File Number: ACU-23-016

## COOS COUNTY CONDITIONAL USE LAND USE APPLICATION



SUBMIT TO COOS COUNTY PLANNING DEPT. AT 60 E. SECOND STREET OR MAIL TO:
COOS COUNTY PLANNING 250 N. BAXTER, COQUILLE OR 97423. EMAIL

PLANNING GOLCOVE ORA & PHONE: 541-396-7770

If the fee is not included the application will not be processed

ſ	(If paymer	it is received o	n line	a file number	is required pri	or to submittal)
Date Received: 32	0/23 R	eceipt #: 23	984	Amoi	m: <u>140</u>	Received by: MB
This applicat	ion shall be	filled out ele	ctroni	cally. If you	need assist	tance please contact staff.
A	pplications sh	all be submitt	ed by t	he property o	wner or a pur	chaser under a cluding a contract purchaser.
	The applicat	ion shall inclu	de the	signature of a	ll owners of t	he property.
· A legal representa	tive may sign	on behalf of a	owne	r upon provid	ing evidence	of formal legal authority to sign.
		L	AND	INFORMA	TION	
A. Property Own			-			
Mailing address: 2	65 Grant Sm	ith Road #1	01, R	oseburg Ore	gon 97471	
Phone: 541-430-019	95			Email:	vcurrie223@	AOL.com
	ange: W	Section: 13	1/4 Se	ction: 1/16 0	Section: Ta	
23S 13	W	13	A	ÐXX	40	1
Tax Account Number	er(s): 4980	1		Zone: S	Select Zone	Rural Residential-2 (RR-2)
Tax Account Number	er(s) 9991	99918828				Rural Residential-2 (RR-2)
B. Special Distri	cts and Ser	vices				
Water City	Vater			Sewage Disp	oosal On-Site	e Septic
School Coos	Bay			Fire District	Lakeside f	RFPD
C. Type of Appl	ication (s) p	lease consul	t with	staff to de	termine pr	ior to submittal
	ive Conditio		Lev	el property	from sand	sluffing off
Hearings Bo	•					0.2.11.1
	_	4	cal Re	sources, Na	tural Areas	of Wilderness
Beaches and	Dunes O	erlay				
Non-Estuari	ne Shoreland	d Boundary				
	Wildlife Hab	itat				
Natural Haz	ards	Flood		andslide	Liquefaction	on Erosion Wildfires
Airport Sur	aces Overla	у				
Variance to	which stand	lard				
Include the supple	mental appli	cation with	all cri	teria address	ed. If you	require assistance with the

Include the supplemental application with all criteria addressed. If you require assistance with the criteria please contact a land use attorney or professional consultant. Property information may be obtained from a tax statement or can be found on the County Assessor's web page at the following links: Map Information Or Account Information

## SANITATION INFORMATION

If this is a request for a recreational, commercial, industrial, vacation rental, manufactured home park, mass or small gathering Coos Health and Wellness, Environmental Health Staff will be reviewing the proposal to ensure the use meets environmental health standards for sanitation and water requirements to serve the facility. If the proposal indicates that you are using a community water system a review may be required. A fee is charged for this service and shall be submitted with the application \$83.00. If you have questions about regulations regarding environmental health services please call 541-266-6720. This form is required to be signed off for any type of subdivision, recreational, commercial, industrial, vacation rental, manufactured home park, mass or small gathering.

Water Service Type: Coos Bay-North Bend Water Board	Sewage Disposal Type: On-site septic
Please check [ ] if this request is for industrial, commercial	, recreational or home base business use and complete
the following questions:	
<ul> <li>How many employees/vendors/patrons, total, v</li> </ul>	vill be on site?
<ul> <li>Will food be offered as part of the an on-site be</li> </ul>	usiness?
<ul> <li>Will overnight accommodations be offered as a business?</li> </ul>	part of an on-site
• What will be the hours of operation of the busi	ness?
Please check if the request is for a land division.	
Coos County Environmental Health Use Only:	
Staff Reviewing Application:	·
Staff Signature:	·
☐ This application is found to be in compliance and will	require no additional inspections
This application is found to be in compliance but will r	require future inspections
☐ This application will require inspection prior to determ	ining initial compliance. The applicant shall contact
Coos Health and Wellness, Environmental Heath Division	to make an appointment.
Additional Comments:	

## **ACCESS INFORMATION**

The Coos County Road Department will be reviewing your proposal for safe access, driveway, road, and parking standards. There is a fee for this service. If you have questions about these services please contact the Road Department at 541-396-7660.

Required parking spaces are based on the use of the property. If this is for a residential use two spaces are required. Any other use will require a separate parking plan submitted that is required to have the following items:

- Current utilities and proposed utilities;
- Roadmaster may require drawings and specs from the Oregon Standards Specification Manual (OSSC) (current edition).
- The location and design of bicycle and pedestrian facilities shall be indicated on the site plan if this is a parking plan;
- Location of existing and proposed access point(s) on both sides of the road where applicable;
- Pedestrian access and circulation will be required if applicable. Internal pedestrian circulation shall be provided in new commercial, office, and multi-family residential developments through the clustering of buildings, construction of walkways, landscaping, accessways, or similar techniques;
- All plans (industrial and commercial) shall clearly show how the internal pedestrian and bicycle facilities of the site connect with external existing or planned facilities or systems;
- Distances to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property;
- Number and direction of lanes to be constructed on the road plus striping plans;
- All planned transportation features (such as sidewalks, bikeways, auxiliary lanes, signals, etc.); and
- Parking and internal circulation plans including walkways and bikeways, in UGB's and UUC's.

Additional requirements that may apply depending on size of proposed development.

- a. Traffic Study completed by a registered traffic engineer.
- b. Access Analysis completed by a registered traffic engineer
- c. Sight Distance Certification from a registered traffic engineer.

Regulations regarding roads, driveways, access and parking standards can be found in Coos County Zoning and Land Development Ordinance (CCZLDO) Article 7.

By signing the application I am authorizing Coos County Roadmaster or designee to enter the property to determine compliance with Access, Parking, driveway and Road Standards. Inspections should be made by calling the Road Department at 541-396-7660

		Coos Co	ounty Road De	partment Use On	ly
Roadmaster or	designee:				
Driveway	Parking	Access	Bonded	Date:	Receipt #
File Number:	DR-				

D. ATTACHED WRITTEN STATEMENT. With all land use applications, the "burden of proof" is on the applicant. It is important that you provide information that clearly describes the nature of the request and indicates how the proposal complies with all of the applicable criteria within the Coos County Zoning and Land Development Ordinance (CCZLDO). You must address each of the Ordinance criteria on a point-by-point basis in order for this application to be deemed complete. A planner will explain which sections of the Ordinance pertain to your specific request. The information described below is required at the time you submit your application. The processing of your application does not begin until the application is determined to be complete. An incomplete application will postpone the decision, or may result in denial of the request. Please mark the items below to ensure your submittal is complete.

