

Heritage Dunes Subdivision

Original Tax Lot **6 10 3BD 3300**

Original documents in file 6 10 3BD 3300

Now Tax Lots **6 10 3BD 3307 Lot 1**
 6 10 3BD 3306 Lot 2
 6 10 3BD 3305 Lot 3
 6 10 3BD 3304 Lot 4
 6 10 3BD 3303 Lot 5
 6 10 3BD 3302 Lot 6

Notes to file 5/13/2015 Pat Getchell

Certificate of Satisfactory Completion

Installation of this onsite wastewater treatment system has been determined to comply with the applicable requirements in Oregon Administrative Rules Chapter 340, Divisions 071 and 073 and the conditions of Permit OS411797 as follows:

PROPERTY INFORMATION

Property Owner: **Romine Construction LLC; Ray Romine** Township **06N, Range 10W, Section 03 BD**
Property Location: **4141 Hwy. 101 N., Gearhart** Tax Lot **3300**
Facility Type: **Single Family Dwelling** Clatsop County
3 Bedrooms

SPECIFICATIONS AND REQUIREMENTS

System type: Sand Filter: Bottomless - Residential

Design Flow: **450 gals/day**
Minimum Septic Tank Size: **1500 gals**
DistributionType: **Pressurized**
Sand Filter: **360 SqFt**
Media Type: **Rock and Pipe**
Maximum Trench Depth: **36 inches**
Minimum Trench Depth: **0 inches**

ADDITIONAL CONDITIONS

- 1 The owner is responsible for the operation and maintenance of the sand filter system.
- 2 This onsite wastewater treatment system must be connected to the facility referenced herein within 5 years of the issuance of this Certificate of Satisfactory Completion (CSC) or rules for authorization notices, alteration permits, or construction-installation permits as outlined in OAR 340-071-0160, 340-071-0205, or 340-071-0210 apply, including payment of an additional fee.
- 3 This system must operate in compliance with OAR Chapter 340, Division 071 and must not create a public health hazard or pollute public waters.
- 4 Unless otherwise required by the agent, the system installer must backfill (cover) this system within 10 days after the issuance of this Certificate of Satisfactory Completion.
- 5 In accordance with Oregon Revised Statute 454.665, this Certificate of Satisfactory Completion is issued as evidence of satisfactory completion of an onsite wastewater treatment system at the location identified above.
- 6 Issuance of this Certificate does not constitute a warranty or guarantee that this onsite wastewater treatment system will function indefinitely without failure. Conditions imposed as permit requirements continue for the life of the system.



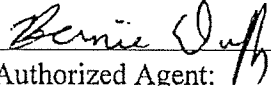
7 The area of the initial and the identified replacement area must not be subjected to activity that is likely to adversely affect the soil or the functioning of the system. Such activities may include, but are not limited to, vehicular traffic, livestock, covering the area with asphalt or concrete, filling, cutting, or other soil modification activities.

SYSTEM INSPECTIONS AND COMPLETION DATES

Pre-Cover Inspection Waived by Bernie Duffy on 11/27/2012

Installer Name: Hartman Construction Co.
Certificate Issued by Operation of Law.

To be valid, this document must be signed by an "Agent" as defined in OAR 340-071-0100.

	Onsite Wastewater Specialist	11/30/2012
Authorized Agent:	Title	Date CSC Issued
Bernie Duffy		

Department of Environmental Quality
Northwest Region - Warrenton Office
65 N Highway 101, Suite G
Warrenton, OR 97146
Phone: (503) 861-3280
Fax: (503) 861-3259

SCHIELE Vicky

From: DUFFY Bernie
Sent: Tuesday, November 27, 2012 8:20 AM
To: SCHIELE Vicky
Subject: RE: Romine, app 413328

Vicky,

Ask Dean to provide the provide the following information and then I will issue the CSC.

1. Show on As Built – pressure line location and manifold layout in the sand filter.
2. Is there a sieve analysis for the sand and underdrain media on file or did he provide before started construction?
3. Provide measured squirt height.

Thanks,

Bernie

Did you receive a minor repair application from Dean?

From: SCHIELE Vicky
Sent: Tuesday, November 20, 2012 3:31 PM
To: DUFFY Bernie
Subject: Romine, app 413328

Bernie,
Another final.
This one from Dean Hartman.
Vicky

Vicky Schiele
Oregon Department of Environmental Quality
North Coast Branch Office
503-861-3280 / fax 503-861-3259
schiele.vicky@deq.state.or.us



Scappoose Sand & Gravel Co.

33485 E. Crown Zellerbach Road • P.O. Box AF • Scappoose, Oregon 97056
Phone (503)543-8821 • Fax (503) 543-7997

UNDERDRAIN MEDIA / SIEVE ANALYSIS

SIEVE SIZE	WEIGHT RETAINED	% RETAINED	TYPE OF MATERIAL		PEA GRAVEL
			% PASSING	SPECS	DATES
1/2	0	0	100	100	1-5-10
3/8	0	0	100	85-100	SAMPLE # 1
4	4.60	87	13	10-30	TIME 9:00 AM
8	5.25	99	1	0-10	INITIALS KL
16	5.26	99.6	.4	0-5	NOTES
200	5.27	99.8	.2	0-1.0	
TOTAL	5.28				
					SAMPLE #
					TIME
					INITIALS
					NOTES
TOTAL					
					SAMPLE #
					TIME
					INITIALS
					NOTES
TOTAL					

FIELD WORKSHEET FOR AGGREGATE

PROJECT NAME (SECTION)				CONTRACT NUMBER			
CONTRACTOR OR SUPPLIER Teevin & Fischer Quarry				PROJECT MANAGER			
SOURCE NAME HE Johnson Quarry				SOURCE NUMBER 04-010-2			
TEST NO. #1				DATE 1-25-11			
TIME				SAMPLED AT Stockpile			
				TO BE USED IN			

SIEVE SIZE	SPECS LIMITS	SIEVE ANALYSIS AASHTO T 27/T 11						FM	
		MASS 1	MASS 2	MASS 3	MASS 4	TOTAL MASS	% RET	% PASS	CUMULATIVE % RETAINED
2"	100%	0.0				0.0	00	100%	
1 1/2"	95-100%	109.3				109.3	9	99%	
1 1/4"		3747.8				3747.8	29.4	70%	
1"		5955.8				5955.8	46.8	23%	
3/4"	0-15	2417.4				2417.4	19.0	4%	
1/2"	02	406.9				406.9	3.2	1%	
PAN		96.3				96.3	.8		

B = INITIAL DRY MASS: 12,733.8 D = MASS AFTER SIEVING: 12,733.5

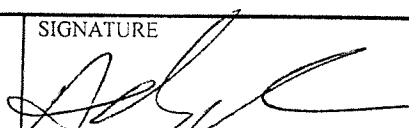
SIEVE SIZE	SPECS. LIMITS	PERCENT FRACTURE IN AGG TM 1				ELONGATED PIECES	
		FRAC MASS (F)	QUESTIONABLE MASS (Q)	NON FRAC MASS (N)	INDIVIDUAL FRAC %	TEST MASS	ELONG MASS

SE T 176			
1	2	3	SAMP LE
			CLAY
			SAND
			S.E.
			AVG.
PAN TARE			
WET MASS & PAN			
DRY MASS & PAN			
AFTER WASH DRY MASS & PAN			

C = DRY MASS AND PAN AFTER WASH - PAN DRY WET
 A = WET MASS AND PAN - PAN RESULT SPEC ROUND SQUARE RECTANGLE 12" SIZE WAQTC AASHTO T 27/T 11

Combine % Fracture	TM 1	
Wood Waste	TM 225	
Cleanness Value	TM 227	
Flat & Elongated	TM 229	
Fineness Modulus	T 27/T 11	
MOISTURE % = ((A-B)/B) X 100		
SIEVE LOSS % = ((C-D)/C) X 100		0.0
Base Agg 2.00mm / 6.33mm		

REMARKS

<input checked="" type="checkbox"/> QUALITY CONTROL	VERIFICATION	INDEPENDENT ASSURANCE
CERTIFIED TECHNICIAN (PLEASE PRINT) AND CARD NUMBER Andy Finn # 44056	COMPANY NAME Teevin & Fischer Quarry	SIGNATURE  DATE 1/25/11

NOV 9 9 28 AM

Final Inspection Request and Notice - Onsite ID: 411797

Pursuant to the requirements within ORS 454.665, OAR 340-071-0170 and OAR 340-071-0175, the system installer and/or the permittee must notify the Department of Environmental Quality (or its authorized Agent) when the construction, alteration or repair of a system for which a permit was issued is completed and prior to backfilling or covering the installation. The Department (or Agent) has 7 days to perform an inspection of the completed construction/installation following the official notice date, unless the Department (or Agent) elects to waive the inspection and authorizes the system to be backfilled. Receipt and acceptance of this completed form by the Department (or Agent) establishes the official notice date of your request for the pre-cover inspection. Faxed copies are acceptable for inspection request purposes only. Originals must be received before a Certificate of Satisfactory Completion is issued. Please complete sections 1 through 4 on the form and return it to the office that issued the permit. Forms that are determined to be incomplete will be returned.

SECTION 1: Owner/Permittee Information:

Township 06N, Range 10W, Section 03 BD

Name: Romine Construction LLC; Ray Romine

Clatsop County TaxLot#: Tax Lot 3300

Property Address: 4141 Hwy. 101 N., Gearhart

SECTION 2: System Component Specifications:

A. Tanks/Pumps

System Type: Sand Filter: Bottomless - Residential

Water tight verification*

Tanks(1)	Volume: 1500 gal	Compartments: 2	Manufacturer: Willamette Graystone	Date: 11-15-12
Tanks(2)	Volume:	Compartments:	Manufacturer:	Date:
Pump(s)	HP: 1/2	Model/Manuf. Franklin - PF300S11	Float(s)Type(1): A	Model/Manuf. Oranco
			Float(s)Type(2): A	Model/Manuf. Oranco

B. Piping

Effluent Sewer (tank to drainfield)	Yes <input checked="" type="checkbox"/>	No	Diameter: 1 1/4"	ASTM#/Other: Sch 40 PVC	Length: 16'
	Pressure Transport Pipe	Yes	No	Diameter:	ASTM#/Other:

C. Secondary Treatment Unit:

Sand Filter**	Yes <input checked="" type="checkbox"/>	No	Type: Bottomless Sand filter	Container Dimensions: 12'x30'
Underdrain pipe	Diameter: N/A	ASTM#/Other:	Length:	
Manifold piping	Diameter: 3/4"	ASTM#/Other: Sch 40 PVC	Length: 28'	
Internal Pump	HP: 1/2	Model/Manufacturer		
Floats(1)	Type:	Model/Manufacturer		
Floats(2)	Type:	Model/Manufacturer		
ATT	Yes	No	Model:	
Certified Maint.	Provider Name:			
Operation and Maint.	Contract Received?	Yes	No	

D. Drainfield Media

Type	(Gravel, Pipe or alternative?) Pee-gravel - Drain Rock - Deq sand			
Distribution Box	Yes	No		
Drop Box	Yes	No		
Distribution Pipe	Yes	No	Diameter:	ASTM#/Other: Length:
Comment	4" ABS From House to tank			

*All Tanks(s) were tested for water-tightness after installation and passed in accordance with OAR 340-073-0025(3)

