



# CLATSOP COUNTY

"Striving To Be First In Quality Service"

DEPARTMENT OF PLANNING AND DEVELOPMENT  
800 EXCHANGE, SUITE 100 • ASTORIA, OREGON 97103 • (503) 325-8611 • FAX 325-860

## AGENCY REVIEW & APPROVAL FORM (STRUCTURE AND MOBILE HOME PLACEMENT)

### JOB SITE INFORMATION:

Job Site Address: ELSIE RT Box 1220 City: SEASIDE  
Owner: MAX + SUSAN NORMAN Phone: 503-755-2407  
Owners Address: ELSIE RT Box 1220 Seaside OR  
Proposed Development/Construction: PORCH + DECK

### STATE DEQ (DEPARTMENT OF ENVIRONMENTAL QUALITY)

Legal Description: T 5N R 7W SEC. 23 Tax Lot 500  
Permit Needed - Yes ( ) No (  ) Site Approved - Yes (  ) No ( )  
Signature: [Signature] Date: 2-13-97  
Remarks: PROPOSED PORCH + DECK

DEQ North Coast Branch Office, 19 North Highway 101, Warrenton, Oregon 97146

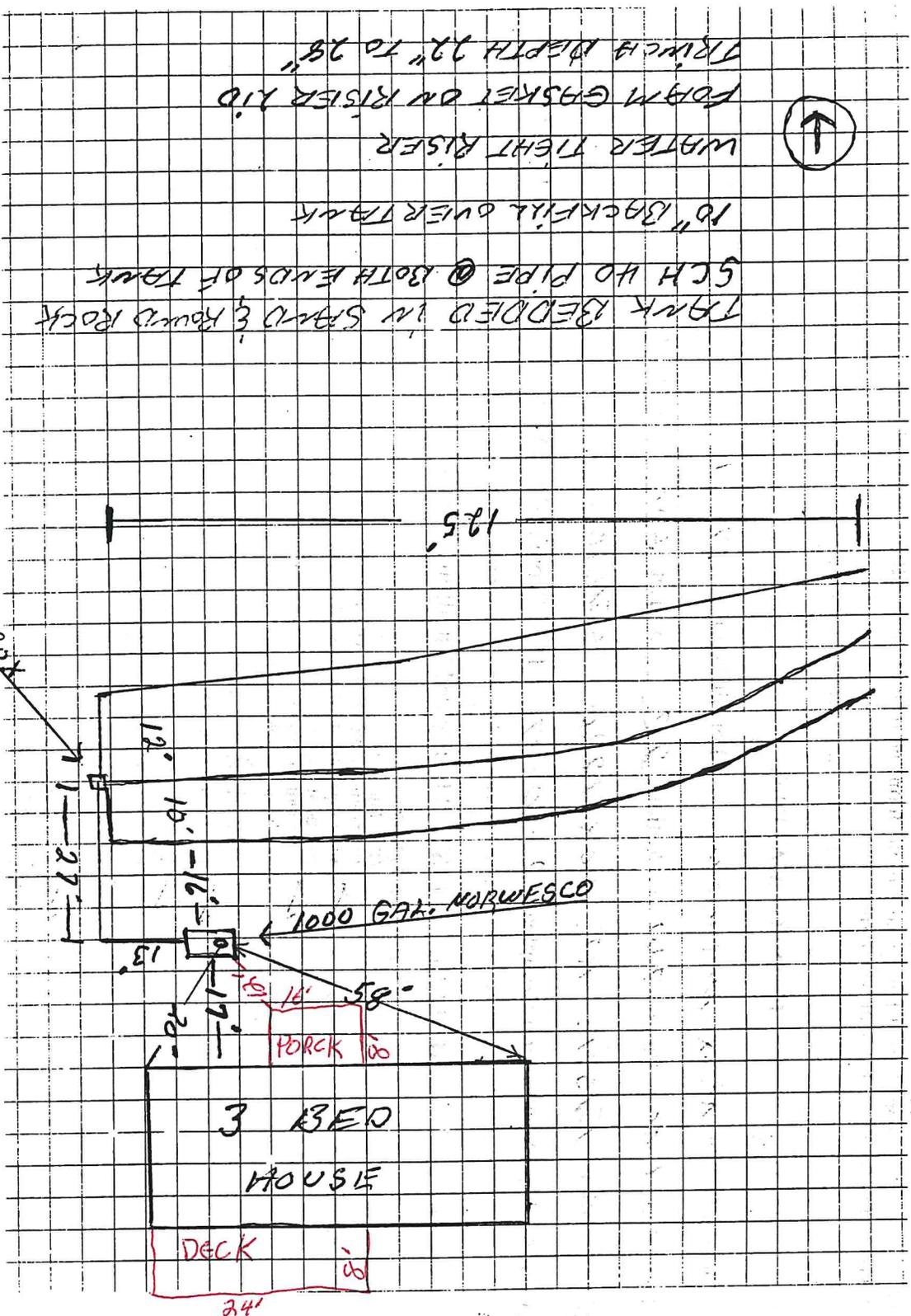
Phone: (503) 861-3280

### CLATSOP COUNTY PLANNING DEPARTMENT

Legal Description: T R SEC. Tax Lot  
Zone: \_\_\_\_\_ Overlay District: \_\_\_\_\_  
Development Permit - Yes ( ) No ( ) # \_\_\_\_\_  
Flood Plain - Yes ( ) No ( ) Elevation Requirements: \_\_\_\_\_  
Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_  
Remarks: \_\_\_\_\_

Property Owner MAX NORMAN Permit Number 97-01 County CLATSOP

SECTION 3: AS-BUILT PLAN OF THE CONSTRUCTED SYSTEM. Indicate the direction of NORTH and show the locations of all wells within 200 feet of the system.



SECTION 4: CONSTRUCTION WAS PERFORMED BY:

I HEREBY CERTIFY THAT THE ATTACHED PLAN ACCURATELY REFLECTS THE SIZE AND POSITION OF MY SEWAGE DISPOSAL SYSTEM, THAT SAID SYSTEM IS NOT FAILING THROUGH DISCHARGE TO GROUND SURFACE OR PUBLIC WATER, AND THAT THE PROPOSED CONSTRUCTION WILL NOT INTERFERE WITH THE SAID SYSTEM.  
SIGNED Max Norman DATE 2-13-97

48825

Control No.

STATE OF OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

RMIT NO. 97-01

\$ 490.00 Fee

[X] New Construction [ ] Repair [ ] Other

Permit Issued To Max & Susan Norman (Property Owner's Name) 5N (Township) 7W (Range) 23 (Section) 500 (Tax Lot / Acct. No.) Clatsop (County)

Highway 103 (Road Location) Seaside (Jewell) (City) [Signature] (Issued by - Signature) 1-7-97 (Date Issued)

PERMITS ARE NOT TRANSFERABLE

ALL WORK TO CONFORM TO OREGON ADMINISTRATIVE RULES, CHAPTER 340. WORK SHALL BE DONE BY PROPERTY OWNER OR BY LICENSED SEWAGE DISPOSAL SERVICE. (MAKE NO CHANGES IN LOCATION OR SPECIFICATIONS WITHOUT WRITTEN APPROVAL)

SPECIFICATIONS

EXPIRATION DATE January 7, 1998 TYPE OF SYSTEM Standard

Design Sewage Flow 450 Gallons/Day

Tank Volume 1000 Gallons Disposal Trenches [ ] Seepage Bed(s) [ ] Square Feet

Maximum Depth 30 inches. Minimum Depth 24 inches. 375 Linear Feet

Equal [ ] Loop [ ] Serial [X] Pressurized [ ] Minimum Distance Between Trenches 10' on centers

Total Rock Depth 12 inches. Below Pipe 6 inches. Above Pipe 2 inches. [ ] Rake Sidewall

24" trench depth minimum if serial, 18" minimum trench depth if equal. Special Conditions (Follow Attached Plot Plan) install in accordance with plans & specifications submitted. Properly decommission existing septic tank and submit copy of pumping receipt. Septic tank to be set back a minimum of 10' to any water lines and 5' to any property lines or building foundation. 10' setback from any property lines, water lines or underground utilities from disposal field. Watertight test on septic tank to be conducted. NCBO 861-3280.

CERTIFICATE OF SATISFACTORY COMPLETION

As-Built Drawing with Reference Locations

Installer Bill Bergerson Construction

See as-built plot plan submitted by installer.

Final Insp. Date

[ ] Inspected By

[ ] Issued by Operation of Law

[X] Pre-cover inspection waived pursuant to OAR 340, Division 71

In accordance with Oregon Revised Statute 454.665, this Certificate is issued as evidence of satisfactory completion of an on-site sewage disposal system at the location identified above.

Issuance of this Certificate does not constitute a warranty or guarantee that this on-site disposal system will function indefinitely without failure.

(Authorized Signature) (Title) (Date) (Office)

**FINAL INSPECTION ON REQUEST AND NOTICE**

DEPT. OF ENVIRONMENTAL QUALITY

RECEIVED

FEB 11 1997

NORTH COAST BRANCH OFFICE  
WARRENTON

Pursuant to the requirements within ORS 454.665, OAR 340-71-170 and OAR 340-71-175, 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 (except for the backfilling or covering of the installation). The Department (or Agent) has 7 days to perform an inspection of the completed construction after the official notice date, unless the Department (or Agent) elects to waive the inspection and authorizes the system to be backfilled earlier. 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. Please complete all four sections of the form and return it to the office that issued the permit. Forms that are determined to be incomplete will be returned.

