



Clatsop County

Community Development – Planning

800 Exchange St., Suite 100
Astoria, OR 97103
(503) 325-8611 phone
(503) 338-3606 fax

GEOLOGIC HAZARD PERMIT WAIVER

Permit #20190422

Applicant / Owner: Robert B. Jorgensen and Cheryl Waitkevich
Location: T4N, R10W, SEC. 30BD, TL 3000
Zoning: Arch Cape Rural Community Residential Zone (AC-RCR)
Proposed Use: New single-family dwelling.
Waiver Letter: Horning Geosciences, dated December 14, 2018
Thomas S. Horning, Oregon Certified Engineering Geologist #E1131
808 26th Avenue, Seaside, OR 97138

The provisions of the Clatsop County Land and Water Development and Use Ordinance (LWDUO) that apply to a Geologic Hazard Permit Waiver are contained in Section 4.040, specifically Section 4.042(4), appearing in **bold** [emphasis added] type below:

Section 4.040 GEOLOGIC HAZARDS OVERLAY DISTRICT (/GHO)

LWDUO Section 4.042 Applicability

This section applies to all development in the following potentially hazardous areas [landslide hazard]:

- (1) Areas subject to mass wasting including:
 - (A) **Active landslides, inactive landslides, landslide topography and mass movement topography identified in the Oregon Department of Geology and Mineral Industries (DOGAMI) Bulletins 74 and 79;**
- (4) The determination of whether a property is located in one of the above referenced potentially hazardous areas shall be made at the sole discretion of the Director. The mapping that forms the basis for the identification of the above areas may be generalized in nature. **A specific site may not include the characteristics for which it is mapped. In these circumstances, the Director may grant a waiver from the requirements of Section 4.040. The waiver shall be in the form of a written finding. The finding shall be based on a report, from a professional specified in Section 4.044, detailing the basis for the determination that the site does not contain the identified potentially hazardous geologic condition.**

FINDINGS AND CONCLUSIONS

Findings

1. The County's GIS indicates that the subject property is within "Landslide Topography" per LWDUO Section 4.042(1)(A).
2. Per LWDUO Section 4.042(4), the Director may grant a waiver from the requirements in the form of a finding, which shall be based on a report from a professional specified in Section 4.044, detailing the basis for the determination that the site does not contain the identified potentially hazardous geologic condition.
3. Per LWDUO Section 4.044, the report must be prepared by a certified engineering geologist or registered professional geologist.
4. On August 8, 2019, the applicant submitted a Geologic Hazard Waiver request based on a letter prepared and signed by Thomas S. Horning, Oregon Certified Engineering Geologist E1132, dated December 14, 2018 (Exhibit A).
5. The letter referenced above states Mr. Horning's findings and conclusion regarding the subject site and proposed development: ***"Based on geologic investigations on-site and regionally, plus the interpretation of LIDAR imagery for the area, it is my conclusion that this property does not lie within an area of past landslide activity. The geologic hazard overlay is in error for this site. I recommend waiving the requirement for a geologic hazard investigation for Tax Lot 3000."***
6. Because the *Geologic Hazard Assessment* and statement provided by the applicant was prepared by a qualified professional and addresses the criteria found in Section 4.042(4), LWDUO, the Director may grant a waiver of Section 4.040.

Conclusions:

1. The Geologic Hazard Waiver Letter complies with the criteria for a waiver.
2. A waiver of the Geologic Hazard Overlay provisions is hereby granted.



Gail Henrikson, Community Development Director
August 9, 2019

Exhibit A: *Waiver of Requirement for Geologic Hazard Report*, Horning Geosciences, December 14, 2018.



Receipt

This is not a Permit

Clatsop County Community Development
800 Exchange St Ste 100
Astoria, OR 97103

Ph. (503) 325 - 8611 Fax (503) 338 - 3606

For Department Use Only

Permit #: 20190422
Permit Type: Type I
Entry Date: 8/8/2019
Entered By: Ian Sisson
Assigned To: Gail Henrikson
Permit Status: Pending

Permit Timeline

User	Status	Date
Ian Sisson	Entered	08/08/2019
Gail Henrikson	Assigned	08/08/2019

Proposed Use

Proposed Use: **Single Family Dwelling**

Zone: **AC-RCR**

Description: Geohazard waiver request.