**Attach sieve analysis for Underdrain Media and Filter Sand

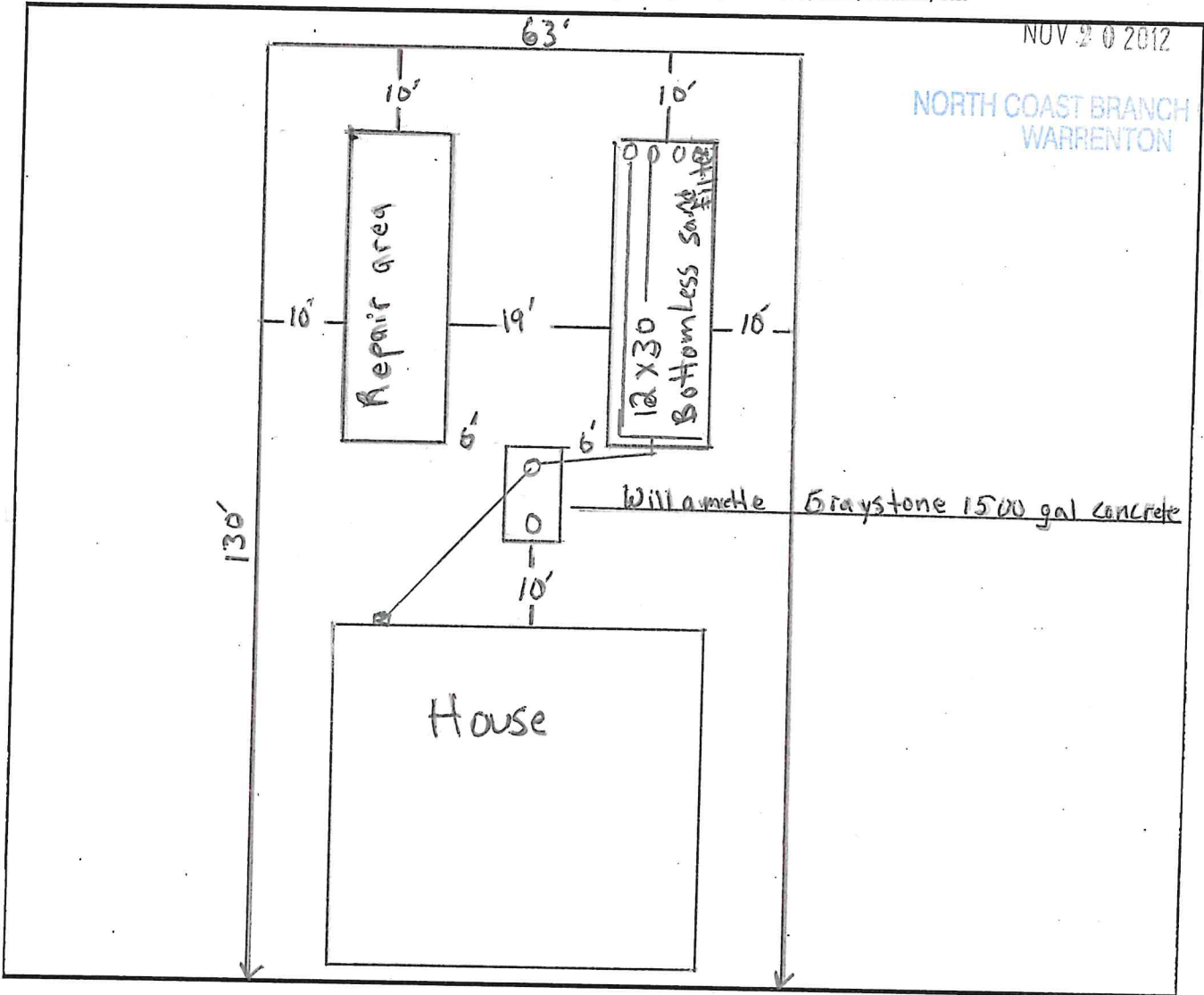
SECTION 3 - As Built Plan

AS-BUILT PLAN OF THE CONSTRUCTED SYSTEM. Indicate the direction of NORTH. Show locations of all wells within 200 feet of the system. Show system setback distances from property lines, structures, wells, streams, etc.

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

NOV 20 2012

NORTH COAST BRANCH OFFICE
WARRENTON



SECTION 4 - Construction was performed by (Signature Required)

I certify that the information provided on both pages of this document is correct and that the construction of this system was in accordance with the permit and the rules regulating the construction of onsite wastewater treatment systems (OAR Chapter 340, Divisions 71 and 73).

Owner/Permittee or Certified Installer w/Certification#:	Print Name:	Dean Hartman / Hartman Construction Co.	
Licensed Installer:	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	License#:	Certification#:
		38331	R1-321
Owner/ Certified Installer:	Signature:	Date:	Phone#:
	Dean Hartman	11-19-12	503 470 2092

SECTION 5 - Office Use Only:

Notice Accepted: Yes No Date: _____

Installer/Owner (Permittee) Notified: Yes No Date: _____

If No, Reason for Non Acceptance: _____

Comment: _____

FIELD WORK SHEET FOR AGGREGATE

AUG 03 2012

PROJECT NAME (SECTION)						CONTRACT NO.											
HIGHWAY						COUNTY											
CONTRACTOR OR SUPPLIER Naselle Rock & Asphalt Co.						SOURCE NAME Naselle Quarry											
PROJECT MANAGER						SOURCE NO. WA-025-2		MATERIAL SIZE		TO BE USED IN		R.I. NO.		REPORT NO.			
SAMPLED AT Medlan Sand Pile		DATE 7-9-2012		TIME 11:30 P.M.		TEST NO. 1		DATE		TIME		TEST NO.		DATE			
DAILY PRODUCTION AT TIME OF SAMPLE						<input checked="" type="checkbox"/> TON						<input type="checkbox"/> TON					
AMOUNT REPRESENTED BY TEST						<input type="checkbox"/> CY.						<input type="checkbox"/> CY.					
AMOUNT INCORPORATED																	
AMOUNT REJECTED																	
SIEVE ANALYSIS						<input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY						<input type="checkbox"/> WET <input type="checkbox"/> DRY					
SIEVE SIZE		SPEC.		RETAINED		PASS		RETAINED		PASS		RETAINED		PASS			
				WEIGHT		%		WEIGHT		%		WEIGHT		%			
#4		100		8		100											
#10		95-100		2.9		100											
#20		80-100		112.8		11		89									
#30		45-85		298.7		30		70									
#50		15-60		528.7		52		48									
#100		3-15		878.2		87		13									
#200		4.0-20		974.6		96.6		3.4									
PAN		866.2		92.1													
INITIAL WT.		1009.1				100				100				100			
10-0/4.0																	
40-0/10-0																	
100-0/10-0																	
FRACTURE		Percent Finer Than #200															
ALONG		Lost by Washing: 1.3%															
WOODWASTE																	
SAND EQUIV.																	
FRIABLE																	
CY																	

CIRCLE ALL FAILING RESULTS

OK
B.J. [Signature]

8/1/12

SAND EQUIVALENT TESTS		TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Time of test										
1	Height of Rod (sand) (inches)									
2	Height of suspended clay material (inches)									
Sand Equivalent = $\frac{\text{Line 1}}{\text{Line 2}} \times 100$										
Average*										

*Take average of three tubes when sand equivalent is failing or within 5 points of failing and report as a single test. Report a fractional SE value as the next highest whole number. Example SE=41.2=42, Ex SE=(42+44+41)÷3=42.3=43.

PREPARED AND TESTED BY [Signature] <input type="checkbox"/> HIGHWAY DIVISION EMPLOYEE <input checked="" type="checkbox"/> CONTRACTOR EMPLOYEE <input type="checkbox"/> OTHER (EXPLAIN)	REMARKS - LET TIME AND EXTENT OF DELAYS, PLANT CHANGES, ETC This sieve analysis was done in accordance with ASTM C-136, Standard Methods for sieve analysis of Fine and Coarse aggregate and in conjunction and accordance with ASTM C-117, Standard Test Method for materials finer than No. 200 sieve in mineral aggregate by washing.
REVIEWED BY CONTRACTOR	REVIEWED BY PROJECT MANAGER

OK - B.J. [Signature] 8/1/12

FIELD WORK SHEET FOR AGGREGATE

PROJECT NAME (SECTION)						CONTRACT NO.											
HIGHWAY						COUNTY						F.A. NO.					
CONTRACTOR OR SUPPLIER Naselle Rock & Asphalt Co.						SOURCE NAME Naselle Quarry											
PROJECT MANAGER						SOURCE NO. WA-025-2		MATERIAL SIZE		TO BE USED IN		B. I. NO.		REPORT NO.			
Medium Sand		DATE 7-9-2012	TIME 1:30 P.M.	TEST NO. 1	DATE	TIME	TEST NO.	DATE	TIME	TEST NO.	DATE	TIME	TEST NO.				
SAMPLED AT Pile																	
DAILY PRODUCTION AT TIME OF SAMPLE		<input checked="" type="checkbox"/> TON		<input type="checkbox"/> TON		<input type="checkbox"/> TON		<input type="checkbox"/> TON		<input type="checkbox"/> TON		<input type="checkbox"/> TON					
AMOUNT REPRESENTED BY TEST		<input type="checkbox"/> C.Y.		<input type="checkbox"/> C.Y.		<input type="checkbox"/> C.Y.		<input type="checkbox"/> C.Y.		<input type="checkbox"/> C.Y.		<input type="checkbox"/> C.Y.					
AMOUNT INCORPORATED																	
AMOUNT REJECTED																	
SIEVE ANALYSIS		<input checked="" type="checkbox"/> WET <input type="checkbox"/> DRY		<input type="checkbox"/> WET <input type="checkbox"/> DRY		<input type="checkbox"/> WET <input type="checkbox"/> DRY		<input type="checkbox"/> WET <input type="checkbox"/> DRY		<input type="checkbox"/> WET <input type="checkbox"/> DRY		<input type="checkbox"/> WET <input type="checkbox"/> DRY					
SIEVE SIZE	SPECS.	RETAINED		PASS		RETAINED		PASS		RETAINED		PASS					
		WEIGHT	%	%		WEIGHT	%	%		WEIGHT	%	%					
3/8"	100	0		100													
#04	95-100	2.9		100													
#08	80-100	112.8	11	89													
#16	45-85	298.7	30	70													
#30	15-60	528.7	52	48													
#50	3-15	878.2	87	13													
#100	4.0 Max	974.6	96.6	3.4													
PAN	866.2	996.1															
INITIAL WT.	1009.1		100				100					100					
10-0/1/2-0		/			/			/			/						
40-0/10-0		/			/			/			/						
200-0/10-0		/			/			/			/						
FRACTURE	Percent Finer Than #200																
ELONG.	Lost by Washing: 1.3%																
WOODWASTE																	
SAND EQUIV.																	
FRIABLE																	
CV																	

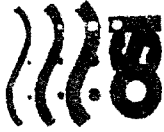
CIRCLE ALL FAILING RESULTS

FM

SAND EQUIVALENT TESTS		TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE	TUBE
Time of test										
1	Height of Rod (sand) (inches)									
2	Height of suspended clay material (inches)									
Sand Equivalent = $\frac{\text{Line 1}}{\text{Line 2}} \times 100$										
Average*										

*Take average of three tubes when sand equivalent is failing or within 5 points of failing and report as a single test. Report a fractional SE value as the next highest whole number. Example SE=41.2=42. Ex. SE=(42+44+41)+3=42.3=43.

