NOTICE OF LAND USE DECISION

You may have received this because you are an adjacent property owner, and this notice is required to be provided pursuant to ORS 215.416. The proposal is identified in this decision and will be located on the subject property.

Coos County Planning
60 E. Second St.
Coquille, OR 97423
http://www.co.coos.or.us/
Phone: 541-396-7770
Fax: 541-396-1022

This decision notice is required to be sent to the property owner(s), applicant(s), adjacent property owners (distance of notice is determined by zone area – Urban 100 feet, Rural 250 feet, and Resource 750 feet), special taxing districts, agencies with interest, or person that has requested notice. Please read all information carefully as this decision. (See attached vicinity map for the location of the subject property).

Date of Notice:	**Thursday, December 28, 2023**
File No(s):	ACU-23-040
Proposal:	Request for a land use authorization to site a Single-Family Dwelling with attached Accessory Structure within the Beaches & Dunes Overlay
Property Owner(s):	Christopher Fassnacht & Lori Lubin
Staff Planner:	Crystal Orr, Associate Planner

Decision: **Approved with Conditions.** All decisions are based on the record. This decision is final and effective at close of the appeal period unless a complete application with the fee is submitted by the Planning Department at 5 p.m. on **Friday, January 12, 2024**. Appeals are based on the applicable land use criteria found in the Coos County Zoning and Land Development Ordinance (CCZLDO) General Compliance with *Sections 1.1.300 Compliance with Comprehensive Plan and Ordinance Provisions and 6.1.125 Lawfully Created Lots or Parcels.* Single Family Dwellings are subject to CCZLDO Use Table in *Section 4.3.200(30) Dwelling-Single Family Conventional subject to a Compliance Determination (CD) and Use Standard 27(k), Accessory Structures are subject to CCZLDO Used Table in Section 4.3.200(18) Accessory Uses and Structures to Permitted Residential subject to a Compliance Determination (CD) and Use Standard 1 both of these uses require Section 4.3.225 General Siting Standards to be addressed. Beaches & Dunes is subject to CCZLDO Section 4.11.129 Beaches & Dunes and Wildfire is subject to CCZLDO Section 4.11.132 Natural Hazards.* **Civil matters including property disputes outside of the criteria listed in this notice will not be considered. For more information, please contact the staff planner listed in this notice.**

Property Information

File Number:	ACU-23-040
Applicant:	Christopher Fassnacht & Lori Lubin
Account Number:	2895204
Map Number:	29S1501CB-00404
Property Owner:	LUBIN FASSNACHT REVOCABLE LIVING TRUST FASSNACHT, CHRISTOPHER & LUBIN, L TTEE 2507 CORONA DR DAVIS, CA 95616-0109
Situs Address:	NO SITUS ADDRESS
Acreage:	0.18 Acres
Zoning:	CONTROLLED DEVELOPMENT-10 (CD-10)

Notice shall be posted from December 28, 2023 until 5:00 PM January 12, 2024

Special Considerations:	ARCHAEOLOGICAL AREAS (ARC) BANDON CONICAL ZONE (ABC) BANDON UGB (BGB) BEACHES/DUNES - LIMITED (BDL) NH TSUNAMI (NHTHO) NH WILDFIRE (NHWF)

The purpose of this notice is to inform you about the proposal and decision, where you may receive more information, and the requirements if you wish to appeal the decision by the Director to the Coos County Hearings Body. Any person who is adversely affected or aggrieved or who is entitled to written notice may appeal the decision by filing a written appeal in the manner and within the time period as provided below pursuant to Coos County Zoning and Land Development Ordinance (CCZLDO) Article 5.8. If you are mailing any documents to the Coos County Planning Department the address is 250 N. Baxter, Coquille OR 97423. Mailing of this notice to you precludes an appeal directly to the Land Use Board of Appeals.

Mailed notices to owners of real property required by ORS 215 shall be deemed given to those owners named in an affidavit of mailing executed by the person designated by the governing body of a county to mail the notices. The failure of the governing body of a county to cause a notice to be mailed to an owner of a lot or parcel of property created or that has changed ownership since the last complete tax assessment roll was prepared shall not invalidate an ordinance. **NOTICE TO MORTGAGEE, LIENHOLDER, VENDOR OR SELLER: ORS CHAPTER 215 (ORS 215.513) REQUIRES THAT IF YOU RECEIVE THIS NOTICE, IT MUST PROMPTLY BE FORWARDED TO THE PURCHASER.**
Staff tries to post all applications on the website at the following link:
https://www.co.coos.or.us/community-dev/page/planning-department
The application and all documents and evidence contained in the record, including the staff report and the applicable criteria, are available for inspection, at no cost, in the Planning Department located at 60 E Second Street, Coquille, Oregon. Copies may be purchased at a cost of 50 cents per page. If you would like to view the record in this matter, please make an appointment. The decision is based on the application submittal and information on record. The name of the Coos County Planning Department representative to contact is Crystal Orr, Associate Planner and the telephone number where more information can be obtained is **(541) 396-7770**. Failure of an issue to be raised in a hearing, in person or in writing, or failure to provide statements of evidence sufficient to afford the Approval Authority an opportunity to respond to the issue precludes raising the issue in an appeal to the Land Use Board of Appeals.

Reviewed by: Crystal Orr Digitally signed by Crystal Orr Date: 2023.12.27 12:46:40 -08'00' **Date: Thursday, December 28, 2023**
Crystal Orr, Associate Planner

This decision is authorized by the Coos County Planning Director, Jill Rolfe based on the staff's analysis of the Findings of Fact, Conclusions, Conditions of approval, Application and all evidence associated as listed in the exhibits.

EXHIBITS
Exhibit A: Conditions of Approval
Exhibit B: Vicinity Map
The following exhibits are on file at the Coos County Planning Department and may be accessed by contacting the department. All noticeable decisions are posted on the website for viewing when possible.
Exhibit C: Staff Report -Findings of Fact and Conclusions
Exhibit D: Beaches & Dunes report
Exhibit E: Comments Received

EXHIBIT "A"

The applicant shall comply with the following conditions of approval, understanding that all costs associated with complying with these conditions are the responsibility of the applicant(s), and that the applicant(s) are not acting as agents of the county. If the applicant fails to comply or maintain compliance with the conditions of approval, the permit may be revoked as allowed by the Coos County Zoning and Land Development Ordinance. Please read the following conditions of approval, and if you have any questions, contact planning staff.

CONDITIONS OF APPROVAL

1. All applicable federal, state, and local permits shall be obtained prior to the commencement of any development activity. If there were comments from any other agency were provided as part of this review, it is the responsibility of the property owner to comply.
2. Pursuant to CCZLDO § 5.9.100, a Zoning Compliance Letter shall be required prior to the commencement of construction of the proposed dwelling. This authorization is based on conditions of approval and the conditions that are required to be completed prior obtaining the ZCL are defined in this section. Pursuant to CCZLDO § 4.6.110, § 4.6.130 and § 4.6.140. To show compliance with this section the applicant shall submit a letter with the following items to request that staff find the following conditions have been satisfied:
    a. The property owner is responsible for ensuring compliance, and land use authorization shall remain recorded in the chain of title. The statement needs to include language that the purchaser of the property has been provided a copy of the land use approval containing all conditions or restrictions understands the obligation and agrees to fulfill the conditions unless a modification is approved as provided in this ordinance. The property owner is responsible for ensuring compliance, and land use authorization. The recorded deed convent shall be recorded with the County Clerk and copy provided to the Planning Department.
    b. The landowner(s) shall submit, and sign, a hazard disclosure statement that addresses the following:
        i. The property is subject to potential natural hazards and that development thereon is subject to risk of damage from such hazards;
        ii. The property owner has commissioned an engineering geologic report for the subject property, a copy of which is on file with Coos County Planning Department, and that the property owner has reviewed the engineering geologic report and has thus been informed and is aware of the type and extent of hazards present and the risks associated with development on the subject property;
        iii. The property owner accepts and assumes all risks of damage from natural hazards associated with the development of the subject property.
    c. Permitted development and or use shall comply with the recommendations within the engineering geologic report.
    d. The applicant shall, prior to the issuance of a zoning compliance letter, record on the title to the subject property a notification that includes a description of the measures or improvements and that also specifies the obligation of the property owners to refrain from interfering with such measures or improvements and to maintain them.
    e. Section 5.2.700 Development Transferability - Unless otherwise provided in the approval, a land use approval that was obtained through a conditional use process shall be transferable provided the transferor files a statement with the Planning Director signed by the transferee. This document shall be recorded in the chain of title of the property, indicating that the transferee has been provided a copy of the land use approval containing all conditions or restrictions understands the obligation and agrees to fulfill the conditions, unless a modification is approved as provided in this ordinance. The property owner is responsible for ensuring compliance, and land use

authorization shall remain recorded in the chain of title to alert a purchaser that development was approved subject to conditions and possible restrictions.

f. Any comments received from the local tribes or Oregon Department of Aviation must be adhered to.
g. The dwelling shall not be sited on a slope of greater than 40 percent.
h. A firebreak shall be established and maintained around all structures on land owned or controlled by the applicant for a distance of at least 30 feet. Vegetation within the primary safety zone includes mowed grass, low shrubs (less than ground floor window height), and trees that are spaced with more than 15 feet between the crowns and pruned to remove dead and low (less than 8 feet from the ground) branches. Accumulated needles, limbs and other dead vegetation should be removed from beneath trees. Sufficient garden hose to reach the perimeter of the primary safety zone shall be available at all times.

3. Prior to the issuance of a final occupancy permit by the Coos County Building Official, the following conditions shall be confirmed by the County Plans Examiner during the building review:
   a. The driveway and parking application (DR-23-119) must be signed off as meeting standards by the Coos County Road Department prior to final occupancy permit.
   b. If the structure has a chimney or chimneys, each chimney shall have a spark arrester, this shall be shown on the building plans.
   c. The Single Family Dwelling with attached Accessory Structure shall use fire resistant roofing materials.

EXHIBIT "B"
VICINITY MAP & PLOT PLAN

COOS COUNTY PLANNING DEPARTMENT

Mailing Address: 250 N. Baxter, Coquille, Oregon 97423
Physical Address: 60 E. Second, Coquille Oregon
Phone: (541) 396-7770
TDD (800) 735-2900

File:	ACU-23-040
Applicant/ Owner:	LUBIN FASSNACHT REVOCABLE LIVING
Date:	11/29/2023
Location:	Township 29S Range 15W Section 01CB TL 404
Proposal:	Conditional Use

