



**Coos County
Planning Department
Application to Develop in a
Special Flood Hazard Area**

Official Use Only

Fee \$500.00
Receipt No. 214553
Check No./Cash 133
Date 3/2/20
Received By Or
File No. FP-20-001

The undersigned hereby makes application for a permit to develop in a designated Special Flood Hazard Area ("floodplain"). The work to be performed is described below and in attachments hereto. The undersigned agrees that all such work shall be done in accordance with the requirements of the Coos County Comprehensive Plan, Coos County Zoning and Land Development Ordinance, and any other applicable Local, State, and Federal regulations. This application does not create liability on the part of the Coos County Planning Department or any officer or employee thereof for any flood damage that results from the reliance on this application or any decision made lawfully thereunder.

Owner(s): CHRIS LUECKE; ETAL Telephone: 435-764-6033
Address: 198 S. 200 E
City/State: PROVIDENCE, UT Zip Code: 84332
Agent(s): TROY RAMBO Telephone: 541-751-8900
Address: P.O. Box 809
City/State: NORTH BEND, OR Zip Code: 97459
Township: 29S Section: 35 C
Range: 15W Tax Lot: 1200
Situs Address: 86354 LOWER FOURMILE LN.
City/State: BANDON, OR 97459 Zip Code: 97411

A. Description of Work (Complete for All Proposals):

1. Proposed Development Description:

- New Building - GARAGE Improvement to Existing Building
 Manufactured Structure Fill
 Other _____

2. Size and location of proposed development (a site plan must be attached):

24' x 20' GARAGE

3. Is the proposed development in a Special Flood Hazard Area (Zones A, AE, A1-A30, AH, AO, V, or VE)?

Yes Zone: A

No

4. Per the FIRM, what is the zone and panel number of the area of the proposed development?

Zone: A

Panel Number: 41011C0700 F

5. Have any other Federal, State, or Local permits been obtained?

Yes - Copies of all permits must be attached.

No

6. Is the proposed development in an identified floodway?

Yes - A "No Rise Certification" with supporting data must be attached.

No

B. Complete for New Structures and Building Site:

1. Base Flood Elevation (BFE) at the site (complete one):

NGVD 29 _____ feet Source: _____

NAVD 88 17.7 feet Source: SEE ATTACHED ELEVATION CERTIFICATE

2. Required lowest floor elevation, including basement (complete one):

NGVD 29 _____ feet Source: _____

NAVD 88 18.7 feet Source: N/A

3. Number and area of flood openings (vents): 0

4. Enclosed area below BFE (in square feet): 0

N/A C. Complete for Alterations, Additions, or Improvements to Existing Structures:

1. What is the estimated market value of the existing structure? Justification for the estimate must be attached and may include, but is not limited to, appraisals completed by private agencies or the County Assessor's office.

N/A

2. What is the cost of the proposed construction? Justification for the estimate must be attached. The estimate is required to include fair market value for any work provided by the property owner or without compensation.

3. If the cost of the proposed construction equals or exceeds 50 percent of the market value of the structure, then the substantial improvement provisions shall apply.

N/A D. Complete for Non-Residential Floodproofed Construction:

1. Type of floodproofing method:

2. The required floodproofing elevation is (complete one):

NGVD 29 _____ feet Source: _____

NAVD 88 _____ feet Source: _____

3. Floodproofing certification by a registered engineer must be attached.

N/A E. Complete for Land Divisions, Subdivisions, and Planned Unit Development:

1. Does the proposal contain 50 lots or 5 acres?

Yes - The plat or proposal must clearly identify base flood elevation.

No

2. Are the 100-year Floodplain and Floodway delineated on the site plan?

Yes

No

F. Authorization: All areas must be initiated by all applicant(s) prior to the Planning Department accepting any application.

I hereby attest that I am authorized to make the application for Application to Develop in a Special Flood Hazard Area and the statements within this application are true and correct to the best of my knowledge and belief. I affirm that this is a legally created tract, lot or parcel of land. I understand that I have the right to an attorney for verification as to the creation of the subject property. I understand that any action authorized by Coos County may be revoked if it is determined that the action was issued based upon false statements or misrepresentation.

