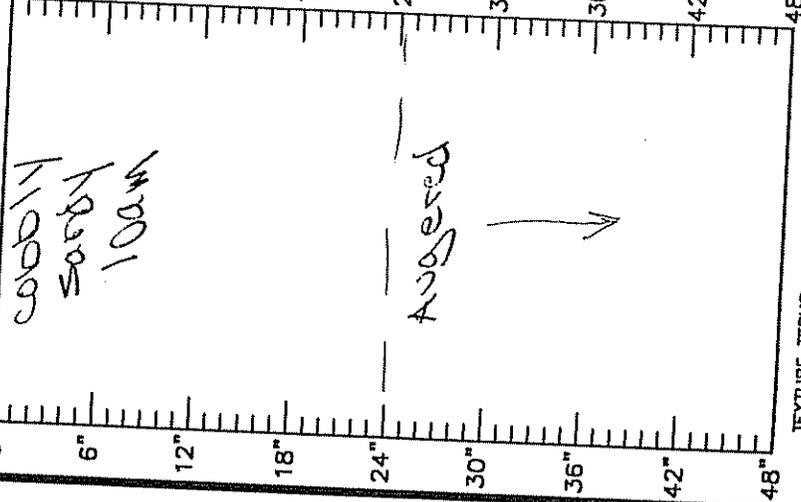
Slope 1-%

Depth

Most Limiting  
Ground Water  
Restrictive Layer  
Bedrock

Excessive surface stones (more than 50% by area)

**TEXTURE**



**TEXTURE TERMS**

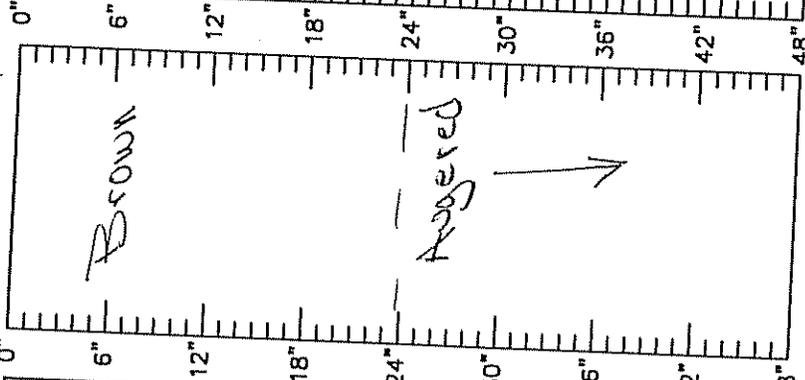
- Sand
- Loamy sand
- Sandy loam
- Loam
- Silt loam
- Silty clay loam
- Silty clay
- Bedrock

**MODIFIER TERMS**

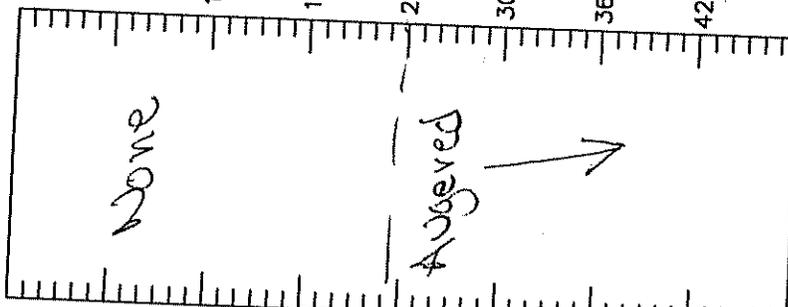
- VF - very fine
- F - fine
- M - medium
- C - coarse
- BOCK
- Gravelly - 0.1-3"
- Cobbly - 3-10"
- Stony - +10"