PREPARED AND TESTED BY L. E. Willard	REMARKS - LIST TIME AND EXTENT OF DELAYS, PLANT CHANGES, ETC. This sieve analysis was done in accordance with ASTM C-136, Standard Methods for sieve analysis of Fine and Course aggregate and in conjunction and accordance with ASTM C-117, Standard Test Method for materials finer than No. 200 sieve in mineral aggregate by washing.
<input type="checkbox"/> HIGHWAY DIVISION EMPLOYEE <input checked="" type="checkbox"/> CONTRACTOR EMPLOYEE <input type="checkbox"/> OTHER (EXPLAIN)	REVIEWED BY CONTRACTOR _____ REVIEWED BY PROJECT MANAGER _____



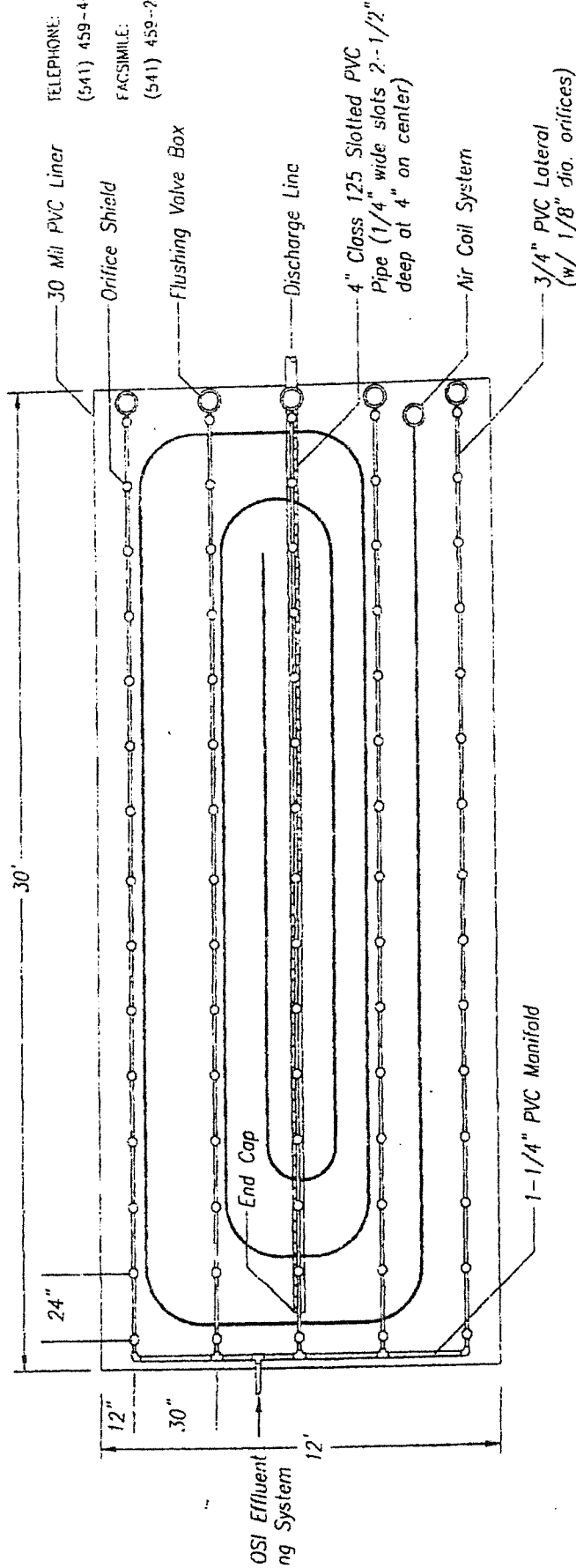
Orencia Systems®
Incorporated

814 AIRWAY AVENUE
SUTHERLIN, OREGON
97479-9012

TELEPHONE:
(541) 459-4449
FACSIMILE:
(541) 459-2884

30' Intermittent Sand Filter* with Gravity Discharge

rated for loading rates up to 1.25 GPD/FT.² Follow appropriate intermittent sand filter design criteria.

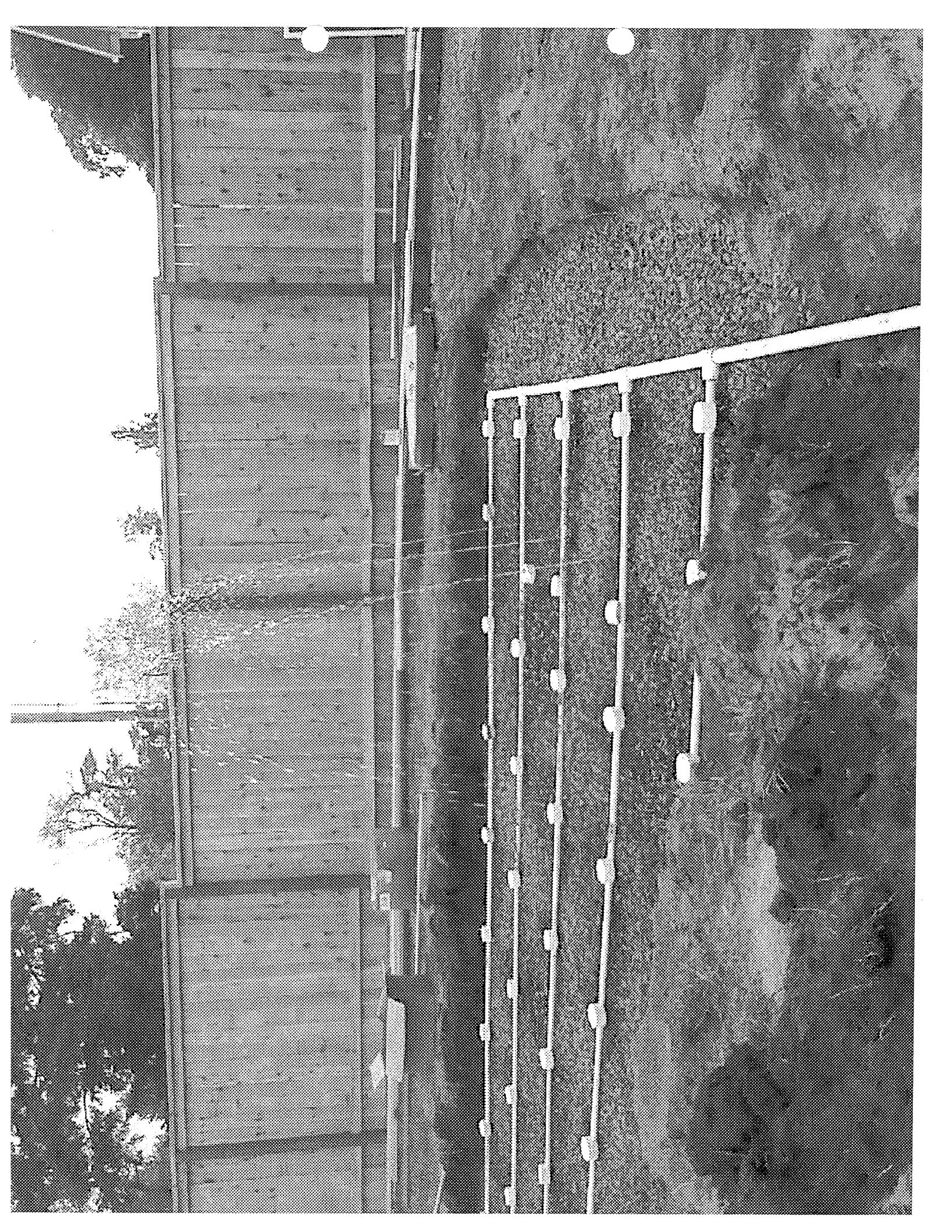


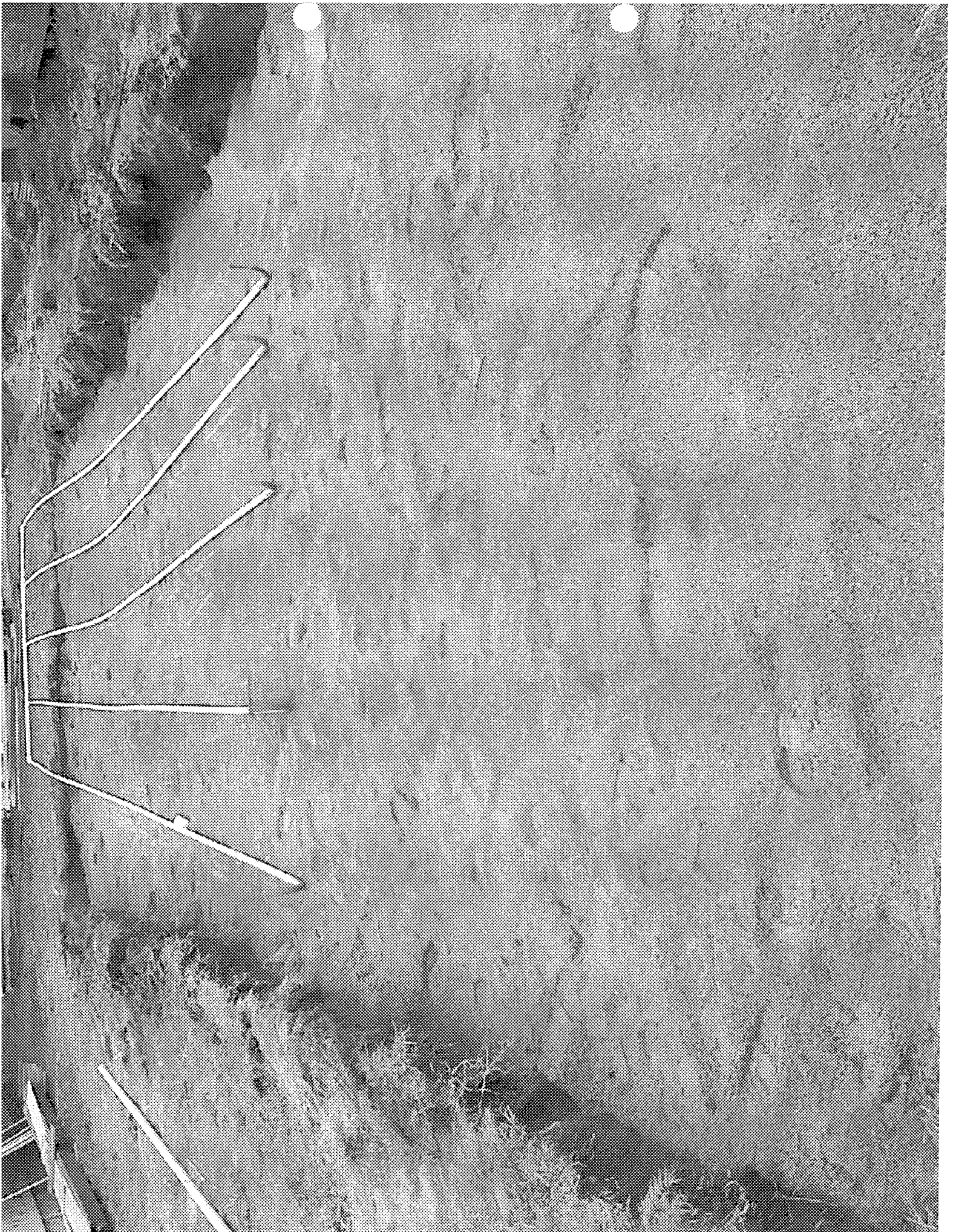
TOP VIEW - 12'X30' GRAVITY DISCHARGE SAND FILTER

SCALE: 1" = 5'-0"

