



1510 – B Third Street
Tillamook, Oregon 97141
www.tillamookcounty.gov
(503) 842-3408

Land of Cheese, Trees and Ocean Breeze

RESOURCE ZONE EXCEPTION #851-24-000168-PLNG: AR NORTHWEST, LLC/ VAN ORMAN
NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER:
ORS 215 REQUIRES THAT IF YOU RECEIVE THIS NOTICE,
IT MUST BE PROMPTLY FORWARDED TO THE PURCHASER

NOTICE OF ADMINISTRATIVE REVIEW

Date of Notice: May 16, 2024

Notice is hereby given that the Tillamook County Department of Community Development is considering the following:

#851-24-000168-PLNG: An exception request to reduce the required 100-foot resource zone setback from the Forest (F) zone boundary by 45-feet to establish a 55-foot setback from the northerly (side) property line to allow for the placement of a residential structure (single-family dwelling).

The subject property is located southeast of the unincorporated community of Netarts, is zoned Rural Residential 2-Acre (RR-2) and is designated as Tax Lot 500 in Section 5DD of Township 2 South, Range 10 West of the Willamette Meridian, Tillamook County, Oregon. The applicant is AR Northwest, LLC and the property owner is James and Heidi Van Orman.

Written comments received by the Department of Community Development prior to 4:00p.m. on May 30, 2024, will be considered in rendering a decision. Comments should address the criteria upon which the Department must base its decision. A decision will be rendered no sooner than May 31, 2024.

Notice of the application, a map of the subject area, and the applicable criteria are being mailed to all property owners within 250 feet of the exterior boundaries of the subject parcel for which an application has been made and other appropriate agencies at least 14 days prior to this Department rendering a decision on the request.

A copy of the application, along with a map of the request area and the applicable criteria for review are available for inspection on the Tillamook County Department of Community Development website: <https://www.tillamookcounty.gov/commdev/landuseapps> and is also available for inspection at the Department of Community Development office located at 1510-B Third Street, Tillamook, Oregon 97141.

If you have any questions about this application, please call the Department of Community Development at 503-842-3408 Ext. 3314 or Allison.Chase@tillamookcounty.gov.

Sincerely,

Allison Chase, Land Use Planner

Sarah Absher, CFM, CBO, Director

Enc. Applicable Ordinance Criteria, Maps

REVIEW CRITERIA

SECTION 3.010: RURAL RESIDENTIAL 2 ACRE AND 10 ACRE ZONE (RR-2) (RR-10) (4) STANDARDS: Land divisions and development in the RR-2 and RR-10 zone shall conform to the following standards, unless more restrictive supplemental regulations apply:

...

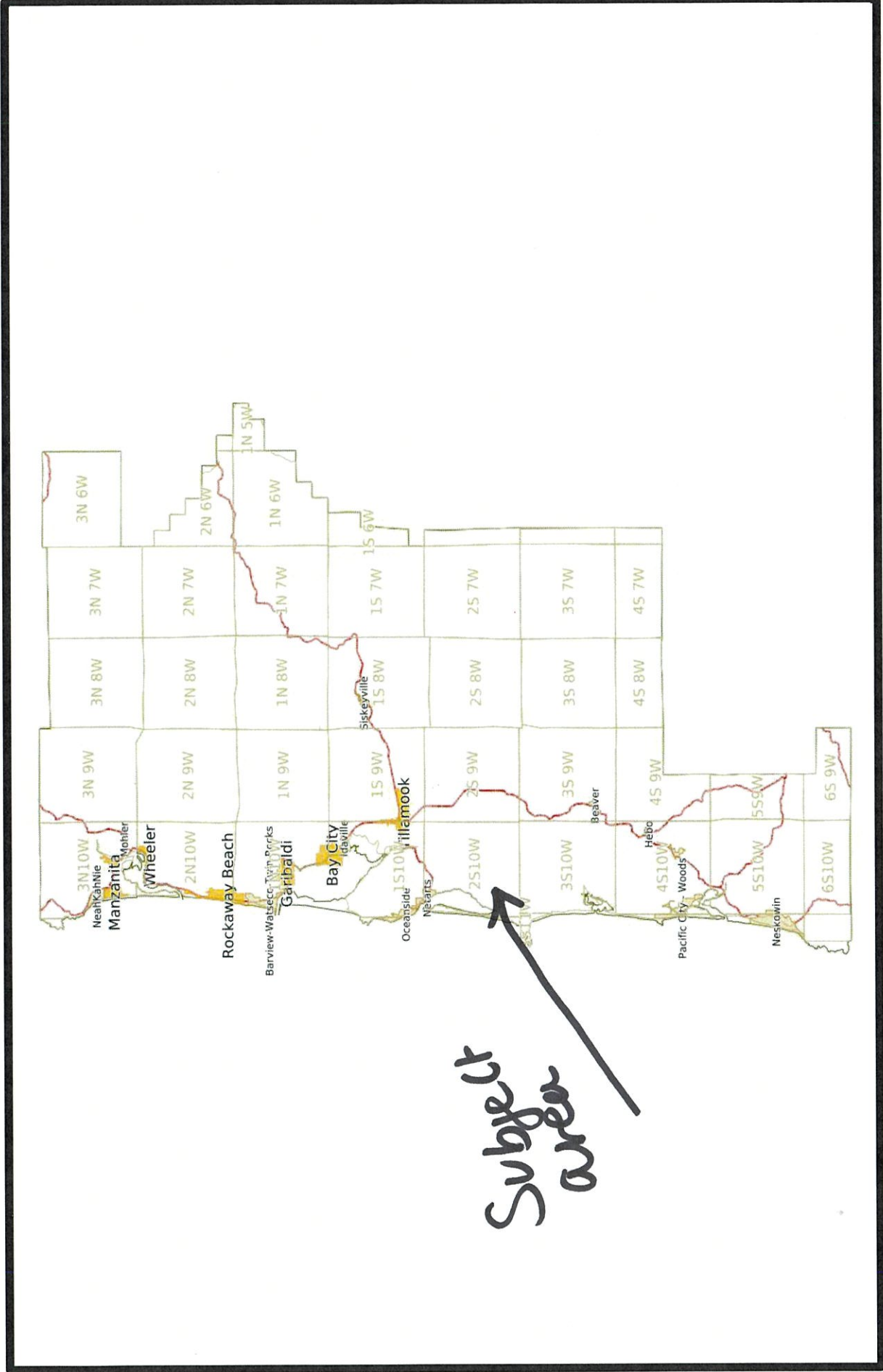
- (f) The minimum front yard shall be 20 feet.
- (g) The minimum side yard shall be 5 feet; on the street side of a corner lot, it shall be no less than 15 feet.
- (h) The minimum rear yard shall be 20 feet; on a corner lot, it shall be no less than 5 feet.
- (i) The maximum building height shall be 35 feet, except on ocean or bay frontage lots, where it shall be 24 feet. Higher structures may be permitted only according to the provisions of Article 8.

...

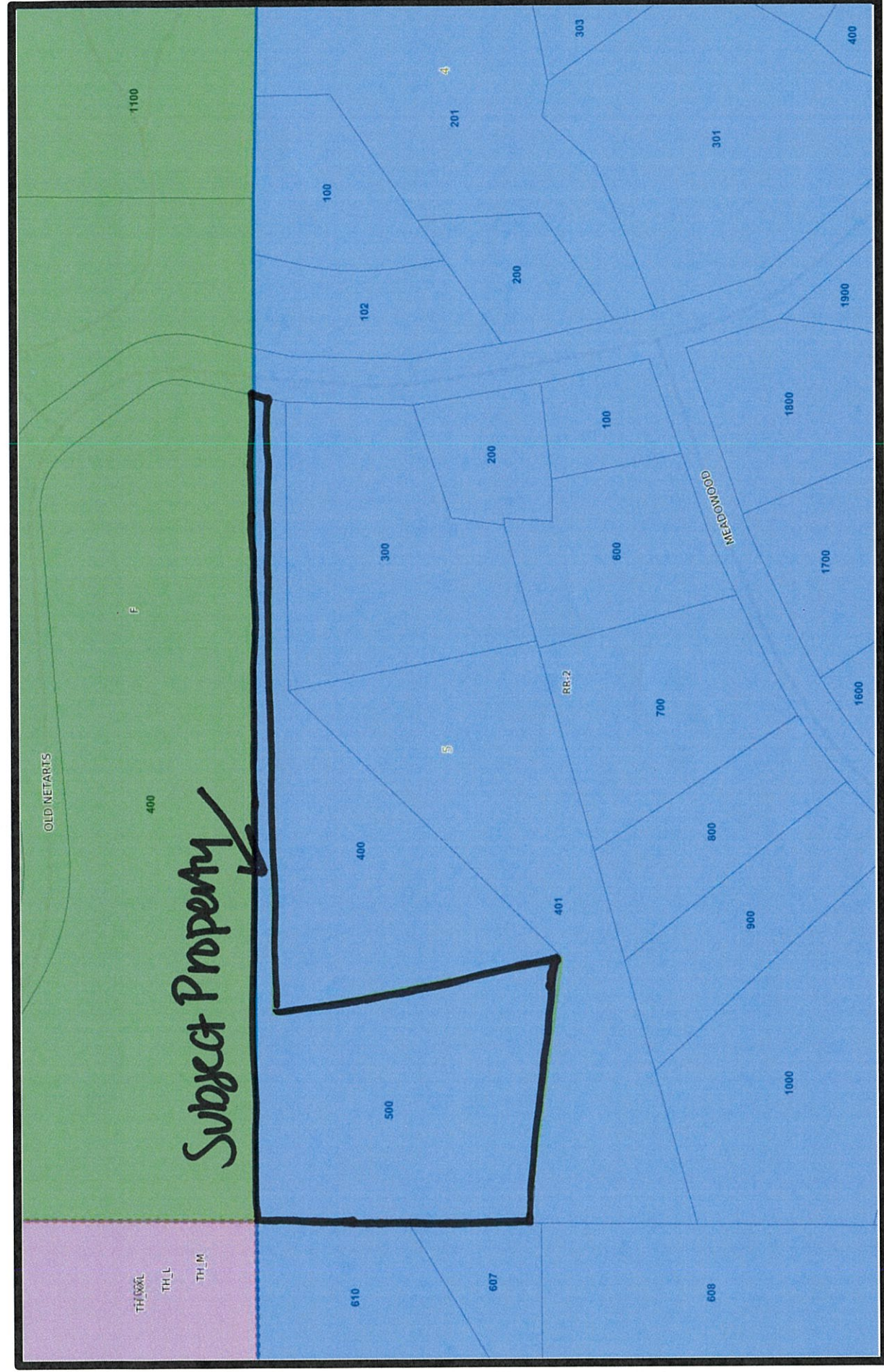
- (k) *No residential structure shall be located within 100 feet of an F-1, F, or SFW-20 zone boundary, unless it can be demonstrated that natural or man-made features will act as an equally effective barrier to conflicts between resource and residential used; or that a residential structure could not otherwise be placed on the property without requiring a variance to the 100-foot requirement. In either case, all yard requirements in this zone shall still apply.*

EXHIBIT A

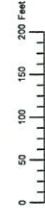
Vicinity Map



Zoning Map



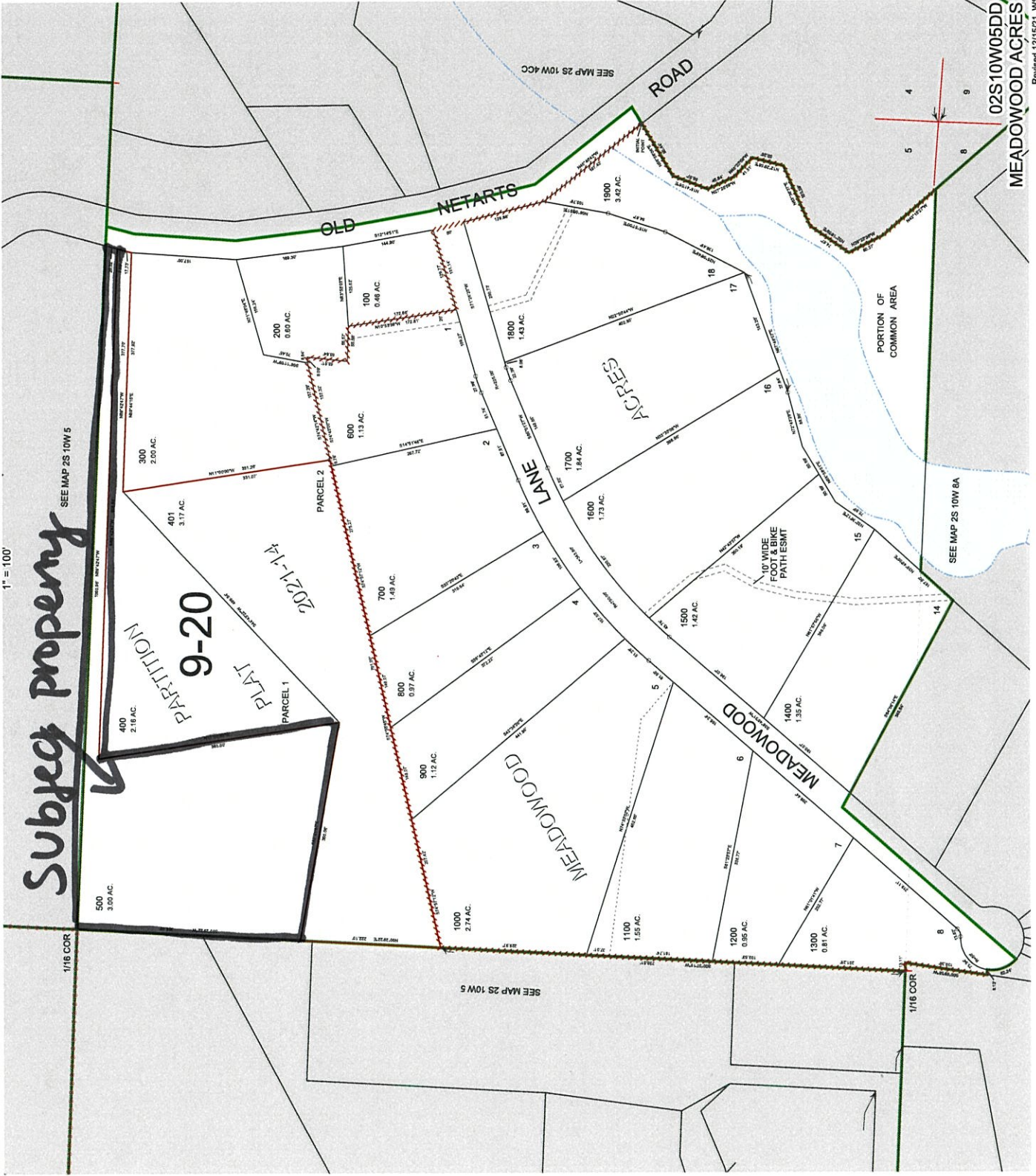
THIS MAP WAS PREPARED FOR ASSESSMENT PURPOSE ONLY



S.E. 1/4 S.E. 1/4 SEC. 5 T.2S. R. 10W. W.M.
TILLAMOOK COUNTY

1" = 100'

02S10W05DD
MEADOWWOOD ACRES



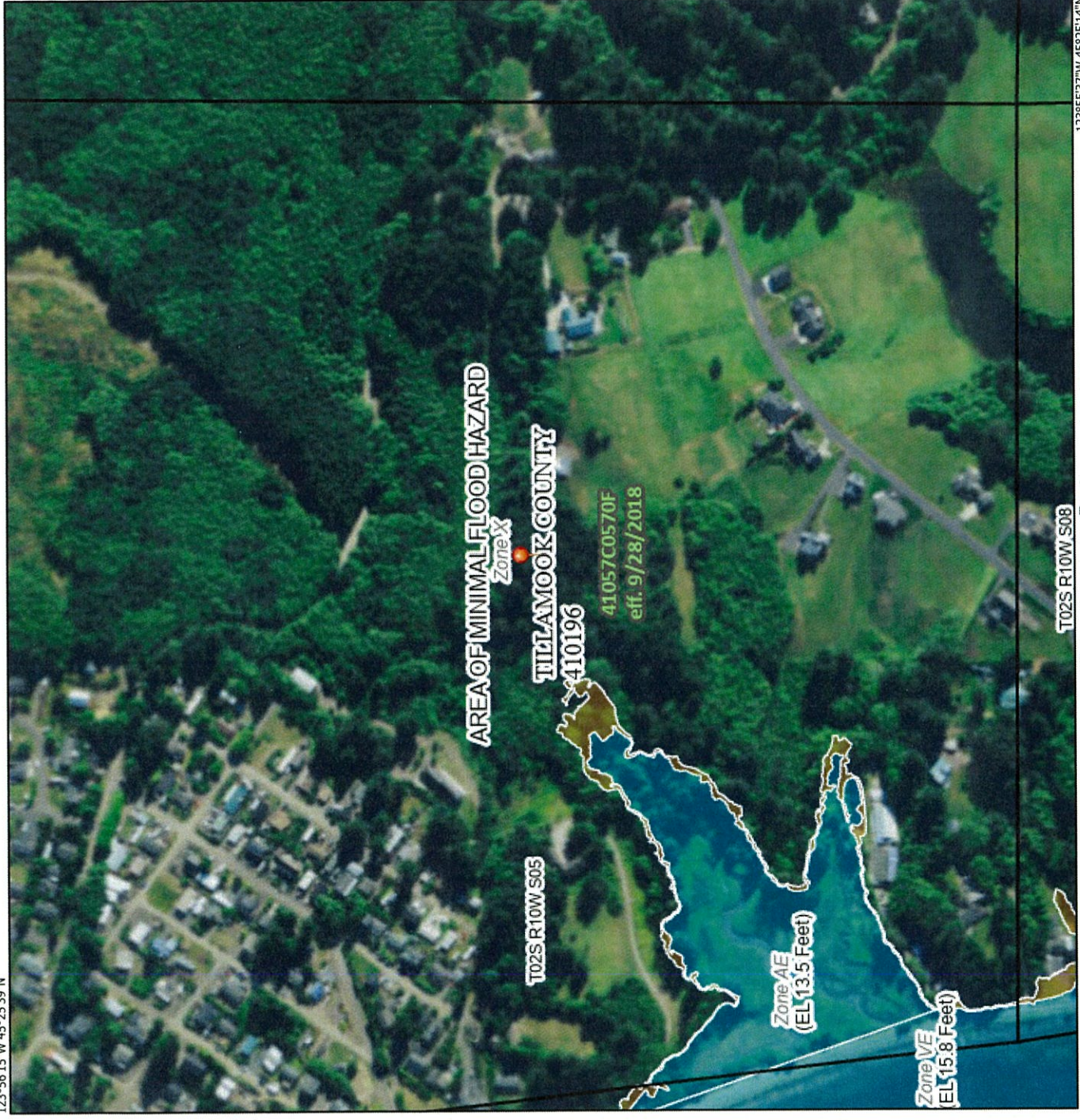
02S10W05DD
MEADOWWOOD ACRES

Revised 12/15/21, WS

National Flood Hazard Layer FIRMette



123°56'15"W 45°25'39"N



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

- SPECIAL FLOOD HAZARD AREAS**
- Without Base Flood Elevation (BFE) Zone A, V, A99
 - With BFE or Depth Zone AE, AO, AH, VE, AR
 - Regulatory Floodway
- OTHER AREAS OF FLOOD HAZARD**
- 0.2% Annual Chance Flood Hazard. Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile. Zone X
 - Future Conditions 1% Annual Chance Flood Hazard Zone X
 - Area with Reduced Flood Risk due to Levee. See Notes. Zone X
 - Area with Flood Risk due to Levee Zone D

