Staff Review, Decision, Conditions of Approval
Case File GEO 2022-01

Date: March 9, 2022

Case File: GEO 2022-01 Director

Applicant: Dana Director and Aaron Munter
12716 S Elk Rock Rd
Lake Oswego, OR 97034

Property Owner: Dana Director and Aaron Munter
12716 S Elk Rock Rd
Lake Oswego, OR 97034

Situs Address: 5803 NW Jetty Ave

Location: West side of NW Jetty Ave, approximately 60 feet south of NW 59th St

Tax Map and Lot: 06-11-34-DA-06100-00 and 06-11-34-DA-06900-00

Comprehensive Plan Designation: Single-Family Residential District

Zoning District: Single-Family Residential, Roads End (R-1-RE) Zone

Site Size: Approximately 0.13 acre and 0.31 acre

Proposal: Request for review of a geotechnical report

Surrounding Land Uses and Zones:
North: detached dwelling, Roads End Park; R-1-RE, Park
South: detached dwellings; R-1-RE
East: detached dwellings; R-1-RE
West: Pacific Ocean

Authority: Section 17.76.040 of the Lincoln City Municipal Code (LCMC) states that the review authority for Type II applications shall be the Planning and Community Development Director (Director). Table 17.76.020-1 of LCMC Chapter 17.76 lists geologic hazard report reviews as a Type II application with the Director listed as the review authority.

Procedure: The application was received February 16, 2022. The application was deemed complete on February 17, 2022. Notice of receipt of the application was mailed by the Planning and Community Development Department to the owners of all properties within 250 feet of the site on February 18, 2022. No comments were received

Applicable Substantive Criteria: LCMC Chapter 17.17 Single-Family Residential, Roads End (R-1-RE) Zone
LCMC Chapter 17.47 Natural Hazards, Beaches and Dunes
LCMC Section 17.77.090 Geologic Hazard Report Review

BACKGROUND

The subject property (site) is addressed as 5803 NW Jetty Ave and comprises two tax lots – 06-11-34-DA-06100 and 06199. The property owners seek to construct a new single-unit dwelling. The request for the geologic hazard report review did not include any building plans, buildings, elevations, or building site plans.

Lincoln City's GIS mapping shows the site is located in the bluff erosion hazard zones. The site is eligible for rip rap. The site does not contain any aesthetic resource, significant wetland, or significant riparian areas. The western portion of the site is in the VE flood zone.

ANALYSIS

Chapter 17.17
17.17.020 Permitted uses

Finding: The property owners would like to construct a new single-unit dwelling. The site is zoned Single-Family Residential, Roads End (R-1-RE) Zone. LCMC Chapter 17.17 lists the permitted uses in the R-1-RE zone; specifically, single-family dwellings are listed as a permitted use as LCMC 17.17.020(A)(1).

17.17.050 Restrictions.

Finding: This application is not for development; rather, this application is for a geologic hazard report review. Compliance with the restrictions shall be confirmed at the time of a development application review.

17.17.060 Maximum building height
The maximum building height shall be 30 feet, except as provided in LCMC 17.52.190 and 17.52.200.

Finding: This request does not include any building permit applications or requests to review any building permit plans. At the time a building permit application is submitted, the accompanying building elevations shall be reviewed for compliance with the maximum 30-foot building height requirement.

17.17.070 Lot requirements

Finding: The geologic hazard report review does not include any building permit applications or requests to review any building permit plans. At the time a building permit application is submitted, the accompanying building site plan shall be reviewed for compliance with the minimum setbacks requirements and maximum

lot coverage requirement. The lot is an existing legal lot, so the minimum lot area, minimum lot width, and minimum lot depth are not applicable.

17.17.075 Landscaping
17.17.080 Signs
17.17.090 Off-street parking and loading
17.17.100 Other required conditions

Finding: This request for a geologic hazard report review does not include any building permit applications or requests to review any building permit plans. At the time a building permit application is submitted, the accompanying plans shall be reviewed for compliance with LCMC Chapter 17.17.