Note: See additional details on
EDW-ISF-S-3

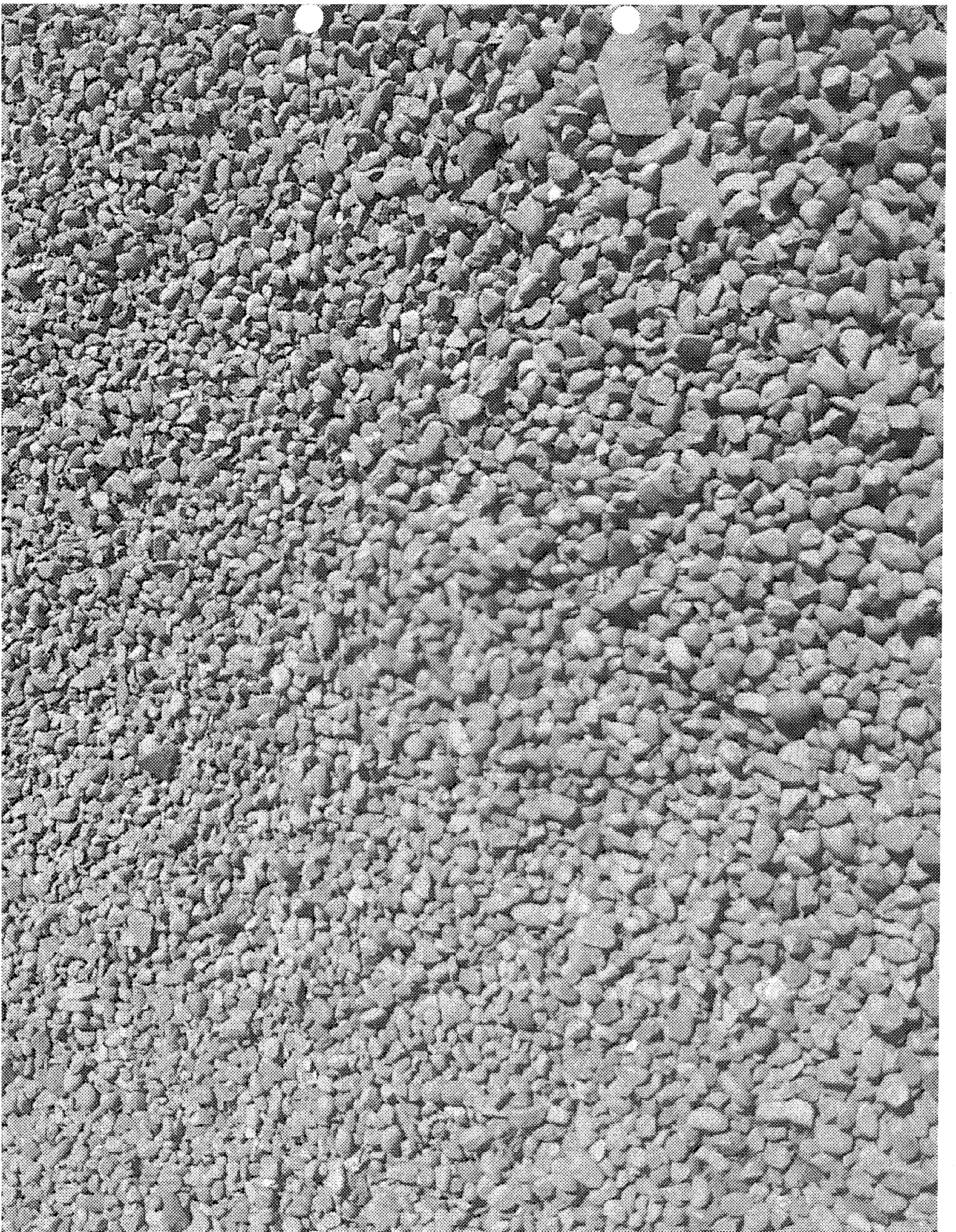


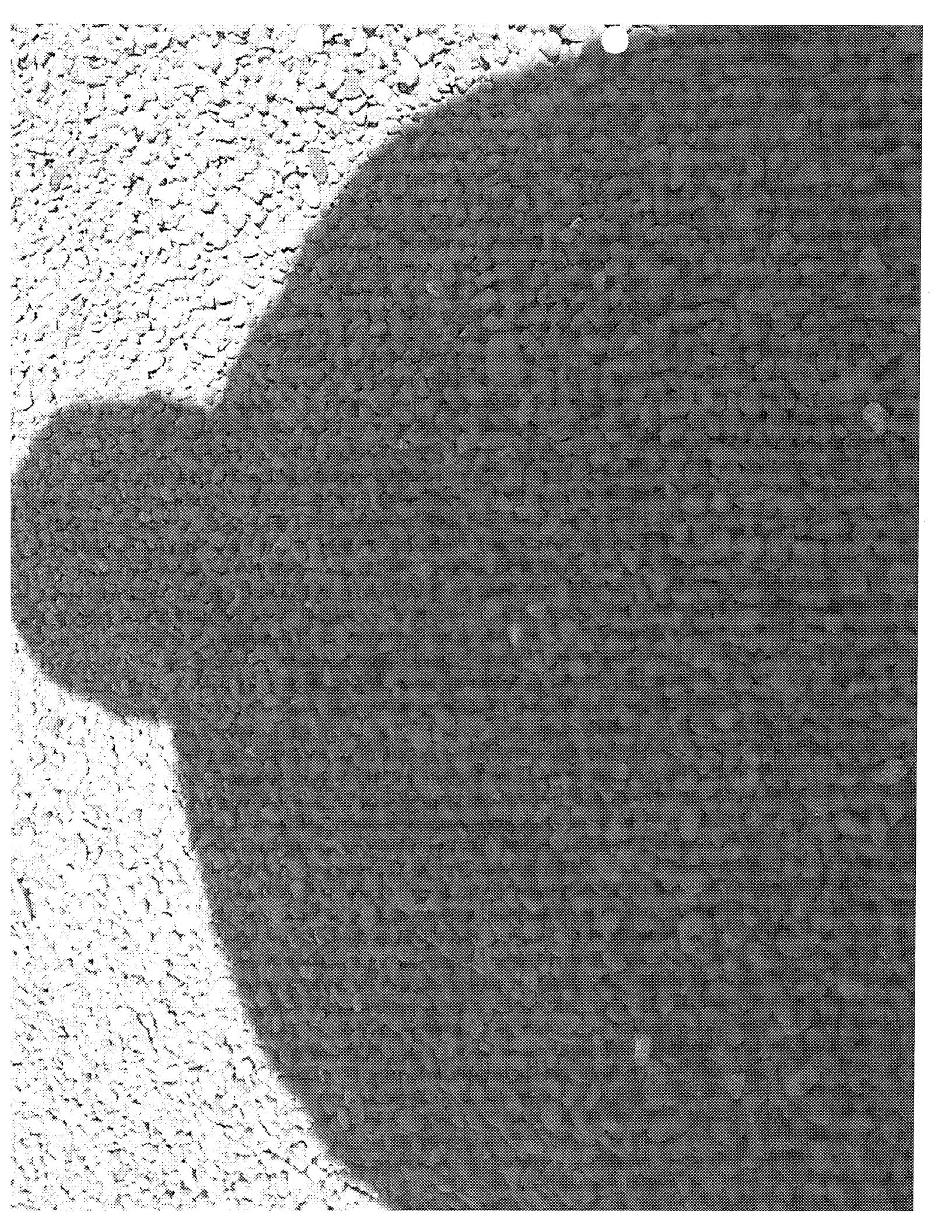




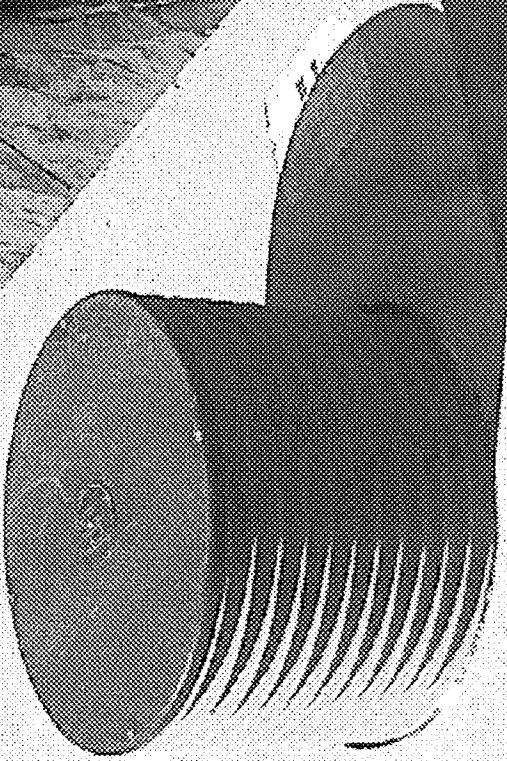
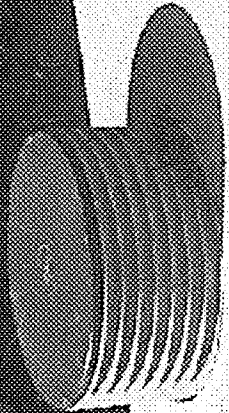












770052
5-10-42

State of Oregon
Department of Environmental Quality

Onsite ID: OS411797
Expiration Date: 6/15/2013

Construction-Installation Permit

This Construction-Installation Permit OS411797 authorizes the property owner to construct an onsite wastewater system as follows:

PROPERTY INFORMATION

Property Owner: Romine Construction LLC; Ray Romine Clatsop County
Property Location 4141 Hwy. 101 N., Gearhart Township 06N, Range 10W, Section 03 BD
Facility Type: Single Family Dwelling Tax Lot 3300
3 Bedrooms

SPECIFICATIONS AND REQUIREMENTS

System Type: Sand Filter: Bottomless - Residential

Design Flow: 450 gals/day
Minimum Septic Tank Size: 1500 gals
Distribution Type: Pressurized
Sand Filter: 360 SqFt
Media Type: Rock and Pipe
Maximum Trench Depth: 36 inches
Minimum Trench Depth: 0 inches

ADDITIONAL CONDITIONS

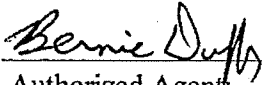
- 1 Green tracer wire required.
- 2 Maintain 5 ft setback tank to sand filter.
- 3 Submit current sieve analysis for sand filter media and underdrain media prior to construction of the sand filter.
- 4 The alarm and pump must be on separate circuits in the control panel.
- 5 The system must be installed by the property owner or a licensed sewage disposal business (installer).
- 6 The system must be installed in accordance with the plan approved by the agent, including any changes made by the agent.
- 7 Vehicular traffic and livestock must be restricted from the system area.
- 8 Meet all required setbacks.
- 9 An electrical permit and inspection from the Department of Consumer and Business Services, Building Codes Division or the municipality with jurisdiction is required for all pump wiring installation.
- 10 All work is to conform to Oregon Administrative Rules, Chapter 340, Divisions 071 and 073. Make no changes in system location or specifications without written approval from the permit issuing agent.

SCANNED
JUN 15 2012

INSPECTION REQUIREMENTS

- 1 A final inspection is required after landscaping or other erosion control measures are established.
- 2 A final inspection request and notice form including a detailed and accurate as-built plan of the constructed system and a list of all materials used in the construction of the system must be completed and submitted prior to requesting a final inspection.
- 3 A squirt test inspection of the pressurized piping system is required.

For pre-cover inspection information, contact your agent below:

	Onsite Wastewater Specialist	6/15/2012	6/15/2013
Authorized Agent:	Title	Date Issued	Expiration Date
Bernie Duffy			

Department of Environmental Quality
Northwest Region, Warrenton Office
65 N Highway 101, Suite G
Warrenton, OR 97146
Phone: (503) 861-3280
Fax: (503) 861-3259

See the Attachment 1 for additional information about your permit.

Hartman Construction Co.

Material list *Ray Romine - Heritage lot #5*

Pipe & Fittings

- 1 1/4" PVC sch 40
- 4" 3034 pvc pipe
- 4" 3034 fittings

Tanks

- Willamette Graystone 2 compartment 1500 gal dosing / septic
- Willamette Graystone 500 gal dosing
- Willamette Graystone 1000 septic

w/ Risers

Risers

- Orenco
- Norwesco
- Michaels

To be installed according to approved
plan of permit # OS 401797

Bernie J. Duffy 6/15/12
Bernie J. Duffy Date
Natural Resource Specialist
Department of Environmental Quality

Pumps & Supplies

- Franklin 30 GPM Pump
- Orenco Floats & Alarms
- Orenco Effluent Screen

Drain Media

- Naselle Sand & Gravel DEQ Sand
- Teevin 1 1/2" Drain Rock
- Mohler Pee - Gravel

Fabric

- Typar

Drain Field

- Arch 18 Chambers
- Willamette Graystone Drop Box
- Willamette Graystone Serial D - Box