- OTHER AREAS**
- NO SCREEN
 - Area of Minimal Flood Hazard Zone X
 - Effective LOMRs
 - Area of Undetermined Flood Hazard Zone D
- GENERAL STRUCTURES**
- Channel, Culvert, or Storm Sewer
 - Levee, Dike, or Floodwall

- Cross Sections with 1% Annual Chance Water Surface Elevation**
- 20.2
 - 17.5
 - 8
- OTHER FEATURES**
- Coastal Transect
 - Base Flood Elevation Line (BFE)
 - Limit of Study
 - Jurisdiction Boundary
 - Coastal Transect Baseline
 - Profile Baseline
 - Hydrographic Feature

- MAP PANELS**
- Digital Data Available
 - No Digital Data Available
 - Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

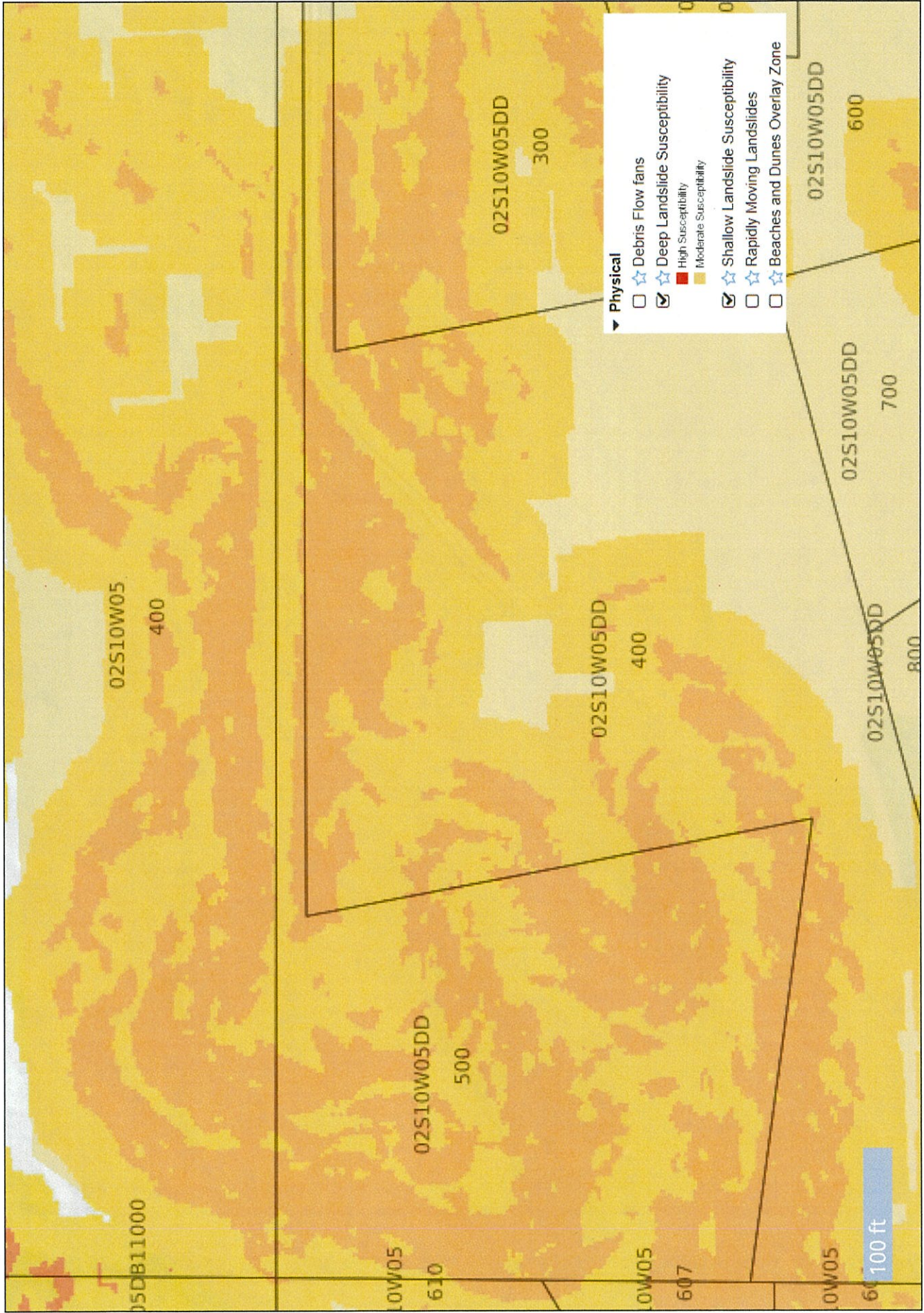
This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards.

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 5/10/2024 at 7:23 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.



Hazard Map



Disclaimer: The spatial information hosted at this website was derived from a variety of sources. Care was taken in the creation of these themes, but they are provided "as is." The state of Oregon, or any of the data providers cannot accept any responsibility for errors, omissions, or positional accuracy in the digital data or underlying records. There are no warranties, expressed or implied, including the warranty of merchantability or fitness for a particular purpose. However, notification of any errors would be appreciated. The data are clearly not intended to indicate the authoritative location of property boundaries, the precise shape or contour of the earth or the precise location of fixed works of humans.

Tillamook County
2023 Real Property Assessment Report
 Account 372117

Map 2S1005DD00500
Code - Tax ID 0920 - 372117

Tax Status Assessable
Account Status Active
Subtype NORMAL

Legal Descr See Record

Mailing VAN ORMAN, JAMES WELBURN & HEIDI COLLEEN
 496 FAIRWAY CT
 SEASIDE OR 97138

Deed Reference # 2022-6935
Sales Date/Price 11-18-2022 / \$210,000
Appraiser ELIZABETH LOFTIS

Property Class 400 MA SA NH
RMV Class 400 08 AC 842

Site	Situs Address	City
------	---------------	------

Value Summary					
Code Area	RMV	MAV	AV	RMV Exception	CPR %
0920 Land	176,970		Land	0	
Impr	0		Impr	0	
Code Area Total	176,970	72,500	72,500	0	
Grand Total	176,970	72,500	72,500	0	

Land Breakdown									
Code Area	ID #	RFPD	Ex	Plan Zone	Value Source	Trend %	Size	Land Class	Trended RMV
0920	0			RR-2	Market	112	3.00 AC		176,970
Code Area Total							3.00 AC		176,970

Improvement Breakdown								
Code Area	Year Built	Stat Class	Description	Trend %	Total Sqft	Ex% MS Acct	Trended RMV	

Exemptions / Special Assessments / Notations					
Code Area	0920	Fire Patrol	Amount	Acres	Year
		■ FIRE PATROL NORTHWEST	18.75	3.00	2023
		■ FIRE PATROL SURCHARGE	0.00		2023

Comments 2/25/11 Moved to 542 neighborhood, zoned RR-2. EJ.
 3/17/14 Land re-appraisal, tabled land. EJ.

EXHIBIT B

March 27, 2024

Tillamook County- Exemption to Resource

Map: 2S1005DD00500

To whom it may concern,

I am a general contractor working on behalf of James Van Orman to acquire an exemption to resource for his property, so that we may construct a new single-family dwelling. This property zoned RR-2 abuts a property to the north zoned F (2S10050000400). Due to this zone location, my client's dwelling is required to be set back 100' from the north property line. This creates many conflicts to building on this lot due to site slope, soil composition, and ravine consisting of a natural drainage way. I have included geotechnical reports, maps of national wetlands, as well as topographical maps showing these restrictions.

Due to these site features we need to build this dwelling at a setback distance of 45' from the northern property line and still adhering to all other zoning setbacks for the property. In addition to the before mentioned maps, I have included plans showing building design and a comprehensive site plan with topographic elevations as to the placement of the dwelling and other site features i.e.. Driveway, septic system, potential retaining walls.

In conclusion, we ask to obtain this exemption to resource so that the property can be improved upon and a single family dwelling constructed in a safe and efficient manner without obstructing natural drainage and habitat.

Thank you for your consideration.

Sincerely,

Adam Rushing



AR Northwest LLC

November 12, 1991

HAYDEN HAUPERT
3050 WHISKEY CREEK ROAD
TILLAMOOK OREGON 97141

Re: OSS-Tillamook Co.
Site Evaluation, Approved
T2S, R10W, SEC 5,
TL 505

Dear Mr. Hauptert:

In response to your completed application of July 12, 1991 (Tillamook County Application No. 91-1110) a field inspection was made on October 1, 1991. The field inspection was made by Department of Environmental Quality staff assisting Tillamook County. Topographic and physical features of the site were checked. Soil information was collected by examining soil pit(s). The field worksheet is attached for your reference.

Based on the field work, the site complies with the rules of the Oregon Environmental Quality Commission. At least one specific area meets Oregon Administrative Rules Chapter 340, Division 71, governing on-site sewage disposal. The attached favorable report of evaluation for one lot shows approval of a standard or alternative sewage disposal system.

An approved report is not a permit to construct the system. However, it is a valuable document, similar to the title to an automobile. The approval runs with the land and is transferable. A permit will be issued to the owner of the land upon receipt of a complete application and fee; it will be good for one year and is renewable. Conditions on the approved site or adjacent land must not be altered in a manner that would prohibit permit issuance. For example, topsoil is removed from the approved site, neighbor drills a well too close, an improper partition,



STATE OF OREGON
DEPARTMENT OF ENVIRONMENTAL QUALITY

For Office Use Only

REPORT OF EVALUATION FOR ONE LOT

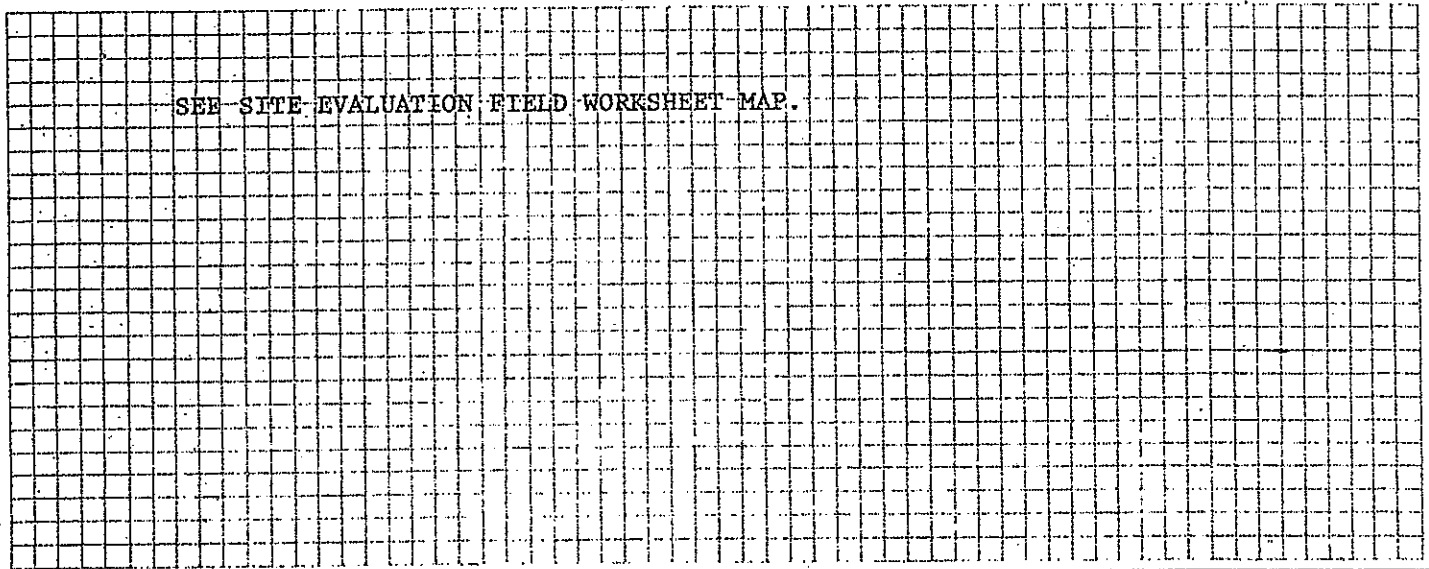
ON-SITE SEWAGE SYSTEMS
(Technical Report — Not a Permit)

HAUPERT

T2S (Township)	R10W (Range)	5 (Section)	505 (Tax Lot/Acct. No.)	TILLAMOOK (County)
(Subdivision Name)	(Lot No.)	(Block No.)	(Lot Size)	

The Entire Property Has Has Not Been Evaluated

PLOT PLAN OF APPROVABLE AREA:



Any alteration of the natural conditions in the area approved for the on-site system or replacement area may void this approval.

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 subject or adjacent properties have not been altered in any manner which would prohibit issuance of a permit in accordance with O.R.S. 454.605 through 454.755 and Administrative Rules of the Environmental Quality Commission. Any such subdivision, partitioning or alteration may void this report.

The site has been found suitable for installation of the following kinds of on-site sewage disposal systems, with the limitations and additional requirements indicated:

Standard serial distribution system with design flow of 450 gpd (up to four bedrooms) and
 300 linear feet of disposal trench per disposal field (initial and replacement - 100' /150 gp
 100' setback to all wells. 25' setback to drainage way and road cutbanks.

WARNING: This document is a technical report for on-site sewage disposal only. It may be converted to a permit only if, at the time of application, the parcel has been found to be compatible with applicable LCDC-acknowledged local comprehensive land use plans and implementing measures or the Statewide Planning Goals. The Statement of Compatibility may be made on the attached form or its equivalent. Authorized Agent approval is required before a construction permit can be issued.

This report is valid until an on-site sewage system is installed pursuant to a construction permit obtained from _____, or until earlier cancellation, pursuant to Commission rules, with written notice thereof by the Department of Environmental Quality to the owners according to Department records or the County tax records. Subject to the foregoing, this report runs with the land and will automatically benefit subsequent owners.

Cathy Arnold
 (Signature of Authorized Agent)

ES II
(Title)

11-12-91
(Date)

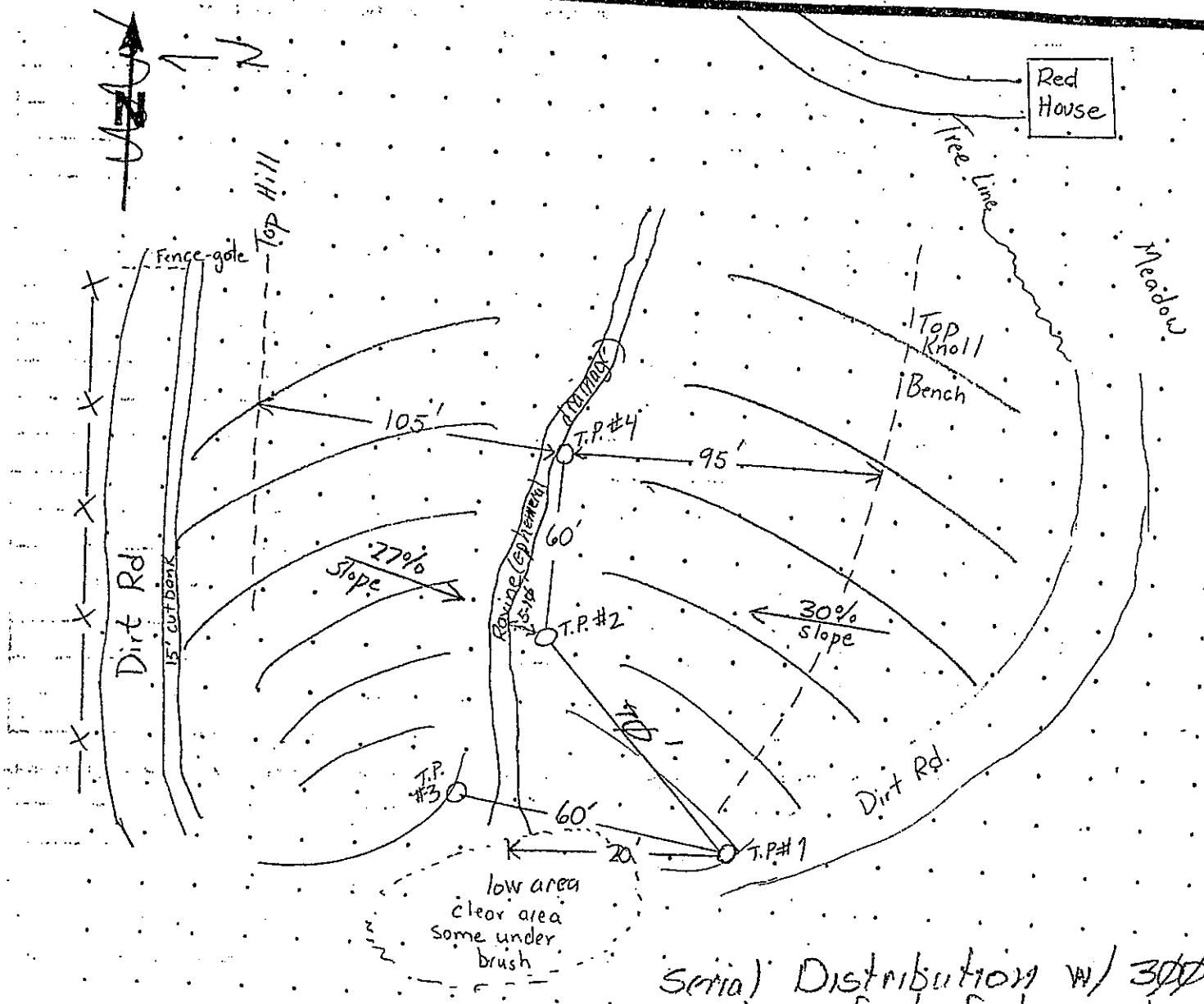
DEQ/NWR
(Office)