CC

Applicant

I understand it is the function of the Planning Department to impartially review my application and to address all issues affecting it regardless of whether the issues promote or hinder the approval of my application. In the event a public hearing is required to consider my application, I agree I bear the burden of proof. I understand that approval is not guaranteed and the applicant(s) bear the burden of proof to demonstrate compliance with the applicable review criteria.

CC

Applicant

As applicant(s) I/we acknowledge that is in my/our desire to submit this application and staff has not encouraged or discouraged the submittal of this application.

CC

Applicant

Chris Lueder

Applicant(s) Original Signature

3-2-20

Date

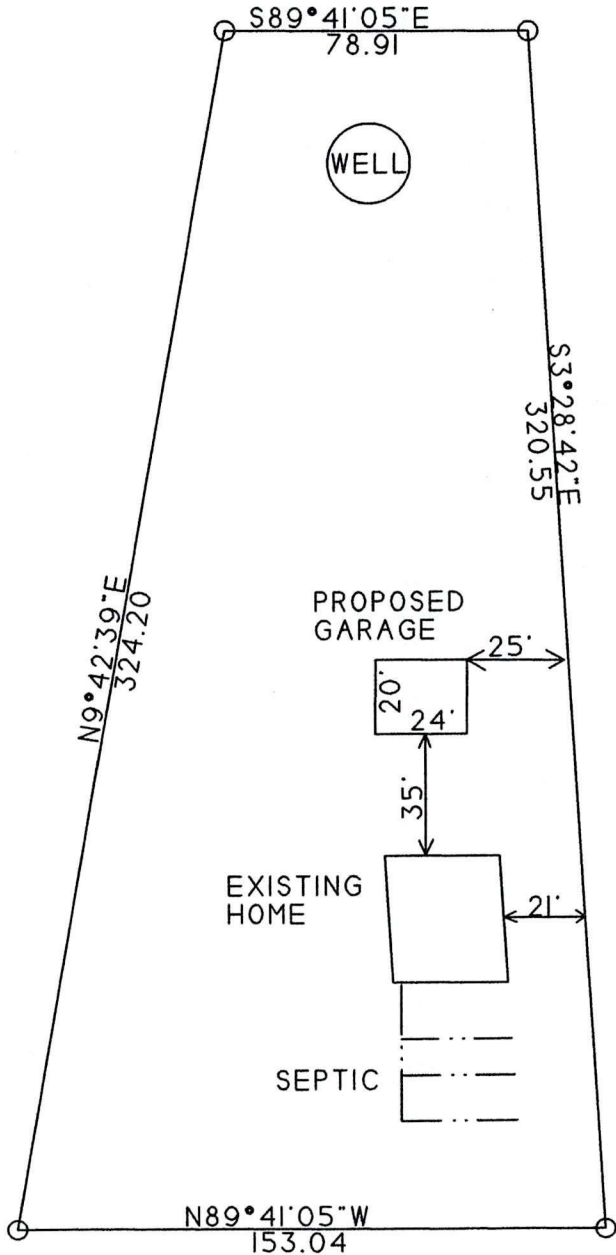
Nancy Mesner

Applicant(s) Original Signature

3/2/2020

Date

LUECKE PLOT PLAN
 T.L. 1200 - 29S 15W 35C
 ACC.# 1243400



PROPERTY OWNER:

CHRIS LUECKE: ETAL
 198 S. 200 E
 PROVIDENCE, UT 84332
 435-764-6033

SITE ADDRESS:
 86354 LOWER FOURMILE LN.
 BANDON, OR 97411

LOWER FOURMILE LANE



Scale 1"=50Feet

ELEVATION CERTIFICATE

Important: Follow the instructions on pages 1-9.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