Chapter 17.47 Natural Hazards, Beaches and Dunes
17.47.020 Development in identified hazard areas

A. *Hazards Identified and Applicability of Standards. Specific natural hazard areas have been identified in Environmental Geology of Lincoln County, Oregon, Bulletin 81 (State of Oregon Department of Geology and Mineral Industries, 1973) and Environmental Hazard Inventory (RNKR Associates, 1978), and other sources. They are depicted on the comprehensive plan natural hazards map, as supplemented by Priest, G.R., and Allan, J.C., 2004. For purposes of this chapter, in cases of conflict between a cited source and the map, as supplemented by the 2004 Priest and Allan report, the map, as so supplemented, will prevail.*

   Natural hazard areas identified in Environmental Geology of Lincoln County, Oregon, Bulletin 81 (State of Oregon Department of Geology and Mineral Industries, 1973) and Environmental Hazard Inventory (RNKR Associates, 1978) are advisory only. The city does not require analysis or mitigation for property identified as being in these hazard areas, but recommends that developers seek professional advice.

Finding: The site is in an identified natural hazard area. As stated in the code, the city does not require analysis or mitigation for property identified as being in hazard areas, but recommends that developers seek professional advice. The property owner has sought the professional advice of J. Douglas Gless, a certified engineering geologist who is licensed to practice in Oregon.

Development of property identified by Priest, G.R., and Allan, J.C., 2004, as subject to coastal erosion must meet the requirements of this chapter; however, the following activities are exempt:

1. *Maintenance, repair, or alterations to existing structures that do not alter the building footprint or foundation;*
2. *New construction or maintenance, repair, or alterations to existing structures on a portion of the lot that lies outside the coastal erosion zones;*
3. *Exploratory excavation under the direction of a registered engineering geologist or geotechnical engineer;*
4. *Construction for which a building permit is not required;*
5. *Maintenance and reconstruction of*
6. *public and private roads, streets, parking lots, driveways, and utility lines, provided work does not extend outside the previously disturbed area;*
7. *Activities of emergency responders intended to reduce or eliminate an immediate danger to life or property.*

Finding: LCMC Chapter 17.08 defines development as the alteration of the natural environment through the construction or exterior alteration of any building or structure, whether above or below ground or water, and any grading, filling, dredging, draining, channelizing, cutting, topping, or excavation associated with such construction or modification; the placing of permanent or temporary obstructions that interfere with the normal public use of the waters and lands subject to this code; the division of land into two or more parcels, and the adjustment of property lines between parcels. The property owners are seeking to alter the natural environment through future construction of a dwelling; therefore, the proposed development activity is not exempt and must meet the requirements of LCMC Chapter 17.47.

This staff report notes that the request for review of the geologize hazard report does not include any applications for building permits or any building plans, building site plans, or building elevations. The review of building plans, building site plans, and building elevations takes place as part of the building permitting process.

B. Required Geotechnical Analysis. Development of all types, except beach front protective structures and natural means of beach protection, in coastal erosion hazard areas identified by Priest, G.R., and Allan, J.C., 2004, may not occur until an engineering geologist, certified to practice in Oregon, or geotechnical engineer registered and licensed to practice in Oregon, completes a review of the project site. To the extent the engineering geologist or geotechnical engineer deems necessary, the review shall incorporate analysis and recommendation of an Oregon-certified coastal engineer and of technical experts from other fields outside of engineering geology. The review shall be prepared at the applicant's expense. The geologist or geotechnical engineer must submit (electronically) the review to the city as a written report that, if written or last updated more than a year prior to the first building inspection, must be updated to reflect current conditions. In reviewing the submitted geotechnical report, the city may consult with, among others, the Oregon Department of Geology and Mineral Industries, the Department of Land Conservation and Development, and a certified engineering geologist or geotechnical engineer. The city assumes no responsibility for the quality or accuracy of a geotechnical report.

Finding: The site is in an identified coastal erosion hazard area. Per 17.47.020.B, development *may not occur until an engineering geologist, certified to practice in Oregon, or geotechnical engineer registered and licensed to practice in Oregon, completes a review of the project site.* This requirement has been met by the property owners retaining the services of J. Douglas Gless, a certified engineering geologist who is licensed to practice in Oregon to review the site. Mr. Gless conducted a geologic hazards and geotechnical investigation of the site and prepared a written report of the site review containing an analysis and recommendations. The review was prepared at the applicant's expense. The review was submitted as a written report. The written report submitted with this application is dated October 23, 2020, and is hereinafter referred to as the Report. No development has occurred on the site. The Report has been prepared and submitted prior to construction, as required by 17.47.020.B. No construction has occurred, there have been no building inspections, and the Report is more than a year old, so an updated report to reflect current conditions must be submitted prior to the first building inspection as required by 17.47.020.B. **Lincoln City assumes no responsibility for the quality or accuracy of the Report.**

Report Contents. Any geotechnical report must follow professional guidelines established by the Oregon State Board of Geologist Examiners, and include an explanation of the degree the hazard affects the property use in question, an explanation of the measures to be employed to minimize losses associated with the hazard, including, but necessarily limited to, erosion control, vegetation removal, and slope stabilization, and an explanation of the hazard-associated consequences the development and the loss-minimizing measures will have on the surrounding properties.