Overlay District: **GHO**

Owner/Project Location

Owner: Name: **Jorgensen Robert B & Waitkevich Cheryl**
Address: 2027 Bethel St NE
City, State, Zip: Olympia, WA 98506

Ph. #: (360) 970-1124
Cell: () -
Fax: () -

Situs Address: T R S Q S Qq S Taxlot
City: State: OREGON 4 10 30 B D 03000

Applicant/Agent

Applicant: Name: Vito Cerelli
Address:
City, State, Zip:

Ph. #: (503) 440-5766
Cell: () -
Fax: () -

Ph. #: () -
Cell: () -
Fax: () -

Fees

Fee Type:
Planning/Development

Permit Fee Total:

\$84.00

Total: \$84.00

Receipt

<u>Payor Name:</u>	<u>Pymnt Type</u>	<u>Check #</u>	<u>Pymnt Date</u>	<u>Pymnt Amount:</u>
Vito Cerelli	Credit Card		08/08/2019	\$84.00

Balance Due: \$0.00

Signatures

1. For Commercial and industrial uses, include parking and loading plan, sign plan and erosion control plan.
2. For residential and other uses, include an erosion control plan.
3. Review attached applicant's statement and sign below.

I have read and understand the attached APPLICANT'S STATEMENT and agree to abide by the terms thereof.

Applicant Signature: _____ **Date:** _____

Owner Signature: _____ **Date:** _____

Agent Signature: _____ **Date:** _____



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 Community Development
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Geologic Hazard Permit
Fee: \$441 (Required with application)

Proposed Use: SINGLE FAMILY RESIDENCE

Legal Description of Property:

T 4N R 10 W S 30 BD Lot 3000 Acres .2 Zone ACRC

Adjacent Property Owned by Applicant:

T 4N R 10 W S 30 BD Lot 3002 Acres .2 Zone ACRC

T 4N R 10 W S 30 BD Lot 3004 Acres .2 Zone ACRC

OWNER: CHERYL WAITKEVICH

Mail Address: 2027 BETHEL ST NE

Phone: _____

Signature: *Cheryl Waitkevich*

OWNER: ROBERT JORGENSEN

Mail Address: 2027 BETHEL ST NE

Phone: (360) 701-0594

Signature: *Robert Jorgensen*

OTHER: _____

Mail Address: _____

Phone: _____

Signature: _____

Email: *cwaitkevich@gmail.com*

City/State/Zip OLYMPIA, WA 98506

Phone: *360 970 1124*

Date: _____

Email: *rbjorgensen@hotmail.com*

City/State/Zip OLYMPIA, WA 98506

Phone: _____

Date: *July 29, 2019*

Email: _____

City/State/Zip _____

Phone: _____

Date: _____

SIGNATURES: I have read and understand the statements on the back of this form and agree to abide by them. All owners of record, per Clatsop County Assessment records, must sign the application. Representatives of public agencies, corporations, trusts, etc. must provide documentation of signing authority.

Horning Geosciences

808 26th Avenue, Seaside, OR 97138

Ph./FAX: (503)738-3738

Email: horning@pacifier.com



December 14, 2018

Cheryl Waitkevich
2027 Bethel St. NE
Olympia, WA 98506

RE: **Geologic Hazard Waiver Letter**; Map 4 10 30BD, Tax Lot 3000; north side of Walsh Avenue,; SE part of Arch Cape, Clatsop County, Oregon

Dear Cheryl:

I understand from you that you intend to build a small home on the above-referenced property. The building is proposed to 25 by 32 ft in size; its location on-site yet to be determined.