**SECTION 1: BASIC INFORMATION.**

Property Owner MAX NORMAN Permit Number 97-01 County CLATSOP  
Township 5N; Range 7W; Section 23; Tax Lot 500; Tax Acct. # \_\_\_\_\_  
Job Location ELSIE RT BOX 1220 SEASIDE  
Date System Construction Completed 2-10-97; Date Submitted to DEQ or Agent 2-11-97

**SECTION 2: MATERIALS LIST. Identify and list all materials used in the system's construction.**

- PIPE AND FITTINGS:
  - All 2" Pipe - 200 PSI - PVC 1120
  - All 2" Fittings - PVC D2466 SCH 40
  - All 4" Pipe - PVC 12454-13 ASTM D-3034
  - ABS ASTM F-628-93
  - All 4" Fittings - ASTM D3033-3034 - PVC 1120
  - Fittings - ABS 02661
- ALL 4" PIPE - OUTSIDE D-BOX:
  - ASTM F810 11-5-90-2VV
  - PVC ASTM D2729 T21
- TANKS:
  - 1000 Gallon Norwesco Poly Tank
  - 500 Gallon Norwesco Poly Dosing Tank
  - 1000 Gallon Michaels Combo
- RISERS:
  - Orenco
  - Norwesco
  - Roto Tech
  - Michael's
- PUMPS AND PUMP SUPPLIES:
  - Hydronic OSP 33 Pump 51739-007
  - Boss 300 Pump
  - High Head Pump P225105HHF
  - S.J. Electro 101 High Level Alarm Float
  - S.J. Electro 15 SSD 120V WP Pump Switch
  - Orenco Floats and Alarms
  - Orenco Effluent Screen ES 1840
- DISTRIBUTION BOXES:
  - Bergerson Concrete D-Box #204
  - Tuf-Tite D-Box
- FILTER MATERIAL:
  - Johnson 1-1/2" to 3/4" Crushed Rock
  - Moeller Sand and Gravel - Sand
  - Scappoose Sand and Gravel - Sand
- FILTER MATERIAL PROTECTION:
  - 60 lb. Craft Paper
  - Filter Fabric - OR TYPAR 3201
- OTHER:
  - Other
  - Other
  - Other
  - Other
  - Other

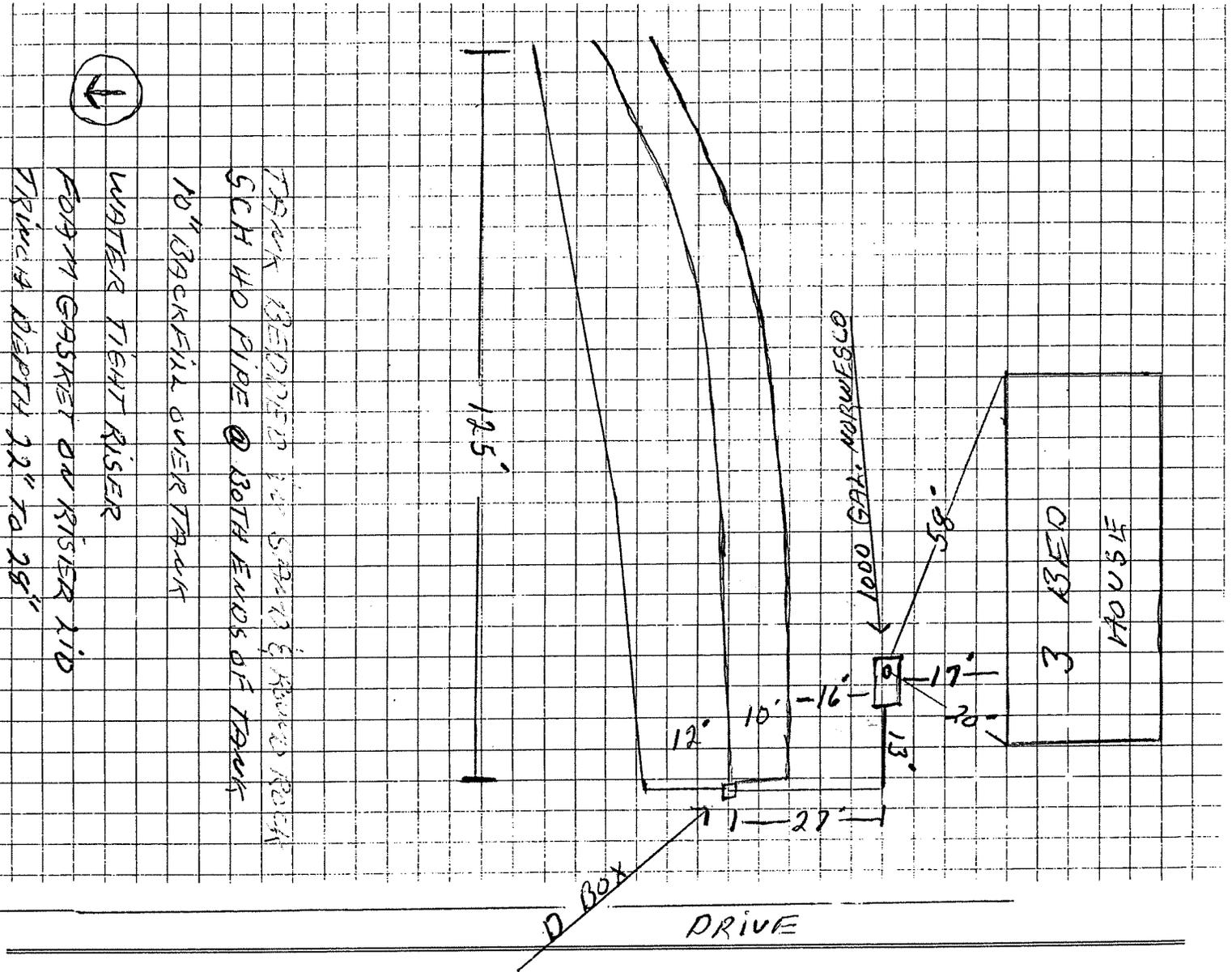
Property Owner MAX NORMAN

Permit Number 97-01

County CLATSOP

**SECTION 3:**

**AS-BUILT PLAN OF THE CONSTRUCTED SYSTEM.** Indicate the direction of NORTH and show the locations of all wells within 200 feet of the system.



**SECTION 4:**

**CONSTRUCTION WAS PERFORMED BY:**

Property Owner (Permittee)

✓ Sewage Disposal Service Business: BERGERSON CONST., 35413  
(Print Full Business Name) (License Number)

I certify the information provided in this notice is correct, and that the construction of this system was in accordance with the permit and the rules regulating the construction of on-site sewage disposal systems (OAR Chapter 340, Divisions 71 and 73).

Bill Bergerson  
(System Installer's Signature)

OWNER  
(Title)

2-10-97  
(Date)



# CLATSOP COUNTY

"Striving To Be First In Quality Service"

DEPARTMENT OF PLANNING AND DEVELOPMENT  
800 EXCHANGE, SUITE 100 • ASTORIA, OREGON 97103 • (503) 325-8611 • FAX 325-8606

## AGENCY REVIEW & APPROVAL FORM (STRUCTURE AND MOBILE HOME PLACEMENT)

### JOB SITE INFORMATION:

Job Site Address: ELsie Rt Bx 1220 City: Seaside

Owner: Max-Susan Norman Phone: 503-755-2407

Owners Address: ELsie Rt Bx Seaside, OR 97138

Proposed Development/Construction: Single family dwelling - man. home

### STATE DEQ (DEPARTMENT OF ENVIRONMENTAL QUALITY)

Legal Description: T 5W R 7W SEC. 23 Tax Lot 500

Permit Needed - Yes ( ) No (  ) Site Approved - Yes ( ) No (  )

Signature: [Signature] Date: 1-7-97

Remarks: NEW CONSTRUCTION / PERMIT # 97-01

DEQ North Coast Branch Office, 19 North Highway 101, Warrenton, Oregon 97146

Phone: (503) 861-3280

### CLATSOP COUNTY PLANNING DEPARTMENT

Legal Description: T R SEC. Tax Lot

Zone: \_\_\_\_\_ Overlay District: \_\_\_\_\_

Development Permit - Yes ( ) No ( ) # \_\_\_\_\_

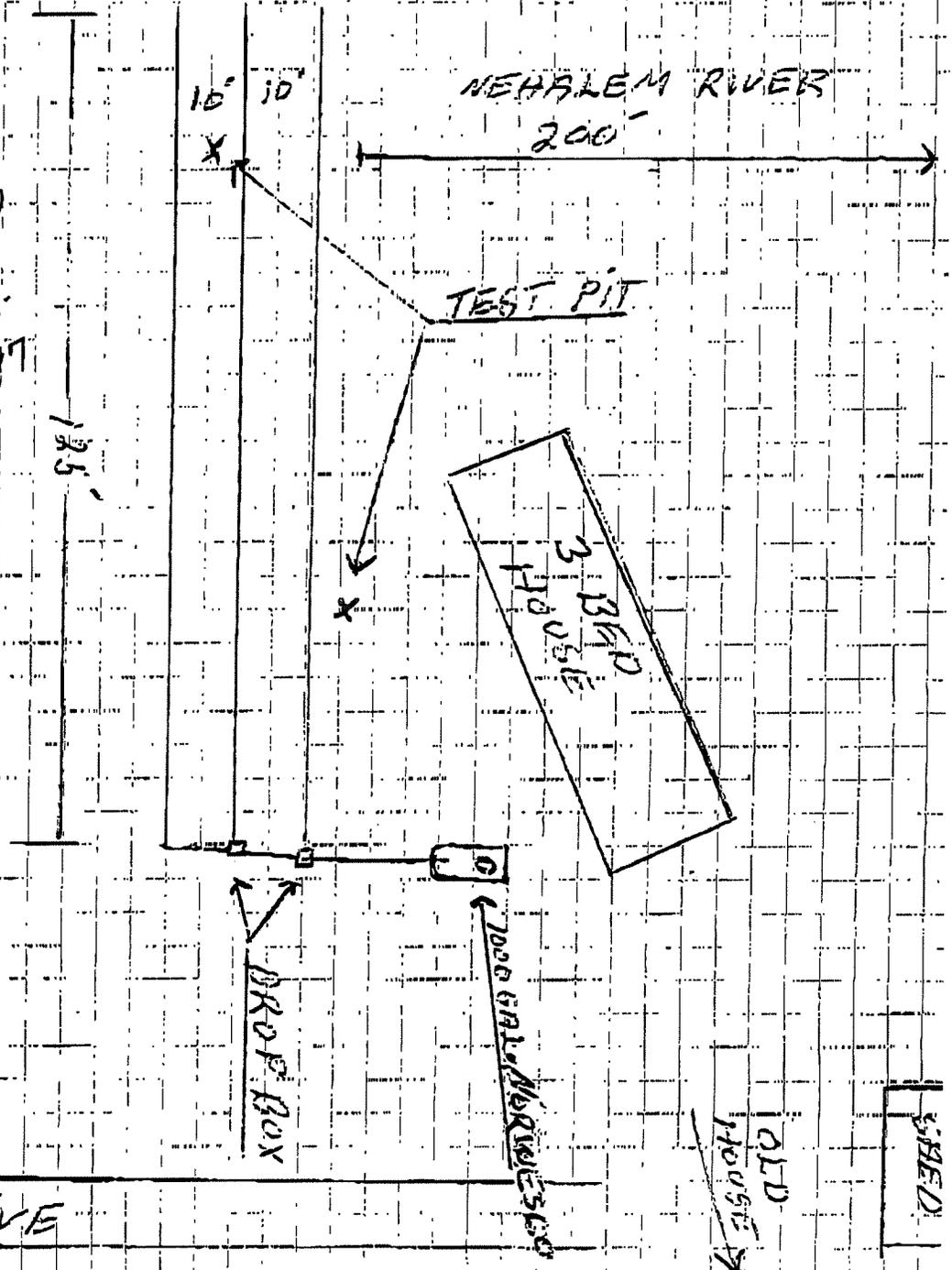
Flood Plain - Yes ( ) No ( ) Elevation Requirements: \_\_\_\_\_