For development activities of all types on a property in the coast erosion hazard zones, defined by Priest and Allan, 2004, except for beach front protective structures and natural means of ocean beach protection, the geotechnical report must include, but is not limited, to the following items:

1. *Site Description.*
    a. *The history of the site and surrounding areas, such as previous riprap or dune grading permits, erosion events, exposed trees on the beach, or other relevant local knowledge of the site.*

Finding: The Report provides a site description at the bottom of page 1 with a history of the site and surrounding areas provided on page 2 of the Report. The Report notes that the site has an oceanfront protective structure and lies in an area of bluffs that have generally been protected by oceanfront protective structures. The Report provides information regarding Goal 18 eligibility, noting that the potential to receive a permit for oceanfront protection is dependent upon meeting certain regulatory requirements in addition to the Goal 18 eligibility requirement.

b. Topography, including elevations and slopes on the property.

Finding: Page 2 of the Report provides a description of the site topography, elevations, and slopes noting that the area of the site east of the bluff is relatively flat. The Report adds that the bluff along the western part of the site slopes down to the west from approximately 20 to 50 degrees and provides elevation information from 2009 lidar data from DOGAMI. The requirement to provide the information on topography, including elevations and slopes on the property, is met.

c. Vegetation cover.

Finding: Page 3 of the Report lists the site's vegetation cover, noting the following: "The bluff slope is densely vegetated with European beachgrass, ferns, blackberry and brush. The area east of the bluff slope is generally vegetated with lawn grass, shore pine, blackberry, English ivy and brush." The requirement to provide the information on the site's vegetation cover is met.

d. Subsurface materials – the nature of the rocks and soils.

Finding: Page 3 of the Report gives the subsurface materials and notes that detailed descriptions and analyses of geology and subsurface materials are provided in Sections 3.1 and 3.3 of the Report. The Report states that marine terrace deposits exposed north of the site at Roads End Recreation Site consist of tan to light brown, moist, medium dense to dense, friable, fine-grained, cross-bedded sand, overlain by silt fill soil. Accordingly, the requirement to provide the information on the site's subsurface materials is met.

e. Conditions of the seaward front of the property, particularly for sites having a sea cliff.

Finding: Page 3 of the Report lists the site's oceanfront conditions, stating the following: "The site is located along an oceanfront bluff slope consisting primarily of marine terrace sands that have undergone recession as a result of wind and rain erosion, sloughing, and shallow landsliding. An oceanfront protective structure is present at the site and exposed along the lower part of the bluff. The revetment consisted of 2 to 5-foot diameter basaltic boulders, and it appears to have been recently repaired. A detailed description of the fronting beach area is provided in Section 3.2, with oceanfront slope stability and erosion discussed in Section 4.0 below." The requirement to provide the information on the conditions of the seaward front of the property is met.

f. Presence of drift logs or other flotsam on or within the property.

Finding: Page 3 of the Report provides the information on drift logs or flotsam at the site. The Report states: "At the time of our site visit, we observed a minor accumulation of driftwood and flotsam in the beach area at the site. Satellite imagery indicates that the accumulation of driftwood and flotsam in the vicinity is generally consistent with slightly greater accumulation in late spring." The requirement to provide information on the presence of drift logs or other flotsam on or within the property is met.

g. Description of streams or other drainage that might influence erosion or locally reduce the level of the beach.

Finding: Page 3 of the Report lists the streams or drainage and influence on beach elevations. The Report states: "Logan Creek discharges onto the beach at the northern end of Roads End State Recreation Site, approximately 500 feet north of the site. It does not significantly influence the beach elevation at the site." The requirement to provide information on the description of streams or other drainage is met.

h. Proximity of nearby headlands that might block the long shore movement of beach sediments, thereby affecting the level of the beach in front of the property.

Finding: The bottom of page 3 of the Report provides the information on headland proximity and influence on beach sediment transport and elevations. The Report notes that headlands are not present in this local section of the Oregon Coast and the Lincoln City oceanfront. The requirement to provide information on the proximity of nearby headlands is met.

i. *Description of any shore protection structures that may exist on the property or on nearby properties.*

Finding: Page 4 of the Report provides the information on shore protection structures, noting that protective structures extend approximately 50 feet north of the site to Roads End State Recreation Site and approximately 600 feet south of the site. The requirement to provide a description of any shore protection structures that may exist on the property or on nearby properties is met.

j. Presence of pathways or stairs from the property to the beach.