According to the Clatsop County WebMaps site, the property has a geologic hazard overlay that indicates landslide. My understanding of the overlay map is that it is based on the interpretation of stereoscopic aerial photos by state geologists in the early 1970's (Schlicker and others, 1972). This technology was the best available at the time and the interpretations are both subjective and difficult if trees obscure the ground. While still useful if no other resources are available, stereo photos have been supplanted by LIDAR synthetic topographic images that can remove the obscuring effects of brush and trees, enabling more reliable geomorphological analysis. In addition to reviewing available LIDAR, I have also visited the property several times during the excavation and construction of roads and utilities to explore the subsurface dimension of the geology. Further, I have invited the input of my colleague Alan Niem, PhD, Emeritus Prof. Geology, Oregon State University, who has overseen the geologic mapping of Clatsop County since the 1970's. A quick geologic synthesis is provided in the captions of the accompanying Figures 1 through 4.

Conclusion

Based on geologic investigations on-site and regionally, plus the interpretation of LIDAR imagery for the area, it is my conclusion that this property does not lie within an area of past landslide activity. The geologic hazard overlay is in error for this site.

Recommendation

I recommend waiving the requirement for a geologic hazard investigation for Tax Lot 3000.

Please feel free to call or write if you have questions.

Thomas S. Horning, CEG #1131
Horning Geosciences



Expires: 7/1/19

References Cited

Horning, T.S., 2007, EXECUTIVE SUMMARY for Preliminary Geologic Hazard Report; Map 4N 10 30BD, Tax Lots 1300, 1400, 1500, and 1600; including access via platted roads; Arch Cape, Clatsop County, Oregon; dated July 20, 2007; 2 p.

Horning, T.S., 2013, Geologic Advisory Letter; Map 4 10 30BD, Block 28; bounded by Arch Cape Avenue, Walsh Avenue, 3rd Street, and 4th Street; now subdivided into 6 proposed tax lots; SE part of Arch Cape, Clatsop County, Oregon; dated February 28, 2013; 4 p.

Niem, A.R., 2007, personal communication and field inspection.

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.