Signature: \_\_\_\_\_ Title: \_\_\_\_\_ Date: \_\_\_\_\_

Remarks: \_\_\_\_\_



APPROVED  
D.L.  
1/2/97



Daverson Consty.  
Rt 1 Box 595  
Seaside, OR 97138

OLD  
HOUSE

SHED

STATE OF OREGON  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
 NORTH COAST OFFICE  
 17 N. Highway 101  
 Warrenton, OR 97146  
 (503) 861-3280

OFFICE USE ONLY  
 Date Rec'd 1-7-97  
 Date Completed 1-7-97  
 Required Fee \$490.00  
 Receipt No. 77707  
 Control No. 48825

FOR APPLICANT'S USE - (PLEASE PRINT)

12.75 acres  
 Lot Size (Acreage or Dimensions)

Max and Susan Norman

(Property Owner's Name)

(Applicant's Name if Different from Owner)

Legal Description  
 of Property

5N 7W 23 500 Clatsop  
 (Township) (Range) (Section) (Tax Lot/Acct. No.) (County)

For Parcels in Platted  
 Subdivisions, Indicate

n/a (Subdivision Name) (Lot Number) (Block Number)

Proposed Facility

Water Supply

Single Family Residence 4  
 (Number of Bedrooms)  
 Other \_\_\_\_\_  
 (Specify)

Public (Community System)  
 Private well  
 (Indicate: Well, Spring, Etc.)

Existing Facility

Single Family Residence 3  
 (Number of Bedrooms)  
 Other \_\_\_\_\_  
 (Specify)

APPLICATION FOR:

Site Evaluation Report  
 Permit to Construct On-Site Sewage Disposal System  
 Permit to Repair On-Site Sewage Disposal System  
 Permit for Alteration of On-Site Sewage Disposal System  
 Permit Renewal  
 Existing System Report  
 Plan Review  
 Other (Specify) \_\_\_\_\_

Authorization Notice  
 Purpose of Authorization Notice  
 Connect to an existing system  
 not currently in use  
 Replace one mobile home with  
 with another or a house  
 Replace or rebuild a house  
 Addition of one or more bedroom  
 Personal hardship  
 Temporary housing  
 Other (Specify) \_\_\_\_\_

This application will be returned if it is not filled out completely and accompanied by the appropriate fee and attachments required in the guidance packet. Your site must be prepared according to instructions in the guidance packet before action can be taken on this application.

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

Susan Norman  
 (Signature)

1-7-97  
 (Date)

Authorized Representative  
 Licensed Installer  
 License No. \_\_\_\_\_

Owner's Mailing Address

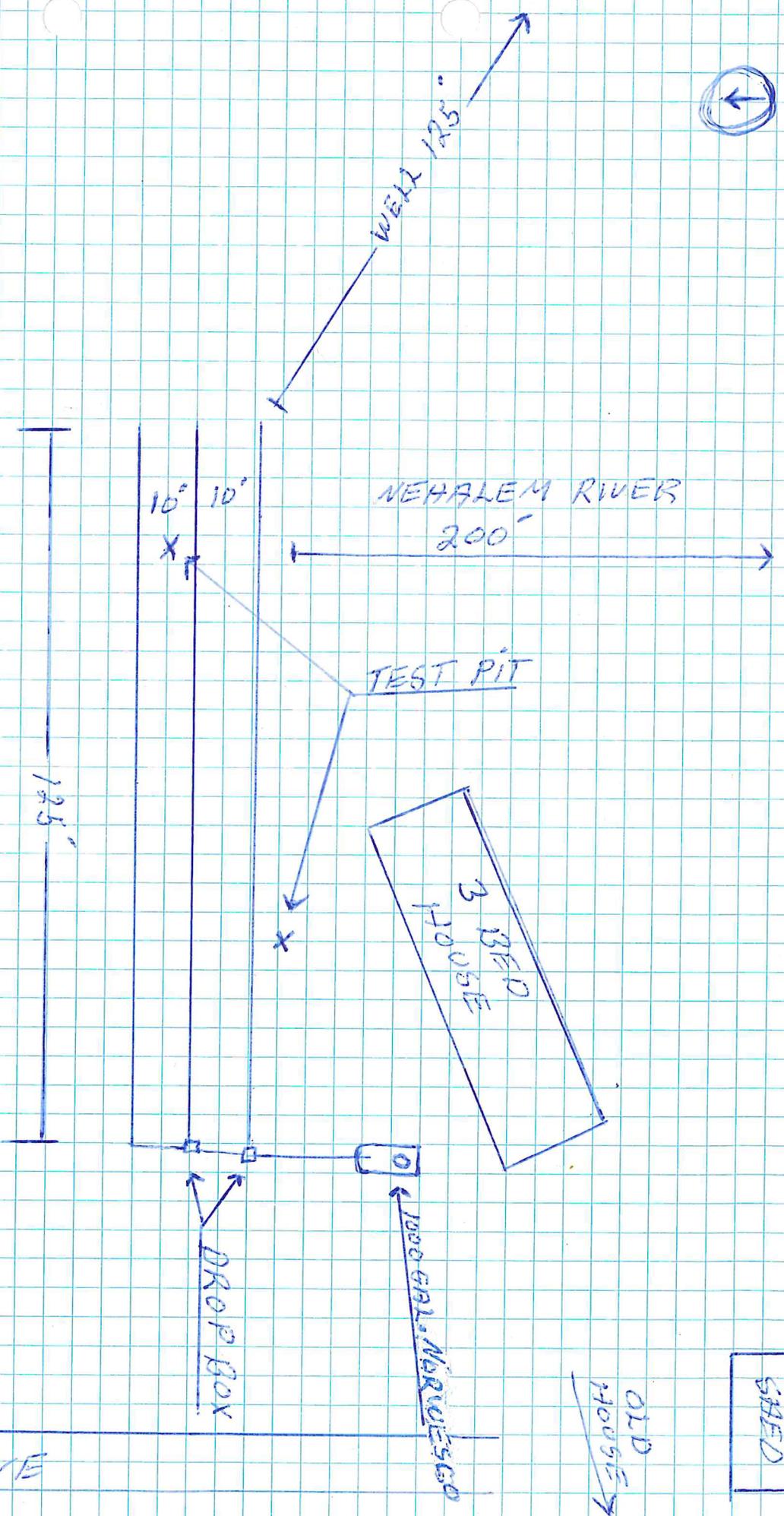
Applicant's Mailing Address (if different)

Susan Norman  
Elsie Pt Bx 1220  
Seaside, Or 97138

Phone 503-755-2407

Phone \_\_\_\_\_

IW\WC8\WC8690 (7-19-91)



Bergerson Constr.  
 Rt 1 Box 595  
 Seaside, OR 97138

SHED

OLD  
 1100 GLE

# BERGERSON CONSTRUCTION

## MATERIALS LIST

### PIPE AND FITTINGS:

- All 2" Pipe - 200 PSI - PVC 1120
- All 2" Fittings - PVC D2466 SCH 40
- All 4" Pipe - PVC 12454-13 ASTM D-3034
- ABS ASTM F-628-93
- All 4" Fittings - ASTM D3033-3034 - PVC 1120
- Fittings - ABS 02661

### ALL 4" PIPE - OUTSIDE D-BOX:

- ASTM F810 11-5-90-2W
- PVC ASTM D2729 T21

### TANKS:

- 1000 Gallon Norwesco Poly Tank
- 500 Gallon Norwesco Poly Dosing Tank
- 1000 Gallon Michaels Combo

### RISERS:

- Orenco
- Norwesco
- Roto Tech
- Michael's

### PUMPS AND PUMP SUPPLIES:

- Hydronic OSP 33 Pump 51739-007
- Boss 300 Pump
- High Head Pump P225105HHF
- S.J. Electro 101 High Level Alarm Float
- S.J. Electro 15 SSD 120V WP Pump Switch
- Orenco Floats and Alarms
- Orenco Effluent Screen ES 1840

### DISTRIBUTION BOXES:

- Bergerson Concrete D-Box #204
- Tuf-Tite D-Box

### FILTER MATERIAL:

- Johnson 1-1/2" to 3/4" Crushed Rock
- Moeller Sand and Gravel - Sand
- Scappoose Sand and Gravel - Sand

### FILTER MATERIAL PROTECTION:

- 60 lb. Craft Paper
- Filter Fabric - OR TYPAR 3201

### OTHER:

- Other
- Other
- Other
- Other
- Other

LAND USE COMPATIBILITY STATEMENT  
FOR ON-SITE SEWAGE DISPOSAL SYSTEMS

APPLICANT'S NAME Max and Susan Norman		MAILING ADDRESS Elsie Pt Box 1220 Seaside Or. 97138 CITY STATE ZIP		PHONE (503) 755-2407
P L O C A T I O N	TOWNSHIP 5N	RANGE 7W	SECTION 23	TAX LOT OR ACCT NO 500
	SUBDIVISION/PROJECT N/A	LOT	BLOCK	COUNTY Clatsop
	<input checked="" type="checkbox"/> PROPERTY IS A LOT OF RECORD CREATED BEFORE AUGUST 1, 1981.			