SECTION A – PROPERTY INFORMATION				FOR INSURANCE COMPANY USE	
A1. Building Owner's Name Chris Luecke; ETAL				Policy Number:	
A2. Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 86354 Lower Fourmile Lane				Company NAIC Number:	
City Bandon		State Oregon		ZIP Code 97411	
A3. Property Description (Lot and Block Numbers, Tax Parcel Number, Legal Description, etc.) Tax Lot 1200 - Assessor's Map 29S 15W 35C					
A4. Building Use (e.g., Residential, Non-Residential, Addition, Accessory, etc.) <u>Garage</u>					
A5. Latitude/Longitude: Lat. <u>43.01413 N</u> Long. <u>124.44869 W</u> Horizontal Datum: <input type="checkbox"/> NAD 1927 <input checked="" type="checkbox"/> NAD 1983					
A6. Attach at least 2 photographs of the building if the Certificate is being used to obtain flood insurance.					
A7. Building Diagram Number <u>1A</u>					
A8. For a building with a crawlspace or enclosure(s):					
a) Square footage of crawlspace or enclosure(s) _____ sq ft					
b) Number of permanent flood openings in the crawlspace or enclosure(s) within 1.0 foot above adjacent grade _____					
c) Total net area of flood openings in A8.b _____ sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
A9. For a building with an attached garage:					
a) Square footage of attached garage _____ sq ft					
b) Number of permanent flood openings in the attached garage within 1.0 foot above adjacent grade _____					
c) Total net area of flood openings in A9.b _____ sq in					
d) Engineered flood openings? <input type="checkbox"/> Yes <input type="checkbox"/> No					
SECTION B – FLOOD INSURANCE RATE MAP (FIRM) INFORMATION					
B1. NFIP Community Name & Community Number Coos County, Unincorporated Area			B2. County Name Coos		B3. State Oregon
B4. Map/Panel Number 41011C0700	B5. Suffix F	B6. FIRM Index Date	B7. FIRM Panel Effective/ Revised Date 12-07-2018	B8. Flood Zone(s) A	B9. Base Flood Elevation(s) (Zone AO, use Base Flood Depth) 17.7 feet
B10. Indicate the source of the Base Flood Elevation (BFE) data or base flood depth entered in Item B9: <input type="checkbox"/> FIS Profile <input type="checkbox"/> FIRM <input type="checkbox"/> Community Determined <input checked="" type="checkbox"/> Other/Source: <u>See Comments</u>					
B11. Indicate elevation datum used for BFE in Item B9: <input type="checkbox"/> NGVD 1929 <input checked="" type="checkbox"/> NAVD 1988 <input type="checkbox"/> Other/Source: _____					
B12. Is the building located in a Coastal Barrier Resources System (CBRS) area or Otherwise Protected Area (OPA)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Designation Date: _____ <input type="checkbox"/> CBRS <input type="checkbox"/> OPA					

ELEVATION CERTIFICATE

OMB No. 1660-0008
Expiration Date: November 30, 2018

IMPORTANT: In these spaces, copy the corresponding information from Section A.			FOR INSURANCE COMPANY USE
Building Street Address (including Apt., Unit, Suite, and/or Bldg. No.) or P.O. Route and Box No. 86354 Lower Fourmile Lane			Policy Number:
City Bandon	State Oregon	ZIP Code 97411	Company NAIC Number

SECTION C – BUILDING ELEVATION INFORMATION (SURVEY REQUIRED)

C1. Building elevations are based on: Construction Drawings* Building Under Construction* Finished Construction

*A new Elevation Certificate will be required when construction of the building is complete.

C2. Elevations – Zones A1–A30, AE, AH, A (with BFE), VE, V1–V30, V (with BFE), AR, AR/A, AR/AE, AR/A1–A30, AR/AH, AR/AO. Complete Items C2.a–h below according to the building diagram specified in Item A7. In Puerto Rico only, enter meters.

Benchmark Utilized: OA0760 Vertical Datum: NAVD 1988

Indicate elevation datum used for the elevations in items a) through h) below.

NGVD 1929 NAVD 1988 Other/Source: _____

Datum used for building elevations must be the same as that used for the BFE.

Check the measurement used.