Application Check List: Please make off all steps as you complete them.



- I. PROPOSAL AND CRITERIA: A written statement of intent, attached to this application, with necessary supporting evidence which fully and factually describes the following:
  - 1. Project summary and details including time limes.
  - 2. A complete explanation of how the request complies with the applicable provisions and criteria in the Zoning Ordinance. A planner will explain which sections of the Ordinance pertain to your specific request. You must address each of the Ordinance criteria on a point-by-point basis in order for this application to be deemed complete. This shall be addressed on the supplemental criteria page (see staff for criteria).

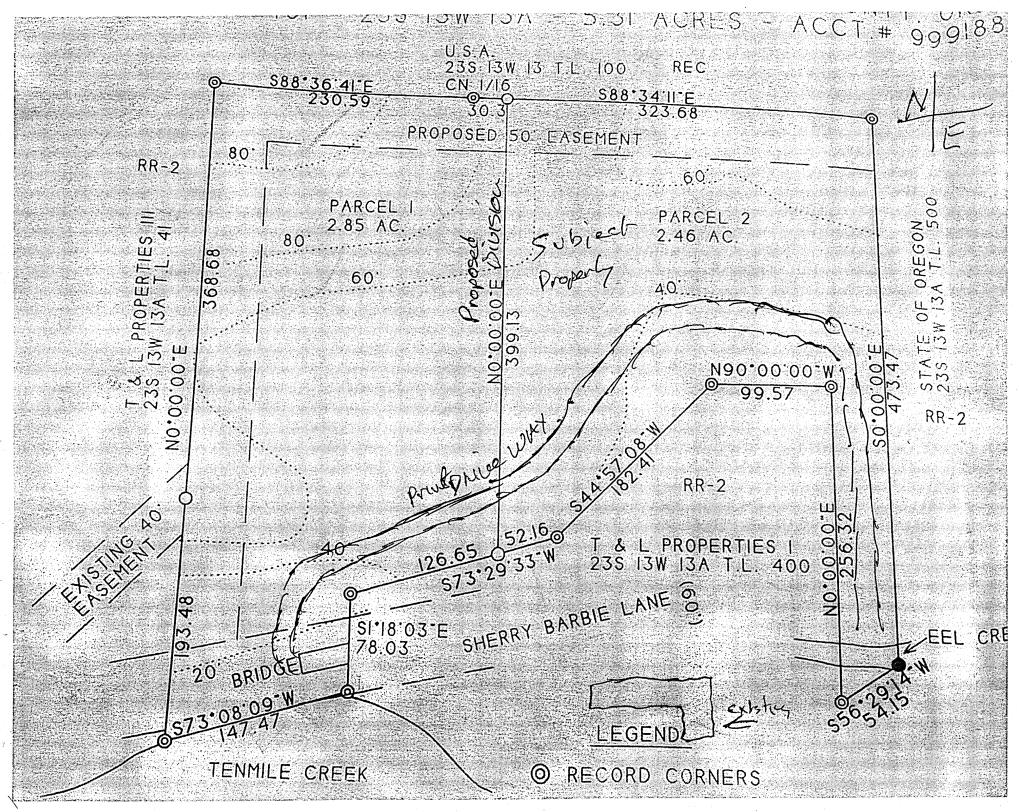


II. PLOT PLAN OR SKETCH PLAN: A detailed drawing delineating the following:

- Owner's name, address, and phone number, map and Tax lot number
- North Arrow and Scale using standard engineering scale.
- Accurate shape and dimensions of parcel, development site, including the lengths of the all property lines.
- Any adjacent public or private roads, all easements and/or driveway locations. Include road names.
   Driveway location and parking areas, including the distance from at least one property line to the intersection of the driveway and the road (apron area);
- All natural features, which may include, but are not limited to water features, wetlands, ravines, slope and distances from features to structures.
- Existing and proposed structures, water sources, sewage disposal system and distances from these items to each other and the property boundaries.

丛	III. DEED: A copy of the current deed, including the legal description, of the subject property.
	IV. CERTIFICATION: I certify that this application and its related documents are accurate to the best of my knowledge. I am aware that there is an appeal period following the date of the Planning Director's decision on
	this land use action. I understand that the signature on this application authorizes representatives of
	the Coos County Planning Department to enter upon the subject property to gather information pertinent to this
	request. If this application is refereed directly to a hearings officer or hearings
	body I understand that I am obligated to pay the additional fees incurred as part of the conditions
	of approval. I understand that I/we are not acting on the county's behalf and any fee that is a result
	of complying with any conditions of approval is the applicants/property owner responsibility. I understand that
	conditions of approval are required to be complied with at all time and an violation
	of such conditions may result in a revocation of this permit. If the property owner would like staff
	to contact a legal representative or consultant please provide the contact information using a
	consent form.

PROPERTY OWNER SIGNATURES	REQUIRED I	FOR PROC	ESSING	
De James Fruster				



T&L Properties 265 Grant Smith Road #101 Roseburg Oregon 97471 541-430-0195

Coos County Conditional Use Land Use Application Supplemental Information

This application is for rehabilitation of site from the sluffing off of portions of the property from years of neglect. All activities are to be conducted within the recommendations of report conducted by Cascadia Geoservices Inc. on or about March 28 2019. Enc.

This permit is requested in advance and connection with a parcel split that will be following by Troy Rambo of the 5.09 acre parcel.

This property has a beach and dunes overlay.

The property is accessed from Sherry Barbie Lane which is a private drive.

Improvements will be determined at a later date, for the immediate future this property will be used for recreational purposed. Sewage disposal will be determined at a later date.

Domestic water service is supplied by Lakeside Water District (Meter installed).

Power supplied by Lincoln Power

Parking spaces will be determined at a later date.

Road Master commented on previous application.

No bicycle and pedestrian facilities will be provided as not required.

Distances to neighboring constructed access points, median openings (where applicable), traffic signals (where applicable), intersections, and other transportation features on both sides of the property N/A

All planned transportation features (such as sidewalks, bikeways, auxiliary lanes, signals, etc.); and Parking and internal circulation plans including walkways and bikeways, in UGB's and UUC's. N\A.