PROPOSED LAND USE

We would like to place a new manufactured home on new homesite.

STATEMENT OF COMPATIBILITY FROM APPROPRIATE LAND USE AUTHORITY  
(An equivalent statement may be provided in lieu of this form)

PROPERTY'S ZONING DESIGNATION

RA-5/640/FHO

THE ABOVE PROPOSAL HAS BEEN REVIEWED AND FOUND TO BE:

COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN

CONSISTENT WITH THE STATEWIDE PLANNING GOALS

OR

NOT COMPATIBLE WITH THE LCDC ACKNOWLEDGED COMPREHENSIVE PLAN

NOT CONSISTENT WITH THE STATEWIDE PLANNING GOALS

REASON FOR FINDING OF COMPATIBILITY / INCOMPATIBILITY

allowed use in zone (approved GHO report attached)

PROPERTY IS LOCATED: (check one)

INSIDE CITY

INSIDE URBAN GROWTH BOUNDARY  
OUTSIDE CITY LIMITS

OUTSIDE URBAN GROWTH BOUNDARY

LAND USE AUTHORITY

Clatsop Co. Planning Dept.

SIGNED Geri Allen	TITLE P.T.	DEPT. OF ENVIRONMENTAL QUALITY RECEIVED	DATE 1-3-97
----------------------	---------------	--	----------------

CITY/COUNTY CONCURRENCE IF INSIDE URBAN GROWTH BOUNDARY

JAN 6 1997

SIGNED	TITLE NORTH COAST BRANCH OFFICE WARRENTON	DATE
--------	---	------

96-12-8

BEFORE THE PLANNING DIRECTOR  
OF CLATSOP COUNTY, OREGON

IN THE MATTER OF A PRELIMINARY )  
GEOLOGIC HAZARD REPORT ON )  
ON T5N R7W SECTION 22 TAXLOT 500 )  
APPLICANT: MAX & SUSAN NORMAN )  
OWNER: SAME )  
ZONING: RA-5/GHO/FHO )

RESOLUTION & ORDER

Recording Date: Dec 18, 1996

The above entitled matter came before the Planning Director on November 1, 1996; and

The above named applicant applied to the Department of Planning and Development of Clatsop County for County approval of a Preliminary Geologic Hazards Report; and

The Planning Director reviewed the proposed development on September 19, 1996, and found that the request be APPROVED WITH CONDITIONS, based upon the information contained in the application, site investigation and staff report.

The Planning Director hereby adopts the findings of fact, conclusions and conditions contained in Exhibit "A".

The effective date of this approval is 10 days from the date of recording noted above. This decision may be appealed to the Planning Commission by an affected party by filing an appeal with the Planning Director within 10 days of this date.

ON BEHALF OF THE DEPARTMENT  
OF PLANNING AND DEVELOPMENT

*Diana C. Nelson*

# Horning Geosciences

808 26th Avenue  
Seaside, OR 97138  
(503)738-3738



October 24, 1996

Susan Norman  
Elsie Rt. ox 1220  
Seaside, OR 97138

RE: Preliminary Geologic Hazard Report, Tax Lot 500 5 7 22 (Sec. 22, T. 5 N., R. 7 W., W. M.), Vinemapple, Clatsop County, Oregon

Dear Susan:

This report addresses potential geologic hazards associated with your described above property, which I visited with you on Monday, October 7, 1996. The report is needed by the Clatsop County Department of Planning and Development as part of your application to site a new house on your land. The Planning Department requires the report because your property lies within a designated geologic hazard overlay district in the county planning maps. This hazard overlay is based, in part, on geologic hazard maps by Schlicker and others (1972) that were prepared as part of a regional hazard evaluation for western part of Oregon.

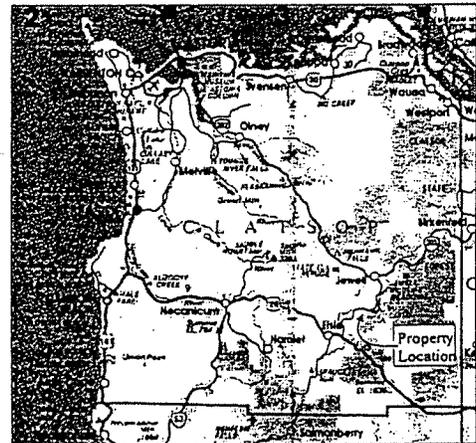
## SUMMARY

This property should be regarded as suitable for home construction. Potential geologic hazards (flooding, weak soils, and fault rupture) do not apply or present minimal risk to this site. The property is located above potential flood hazards on an older terrace of stream gravels next to the Nehalem River. Subsurface stream gravels are widespread in the vicinity and should provide good foundation support. A nearby thrust fault, as mapped in general by Schlicker and others (1972), in detail by Niem and Niem (1985), and intersected by a nearby natural gas exploration well, is located approximately 500 to 700 ft to the south of the home site. Any future movement along the fault, if it occurs, will not cause foundation rupture. However, surface shaking may present risk to the building and it should meet appropriate seismic design codes. Similar risk applies to seismic shaking from major regional earthquakes in the Cascadia Subduction Zone along the Oregon and Washington coasts.

## INTRODUCTION

The property is located on the north side of the Nehalem River and Fishhawk Falls highway, which connects Jewell to Highway 26 and about 1 mile east of Vinemapple Bridge. The property is almost entirely pasture used for grazing and livestock, with a house and two barns.

Approximately 1 hour was spent on site examining the site & vicinity and interviewing residents. Observations, notes, and mapping were conducted according to established geologic procedures of academia and industry. Slopes were determined with a Suunto in-



clinometer, distances where necessary by hip-chain or pace, and bearings with Brunton compass. Locations were determined by survey from established points, by triangulation, or by dead reckoning. Diagrams were scanned from pre-existing maps and annotated as necessary or redrafted directly with Micrografx Designer.

REGIONAL GEOLOGY

The property lies on the northwest flank of the Late Eocene Tillamook Volcanics and several overlying sedimentary units of slightly younger age. The Tillamook Volcanics represent a Hawaiian-style volcanic island that was accreted to North America approximately 30 to 35 million years ago. The sedimentary formations include the Keasey and Hamlet Formations, and these are composed of basaltic grits that shed from the volcanic island and deep-water mudstone and sandstone that accumulated around the base of the islands after accretion.

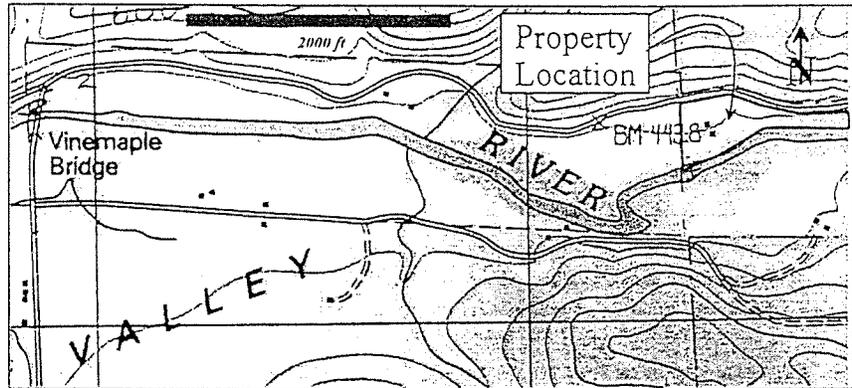


Figure 1: Property Location Map; extracted from the Vinemapple 7.5' USGS Quadrangle Map.

With continued subduction to the west, compression arched up the Coast Range and raised these rocks sufficiently so they could be exposed by erosion. During this time, the general east-west compression and relative northward transport of the Pacific tectonic plate imposed a rotational torque on the Coast Range that caused the region to be broken into fault blocks that glide past each other by northwest-trending strike-slip motion. This resulted in rotation of individual fault blocks similar to the motion of pickets in a collapsing