- | | | | |
|--|-------------|--|---------------------------------|
| a) Top of bottom floor (including basement, crawlspace, or enclosure floor) | <u>20.0</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| b) Top of the next higher floor | <u>N/A</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| c) Bottom of the lowest horizontal structural member (V Zones only) | <u>N/A</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| d) Attached garage (top of slab) | <u>N/A</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| e) Lowest elevation of machinery or equipment servicing the building (Describe type of equipment and location in Comments) | <u>N/A</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |
| f) Lowest adjacent (finished) grade next to building (LAG) | <u>19.5</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| g) Highest adjacent (finished) grade next to building (HAG) | <u>19.0</u> | <input checked="" type="checkbox"/> feet | <input type="checkbox"/> meters |
| h) Lowest adjacent grade at lowest elevation of deck or stairs, including structural support | <u>N/A</u> | <input type="checkbox"/> feet | <input type="checkbox"/> meters |

SECTION D – SURVEYOR, ENGINEER, OR ARCHITECT CERTIFICATION

This certification is to be signed and sealed by a land surveyor, engineer, or architect authorized by law to certify elevation information. I certify that the information on this Certificate represents my best efforts to interpret the data available. I understand that any false statement may be punishable by fine or imprisonment under 18 U.S. Code, Section 1001.

Were latitude and longitude in Section A provided by a licensed land surveyor? Yes No Check here if attachments.

Certifier's Name Troy Rambo	License Number LS 2865		
Title Member			
Company Name Mulkins & Rambo, LLC			
Address P.O. Box 809			
City North Bend	State Oregon		ZIP Code 97459
Signature <i>Troy Rambo</i>	Date 12-06-2019	Telephone (541) 751-8900	Ext.

Copy all pages of this Elevation Certificate and all attachments for (1) community official, (2) insurance agent/company, and (3) building owner.

Comments (including type of equipment and location, per C2(e), if applicable)

The B.F.E. of 14.0 feet for the existing home on the subject property was determined by Ralph Dunhan, P.E. #34,441, in 2002. The datum used NGVD 1929. The program CORPSCON version 6.0.1 was used to convert the NGVD 1929 datum to NAVD 1988 datum. The Latitude and Longitude were taken from Google Earth.

REAL PROPERTY TAX STATEMENT

JULY 1, 2019 TO JUNE 30, 2020

COOS COUNTY, OREGON

250 NORTH BAXTER

COQUILLE, OREGON 97423

ACCOUNT NO:

1243301

PROPERTY DESCRIPTION

CODE: 4600
 MAP: 29S1535-C0-01000 U1
 ACRES: 1.08
 SITUS:

LUECKE, CHRIS; ETAL
 198 S 200 E
 PROVIDENCE, UT 84332-9679

SOUTH COAST ESD 1.22
 PORT ORFORD/LANGLOIS SCHOOL #46 10.97
 EDUCATION TOTAL: 12.19

COOS COUNTY-4H/EXTENSION 0.25
 COOS COUNTY-LIBRARY SERVICES 2.01
 COOS COUNTY 2.98
 PORT OF BANDON 0.90
 COOS COUNTY AIRPORT 0.66
 SOUTHERN COOS HEALTH DISTRICT 2.46
 COOS COUNTY URBAN RENEWAL 0.02
 COOS CO UR SPECIAL LEVY 0.00
 GENERAL GOVT TOTAL: 9.28

VALUES:	LAST YEAR	THIS YEAR
REAL MARKET (RMV)		
LAND	2,810	2,840
STRUCTURES	0	0
TOTAL RMV	2,810	2,840
TOTAL ASSESSED VALUE	2,690	2,770

COOS COUNTY 0.66
 FIRE PATROL 18.75
 BONDS - OTHER TOTAL: 19.41

REAL PROPERTY TAX STATEMENT

JULY 1, 2019 TO JUNE 30, 2020

COOS COUNTY, OREGON

250 NORTH BAXTER

COQUILLE, OREGON 97423

ACCOUNT NO:

1243408

PROPERTY DESCRIPTION

CODE: 4600
 MAP: 29S1535-C0-01202 U2
 ACRES: 8.20
 SITUS:

LUECKE, CHRIS; ETAL
 198 S 200 E
 PROVIDENCE, UT 84332-9679

SOUTH COAST ESD 6.23
 PORT ORFORD/LANGLOIS SCHOOL #46 55.79
 EDUCATION TOTAL: 62.02

COOS COUNTY-4H/EXTENSION 1.25
 COOS COUNTY-LIBRARY SERVICES 10.24
 COOS COUNTY 15.18
 PORT OF BANDON 4.58
 COOS COUNTY AIRPORT 3.37
 SOUTHERN COOS HEALTH DISTRICT 12.53
 COOS COUNTY URBAN RENEWAL 0.09
 COOS CO UR SPECIAL LEVY 0.00
 GENERAL GOVT TOTAL: 47.24

VALUES:	LAST YEAR	THIS YEAR
REAL MARKET (RMV)		
LAND	26,660	26,930
STRUCTURES	0	0
TOTAL RMV	26,660	26,930
TOTAL ASSESSED VALUE	13,680	14,090

COOS COUNTY 3.34
 BONDS - OTHER TOTAL: 3.34

EXEMPTIONS	LAST YEAR	THIS YEAR
NET TAXABLE:	13,680	14,090
TOTAL PROPERTY TAX:	109.39	112.60

REAL PROPERTY TAX STATEMENT

JULY 1, 2019 TO JUNE 30, 2020

COOS COUNTY, OREGON

250 NORTH BAXTER

COQUILLE, OREGON 97423

ACCOUNT NO:

1243400

PROPERTY DESCRIPTION

CODE: 4602
 MAP: 29S1535-C0-01200
 ACRES: 0.90
 SITUS: 86354 LOWER FOURMILE LN BANDON

LUECKE, CHRIS; ETAL
 198 S 200 E
 PROVIDENCE, UT 84332-9679

SOUTH COAST ESD 131.37
 PORT ORFORD/LANGLOIS SCHOOL #46 1,176.32
 EDUCATION TOTAL: 1,307.69

COOS COUNTY-4H/EXTENSION 26.32
 COOS COUNTY-LIBRARY SERVICES 216.01
 COOS COUNTY 320.04
 BANDON RFPD 372.36
 PORT OF BANDON 96.52
 COOS COUNTY AIRPORT 71.15
 SOUTHERN COOS HEALTH DISTRICT 264.16
 COOS COUNTY URBAN RENEWAL 1.96
 COOS CO UR SPECIAL LEVY 0.00

VALUES:	LAST YEAR	THIS YEAR
TOTAL ASSESSED VALUE	1,368.00	1,368.52



Reference: 619118

October 11, 2019

Chris Luecke and Nancy Mesner
198 S. 200 E.
Providence, UT 84332

Subject: Geologic Assessment for the Proposed Construction of an Accessory Structure, 86354 Lower Fourmile Road, Bandon, Coos County; Tax Lot 1200, 29S15W35C

1.0 Introduction

1.1 General

This report presents the results of a focused geologic assessment for the proposed construction of a metal building that will serve as a detached garage (accessory structure) to the existing residence at the above referenced parcel. We understand that the parcel is identified as being in a *Coastal Shoreline Boundary*, and a *Tsunami Hazard and Liquefaction Hazard Overlay Zone*. Pursuant to the Coos County Zoning and Land Development Ordinance, a Certified Engineering Geologist from SHN conducted a site visit on October 8, 2019, to assess potential adverse impacts that may occur to, or be created by, the planned development. SHN's scope of services included a review of published geologic mapping and aerial imagery, performing a geologic field reconnaissance of the project site and vicinity, and preparation of this report.

The primary purpose of SHN's assessment was to establish findings in consideration of the following site conditions:

1. The type of use proposed and adverse effects it might have on the site and adjacent areas
2. The need for temporary and permanent stabilization programs and the planned maintenance of new and existing vegetation
3. The need for methods for protecting the surrounding area from any adverse effects of the development
4. Hazards to life, public and private property, and the natural environment that may be caused by the proposed use

The tsunami inundation hazard from a Cascadia subduction zone earthquake notwithstanding, we conclude that that the planned development is adequately protected from geologic hazards (such as, wind erosion and deposition, stream flooding and undercutting, storm waves, and liquefaction). Based on the current conditions at the site and surrounding areas, including the distance from the beach, active foredune and backdune, nearest waterway, and other local residential developments, the proposed metal building can be constructed at the owners' chosen location such that it will not be subject to unreasonable risk from the aforementioned geologic hazards.