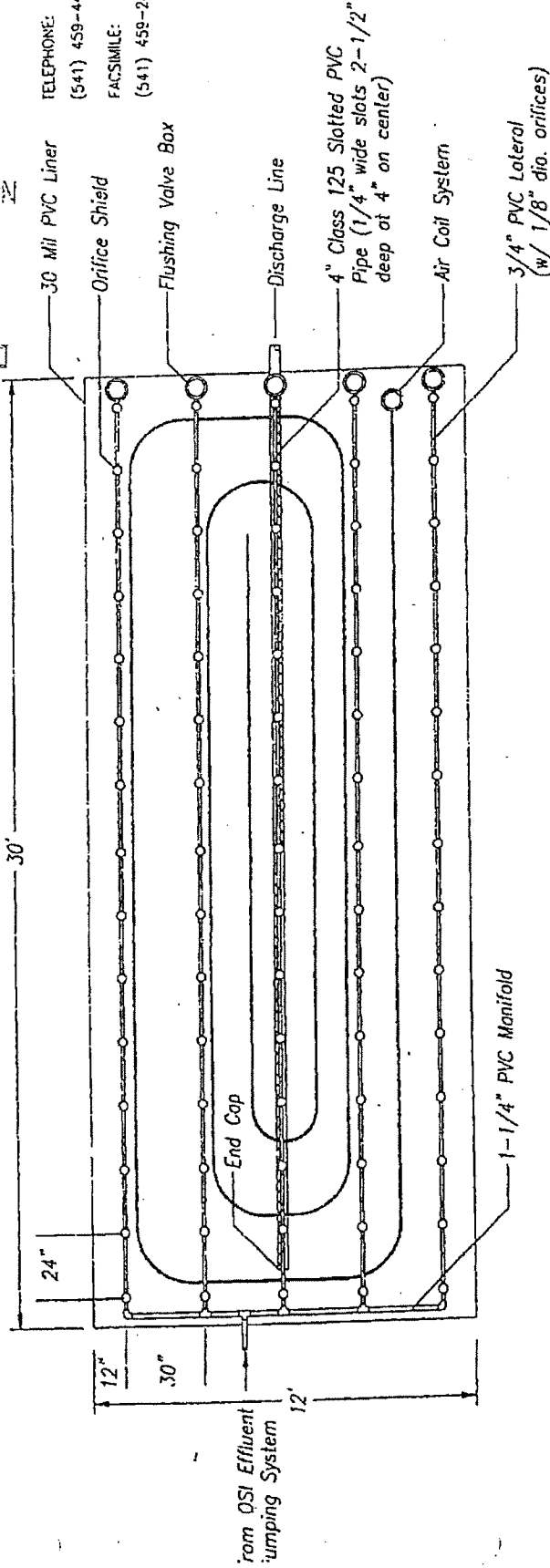
DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON

12'x30' Intermittent Sand Filter* with Gravity Discharge

configured for loading rates up to 1.25 GPD/FT.² Follow appropriate intermittent sand filter design criteria.

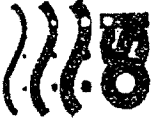


To be installed according to approved plan of permit # 05411797

Bernie Duffy 6/15/12
 Bernie J. Duffy Date
 Natural Resource Specialist
 Department of Environmental Quality

TOP VIEW - 12'X30' GRAVITY DISCHARGE SAND FILTER
 SCALE 1"=3'-0"

Note: See additional details on EDW-ISF-S-3



Oranco Systems®
 Incorporated

814 AIRWAY AVENUE
 SUTHERLIN, OREGON
 97479-9612

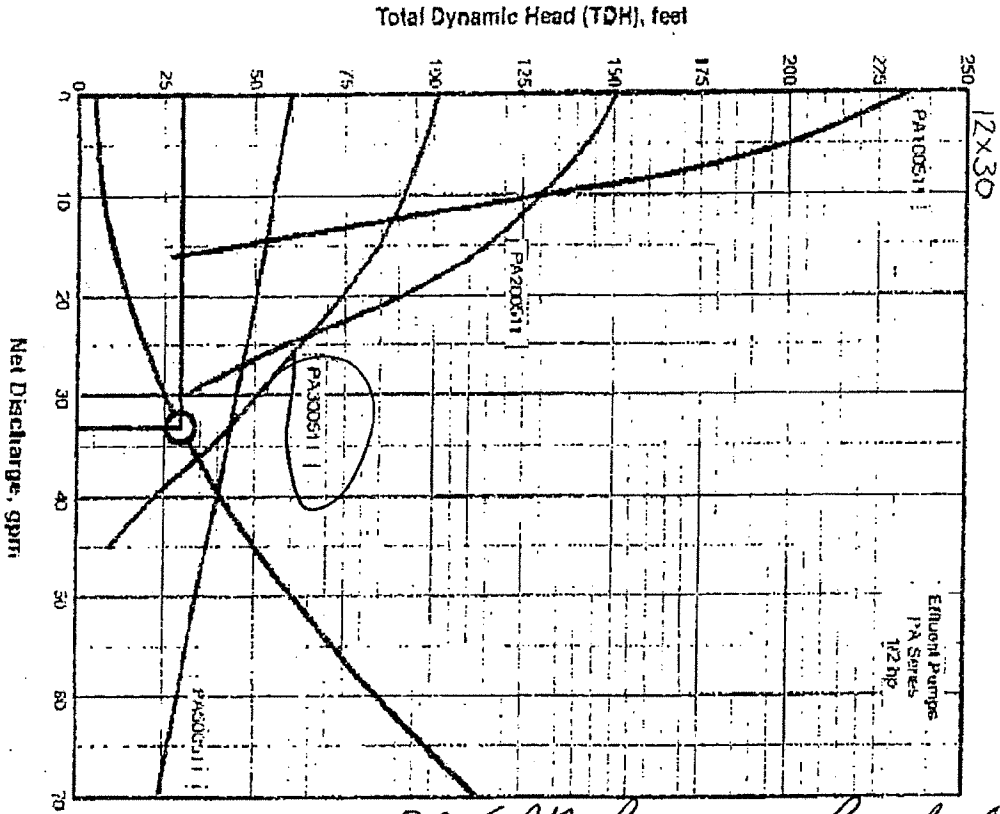
TELEPHONE:
 (541) 459-4449
 FACSIMILE:
 (541) 459-2884

DEPT. OF ENVIRONMENTAL QUALITY
 RECEIVED
 JUN 11 2012
 NORTH COAST RANCH OFFICE
 WARMSPRING

Pump Selection for a Pressurized System

Input Parameters:	
Orifice Size	1/8 inches
Residual Head at Last Orifice	5.0 feet
Orifice Spacing	200 feet
Number of Laterals per Cell	5
Lateral Length	28.0 feet
Lateral Line Size	0.75 inches
Lateral Pipe Class/Schedule	40
Distributing Valve Material	None
Manifold Length	12.0 feet
Manifold Line Size	1.25 inches
Manifold Pipe Class/Schedule	40
Lift to Manifold	5.0 feet
Transport Length	20.0 feet
Transport Line Size	1.25 inches
Transport Pipe Class/Schedule	40
Discharge Assembly Size	1.25 inches
Flow Meter	None inches
Additional Friction Losses	10.0 feet

Calculations:	
Maximum Flow Rate per Orifice	0.43 gpm
Number of Orifices per Zone	76
Total Actual Flow Rate	33.1 gpm
Number of Lines per Zone	5
% Flow Differential 1st and Last Orifice	7.5 %
Lift to Manifold	5.0 feet
Residual Head at Last Orifice	5.0 feet
Head Loss in Lateral	1.0 feet
Head Loss Through Distributing Valve	0.0 feet
Head Loss in Manifold	0.4 feet
Head Loss in Transport Pipe	2.7 feet
Head Loss Through Discharge	5.5 feet
Head Loss Through Flow Meter	3.0 feet
Additional Friction Losses	10.0 feet
Total Flow Rate	33.1 gpm
TDH	29.6 feet



30 GPM Pump per Ray R 6/15/12

To be installed according to approve plan of permit # 05 411797

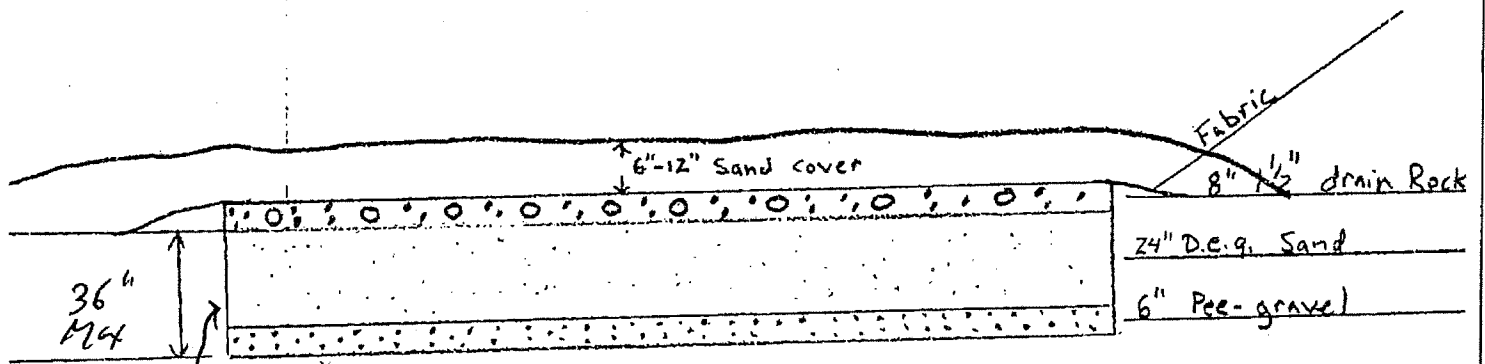
Bernie J. Duff 6/15/12
Bernie J. Duff Date

Natural Resource Specialist
Department of Environmental Quality

PA200S11
PA300S11
PA600S11
Ethanol Pumps
PA Series
1/2 hp

877
DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON



36"
Max

36" Max depth

Plywood

Submit Current sieve analysis
for sand +
Under drain media
prior to construction

To be installed according to approved
plan of permit # 05411797
Bernie J. Duffy 6/15/12
Bernie J. Duffy Date
Natural Resource Specialist
Department of Environmental Quality

DEPT. OF ENVIRONMENTAL QUALITY
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JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON



Application for Onsite Sewage Treatment System

Department of Environmental Quality
65 N Highway 101, Suite G
Warrenton, OR 97146

Phone/TTY: (503) 861-3280
Fax: (503) 861-3259

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED
JUN 11 2012
NORTH COAST BRANCH OFFICE
WARRENTON

For DEQ Use Only:
Date Received 6/11/2012
Fee Paid 1580.00
Receipt Number 149714
Application Number 413328
Date of 1st Response _____
Date of 2nd Response _____
Date of Final Response _____
Date of Completion _____
Scanned _____ Data Entry _____

A. Property Owner Information

Ray Romine 2170 Skyline Dr 503-440-9561
Name Mailing Address (Street or PO Box, City, State, Zip Code) Phone Number

B. Legal Property Description

6 10 3BD 3300 _____
Township Range Section Tax Lot _____
County _____ Subdivision Name _____ Lot 5 Block _____
Property Address: South 101 to Hillside Rd Left on Heritage way 97138
Address City Gearhart OR State Zip Code

Directions to Property: _____

C. Existing Facility / Proposed Facility / Water Information

Existing Facility: Single Family Residence
Number of Bedrooms _____
 Other _____

Proposed Facility: Single Family Residence
Number of Bedrooms 3
 Other _____

Water Supply: Public Gearhart
Name _____
 Private _____
Well, Spring, Shared _____

D. Type of Application

Site Evaluation Renewal Permit Authorization Notice for:
 Construction Permit Existing System Evaluation Connecting to an Existing System Not in Use
 Repair Permit Permit Transfer Replacing a Mobile Home or House with Another Mobile Home or House
 Major Minor Permit Reinstatement The Addition of One or More Bedrooms
 Alteration Permit Personal Hardship
 Major Minor Temporary Housing
 Other - Please Specify _____

If the required fee and attachments are not included with this application, it will be returned to you as incomplete. Post a flag or sign with your name and address at the entrance to the property. Flag and number the test holes.

By my signature, I certify that the information I have furnished is correct, and hereby grant the Department of Environmental Quality and it's authorized agents permission to enter onto the above described property for the sole purpose of this application.