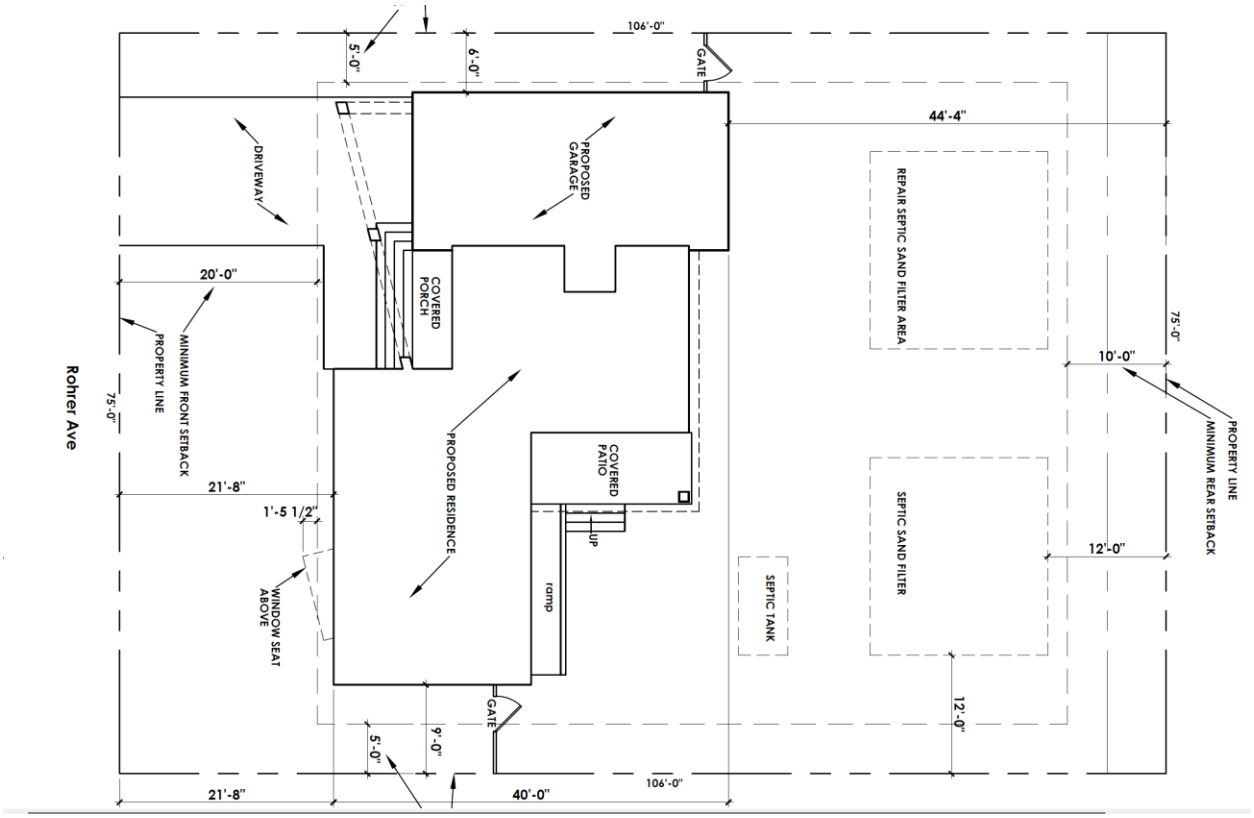
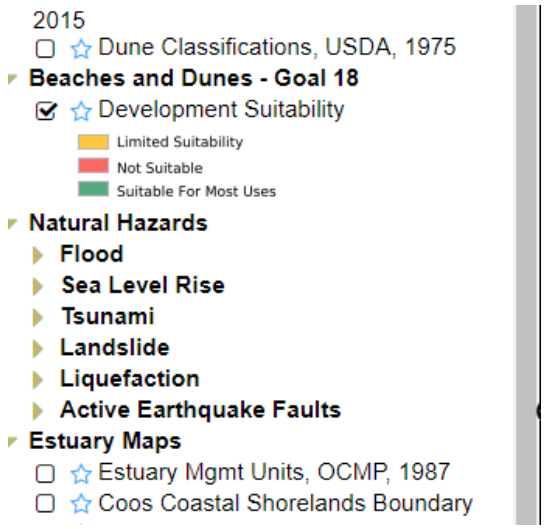
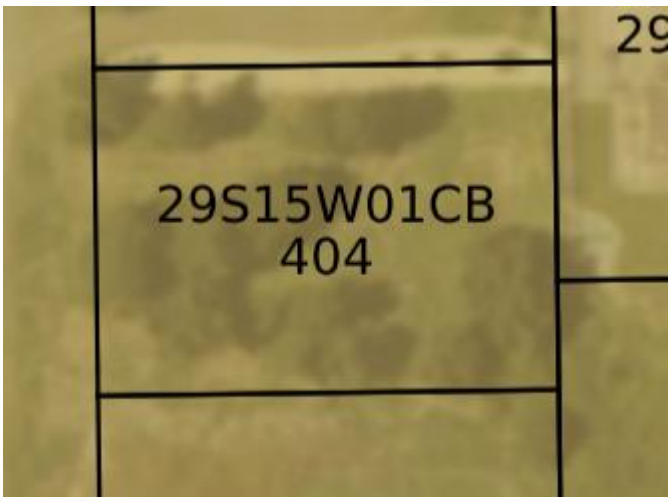

106'-0"
5'-0"
6'-0"
GATE
44'-4"
DRIVEWAY
PROPOSED GARAGE
REPAIR SEPTIC SAND FILTER AREA
20'-0"
COVERED PORCH
75'-0"
10'-0"
PROPERTY LINE
MINIMUM FRONT SETBACK
PROPERTY LINE
MINIMUM REAR SETBACK
Rohrer Ave
75'-0"
PROPOSED RESIDENCE
COVERED PATIO
21'-8"
1'-5 1/2"
UP
12'-0"
WINDOW SEAT ABOVE
ramp
SEPTIC TANK
SEPTIC SAND FILTER
GATE
12'-0"
5'-0"
9'-0"
21'-8"
40'-0"
106'-0"

EXHIBIT "C"
STAFF REPORT
FINDINGS OF FACT AND CONCLUSIONS

I. PROPOSAL AND BACKGROUND/PROPERTY HISTORY INFORMATION AND PRIOR COMPLIANCE:

A. PROPOSAL: Request for Planning Director Approval to site a Single-Family Dwelling with attached Accessory Structure within the Beaches & Dunes Limited Suitability Overlay as provided by Coos County Zoning and Land Development Ordinance CCZLDO § 4.11.129 which requires a Site Investigation Report by a qualified registered and licensed geologist or engineer. The property is also within the Natural Hazard Wildfire overlay as provided by the Coos County Zoning and Land Development Ordinance CCZLDO§ 4.11.132, which requires the dwelling to be located within a fire protection district.





B. BACKGROUND/PROPERTY HISTORY:

- June 22, 2000 a Conditional Use (ACU-00-19) was approved to allow a Single-Family Dwelling within the Beaches & Dunes Limited Suitability overlay. The approval was valid for two (2) years, and was not utilized.
- August 5, 2022 a Zoning Compliance Letter (ZCL-22-266)) was issued to allow the property to perform a septic site evaluation.

C. LOCATION: The subject property is located south of the City of Bandon off of Rohrer Road, the property is within the Urban Growth Boundary of Bandon.

D. ZONING: The property is zoned Controlled Development-10 (CD-10).

Controlled Development (CD)
The intent of the Controlled Development is to reserve areas that are experiencing or are projected to experience limited conversion of residential areas to commercial uses. Urban Growth Areas include Urban Growth Boundaries (UGB) and Urban Unincorporated Communities (UUC) that were developed to urban levels of development and could be included in an Urban Growth Boundary

expansion in the future. This designation is applied to specific portions of the following Urban Growth Areas: Bandon, Charleston, Barview and Bunker Hill.

There are two different controlled development zoning districts: Controlled Development-5 (CD-5) and Controlled Development-10 (CD-10).

The purpose of the "CD-5" and "CD-10" district is to recognize the scenic and unique quality of selected areas within Urban Growth Boundaries, to enhance and protect the unique "village atmosphere," to permit a mix of residential, commercial, and recreational uses and to exclude those uses which would be inconsistent with the purpose of this district, recognizing tourism as a major component of the County's economy.

E. SITE DESCRIPTION AND SURROUNDING USES: This property is located south of the City of Bandon. The property is accessed via Rohrer Road, which is a privately maintained public road. The parcel abuts Rohrer Road to the west. The property appears to have a small amount of vegetation. The parcel is zoned Controlled Development-10 (CD-10) and is surrounded by like zoning. The uses within the area appear to be residential.

F. COMMENTS: Request for comments were sent to the local tribes and Oregon Department of Aviation. Staff received comments from the Coquille Tribe, which can be found in Exhibit E. Comments from the Oregon Department of Aviation have not been received at the time of this report.

II. GENERAL PROPERTY COMPLIANCE:

A. COMPLIANCE PURSUANT TO SECTION 1.1.300:

It shall be unlawful for any person, firm, or corporation to cause, develop, permit, erect, construct, alter or use any building, structure or parcel of land contrary to the provisions of the district in which it is located. No permit for construction or alteration of any structure shall be issued unless the plans, specifications, and intended use of any structure or land conform in all respects with the provisions of this Ordinance, unless approval has been granted by the Hearings Body.

FINDING: Staff has reviewed the property history, and as of the time of this report, the county finds that the property is compliant with the Coos County Zoning and Land Development Ordinance. However, this does not imply that there is no additional information unavailable during this review that could render the properties non-compliant.

B. SECTION 6.1.125 LAWFULLY CREATED LOTS OR PARCELS:

"Lawfully established unit of land" means:

1. The unit of land was created:

a. Through an approved or pre-ordinance plat;

b. Through a prior land use decision including a final decision from a higher court. A higher court includes the Land Use Board of Appeals;

c. In compliance with all applicable planning, zoning and subdivision or partition ordinances and regulations at the time it was created.

d. By a public dedicated road that was held in fee simple creating an interviewing ownership prior to January 1, 1986;

e. By deed or land sales contract, if there were no applicable planning, zoning or subdivision or partition ordinances or regulations that prohibited the creation.

f. By the claim of intervening state or federal ownership of navigable streams, meandered lakes or tidewaters. "Navigable-for-title" or "title-navigable" means that ownership of the waterway, including its bed, was passed from the federal government to the state at statehood. If a waterway is navigable-for-title, then it also is generally open to public use for navigation, commerce, recreation, and fisheries.

FINDING: The unit of land was created pursuant to Section 6.1.125.1.a through a pre-ordinance plat, this parcel is made up of Lots 16 through 18 Block 3 of the Sunset City Subdivision.

III. STAFF FINDINGS AND CONCLUSIONS:

IV. APPROVAL CRITERIA & FINDINGS OF FACT

Section 4.3.200 Zoning Tables for Urban and Rural Residential, mixed Commercial-Residential, Commercial, Industrial, Minor Estuary and South Slough

The table indicates the type of review process that is required. Remember that CU is a conditional use review and the letter prior explain what level of conditional use is required (A = administrative and H=Hearing)

As used in the zoning tables the following abbreviations are defined as:

- *"P" Permitted and requires no review from the Planning Department. No review is required but other agencies may have requirements.*
- *"CD" Compliance Determination review (permitted with standards) with clear and objective standards (Staff review usually referred to as Type I process or ministerial action). These uses are subject to development standards in sections 4.3.22, 4.3.230 and notices requesting comments may be provided to other agencies as result. The process takes a minimum of 30 days to complete. Industrial zones may require additional review. All structures and uses shall meet the applicable Development and Siting Criteria or Special Development Considerations and Overlays for the zoning district in which the structure will be sited.*
- *"ACU" Administrative Conditional Use (Planning Director's Decision usually referred to as a Type II Process)*
- *"HBCU" Hearing Body Conditional Use (Planning Commission, Board of Commissioner or Hearings Officer Decision usually referred to as a Type III Process)*
- *"PLA" Property Line Adjustments subject to standards found in Chapter 6.*
- *"P", "SUB", "PUD" = Partition, Subdivision, Planned Unit Development that require Land Division Applications subject to standards found in Chapter 6.*
- *The "Subject To" column identifies any specific provisions of Section 4.3.210 to which the use is subject.*
- *"N" means the use is not allowed.*

The zoning table sets out Uses, Developments and Activities that may be listed in a zone and the type of review that is required within that zone. If there is a conflict between uses the more restrictive shall apply. Section 4.3.210 provides an explanation of the use category and the specific criteria that shall apply and if the use is identified as requiring a conditional use. Section 4.3.225 General Siting Standards apply to all regulated Uses, Developments, or Activities, but these are clear and objective standards that do not, in themselves, require a land use notice. Section 4.3.230 Specific Standards list specific siting standards by zones and 4.2.220 Additional Conditional Use Review and Standards for table 4.3.200 contains any additional criteria that applied to a Use, Development or Activity that has been identified by the following table as requiring.

#	Use	Zones													Subject To
		UR-1	UR-2	UR-M	RR-2	RR-5	CD	RC	C-1	IND	AO	REC	SS	MES	
18.	Accessory Uses and Structures to permitted residential	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	CD	(1)
30.	Dwelling- Single Family Conventional	CD	CD	CD	CD	CD	CD	CD	N	N	N	N	N	N	(27)(k)

FINDING: Single Family Dwellings are subject to CCZLDO Use Table found in Section 4.3.200 use # 30, which is subject to review standard (27)(k), and Accessory Structures are use #18, which is subject to review standard 1. All development requires that the general siting standards found in Section 4.3.225 & 4.3.230 shall be adhered to.