1.2 Project Description

SHN understands that the proposed development includes the construction of a new metal building that will serve as a detached garage and storage building to the existing residence. The building footprint will be located near the current driveway entrance and approximately 40 feet north of the existing residence. The building will have dimensions of approximately 16 feet by 20 feet and will be supported by and attached to, a reinforced concrete slab-on-grade foundation.

The new building is to be considered an accessory structure to the residence, and by definition, does not represent a significant investment in accordance with Coos County development standards. The parcel owners are, therefore, requesting that the proposed development not be held to the same standard of a habitable residential structure with regard to the application of flood plain management measures. In lieu of the elevation standard pertaining to new construction and substantial improvements of residential structures, accessory structures may be permitted provided: a) Accessory structures shall not be used for human habitation; b) Accessory structures shall be designed to have low flood damage potential; c) Accessory structures shall be constructed and placed on the building site so as to offer the minimum resistance to the flow of floodwaters; d) Accessory structures shall be firmly anchored to prevent flotation, which may result in damage to other structures; and e) Service facilities (such as, electrical and heating equipment) shall be elevated above the base flood elevation or flood proofed. Based on the owners' proposed building location and intended use, type of building, and type of foundation system, it is our professional judgement that these conditions will be met.

2.0 Site Conditions

The parcel is situated on the northern margin of the Fourmile Creek valley and is underlain by late Quaternary age alluvium composed of dune and stream deposits. Older marine terrace deposits are exposed in a borrow pit on Lower Fourmile Road approximately 1.5 miles to the east of the site, and presumably underlie the alluvium at some unknown but relatively shallow depth.

A dune deflation surface is about 400 feet to the west of the site and currently serves as the drainage outlet to Fourmile Creek as well as all other coastal plain creeks and lakes to the north and south. The active unforested foredune and backdune are more than 1,200 feet and 850 feet, respectively, to the west of the site and opposite the Fourmile Creek waterway. Forested stabilized dunes are more than 2,000 feet to the north and south of the site. Much of the local terrain in proximity to the site has been modified by past grading for the construction of the local roadways, cranberry bogs, pastureland, and residences.

The proposed metal building footprint is located on nearly level to very gently sloping ground. The nearest descending slopes are located at the edge of the Fourmile Creek highwater bank, more than 250 feet west of the site. No wet areas of standing water are apparent in proximity to the site. In general, the site alluvial soils appear well drained. No surface erosion or evidence of concentrated surface runoff is evident, indicating that drainage of stormwater runoff occurs primarily by sheet flow and infiltration into the subsurface.

3.0 Findings

3.1 General

The proposed building footprint for the new metal building appears to be the most suitable location for new construction on the parcel. The new building will be in proximity to the existing residence, thus keeping the developments clustered and making less impact to the property. No earthwork or the removal of large trees are required to prep the building pad and make room for the new building.

3.2 Stream Flooding

The building footprint is elevated approximately 10 feet above the nearest section of waterway and given the width of the Fourmile Creek stream valley upgradient of the site, does not appear to be in an area prone to stream flooding. No evidence of historical flooding (such as, woody debris, driftwood logs, or silty flood deposits) was observed within 240 feet of the site. Based on the existing site grades, stormwater runoff is directed away from the building footprint such that no significant grading will be required to provide positive surface drainage. The hazard posed to the development as a result of stream flooding is, therefore, considered very low.