Ray Romine 6/6/12
Signature Date
Ray Romine 503-440-9561 _____
Applicant's Name - Please Print Legibly Applicant's Phone Number Applicant's E-mail Address
2170 Skyline Dr Seaside OR 97138
Applicant's Mailing Address

Applicant is the Owner Authorized Representative Licensed Septic Installer
 Authorization Attached Dean Hartman
Installer's Name

DEPT. OF ENVIRONMENTAL QUALITY

SECTION 1 - TO BE COMPLETED BY APPLICANT (may be filled in electronically by tabbing to each field)

1. Applicant Name/Property Owner: Ray Romine JUN 11 2012
 Mailing Address: 2170 Skyline Dr
 City, State Zip Code: Seaside OR 97138 NORTH COAST BRANCH OFFICE
 Telephone: 503-440-9561 WARRENTON

2. Property Information:

County: Clatsop Tax Lot No.: 3300
 Township: 6 Range: 10 Section: 3B
 Physical Address: _____
 Block: _____ Lot: 5
 Subdivision Name (if applicable): Heritage Dunes

3. This proposed facility is for:

- An individual, single-family dwelling
- Describe the type of development, business, or facility and the provided services or products: _____

4. Permit or approval being requested:

- Construction-Installation permit for: New Construction Repair Alteration
- Non-water-carried facility requests (for example, pit privy/vault toilet for campgrounds)
- Authorization Notice for: Replacement of dwelling Bedroom addition
- Other changes in land use involving potential sewage flow increases

Print Form

SECTION 2 - TO BE COMPLETED BY CITY OR COUNTY PLANNING OFFICIAL

5. Property Zoning: R-1 Zoning Minimum Parcel Size: 10,000 sq ft

6. The facility is located: inside city limits inside UGB outside UGB

If inside UGB, the proposed facility is subject to:

- City jurisdiction County jurisdiction Shared City/County jurisdiction

7. Does the proposed facility comply with all applicable local land use requirements: Yes No

If you answered "Yes" above, was this compliance based on:

- Compliance with local comprehensive plans and land use requirements (provide a citation to the applicable provisions)
- Conditional approval (provide findings and citation or attach a copy of the applicable land use decision)
- Measure 49 waiver (provide Department of Land Conservation and Development approval number)

Either provide reasons for affirmative compliance decision or attach findings of fact: _____

8. Planning Official Signature: [Signature]

Print Name: Chad Sweet Date: 12/12/11

Title: City Administrator Telephone: 503-755-5501

503-861-3259

Hartman Construction Co.

Material list

Ray Romine - Heritage lot #5

Pipe & Fittings

- 1 1/4" PVC sch 40
- 4" 3034 pvc pipe
- 4" 3034 fittings

Tanks

- Willamette Graystone 2 compartment 1500 gal dosing / septic
- Willamette Graystone 500 gal dosing
- Willamette Graystone 1000 septic

Risers

- Orenco
- Norwesco
- Michaels

Pumps & Supplies

- Franklin
- Orenco Floats & Alarms
- Orenco Effluent Screen

Drain Media

- Naselle Sand & Gravel DEQ Sand
- Teevin 1 1/2" Drain Rock
- Mohler Pee - Gravel

Frabric

- Typar

Drain Field

- Arch 18 Chambers
- Willamette Graystone Drop Box
- Willamette Graystone Serial D - Box

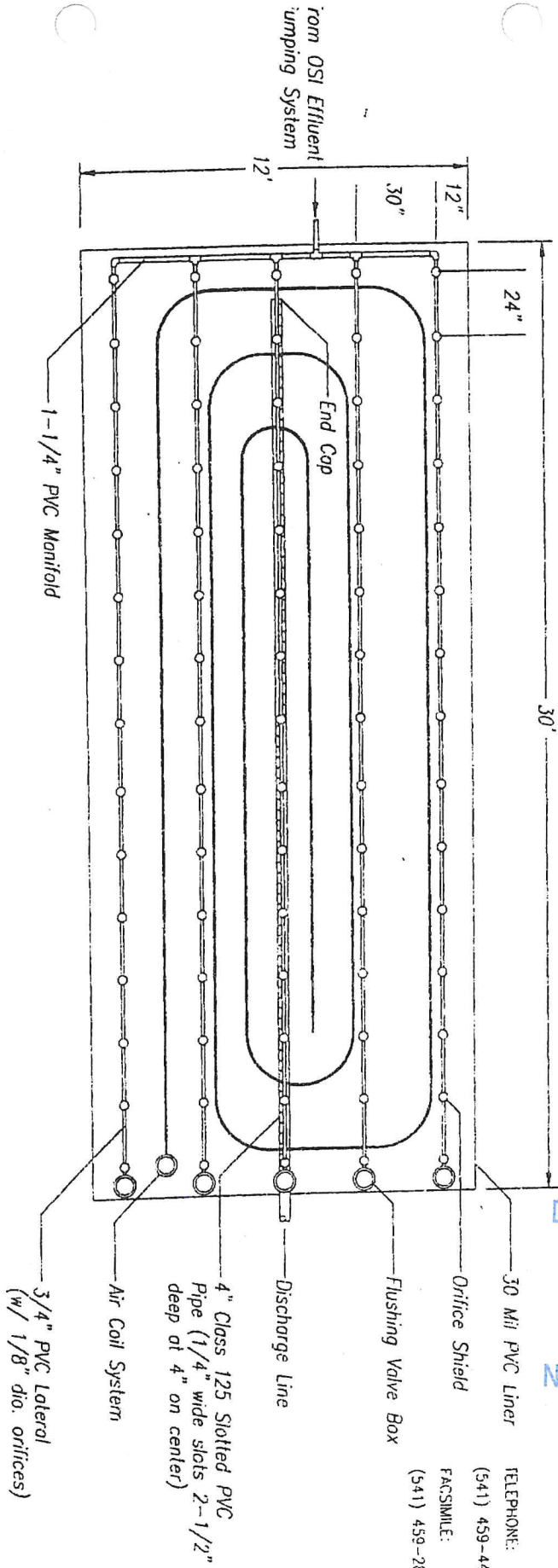
DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON

12'x30' Intermittent Sand Filter* with Gravity Discharge

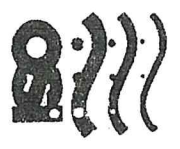
Configured for loading rates up to 1.25 GPD/FT.² Follow appropriate intermittent sand filter design criteria.



DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRINTON



Orenco Systems®
Incorporated

814 AIRWAY AVENUE
SUTHERLIN, OREGON
97479-9012

TELEPHONE:
(541) 459-4449
FACSIMILE:
(541) 459-2884

TOP VIEW - 12'x30' GRAVITY DISCHARGE SAND FILTER

SCALE: 1" = 5'-0"

Note: See additional details on
EDW-ISF-S-3

Pump Selection for a Pressurized System

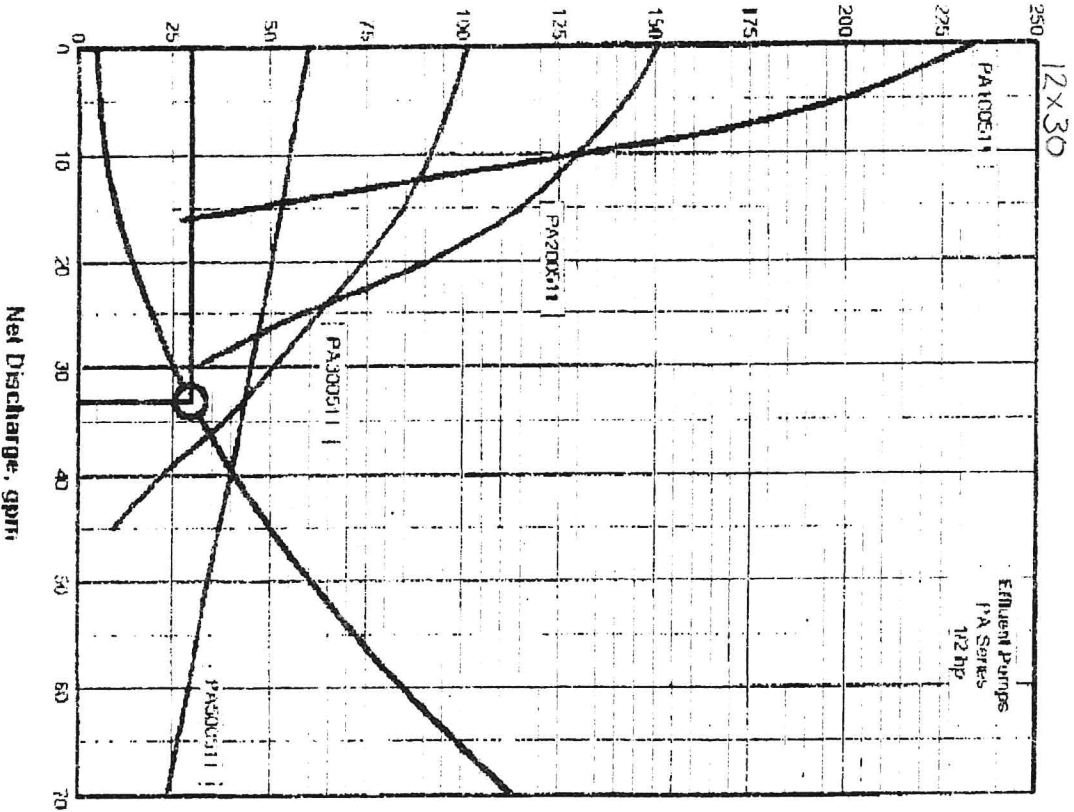
Input Parameters

Orifice Size	1/8 inches
Residual Head at Last Orifice	5.0 feet
Orifice Spacing	2.00 feet
Number of Laterals per Cell	5
Lateral Length	28.0 feet
Lateral Line Size	0.75 inches
Lateral Pipe Class/Schedule	40
Distributing Valve Model	None
Manifold Length	12.0 feet
Manifold Line Size	1.25 inches
Manifold Pipe Class/Schedule	40
Lift to Manifold	5.0 feet
Transport Length	20.0 feet
Transport Line Size	1.25 inches
Transport Pipe Class/Schedule	40
Discharge Assembly Size	1.25 inches
Flow Meter	None
Additional Friction Losses	13.0 feet

Calculations

Minimum Flow Rate per Orifice	0.43 gpm
Number of Orifices per Zone	76
Total Actual Flow Rate	33.1 gpm
Number of Lines per Zone	5
% Flow Differential 1st and Last Orifice	7.6 %
Lift to Manifold	5.0 feet
Residual Head at Last Orifice	5.0 feet
Head Loss in Laterals	1.0 feet
Head Loss Through Distributing Valve	0.3 feet
Head Loss in Manifold	0.4 feet
Head Loss in Transport Pipe	2.7 feet
Head Loss Through Discharge	5.5 feet
Head Loss Through Flow Meter	3.0 feet
Additional Friction Losses	13.0 feet
Total Flow Rate	33.1 gpm
TDH	29.6 feet

Total Dynamic Head (TDH), feet

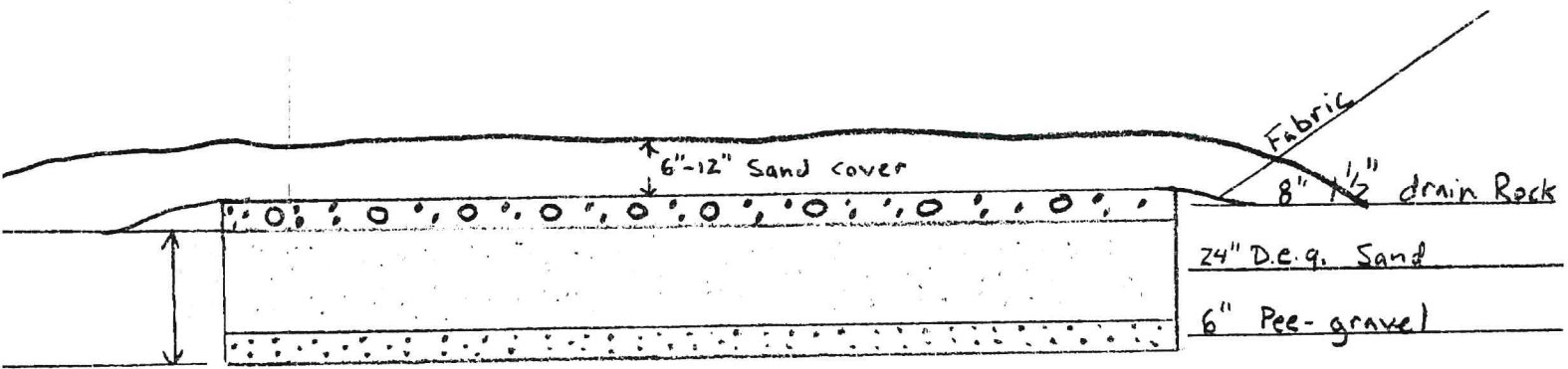


DEPARTMENT OF ENVIRONMENTAL QUALITY
RECEIVED

JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON

314 AIRWAY AVENUE
SUTHERLAND OREGON
97143
TEL: 503-488-3815
FAX: 503-488-3815
WWW.OREGONSYSTEMS.COM



DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON



Receipt Number: 149716

Oregon Department of Environmental Quality
Warrenton Office
65 N Highway 101, Suite G
Warrenton, OR 97146