A. Section 4.3.210 – CATEGORIES and review standards

The following categories provide a definition and specific standards that will regulate the Development, Use or Activity identified in the table above.

(1) Accessory structures and uses – shall be subordinate to any authorized primary use. Accessory structures shall meet the applicable Development and Siting Criteria or Special Development Considerations and Overlays for the zoning district in which the structure will be sited.

(27) Dwelling - Any building that contains one or more dwelling units used, intended, or designed to be built, used, rented, leased, let or hired out to be occupied, or that are occupied for living purposes. A dwelling shall consist of a kitchen, bathroom(s) and living space. Dwellings do not including a RV, tent, teepee, yurt, hotels, motels, vacation rentals or boarding houses. Types of Dwellings are listed below. Long term rentals are not regulated by this ordinance.

(k)Single family dwelling- A single household unit. Construction is characterized by no common wall or ceiling with another unit, including a mobile home unless otherwise allowed by under this ordinance.

FINDING: The proposal is to site a Single Family Dwelling with an attached Accessory Structure. The proposal meets the requirements within this criterion.

- ***Section 4.3.225 General Siting Standards***

All new USES, ACTIVITIES and DEVELOPMENT are subject to the following siting standards:

(1) *Agricultural and Forest Covenant - Any applicant for a dwelling permit adjacent to a Forest or Exclusive Farm Zone shall sign a statement on the Compliance Determination or Zoning Clearance Letter acknowledging that: "the normal intensive management practices occurring on adjacent resource land will not conflict with the rural residential landowner's enjoyment of his or her property.*

(2) *Fences, Hedges, and Walls: No requirement, but vision clearance provisions of Section 7.1.525 apply.*

(3) *Limitation on uses of manufactured dwellings/structures for commercial purposes pursuant to ORS 466 et seq. Manufactured dwellings shall not be used for commercial purposes except:*
   (a) Where use of the manufactured dwelling for commercial purposes is authorized by the Building Codes Agency.
   (b) Where used as a temporary sales office for manufactured structures; or
   (c) As part of an approved home occupation. [OR-92-07-012PL]

(4) *New lots or parcels - Creation of lots or parcels, unless it meets the circumstances of § 5.6.130, shall meet the street frontage, lot width, lot depth and lot size. Minimum road frontage/lot width shall be met unless waived by the Planning Director in consultation with the County Surveyor and County Roadmaster due to creating an unsafe or irregular configuration:*
   (a) Minimum Street frontage should be at least 30 feet; and
   (b) Minimum lot width and Minimum lot depth is 50 feet.

   Minimum parcel/lot size cannot be waived or varied unless otherwise provided by a specific zoning regulation. Tax lot creation and consolidations do not change the legally created status of a lot or parcel.

(5) *Parking - Off-street access, parking and loading requirements per Chapter VII apply.*

(6) *Riparian -*
   (a) Riparian vegetation setback within 50 feet of a estuarine wetland, stream, lake or river, as identified on the Coastal Shoreland and Fish and Wildlife habitat inventory maps, shall be maintained except:
      i. Trees certified as posing an erosion or safety hazard. Property owner is responsible for ensuring compliance with all local, state and federal agencies for the removal of the tree.
      ii. Riparian vegetation may be removed to provide direct access for a water-dependent use if it is a listed permitted within the zoning district;

iii. *Riparian vegetation may be removed in order to allow establishment of authorized structural shoreline stabilization measures;*
iv. *Riparian vegetation may be removed to facilitate stream or stream bank clearance projects under a port district, ODFW, BLM, Soil & Water Conservation District, or USFS stream enhancement plan;*
v. *Riparian vegetation may be removed in order to site or properly maintain public utilities and road right-of-ways;*
vi. *Riparian vegetation may be removed in conjunction with existing agricultural operations (e.g., to site or maintain irrigation pumps, to limit encroaching brush, to allow harvesting farm crops customarily grown within riparian corridors, etc.) provided that such vegetation removal does not encroach further into the vegetation buffer except as needed to provide an access to the water to site or maintain irrigation pumps; or*
vii. *The 50 foot riparian vegetation setback shall not apply in any instance where an existing structure was lawfully established and an addition or alteration to said structure is to be sited not closer to the estuarine wetland, stream, lake, or river than the existing structure and said addition or alteration is not more than 100% of the size of the existing structure's "footprint".*

(b) *Riparian removal within the Coastal Shoreland Boundary requires an Administrative Conditional Use application and review. See Special Development Considerations Coastal Shoreland Boundary.*
(c) *The 50' measurement shall be taken from the closest point of the ordinary high water mark to the structure using a right angle from the ordinary high water mark.*

(7) *Setbacks:*
(a) *All Development with the exception of fences shall be set back a minimum of thirty-five (35) feet from any road right-of-way centerline, or five (5) feet from the right-of-way line, whichever is greater. This setback may be greater under specific zoning siting requirements.*
(b) *Firebreak Setback - New or replacement dwellings on lots, parcels or tracts abutting the "Forest" zone shall establish and maintain a firebreak, for a distance of at least 30 feet in all directions. Vegetation within this firebreak may include mowed grasses, low shrubs (less than ground floor window height), and trees that are spaced with more than 15 feet between the crowns and pruned to remove dead and low (less than 8 feet from the ground) branches. Accumulated needles, limbs and other dead vegetation should be removed from beneath trees.*

(8) *OUTDOOR STORAGE IN RESIDENTIAL ZONES (a) Boats and trailers, travel trailers, pick-up campers or coaches, motorized dwellings, and similar recreation equipment may be stored on a lot but not used as an accessory use; (b) Automotive vehicles or trailers of any kind or type without current license plates, where required, and which are not in mechanical working order, shall not be parked or stored on any residentially zoned property other than in completely enclosed buildings; (c) One operating truck may be stored on the lot of a truck driver provided it is accessory to the main use of the property. Additional trucks shall not be allowed.*

FINDING: While all criteria in this section are important, this review specifically addresses subsections (2) Fences, Hedges, and Walls, (5) Parking, and (7) Setbacks. The proposal, which currently excludes any fence, hedge, or wall, must comply with the requirements if introduced later. The proposed Single Family Dwelling with an attached Accessory Structure complies with the required setbacks. Compliance with driveway and parking requirements within Chapter VII is mandatory and will be a condition of approval.

- ***Section 4.3.230 ADDITIONAL SITING STANDARDS***

This section has specific siting standards and criteria set by the zoning district for USES, activities and development:

(1) Urban Residential (UR) – The following siting standards apply to all USES, activities and development in the UR zoning districts:

(a) Minimum Lot size:

i. The following minimum lot sizes shall apply:

1. Site having neither public water or public sewer – one acre.
2. Sites having public water, but no public sewer – 8000 square feet.
3. Sites having both public water and public sewer – 5000 square feet, except a two family duplex which requires 8000 square feet.
4. Dwelling unit density shall not exceed one unit per minimum lot size, except each additional attached dwelling unit requires 1200 additional square feet above the minimum lot size.

(b) Setbacks:

i. Front Setback: 20 feet.
ii. Side and Rear Set-Back: The side and rear setback shall be a minimum of 5 feet unless the side or rear yard is adjacent to a street or road (corner lot) the minimum setback shall be 15 feet from that street or road.
iii. Setback exception – Front yard setback requirements of this Ordinance shall not apply in any residential district where the average depth of existing front yards on developed lots within the same zoning district block, but no further than 250 feet from the exterior side lot lines of the lot and fronting on the same side of the street as such lot, is less than the minimum required front yard building setback. In such cases the front yard setback requirement on any such lot shall not be less than the average existing front yard building setback.

(c) Building Height - Maximum Building height is 35 feet. However, spires, towers, domes, steeples, flag poles, antennae, chimneys, solar collectors, smokestacks, ventilators or other similar objects may be erected above the prescribed height limitations, provided no usable floor.

(d) Density or Size limits -

i. Dwelling density shall be no more than one dwelling per lawfully created parcel unless otherwise provided for by this ordinance.
ii. If lawfully created parcels are less than one acre in size and not served by a public sewer then Department of Environmental Quality, State Building Codes and Oregon Department of Water Resources should be consulted by the developer prior to seeking a land use authorization to construct a dwelling as there may be development limitations.

FINDING: The proposal complies with this criteria.

- ***SECTION 4.11.129 BEACHES & DUNES (POLICY 5.10)***

4.11.129 Beaches and Dunes (Policy 5.10)

The Beaches and Dunes map has inventoried the following:

- *Beaches and Dunes*

    - *Suitable for most uses; few or no constraints (Does not require a review)*
    - *Limited Suitability; special measures required for most development*
    - *Not Suitable for Residential, commercial or Industrial Structures*

Purpose Statement:

Coos County shall base policy decisions for dunes on the boundaries for these areas as identified on the plan map titled "Development Potential within Ocean Shorelands and Dunes" and the boundaries delineates following specific areas "Suitable", "Limited Suitability" and "Not Suitable" areas of development potential.

a. Limited Suitability: "Beach and Dune Areas with Limited Development Suitability" includes all dune forms except older stabilized dunes, active foredunes, conditionally stable foredunes that are subject to ocean undercutting or wave overtopping, and interdune areas (deflation plains) subject to ocean flooding.

The measures prescribed in this policy are specifically required by Statewide Planning Goal #18 for the above-referenced dune forms; and that this strategy recognizes that designated mitigation sites must be protected from other uses.

Implementation shall occur through an Administrative Conditional Use process, which shall include submission of a site investigation report that addresses this subsection, by a qualified registered and licensed geologist or engineer.

i. Coos County shall permit development within areas designated as "Beach and Dune Areas with Limited Development Suitability" only upon the establishment of findings that consider at least:

a) The type of use proposed and the adverse effects it might have on the site and adjacent areas;

b) The need for temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation;

c) The need for methods for protecting the surrounding area from any adverse effects of the development; and

d) Hazards to life, public and private property, and the natural environment which may be caused by the proposed use.

ii. Further, Coos County shall cooperate with affected local, state and federal agencies to protect the groundwater from drawdown, which would lead to loss of stabilizing vegetation, loss of water quality, or intrusion of saltwater into water supplies. Coos County shall cooperate with state and federal agencies in regulating the following actions in the beach and dune areas with limited development potential:

a) *Destruction of desirable vegetation (including inadvertent destruction by moisture loss or root damage);*

b) *The exposure of stable and conditionally stable areas to erosion;*

c) *Construction of shore structures which modify current air wave patterns leading to beach erosion; and*

d) *Any other development actions with potential adverse impacts.*

FINDING: This property is inventoried as within the Beaches & Dunes Limited Suitability overlay. The applicant has submitted a site investigation report, endorsed by Registered Professional Engineer Eric Oberbeck from Cascadia Geoservices. According to Mr. Oberbeck's report:

"It is our opinion that the proposed development will not have an adverse impact on either the site or adjacent areas. Moreover, given the generally level building site and well-drained soils, there is no deemed necessity for temporary or permanent stabilization programs or maintenance of new and existing vegetation, aside from those typically integrated into residential landscaping. We find no hazards to life, public and private property, or the natural environment resulting from the proposed development. Importantly, our professional opinion asserts that the development will not cause excessive destruction of desirable vegetation, inadvertent destruction by moisture loss or root damage, expose stable and conditionally stable areas to erosion, or modify current air wave patterns leading to beach erosion."

It is a condition of approval that the applicant strictly adheres to all recommendations from the Registered Professional Engineer, as outlined in Exhibit D.

Staff finds that the report has addressed the criteria found in this section.