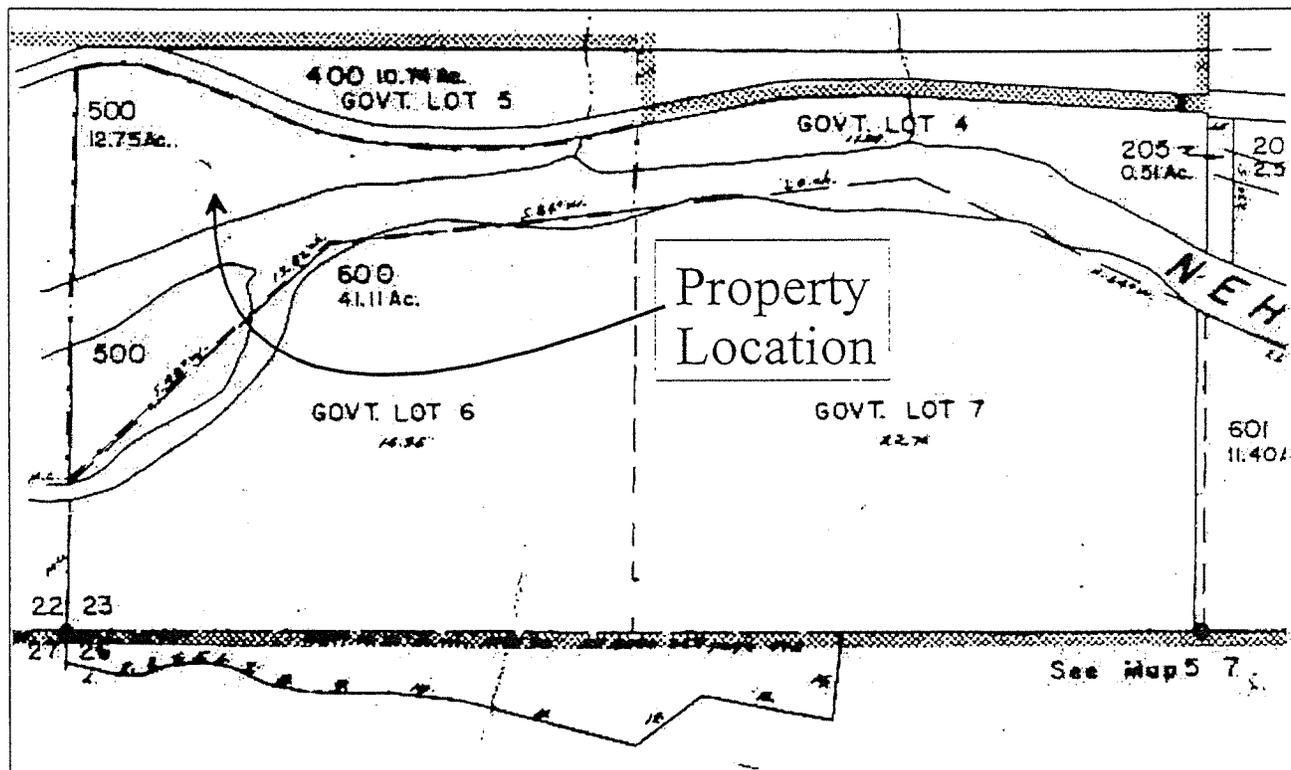


Figure 2: Property plat map.

picket fence. In addition to strike-slip displacement, some blocks also broke into smaller pieces that rotate in the opposite sense or shift vertically. The complexity of movement is illustrated on the geologic map by Niem and Niem (1985). Importantly, a minor thrust fault has been mapped in the Vinemaple vicinity. Faults of this type generally occur in the shallow subsurface where overburden pressure is low. The thrust, marked by triangular teeth on the Niem map, was encountered in an exploration gas well drilled approximately 3/4 mile to the east along the highway during the 1980s. The position of the fault is well documented and its location is very reliable. The fault is inclined from its surface trace downward to the north at an angle of about 20 to 40 degrees. It marks where rocks to the north have ridden up and over southern rocks.

Coast Range faults have not been considered to be very active historically, but with recent fault activity on similar structures in the Willamette Valley (Scotts Mills earthquake, 1995), they should be regarded as capable of movement. The maximum magnitude of these "Upper Plate" earthquakes is expected to be less than  $M_w = 6.0$ . Some investigators have speculated that these upper plate quakes will occur independently, but others postulate that rupture will be triggered by regional Cascadia Subduction Zone seismic events.

With uplift of the northern Coast Range anticlinorium, the Nehalem River has shifted from its original westerly course to a new course that is to the south at the headwaters and then swings counter-clockwise around to the east, north, west, and southwest as it moves into Clatsop County. The erosional resistance of the basaltic core of the anticline accounts most for this shift in stream drainage. Areas underlain by softer sedimentary rock tend to have wide flood plains, whereas those underlain by resistant rock, such as basalt, are characterized by narrow flood plains or canyons. Continued uplift of the mountains and downcutting by the river results in local areas of raised river terraces that once were active parts of older flood plains. This is the case at Vinemaple.

#### SITE OBSERVATIONS & FINDINGS

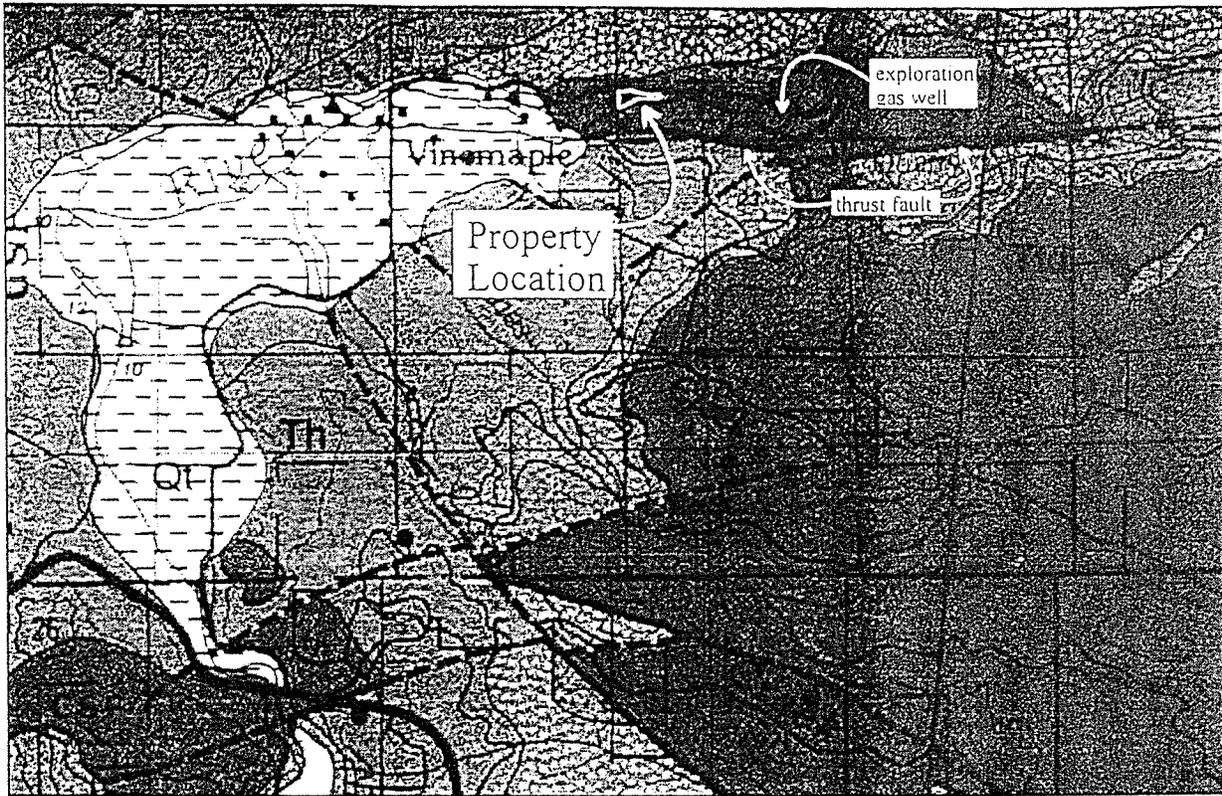
The property lies on flat river terrace gravels and old flood plain on the north side of the Nehalem River. Most of the site is pasture with a few trees scattered about. Slopes are nil, except for a 15 percent incline that separates the upper pasture from a narrow flood plain adjacent to the river. The incline is about 15 to 20 ft high. The upper pasture is a river terrace that no longer floods. The lower bench was inundated during the great flood of February 1996. Water was two feet deep in the lower barn during the peak of the flood.

Soils are classified as Eilertsen silt loam by the Soil Conservation Service, and represent well-developed soils within alluvium on stream terraces. According to the property owners, the soils contain abundant gravels and sand, based on drilling results for a nearby water well. The gravels are to be expected for stream terraces. The gravels drain well and provide good support for foundations.

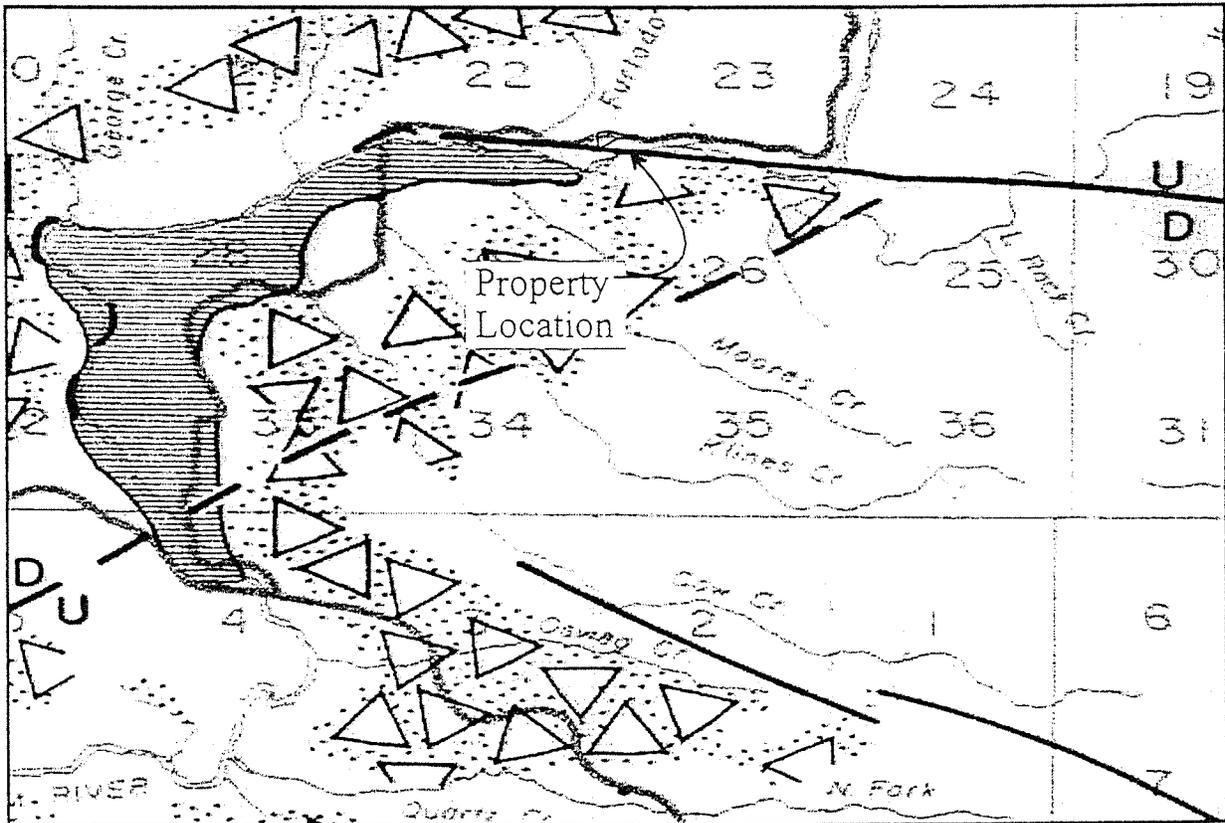
Slopes are stable. Erosion risk from the Nehalem River is negligible. Flood risk is nil, according to Flood Insurance Rate Map 4100270060 A. According to the map, the proposed home site is in Zone C, an "area of minimal flooding". The nearest flood hazard is at the base of the 15 percent slope, where the flood plain has been classified as Zone B- "areas between the 100 and 500 year flood where average flood depths are one foot or less."