ABUNDANCE  
Very - 36-60%  
Extremely - 61-90%

**COLOR**



**MOTTLING**



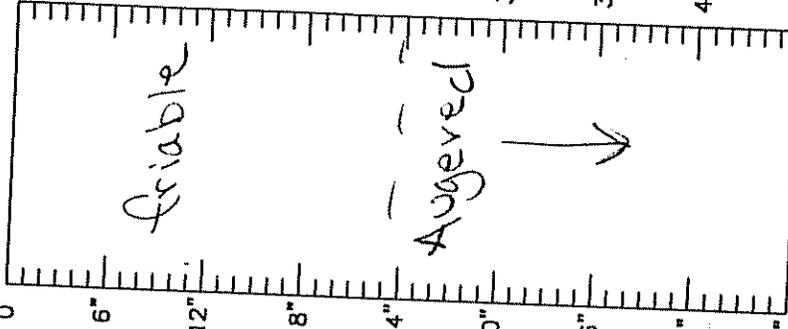
**CONTRAST**

- Faint
- Distinct
- Prominent

**ABUNDANCE**

- None
- Few - <2%
- Common - 2-20%
- Many - >20%

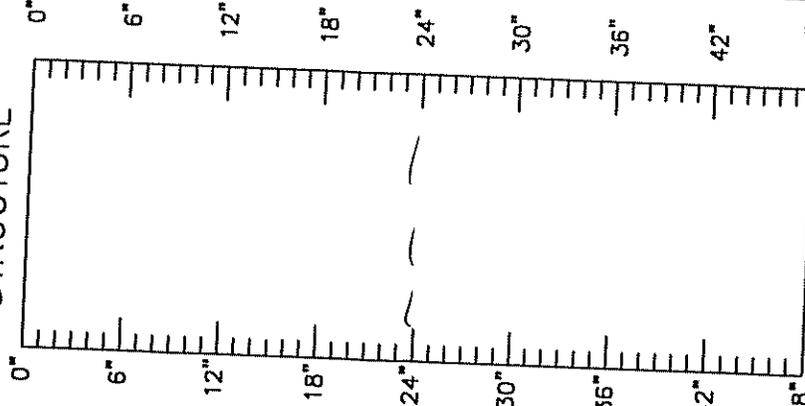
**CONSISTENCE**



**TERMS**

- Loose
- Friable
- Firm
- Very Firm
- Cemented

**STRUCTURE**



**TERMS**

- Single grain
- Spherical
- Subangular blocky
- Blocky
- Prismatic
- Platy
- Massive

**COMMENTS:**

Fill material over a deep  
use Profile 2 for design

Site Evaluator's Signature Kane F. Coffin

SE # 331

Date: 6/28/96

HHE-200

**SUBSURFACE WASTEWATER DISPOSAL SYSTEM APPLICATION**

Department of Human Services  
Division of Health Engineering

Town, City, Plantation

Street, Road, Subdivision

Augusta

Young Road

Owner's Name

Jack Wilson

**FILL REQUIREMENTS**

Depth of Fill (Upslope) 18-19"

Depth of Fill (Downslope) 19-20"

Reference Elevation is 00"

Bottom of Disposal Area -49"

Top of Chambers -37"

**CONSTRUCTION ELEVATIONS**

**ELEV. REF. PT:**

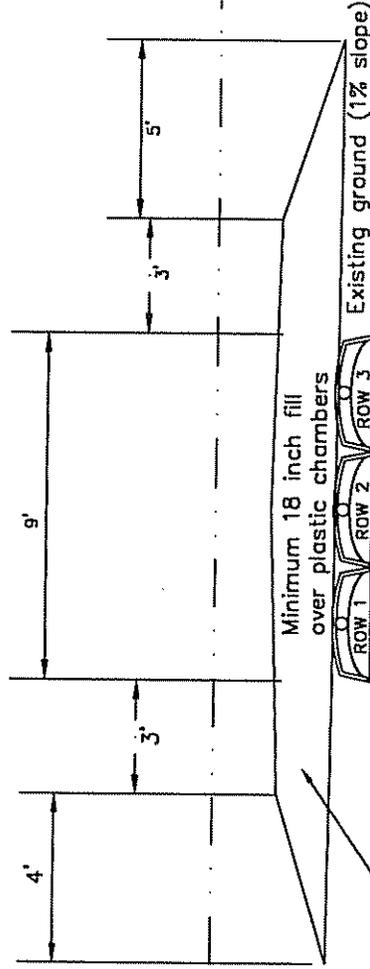
50d nail in 9" Ash nest to culvert  
50" above ground (West side)

**SCALE:**

Vertical: 1 inch = 5 feet

Horizontal: 1 inch = 5 feet

**DISPOSAL AREA CROSS SECTION**



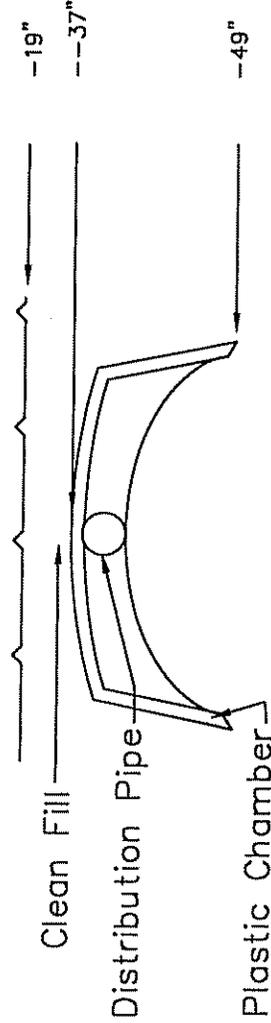
Gravelly coarse sand fill

Minimum 18 inch fill  
over plastic chambers

Existing ground (1% slope)

Remove vegetation and scarify original soil under fill  
The soil should be broken up to a depth of 6-8 inches.

**INSTALL 25 H-20 PLASTIC CHAMBERS (CLUSTERED)**



Clean Fill

Distribution Pipe

Plastic Chamber

**DETAIL (no scale)**

Site Evaluator's Signature

*James P. Coffey*

SE # 331

Date: 6/29/96

HHE-200