- ***SECTION 4.11.132 NATURAL HAZARDS (BALANCE OF COUNTY POLICY 5.11)***

Wildfires: Coos County shall promote protection of property from risks associated with wildfires. New development or substantial improvements shall, at a minimum, meet the following standards, on parcels designated or partially designated as "High" or "Moderate" risk on the Oregon Department of Forestry 2013 Fire Threat Index Map for Coos County or as designated as at-risk of fire hazard on the 2015 Coos County Comprehensive Plan Natural Hazards Map:

1. *The dwelling shall be located within a fire protection district or shall be provided with residential fire protection by contract. If the dwelling is not within a fire protection district, the applicant shall provide evidence that the applicant has asked to be included within the nearest such district or is provided fire protection by contract.*

2. *When it is determined that these standards are impractical the Planning Director may authorize alternative forms of fire protection that shall comply with the following:*
    a. *The means selected may include a fire sprinkling system, onsite equipment and water storage or other methods that are reasonable, given the site conditions, as established by credible documentation approved in writing by the Director;*
    b. *If a water supply is required for fire protection, it shall be a swimming pool, pond, lake, or similar body of water that at all times contains at least 4,000 gallons per*

dwelling or a stream that has a continuous year round flow of at least one cubic foot per second per dwelling;

c. *The applicant shall provide verification from the Water Resources Department that any permits or registrations required for water diversion or storage have been obtained or that permits or registrations are not required for the use; and*
d. *Road access shall be provided to within 15 feet of the water's edge for firefighting pumping units. The road access shall accommodate the turnaround of firefighting equipment during fire season. Permanent signs shall be posted along the access route to indicate the location of the emergency water source.*

3. *Fire Siting Standards for New Dwellings:*
    a. *The property owner shall provide and maintain a water supply of at least 500 gallons with an operating water pressure of at least 50 PSI and sufficient ¾ inch garden hose to reach the perimeter of the primary fuel-free building setback.*
    b. *If another water supply (such as a swimming pool, pond, stream, or lake) is nearby, available, and suitable for fire protection, then road access to within 15 feet of the water's edge shall be provided for pumping units. The road access shall accommodate the turnaround of firefighting equipment during the fire season. Permanent signs shall be posted along the access route to indicate the location of the emergency water source.*

4. *Firebreak:*
    a. *A firebreak shall be established and maintained around all structures, including decks, on land owned or controlled by the applicant for a distance of at least 30 feet in all directions.*
    b. *This firebreak will be a primary safety zone around all structures. Vegetation within this primary safety zone may include mowed grasses, low shrubs (less than ground floor window height), and trees that are spaced with more than 15 feet between the crowns and pruned to remove dead and low (less than 8 feet from the ground) branches. Accumulated needles, limbs and other dead vegetation should be removed from beneath trees.*
    c. *Sufficient garden hose to reach the perimeter of the primary safety zone shall be available at all times.*
    d. *The owners of the dwelling shall maintain a primary fuel-free break area surrounding all structures and clear and maintain a secondary fuel-free break on land surrounding all structures that is owned or controlled by the owner in accordance with the provisions in "Recommended Fire Siting Standards for Dwellings and Structures and Fire Safety Design Standards for Roads" dated March 1, 1991, and published by Oregon Department of Forestry and shall demonstrate compliance with Table 1.*

Table 1 – Minimum Primary Safety Zone

Slope	*Feet of Primary Safety Zone*	*Feet of Additional Primary Safety Zone Down Slope*
0%	*30*	*0*
10%	*30*	*50*
20%	*30*	*75*

25%	*30*	*100*
40%	*30*	*150*

e. All new and replacement structures shall use non-combustible or fire resistant roofing materials, as may be approved by the certified official responsible for the building permit.

f. If a water supply exceeding 4,000 gallons is suitable and available (within 100 feet of the driveway or road) for fire suppression, then road access and turning space shall be provided for fire protection pumping units to the source during fire season. This includes water supplies such as a swimming pool, tank or natural water supply (e.g. pond).

g. The structure shall not be sited on a slope of greater than 40 percent.

h. If the structure has a chimney or chimneys, each chimney shall have a spark arrester.

i. Except for private roads and bridges accessing only commercial forest uses, public roads, bridges, private roads, and driveways shall be constructed so as to provide adequate access for firefighting equipment. Confirmation shall be provided from the Coos County Road Department or local fire protection district that these standards have been met.

5. Wildfires inside urban growth boundaries. Certain areas inside urban growth boundaries may present special risks and may be made subject to additional or different standards and requirements jointly adopted by a city and the county in the form of code requirements, master plans, annexation plans, or other means.

Finding: The parcel is within the Bandon Rural Fire Protection District. The property will connect to Bandon City Water Service, which satisfies the water supply requirements as "another water source". The development shall not be sited on a slope of greater than 40 percent. If the structure has a chimney or chimneys, each chimney shall have a spark arrester. The Single Family Dwelling with attached Accessory Structure shall use fire resistant roofing materials. A firebreak shall be established and maintained around all structures on land owned or controlled by the applicant for a distance of at least 30 feet. Vegetation within the primary safety zone includes mowed grass, low shrubs (less than ground floor window height), and trees that are spaced with more than 15 feet between the crowns and pruned to remove dead and low (less than 8 feet from the ground) branches. Accumulated needles, limbs and other dead vegetation should be removed from beneath trees. Sufficient garden hose to reach the perimeter of the primary safety zone shall be available at all times.

VI. DECISION: There is evidence to determine that the proposal for a Single Family Dwelling with attached Accessory Structure within the Controlled Development-10 (CD-10) Zoning District meets the requirements of the Coos County Zoning and Land Development Ordinance, with conditions found at Exhibit "A".

VII. EXPIRATION AND EXTENSION OF CONDITIONAL USES

1. Time frames for conditional uses and extensions are as follows:

a. *All conditional uses within non-resource zones are valid four (4) years from the date of approval; and*
b. *All conditional uses for dwellings within resource zones outside of the urban growth boundary or urban unincorporated community are valid four (4) years from the date of approval.*
c. *All non-residential conditional uses within resource zones are valid (2) years from the date of approval.*
d. *For purposes of this section, the date of approval is the date the appeal period has expired and no appeals have been filed, or all appeals have been exhausted and final judgments are effective.*
e. *Additional extensions may be applied.*

2. *Extensions are subject to notice as described in § 5.0.900(2) and appeal requirements of 5.8 for a Planning Director's decision.*

   All Geologic Assessments are valid as prima facie evidence of the information therein contained for a period of five (5) years. Coos County assumes no responsibility for the quality or accuracy of such reports.

This conditional use is for a residential use within a non-resource zone and is valid for five years from the date of the Geological Assessment **(May 23, 2028)**.

VIII. NOTICE REQUIREMENTS:
A notice of decision will be provided to property owners within 100 feet of the subject properties, special districts, and DLCD.

Exhibit "D"
Beaches & Dunes Report

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Geotechnical Site Evaluation

Rohrer Avenue
Bandon, Oregon 97444
Tax Lot 404 29S15W01CB
CGS Project No. 23015

Prepared for:
Ms. Lori Lubin
2507 Corona Drive
Davis, CA 95616
Sent via email: l.lubin@sbcglobal.net

May 31, 2023
CGS Project No. 23015

TABLE OF CONTENTS

INTRODUCTION

Cascadia Geoservices, Inc. (CGS) is pleased to provide you with this Geotechnical Site Evaluation report which summarizes our evaluation of a portion of your property located on Rohrer Avenue near Bandon, Oregon (see Figure 1, Location Map). The area which was evaluated for this report is the homesite (site), which was staked out by you and is shown on Figure 2, Site Map. We understand that you are proposing to develop the site with a residential structure and are requesting that CGS evaluate the subject property and provide you with geotechnical recommendations for development. This report summarizes our project understanding and site investigation, including subsurface explorations, and provides our conclusions and recommendations for developing the site.

PROJECT UNDERSTANDING AND DESCRIPTION

Our understanding is based on email and telephone correspondence with you beginning September 16, 2022, and with your design consultant, Mr. Bill Beck, beginning March 30, 2023. Our understanding is further based on several preliminary site visits to the property beginning September 2022. And our understanding is based on a site visit on April 11, 2023, at which time a geologic reconnaissance of the site was done and four exploratory test pits were completed.

We understand that you are proposing to develop the site with a wood-framed residence. We further understand that the residence will be a two-story structure which will be 2,353 ft^2. We understand that you have no plans for excavation over 4.0 feet deep, except possibly for utility trenches. We observed that the building site was recently leveled with exotic fill but have no information as to how the fill was placed or compacted. As of the date of this Geotechnical Site Evaluation, CGS has not been provided with construction documents.

COOS COUNTY MUNICIPAL ORDINANCE

Under Coos County's Land Use Ordinance Chapter IV, Beaches and Dunes (Policy 5.10), the site has been classified as having "limited suitability" for development. The sand dunes on the site are classified as older, stabilized dunes, in accordance with USDA findings. This agrees with our site evaluation. We note that the site is within the Sunset City Subdivision and is zoned Controlled Development 10 (CD-10), and that adjoining parcels to the north, west, and east have been developed with residential structures.

Based on our site evaluation and on our experience working in this region, it is our opinion that the proposed development will not have an adverse impact on either the site or adjacent areas. Further, it is our opinion that because the building site is generally level and the soils well drained, there is no need for temporary or permanent stabilization programs and/or maintenance of new and existing vegetation other than those typically incorporated into residential landscaping. Further, we see no hazards to life, public and private property, or to the natural environment by the proposed development. Finally, it is our professional opinion that the proposed development will not cause excessive destruction of desirable vegetation (including inadvertent destruction by moisture loss or root damage), cause exposure of stable and conditionally stable areas to erosion or modify current air wave patterns leading to beach erosion.

SURFACE DESCRIPTION

The site is located within the Klamath Mountain physiographic region of southwestern Oregon and is on an elevated terrace which is a regional landform on the southern Oregon coast. The building site is a cut-fill pad which is 0.18 acres, and which encompasses all of Tax Lot 404. The proposed building site is level and is rectangular in shape, measuring 106.0 feet long (measured east-west) by 75.0 feet wide (measured north-south). The site is bordered on the east by a steep slope which grades up to 75 percent. The slope is part of an older, stabilized, vegetated sand dune.

The site is in an area which consists of developed and undeveloped residential lots. The western border of the site is 271.0 feet east of an actively eroding sea cliff known locally as the Bandon Bluff. The site is not impacted by erosion on the sea cliff. The site was densely vegetated prior to being cleared and filled, which we infer was due to near-surface groundwater and/or poor drainage. Hydric plants were observed on the east side of the site, along the steep slope.

The subject property appeared stable at the time of our site visit; however, the native soils were buried beneath the exotic fill, and visual appearance of stability could not be ascertained prior to excavation of test pits.

Based on mapping done by others,[1,2] soils at the site consist of sandy loam soil (Bullards Sandy Loam, 0 to 7 percent slopes). The soil is described as well drained and is derived from mixed eolian and marine deposits. These overlie surficial sediments of Quaternary marine terrace deposits, which consist of sands, silts, clays, and gravels. As discussed, the site is overlain by 1.0 to 2.0 feet of exotic fill. Bedrock was not observed in surface outcrop or in our test pits.

SUBSURFACE EXPLORATIONS

In order to analyze the soils at the site, CGS observed the excavation of four test pits during our on-site visit. The test pits were excavated by Natural Origins LLC of Coos Bay, Oregon, using a track-mounted mini excavator. The test pits were excavated to a depth of up to 6 feet below ground surface (bgs) at four locations. The test pits were logged by a member of our staff from our southern Oregon coast office. A dynamic cone penetrometer (DCP),[3] pocket penetrometer, and hand tools were used by CGS to test the relative consistency of the surficial soils in the test pits. Soil samples from the test pits were collected and stored in moisture-proof plastic bags and transported to our lab. Upon completion, the test pits were refilled with uncompacted excavated material. The locations of the test pits were determined using GPS and are shown on Figure 2, Site Map. Detailed logs for the test pits are included at the end of this report in Attachment 1.

Subsurface Conditions Encountered

The material encountered in the test pits showed similarities in soil and depth.