Tax Reference T.2S, R.10W, S.5, TL 505

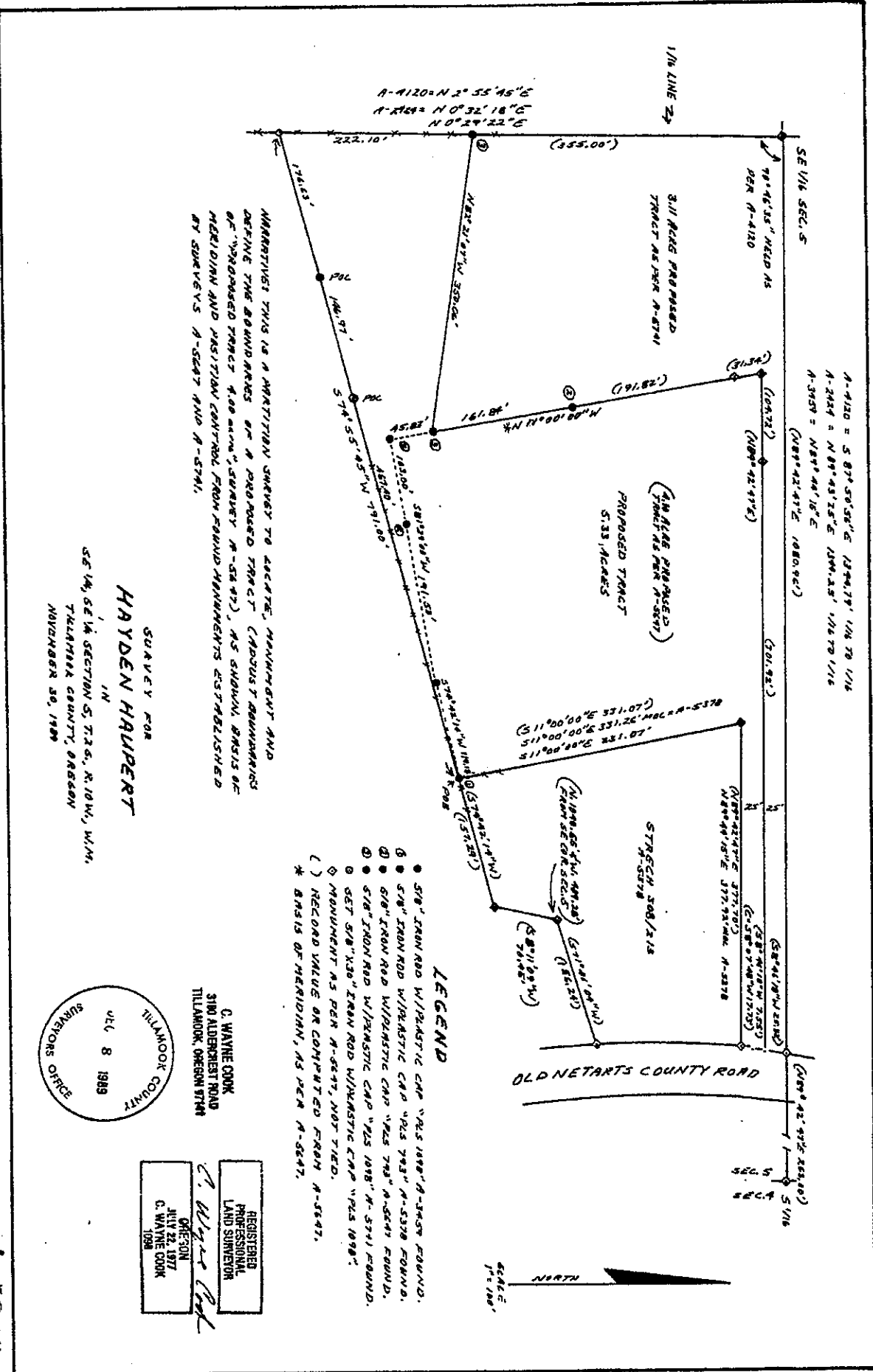
Applicant Hayden H. Hauptert

Date: 10-1-91

Evaluator: DWD + JKJ



Serial Distribution w/ 3000
linear feet of disposal
Field (initial & replacement, etc)
- 24" to 30" bench dept.
- both disposal fields to
be centered on test
pits w/ 25' setbacks from
drainage way & road cut banks
- 100' setback from all well



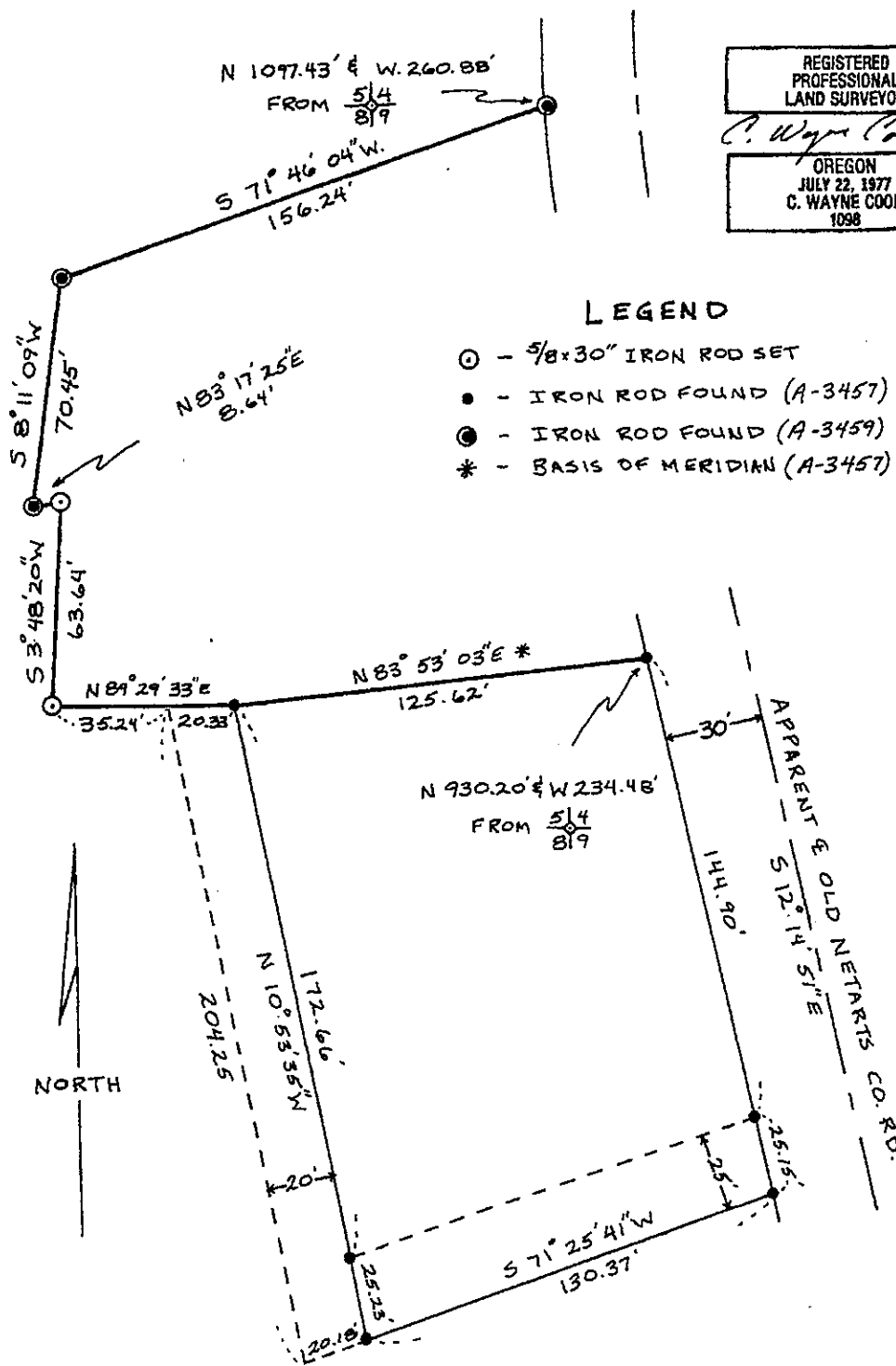
HEREBY THIS IS A PARTITION SURVEY TO LOCATE, MAINTAIN AND DEFINE THE BOUNDARIES OF A PROPOSED TRACT (ADJUST BOUNDARIES OF "PROPOSED TRACT 4.00 ACRES", SURVEY N-5247), AS SHOWN, BASIS OF MERIDIAN AND POSITION CONTROL FROM FOUND MONUMENTS ESTABLISHED BY SURVEYS N-5247 AND N-5741.

SURVEY FOR
HAYDEN HAUBERT
 IN
 SEC 14, SE 1/4 SECTION 5, T.35. N. 10 W., W.14,
 TILLAMOOK COUNTY, OREGON
 NOVEMBER 30, 1989

- LEGEND**
- 5/8" IRON ROD W/PLASTIC CAP "PLS 1890" N-5247 FOUND.
 - 5/8" IRON ROD W/PLASTIC CAP "PLS 793" N-5247 FOUND.
 - 6/8" IRON ROD W/PLASTIC CAP "PLS 793" N-5247 FOUND.
 - 5/8" IRON ROD W/PLASTIC CAP "PLS 1098" N-5741 FOUND.
 - SET 5/8" X 30" IRON ROD W/PLASTIC CAP "PLS 1090".
 - MONUMENT AS PER N-5247, NOT TIED.
 - () RECORD VALUE OR COMPUTED FROM N-5247.
 - * BASIS OF MERIDIAN, AS PER N-5247.

TILLAMOOK COUNTY
 JUN 8 1989
 SURVEYORS OFFICE

REGISTERED
 PROFESSIONAL
 LAND SURVEYOR
 C. Wayne Cook
 ONE SON
 JULY 22, 1977
 C. WAYNE COOK
 1098



REGISTERED
PROFESSIONAL
LAND SURVEYOR

C. Wayne Cook

OREGON
JULY 22, 1977
C. WAYNE COOK
1098

A-4329

LEGEND

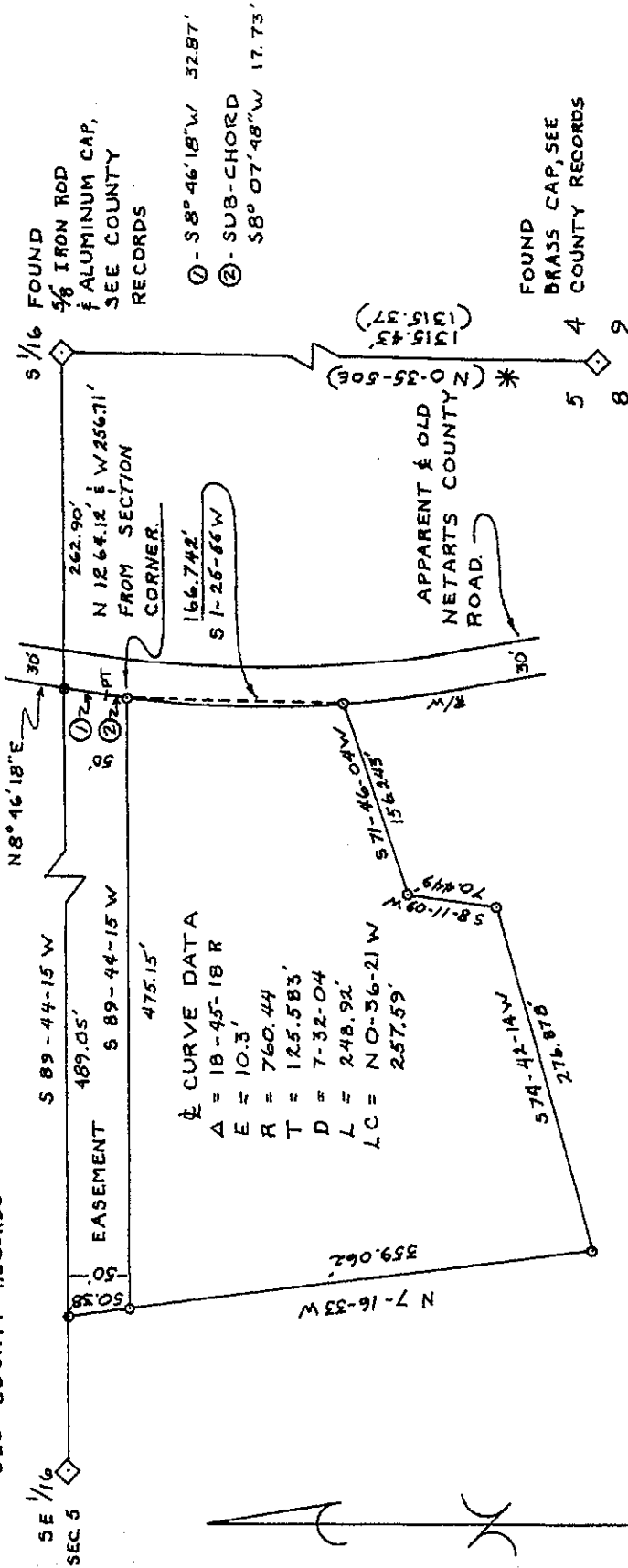
- ⊙ - 5/8" x 30" IRON ROD SET
- - IRON ROD FOUND (A-3457)
- ⊙ - IRON ROD FOUND (A-3459)
- * - BASIS OF MERIDIAN (A-3457)

SURVEY FOR
HAYDEN HAUPERT
PORTIONS OF SE 1/4, SEC. 5, T. 2S, R. 10W., W.M.
TILLAMOOK COUNTY
OREGON
OCTOBER 1980
SCALE 1" = 40'

C. WAYNE COOK
LAND SURVEYING
533 HIGHWAY 101 NORTH
TILLAMOOK, OREGON 97141
503-842-8380
DRAWN BY L.E. 10-11-80 CHECKED BY CWC 10-28-80

FOUND 5/8" IRON ROD,
SEE COUNTY RECORDS

SE 1/16
SEC. 5



LEGEND

- * - CONTROL MERIDIAN
- () - BEARING/DISTANCE AS DEPICTED ON DRAWING NO. A-2424, TILLAMOOK COUNTY SURVEYORS RECORDS.
- o - 5/8" IRON ROD WITH PLASTIC CAP I SET.

SURVEY FOR
HAYDEN HAUPERT

PORTION OF
N 1/2 SE 1/4, SE 1/4, SECTION 5 T2S, R10W, W.M.
TILLAMOOK COUNTY
OREGON

SCALE - 1"=100'
MAY 23, 1978

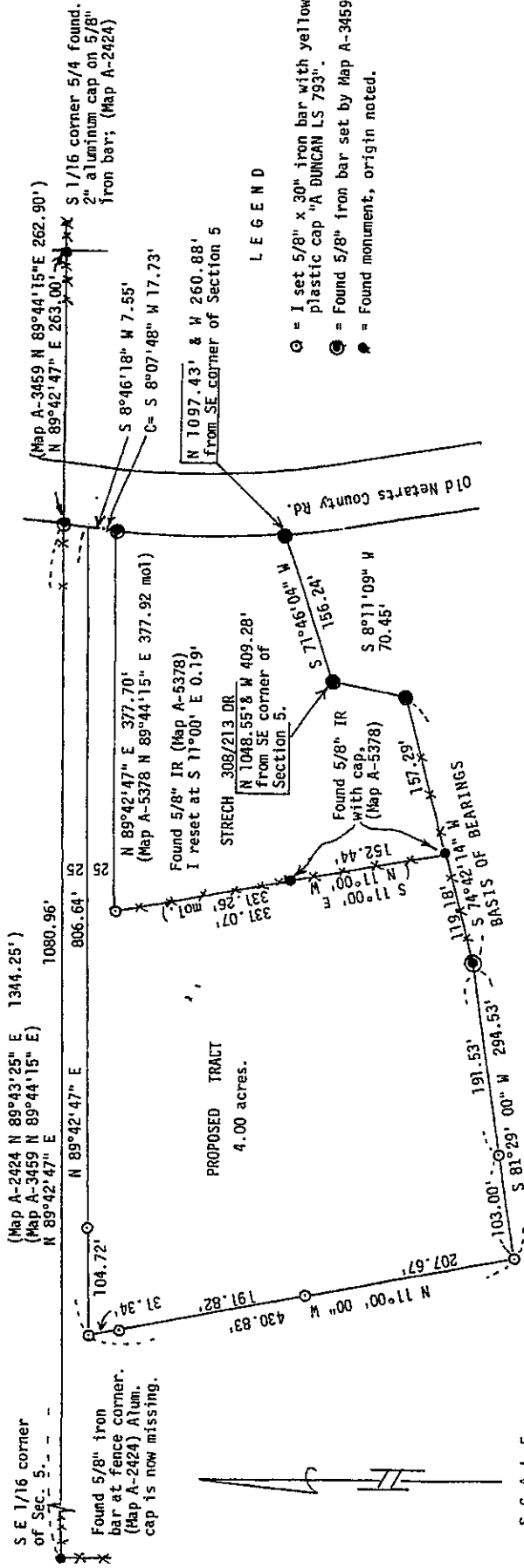
REGISTERED
PROFESSIONAL
LAND SURVEYOR

C. Wayne Cook

OREGON
JULY 29, 1977
C. WAYNE COOK
1098

A-3459

R.A.N. 5-23-78



S C A L E
1" = 100'

L E G E N D
 ○ = I set 5/8" x 30" iron bar with yellow plastic cap 'A DUNCAN LS 793'
 ● = Found 5/8" iron bar set by Map A-3459.
 * = Found monument, origin noted.

THEODOLITE & TAPE/EDM SURVEY MAP
for
HAYDEN HAUPERT

SE 1/4 Section 5, T. 2 S., R. 10 W., M.M.
Tillamook County, Oregon
JULY 8, 1988

REGISTERED
PROFESSIONAL
LAND SURVEYOR
Allan E. Duncan
OREGON
JULY 14, 1967
ALLAN E. DUNCAN
1993



A-5647

N A R R A T I V E

This survey was conducted as a partition survey to monument a proposed tract and to also provide a basis for description. BASIS OF BEARINGS: The record value of S 74°42'14" W between the found monuments established by Map A-3459. The tie to the southeast corner of section 5 was not retraced, the record coordinate values being held.

Allan E. Duncan
4206 Cypress St.
Tillamook, OR 97141
503-842-5478



PLANNING APPLICATION

Applicant (Check Box if Same as Property Owner)

Name: **AR Nothwest LLC** Phone: **503-354-2176**

Address: **385 Hodgdon rd**

City: **tillamook** State: **OR** Zip: **97141**

Email: **adam@amwconstruction.com**

Property Owner

Name: **James Van Orman** Phone: **503-4843751**

Address: **496 fairway CT**

City: **Seaside** State: **OR** Zip: **97138**

Email: **jvanorma@yahoo.com**

OFFICE USE ONLY	
Date Stamp	RECEIVED
	MAR 27 2024
	BY: drop-off
<input type="checkbox"/> Approved	<input type="checkbox"/> Denied
Received by:	AC
Receipt #:	136666
Fees:	\$1365
Permit No:	851-24 - 000108 -PLNG

Request: Exemption for 100 ft setback requirement from resource zone. Please see attachments for complete info and documents. **45' Setback from Resource Zone.**

Type II

- Farm/Forest Review
- Conditional Use Review
- Variance
- Exception to Resource or Riparian Setback
- Nonconforming Review (Major or Minor)
- Development Permit Review for Estuary Development
- Non-farm dwelling in Farm Zone
- Fore-dune Grading Permit Review
- Neskowin Coastal Hazards Area

Type III

- Detailed Hazard Report
- Conditional Use (As deemed by Director)
- Ordinance Amendment
- Map Amendment
- Goal Exception
- Nonconforming Review (As deemed by Director)
- Variance (As deemed by Director)

Type IV

- Ordinance Amendment
- Large-Scale Zoning Map Amendment
- Plan and/or Code Text Amendment

Location:

Site Address:

Map Number: **02S** **10W** **5DD** **500**

Township Range Section Tax Lot(s)

Clerk's Instrument #: _____

Authorization

This permit application does not assure permit approval. The applicant and/or property owner shall be responsible for obtaining any other necessary federal, state, and local permits. The applicant verifies that the information submitted is complete, accurate, and consistent with other information submitted with this application.