Date Received 6/11/2012

Received From **Romine Construction LLC**
(Check Name): **Ray Romine**
2170 Skyline Drive
Seaside, OR 97138

For **T06N R10W S03 BD**
Property **TaxLot 3300**
At: **Clatsop County**
4141 Hwy. 101 N.
Gearhart, OR 97138
Lot 5, Heritage Dunes

Current Payment

Amount Paid	Payment Type	Check # Money Order # Purchase Order	Bank Number	Amount Applied
1,580.00	Check	2742	24-22	1,580.00

Total Amount Applied \$1,580.00

Onsite Fees

Base Fee: **1,520.00**
 Surcharge Fee: **60.00**
 Plan Review Flow Fee:
 Pump Evaluation Fee:
 Flow Fee:
 Reinspection Fee:

Total Fee \$1,580.00

Application Description

Application ID: **413328**
 Application Type: **Construction-Installation Permit**
Single Family Dwelling
 System Type: **Sand Filter: Bottomless - Residential**
 Pump Evaluation: **No**
 Flow: **450** gallons/day

Payments

Previous Payments: **0.00**
 Current Payment: **1,580.00**
 Over Payment: **0.00**

Total Payments: \$1,580.00

Receipt Amount: \$1,580.00

Received By:

Vicky Schiele

Date of Entry:

6/11/2012

DEPT. OF ENVIRONMENTAL QUALITY
RECEIVED

JUN 11 2012

NORTH COAST BRANCH OFFICE
WARRENTON

Scan ID
412694

RETURN APPLICATION TO:
Warrenton Office
65 N Highway 101, Suite G
Warrenton, OR 97146
(503) 861-3280

**Application
For
Return of Fees**

DEQ USE ONLY

Oregon Department of Environmental Quality

Applicant Information

1. Name and Address of Applicant Who Paid Fee

**Romine Construction LLC
Ray Romine
2170 Skyline Drive
Seaside, OR 97138**

2. 147227 1,580.00 12/12/2011 4836
Receipt No. Original Receipt Receipt Date Deposit No.

Payment Type	Number	Amount
Check	2732	1,580.00

3. **Amount of Refund: \$1,520.00**

I hereby request that my application

Located at

Application ID: **412694**

Application Type: **Construction-Installation Permit**

Application SubType: **Single Family Dwelling**

Type of System: **Sand Filter: Bottomless - Residenti**

Commercial:

Pump: **No**

Flow in Gallons: **450**

T06N R10W S03

Tax Lot 3300

Clatsop County

4141 Hwy. 101 N.

Gearhart, OR 97138

Lot 5 Heritage Dunes

be withdrawn, and \$1,520.00 of the fees be returned.

I understand that a return of fees paid is subject to review by the Department to determine conformance with the refund provisions as contained in the Oregon Revised Statute 293.445.


Signature of Applicant Who Paid Fee

Owner
Title

12/22/11
Date

DEQ PROGRAM USE ONLY

I certify that no field work or any other substantial work associated with the application identified above has been performed.

The application identified above was submitted in error.

Other explanation for return of fee: **Can not build house at this time.**



WQ Manager
Title

12/19/2011
Date

Michael Kucinski

Title

Date

DEQ FISCAL USE ONLY

T-Code 220 FY: _____ Index _____ PCA: _____

Agency Obj.: _____ Amount: _____ Authorized: _____

SCANNED
FEB 10 2012



State of Oregon
Department of
Environmental
Quality

Application for Onsite Sewage Treatment System

Department of Environmental Quality
65 N Highway 101, Suite G
Warrenton, OR 97146

Phone/TTY: (503) 861-3280
Fax: (503) 861-3259

Date Stamp: **DEC 13 2011**

For DEQ Use Only:
Date Received 12/12/11
Fee Paid 1580.00
Receipt Number 147227
Application Number 412694
Date of 1st Response _____
Date of 2nd Response _____
Date of Final Response _____
Date of Completion _____
Scanned _____ Data Entry _____

Scan ID
412694

A. Property Owner Information

Name Ray Romine Mailing Address (Street or PO Box, City, State, Zip Code) 2170 Skyline Dr Phone Number 503-440-9561

B. Legal Property Description

Township 6 Range 10 Section 3BD Tax Lot 3300 Tax Account Number _____ Acreage or Lot Size _____
County _____ Subdivision Name _____ Lot 5 Block _____

Property Address: _____ Address _____ City _____ State _____ Zip Code _____

Directions to Property: South 101 to Hillside Rd Left then first left on Heritage Way Middle lot on Right

C. Existing Facility / Proposed Facility / Water Information

Existing Facility: Single Family Residence Other _____
Number of Bedrooms 3

Proposed Facility: Single Family Residence Other _____
Number of Bedrooms 3

Water Supply: Public Genehart Name _____
 Private _____
Well, Spring, Shared _____

D. Type of Application

Site Evaluation Renewal Permit Authorization Notice for:
 Construction Permit Existing System Evaluation Connecting to an Existing System Not in Use
 Repair Permit Permit Transfer Replacing a Mobile Home or House with Another Mobile Home or House
 Major Minor Permit Reinstatement The Addition of One or More Bedrooms
 Alteration Permit Major Minor Personal Hardship
 Temporary Housing
 Other - Please Specify _____

If the required fee and attachments are not included with this application, it will be returned to you as incomplete. Post a flag or sign with your name and address at the entrance to the property. Flag and number the test holes.

By my signature, I certify that the information I have furnished is correct, and hereby grant the Department of Environmental Quality and it's authorized agents permission to enter onto the above described property for the sole purpose of this application.

Signature [Signature] Date 12/12/11
Applicant's Name - Please Print Legibly Ray Romine Applicant's Phone Number 503-440-9561 Applicant's E-mail Address romine4@charter.com

Applicant's Mailing Address 2170 Skyline Dr Seaside OR 97138

Applicant is the Owner Authorized Representative Licensed Septic Installer
 Authorization Attached Dean Hartman Installer's Name

SECTION 1 - TO BE COMPLETED BY APPLICANT (may be filled in electronically by tabbing to each field)

1. Applicant Name/Property Owner: Ray Romine
 Mailing Address: 2170 Skyline Dr
 City, State Zip Code: Seaside OR 97138
 Telephone: 503-440-9561

2. Property Information:
 County: Clatsop Tax Lot No.: 3300
 Township: 6 Range: 10 Section: 3 B D
 Physical Address: _____
 Block: _____ Lot: 5
 Subdivision Name (if applicable): Heritage Dunes

3. This proposed facility is for:
 An individual, single-family dwelling
 Describe the type of development, business, or facility and the provided services or products: _____

4. Permit or approval being requested:
 Construction-Installation permit for: New Construction Repair Alteration
 Non-water-carried facility requests (for example, pit privy/vault toilet for campgrounds)
 Authorization Notice for: Replacement of dwelling Bedroom addition
 Other changes in land use involving potential sewage flow increases

Print Form

SECTION 2 - TO BE COMPLETED BY CITY OR COUNTY PLANNING OFFICIAL

5. Property Zoning: R-1 Zoning Minimum Parcel Size: 10,000 sqft

6. The facility is located: inside city limits inside UGB outside UGB
 If inside UGB, the proposed facility is subject to:
 City jurisdiction County jurisdiction Shared City/County jurisdiction

7. Does the proposed facility comply with all applicable local land use requirements: Yes No
 If you answered "Yes" above, was this compliance based on:

Compliance with local comprehensive plans and land use requirements (provide a citation to the applicable provisions)
 Conditional approval (provide findings and citation or attach a copy of the applicable land use decision)
 Measure 49 waiver (provide Department of Land Conservation and Development approval number)

Either provide reasons for affirmative compliance decision or attach findings of fact: _____

8. Planning Official Signature: [Signature]
 Print Name: Chad Sweet Date: 12/12/11
 Title: City Administrator Telephone: 503-756-5501

503-861-3259



Receipt Number: 147227

Oregon Department of Environmental Quality
Warrenton Office
65 N Highway 101, Suite G
Warrenton, OR 97146

Date Received 12/12/2011

Received From **Romine Construction LLC**
(Check Name): **Ray Romine**
2170 Skyline Drive
Seaside, OR 97138

For **T06N R10W S03**
Property **TaxLot 3300**
At: **Clatsop County**
4141 Hwy. 101 N.
Gearhart, OR 97138
Lot 5, Heritage Dunes

Current Payment

Amount Paid	Payment Type	Check # Money Order # Purchase Order #	Bank Number	Amount Applied
1,580.00	Check	2732	24-22	1,580.00

Total Amount Applied \$1,580.00

Onsite Fees

Base Fee:	1,520.00
Surcharge Fee:	60.00
Plan Review Flow Fee:	
Pump Evaluation Fee:	
Flow Fee:	
Reinspection Fee:	
Total Fee	\$1,580.00

Application Description

Application ID: **412694**
Application Type: **Construction-Installation Permit**
Single Family Dwelling

System Type: **Sand Filter: Bottomless - Residential**
Pump Evaluation: **No**
Flow: **450** gallons/day

Payments

Previous Payments:	0.00
Current Payment:	1,580.00
Over Payment:	0.00
Total Payments:	\$1,580.00

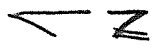
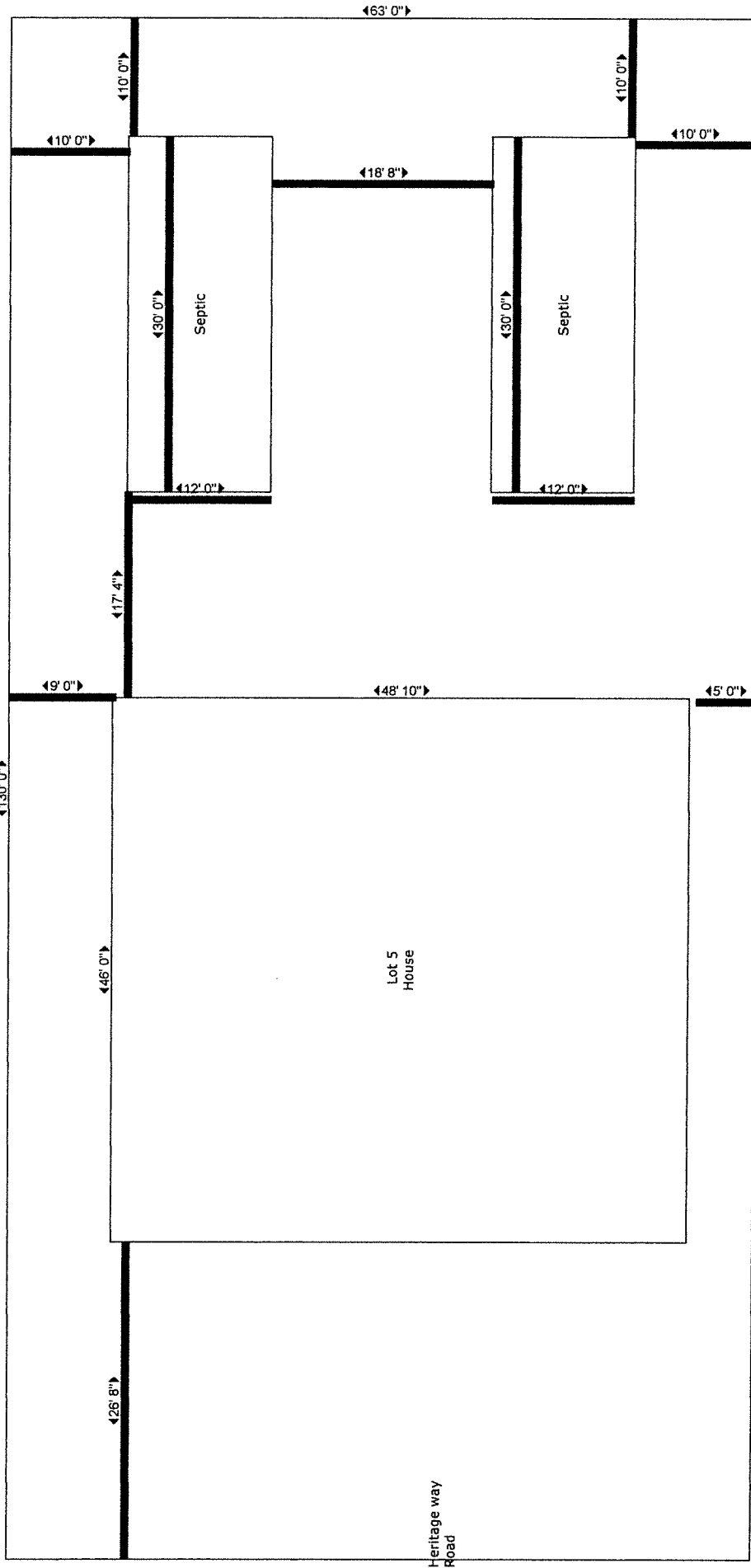
Receipt Amount: \$1,580.00