3.3 Wind Erosion and Deposition

The ground surfaces in the immediate vicinity of the parcel and proposed building site lack evidence of active eolian (wind-driven) transport, such as, unvegetated sand accumulations, active dune formation and migration, or ablation surfaces. Our review of aerial imagery dating back to 1994 indicates that the active foredune and backdune has encroached very little, if at all, into the Fourmile Creek waterway. The hazard posed to the development from wind erosion and deposition is, therefore, considered negligible. There is, therefore, no need for temporary and/or permanent dune stabilization or maintenance of new and existing vegetation.

3.4 Liquefaction

Liquefaction is the sudden loss of soil shear strength due to a rapid increase of soil pore water pressures caused by strong ground shaking during large seismic events. In simple terms, a liquefied soil acts more like a fluid than a solid when shaken during an earthquake. For liquefaction to occur, the following are typically needed:

- non-cohesive granular soils (such as, poorly graded sand and silty sand),
- a shallow groundwater table, and
- low density granular soils typically associated with young geologic deposits.

The near-surface earth materials underlying the site are assumed to meet the criteria stated above. Therefore, the adverse effects from liquefaction occurring at the site would be expected to include localized ground settlement, ground cracking and expulsion of water and sand, the partial loss of soil bearing used to support load building loads, and amplification of seismic shaking.

All portions of the site are interpreted to be underlain by alluvium composed of dune and stream sediments, which in turn is underlain by older marine terrace sediments. Geologic materials most

susceptible to liquefaction are geologically recent sand- and silt-rich deposits, located adjacent to streams, rivers, bays, or ocean shorelines, like those at the site in the shallow subsurface, which are presumably below the water table. The interpreted geologic age of the site's sediments suggests a likelihood that liquefaction would occur as a result of strong seismic ground shaking. However, the possibility of building collapse and loss of life is considered low provided the building is of metal-frame construction and founded on a reinforced concrete slab-on-grade foundation as intended by the site owners.

3.5 Tsunami Inundation

Based on the most recent Tsunami Inundation Maps made publicly available by the Oregon Department of Geology and Mineral Industries (DOGAMI), the project site lies within the tsunami inundation and wave run-up zone for both local-source and great magnitude distant-source events. Given the uncertainty in predicting tsunami wave run-up heights, the low-lying elevation of the site (20 feet), and the proximity to the coastline, tsunami inundation should be expected to occur at this site as a result of a great subduction earthquake along the Cascadia subduction zone located less than 45 miles offshore. Design and construction to mitigate the effects of tsunami inundation is economically unfeasible and considered unwarranted for an accessory structure of the type and intended use being proposed for the site.

4.0 Conclusions

Based on our field observations and desktop review of potential geologic hazards, we conclude that the proposed development may be sited and constructed as intended so as to not be subject to unreasonable risk from the natural hazards common to the local area. We further conclude that development of the site with a metal building to serve as a detached garage (accessory structure) is not expected to have any adverse effects on the site and adjacent areas.

Temporary and/or permanent dune stabilization programs are not required, and the planned construction will not require methods for protecting the surrounding area from any adverse effects of the development. Lastly, it is our professional opinion that the potential hazard to life, public and private property, and the natural environment that may be caused by the proposed use is considered remote.

5.0 Closure and Limitations

The findings contained in this report are based on site conditions that we observed at the time of our investigation, our current understanding of proposed project elements, and our experience with similar projects in similar geologic environments. We have assumed that the information obtained from our reconnaissance-level site investigation and desktop review is representative of conditions throughout the areas of proposed development addressed in this report.

Luecke and Mesner

Geologic Assessment-Proposed Accessory Structure, 86354 Lower Fourmile Road, Bandon

October 11, 2019

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The conclusions presented in this report are professional opinions derived in accordance with current standards of professional practice and are tendered on the assumption that design of the improvements will conform to their intent. No representation, express or implied, of warranty or guarantee is included or intended.

The field work was conducted to investigate the site characteristics specifically addressed by this report. Assumptions about other site characteristics, such as, hazardous materials contamination, or environmentally sensitive or culturally significant areas, should not be made from this report.

Please call me at (707) 441-8855 if you have any comments or concern regarding this report.

Respectfully,

SHN



Giovanni A. Vadurro, E 2385
Engineering Geologist

GAV:lam