[Signature]
 Property Owner Signature (Required)

[Signature]
 Applicant Signature

3/26/2024
 Date

3/26/2024
 Date



Tillamook County

Transaction Receipt

Record ID: 851-24-000168-PLNG

IVR Number: 851031418499

Office: Not Applicable
1510 - B Third Street
Tillamook, OR 97141
(503) 842-3408
Fax: 503-842-1819
sabsher@co.tillamook.or.us

Receipt Number: 136666

Receipt Date: 3/27/24

<https://www.co.tillamook.or.us/planning>

Parcel: 2S10 05DD 00500

Fees Paid

Transaction date	Units	Description	Account code	Fee amount	Paid amount
3/27/24	1.00 Ea	Exception - Type II - Planning	010-01152-4317	\$1,300.00	\$1,300.00
3/27/24	1.00 Automatic	Local Technology fee - Tillamook County	010-01150-4365	\$65.00	\$65.00

Payment Method: Check number: 5563 Payer: AR NORTHWEST LLC Payment Amount: \$1,365.00

Cashier: Sheila Shoemaker

Receipt Total: \$1,365.00



MORGAN CIVIL ENGINEERING, INC.

PO Box 358, Manzanita, OR 97130

ph: 503-801-6016

www.morgancivil.com

September 5, 2023

Adam Rushing

adam@arnwconstruction.com

**Re: Engineering Portion of Geologic Hazard Report for Tax Lot 500, Map 2S 10W 5DD, Old Netarts Road, Netarts, Tillamook County, Oregon - (Van Orman Property)
Project #22-09-Rus**

Dear Mr. Rushing:

At your request, we have completed the site investigation of the subject property, referenced above. Available maps and previous reports of nearby properties were utilized in this investigation. This investigation also included a site inspection of the subject property with Warren Krager, Certified Engineering Geologist. Mr. Krager investigated the geologic conditions of the site and has addressed them in his report. Morgan Civil Engineering, Inc. (MCE) has then developed the engineering recommendations related to construction on the site. The two reports combined constitute the Geologic Hazards Investigation required by Tillamook County. This engineering portion of the report is prepared for your use in the construction of a single-family home on the property. The standards set forth herein should be incorporated into the development plans for that project.

Site elevations noted in this report are based on topographic information obtained from the Oregon Department of Geology and Mineral Industries (DOGAMI) LiDAR project. The elevations are based on the NAVD88 datum, which is approximately sea level.

A detailed topographic survey should be completed for the planned building area on this property. Detailed topographic information would be beneficial in the design and layout of the driveway, grading, retaining walls, and other work to be done on this site.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

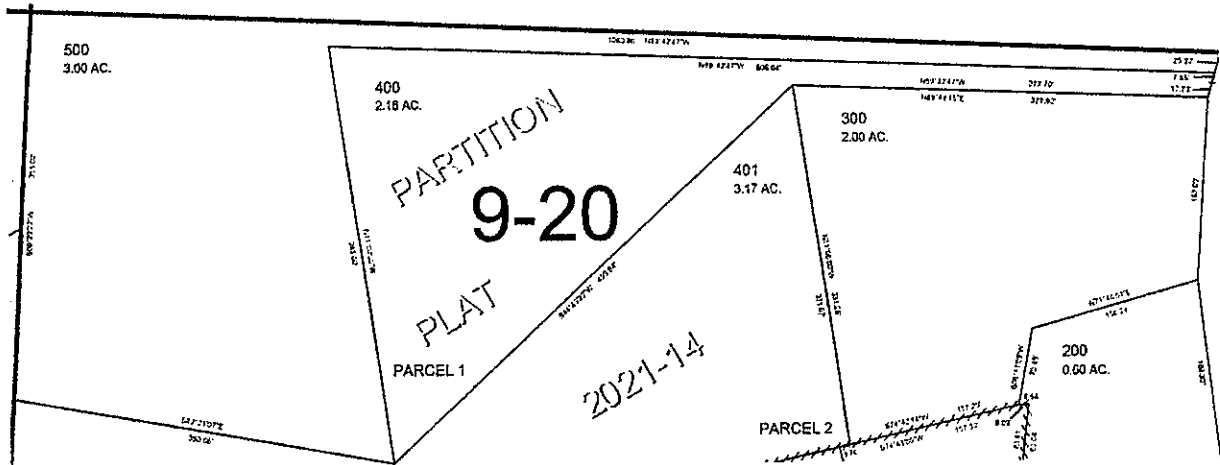
Netarts, Tillamook County, Oregon

(Van Orman Property)

We understand construction is proposed in the northeastern corner of the building areas. No development plans are currently available for review. After the development plans are prepared, a further addendum to this report should be completed in order to allow for a review of the final site plans and building design. This review is designed to ensure that the site improvements and building have been designed in accordance with the requirements noted in this, and other applicable reports.

Site Conditions

The site and its geologic conditions are generally as described by the geologist in his report. Mr. Krager has investigated the geologic hazards on the site and included those hazards in his report. Krager's 7-page report, dated June 30, 2023 is attached for your use. The subject property is a flag lot that fronts Old Netarts Road to the east for about 25 feet. The flag portion is about 800 feet long to the west. The building area is roughly rectangular, widening to the south. The property extends about 355 to the south and gradually widens to the south to a width of 350 feet. See the attached portion of the assessor's map for property orientation and dimensions.



The property includes a large undeveloped building area. Access has been constructed with a rough gravel driveway and a few dirt paths and roads have been cut into the northeastern portion of the property. A drainage channel cuts across the property near the southern boundary. There is also a ridge on the property entering from the northeast and ending at the drainage channel. See the attached topographic maps.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

Elevations on the property vary from 20 feet above sea level at the west end of the drainage channel to 96 feet near the northeastern corner of the building area. Most of the property slopes steeply towards west and southwest, mostly towards the drainage channel. Most slopes are around 30 to 35 percent. There is a graded flat area at the northeastern corner of the building areas. The slopes at the northwestern corner increase to over 50 percent.

The Old Netarts Road is a gravel roadway. The adjacent properties to the east and west are developed. However, the homes are far from the property and do not affect it. The other adjacent properties are undeveloped and the site to the north is zoned as forestry land.

The site is vegetated with mature evergreen trees and underbrush, including ferns, blackberries, grasses, elderberry, and many others species typical to the coast.

In undisturbed areas, silty clay loam soil is expected to be about 12 inches below the surface. Paragravelly silty clay loam is expected to be near 40 inches depth, with weathered bedrock at depth of about 5 feet.

The site is in a 135 miles per hour basic wind gust speed zone, unprotected from the ocean winds (Exposure 'D' as per the 2021 State of Oregon Residential Specialty Code (ORSC)). Therefore, the building must be designed in order to withstand the minimum required lateral wind gust loads. In general, one- and two-story wood frame construction designed in order to withstand 135 miles per hour Exposure 'D' wind loading will also withstand even severe earthquake loads. According to the International Building Code (IBC) and ORSC, structures in Exposure 'D' are typically required to have an engineering analysis calculation of lateral wind loads. Such calculations must be submitted with the building permit application.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

Findings and Hazards Analysis

The primary relevant geologic hazards on this site relate to: 1) steep slopes; 2) soft surface soil; 3) drainage control; 4) erosion potential, and; 5) regional seismic hazards.

Mitigation of these hazards is discussed in the Development Standards addressed herein and in the detailed recommendations set forth in the report prepared by the geologist.

The North Oregon Coast is defined by the 2021 ORSC as lying within a D₂ Seismic Design Category. As such, structures built in this area must, at a minimum, comply with the structural requirements for the D₂ Seismic Design Category. Strong seismic acceleration will likely result in widespread landsliding, and no slope can be considered immune from failure under these conditions.

Mandatory Development Standards

In addition to the required standards of Section 4.130 (2) of the Tillamook County Land Use Ordinance, the following site-specific standards shall also be required:

A. Development Density – This property should be developed for uses consistent with current zoning (outright or conditional uses). All development should take place in conformance with all other requirements of the Tillamook County Land Use Ordinance, or approved variances, as applicable.

The property is located in the Rural Residential (RR-2) Zone. See Section 3.010 of the ordinance for additional information.

B. Structure Foundation and Road Location – The building should be located in the northeastern corner of the building area, away from the steep slopes and drainage channel.

No other site-specific setbacks were recommended by the geologist in his report. All footings should be embedded so that the outside edge lies no closer than 10 feet from the face of the slope. When constructing on a 30 percent slope, this coincides with a depth of 3 feet below the surface.

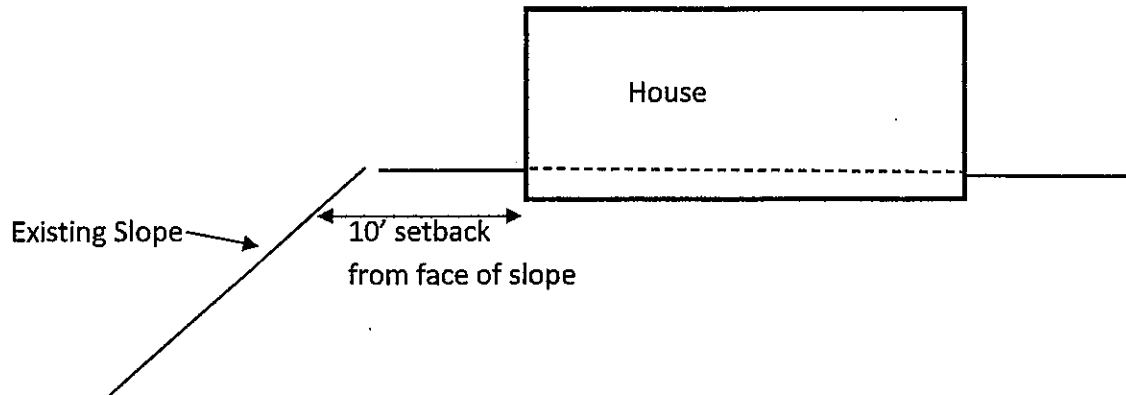


Figure 1. Cross-Section Through Property, Showing Setback from Face of Slope

The actual depth to adequate bearing material may be greater than is required by this setback. The building foundations should be designed in accordance with Development Standard "E", noted below.

Locally, all footings, including piers for overhanging decks, should be placed at least 5 feet from the toe of any dressed and graded cut slope, or at least 3 feet from the foundation of any retaining structure. Site access should take place from Old Netarts Highway.

The house structure should be placed upon this property in accordance with County setback standards. Footing design and the depth of all footings should be in accordance with Development Standard E, noted below.

C. Land Grading Practices – All excavations for driveway and house foundation construction should be done during reasonably dry weather (while it is not actually raining). All exposed native soil should be protected from exposure to rainfall. Protect all cleared areas by covering them with crushed rock or straw according to use; cover driveway and foundation areas with crushed rock and cover landscaping areas with straw.

Additionally, the site should be graded in order to prevent standing water in the excavated area during construction of the foundation and all subsequent activities. All cut slopes should be retained using temporary or permanent means of stabilization. No excavated material should be placed in any sidehill fill. All excavated material should be disposed of by hauling it off the site.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

Temporary cut slopes should not be steeper than 1H:1V. Permanent cut slopes should be graded to 2H:1V or retained.

Slopes steeper than 2:1 should be supported by a retaining wall, designed by a licensed engineer, and constructed according to the standards set forth herein. The top of retaining walls, including foundation walls, should be set at least 5 feet horizontally from the face of the retained slope. No grading of the remaining slope, beyond that required for construction, shall take place.

The property should be graded in order to provide positive surface drainage away from the proposed building.

D. Vegetation Removal and Revegetation – Natural vegetation should remain on all areas of the property that are not required for construction. All areas that are disturbed by construction should be promptly revegetated in order to reduce the potential for erosion. The Oregon Fish and Wildlife Department’s recommended revegetation program for sites such as this is as follows:

Seed disturbed areas with the following grass mixture. Application rate is 12 to 14 pounds per acre.

<i>Species</i>	<i>Percentage of Mixture</i>
Annual Ryegrass	26%
Potomac Orchardgrass	25%
New Zealand White Clover	20%
Perennial Ryegrass	15%
Annual Crimson Clover	14%

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

Use a 16-20-0 fertilizer in order to speed the establishment of the cover material. In order to further contribute to the stability of the disturbed areas, jute matting, straw cover, or another stabilization product such as SoilGuard®, should be placed over the soil in order to help protect against erosion before the seeds are allowed to germinate. In addition, planting shrubs and trees, such as salal, red elderberry, barberry, escallonia, cistus, ceanothus, etc., will further contribute to the long-term stability of the site.

Prior to planting, I recommend spreading organic topsoil over the disturbed areas in order to improve the likelihood of long-term vegetation growth. Use topsoil imported from a nearby site.

Vegetation on the slopes should be monitored and replaced, as necessary. Ground cover is important to stabilizing any disturbed slope and prevents future sloughing.

E. Foundations – The foundation should be a continuous, reinforced concrete perimeter system, using reinforced concrete foundation walls, where required. If a crawl space is planned beneath a wood first floor, I recommend the use of continuous, reinforced concrete strip footings running between perimeter foundation walls, in order to allow for continuity of the reinforced concrete footings. Isolated footings should not be used within the perimeter foundation walls. Interior footings should be integral with the continuous perimeter footings. The first-floor joists should then be supported either with conventional posts and beams, or pressure treated pony walls on continuous strip footings tied together with the continuous perimeter footings.

The site lends itself toward the use of a daylight basement design for the home to economically use the existing slope of the site. Alternatively, the foundation should be stepped to roughly follow the existing slope of the property.

All footings should rest at least 12 inches into the firm silty clay loam soil. Constructing deeper footings on the weathered bedrock is also acceptable, where encountered. Regardless of depth, the bottom of all footings and pads should be excavated to below any organic material and previously placed fill material. There is a potential for buried topsoil or isolated pockets of organic material that extend deeper into the bearing material than in other locations. Regardless of depth, all organic debris and topsoil should be removed from the building footprint.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

The construction of a concrete slab on grade is acceptable on a prepared pad. The area to support the slab should consist entirely of cut material and be covered with at least 6 inches of compacted crushed rock.

Below any concrete slab, I recommend the use of a capillary break in order to prevent moisture directly under the slab. Below the slab, use a layer of plastic sheeting, clean 3/4-inch crushed rock (no fines), or a combination of both options.

When excavation takes place, it is recommended that a representative of MCE, or an equivalent geotechnical specialist or engineer, be consulted in order to determine whether the appropriate materials have been exposed for foundations. I believe that such an inspection is extremely important and, therefore, I recommend that inspection of the foundation excavation prior to footing construction be a **mandatory requirement for construction**.

Over-excavate the foundation and place at least 4 inches of 3/4"- crushed rock over the soil, then mechanically compact the crushed rock before the footings are constructed.

Do not use concrete slab-on-grade construction built upon fill. Slabs supported simultaneously on cuts and fills will be subject to differential settling. Use structural slabs on supports or alternative methods of construction when possible.

Soil bearing pressures at the bottom of all footings should not exceed 2,000 pounds per square foot on approved soil. All footings should be at least 18 inches in width.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

Any retaining walls should be designed according to the following criteria:

Allowable Soil Bearing Pressure, psf (on approved soil)	2,000
Lateral Soil Bearing Pressure on Unrestrained retaining walls with level backfill, pcf/ft of depth, equivalent fluid weight (Active pressure excluding surcharge effects)	38
Lateral Soil Bearing Pressure on Restrained retaining walls with level backfill, pcf/ft of depth, equivalent fluid weight (Active pressure excluding surcharge effects)	48
Lateral Soil Bearing Pressure (Passive), pcf/ft of depth	504
Friction Angle, degrees	29°
Maximum unit weight, pcf	120
Coefficient of Friction	0.35

The backfill behind all retaining walls should be clean, well-drained, imported, select granular backfill. Using native material for backfill behind retaining walls will not be acceptable. All retaining walls require foundation drains, as described in Section H below.

The retaining wall designer should determine whether a retaining wall is restrained or not.

F. Driveway Location and Design – The driveway should be constructed such that the roadbed is entirely on cut soil or engineered fill material. Access should be from Old Netarts Highway. The flag portion of the property must be used.

Driveway design standards should include the use of a geo-textile support fabric, a minimum of an 8-inch-thick layer of pit-run base rock, and a 3-inch-thick layer of 3/4"-minus crushed rock surfacing. Paving the driveway is optional.

The culvert under the driveway should be replaced or maintained in order to allow water to pass unimpeded.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

G. Stormwater Management, Runoff and Drainage – All roof drainage should be collected with eave gutters and downspouts and then piped in order to discharge into the vegetation downslope of the home. Accumulated surface drainage should also be collected and discharged with the roof drainage. The complete roof drainage system, including roof gutters and downspouts, should be installed immediately after the roof sheathing in order to protect the ground from erosion during construction. When the surface is not protected from roof runoff, the surface soil will continue to erode.

I recommend discharging the collected water into a mat of pit-run rock in order to prevent erosion. Use a perforated cap on the end of the drainpipe. Use multiple discharge locations.

The vegetated areas of the property downslope of the actual home construction should be protected from erosion and siltation due to runoff from the construction site by using silt fencing or "bio-bags" during construction. Specifically, silt fencing should be placed along the downslope of the disturbed surface area and "bio-bags" (or hay bales) should be placed at the locations of visible discharge. These temporary measures should be left in place and properly maintained until all surface revegetation is established.

The temporary gravel driveway is adequate for a rock entrance pad. The driveway should be rebuilt with fresh base rock and gravel after the house is constructed in order to provide a smooth driving surface.

During construction, the excavated building area should be graded and maintained in order to avoid standing water. The site should be graded in order to allow water in the excavated area to drain during construction of the foundation and all subsequent activities.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

H. Foundation Drains – Groundwater is not expected to be an issue at the building location since it is at a local high point. Regardless, foundation drains should be installed on the uphill side of all continuous concrete retaining walls over 4 feet in height. The use of a fabric covered, perforated drainage pipe, such as ADS DrainGuard®, or an equivalent alternative, is recommended. The backfill around and above the foundation drains should be clean, washed drain rock or angular ballast rock in order to ensure good drainage. The drain rock backfill should extend from the foundation drains (at the bottom of the footings) to about 12 inches below the finish ground surface. All foundation drains should discharge toward the lowest point along the wall.

All roof and surface area drainage piping should be separated from the foundation drainage piping. Discharge the water collected by the foundation drains at a separate location from the stormwater system.

I. Topographic Survey – Based on the variable grades on the property and your plans for the site, a topographic survey should be prepared. Having a topographic survey of the property will allow for a house design and site plan specifically for this property. The topographic survey should extend throughout the planned building area.

J. Site Plan – I further recommend that the topographic information be used in order to develop a site-specific development plan. The development of a detailed site plan should include all grading, driveway slopes, house location, and any retaining walls. Development of a detailed site plan prior to construction will reduce costs, unexpected costs, and delays. A house foundation designed specifically for this property will likely reduce the amount of excavation.