## **ELEVATION CERTIFICATE**

OMB No. 1660-0008 Expiration Date: November 30, 2022

IPORTANT: In these spaces, copy the corresponding information from Section A. FOR INSURANCE COMPANY USE							
uilding Street Address (including Apt., Unit, Suit 4230 Sherry Barbie Lane	e, and/or Bldg. No.) or P	.O. Route and Box No.	Policy	Number:			
ity	State	ZIP Code	Compa	ny NAIC N	lumber		
lorth Bend	Oregon	97459	<u> </u>	•			
SECTION C - BUILD	ING ELEVATION INFO	ORMATION (SURVEY R	EQUIRE	D)			
C1. Building elevations are based on:   *A new Elevation Certificate will be required.	•	Building Under Construction Building is complete.	uction*	Finish	ed Construction		
C2. Elevations – Zones A1–A30, AE, AH, A (w. Complete Items C2.a–h below according to Benchmark Utilized: OA0291	the building diagram sp	(with BFE), AR, AR/A, AF ecified in Item A7. In Puer Datum: NAVD 1988	VAE, AR/ to Rico o	A1–A30, A	R/AH, AR/AO. neters.		
Indicate elevation datum used for the eleva	. ,	h) below.					
NGVD 1929 ⊠ NAVD 1988 ☐ Datum used for building elevations must be		for the PEE		······			
Datum used for building elevations must be	the same as maruseu	of the BFE.	Che	eck the me	asurement used.		
a) Top of bottom floor (including basemen	t, crawispace, or enclosu	ire floor)	23.0	★ feet	meters meters		
b) Top of the next higher floor			N/A	☐ feet	meters		
c) Bottom of the lowest horizontal structure	al member (V Zones only	<i>(</i> )	N/A	☐ feet	meters		
d) Attached garage (top of slab)		,	N/A	feet	meters		
e) Lowest elevation of machinery or equip (Describe type of equipment and location	ment servicing the buildi	ng	N/A	feet	meters		
f) Lowest adjacent (finished) grade next t	o building (LAG)		22.8	X feet	meters		
g) Highest adjacent (finished) grade next	o building (HAG)		22.8	X feet	meters		
h) Lowest adjacent grade at lowest elevat	ion of deck or stairs, incl	uding	N/A	feet	meters		
SECTION D - SUF	VEYOR, ENGINEER.	OR ARCHITECT CERTI	FICATIO	N			
This certification is to be signed and sealed by I certify that the information on this Certificate r statement may be punishable by fine or imprison	a land surveyor, enginee	er, or architect authorized to interpret the data available.	ov law to	certify elev	ation information. that any false		
Were latitude and longitude in Section A provid	ed by a licensed land su	rveyor? XYes No		Check her	e if attachments.		
Certifier's Name	License Num	ber		DEC	STERED		
Troy Rambo	LS 2865			PROFE	SSIONAL		
Title Member				LANDS	URVEYOR		
				<u>L</u>	ace		
Company Name Mulkins & Rambo, LLC				1 con 9	leath		
Address P.O. Box 809				JULY	GON2 21, 1998		
City North Bend	State Oregon	ZIP Code 97459		TROY J	RAMBO 865		
Signature Ranh	Date 08-06-2020	Telephone (541) 751-8900	Ext.	RUNUV	VAL 12.31-20		
Copy all pages of this Elevation Certificate and a	l attachments for (1) com	munity official, (2) insuranc	e agent/c	ompany, ar	nd (3) building own		
Comments (including type of equipment and lo Latitude and Longitude were taken from Googl While the property is in the "A" zone, the end of feet was held for this certification.	cation, per C2(e), if appli	cable)	· · · · · · · · · · · · · · · · · · ·		<del></del>		

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Based on our observations at the time of the site visit, we saw no indication of recent flooding or stream bank erosion adjacent to the site. We further observed that the site is currently stable with no evidence of settling or slumping.

Based on mapping done by others<sup>1</sup>,<sup>2</sup>, the primary soils at the site consist of fine sand (28 Heceta Fine Sands). These soils are well drained and form as deflation basins on dunes. These soils overlie Quaternary Marine Terrace deposits (QMTD) which consist of sands, silts, clays, and gravels. Bordering the site 200 feet to the west are Holocene Age sand dunes which appeared to be partially vegetated in places and are inferred to be conditionally stable.

## SUBSURFACE EXPLORATIONS

During our December 19, 2018 site visit, CGS observed the excavation of two test pits (TP-1 and TP-2) by Natural Origins LLC of Bandon, Oregon. The test pits were excavated to a depth of 6 feet below ground surface (bgs) at two locations near the existing trailer. The purpose of the test pits was to observe and describe the subsurface soils and to determine depth to groundwater. The locations of the test pits are shown on Figure 2, Site Map. Detailed logs for the test pits are included at the end of this report as Attachment 1.

Soils encountered in our test pits are summarized as follows:

**Soil:** Encountered from 0 to 1.5 feet bgs in both TP-1 and TP-2. Consisted of very loose, brown, organic silty sand: damp. These soils were observed to be well drained and have extensive shallow roots to 1.0-foot bgs. Based on mapping done by others, we interpret these as being Heceta fine sands.

**Quaternary Marine Terrace deposits (QMTD):** From 1.3 to 1.5 feet bgs to the depths of our explorations, we encountered loose, tan, fine sand: damp. These sands were observed to be poorly graded and became harder at depth. Based on mapping done by others,<sup>2</sup> we infer that these are part of the Quaternary Marine Terrace deposits.

<sup>&</sup>lt;sup>1</sup> United States Department of Agriculture (USDA). Natural Resource Conservation Service Web Soil Survey viewed at <a href="http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx">http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx</a>.

<sup>&</sup>lt;sup>2</sup> Beaulieu, J. D., & Hughes, P. W. (1975). Environmental Geology of Western Coos and Douglas Counties, Oregon. Oregon Department of Geology and Mineral Industries, Bulletin 87 (p. 148)

Table 1: Laboratory Analysis

Sample Number	Test Pit	Depth Feet (bgs)	Soil Description	Moisture Content (%)	Percent Fines (-#200)	USCS5
SS1	TP-1	2	Fine Sand	7.0	0.1	SP
SS4	TP-2	2	Fine Sand	5.8		SP

Our lab analysis indicates that the fine sands encountered in TP-1 and TP-2 have a low moisture content. The sands are poorly graded with less than 1 percent fines.

## COOS COUNTY BEACH AND DUNE POLICY

Based on a review of Coos County's Map Atlas,6 the site has been inventoried pursuant to the County's Beaches and Dunes Policy 5.10, as having limited suitability for development potential within the Beach and Dune Area of the county. As part of the planning and permitting process, Coos County will consider whether the site is suitable for the proposed development and whether development will impact other surrounding areas.