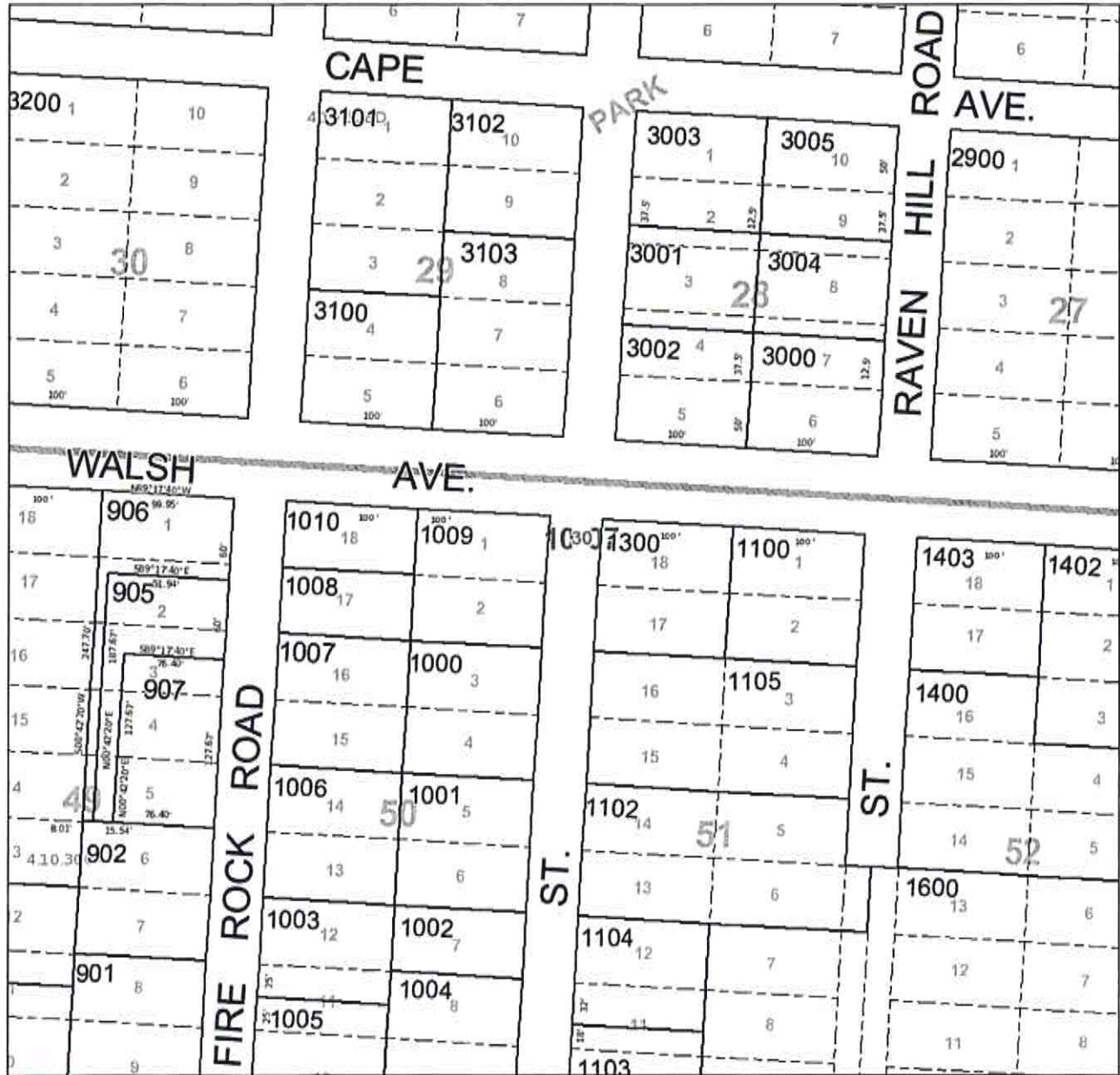


Figure 1: Assessor's plat showing the neighborhood streets and layout of lots, including TL 3000. Access is via Fire Rock Road.



Figure 2: Geologic landslide hazard overlay (orange) for the southern part of Arch Cape. Tax Lot 3000 lies just within the area considered to be old landslide, on the northwest corner of the intersection of Walsh Lane and Raven Hill Road.