Risk of surface rupture from the Vinemaple thrust fault are extremely small to negligible. The trace of the thrust fault is mapped as 800 ft south of the projected home site. If the fault should move, rupture will occur only where the fault is mapped. It should be stressed that the activity of western Oregon upper plate faults is very limited to almost nil. Seismic shaking, should the fault move, would be substantial, given proximity to the fault and the presence of alluvium on the property. As such, it is recommended that the proposed home meet all existing seismic codes presently in force.

No other hazards were noted.



after Niem and Niem (1985)



condensed from maps by Schlicker and others (1972)

Figure 3: Regional geologic maps by Niem and Niem (1985) and Schlicker and others (1972).

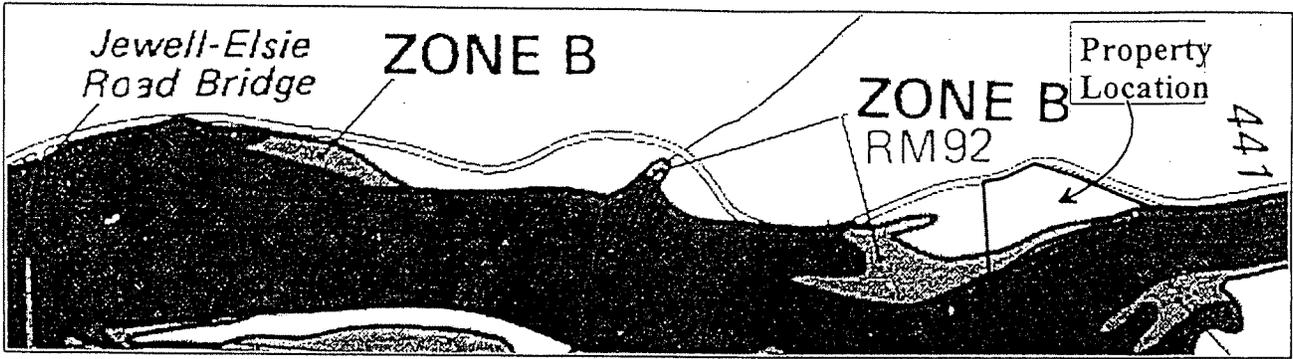


Figure 4: FIRM Flood Hazard Map for the Vinemaple area.

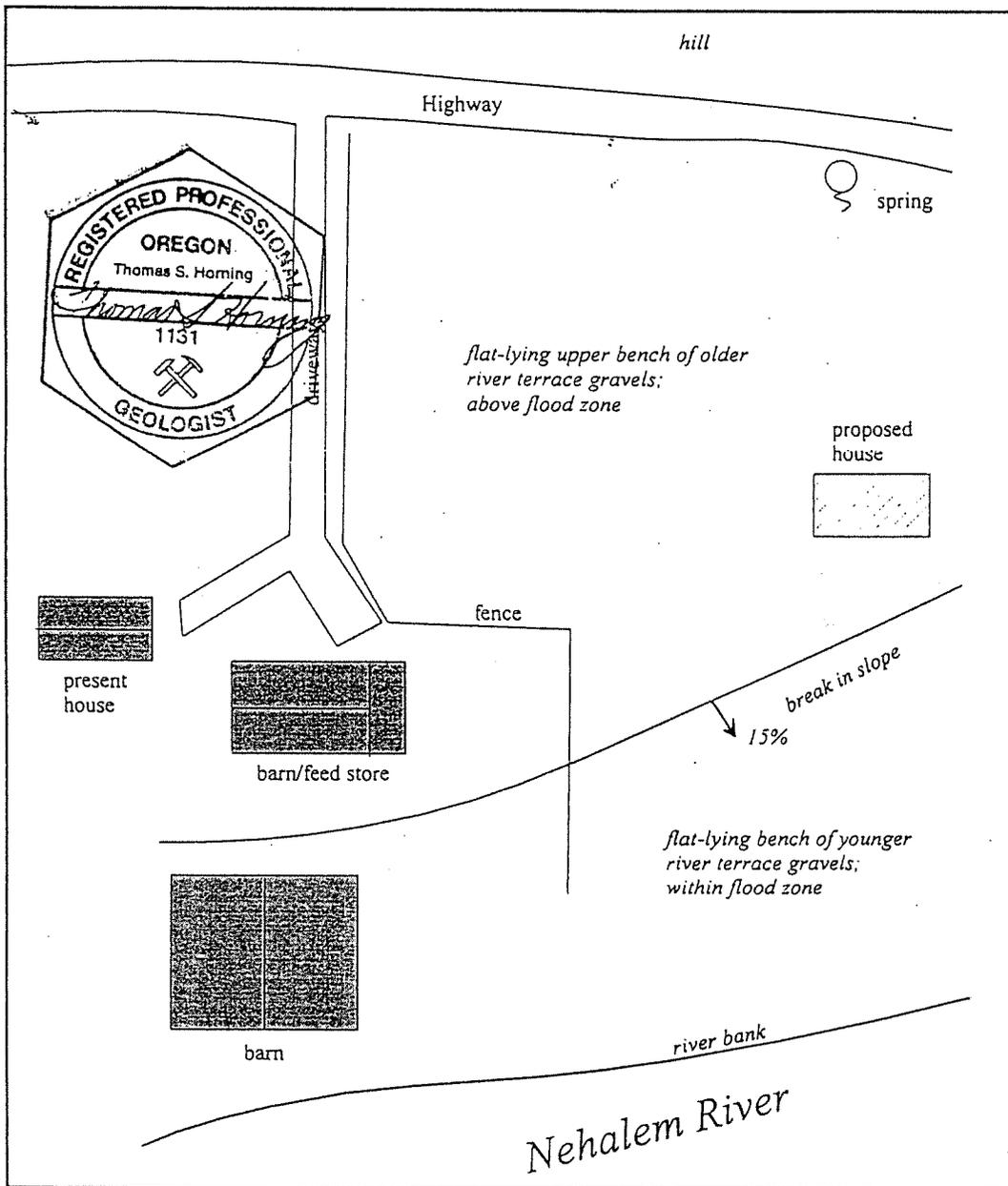


Figure 5: Geologic sketch map of the property. North is toward the top of the sketch.

REGIONAL HAZARD ASSESSMENT

Oregon coastal property owners are advised that there is now abundant evidence for a series of geologically recent and severe regional earthquakes. Discoveries since 1987 confirm a history of as many as thirteen major events originating in the local Cascadia subduction zone during the past 7700 years. Based on the calculated intervals between such events (approximately 600 years average, 300 years minimum), it follows that a major regional earthquake is indeed possible in the foreseeable future. The most recent event was probably in late January, 1700 A.D. Newly revised projections estimate a 30 percent chance of a Mw = 8.0-9.2 regional quake in the next 50 years.

Seismic shaking may cause localized slope failure along steep hill sides, such as north of the highway adjacent to this property. Roads may become blocked by slumps or collapsed bridges and this part of the state may be cut off for several days or weeks. Moreover, ground containing unconsolidated alluvium may experience liquefaction during shaking which can lead to loss of support for foundations and uneven settling of structures. This property should be regarded as having low to moderate risk of liquefaction. It is most prevalent where saturated sands and clays are at depth. Given the high velocity profile of the Nehalem River, I would estimate that the presence of such sands is much lower here than near tidewater, and therefore risk is much likely lower. No special precautions are recommended to offset this risk.

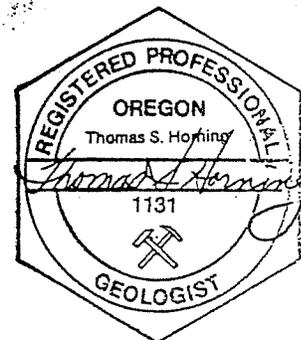
Risks from unusual geologic events such as earthquakes, tsunamis, and the confluence of 100-year storms with maximum tides are, because of their low probabilities, difficult to accurately quantify. The geologic community cannot accurately predict when events will occur and can only estimate their frequency of occurrence and their likely magnitude. Prospective property owners must assume responsibility for determining what level of risk they are willing to tolerate.

LIMITATIONS

Observations and conclusions incorporated in this letter report are the result of personal site inspection, the works of other specialists, and generally accepted principles of geologic investigation for a report of this nature. No warranties are expressed or implied. This report does not extend to the activities of unidentified future owners or occupants for which the writer bears no responsibility.

Sincerely,

*Thomas S. Horning*  
 Thomas S. Horning



References Cited

Niem, A. R., and Niem, W. A., 1985, Oil and Gas Investigation of the Astoria Basin, Clatsop and Northernmost Tillamook Counties, Northwest Oregon: OGI-14, State of Oregon, Department of Geology and Mineral Industries.