The subject property and surrounding area border the Umpqua Dunes Scenic Area (UDSA) to the south. The northern boundary of Tax Lot 400 is approximately 280 feet south of the boundary of the UDSA and is separated by a separate Tax Lot 401 and by Eel Creek. Within this portion of the UDSA, the dunes are part of an older, conditionally stabilized back- dune complex.

It is our opinion that if the site is developed in accordance with our recommendations, development will not have an adverse impact on either the site or adjacent areas. Further, it is our opinion that the Umpqua Dunes Scenic Area will not be impacted by development of the site and, as such, development will not impact dune vegetation. It is our opinion that there is no need for temporary and permanent stabilization programs or the planned maintenance of new and existing vegetation, as far as protecting or further stabilizing the dunes. Further, we see no hazards to life, public and private property, or to the natural environment by the proposed development. Finally, it is our

<sup>&</sup>lt;sup>5</sup> Unified Soil Classification System

<sup>•</sup> Viewed on line at Coos County's website at http://www.co.coos.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."

## Landslide Hazard

Based on a review of Oregon HazVu: Statewide Geohazards Viewer<sup>10</sup>, the site is not within a previously identified landslide, earthflow, or debris-flow inundation zone. The site has been identified by the State as being moderately susceptible to future landslides, indicating future landslides are possible.

A review of LIDAR<sup>11</sup> for the area (a surveying technology that reveals topography by illuminating the ground with laser light) indicates that the site is located on a level area between the confluence of Eel Creek and Ten Mile Creek. The site is bordered to the north by sand dunes and to the east by the Highway 101 roadbed. Based on our review, there are no readily identifiable anomalous landforms associated with geologic hazards visible on the site. A review of geologically young faults<sup>12</sup> in the area indicates that there are none which will impact the site.

## 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). Recent studies<sup>13</sup> indicate that the southern CSZ has generated maximum credible earthquakes with a moment magnitude (Mm) of 8.7 or greater every 200 to 300 years. Time-dependent probabilities currently range up to 18 percent in 50 years for a southern segment rupture.

The seismic design criteria for this project are based on ASCE7-10 and are summarized in Table 2 below.

<sup>19</sup> Oregon HazVu https://www.oregongeology.org/hazvu

ULDAR). Oregon Department of Geology and Mineral Industries (DOGAMI) LIDAR, viewed at http://www.oregongeology.org/lidar/index.htm

<sup>12</sup> U.S. Geologic Survey (USGS), Quaternary Faults Web Mapping Application viewed at https://earthquake.usgs.gov

<sup>&</sup>lt;sup>13</sup> Goldfinger, C., et al. (2012). Turbidite Event History—Methods and Implications for Holocene Paleoseismicity of the Cascadia Subduction Zone. U.S. Geologic Survey (USGS), Professional Paper: 1661-F.

## **DISCUSSION AND RECOMMENDATIONS**

## **Feasibility**

Based on our surface and subsurface investigation and our knowledge of the area, it is our opinion that the subject property is suitable to site a single-family residence such as you are proposing, provided the site is developed in accordance with our recommendations.

This single-family residence can be supported on conventional spread footings. We recommend that footings be constructed on the loose tan sand encountered at 1.5 feet bas in our test pits.

We further recommend that the Base Flood Elevation (BFE) for the site be established by a registered Oregon land surveyor and that the lowest floor be elevated in accordance with state and local building codes. It is our opinion that local flooding of surrounding areas (in particular, low lying areas adjacent to both Ten Mile and Eel Creeks within Tax Lot 400) is likely. We therefore recommend that once the BFE is established, that you develop a grading plan for the site to insure positive drainage away from the structure. We further recommend that you check with Coos County regarding riparian setbacks.

And, we recommend that outfalls from all surface and near-surface drains, including rain gutters and foundation drains, be discharged in the area west of the site and not toward the creek bank.

Building in or near a flood plain is problematic. The location of the Ten Mile Creek channel may change over time, causing erosion of the creek bank adjacent to the site. Because of this, we recommend that you stay vigilant and monitor upriver current obstacles such as downed trees and other in-water obstructions which could redirect the channel toward the building site.

## **DESIGN**

## Spread Footing Design Recommendations

As discussed, the single-family residence can be supported on conventional spread footings, which in turn are supported on medium-dense Quaternary Marine Terrace deposits (QMTD) encountered in our test pits, or on mechanically compacted structural fill placed on the QMTD.

## **Drainage**

All drainage from surface and subsurface drains should be diverted away from the creek bank slope south of the proposed structure. After construction, the site should be graded to provide positive drainage away from the structure and away from the creek bank.

## CONSTRUCTION

## Site Preparation

The existing near-surface root zone should be stripped and removed from the project site in all proposed building areas and for a 5-foot margin around the building area. The stripping depths will range from 1 to 2 feet bgs and will most likely vary based on proximity to existing trees and shrubs on the site. The actual stripping depth should be based on field observations at the time of construction. Stripped material should be transported off site for disposal or stockpiled for use in landscaped areas.

Trees and shrubs should be removed from all improvement areas. In addition, root balls should be grubbed out to the depth of the roots, which could exceed 3 feet bgs.

Depending on the methods used to remove the root balls, considerable disturbance and loosening of the subgrade can occur during site grubbing. We recommend disturbed soils under the building site be removed to expose firm, undisturbed subgrade. The resulting excavations should be backfilled with structural fill.

Particular attention should be placed on the soils removed from beneath the existing trailer and auxiliary buildings to identify any deleterious materials. All buried pipes, drainage basins, and sumps should either be removed or grouted shut using low-strength concrete slurry. Deeper excavations and debris removal may be required at the discretion of the engineering geologist.

## **Probing**

Following stripping, excavation, and site preparation and prior to placing structural fill, 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.

#### **MATERIALS**

Fills should be placed over subgrade that has been prepared in conformance with the **Site Preparation** section of this report. A wide range of materials may be used as structural fill; however, all materials used should be free of organic matter or other unsuitable materials and should meet the specifications provided in the 2015 Oregon Standard Specifications for Construction, Oregon Department of Transportation (ODOT, SS 2015), 15 depending on the application. A brief characterization of some of the acceptable materials and our recommendations for their use as structural fill are provided below.

## **Native Soils**

The surficial soils generally appear to be not suitable for use as structural fill due to the organic content. These soils should be stockpiled and used for landscape areas.