Finding: Page 4 of the Report gives the information regarding beach access pathways stating that a small pathway along the site's southern property boundary leads down the bluff slope to the beach. The requirement to provide information on the presence of pathways or stairs is met.

k. Existing human impacts on the site, particularly those that might alter the resistance to wave attack.

Finding: Page 4 of the Report notes that the existing riprap revetment increases the site resistance to ocean wave attack. The requirement to provide information on existing human impacts on the site is met.

2. Description of the Fronting Beach.

a. Average widths of the beach during the summer and winter.

Finding: Page 4 of the Report provides a description of the fronting beach and the summer and winter average beach width. The Report notes that the beach at the site has a width of approximately 100 feet to

more than 300 feet during the winter and summer. The Report also describes the variables that affect the average beach width. The requirement to provide width information is met.

b. Median grain size of beach sediment.

Finding: Page 4 of the Report states that beach sediment at the site is primarily fine-grained to lesser medium-grained sand with cobbles exposed near the site in the back-beach area. The requirement to provide information about the median grain size is met.

c. Average beach slopes during the summer and winter.

Finding: Page 5 of the Report gives the summer and winter beach elevations and average slopes, specifically stating that the beach slopes west at approximately 7 degrees in the winter and a few degrees in the summer. Further detail is given regarding a review of beach morphology monitoring data and topographic contours. Accordingly, the requirement to provide information on the average beach slopes during the summer and winter is met.

d. Elevations above mean sea level of the beach at the seaward edge of the property during summer and winter.

Finding: Page 5 of the Report states the following: "The beach elevation can change substantially associated with El Nino and La Nina events, with the sand being stripped off, exposing the wave-cut platform beneath. Additional statements are given regarding topographic contours. The requirement to provide information on elevations above mean sea level is met.

e. Presence of rip currents and rip embayment that can locally reduce the elevation of the fronting beach.

Finding: Page 5 of the Report provides that "rip currents and rip current embayments have formed frequently along this stretch of beach within the last decade, as evidenced by our review of historical aerial and satellite imagery." Accordingly, the requirement to provide information on the presence of rip currents and rip embayment is met.

f. Presence of rock outcrops and sea stacks, both offshore and within the beach zone.

Finding: Page 5 of the Report states the following: "Offshore rock outcrops or sea stacks are not present near the site. Mapping by Priest and Allan (2004) shows Tertiary Cascade Head Basalt outcrops approximately 1.3 miles north and 1.7 miles south of the site." The requirement to provide information on the presence of rock outcrops and sea stacks is met.

g. Information regarding the depth of beach sand down to bedrock at the seaward edge of the property.

Finding: Page 5 of the Report provides the depth of beach sand to bedrock and notes that they did not observe any exposed bedrock on the during their site visit, but they did estimate sand and cobble depths along the beach at this time to be about 8 feet thick. The requirement to provide information on the depth of beach sand down to bedrock at the seaward edge of the property is met.

3. Analysis of Erosion and Flooding Potential.

a. Analysis of DOGAMI beach monitoring data available for the site.

Finding: The bottom of page 8 of the Report provides the following: "As discussed in Section 3.2.3 above, beach monitoring data for this section of Oregon's coast shows that beach elevations varied by several feet from minimum to maximum over the monitored period of 1997 to 2002 (Allan and Hart, 2005)." The requirement to provide information on an analysis of DOGAMI beach monitoring data is met.

b. Analysis of human activities affecting shoreline erosion.

Finding: The bottom of page 8 of the Report states the following: "The existing riprap revetment reduces the shoreline erosion at the site." The requirement to provide information on analysis of human activities is met.

c. Analysis of possible mass wasting, including weathering processes, land sliding or slumping.

Finding: Page 8 of the Report states the following: "Weathering, landsliding, recession rates and other erosional processes at this oceanfront bluff site are discussed in Section 4.0 above and Section 4.2.3 below." The requirement to provide information on analysis of possible mass wasting is met.

d. Calculation of wave runup beyond mean water elevation that might result in erosion of the sea cliff or foredune.