Schlicker, H. G., Deacon, R. J., Beaulieu, J. D., and Olcott, G. W., 1972, Environmental Geology of the Coastal Region of Tillamook and Clatsop Counties, Oregon: Bulletin 74, State of Oregon, Department of Geology and Mineral Industries; 164 p. with plates.

United States Department of Agriculture and Soil Conservation Service, 1984, Soil Survey of Clatsop County, Oregon

EXHIBIT 'A'

Conditions of Approval (as recommended by the Geologist):

1. The dwelling shall meet all applicable seismic building codes requirements.

NCRO - Warrenton

# Oregon

May 7, 1996

MAX W. NORMAN  
ELSIE RT BOX 1220  
SEASIDE OR 97138

DEPARTMENT OF  
ENVIRONMENTAL  
QUALITY

RE: OSS:NWR: CLATSOP COUNTY: SITE NORTHWEST REGION  
EVALUATION REPORT: TWN 5N, RNG 7W, SEC 23,  
TAX LOT 500.

Dear Mr. Norman:

In response to your recent application for site evaluation, the above-described property was examined on April 10, 1996, to determine the methods of on-site sewage disposal for which it is suited. The site was found to comply with established criteria for a standard septic tank-disposal field system.

The system would have the capacity to serve a single family dwelling, with no more than 4 bedrooms. Peak daily sewage flow into the system is limited to 450 gallons, with an average daily sewage flow of not more than approximately 225 gallons per day. Premature system failure may occur if either flow limit is exceeded. If you expect your family's water use to exceed these flows, it is recommended that the system be made larger.

Please refer to the enclosed field worksheet for information about the site observations and location of the disposal system (including the future repair/replacement disposal system). **The system will consist of a 1000 gallon septic tank and 375 feet of drainfield installed with equal distribution. The trench depths shall be 18 to 30 inches deep. Livestock may damage the system if allowed free access over the drainfield. It is recommended that livestock be fenced out of the area.**

A construction-installation permit is required to install the sewage system on the approved site. Please contact the North Coast Branch Office of the Department of Environmental Quality for information regarding permit procedures and necessary fees. The phone number is 503-861-3280.

This approval is given on the basis that the lot or parcel described above will not be further partitioned or subdivided, and that conditions on the subject or adjacent properties have not been altered in any manner which would prohibit issuance of a permit in accordance with ORS 454.605 through 454.745 and Administrative Rules of the Environmental Quality Commission (EQC). Any such subdivision, partitioning or alteration may void this report.

John A. Kitzhaber  
Governor



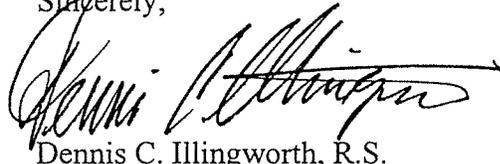
2020 SW Fourth Avenue  
Suite 400  
Portland, OR 97201-4987  
(503) 229-5263 Voice  
TTY (503) 229-5471  
DEQ-1

May 7, 1996

Page 2

**WARNING:** This is a technical report for on-site sewage disposal only. It may be converted to a permit **only** if, at the time of permit application, the property has been found to be compatible with applicable LCDC-acknowledged local comprehensive land use plans and implementing measures or the Statewide Planning Goals. The report will remain valid until an on-site sewage system is installed pursuant to a construction permit obtained from the Department of Environmental Quality, or until earlier cancellation, pursuant to EQC rules, with written notice thereof by the Department to the owners according to DEQ records or the County tax records. Subject to the foregoing, this report runs with the land and will automatically benefit subsequent owners.

Sincerely,

A handwritten signature in black ink, appearing to read "Dennis C. Illingworth". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Dennis C. Illingworth, R.S.  
Environmental Specialist

DCI:dcj

Cc: NCBO:DEQ

Enclosure

COUNTY Olat sop

SITE EVALUATION - FIELD NOTES

T 5N R 7W S 23 TL 500 APPLICANT Norman

SIZE 12.75 ac EVALUATOR Illingworth DATE 4/10/96

st -stones & stony	fs -fine sand	sl -sandy loam	scl -sandy clay loam	w -weathered	pl -platy
cob -cobble & cobbly	vfs -very fine sand	fsl -fine sandy loam	cl -clay loam	fx -fractured	pr -prismatic
g -gravel & gravelly	cos -loamy coarse sand	vfsl -very fine loamy sand	sicl -silty clay loam	sed -sedimentary	bk -blocky
vcos -very coarse sand	ls -loamy sand	l -loam	sc -sandy clay	0 -no structure	abk -angular
cos -coarse sand	lfs -loamy fine sand	si -silt	c -clay	1 -weak	blocky
s -sand	cosl -coarse sandy loam	sil -silt loam	llesd -layer limiting effective soil depth	2 -moderate	sbk -subangular
				3 -strong	blocky

NOTES: structure, % loose rock, roots, redoximorphic features, water, llesd, etc.

DEPTH (inches) TEXTURE COLOR

1	0-13	sicl	10yr <sup>3/3</sup>	wk sbk	many f roots
	13-22	sicl	10yr <sup>4/4</sup>	sbk	few v f roots
	22-39	sicl	10yr <sup>3/3</sup>	sbk	" " " - Ash From Fire
	39-56	sicl	10yr <sup>4/4</sup>	sbk	w/ saprolite - no llesd

notes

2	0-14	sicl	10yr <sup>3/3</sup>	sbk	many f roots
	14-32	sicl	10yr <sup>4/4</sup>	sbk	
	32-40	sicl	10yr <sup>3/3</sup>		w/ intermittent 1/2 motes around 3/4 of pit
	40-50	sic	10yr <sup>3/3</sup>		hard when dry

notes

SLOPE 1% ASPECT N-NW GROUNDWATER NA; TEMPORARY; PERMANENT

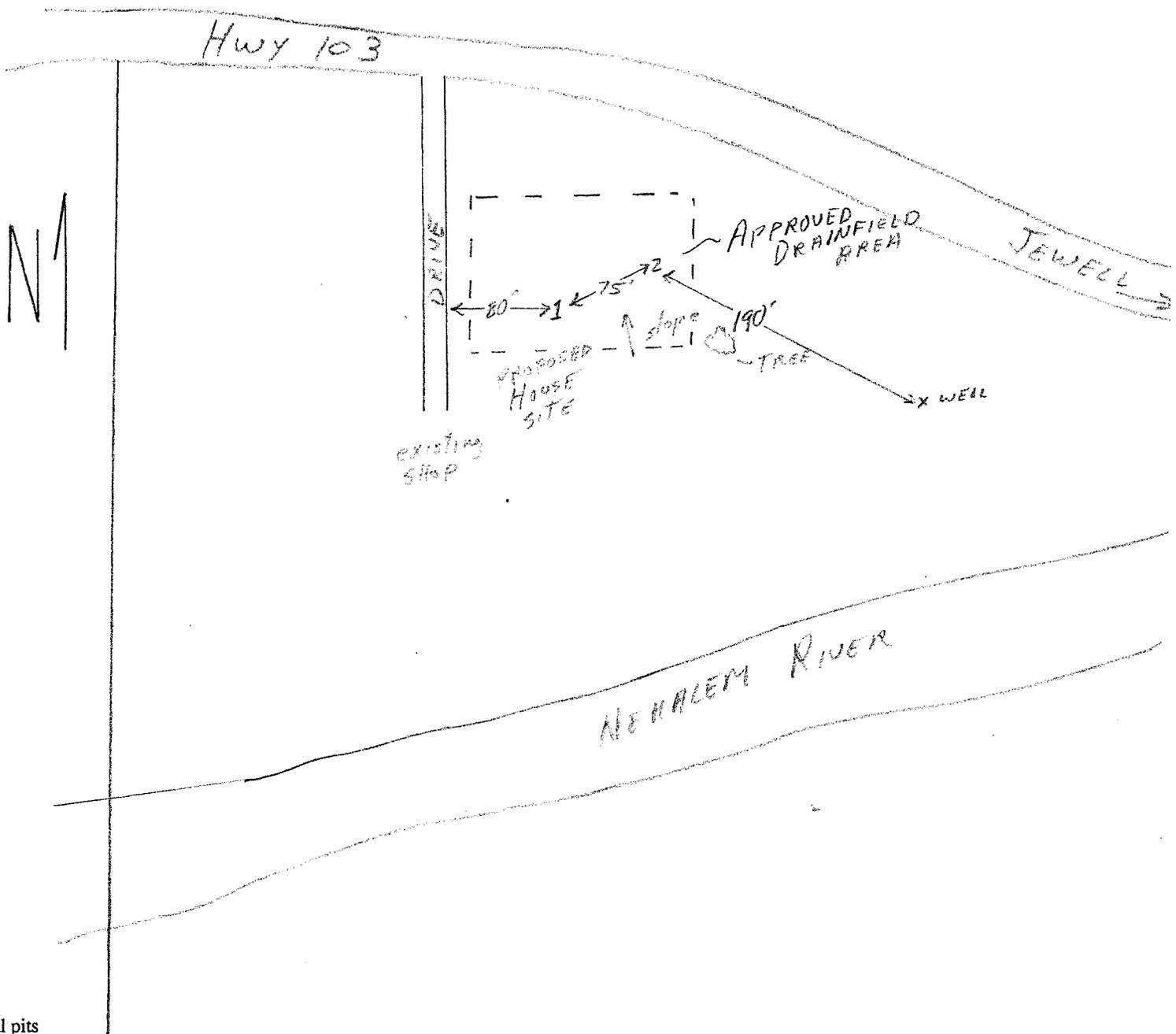
SYSTEM TYPE: design sewage flow 450 gpd

initial: standard equal replacement: same

disposal field sizing: 125' /150 g disposal field sizing: 125' /150 g

max. depth absorption facility: 30 inches max. depth absorption facility: 30 inches

special conditions:/comments \_\_\_\_\_



Additional pits

---

---

---

---

---

---

---

---

---

---

ites

---

---

---

---

---

---

---

---

---

---

ites

---

---

---

---

---

---

---

---

---

---

STATE OF OREGON  
 DEPARTMENT OF ENVIRONMENTAL QUALITY  
 NORTH COAST OFFICE  
 17 N. Highway 101  
 Warrenton, OR 97146  
 (503) 861-3280

NRL

FOR OFFICE USE ONLY

Date Rec'd 4-4-96  
 Date Completed 5-7-96  
 Required Fee \$ 365.00  
 Receipt No. 72444  
 Control No. \_\_\_\_\_

41

FOR APPLICANT'S USE - (PLEASE PRINT)

12.75 Acres  
 Lot Size (Acreage or Dimensions)

MAXW. SUSAN J. NORMAN  
 (Property Owner's Name)

(Applicant's Name if Different from Owner)

Legal Description  
 of Property

5 NORTH 7 WEST 23 -500 CLATSOP  
 (Township) (Range) (Section) (Tax Lot/Acct. No.) (County)

For Parcels in Platted  
 Subdivisions, Indicate

(Subdivision Name) (Lot Number) (Block Number)

Proposed Facility

Water Supply

Single Family Residence 4  
 (Number of Bedrooms)  
 Other \_\_\_\_\_  
 (Specify)

Public (Community System)  
 Private Well  
 (Indicate: Well, Spring, Etc.)