## **Imported Granular Material**

Imported granular material used during periods of wet weather or for haul roads, building pad subgrades, staging areas, etc., should be pit or quarry-run rock, crushed rock, or crushed gravel and sand, and should meet the specifications provided in ODOT SS 00330.12 – Borrow Material, and ODOT SS 00330.13 – Selected General Backfill. However, the imported granular material should also be fairly well graded between coarse and fine material and have less than 5 percent by weight passing the U.S. Standard No. 200 Sieve.

Imported granular material should be placed in lifts with a maximum uncompacted thickness of 8 to 12 inches, and be compacted to not less than 92 percent of the maximum dry density, as determined by ASTM D1557. During the wet season or when wet subgrade conditions exist, the initial lift should be approximately 18 inches in uncompacted thickness, and should be compacted by rolling with a smooth-drum roller without using vibratory action.

Where imported granular material is placed over soft-soil subgrades, we recommend a geotextile be placed as a barrier between the subgrade and imported granular material. Depending on site conditions, the geotextile should meet the specifications

<sup>15</sup> Viewed online at http://www.oregon.gov/ODOT/Business/Documents/2015\_STANDARD\_SPECIFICATIONS.pdf

provided in ODOT SS 02320.10 – Geosynthetics, Acceptance, for Soil Separation or Stabilization. The geotextile should be installed in conformance with ODOT SS 00350.40 – Geosynthetic Construction, General Requirements.

## **Footing Base**

Imported granular material placed under building footings and under retaining wall footings should be clean crushed rock or crushed gravel, and sand that is fairly well graded between coarse and fine. The granular material should contain no deleterious materials, have a maximum particle size of 1 inch, and meet the requirements of ODOT SS 00330.14 – Selected Granular Backfill. The imported granular material should be placed in lifts not to exceed 12 inches of loose material and compacted to not less than 95 percent of the maximum dry density, as determined by ASTM D1557.

## Floor Slab Base Aggregate

Base aggregate for footing base and floor slabs should be clean crushed rock or crushed gravel. The base aggregate should contain no deleterious materials, meet specifications provided in ODOT SS 00330.14 – Selected Granular Backfill, and have less than 5 percent by weight passing the U.S. Standard No. 200 Sieve. The imported granular material should be placed in one lift and compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1557.

## Trench Backfill

Trench backfill placed beneath, adjacent to, and for at least 2 feet above utility lines (i.e., the pipe zone) should consist of well-graded granular material with a maximum particle size of 1.5 inches and less than 10 percent by weight passing the U.S. Standard No. 200 Sieve, and should meet the standards prescribed by ODOT SS 00405.12 – Pipe Zone Bedding. The pipe zone backfill should be compacted to at least 90 percent of the maximum dry density, as determined by ASTM D1557, or as required by the pipe manufacturer or local building department.

Within roadway alignments or beneath building pads, the remainder of the trench backfill should consist of well-graded granular material with a maximum particle size of 2.5 inches, less than 10 percent by weight passing the U.S. Standard No. 200 Sieve, and should meet standards prescribed by ODOT SS 00405.14 – Trench Backfill, Class A or B. This material should be compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1557, or as required by the pipe manufacturer or local

Page 1.15

building department. The upper 2 feet of the trench backfill should be compacted to at least 92 percent of the maximum dry density, as determined by ASTM D1557.

Outside of structural improvement areas (e.g., roadway alignments or building pads), trench backfill placed above the pipe zone may consist of general fill materials that are free of organics and materials over 6 inches in diameter, and meet the standards prescribed by ODOT SS 00330.12 – Borrow Material, and ODOT SS 00405.14 – Trench Backfill, Class C, D, or E. This general trench backfill should be compacted to at least 90 percent of the maximum dry density, as determined by ASTM D1557, or as required by the pipe manufacturer or local building department.

## Stabilization Material

Stabilization rock should consist of imported granular material that is well-graded angular crushed rock consisting of 4- or 6-inch-minus material with less than 2 percent passing the U.S. Standard No. 4 Sieve. The material should be free of organic matter and other deleterious materials.

## Retaining Wall Backfill

Backfill material placed behind retaining walls and extending a horizontal distance of 0.5H, where H is the height of the retaining wall, should consist of select granular material meeting the requirements of ODOT SS 00510.12 – Granular Wall Backfill. We recommend the select granular wall backfill be separated from general fill, native soil, and/or topsoil using a geotextile fabric which meets the requirements provided in ODOT \$\$ 02320.10 - Geosynthetics, Acceptance. The geotextile should be installed in conformance with ODOT SS 00350.40 – Geosynthetic Construction, General Requirements.

The wall backfill should be compacted to a minimum of 92 percent of the maximum dry density, as determined by ASTM D1557. However, backfill located within a horizontal distance of 3 feet from the retaining walls should only be lightly compacted to approximately 90 percent of the maximum dry density, as determined by ASTM D1557, to prevent damage to the wall. Backfill placed within 3 feet of the wall should be compacted in lifts less than 6 inches thick using hand-operated tamping equipment (such as a jumping jack or vibratory plate compactors).

If flat work (sidewalks or pavements) will be placed atop the wall backfill, we recommend that the upper 2 feet of material be compacted to 92 percent of the maximum dry density, as determined by ASTM D1557.

## Trench and Retaining Wall Drain Backfill

Backfill in a 2-foot zone against the back of retaining walls and for subsurface trench drains should consist of drain rock meeting the specifications provided in ODOT SS 00430.11 – Granular Drain Backfill Material. The drain rock should be wrapped in a geotextile fabric that meets the specifications provided in ODOT SS 02320.10 – Geosynthetics, Acceptance, for Soil Separation and/or Stabilization. The geotextile should be installed in conformance with ODOT SS 00350.40 – Geosynthetic Construction, General Requirements.

## BUILDING CODES

There is now a consensus among earth scientists that much of the western US coastline, including the entire southern Oregon coast, is in an area which has been seismically active in the recent geologic past. Our understanding of these forces is evolving and has been heightened by witnessing recent earthquakes and tsunamis in similar tectonic settings in northern Indonesia (2005) and in northern Japan (2011). In order to protect people living in seismically active areas within the state, the State has recently updated and released the 2017 Oregon Residential Specialty Code. <sup>16</sup> It is our opinion that new homes should adopt these updated standards.

## 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.

Oregon Residential Specialty Code, 2017, State of Oregon, viewed at https://oregonhba.com/2017-oregon-residential-specialty-code-now-available/

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 will be performed, findings obtained, and recommendations prepared in accordance with generally accepted principles and practices for geologists and geotechnical engineers. 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, on 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

Please see our website at www.CascadiaGeoservices.com to review our qualifications.

Sincerely,

Cascadia Geoservices, Inc.