Summary Findings and Conclusions

1. The proposed use is currently single-family residential. There are no development plans currently available for review. There are no immediate adverse effects on adjacent properties from future house construction. Future development may result in increased stormwater runoff or decreased runoff quality on adjacent properties. Future development proposals should be further evaluated in the context of the recommendations of this report at the time of issuance of a building permit.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)

2. Hazards to life, public and private property, and the natural environment, which may be caused by the proposed use, are discussed herein and addressed in each of the Development Standards.
3. The methods for protecting the surrounding area from the adverse effects of the proposed development are set forth in each of the Development Standards.
4. The maintenance of new and existing vegetation, and temporary and permanent stabilization programs, are discussed in Development Standard "D".
5. The proposed development of this property, according to the mandatory standards set out herein, will result in the new parcels and future developments being adequately protected from the above described reasonably foreseeable ordinary hazards, although not necessarily from major earthquake, the possibility of which is discussed herein.
6. The proposed development of this property, according to the recommended standards, is designed in order to minimize adverse environmental effects.
7. Periodic monitoring is necessary to ensure that the recommended development standards are implemented for the long-term success of the development.

Limitation

The engineering portion of this report is based on a site inspection of the subject property and vicinity, as well as a review of the site topography. The engineering conclusions and recommendations in this engineering portion of the report are based upon the conclusions presented in the geologic report prepared by Warren Krager, CEG. The engineering conclusions and recommendations presented herein are believed to represent the site and are offered as professional opinions derived according to current standards of professional practice for a report of this nature. No warranty is expressed or implied. This report has been prepared for the timely use of the above addressee and parties to the pending development of the subject property, and it does not extend to the activities of unidentified future owners or occupants of the property for which the writer bears no responsibility.

ADAM RUSHING

September 5, 2023

MORGAN CIVIL ENGINEERING, INC.

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

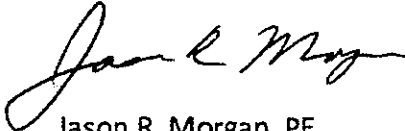
Netarts, Tillamook County, Oregon

(Van Orman Property)

Should you have any questions regarding my investigation or this report, please contact me.

Sincerely,

MORGAN CIVIL ENGINEERING, INC.



Jason R. Morgan, PE

Professional Engineer



RENEWAL DATE: DECEMBER 31, 2024

cc: Project File#22-09-Rus

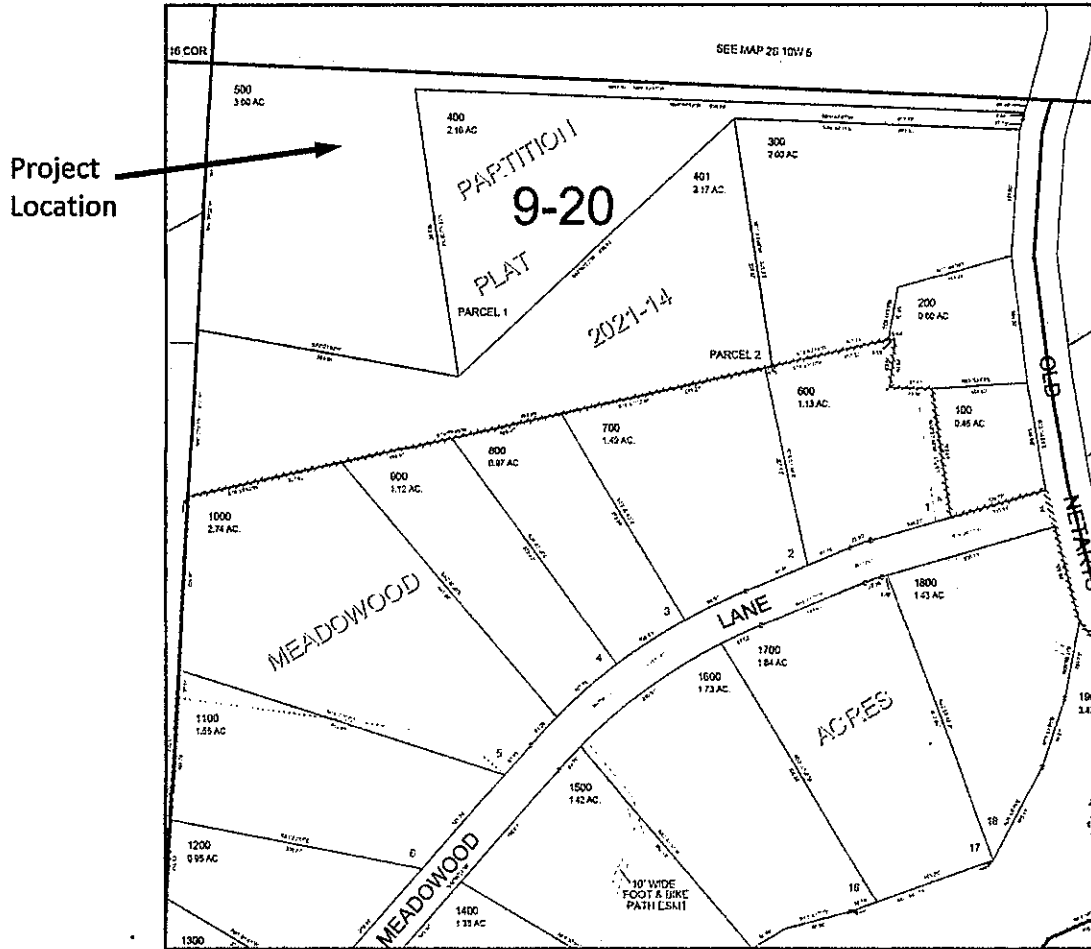
<V:\22-09-Rus\Reports\Rushing GHR.docx>

GHR for Tax Lot 500, Map 2S 10W 05DD

Old Netarts Road

Netarts, Tillamook County, Oregon

(Van Orman Property)



Tax Lot 500, Map 2S 10W 5DD
Old Netarts Road
Netarts, Tillamook County, Oregon
Van Orman Property

**R. Warren Krager, R.G., C.E.G.
Consulting Engineering Geologist
Oregon CEG #E957**

June 30, 2023

Adam Rushing, in care of:
Jason R. Morgan, P.E.
Morgan Civil Engineering, Inc.
PO Box 358, Manzanita, OR 97130

**Subject: Engineering Geologic Reconnaissance
 and Geologic Hazards Report
 Proposed Residence, Old Netarts Road,
 Tax Lot 500, Map 2S 10W 05DD
 Tillamook County, Oregon**

Dear Gentlemen:

As you requested, I am pleased to submit my engineering geologic reconnaissance and geologic hazards report for the above referenced property and proposed development.

Introduction

This engineering geologic report has been prepared in general accordance with the requirements of Tillamook County Land Use Ordinance (TCLUO) Section 4.130, Development Requirements for Geologic Hazard Areas. The subject property is mapped by the Oregon Department of Geology and Mineral Industries (DOGAMI) as having moderate to high susceptibility to shallow Landslides (less than 15 feet below ground surface). Natural slope gradient within the property exceeds 50 percent.

R. Warren Krager, R.G., C.E.G. (Oregon Licensed Engineering Geologist E-957) visited the proposed building site on Tax Lot 500 site with you in October 2022, with Mr. Jason R. Morgan, P.E., of Morgan Civil Engineering, Inc. Upon your authorization of report preparation, Mr. Morgan and I returned to look over the subject property and proposed home building site again on June 24, 2023. In total, a little more than one hour was spent on site in observation of site conditions including natural and graded slopes, graded driveway and proposed home site. This reconnaissance level evaluation did not include geotechnical subsurface exploration in known foundation areas. The conclusions and recommendations are based on observation of the site, adjacent slope, background geologic literature review, and familiarity with general engineering geologic conditions in the local area.

The background geologic report and literature review includes information or images from the following sources:

- Environmental Geology of the Coastal Region of Tillamook and Clatsop Counties, Oregon, Oregon Department of Geology and Mineral Industries (DOGAMI), Bulletin 74, 1972.
- Geologic Map of the Tillamook Highlands, Northwest Oregon Coast Range, United States Geological Survey (USGS), Open File Report 94-21, 1994.

- Online research of DOGAMI Statewide Landslide Information layer for Oregon, Interactive SLIDO maps, accessed June 29, 2023.
- United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), Web Soil Survey: <http://websoilsurvey.nrcs.usda.gov/>, accessed June 29, 2023.
- Google Earth Aerial photographs of the Tillamook Bay, Oregon area, photo dates: August 29, 1994, July 29, 2000, June 15, 2003, June 29, 2005, December 12, 2005, August 1, 2011, July 6, 2012, July 30, 2014, August 23, 2016, June 22, 2017, and April 15, 2021.
- Pdf file of Lidar topographic tax lot plan provided by Jason Morgan, P.E. Morgan Civil Engineering, Inc., dated October 4, 2022.

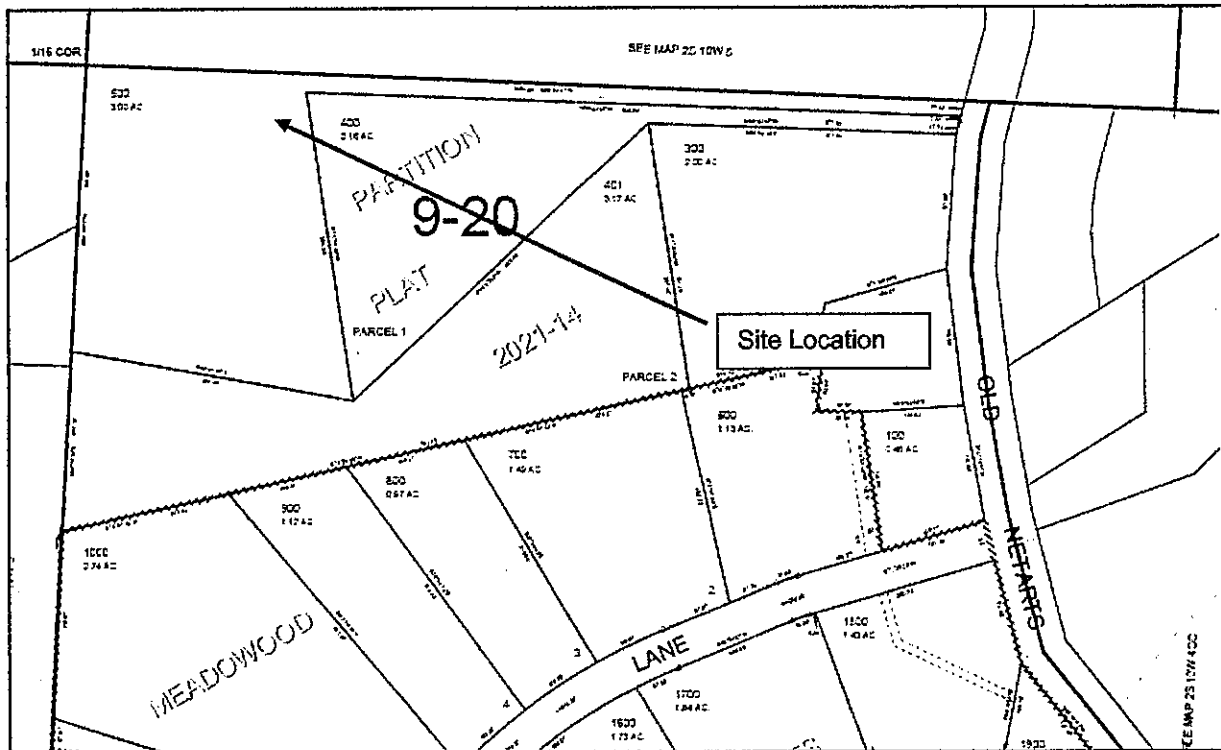


Figure 1- Site Location Plan

Site and Project Description

The subject property consists of Tillamook County Tax Lot 500 of T2S R10W 05DD. The subject property is a 3-acre flag lot located west of old Netarts Road in the Meadowood Acres partition plat 2021-14 in Tillamook County, Oregon, as shown in Figure 1. The property is accessible via an approximately 800-foot-long driveway leading to the west from Old Netarts Road. Tax Lot 500 is bordered on the north by forest land, and on the remaining sides by partitioned rural residential land partially developed with homes.

Lidar topography of the northwestern corner of Tax Lot 500 is shown in Figure 2. Land surface elevation of the property ranges from about 20 feet above mean sea level along the western 10655 S.W. Park Street • Tigard, Oregon 97223 • Phone 360-903-4861 • Email warrenkrager@gmail.com

boundary, to about 88 feet above mean sea level along the eastern border of Lot 500 excluding the 800-foot-long access driveway.

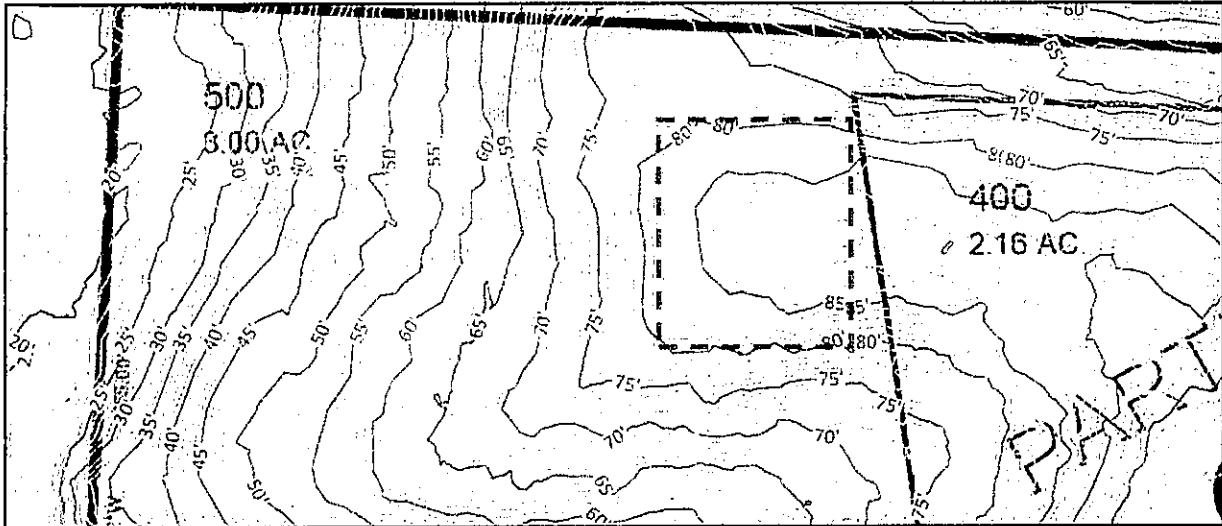


Figure 2- Northwest corner of Tax Lot 500, Lidar topographic tax lot map prepared by Morgan Civil Engineering.

I have not seen the proposed building site plan or driveway grading plans. From our discussions, it is my understanding that the home site is proposed on the highest elevation ridge crest plateau located southwest of the northwestern corner of Tax Lot 400, south of where the driveway enters the northeast corner of the larger area of Tax Lot 500. My understanding of the approximate planned building area is shown in dashed green outline in Figure 2.



Photo 1 – Existing cut slope on southern margin of driveway, adjacent to home site on upper elevation of Tax Lot 500. The view is to west-southwest from near the west end of the existing driveway.

It is expected that the driveway may be extended and graded upward around the promontory to the level of the homesite, and improved with additional crushed rock, and dressed or retained final slopes. At elevations above 75 feet mean sea level, natural slopes generally do not exceed 25 percent, allowing for reasonably level, easily constructed conventional foundation and floor slab for the home. An existing 5-to 6-foot-high manmade cut slope showing soil and decomposed sedimentary rock material is present at the southwestern end of the driveway, shown in Photo 1. Photo 2 and Photo 3 show west and south views, respectively, from the highest elevation of the property at the presumed home site.



Photo 2 - View to west from planned homesite at about elevation 88 feet above mean sea level.



Photo 3 - View to south from planned home site.

Note that below elevation 75 feet mean sea level on Tax Lot 500, natural slopes are inclined up to about 60 percent and may be potentially unstable. Grading on the steeper slopes is not recommended without first developing an engineered grading plan. No potential home sites other than the green dashed outlined area of Figure 2 are considered or approved in this engineering geologic evaluation.

Soils and Engineering Geologic Overview

Surface soils up to five feet deep in the project area are mapped as Munsoncreek-Flowerpot complex, 5 to 30 percent slopes by the USDA NRCS Web Soil Survey. The Munsoncreek-Flowerpot complex forms in colluvium and residuum from marine sedimentary rock. This soil classifies primarily as silty clay loam through its depth profile to decomposed sedimentary bedrock.

During site reconnaissance, the author observed the driveway cut slope that exhibited fine-grained clay and silt soil, consistent with the silty clay loam of a typical soil profile described by the USDA.

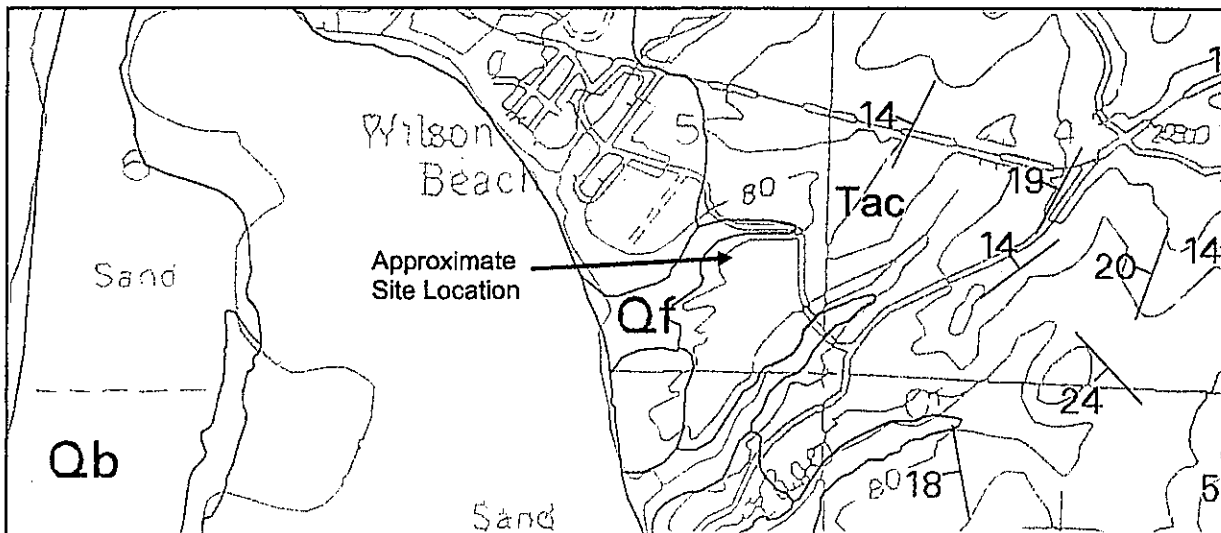


Figure 4- Portion of the Geologic Map of the Tillamook Highlands Northwest Oregon Coast Range, Tillamook 15 Minute Quadrangle, USGS Open File Report 94-21, 1994.

A USGS Geologic map of the local project area is shown in Figure 4. Tertiary, early Miocene age Astoria Formation sedimentary bedrock is mapped in the project area by the USGS. It is described as Astoria Formation, Cannon Beach member of Niem and Niem, 1985, map unit **Tac**. Texturally, the Astoria Formation, Cannon Beach member is characterized as a bedded micaceous siltstone and mudstone.