All four test pits encountered 1.5 to 2.0 feet of soft, brown, organic silty clay with wood and gravel. We interpret this to be fill which was used to elevate and level the site. Below this in test pits TP-1 and TP-2, to a depth of 3.0 feet bgs, we encountered medium-stiff, fine sandy silt. We interpret this as sandy loam topsoil. Below the topsoil, beginning at from 1.5 to 3.0 feet bgs in all four test pits, we encountered medium-dense

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[1] United States Department of Agriculture (USDA). Natural Resource Conservation Service Web Soil Survey, viewed at http://websoilsurvey.nrcs.usda.gov/app

[2] Walker, G. W. and MacLeod, N. S. (1991). Geologic map of Oregon: U.S. Geological Survey, scale 1:500,000.

[3] The dynamic cone penetrometer (DCP) test uses a 15 lb. steel mass falling 20 inches to strike an anvil to penetrate a 1.5-inch-diameter, 45-degree (vertex angle) cone that has been seated in the bottom of a hand-augered hole. The penetrometer is used to determine a penetration resistance relationship with the standard penetration resistance of virgin soils. The penetration rate (PR) is the average number of blows needed to advance the cone a distance of 1 inch.

fine sand that was moist and weakly cemented. We interpret this as Quaternary marine terrace deposits.

Our analysis of the subsurface conditions on the site is based on the soils encountered in our test pits and is summarized as follows.

Fill: Encountered from 0.0 to 3.0 feet bgs in test pits TP-1 and TP-2. Consists of soft, dark-brown, organic silty clay, with wood and gravel, and is moist (fill).

Topsoil (Sandy Loam Soils): From 1.5 to 3.0 feet bgs in test pits TP-1 and TP-2, we encountered medium-stiff, tan-brown, fine, sandy, silty clay that was moist, medium plasticity, and medium toughness of thread. We interpret this as topsoil based on mapping by others.

Surficial Deposits (Marine Terrace Deposits): Beginning at from 1.5 to 3.0 feet bgs in all four test pits, we encountered medium-dense, orange-brown sand with iron, weakly cemented, which became moist and moderately cemented at depth. We infer that these sediments are Quaternary marine terrace deposits as identified by others.

LABORATORY ANALYSIS

Select samples were packaged in moisture-proof bags and transported to our laboratory where they were classified in general accordance with the Unified Soil Classification System, Visual-Manual Procedure. In addition, select samples were analyzed, where applicable, for water content (ASTM D698), percent of fines (ASTM D1140), and Atterberg limits (ASTM D4318). The results are summarized below in Table 1. The Lab Analysis Reports for the samples are provided at the back of this report as Attachment 2.

Table 1: Laboratory Testing Results

Sample ID	Test Pit Depth (feet)	Type of Soil	Water Content (%)	Fines (%)	USCS Symbol[4]
SS-1	2.0	Sandy silty clay	32	61	SM-SC
SS-5	4.0	Fine sand	13	11	SP
SS-7	2.0	Fine sand	18	24	SP
SS-11	4.0	Fine sand	13	6	SP

[4] Classification symbols are estimated based on visual observation.

Our lab analysis indicates that some of the sandy soils have a significant percentage of fines. The high water content in the sandy, silty clay soils is due to the cohesive soils' intrinsic water-holding capacity. These soils, which are exotic fill, were determined in the field to be low plasticity and non-swelling.

Our analysis and recommendations are based on the following physical properties of the soils encountered, which are listed below in Table 2.

Table 2: Physical Properties of Soil

Type of Soil	Depth below Surface (feet)	N-Value	Effective Unit Weight (pcf), Drained	Drained Friction Angle, φ' (degrees)	Drained Cohesion, c' (kPa[5])
SM-SC	1.0 to 2.0	4 to 7	80 to 130	33	50
SP	1.0 to 6.0	6 to 8	95 to 125	37	

GROUNDWATER

Groundwater was not encountered in any of our test pits. Further, there was no seepage or caving detected. However, streaks of iron sands indicate the presence of shallow groundwater, which may occur seasonally. Our review of water-well cards for the area[6] indicates that groundwater levels are typically shallow, ranging between 20 and 30 feet bgs. It is our opinion that water levels will rise during periods of sustained rainfall and that perched groundwater will form within the surficial sands above confining layers of clay. Based on the topography, we anticipate that the hydraulic gradient is to the west towards the beach.

GEOLOGIC HAZARDS

A review of the State Landslide Inventory Database (Oregon HazVu)[7] indicates that the slope east of the building site has a high susceptibility to future landslides. The base of

[5] kPa (kilopascal) is the most common unit of pressure and, even in the United States, is often used in favor of pounds per square inch (psi). One kPa is equal to 0.14503774 pounds per square inch.

[6] Oregon Water Resources Department well report query, viewed online at https://www.oregon.gov/owrd.

[7] (HazVu). Oregon Department of Geology and Mineral Industries (DOGAMI) Statewide Geohazards Viewer. Viewed at https://www.oregongeology.org

the slope is approximately 230 feet east of the eastern boundary of the residence and as such, in our opinion, will not pose a threat to the residence.

A review of LIDAR mapping for the area[8] indicates the site has been leveled and is bordered to the east by a north-northwest-aligned ridge. The ridge is a linear feature which is aligned parallel to the coast, which is indicative of an ancient sand dune being formed by wind which also parallels the coast. Based on our LIDAR review, there are no anomalous landforms associated with geologic hazards, including landslides, on the site.

Based on a review of U.S. Geological Survey maps,[9] there are no geologically young fault systems within 0.5 miles of the site. As with other folds and faults located in the Cascadia forearc, it is suspected that great megathrust earthquakes along the Cascadia Subduction Zone will cause future rupture and displacement on these faults.

SEISMIC DESIGN CRITERIA

The subject property is located in an area that is highly influenced by regional seismicity due to the proximity to the Cascadia Subduction Zone (CSZ). Seismic design criteria, in accordance with the ASCE/SEI 7-22 Seismic Design Parameters, are summarized in Table 3 below.

Table 3: ASCE/SEI 7-22 Seismic Design Parameters

Seismic Design Parameters	Short Period	1 Second
Maximum Credible Earthquake Spectral Acceleration	S_S = 2.66 g	S_1 = 1.03 g
Site Class	D = Stiff Soil	
Adjusted Spectral Acceleration	S_{MS} = 3.01 g	S_{M1} = 2.07 g
Design Spectral Response Acceleration Parameters	S_{DS} = 2.01 g	S_{D1} = 1.38 g
Peak Ground Acceleration	PGA = 1.42 g	

[8] LIDAR is an aerial imagery technology that penetrates the vegetative cover by measuring distance by measuring the amount of time it takes for light to travel from a light-emitting source to an object and back to a sensor.

[9] U.S. Geological Survey (USGS), Quaternary Faults Web Mapping Application, viewed at https://earthquake.usgs.gov

Liquefaction

Liquefaction occurs when loosely packed, water-logged granular sediments lose their strength in response to strong ground shaking. Liquefaction occurring beneath buildings and other structures can cause major damage during earthquakes. Lateral spread occurs when earthquake shaking causes a mass of soil to lose cohesion and move relative to the surrounding soil. Lateral movement can be entirely horizontal and occur on flat ground, but it is more likely to occur on or around sloping ground, such as adjacent to hillsides and waterways. Liquefaction potential was assessed based on the information obtained from our test pits and using the parameters suggested in Idriss & Boulanger, 2008.[10] According to our seismic analysis, the site will experience a peak ground acceleration (PGA) of 1.42 g during a design seismic event. Further, groundwater was not observed in any test pits. Based on the observed depth of groundwater and the general consistency of the soils encountered in our test pits, it is our opinion that the liquefaction potential for the site is low to moderate.

Tsunamis

Based on recent mapping and modeling done by the state of Oregon,[11] the site is within the Tsunami Inundation Zone and may be inundated during a tsunami generated by a local source (Cascadia Subduction Zone) moment magnitude (Mm) earthquake of 9.*1 or greater.* Because of this, we strongly recommend that you check local resources and the State of Oregon's Department of Geology and Mineral Industries (DOGAMI) Tsunami Resource Center[12] for current information regarding tsunami preparedness and emergency procedures.

DISCUSSION AND RECOMMENDATIONS

Based on our surface and subsurface investigation, it is our opinion that the subject property is suitable to site a single-family residence, provided it is developed in accordance with our recommendations. Further, it is our opinion that the site can be supported on a conventional shallow foundation.

[10] Idriss, I. M. & Boulanger, R. W. (2008). Soil Liquefaction During Earthquakes, MNO-12, EERI.

[11] Local-source (Cascadia Subduction Zone) Tsunami Inundation Map. State of Oregon Department of Geology and Mineral Industries online at http://www.oregongeology.org

[12] Viewed online at www.oregongeology.org

In that the composition of the fill and how it was compacted are unknown, we recommend that the fill and the underlying medium-stiff, tan-brown, fine, sandy, silty clay topsoil encountered to a depth of 3.0 feet below ground surface (bgs) be removed from under the building and for 5 feet around the building and that the foundation be set on the underlying medium-dense, orange-brown, native sand encountered at 3.0 feet bgs or on approved, mechanically compacted structural fill which is set on the sand. Recommendations for the type of fill and for placement of the fill are included later in this report.

DESIGN

All footings should be designed for an allowable bearing pressure of 1,500 pounds per square foot (psf). The weight of the footing and overlying backfill can be disregarded in calculating footing sizes. The recommended allowable bearing pressure applies to the total of dead plus long-term live loads, and this bearing pressure may be doubled for short-term loads such as those resulting from wind or seismic forces. For footings in contact with native soils, use a coefficient of friction equal to 0.25 when calculating resistance to sliding. For footings in contact with gravel, use a coefficient of friction equal to 0.35 when calculating resistance to sliding.

Based on CGS's estimates, total post-construction settlement is estimated to be less than one (1) inch, with post-construction differential settlement of less than 0.5 inches over a 50-foot span.

Continuous wall and isolated spread footings should be at least 2 and 3 feet wide, respectively. The bottom of exterior footings should be at least 18 inches below the lowest adjacent exterior grade. The bottom of interior footings should be established at least 12 inches below the base of the floor slab.

Lateral loads on footings can be resisted by passive earth pressure on the sides of the structures and by friction at the base of the footings. An allowable passive earth pressure of 200 pounds per cubic foot (pcf) may be used for footings confined by native soils and new structural fills. Adjacent floor slabs, pavements, or the upper 12-inch depth of adjacent, unpaved areas should not be considered when calculating passive resistance.

All surfaces with building foundations or pavement areas should be prepared in accordance with our **Site Preparation** recommendations.

Floor Slabs

Satisfactory subgrade support for reinforced building floor slabs can be obtained from the subgrade prepared in accordance with our site-preparation recommendations. A minimum of 12.0 inches of loose, imported granular material should be placed and compacted over the prepared subgrade. Imported granular material should be crushed rock or crushed gravel that is fairly well graded between coarse and fine, contains no deleterious materials, has a maximum particle size of one (1) inch, and has less than 5 percent by weight passing the U.S. Standard No. 200 Sieve.

DRAINAGE

We recommend that the site be graded to provide positive drainage away from the structure.

CONSTRUCTION

Site Preparation

As discussed, we recommend that the soft soils and fill encountered to a depth of 3.0 feet bgs in our test pits be removed from beneath the proposed structure, including 5.0 feet around the building footprint, and be replaced with approved, mechanically compacted structural fill. The fill used to rebuild the pad should meet the specifications of Selected Granular Backfill in accordance with Oregon Standard Specifications for Construction.[13] The imported granular material should be crushed rock, or crushed gravel and sand, or approved sand that is fairly well graded between coarse and fine sand and contains no deleterious materials. The native soil and fill at the site do not meet these criteria and should be disposed of off-site. The granular fill should be placed in 9-inch lifts and compacted to at least 95 percent of the maximum dry density, as determined by ASTM D1557. Compaction should be checked using either a nuclear gauge or Sand Cone Test, as determined by ASTM D1556. Please contact our office for additional assistance with this.

A CGS engineering geologist (or their representative) should confirm suitable bearing conditions and evaluate all footing subgrades. Observations should also confirm that

[13] Oregon Standard Specifications for Construction, 2021. Oregon Department of Transportation. Viewed online at https://www.oregon.gov

loose or soft materials, organics, unsuitable fill, and old topsoil zones are removed. Localized deepening of footing excavations may be required to penetrate any deleterious materials.