Eric Oberbeck, RG, CEG Expires May 31, 2019

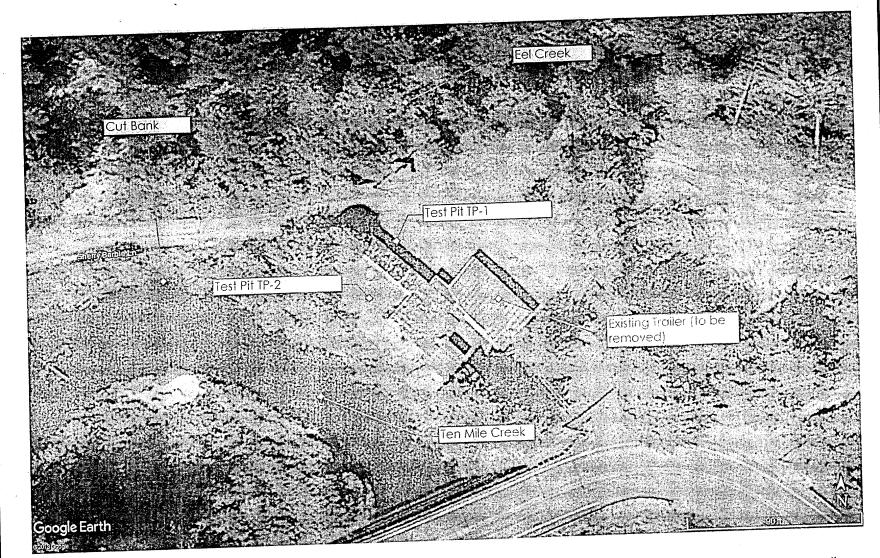
## **Figures**

Figure 1, Location Map Figure 2, Site Map

## **Attachments**

Attachment 1 – Summary Test Pit Logs Attachment 2 – Laboratory Test Sheets

94230 Sherry Barbie Ln, North, North Bend, OR 97459 North Bèna @2019 HERE Prepared for T&L Properties **Location Map** 94230 Sherry Barbie Lane North Bend, Oregon 97459 **Figure** Project: 18173 March, 2019



Prepared for T&L Properties



Project: 18173

March, 2019

**Site Map** 94230 Sherry Barbie Lane, North Bend, Oregon 97459

Figure

## 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) <sup>1</sup>	D & M SAMPLER (140- LB. HAMMER) <sup>1</sup>	DYNAMIC CONE PENETROMETER PENETRATION RATE SAMPLER (DCP)4.5.6			
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	Penetraled 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) <sup>1</sup>	D & M SAMPLER (140-LB. HAMMER) <sup>1</sup>	DYNAMIC CONE PENETROMETER PENETRATION RATE SAMPLER (DCP) 5.6	POCKET PEN. <sup>2</sup>	TORVANE <sup>3</sup>	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		
	200	\	>28	>4.0	>2.0	Difficult to indent by thumbnail		
1 Standard per	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	2 compressive strength with pocket penetrometer; in tons per square foot (1sf).							
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.								
6 Reference: C	George F. Sov	vers et. al. 'D	ynamic Cone for	Shallow In-3	no renendio	Tresning of in-Silo Solis, Addition Corr, Notice, 1 pg. 21. 1720		
2 COLOR								

## 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

		S. GRAIN SILE	
DES	CRIPTION	SIEVE*	Observed Size
	oulders		>12"
CO	bbles		31' - 12'
and the same of th	coarse	3/4" - 3"	3/11 — 3!!
gravel	fine	#4 - 3/4"	4.75 mm (0.19") - <sup>3</sup> / <sub>4</sub> "
A STATE OF THE PARTY OF THE PAR	coarse	#10 - #4	2.0 – 4.75 mm
sand	medium	#40 - #10	0.425 - 2.0 mm
301.00	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	
	GRAVEL, SAND, COBBLES, BOULDERS	>50%	PRIMARY	
Coarse grained	sandy, gravelly, cobbley, bouldery	30 - 50% 1.5 - 50%	secondary	
	silty, clayey*  with (gravel, sand, cobbles, boulders)		additional	
	with (sit, clay)* trace (gravel, sand, cobbles, boulders)	5 – 15%		
	trace (silt, clay)*	<5%		
Fine grained	GLAY, SILT*	>50%	PRIMARY	
	silty, clayey* sandy, gravelly	30 - 50%	secondary	
	with (sand, gravel, cobbles, boulders): with (silt, clay)*	15 - 30%	additional	
	trace (sand, gravel, cobbles, boulders)	5 - 15%		
	trace (silt, clay)*	50 - 100%	PRIMARY	
	PEAT 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).

	SIFICATIONS	OCTUDE
	5. N	AOISTURE
TERM	absonce	FIELD TEST of moisture, dusty, dry to touch
dry		some moisture
moist wef		e water, usually saturated
wei	1 13000 110	0.000
		ICITY OF FINES
	See "Describing fine	e-grained Soil" on Page 2.
	7. At	NGULARITY
() ro	ounded 🔵	Angular D
sub	prounded	Subangular O
		3. Shape
	<del></del>	
TERM	nadialas i	OBSERVATION th width/thickness ratio >3
flat	particles wi	th length/width ratio >3
elongate		eet criteria for both flat and elongated
und elong	gatoa   participati	
	9.	STRUCTURE
TERM	· I	OBSERVATION
tratified	alternating layers	>1 cm thick, describe variation
minated	alternating layers	<1 cm thick, describe variation
fissured	contains shears a	nd partings along planes of weakness
ckensides	partings appear	glossy or striated
blocky	breaks into lumps	s, crumbly of different soils, describe variation
lensed		appearance throughout
mogenous	;   Same color and s	appearance in roognoor
	10, 0	CEMENTATION
	T.	FIELD TEST
TERM		
	breaks under light fir	nger pressure
weak oderate	breaks under hard fi	nger pressure
weak oderate	breaks under light fir breaks under hard fi will not break with fir	nger pressure
weak oderate	breaks under hard fi will not break with fir	nger pressure
weak oderate strong	breaks under hard fi will not break with fir 11. RE	nger pressure nger pressure
weak oderate strong TERM none	breaks under hard fi will not break with fir 11. RE	nger pressure nger pressure ACTION TO HCL
weak oderate strong  TERM none weak	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly	nger pressure nger pressure ACTION TO HCL
weak oderate strong  TERM none weak	breaks under hard fi will not break with fir 11. RE	nger pressure nger pressure ACTION TO HCL
weak oderate strong  TERM none weak	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly vigorous reaction	nger pressure nger pressure EACTION TO HCL FIELD TEST
weak oderate strong  TERM none weak	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly vigorous reaction	nger pressure nger pressure  ACTION TO HCL  FIELD TEST  12. ODOR ganic; or potential non-organic*
oderate strong TERM none weak	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly vigorous reaction	nger pressure nger pressure EACTION TO HCL FIELD TEST
weak oderate strong  TERM none weak strong	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly vigorous reaction Describe odor as org *Needs	nger pressure nger pressure  ACTION TO HCL  FIELD TEST  12. ODOR ganic; or potential non-organic* further investigation  UNDWATER SEEPAGE
weak oderate strong  TERM none weak strong  Describe	breaks under hard fi will not break with fir  11. RE  no visible reaction bubbles form slowly vigorous reaction  Describe odor as org *Needs  13. GRO	nger pressure nger pressure  ACTION TO HCL  FIELD TEST  12. ODOR  ganic; or potential non-organic* further investigation
weak oderate strong  TERM none weak strong	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly vigorous reaction Describe odor as org *Needs 13. GRO!	nger pressure nger pressure  ACTION TO HCL  FIELD TEST  12. ODOR  ganic; or potential non-organic* further investigation  UNDWATER SEEPAGE a soil horizon, fissures with depths) and rate: derate (1-3 gpm); fast (>3 gpm)
weak oderate strong  TERM none weak strong  Describe	breaks under hard fi will not break with fir 11. RE no visible reaction bubbles form slowly vigorous reaction Describe odor as org *Needs 13. GRO!	nger pressure nger pressure  ACTION TO HCL  FIELD TEST  12. ODOR ganic; or potential non-organic* further investigation  UNDWATER SEEPAGE a soil horizon, fissures with depths) and rate:

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

DESCRIBING FINE-GRAINED SOIL								
FIELD TEST								
Name	NAME PLASTICITY (A BELOW)		DRY STRENGTH (B BELOW)	DILATANCY REACTION (C BELOW)	TOUGHNESS OF THREAD (D BELOW)			
SILT	non- plastic, low		none, Iow	rapid	low			
SILT with some clay		low	low, medium	rapid, slow	low, medium			
clayey SILT	n	low, nedium	medium	slow	medium			
silty CLAY	٢	nedium	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	r	nedium, high	medium to very high	none	medium, high			
			A. PLA	STICITY				
TERM	T			OBSERVATION				
non-				id cannot be	rolled at any water			
plastic		content			and Mark It is a second			
low		cannot	be formed:	when drier th	and the lump an 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 dier than the plastic limit.						
		into pias		STRENGTH				
TERM				OBSERVATION				
none		Dry specimen crumbles into powder with mere pressure of handling.						
low		pressure of narious g.  Dry specimen crumbles into powder with some finger pressure.						
mediur	m	Dry spe	Dry specimen breaks into pieces or crumbles with considerable finger pressure.					
high		Dry spe	Dry specimen cannot be broken with finger pressure. Will break into pieces between thumb and a hard					
very hig	gh	Dry spe	cimen can		n between thumb			
	_			NCY REACTIO	N			
TERM				OBSERVATIO				
none	;	No visit	ole change	in the specin	nen.			
slow shakin		shaking	appears slowly on surface of specimen during g and doesn't disappear or disappears slowly squeezing.					
rapid specimen during			appears qu nen during s	ickly on the s haking and c	surface of the disappears quickly			
upon squeezing.  D. TOUGHNESS OF THREAD								
TERM OBSERVATION								
low		near t	ne plastic lin	ressure is req	uired to roll the thread and lump are weak			
mediu	JM	and so Medic the pla stiffne	m pressure astic limit. Th	is required to ne thread an	roll the thread to near d lump have medium			
high	า	Consider thread	derable har d to near th	e plastic limit.	required to roll the 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

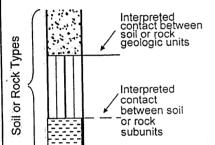


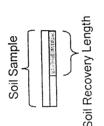
## LOG GRAPHICS/INSTALLATIONS

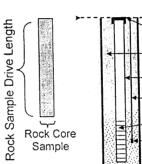
#### Soil and Rock

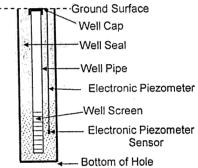
## Soil and Rock Sampling Symbols

## Instrumentation Detail









## 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
HS	High Sheen		Analysis
MS	Moderate Sheen	PPM	Parts Per Million

#### **TEST PITS**

**EXCAVATED BY: Natural Origins LLC** 

## T&L PROPERTIES 94230 SHERRY BARBIE LANE

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

1087 Lewis River Road #305 Woodland, WA 98674 D: 360-225-3945 C: 971-201-7359



CASCADIA GEOSERVICES PROJECT NO: 18173 DYNAMIC PENETROMETER (DP or DCP)

STATIC PENETROMETER (SP)

MOISTURE CONTENT (%)
INDEX PROPERTIES (IP) SAMPLE/ SAMPLE IC **TESTING** DEPTH COMMENTS MATERIAL DESCRIPTION NUCLEAR DENSITY (ND)
DRY DENSITY (DD)
SIEVE (SIEV) IN GRA FEET TP-1 SURFACE CONDITIONS: Wet TP-1 0.0 Loose, brown, silty fine SAND; damp (FILL) 0.0 1.0 Loose, tan, fine-grained SAND; damp, P200 2 :  $\mathbb{X}^{\mathbb{S}}$ P200 = 7% W% = 5.8 poorly graded W% = 7.0 (8.0% from % 2.0 fines) QUATERNARY MARINE TERRACE DEPOSIT 3.0  $\mathbb{Z}^{2}$ DCPs 4.0 5.0 DCPs XX No seepage or caving observed at the time of 6.0 6.0 Final depth 6.0 feet bgs; test pit backfilled with uncompacted excavated material exploration 7.0 8.0 9.0 Completed: 2/12/2019 TP-1 Location: TP-2 SURFACE CONDITIONS: Wet TP-2 0.0 Loose, brown, organic silty SAND; damp (FILL) 1.0 DCPs X 2 Loose, tan, fine-grained SAND; damp, 2.0 poorly graded QUATERNARY MARINE TERRACE DEPOSIT 3.0 PER PAGE TAL PROPERTIES TP1-2 021419.GPJ PRINT DATE 315/19 DCPs X 4.0 5.0 DCPs 6.0 No seepage or caving Final depth 6.0 feet bgs; test pit backfilled 6.0 observed at the time of with uncompacted excavated material exploration 7.0 8.0-9.0-Completed: 2/12/2019 TP-2 Location: **EXCAVATION METHOD: Mini Excavator** LOGGED BY: E. Meader