Regional Seismic Setting

The Oregon Coast is located near the western margin of the North American continental tectonic plate. The Pacific and Juan de Fuca Tectonic plates that form the ocean floor are converging upon, and being subducted beneath, the North American Continental Plate off the Oregon coastline. This zone of tectonic plate convergence is called the Cascadia Subduction Zone (CSZ). It is defined by a set of compressional geologic stresses between continental and oceanic plates that influence the seismic and volcanic activity of the Pacific Northwest. The CSZ is a type of global scale thrust fault zone located approximately 50 miles off the Oregon coastline. The CSZ is an active source of some of the largest earthquakes. A significant

rupture of the CSZ would cause strong ground shaking, slope and earth movement and structural damage throughout western Oregon. Ground motion could last up to several minutes during a strong CSZ.

Recent geologic research has shown that the CSZ fault zone has repeatedly produced large earthquakes on approximately 250-year to 700-year recurrence intervals through the late Pleistocene epoch. Geologic research of historic Japanese tsunami records assisted by dendrochronology (tree ring dating techniques) has established that the last large CSZ earthquake occurred in January of 1700 AD. Although seismic researchers do not agree on the likely magnitude of the next CSZ earthquake, it is widely believed that earthquake energy release of moment magnitude (M_w) 8.5 or greater is possible.

Seismic Hazards Discussion

The undersea CSZ fault displacement at time of earthquake rupture will displace the seafloor and cause an ocean tsunami that will arrive at the Oregon coast about 15 to 20 minutes after the strong earthquake strikes. A CSZ produced tsunami has been modeled by DOGAMI to inundate low-lying coastal areas up to about elevations of 40 to 50 feet above mean sea level or possibly higher in areas of topographic constriction of the tsunami flood waters, such as creek mouths. The presumed home site should be above the upper range of tsunami inundation expected from a moderate to large scenario CSZ earthquake. However, significant local variation of tsunami run up height should be expected based on recent global seismic tsunami events in Japan and the Indian Ocean. The force of tsunami flooding and scour may engulf and destroy many structures not already weakened or damaged by earthquake shaking. Soil slopes would be scoured nearly anywhere a tsunami could reach in the Netarts Bay area. Thick or loose soils on steep slopes and poorly constructed fills may fail during strong seismic ground shaking.

Other seismically induced ground effects such as soil liquefaction, ground surface rupture, lateral spreading, seismically induced landslides, and broad areas of coastal subsidence may occur during or following a strong earthquake. Subsurface conditions on the subject property have not been geotechnically evaluated for co-seismic soil or slope failure. However shallow sedimentary bedrock would be unlikely to liquefy, spread laterally or fail on low slope angles.

The CSZ earthquake is considered the most likely seismic source in the region and the greatest threat to engineered structures. The full-length, simultaneous rupture CSZ earthquake model dictates standards for engineered structural design. Most ordinary structures cannot be economically and practically engineered and designed to withstand a subduction zone earthquake without some damage. The goal of engineered structure design is generally to prevent catastrophic collapse and loss of life during a strong earthquake. The current edition of the Oregon Structural Specialty Code is considered appropriate for prescriptive design of proposed structures with foundations and floor slab supported on firm native undisturbed soil as the code allows.

Conclusions and Recommendations

From an engineering geologic standpoint, it is my opinion that the proposed building site shown in Figure 2 has no significant geologic hazard risks that require mitigation or avoidance. In my opinion, the proposed home site, driveway grading, and final landscape improvements discussed in this report can be designed and constructed in accordance with applicable code requirements, without negatively influencing slopes or increasing geologic hazard risks to the subject lot or adjacent property.


I recommend that the Engineer or Geologist be contacted to review final design plans for foundations and slope grading. It is also recommended that the Civil Engineer or Engineering Geologist be requested to observe and document that final excavated structural subgrade soil conditions are appropriate for the proposed structural design.

Limitations

The engineering geologic services performed for this project have been conducted with that level of care and skill ordinarily exercised by members of the profession currently practicing in this discipline and area under similar budget and time constraints. No warranty, expressed or implied, is made regarding the interpretations and conclusions of this report.

This report may be used only by the client and their authorized agents for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on- and off-site), or other factors may change over time and could materially affect our findings. Therefore, this report should not be relied upon beyond two years from its date of issue. If the project is delayed, I would be happy to review site and design conditions and revise or update this report as appropriate. If you have any questions regarding the information presented in this report, please do not hesitate to contact the undersigned.

Sincerely,



R. Warren Krager
12/31/2023

R. Warren Krager, R.G., C.E.G.
Oregon Licensed Engineering Geologist E-957

Tillamook County
2023 Real Property Assessment Report
 Account 372117

Map 2S1005DD00500
Code - Tax ID 0920 - 372117

Tax Status Assessable
Account Status Active
Subtype NORMAL

Legal Descr See Record

Mailing VAN ORMAN, JAMES WELBURN & HEIDI COLLEEN
 496 FAIRWAY CT
 SEASIDE OR 97138

Deed Reference # 2022-6935
Sales Date/Price 11-18-2022 / \$210,000
Appraiser ELIZABETH LOFTIS

Property Class 400 MA SA NH
RMV Class 400 08 AC 842

Site Situs Address	City
---------------------------	-------------

Value Summary					
Code Area	RMV	MAV	AV	RMV Exception	CPR %
0920 Land	176,970		Land	0	
Impr	0		Impr	0	
Code Area Total	176,970	72,500	72,500	0	
Grand Total	176,970	72,500	72,500	0	

Land Breakdown									
Code Area	ID #	RFPD	Ex	Plan Zone	Value Source	Trend %	Size	Land Class	Trended RMV
0920	0			RR-2	Market	112	3.00 AC		176,970
Code Area Total							3.00 AC		176,970

Improvement Breakdown								
Code Area	Year ID #	Stat Built	Class Description	Trend %	Total Sqft	Ex%	MS Acct	Trended RMV

Exemptions / Special Assessments / Notations				
Code Area	0920			
Fire Patrol		Amount	Acres	Year
■ FIRE PATROL NORTHWEST		18.75	3.00	2023
Fire Patrol		Amount	Acres	Year
■ FIRE PATROL SURCHARGE		0.00		2023

Comments 2/25/11 Moved to 542 neighborhood, zoned RR-2. EJ.
 3/17/14 Land re-appraisal, tabled land. EJ.

Tillamook County
2023 Real Property Assessment Report
Account 189343

Map 2S10050000400
Code - Tax ID 0920 - 189343

Tax Status Assessable
Account Status Active
Subtype NORMAL

Legal Descr See Record

Mailing ROBERTS, MARK A &
 SNOW ROBERTS, HANNAH Y
 2830 WHISKEY CREEK RD
 TILLAMOOK OR 97141

Deed Reference # 2020-8535
Sales Date/Price 11-27-2020 / \$445,000
Appraiser HANNAH HANCOCK

Property Class 601 MA SA NH
RMV Class 401 01 BV 107

Site	Situs Address	City
	2350 OLD NETARTS RD W	COUNTY

Value Summary						
Code Area		RMV	MAV	AV	RMV Exception	CPR %
0920	Land	440,320		Land	0	51.4
	Impr	260,850		Impr	134,080	
Code Area Total		701,170	134,080	173,247	134,080	
Grand Total		701,170	134,080	173,247	134,080	

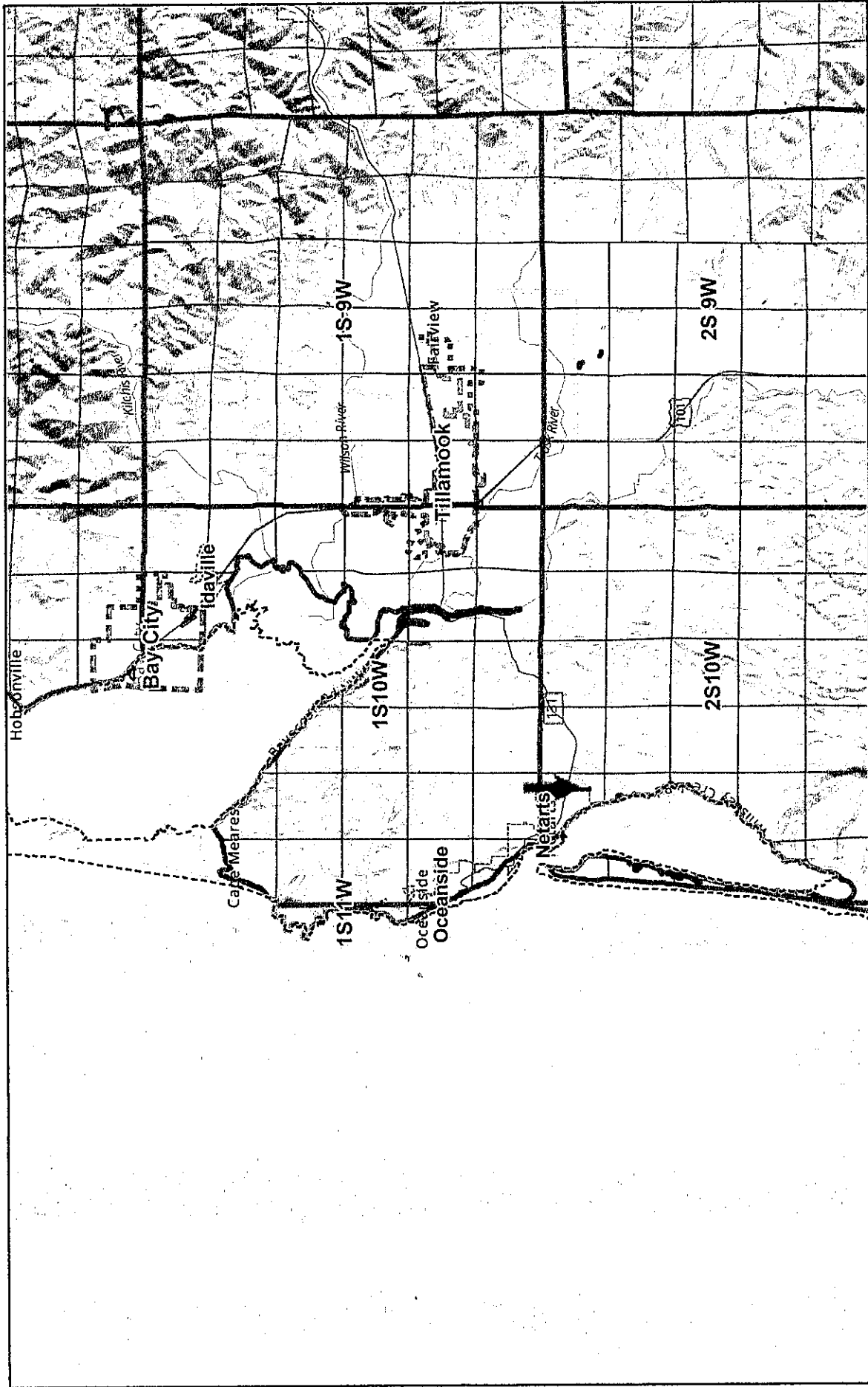
Land Breakdown									
Code Area	ID #	RFPD	Ex	Plan Zone	Value Source	Trend %	Size	Land Class	Trended RMV
0920	0			F	Classified Forest Land	111	46.19 AC	OB	422,050
	1			F	Forest Site	111	2.00 AC	SFR	18,270
Code Area Total							48.19 AC		440,320

Improvement Breakdown								
Code Area	ID #	Year Built	Stat Class	Description	Trend %	Total Sqft	Ex% MS Acct	Trended RMV
0920	1	2022	145	Two story or more	105	3,208		260,850
Code Area Total						3,208		260,850

Exemptions / Special Assessments / Notations					
Code Area				Amount	Year Used
0920	Special Assessments				
	■ SOLID WASTE			12.00	2023
	Fire Patrol				
	■ FIRE PATROL NORTHWEST			80.97	48.19 2023
	■ FIRE PATROL SURCHARGE			47.50	2023

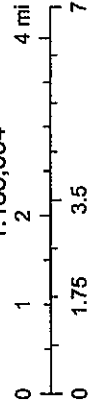
Comments 8/16/11 Due to a LLA, a portion of taxlot 2S10 5 200 will now be carried in taxlot 400. There was also a size change per the survey. Apportioned MAV, RMV is tabled. EJ.
 5/5/16 Size changed per GIS and code changed per map.LM
 05/28/2021 Due to an annexation to the Netarts Water District, a portion of tax lot 2S10050000400 in code area 901 will now be carried in 920. Removed MAV from SA land. HT
 05/11/2023 Created new specially assessed forest homesite. Tabled land using SFW-20 schedule due to size and zone. HT
 9/13/23 - Calculated Homesite MSAV. EL

Tillamook County Maps



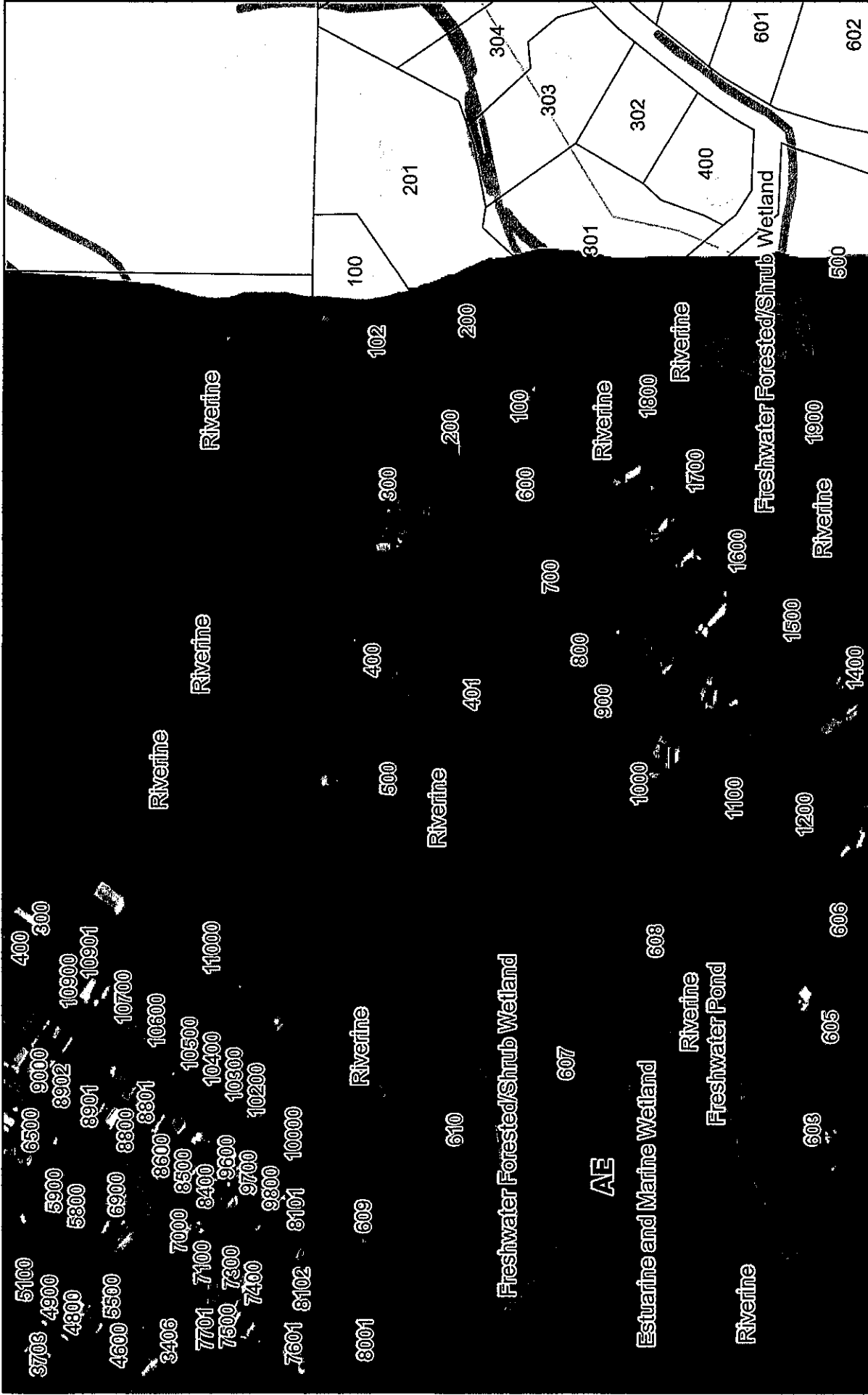
3/27/2024, 10:22:30 AM

1:188,664

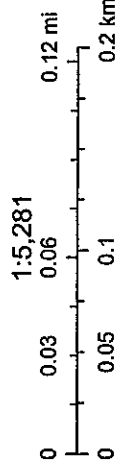


Oregon State Parks, State of Oregon GEO, Esri, TomTom, Garmin, SafeGraph, MET/NASA, USGS, Bureau of Land Management, EPA, NPS.