Existing Facility

Single Family Residence 3 To be TORN Down  
 (Number of Bedrooms)  
 Other \_\_\_\_\_  
 (Specify)

APPLICATION FOR:

- Site Evaluation Report
- Permit to Construct On-Site Sewage Disposal System
- Permit to Repair On-Site Sewage Disposal System
- Permit for Alteration of On-Site Sewage Disposal System
- Permit Renewal
- Existing System Report
- Plan Review
- Other (Specify) \_\_\_\_\_

- Authorization Notice
- Purpose of Authorization Notice
- Connect to an existing system not currently in use
- Replace one mobile home with another or a house
- Replace or rebuild a house
- Addition of one or more bedroom
- Personal hardship
- Temporary housing
- Other (Specify) \_\_\_\_\_

This application will be returned if it is not filled out completely and accompanied by the appropriate fee and attachments required in the guidance packet. Your site must be prepared according to instructions in the guidance packet before action can be taken on this application.

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

Max Norman  
 (Signature)

4-4-96  
 (Date)

Authorized Representative  
 Licensed Installer  
 License No. \_\_\_\_\_

Owner's Mailing Address

Applicant's Mailing Address (if different)

ELSIE RT BOX 1220  
SEASIDE OREGON  
97138

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Phone 755-2407

Phone \_\_\_\_\_

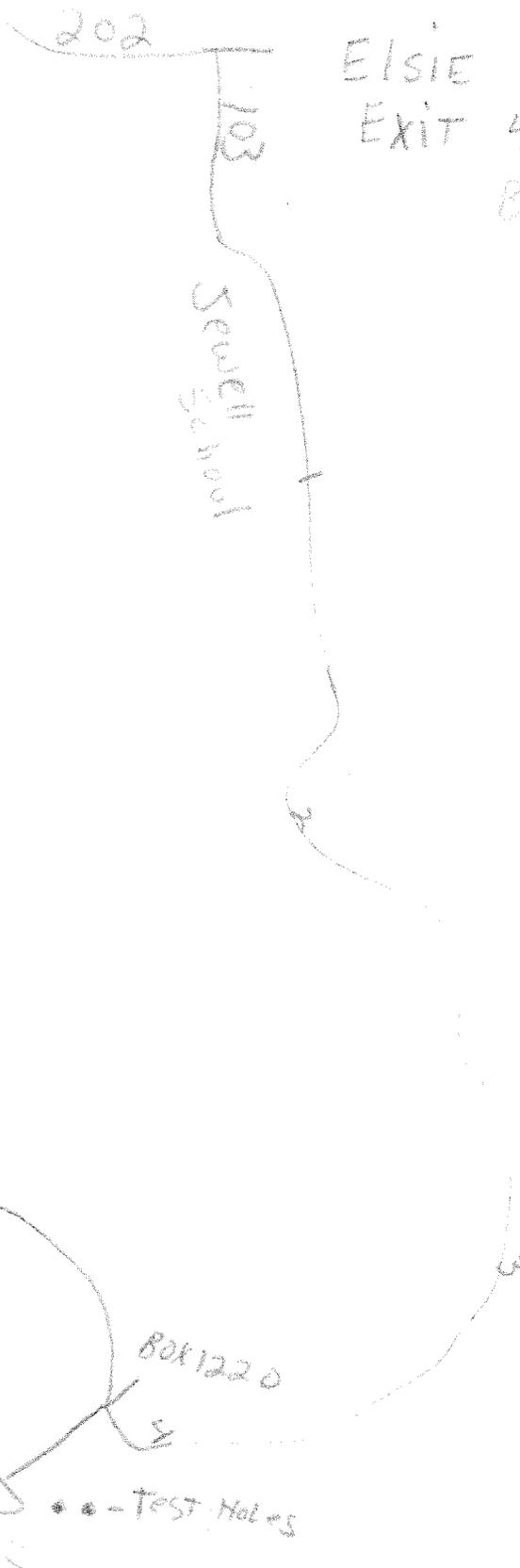
IW\WC8\WC8690 (7-19-91)

LEAVING ASTORIA HWY 202 EAST TO Jewell

DEPT. OF ENVIRONMENTAL QUALITY  
RECEIVED

APR 4 1996

NORTH COAST BRANCH OFFICE  
WARRENTON



ELSIE  
EXIT 4 miles ON 103  
BOX 1220

FR 26 EAST -

TAKE JEWELL EXIT

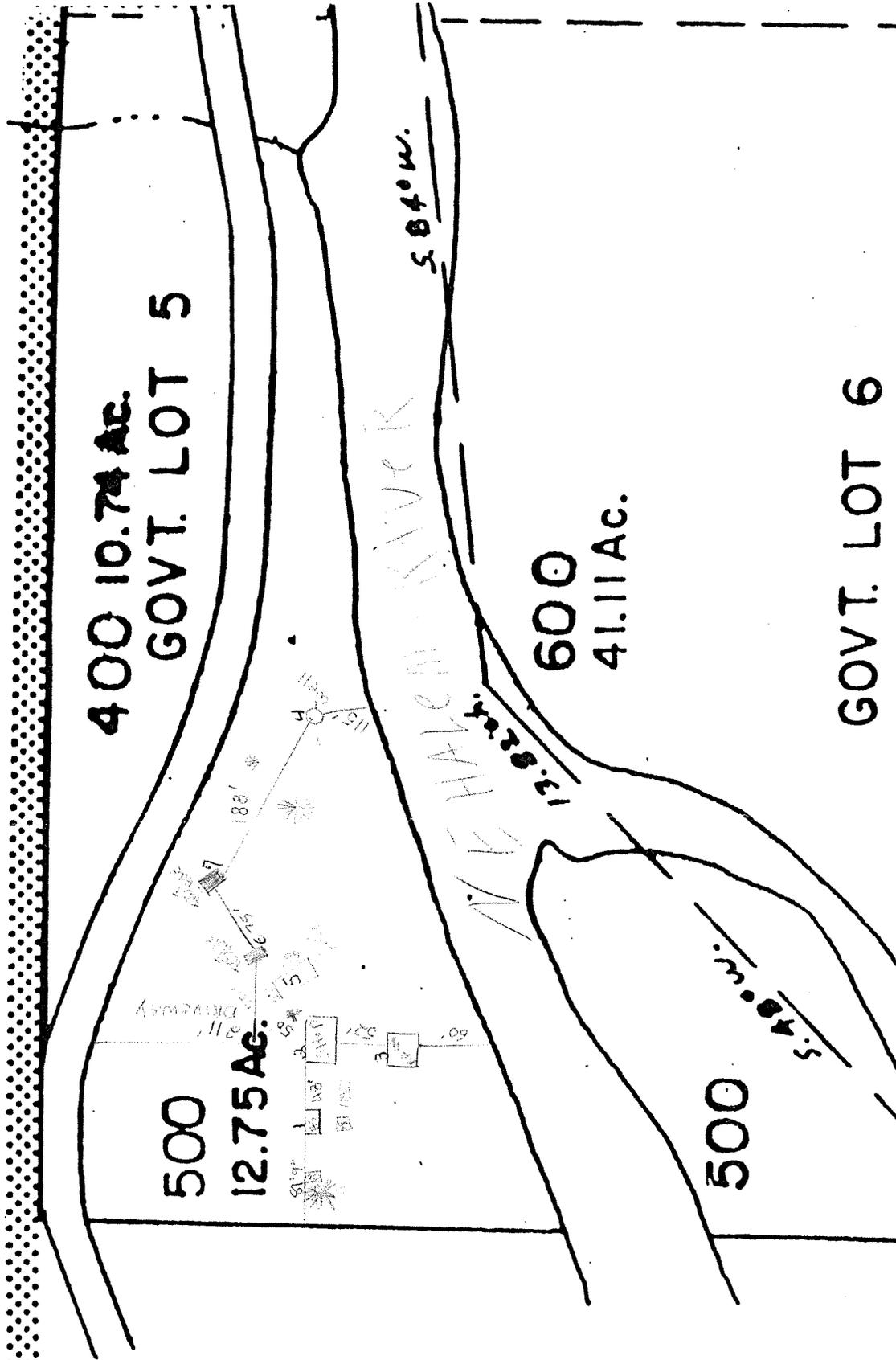
HWY 103 4.7 APPROX.

HOUSE ON RIGHT

(JEWELL FARM SUPPLY OR MAILBOX)  
1/2 MILE

APR 4 1996

NORTH COAST BRANCH OFFICE  
WARRENTON



- 1 Existing house
- 2 Shop
- 3 Barn
- 4 well / Pump house
- 5 Proposed Site
- 6 test hole
- 7 test hole

22 7 5

Map ee