Probing

Following site preparation and prior to forming the foundation, the exposed excavated surface and the footing or slab subgrade should be evaluated by probing. A member of our geotechnical staff should carry out the probing. Soft or loose zones identified during the field evaluation should be compacted to an unyielding condition or be excavated and replaced with structural fill.

Excavation

Subsurface conditions at the project site show that the upper soil is predominantly soft clayey silt. Excavations in these soils may be readily accomplished with conventional earthwork equipment.

Trench cuts in native materials should stand vertical to a depth of approximately 4 feet, provided no groundwater seepage is present in the trench walls, with the understanding that some sloughing may occur. The trenches should be flattened to 1.5H:1V if excessive sloughing occurs or seepage is present.

Groundwater was not encountered in our test pits. If shallow groundwater is observed during construction, use of a trench shield (or other approved temporary shoring) is recommended for cuts that extend below groundwater seepage or if vertical walls are desired for cuts deeper than 4 feet. If shoring or dewatering is used, CGS recommends that the type and design of the shoring and dewatering systems be the responsibility of the contractor, who is in the best position to choose systems that fit the overall plan of operation. These excavations should be made in accordance with applicable Occupational Safety and Health Administration and State regulations.

Wet-Weather/Wet-Soil Conditions

If construction occurs during wet weather, we recommend that a thin layer of compacted, crushed rock be placed over the footing subgrades to help protect them from disturbance due to foot traffic and the elements.

The soils at the site may be susceptible to disturbance during the wet season. Trafficability or grading operations within the exposed soils may be difficult during or after extended wet periods or when the moisture content of the soils is more than a few

percentage points above optimum. Soils disturbed during site-preparation activities, or soft or loose zones identified during probing, should be removed and replaced with compacted structural fill.

CONSTRUCTION OBSERVATIONS

Satisfactory pavement and earthwork performance depends on the quality of construction. Sufficient monitoring of the contractor's activities is a key part of determining that the work is completed in accordance with the construction drawings and specifications. We recommend that a representative from CGS be retained to observe general excavation, stripping, fill placement, footing subgrades, and subgrades and base rock for floor slabs and pavements.

Subsurface conditions observed during construction should be compared with those encountered during the subsurface explorations. Recognition of changed conditions requires experience; therefore, qualified personnel should visit the site with sufficient frequency to detect whether subsurface conditions change significantly from those anticipated.

LIMITATIONS

Cascadia Geoservices, Inc.'s (CGS) professional services are performed, findings obtained, and recommendations prepared in accordance with generally accepted principles and practices for engineering geologists. No other warranty, express or implied, is made. The Customer acknowledges and agrees that:

1. CGS is not responsible for the conclusions, opinions, or recommendations made by others based upon our findings.
2. This report has been prepared for the exclusive use of the addressee, and their agents, and is intended for their use only. It is not to be photographed, photocopied, or similarly reproduced, in total or in part, without the expressed written consent of the Customer and Cascadia Geoservices, Inc.
3. The opinions, comments, and conclusions presented in this report are based upon information derived from our literature review, historical topographic map and aerial photograph review, and on our site observations. The scope of our services is intended to evaluate soil and groundwater (ground) conditions within the primary influence or influencing the proposed development area. Our services do not include an evaluation of potential ground conditions beyond the

depth of our explorations or agreed-upon scope of our work. Conditions between or beyond our site observations may vary from those encountered.

4. Recommendations provided herein are based in part upon project information provided to CGS. If the project information is incorrect or if additional information becomes available, the correct or additional information should be immediately conveyed to CGS for review.
5. The scope of services for this subsurface exploration and report did not include environmental assessments or evaluations regarding the presence or absence of wetlands or hazardous substances in the soil, surface water, or groundwater at this site.
6. If there is a substantial lapse of time between the submission of this report and the start of work at the site, if conditions have changed due to natural causes or construction operations at or adjacent to the site, or if the basic project scheme is significantly modified from that assumed, this report should be reviewed to determine the applicability of the conclusions and recommendations. 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 after two years from its issue or in the event that the site conditions change.
7. The work performed by the Consultant is not warrantied or guaranteed.
8. There is an assumed risk when building on marginal ground, sites subject to flooding, or adjacent to bluffs, sea cliffs, or on steep ground.
9. The Consultant's work will be performed to the standards of the engineering and geology professions and will be supervised by licensed professionals. Attempts at improving marginal ground, sites subject to flooding, or adjacent to bluffs, sea cliffs, or on steep ground supporting the Customer's property may, through acts of God or otherwise, be temporary and that marginal ground, sites subject to flooding, or adjacent to bluffs, sea cliffs, or on steep ground may continue to degrade over time. The Customer hereby waives any claim that they may have against CGS for any claim, whether based on personal injury, property damage, economic loss, or otherwise, for any work performed by CGS for the Customer relating to or arising out of attempts to stabilize the marginal ground, sites subject to flooding, or bluffs, sea cliffs, or steep ground located at the Customer's property identified hereunder. It is further understood and agreed that continual

monitoring of the Customer's property may be required, and that such monitoring is done by sophisticated monitoring instruments used by CGS. It is further understood and agreed that repairs may require regular and periodic maintenance by the Customer.

10. The Customer shall indemnify, defend, at the Customer's sole expense, and hold harmless CGS, affiliated companies of CGS, its partners, joint ventures, representatives, members, designees, officers, directors, shareholders, employees, agents, successors, and assigns (Indemnified Parties) from and against any and all claims for bodily injury or death, damage to property, demands, damages, and expenses (including but not limited to investigative and repair costs, attorney's fees and costs, and consultant's fees and costs) (hereinafter "Claims") which arise or are in any way connected with the work performed, materials furnished, or services provided under this Agreement by CGS or its agents.

PROFESSIONAL QUALIFICATIONS

To review our professional qualifications, please visit our website at www.CascadiaGeoservices.com.

Sincerely,

Cascadia Geoservices, Inc.

Eric Oberbeck, RG/CEG
Expires June 1, 2024

PHOTOS

FIGURES

Figure 1, Location Map
Figure 2, Site Map

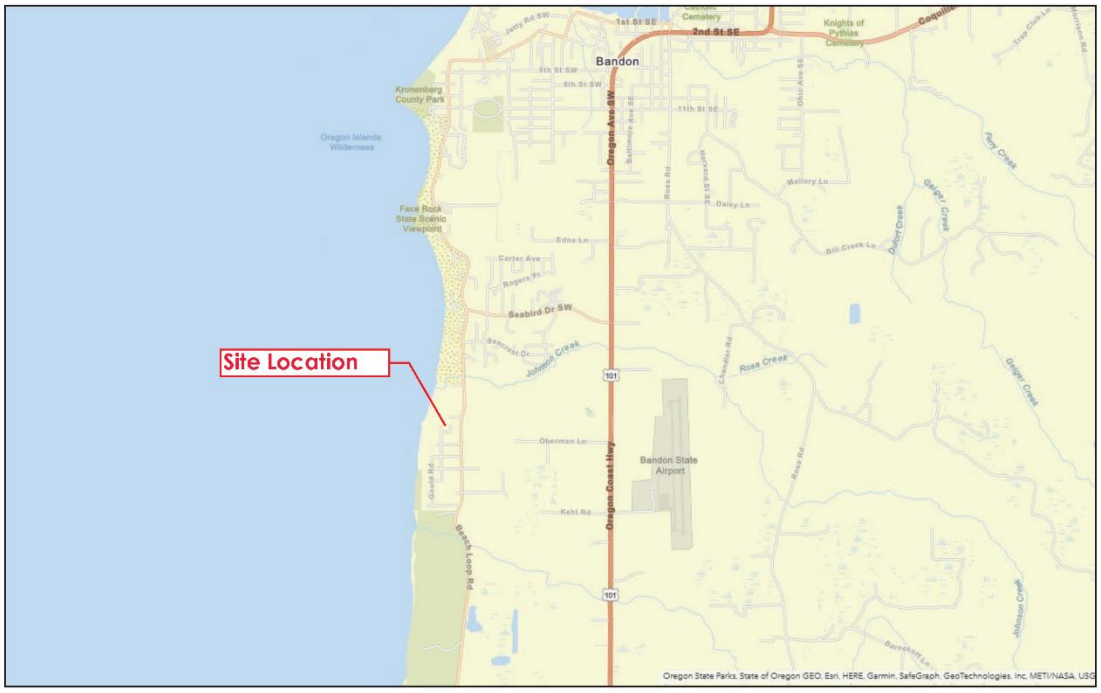
ATTACHMENTS

Attachment 1 – Summary Test Pit Logs
Attachment 2 – Lab Analysis Reports

CASCADIA Geoservices	Rohrer Avenue Bandon, Oregon 97444	**Photographic Log**
	Date: May 2023	Cascadia Geoservices, Inc. Project No: 23015

Photo No:	1
Direction Photo is Taken: South	
Photo Description:	
The building site is a level cut-fill pad which is 0.18 acres which encompasses all of Tax Lot 404	

Photo No:	2
Direction Photo is Taken:	
Photo Description:	
The test pits encountered 1.5 to 2.0 feet of fill over sandy silt topsoil over medium dense native fine sand.	



Prepared for Ms. Lori Lubin

CASCADIA Geoservices	Project: 23015 May 2023	**Location Map** Rohrer Avenue Bandon, Oregon 97444	**Figure 1**

Prepared for Ms. Lori Lubin

CASCADIA Geoservices	Project: 23015 May 2023	**Site Map** Rohrer Avenue Bandon, Oregon 97444	**Figure 1**

TABLE 1 **SOILS** **ATTACHMENT 1**

FIELD CLASSIFICATIONS

SOIL DESCRIPTION FORMAT	
(1) consistency,	(9) structure,
(2) color,	(10) cementation,
(3) grain size,	(11) reaction to HCL,
(4) classification name [secondary PRIMARY additional];	(12) odor,
(5) moisture,	(13) groundwater seepage,
(6) plasticity of fines,	(14) caving,
(7) angularity	**(15) (unit name and/or origin),**
(8) shape,	

Note: Bolded items are the minimum required elements for a soil description.

1. CONSISTENCY - COARSE-GRAINED

TERM	SPT (140-LB. HAMMER)[1]	D & M SAMPLER (140-LB. HAMMER)[1]	DYNAMIC CONE PENETROMETER PENETRATION RATE SAMPLER (DCP)[4,5,6]	FIELD TEST (USING ½-INCH REBAR)
Very loose	0 – 4	0 – 11	0 – 2	Easily penetrated when pushed by hand
Loose	4 – 10	11 – 26	2 – 5	Easily penetrated several inches when pushed by hand
Medium dense	10 – 30	26 – 74	6 – 31	Easily to moderately penetrated when driven by 5 lb. hammer
Dense	30 – 50	74 – 120	32 – 42	Penetrated 1-foot with difficulty when driven by 5 lb. hammer
Very dense	>50	>120	>43	Penetrated only few inches when driven by 5 lb. hammer

1. CONSISTENCY - FINE-GRAINED

TERM	SPT (140-LB. HAMMER)[1]	D & M SAMPLER (140-LB. HAMMER)[1]	DYNAMIC CONE PENETROMETER PENETRATION RATE SAMPLER (DCP)[5,6]	POCKET PEN.[2]	TORVANE[3]	FIELD TEST
Very soft	<2	<3	<2	<0.25	<0.13	Easily penetrated several inches by fist
Soft	2 – 4	3 – 6	2 – 3	0.25 – 0.5	0.13 – 0.25	Easily penetrated several inches by thumb
Medium stiff	5 – 8	7 – 12	4 – 7	0.50 – 1.0	0.25 – 0.5	Can be penetrated several inches by thumb with moderate effort
Stiff	9 – 15	13 – 25	8 – 16	1.0 – 2.0	0.5 – 1.0	Readily indented by thumb but penetrated only with great effort
Very stiff	16 – 30	26 – 65	17 – 27	2.0 – 4.0	1.0 – 2.0	Readily indented by thumbnail
Hard	>30	>65	>28	>4.0	>2.0	Difficult to indent by thumbnail

1 Standard penetration resistance (SPT N-value); Dames and Moore (D & M) sampler, number of blows/ft. for last 12" and 30" drop. Unconfined
2 compressive strength with pocket penetrometer; in tons per square foot (tsf).
3 Undrained shear strength with torvane (tsf).
4 Up to maximum medium-size sand grains only.
5 Dynamic cone penetration resistance; number of blows/inch.
6 Reference: George F. Sowers et. al. "Dynamic Cone for Shallow In-Situ Penetration Testing of In-Situ Soils, ASTM STP 399, ASTM, , pg. 29. 1966.