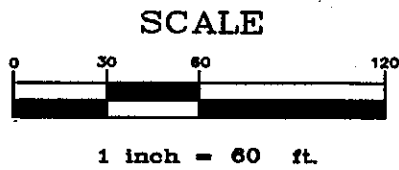
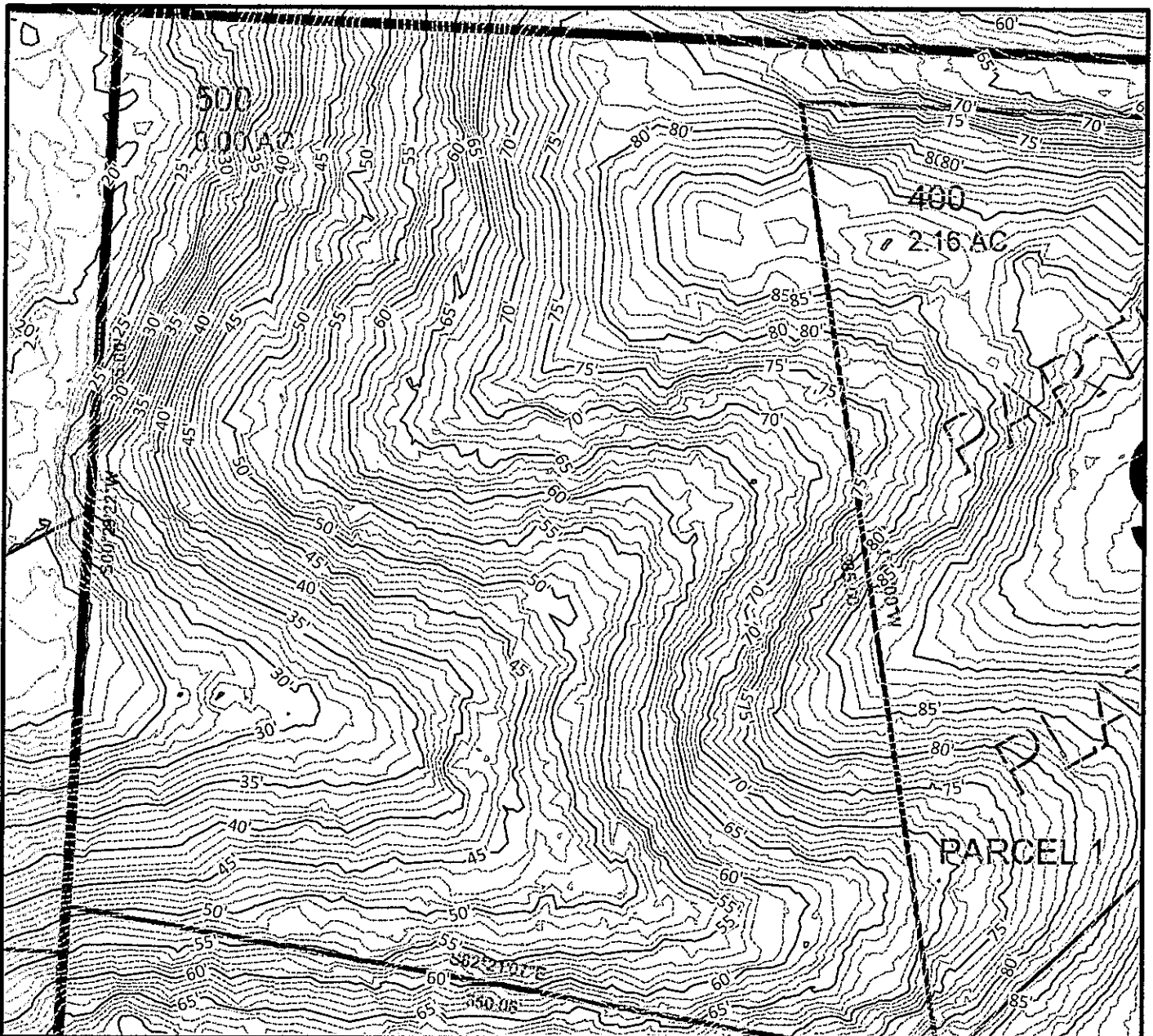
Tillamook County Maps



3/27/2024, 10:38:18 AM



Sources: Esri, Airbus DS, USGS, NGA, NASA, CGIAR, N Robinson, NCEAS, NLS, OS, MMA, Geodatasyrelsen, Rijkswaterstaat, GSA, Geoland, FEIMA,



SCALE: 1"=60'

OCT. 4, 2022

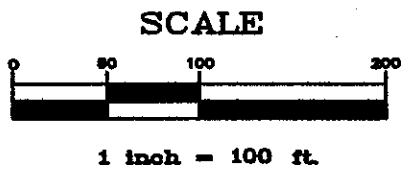
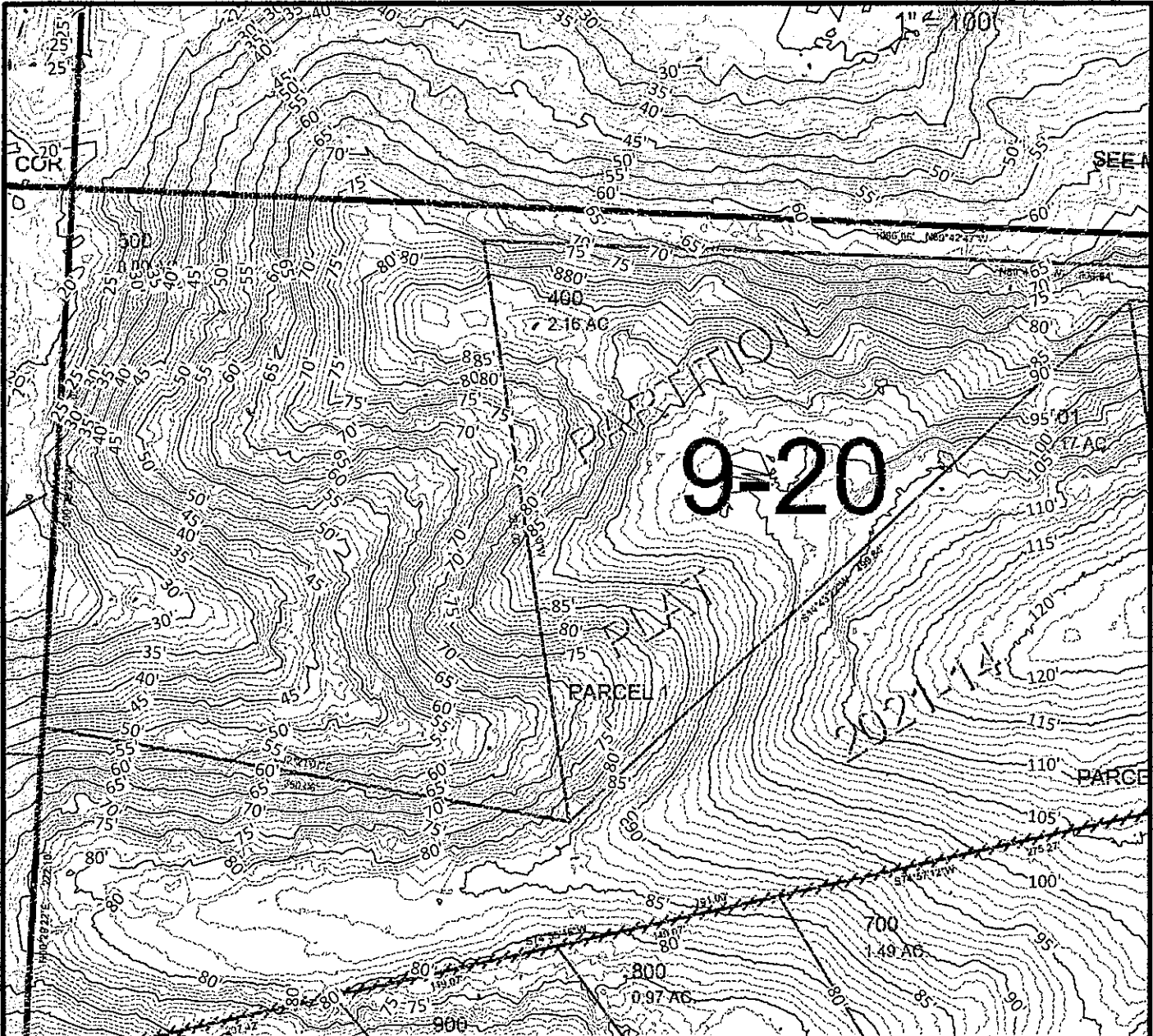
ADAM RUSHING
 TAX LOT 500
 OLD NETARTS ROAD
 2008 LIDAR TOPOGRAPHY
 NETARTS/MAP 2S 10W 5DD



**MORGAN CIVIL
 ENGINEERING, INC.**

PO BOX 358
 MANZANITA, OR 97130
 (503) 801-6016
 www.morgancivil.com

- CIVIL ENGINEERING
- INSPECTION
- PLANNING



SCALE: 1"=100'

OCT. 4, 2022

ADAM RUSHING
 TAX LOT 500
 OLD NETARTS ROAD
 2008 LIDAR TOPOGRAPHY
 NETARTS/MAP 2S 10W 5DD



MORGAN CIVIL
ENGINEERING, INC.

PO BOX 358
 MANZANITA, OR 97130
 (503) 801-6016
 www.morgancivil.com

- CIVIL ENGINEERING
- INSPECTION
- PLANNING

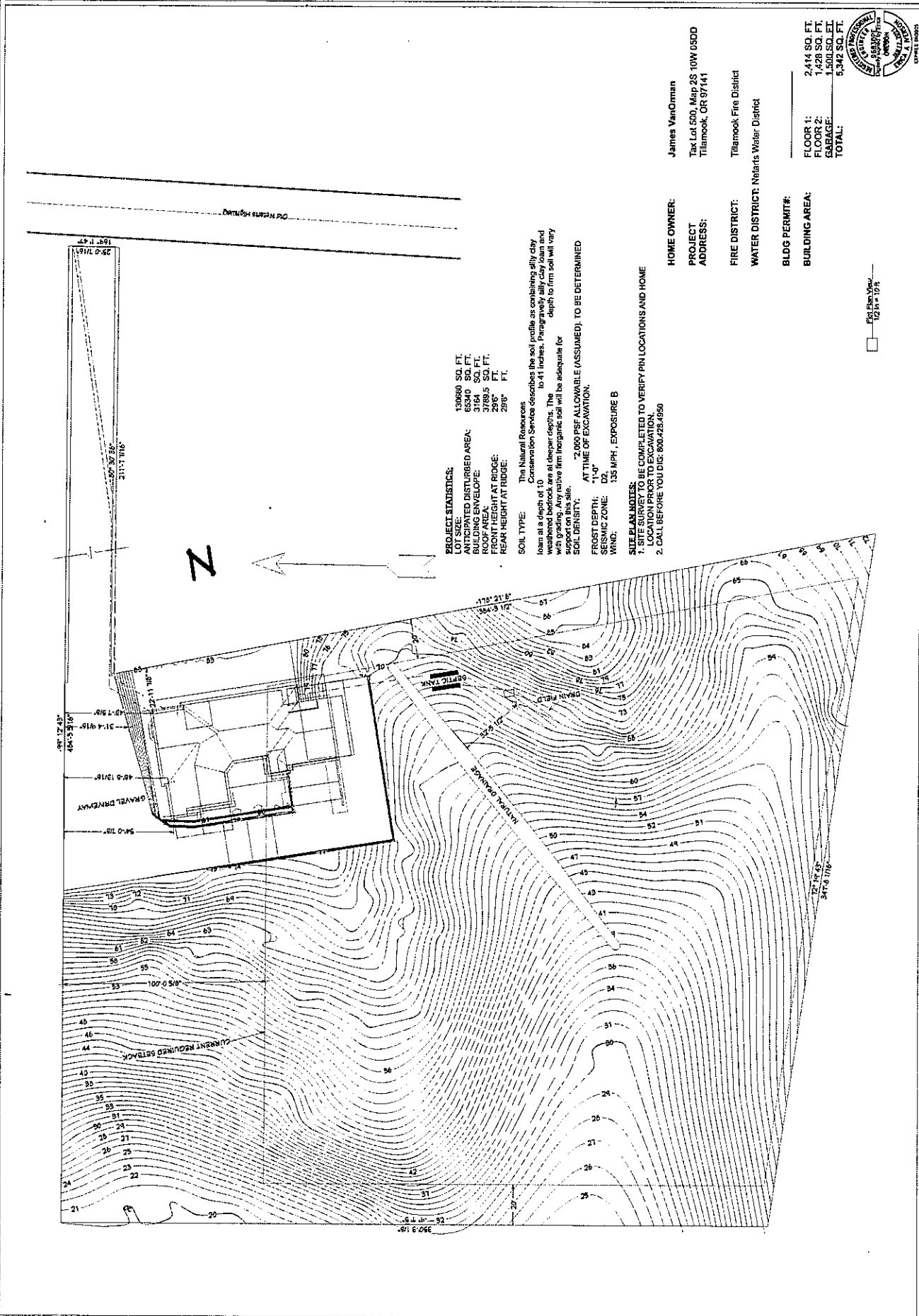
REVISION TABLE		
NUMBER	DATE	REVISIONS

CLIENT INFORMATION:
James VanOrman
 496 Fremont CT Seaside, OR 97138
 (503) 44-3131
 jvanor@vanor.com

LOT PLAN/OVERVIEW

PROJECT LOCATION: Tax Lot 500, Map 2S 10W 050D
 TILLAMOOK, OR 97141
 DRAWINGS PROVIDED BY:
AR Northwest LLC
 300 Hodgdon Rd Tillamook, OR 97141
 (503) 354-2170
 ar@arwestcoastcivil.com

DATE: 3/4/2024
 SCALE: 1" = 40'
 SHEET: **P-2**



DRAWINGS PROVIDED BY:
AR Northwest LLC
383 Hodgdon Rd Tillamook, OR 97141
(503) 354-2176
ar@arwest.com

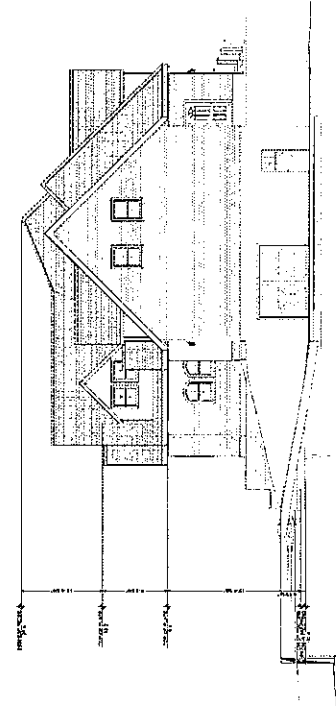
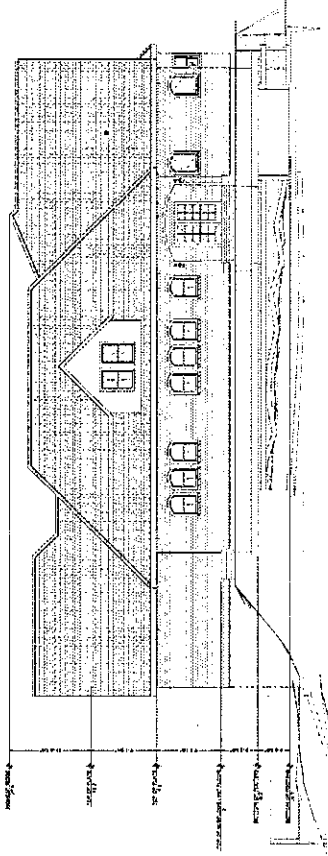
Elevation Views
Project Location: Trk Lot 500, Map 25 10W-05DD
Tillamook, OR 97141

CLIENT INFORMATION:
James Van Orman
405 Feunoy Ct Seaside, OR 97138
(503) 324-5131
jvanorm@jvanorc.com

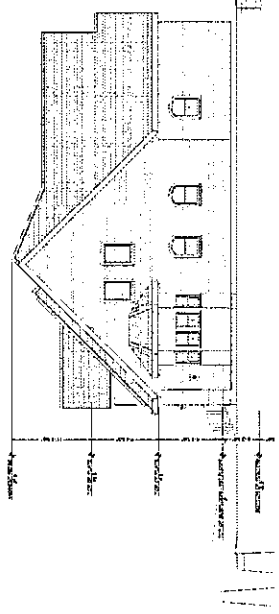
NUMBER	DATE	REVISION BY	DESCRIPTION



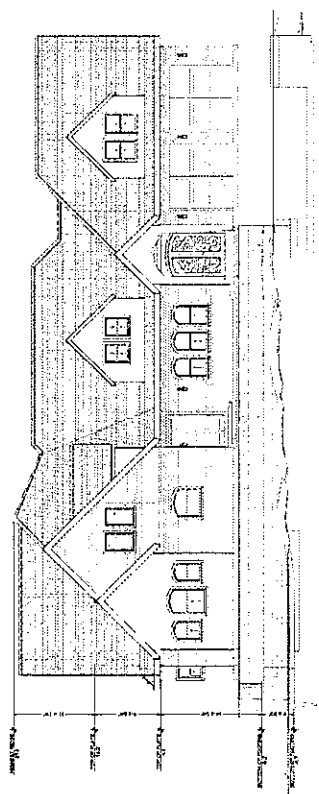
(A) Elevation Front, 1/8" = 1'-0"

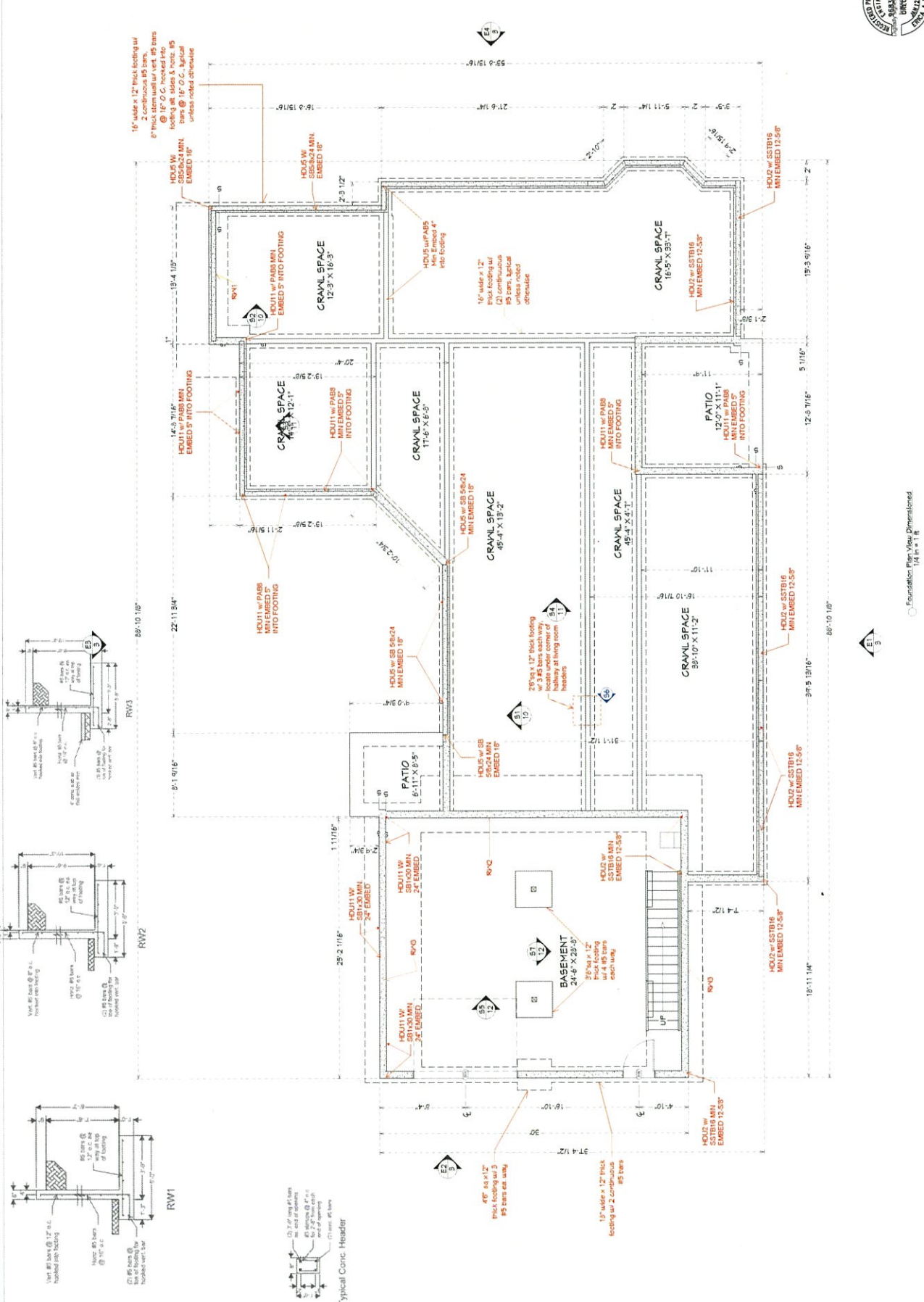


(B) Elevation Left, 1/8" = 1'-0"



(C) Elevation Back, 1/8" = 1'-0"





Foundation Plan View Dimensioned
1/4" = 1' = 11"



REVISION TABLE	NUMBER	DATE	REVISION BY	DESCRIPTION

CLIENT INFORMATION:
James Van Orman
486 Farney Ct, Grants, OR 97130
(503) 644-3151
jvanorm@pacnet.com

FOUNDATION PLAN
Project Location: Rte. 101 S.W. Map 25 12W 05DD
Timlucok, OR 97141

DRAWINGS PROVIDED BY:
AR Northwest LLC
385 Hodgdon Rd, Timlucok, OR 97141
(503) 354-2176
adam@arwestcoastconstruction.com