Received By:

Date of Entry:

Vicky Schiele

12/12/2011



Romine Construction LLC
 503-440-9561



Oregon

Theodore R. Kulongoski, Governor

Department of Environmental Quality

Northwest Region North Coast Branch Office

65 N Highway 101, Suite G

Warrenton, OR 97146

(503) 861-3280

FAX (503) 861-3259

February 26, 2008

Ray Romine
Romine Construction LLC
2170 Skyline Dr.
Seaside, OR 97138

IMPORTANT DOCUMENT – PLEASE READ CAREFULLY
-This is not a construction permit-

RE: **Site Evaluation Results – Site Approvals with Conditions**
Heritage Dunes Subdivision – Proposed Lots 1, 2, 3, 4, 5 and 6
T6N, R10W, S3BD; Tax Lot No. 3300, Clatsop County
Onsite Nos: 405599, 405600, 405601, 405602, 405603 and 405604

Dear Ray Romine:

The above-described properties were evaluated for suitability of onsite sewage disposal on the following date(s): February 21, 2008. Based on the evaluation, the following onsite wastewater treatment systems are approved for Lots 1, 2, 3, 4, 5 and 6 as follows:

Initial system: Bottomless Sand Filter
Replacement system: Bottomless Sand Filter

NOTE: Site development plans accompanied by physical stake-outs on each of the lots approved for onsite sewage disposal will be required for review and approval prior to issuance of any construction/installation permits.

Details of the site evaluations are included in the Site Evaluation Report that is enclosed.

Next Step – Applying for a Construction/Installation Permit

When you are ready to proceed with system construction, contact this office to get a permit application package. A permit must be issued by DEQ for each approved system before you can start construction.

Request for Site Evaluation Report Review or Request for Variance

If you believe that an error was made in the evaluation of your property, you may apply for a Site Evaluation Report Review within 60 days of the site evaluation report issue date at a cost of \$440. If you would like to apply for a Variance from one or more of the Onsite Wastewater Treatment System rules, you may apply for a Variance at a cost of \$1340. If you are interested in either of these actions, please contact the undersigned for more details before you proceed.

Best wishes on a successful project. If you have any other questions about this report, please feel free to call me at (503) 861-3280.

Sincerely,

Connie M. Schrandt

Connie M. Schrandt
Natural Resource Specialist

Enc: Site Evaluation Report

**Site Evaluation Report
For Onsite Wastewater Treatment System Suitability**

Site Location: T6N, R10W, S3BD; Tax Lot No. 3300, Clatsop County
Heritage Dunes Subdivision - Proposed Lots 1, 2, 3, 4, 5 and 6
Applicant: Ray Romine
Application Nos.: 406133, 406134, 406135, 406136, 406137 and 406138
Onsite Nos.: 405599, 405600, 405601, 405602, 405603 and 405604
Date(s) of Site Evaluation: February 21, 2008
DEQ Onsite Specialist: Connie M. Schrandt
Date of Report: February 26, 2008

General Description of Site Evaluations

Sewage contains disease-causing organisms and other pollutants that can cause adverse impacts to human health and the environment. An onsite wastewater treatment system must treat and dispose of sewage in a way that will not cause a public health hazard, contaminate drinking water supplies, or pollute public waters.

Proper treatment in an onsite system begins with primary treatment in the septic tank. The septic tank separates the solid particles in sewage from the liquid. The liquid that comes out of the septic tank is called effluent. The effluent may then be dispersed in the soil for further treatment or discharged into a secondary treatment device such as a sand filter or aerobic treatment unit prior to dispersal in the soil. For proper treatment, the effluent must slowly infiltrate into the underlying soil. Dissolved wastes and bacteria in the effluent are trapped or adsorbed to soil particles or decomposed by microorganisms. This process removes disease-causing organisms, organic matter, and most nutrients. Effluent that comes to the ground surface (through poor soils or other problems with the system) can be a possible health hazard because it may still contain some disease-causing organisms. Soil that drains too quickly may not give the effluent enough treatment and may result in groundwater contamination.

The purpose of the evaluation was to locate suitable soils in an area that is large enough for both the initial drainfield area and the replacement drainfield area. The criteria used for this site evaluation can be found in Oregon Administrative Rules (OAR) 340-071.

Soil test pits and other site features were evaluated during the site visit on February 21, 2008. For each lot, the following features were evaluated:

- Soil types - how well they drain and other evidence of good soil structure for treatment
- Depth to groundwater
- Wells located on the site or adjacent sites.
- Slopes, escarpments, ground surface variations, topography
- Creeks or springs on the site or adjacent properties
- Whether the soils have been disturbed
- Setbacks from property lines, buildings, water lines, and other utilities
- Other site features that could affect the placement of the onsite system.

Approved Systems

Based on the evaluation of the site and soil conditions, the following onsite wastewater treatment systems are approved for **Lots 1, 2, 3, 4, 5 and 6**:

Initial System: System Type: **Bottomless Sand Filter**
Minimum Septic Tank Size: 1000 gallons
Minimum Dosing Tank Size: 500 gallons
Distribution Method: Low Pressure
Minimum Base Area of Filter: 360 square feet
Maximum Filter Depth: Varies (see Field Worksheets)

Replacement System: Same as for Initial System.

The initial and replacement systems on each lot must be separated by 10 feet of undisturbed ground or by a reinforced concrete wall that is installed as part of the initial system. Also, above ground portions of the sand filter must be supported by a berm that extends out from the edges of the sand filter at a 2:1 slope, or by reinforced concrete walls.

NOTE: Site development plans accompanied by physical stake-outs on each of the lots approved for onsite sewage disposal will be required for review and approval prior to issuance of any construction/installation permits. The plans and stakeouts must demonstrate that there is adequate area to accommodate both initial and replacement disposal areas and that all required setbacks (to property lines, underground utilities, building foundations, surface waters, potential man-made cuts resulting from house placement and construction, etc.) can be maintained.

Attached are the Field Worksheets and Plot Plans that show the test pit locations and other details of the site evaluation on each lot.

Site Limitations

Many sites have limitations that will affect either the location of the onsite sewage system or the type of system that can be allowed. The following describes the limitations found in this evaluation.

Clatsop Plains Special Considerations

Description: For properties within the area generally known as the Clatsop Plains and *of less than one acre*, the approved onsite system shall be either a sand filter system or a pressurized distribution system with a design sewage flow not to exceed 450 gallons per day.

Rule requirement: OAR 340-071-0400(5)

Site conditions observed: **Lots 1, 2, 3, 4, 5 and 6** are each less than one acre in size.

Setback from property lines and building foundations

Rule requirement: Table 1, OAR 340-071. 10' setback required.

Description: The required property line setback allows construction of the system without trespass or damage to neighboring properties. The foundation line setback prevents too much liquid from causing the soil under the building to settle and potentially damage the building.

Site Conditions Observed: The size and configuration of **Lots 1, 2, 3, 4, 5 and 6** relative to residential development plans and maintaining required setbacks are such that only bottomless sand filter systems will be considered.

Permanent groundwater levels too close to ground surface

Description: "Permanent groundwater" refers to a water table or saturated zone that exists year-round. Treatment of sewage occurs in the soils around the drainfield area. If groundwater comes in contact with the sewage before it has been adequately treated in the soils, there are two concerns: 1) very little treatment occurs in saturated soils – the presence of air is required for good treatment; and 2) sewage may be "forced" to the surface where it poses a potential public health hazard.

Rule requirement: OAR 340-071-0290(2)(b)(A). For approval of low-pressure distribution systems, a minimum separation of 48 inches is required between the bottom of the disposal trenches (or seepage bed) and the upper level to which permanent groundwater is expected to rise. A bottomless sand filter system can be approved on sites with a minimum separation of 24 inches between the bottom of the filter and the upper level of permanent groundwater.

Soil conditions observed: The required 48-inch separation described in the rule cannot be met on **Lots 1, 2 and 3** due to shallow groundwater levels, as determined by measuring the depth to conditions associated with saturated soils and groundwater.

Additional Conditions of Site Approval for Lots 1, 2, 3, 4, 5 and 6

1. Sites on **Lots 1, 2, 3, 4, 5 and 6** are approved for the types of onsite wastewater treatment systems described above. Peak sewage flow into each system is limited to a maximum of 450 gallons per day, with an average sewage flow of not more than approximately half of the peak sewage flow. This is normally sufficient to serve a single-family dwelling with a maximum of four bedrooms. Premature failure of the treatment system may occur if either of these flow limits are exceeded.
2. Any alteration of natural soil conditions (i.e. cutting or filling) in the acceptable area may void these approvals. Disposal areas shall maintain a 25-foot setback to any cut banks that may be created from an excavated cut for the house placement.
3. Both the initial and replacement disposal areas are to be protected from traffic, cover, development or other potential disturbance of natural soil conditions.
4. The areas must not be subjected to excessive saturation due to, but not limited to, artificial drainage of ground surfaces, roads, driveways and building down spouts.
5. These approvals are given on the basis that the lots will not be further partitioned or subdivided.

These site approvals are valid until each system is constructed in accordance with a DEQ construction permit. Technical rule changes shall not invalidate this approval, but may require use of a different kind of system. If there is a technical rule change affecting this site approval, the Department will attempt to notify in writing the current property owner as identified by the county assessor's records. The site approval runs with the land and will automatically benefit subsequent owners.

Attachment: Field Worksheets and Plot Plans

THE EVALUATION FIELD WORKSHEET

Lot 5

Township: 6N Range: 10W Section: 3E Tax Reference: 3500 Parcel Size: 10080 sq ft
 Owner/Applicant: Rau Romire Evaluator: Connie Schrandt
 Inspection Date(s): 2-21-08 Application Number: 406137
Heritage Dunes - Lot 5

DEPTH	TEXTURE	SOIL MATRIX COLOR AND CONDITIONS ASSOCIATED WITH SATURATION, ROOTS, STRUCTURE, EFFECTIVE SOIL DEPTH, ETC...
Pit 1	0-20	fsl
	20-51	S
Pit 2	0-20	fsl
	20-29	S
	29-48	↓
Pit 3		
Pit 4		

Landscape Notes: stabilized dune
 Slope: ~1-2% Aspect: W Groundwater Type: No evidence
 Other Site Notes: _____

SYSTEM SPECIFICATIONS

Design Flow: 450 gpd
 Initial System: Bottomless Sand Filter ATT Treatment Standard: 2
 Disposal Facility: 360 linear feet/square feet Maximum Depth: 36 inches Minimum Depth: — inches
 Replacement System: Same as Initial System ATT Treatment Standard: —
 Disposal Facility: _____ linear feet/square feet Maximum Depth: _____ inches Minimum Depth: _____ inches
 Special Conditions: Physical staking of initial & replacement sand filters along with detailed site development plan required for DEQ review & approval prior to permit issuance.