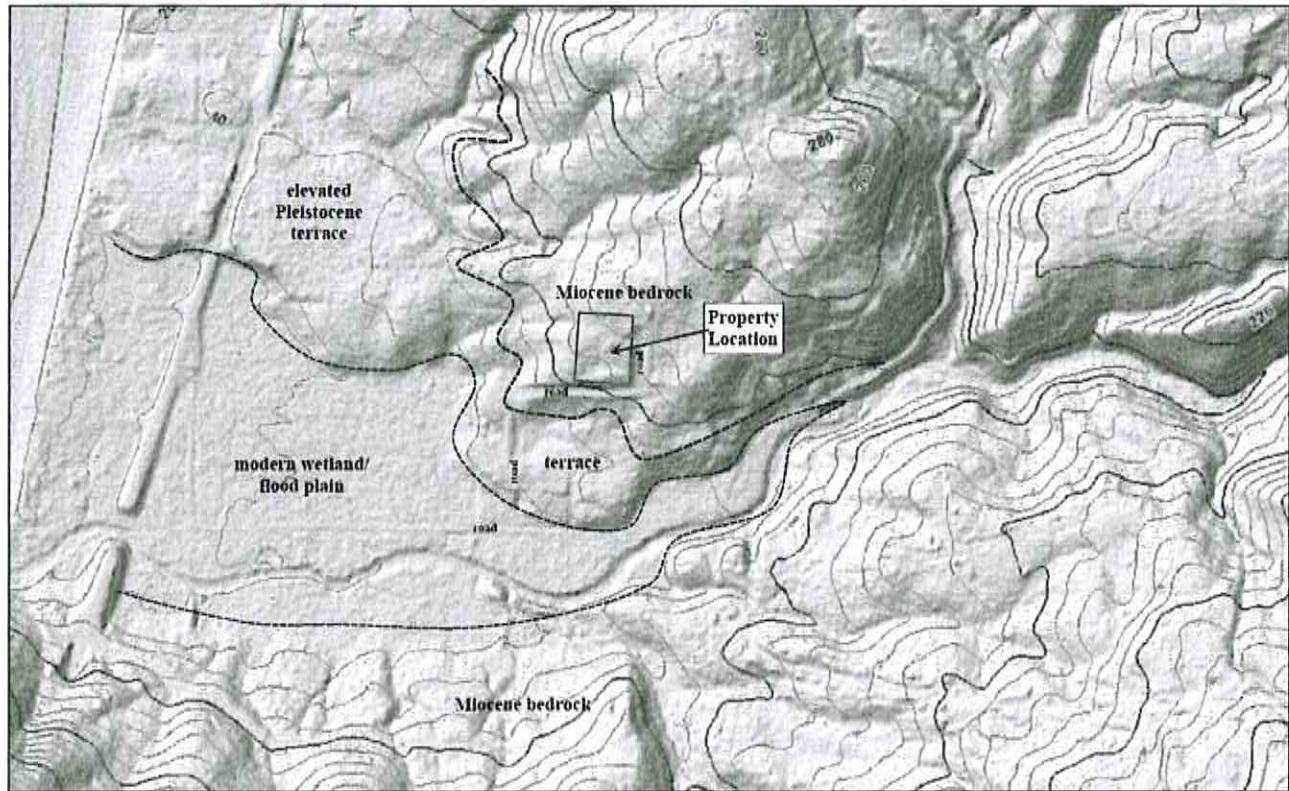


Figure 3: LIDAR shaded relief topographic map for the south end of Arch Cape, with geologic interpretations. Tax Lot 3000 is in the south-east corner of the blue rectangle and lies on Miocene bedrock, but above on-lapping terrace sediments. The topography reveals incised stream drainages in the bedrock and gentle undulating landforms that are typical of hills that are free of landslide movements. The local bedrock consists of peperite complex, or chaotically intermixed sandstone, siltstone, and volcanic breccias that were emplaced explosively on the sea floor as massive flows of Columbia River Basalt invaded the submarine delta of the Columbia River about 15.5 million years ago, according to Niem (personal communication). Erosional resistance of the basaltic breccias leads to the formation of spheroidally weathering outcrop, characterized by isolated boulders that can be as much as 20 ft across, scattered sparsely across the local landscape. Some of the larger boulders can be seen topographically as blocky ground in the LIDAR image. The blocky ground, however, is not equivalent to hummocky landslide landscape. Map from Horning (2013).



Figure 4: Site-specific observations for TL 3000 and nearby lots. Spheroidally weathered basaltic boulders are shown stacked west and north of the property. The proposed house should be constructed at least 10 ft back from the steep break-in-slope in the southern one-third of TL 3000, away from the embankment above Walsh Lane. The original slope for this property is estimated to have been about 12 percent to the southwest. The height of the leveled area is roughly 13 ft above the base of the upper cut bank, which is inclined from 50 to 80 percent. Given the presence of weathered sandstone exposed in Third Avenue in the partially excavated road cut west of the property, the cut bank can be expected to support a 1.5H:1.0V slope. It would be prudent to keep all foundations at least 10 ft back from the top of the cut. The bearing capacity of the gravelly clay-silt soils will be no less than 1500 psf. There may be hidden blocks of basaltic breccia buried beneath the surface of the lot, but it will disaggregate with a chisel-tipped rock breaker mounted on an excavator. Mapping after Horning (2013).



Figure 5: View of driveway ramp on east side of TL 3000, looking southwesterly. Blocks of basaltic rubble are up to 2 ft across in the exposed ground and may be larger in the shallow subsurface.