DATE: 3/4/2024
SCALE:
SHEET: P-6



James Van Orman
MECHANICAL
11788
08/20/12
OREGON
STATE OF
PROFESSIONAL ENGINEER

P-7

SHEET:

SCALE:

DATE:
3/4/2024

AR Northwest LLC
385 Hodgdon Rd Tualatin, OR 97141
(503) 254-2176
arwestnwconstruction.com

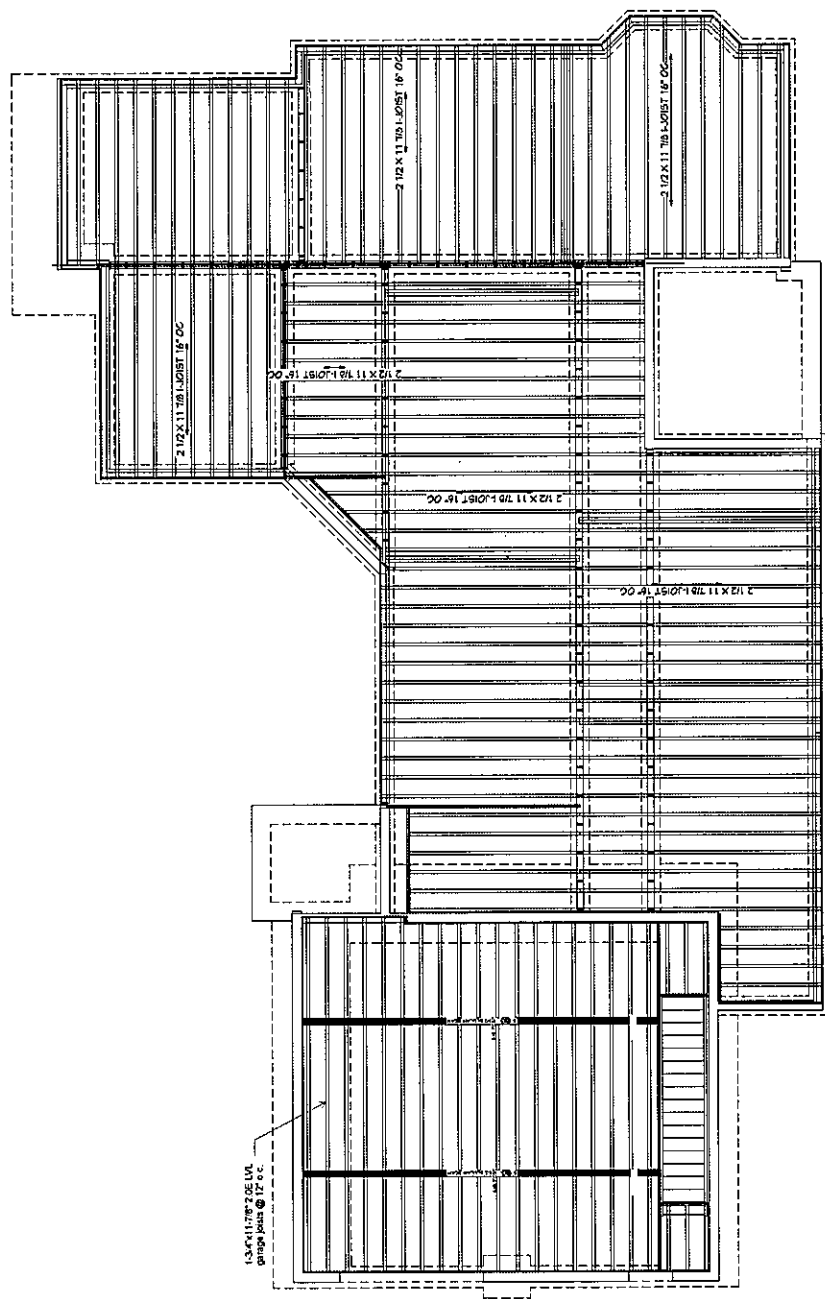
DRAWINGS PROVIDED BY:

Project Location: Trillium 500, Map 25 10W 080D
Tualatin, OR 97141

FIRST FLOOR FRAMING

CLIENT INFORMATION:
James Van Orman
449 Fanning Ct Seaside, OR 97138
(503) 244-3151
jvanorman@jmooc.com

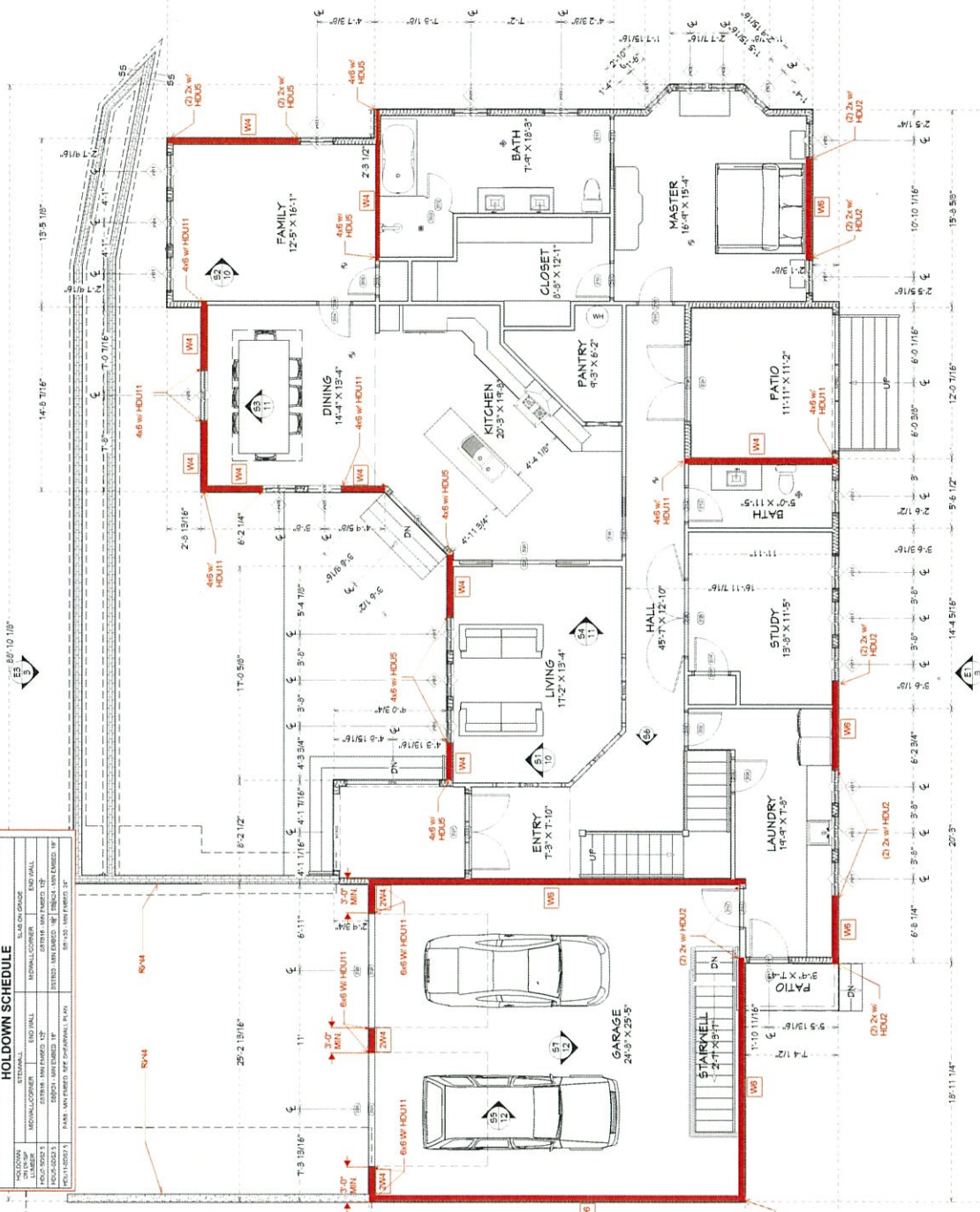
NUMBER	DATE	REVISION	DESCRIPTION



13'-6\"/>



NUMBER	DATE	REVISION TABLE	DESCRIPTION

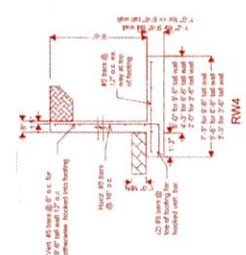


4 SMOKE & CARBON MONOXIDE DETECTORS
 5 VENT FAN
 86'-10" 18"

NOTE: SHEAR WALLS WITH 4" OC PANEL
 EDGE NAIL SPACING SHALL HAVE
 ANCHOR BOLTS SPACED AT 12" OC

SHEARWALL NAILING SCHEDULE		
SYMBOL	DESCRIPTION	REVISION
W4	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	
W6	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	
W8	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	
W10	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	
W11	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	

HOLDOWN SCHEDULE		
SYMBOL	DESCRIPTION	REVISION
H1	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	
H2	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	
H3	IF FIVEWOOD WITH INTERCOMBINATION WALLS & 4" OC AT FINISH LEVEL	



56'-10" 18"
 2414.60 FT
 14 in = 1 ft
 1st Floor Plan

REVISION TABLE:
 NUMBER DATE REVISION DESCRIPTION

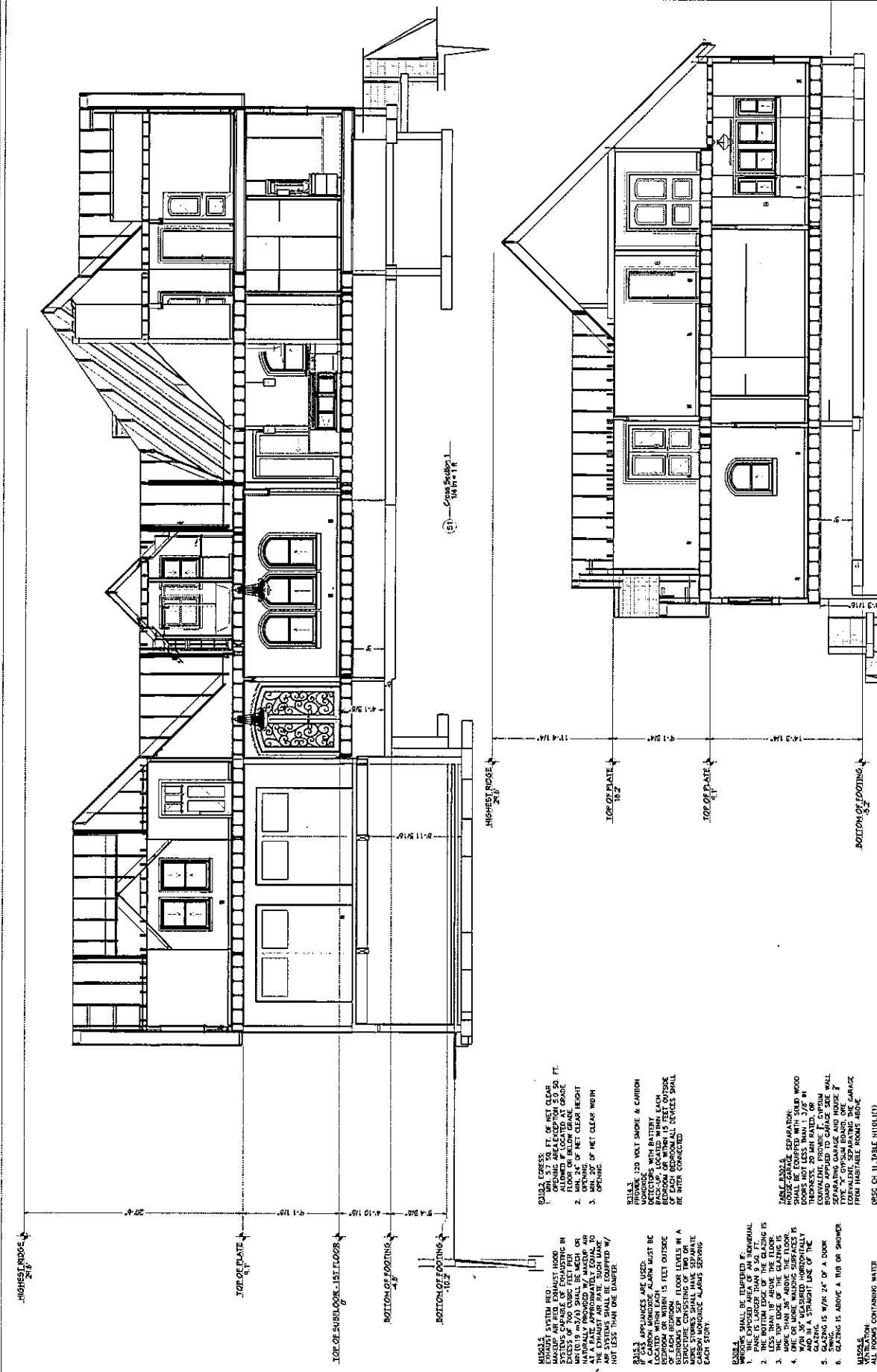


TABLE 102
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 103
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 104
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 105
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 106
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 107
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 108
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 109
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 110
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 111
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 112
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 113
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 114
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 115
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 116
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 117
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 118
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 119
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

TABLE 120
 SHALL PROVIDE 120 VOLT SMOKE & CARBON DETECTORS WITH BATTERY BACKUP IN EACH BEDROOM OR WITHIN EACH BEDROOM OR WITHIN EACH STRUCTURE CONSISTING OF TWO OR MORE FLOOR LEVELS IN A CARBON MONOXIDE ALARMS SERVING EACH STORY.

REVISION DATE	REVISION BY	DESCRIPTION

CLIENT INFORMATION:
James Van Orman
 486 Fenway CT Seaside, OR 97138
 (503) 544-5125
 jvanor@jvo.com

Sections 3 & 4
 Project Location: Tract 500, Map 25 10W 080P
 Tillamook, OR 97141

DRAWINGS PROVIDED BY:
AR Northwest LLC
 380 Hodgden Rd Tillamook, OR 97141
 (503) 544-2126
 arnw@arwestnw.com

DATE: 3/4/2024
 SCALE:
 SHEET: **P-11**



③ - Cross Section 3
 1/4" = 1'-0"

④ - Cross Section 4
 1/4" = 1'-0"



P-12

SHEET:

SCALE:

DATE:

3/4/2024

DRAWINGS PROVIDED BY:

AR Northwest LLC
385 Red Oak Rd Tillamook, OR 97141
(503) 344-2178
adam@arwestnorth.com

Project Location: Tract 500, Map 25 10M 05DD
Tillamook, OR 97141

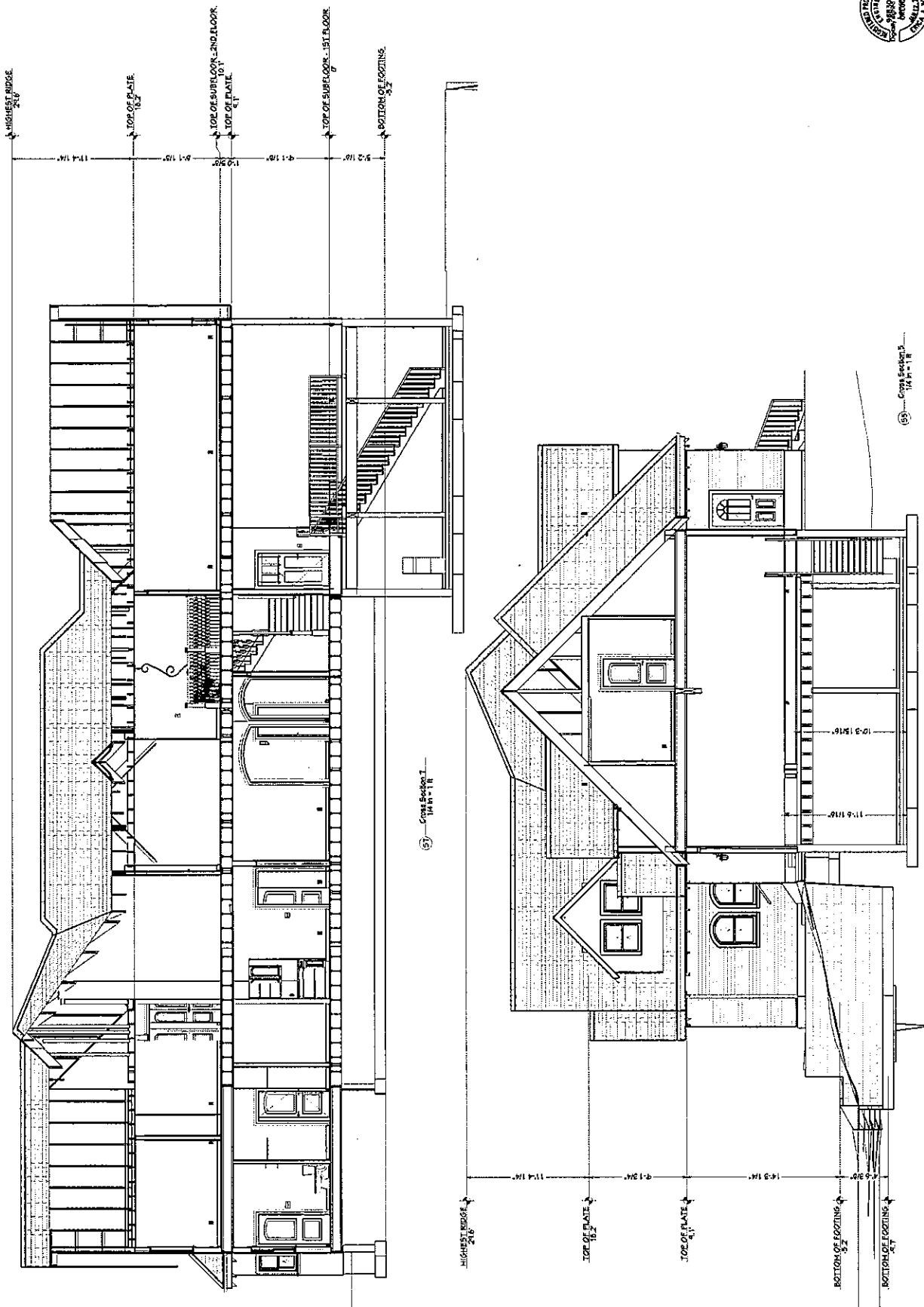
Sections 5 & 7

CLIENT INFORMATION:

James Van Orman
449 Parkway CT Seaside, OR 97138
(503) 444-3751
jvanorman@jvo.com

REVISION TABLE

NUMBER	DATE	REVISION BY	DESCRIPTION



57 - Cross Section 7
1/4" = 1'

55 - Cross Section 5
1/4" = 1'

REVISION TABLE
NUMBER DATE REVISION DESCRIPTION

CLIENT INFORMATION:
James Van Orman
 480 Palmyra Ct. Seaside, OR 97138
 jvanorman@hmc.com
 503.646.5178

PLOT PLAN/OVERVIEW

Project Location: Tax Lot 500, Map 25 10W 05DD
 Tillamook, OR 97141

DRAWINGS PROVIDED BY:
AR Northwest LLC
 200 Hodgdon Rd Tillamook, OR 97141
 503.344.1178
 arnw@arwest.com

DATE: 3/4/2024
 SCALE: 1"=40.00' SQ. FT.
 SHEET: P-2