2. COLOR

Use common colors. For combinations use hyphens. To describe tint use modifiers: pale, light, and dark. For color variations use adjectives such as "mottled" or "streaked". Soil color charts may be required by client. **Examples:** red-brown; or orange-mottled pale green; or dark brown.

3. GRAIN SIZE

DESCRIPTION		SIEVE*	OBSERVED SIZE
boulders		–	>12"
cobbles		–	3" – 12"
gravel	coarse	¾" – 3"	¾" – 3"
	fine	#4 – ¾"	4.75 mm (0.19") – ¾"
sand	coarse	#10 – #4	2.0 – 4.75 mm
	medium	#40 – #10	0.425 – 2.0 mm
	fine	#200 – #40	0.075 – 0.425 mm
fines		<#200	<0.075 mm

4. CLASSIFICATION NAME

* Use of #200 field sieve encouraged for estimating percentage of fines.

	NAME AND MODIFIER TERMS	CONSTITUENT PERCENTAGE	CONSTITUENT TYPE
Coarse grained	GRAVEL, SAND, COBBLES, BOULDERS	>50%	PRIMARY
	sandy, gravelly, cobbley, bouldery	30 – 50%	secondary
	silty, clayey*	15 – 50%	
	with (gravel, sand, cobbles, boulders)	15 – 30%	additional
	with (silt, clay)*	5 – 15%	
	trace (gravel, sand, cobbles, boulders)		
	trace (silt, clay)*	<5%	
Fine grained	CLAY, SILT*	>50%	PRIMARY
	silty, clayey*	30 – 50%	secondary
	sandy, gravelly		
	with (sand, gravel, cobbles, boulders)	15 – 30%	additional
	with (silt, clay)*		
	trace (sand, gravel, cobbles, boulders)	5 – 15%	
	trace (silt, clay)*		
Organic	PEAT	50 – 100%	PRIMARY
	organic (soil name)	15 – 50%	secondary
	(soil name) with some organics	5 – 15%	additional

* For classification and naming fine-grained soil: dry strength, dilatancy, toughness, and plasticity testing are performed (see Describing Fine-Grained Soil page 2). Confirmation requires laboratory testing (Atterberg limits and hydrometer).

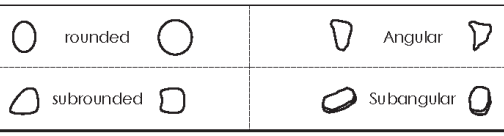
TABLE 1 SOILS
FIELD CLASSIFICATIONS

5. MOISTURE	
Term	Field Test
dry	absence of moisture, dusty, dry to touch
moist	contains some moisture
wet	visible free water, usually saturated

6. PLASTICITY OF FINES

See "Describing fine-grained Soil" on Page 2.

7. ANGULARITY



8. Shape	
Term	Observation
flat	particles with width/thickness ratio >3
elongated	particles with length/width ratio >3
flat and elongated	particles meet criteria for both flat and elongated

9. STRUCTURE	
Term	Observation
stratified	alternating layers >1 cm thick, describe variation
laminated	alternating layers <1 cm thick, describe variation
fissured	contains shears and partings along planes of weakness
slickensides	partings appear glossy or striated
blocky	breaks into lumps, crumbly
lensed	contains pockets of different soils, describe variation
homogenous	same color and appearance throughout

10. CEMENTATION	
Term	Field Test
weak	breaks under light finger pressure
moderate	breaks under hard finger pressure
strong	will not break with finger pressure

11. REACTION TO HCL	
Term	Field Test
none	no visible reaction
weak	bubbles form slowly
strong	vigorous reaction

12. ODOR

Describe odor as organic; or potential non-organic*
*Needs further investigation

13. GROUNDWATER SEEPAGE

Describe occurrence (i.e. from soil horizon, fissures with depths) and rate:
slow (<1 gpm); moderate (1-3 gpm); fast (>3 gpm)

14. CAVING

Describe occurrence (depths, soils) and amount with term

Test Pits	minor (<1 ft³)	moderate (1-3 ft³)	Severe (>3 ft³)

15. (UNIT NAME/ORIGIN)

Name of stratigraphic unit (e.g. Willamette Silt), and/or origin of deposit (Topsoil, Alluvium, Colluvium, Decomposed Basalt, Loess, Fill, etc.).

DESCRIBING FINE-GRAINED SOIL

	Field Test			
Name	Plasticity (A below)	Dry Strength (B below)	Dilatancy Reaction (C below)	Toughness of Thread (D below)
SILT	non-plastic, low	none, low	rapid	low
SILT with some clay	low	low, medium	rapid, slow	low, medium
clayey SILT	low, medium	medium	slow	medium
silty CLAY	medium	medium, high	slow, none	medium, high
CLAY with some silt	high	High	none	high
CLAY	high	very high	none	high
organic SILT	non-plastic, low	low, medium	slow	low, medium
organic CLAY	medium, high	medium to very high	none	medium, high

A. PLASTICITY

Term	Observation
non-plastic	A 1/8" (3-mm) thread cannot be rolled at any water content.
low	The thread can barely be rolled and the lump cannot be formed when drier than the plastic limit.
medium	The thread is easy to roll and not much time is required to reach the plastic limit. The thread cannot be re-rolled after reaching the plastic limit. The lump crumbles when drier than the plastic limit.
high	It takes considerable time rolling and kneading to reach the plastic limit. The thread can be re-rolled several times after reaching the plastic limit. The lump can be formed without crumbling when drier than the plastic limit.

B. DRY STRENGTH

Term	Observation
none	Dry specimen crumbles into powder with mere pressure of handling.
low	Dry specimen crumbles into powder with some finger pressure.
medium	Dry specimen breaks into pieces or crumbles with considerable finger pressure.
high	Dry specimen cannot be broken with finger pressure. Will break into pieces between thumb and a hard surface.
very high	Dry specimen cannot be broken between thumb and a hard surface.

C. DILATANCY REACTION

Term	Observation
none	No visible change in the specimen.
slow	Water appears slowly on surface of specimen during shaking and doesn't disappear or disappears slowly upon squeezing.
rapid	Water appears quickly on the surface of the specimen during shaking and disappears quickly upon squeezing.

D. TOUGHNESS OF THREAD

Term	Observation
low	Only slight hand pressure is required to roll the thread near the plastic limit. The thread and lump are weak and soft.
medium	Medium pressure is required to roll the thread to near the plastic limit. The thread and lump have medium stiffness.
high	Considerable hand pressure is required to roll the thread to near the plastic limit. The thread and lump have very high stiffness.

TABLE 2

KEY TO TEST PIT AND BORING LOG SYMBOLS

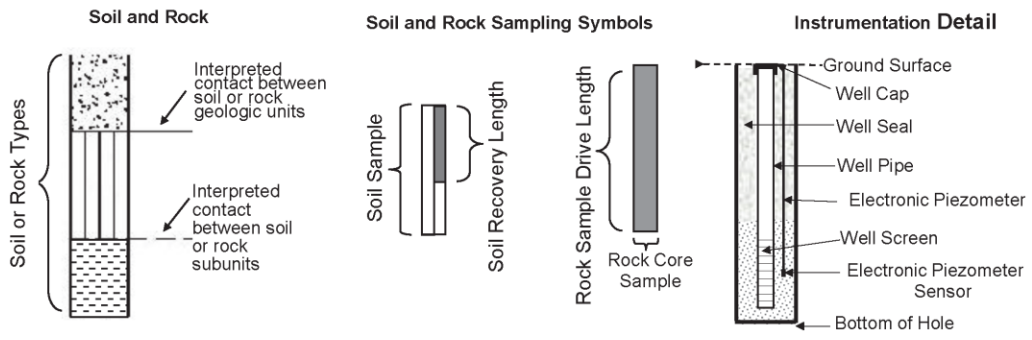
SAMPLE NUMBER ACRONYMS/WATER SYMBOLS

DM - Dames & Moore Sampler
GR - Grab or Bulk Samples
OS - Osterberg (Piston) Sampler
C - Rock Core
SA - Screen Air Sampling
SW - Screen Water Sampling
SS - SPT Standard Penetration Drive Sampler (ASTM D1586)
ST - Shelby Tube Push Sampler (ASTM D1587)

Water Level During Drilling/ Excavation

Water Level on Date Measured

LOG GRAPHICS/INSTALLATIONS



GEOTECHNICAL FIELD & LABORATORY TESTING/ACRONYM EXPLANATIONS

ATT	Atterberg Limits	OC	Organic Content
AMSL	Above Mean Sea Level	OD	Outside Diameter
BGS	Below ground surface	P200	Percent Passing U.S. Standard No. 200 Sieve
CBR	California Bearing Ratio	PI	Plasticity Index
CON	Consolidation	PL	Plasticity Limit
DCP	Dynamic Cone Penetrometer	PP	Pocket Penetrometer
DD	Dry Density	RES	Resilient Modulus
DS	Direct Shear	SC	Sand Cone
GPS	Global Positioning System	SIEV	Sieve Gradation
HCL	Hydrochloric Acid	SP	Static Penetrometer
HYD	Hydrometer Gradation	TOR	Torvane
kPa	kiloPascal	UC	Unconfined Compressive Strength
LL	Liquid Limit	VS	Vane Shear

ENVIRONMENTAL TESTING/ACRONYM EXPLANATIONS

ATD	At Time of Drilling	ND	Not Detected
BGS	Below ground surface	NS	No Sheen
CA	Sample Submitted for Chemical Analysis	PID	Photoionization Detector Headspace Analysis
HS	High Sheen		
MS	Moderate Sheen	PPM	Parts Per Million

Rev. 3/2019

ATTACHMENT 1

TEST PITS: TP-1, TP-2

CASCADIA GEOSERVICES
PROJECT NO: 23015

LORI LUBIN PROPERTY
87052 VESTA LANE
BANDON, OREGON 97411

Cascadia Geoservices, Inc.
190 6th Street
Port Orford, OR 97465
D. 541-332-0433
C. 541-655-0021

DYNAMIC PENETROMETER (DP or DCP)
STATIC PENETROMETER (SP)
MOISTURE CONTENT (%)
INDEX PROPERTIES (IP)
NUCLEAR DENSITY (ND)
DRY DENSITY (DD)
SIEVE (SIEV)

DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH	TESTING	SAMPLE/ SAMPLE ID	COMMENTS
TP-1		SURFACE CONDITIONS: Moist				TP-1
0.0		Soft, dark brown, organic silty CLAY with wood and gravel; moist (FILL)	0.0			
1.0						
2.0		Medium stiff, tan-brown, fine sandy silty CLAY; moist, medium plasticity, medium toughness of thread (TOPSOIL)	1.5	P200	SS-1	P200 = 61% W% = 32.0%
3.0		Medium dense, orange-brown, fine SAND with iron; moist, weakly cemented	3.0			
4.0		becomes moderately cemented; moist		P200	SS-2	P200 = 13% W% = 20.0%
5.0		**QUATERNARY MARINE TERRACE DEPOSITS**				
6.0		becomes dense, tan-brown, fine SAND; moist, well cemented	6.0	P200	SS-3	P200 = 1% W% = 11.0%
7.0		Final depth 6.0 feet bgs; test pit backfilled with uncompacted excavated material				No seepage or caving observed to the depth explored
8.0						
9.0						