## Water Content Determination ASTM D2216

Project Name: T& L Properties			Project Number: 18173			
Recorded By: J Thrall	1-Mar-19					
Remarks:						
Sample Designation	\$\$1	\$\$2			Print of the second	
Sample Depth	21	2'				
Pan Number	8 (From % Fines)	AA1				
Wt. Wet Soil +Pan (g)	1226.05	113.55				
Wt. Dry Soil +Pan (g)	1154.22	108.62	·			
Wt. Water (g)	71.83	4.93				
Wt. Pan (g)	128.41	24.03				
Wt. Dry Soil (g)	1025.81	84.59				
Water Content (%)	7.0	5.8				
Sample Designation					15 10 10 10 10 10 10 10 10 10 10 10 10 10	
Sample Depth						
Pan Number						
Wt. Wet Soil +Pan (g)						
Wt, Dry Soil +Pan (g)						
Wt. Water (g)						
Wt. Pan (g)						
Wt. Dry Soil (g)						
Water Content (%)						
Sample Designation	A AD ANGEL		5 - 80 5 - 30 2 - 30 2 - 30	er et europe Servicio de Servicio de la composição Servicio de la composição		
Sämple Depth		Tele de la companya del companya de la companya del companya de la			Section of the sectio	the state of the s
<sup>1</sup> Pan Number						
Wt. Wet Soil +Pan (g)						
Wt. Dry Soil +Pan (g)						
Wt. Water (g)						
Wt. Pan (g)						
Wt. Dry Soil (g)			2			
Water Content (%)						-



# Percent Fines (-#200) ASTM D1140

Project Name: T & L Properties			Project Number: 18173			
Recorded By: J Thrall	Date: March 1, 2019					
Remarks:						
Sample Designation	\$\$1					
Sample Depth	2		2 (20) (10) (20) (20) (20) (20) (20) (20) (20) (2			
Pan Number	-8					
Wt. Wet Soil +Pan (g)	1226.05					
Wt. Dry Soil +Pan (g)	1154.22					
Wt. Water (g)	71.83					
Wt. Pan (g)	128.41					
Wt. Dry Soil (g)	1025.81					
Water Content (%)	7.0%			organical distance (A. e. v. 440)		
Test Sample Data						
Wt. Dry Soil (g)	1025.81					
After Washing Data						
Pan Number	8					
Wt. Dry Soil +Pan (g)	1152.9					
Wt. Pan (g)	128.41			·		
Wt. Dry Soil (+200) (g)	1024.49				The second secon	
%Fines Calculation						
AW Wt. Dry Soil (g)	1024.49					
Loss (g) C=A-B	1.32					
Fines (%) (C/A)*100	0.1%					

**GRANTOR:** 

David Thomas Young and Bonnie Marie Young, Co-Trustees, or their successors in Trust, under the Young Family Trust dated January 18, 2001, and any amendments thereto GRANTEE: T & L Properties I SEND TAX STATEMENTS TO AND

AFTER RECORDING RETURN TO: T & L Properties I PO Box 39 Umpqua, OR 97486 Escrow No: 360615013787-TTCOO06

94230 Sherry Barbie Ln North Bend, OR 97459

COOS COUNTY, OREGON 2015-009810 \$51.00

11/02/2015 01:50:01 PM

Terri L.Turl, Coos County Clerk

AFTER RECORDING **RETURN TO** Ticor Title Company 300 West Anderson Ave. - Box 1075 Coos Bay, OR 97420-0233

SPACE ABOVE THIS LINE FOR RECORDER'S USE

#### STATUTORY WARRANTY DEED

David Thomas Young and Bonnie Marle Young, Co-Trustees, or their successors in Trust, under the Young Family Trust dated January 18, 2001, and any amendments thereto, Grantor, conveys and warrants to Tommy A. Jose, Jr., Trustee of T & L Properties I, Grantee, the following described real property, free and clear of encumbrances except as specifically set forth below, situated in the County of Coos, State of Oregon:

Parcel 1 of Final Partition Plat 2015 #10 filed and recorded August 6, 2015 in Cab C-682, Plat Records and in instrument no. 2015-07151, Deed Records, Coos County, Oregon.

THE TRUE AND ACTUAL CONSIDERATION FOR THIS CONVEYANCE IS \$87,000.00. (See ORS 93.030)

Subject to and excepting: Taxes, covenants, conditions, restrictions, easements, rights of way, homeowners association assessments, if any, and matters now of record.

BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON TRANSFERRING FEE TITLE SHOULD INQUIRE ABOUT THE PERSON'S RIGHTS, IF ANY, UNDER ORS 195.300, 195.301 AND 195,305 TO 195,336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007, SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010. THIS INSTRUMENT DOES NOT ALLOW USE OF THE PROPERTY DESCRIBED IN THIS INSTRUMENT IN VIOLATION OF APPLICABLE LAND USE LAWS AND REGULATIONS, BEFORE SIGNING OR ACCEPTING THIS INSTRUMENT, THE PERSON ACQUIRING FEE TITLE TO THE PROPERTY SHOULD CHECK WITH THE APPROPRIATE CITY OR COUNTY PLANNING DEPARTMENT TO VERIFY THAT THE UNIT OF LAND BEING TRANSFERRED IS A LAWFULLY ESTABLISHED LOT OR PARCEL, AS DEFINED IN ORS 92.010 OR 215.010, TO VERIFY THE APPROVED USES OF THE LOT OR PARCEL, TO DETERMINE ANY LIMITS ON LAWSUITS AGAINST FARMING OR FOREST PRACTICES, AS DEFINED IN ORS 30.930, AND TO INQUIRE ABOUT THE RIGHTS OF NEIGHBORING PROPERTY OWNERS, IF ANY, UNDER ORS 195.300, 195:301 AND 195:305 TO 195:336 AND SECTIONS 5 TO 11, CHAPTER 424, OREGON LAWS 2007. SECTIONS 2 TO 9 AND 17, CHAPTER 855, OREGON LAWS 2009, AND SECTIONS 2 TO 7, CHAPTER 8, OREGON LAWS 2010.

360615013787-TTCOO06 Deed (Warrenty-Statutory) DATED: October 26, 2015

Young Family Trust dated January 18, 2001, and any amendments thereto

BY: Ikinid Thomas Joung
David Thomas Young, Co-Tryftee

Young Family Trust dated January 18, 2001, and any amendments thereto

Bonnie Marie Young, Co-Trustee

This instrument was acknowledged before me on \( \)

KATHERINE M. SAYRE
Commission # 1990627
Notary Public - California
Sacramento County
dy Comm. Expires Oct 6, 2016