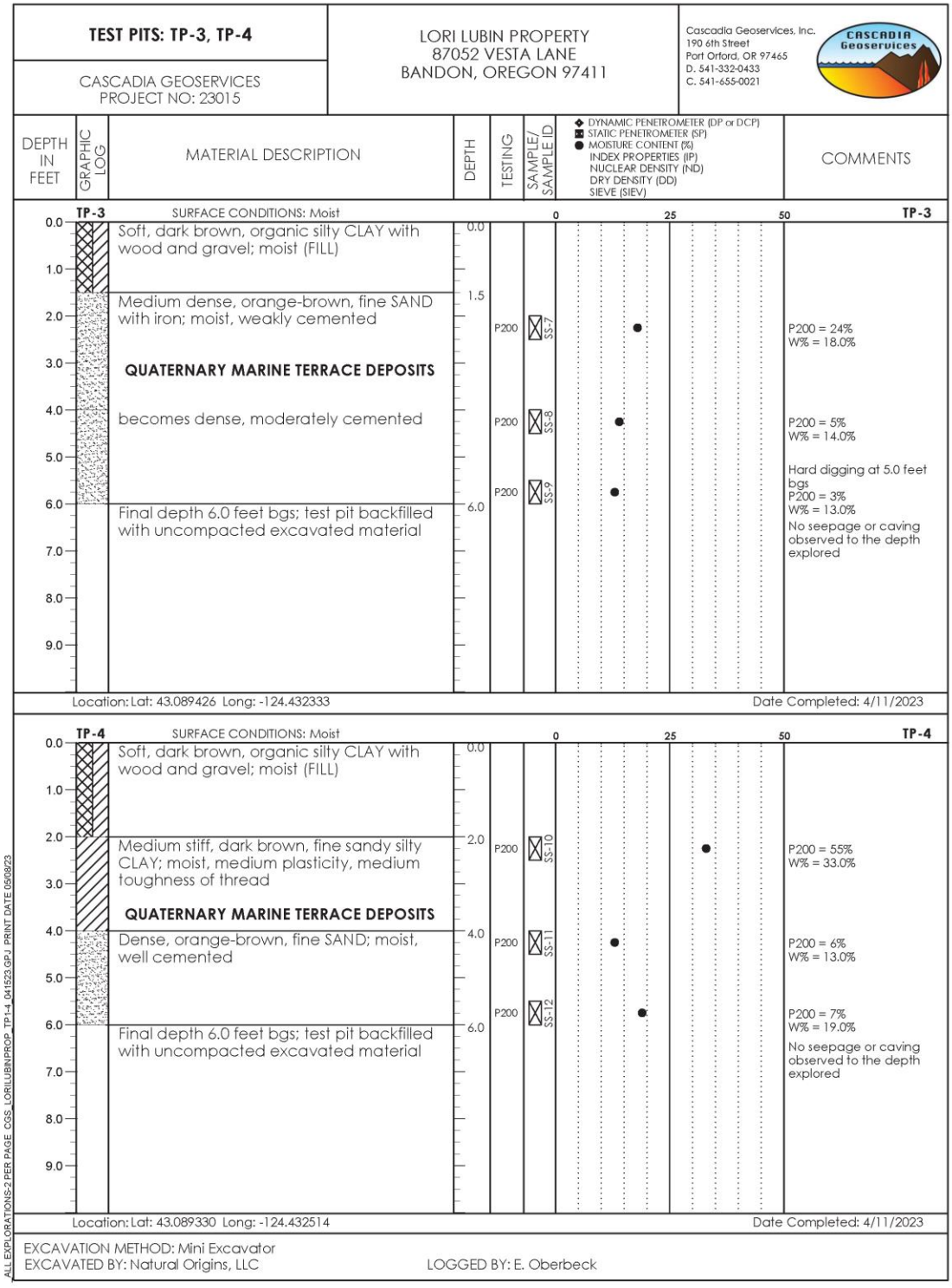
Location: Lat: 43.089520 Long: -124.432481 — Date Completed: 4/11/2023

DEPTH IN FEET	GRAPHIC LOG	MATERIAL DESCRIPTION	DEPTH	TESTING	SAMPLE/ SAMPLE ID	COMMENTS
TP-2		SURFACE CONDITIONS: Moist				TP-2
0.0		Soft, dark brown, organic silty CLAY with wood and gravel; moist (FILL)	0.0			
1.0						
2.0		Medium stiff, tan-brown, fine sandy silty CLAY; moist, medium plasticity, medium toughness of thread (TOPSOIL)	1.5	P200	SS-4	P200 = 46% W% = 24.0%
3.0		Medium dense, orange-brown, SAND with iron, weakly cemented	3.0			
4.0		becomes moist, moderately cemented		P200	SS-5	P200 = 11% W% = 13.0%
5.0		**QUATERNARY MARINE TERRACE DEPOSITS**				
6.0		becomes moist to wet	6.0	P200	SS-6	P200 = 7% W% = 14.0%
7.0		Final depth 6.0 feet bgs; test pit backfilled with uncompacted excavated material				No seepage or caving observed to the depth explored
8.0						
9.0						

Location: Lat: 43.089521 Long: -124.432381 — Date Completed: 4/11/2023

EXCAVATION METHOD: Mini Excavator
EXCAVATED BY: Natural Origins, LLC
LOGGED BY: E. Oberbeck

ALL EXPLORATIONS-2 PER PAGE CGS_LORILUBIN\PROP_TP1-4_041523.GPJ PRINT DATE 050823


TEST PITS: TP-3, TP-4
CASCADIA GEOSERVICES
PROJECT NO: 23015
LORI LUBIN PROPERTY
87052 VESTA LANE
BANDON, OREGON 97411
Cascadia Geoservices, Inc.
190 6th Street
Port Orford, OR 97465
D. 541-332-0433
C. 541-655-0021
DEPTH IN FEET
GRAPHIC LOG
MATERIAL DESCRIPTION
DEPTH
TESTING
SAMPLE/ SAMPLE ID
DYNAMIC PENETROMETER (DP or DCP)
STATIC PENETROMETER (SP)
MOISTURE CONTENT (%)
INDEX PROPERTIES (IP)
NUCLEAR DENSITY (ND)
DRY DENSITY (DD)
SIEVE (SIEV)
COMMENTS
TP-3
SURFACE CONDITIONS: Moist
Soft, dark brown, organic silty CLAY with wood and gravel; moist (FILL)
Medium dense, orange-brown, fine SAND with iron; moist, weakly cemented
QUATERNARY MARINE TERRACE DEPOSITS
becomes dense, moderately cemented
Final depth 6.0 feet bgs; test pit backfilled with uncompacted excavated material
P200 SS-7
P200 = 24%
W% = 18.0%
P200 SS-8
P200 = 5%
W% = 14.0%
Hard digging at 5.0 feet bgs
P200 SS-9
P200 = 3%
W% = 13.0%
No seepage or caving observed to the depth explored
Location: Lat: 43.089426 Long: -124.432333
Date Completed: 4/11/2023
TP-4
SURFACE CONDITIONS: Moist
Soft, dark brown, organic silty CLAY with wood and gravel; moist (FILL)
Medium stiff, dark brown, fine sandy silty CLAY; moist, medium plasticity, medium toughness of thread
QUATERNARY MARINE TERRACE DEPOSITS
Dense, orange-brown, fine SAND; moist, well cemented
Final depth 6.0 feet bgs; test pit backfilled with uncompacted excavated material
P200 SS-10
P200 = 55%
W% = 33.0%
P200 SS-11
P200 = 6%
W% = 13.0%
P200 SS-12
P200 = 7%
W% = 19.0%
No seepage or caving observed to the depth explored
Location: Lat: 43.089330 Long: -124.432514
Date Completed: 4/11/2023
EXCAVATION METHOD: Mini Excavator
EXCAVATED BY: Natural Origins, LLC
LOGGED BY: E. Oberbeck
ALL EXPLORATIONS-2 PER PAGE CGS_LORILUBIN\PROP_TP1-4_041523.GPJ PRINT DATE 0508/23

CASCADIA GEOSERVICES, INC.
MATERIAL LABORATORY
PO Box 1026
Sixes, Oregon 97476
P.541-332-0433

Project No.: Lubin-23015
Testing Date: April 21, 2023
Tests Performed: Water Content, Soil Finer Than 75µm
Standards Followed: D2216, D1140
Performed By: C. Cowan

Water Content (D2216)

Sample Name	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8	SS9	SS10	SS11	SS12	
Pan Letter	A	B	C	D	E	F	G	H	I	J	K	L	
M_c = Mass of Container, g	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	
M_{cms} = Mass of Container and Moist Specimen, g	22.50	27.01	24.86	28.56	22.90	26.40	26.17	24.87	22.74	21.18	24.48	25.48	
M_{cds} = Mass of Container and Dry Specimen, g	17.49	22.84	22.60	23.41	20.40	23.40	22.54	22.11	20.29	16.42	21.79	21.75	
M_s = Mass of Oven Dry Specimen = M_{cds} - M_c, g	15.64	20.99	20.75	21.56	18.55	21.55	20.69	20.26	18.44	14.57	19.94	19.90	
M_w = Mass of Water = M_{cms} - M_{cds}, g	5.01	4.17	2.26	5.15	2.50	3.00	3.63	2.76	2.45	4.76	2.69	3.73	
w = Water Content = M_w/M_s X 100%	32%	20%	11%	24%	13%	14%	18%	14%	13%	33%	13%	19%	

% Finer Than 75µm (D1140)

Sample Name	SS1	SS2	SS3	SS4	SS5	SS6	SS7	SS8	SS9	SS10	SS11	SS12	
Pan Letter	A	B	C	D	E	F	G	H	I	J	K	L	
M_c = Mass of Container, g	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	1.85	
Mcrs = Mass of Container and Retained Specimen, g	7.88	20.20	22.34	13.50	18.34	21.93	17.65	21.06	19.75	8.45	20.63	20.39	
M_s = Mass of Oven Dry Specimen = M_{cds} - M_c, g	15.64	20.99	20.75	21.56	18.55	21.55	20.69	20.26	18.44	14.57	19.94	19.90	
M_r = Mass of Retained Specimen = M_{crs} - M_c, g	6.03	18.35	20.49	11.65	16.49	20.08	15.80	19.21	17.90	6.60	18.78	18.54	
% Finer Than 75µm = (M_s - M_r)/M_s X 100%	61%	13%	1%	46%	11%	7%	24%	5%	3%	55%	6%	7%	

EXHIBIT "E"
COMMENTS RECEIVED

COQUILLE INDIAN TRIBE

3050 Tremont Ave. North Bend, OR 97459
Telephone: (541) 756-0904 ~ Fax: (541) 756-0847
www.coquilletribe.org

August 21, 2023

Coos County Planning Department
Cassidy Carr, Planning Department
Planning@co.coos.or.us

Re: ACU-23-040

Project location: 29S 15W 1CB 404

Thank you for the opportunity to comment on the proposal to build a new single-family dwelling at the above referenced location. Our records show known cultural resources within extremely close proximity to the project area.

Due to the close proximity to known cultural resources, we request a cultural resources monitor to be present during all ground disturbance. Please contact our office at (541) 808-5554 to schedule a Cultural Resource Monitor to be on site during all ground-disturbing activities. Please schedule the monitor a **minimum of Three (3) Business Days** in advance of anticipated project start time.

Please be aware that state statutes and federal law governs how archaeological sites are to be managed. 43 CFR 10 applies on tribal and federal lands, federal projects, federal agencies, as well as to federal actions and federally funded (directly or indirectly) projects. ORS 97.745 prohibits the willful removal, mutilation, defacing, injury, or destruction of any cairn, burial, human remains, funerary objects, or objects of cultural patrimony of a Native Indian. ORS 358.920 prohibits excavation, injury, destruction, or alteration of an archaeological site or object, or removal of an archaeological object from public or *private lands*. If archaeological materials are discovered, uncovered, or disturbed on the property, we will discuss the appropriate actions with all necessary parties. Additionally, ORS 192.345(11) exempts the public disclosure of any information concerning the location of archaeological sites or objects.

Thank you again and feel free to contact me if you have any questions.

Masi (thank you),

Gabrielle Bratt

Gabrielle Bratt, M.S.
Cultural Resources Technician