Finding: The bottom of page 8 and the top of page 9 of the Report provide statements and data regarding erosion potential from wave runup beyond the mean water elevation. The requirement to provide information on the calculation of wave runup beyond mean water elevation that might result in erosion of the sea cliff or foredune is met.

e. Evaluation of frequency that erosion-inducing processes could occur, considering the most extreme potential conditions of unusually high water levels together with severe storm wave energy.

Finding: Page 9 of the Report notes that ocean wave, wind, and rain erosion are continuous and ongoing processes that impact bluff recession, along with stating that the average annual erosion rate for unprotected areas of the bluff north and south of the site is 0.27 plus or minus 0.34 feet per year. The requirement to provide information on the evaluation of frequency of erosion-inducing processes is met.

f. For dune-backed shoreline, use an appropriate foredune erosion (Komar et al. 1999) or time-dependent erosion model (e.g., Kriebel and Dean, 1993) to assess the potential distance of property erosion, and compare the results with direct evidence obtained during site visit, aerial photo analysis, or analysis of DOGAMI beach monitoring data.

Finding: The site is not a dune-backed shoreline; therefore the requirement to provide information on the dune-backed shoreline is not applicable.

g. For bluff-backed shorelines, use a combination of published reports, such as DOGAMI bluff and dune hazard risk zone studies, aerial photo analysis, and field work, to assess the potential distance of property erosion.

Finding: The Report provides the information regarding property erosion for the bluff-backed shoreline in Section 4.0. The requirement to provide information to assess the potential distance of property erosion is met.

h. Description of potential for sea level rise, estimated for local area by combining local tectonic subsidence or uplift with global rates of predicted sea level rise.

Finding: Page 9 of the Report states the following: "Information from NOAA's Garibaldi and Newport/South Beach monitoring stations provides an average sea level rise of approximately 2.18 plus or minus 0.68 mm/year between 1967 and 2019 (NOAA Tides & Currents Sea Level Trends, http://tidesandcurrent. Noaa.gov/sltrends). Global climate change can also influence rates of sea-level rise (refer to Section 7.0)." The requirement to provide a description of potential for sea level rise is met.

i. An estimation of the annual erosion rate at the site.

Finding: Page 9 of the Report states the following: "A detailed discussion of recession and estimated erosion rates is in Section 4.0 above; Priest (1994) and Priest et al. (1994) have determined the average annual erosion rate for unprotected bluffs near the site as 0.27 plus or minus 0.34 feet per year. However, provided that the revetment protecting the bluff is repaired and maintained, as needed, we anticipate that future recession caused by ocean wave erosion will be essentially zero. The rate used in our geologic hazard setback analysis was 0.35 feet per year." The requirement to provide an estimate of the annual erosion rate at the site is met with the stated 0.35 feet per year.

4. Assessment of Potential Reactions to Erosion Episodes.

a. Determination of legal restrictions of shoreline protective structures (Goal 18 prohibition, local conditional use requirements, priority for nonstructural erosion control methods).

Finding: Page 10 of the Report states the following: "As noted in Section 2.0 above, the subject site has an oceanfront protective structure. Lots in the Roads End area were generally 'developed' before January 1, 1977; however, this is a legal issue that can have varying interpretations. According to the Ocean Shores Viewer, the site appears to be Goal 18 eligible for a beachfront protective structure." The requirement to provide information regarding a determination of legal restrictions of shoreline protective structures is met.

b. Assessment of potential reactions to erosion events, addressing the need for future erosion control measures, building relocation, or building foundation and utility repairs.

Finding: Page 10 of the Report provides the following: "Site geologic hazards conclusions and development recommendations are presented in Section 8.0 below, which includes the recommended oceanfront setback for foundations along with a discussion of inherent risks to development in coast areas with characteristics such as those at the site, as presented and analyzed in Section 4.0 above. Deep foundations, oceanfront protective structures, retaining walls, underpinning of foundations, vegetation management, relocation of structures, and bioengineering can all be potential reactions and control measures to erosion events." The requirement to provide information on the assessment of potential reaction to erosion events, etc. is met.

c. An annual erosion rate for the property.

Finding: Page 10 of the Report states the following: "An average annual erosion rate of 0.35 feet per year is used in the determination of oceanfront setbacks for the subject site. For further information, please refer to Sections 4.0 and 4.1.8 above." The requirement to provide the annual erosion rate is met.

5. *Recommendations.*
    a. *Based on results from the above analyses, recommended setbacks, building techniques, or other mitigation to ensure an acceptable level of safety and compliance with all local requirements.*

Finding: The Report gives three conclusions and recommendations at the bottom of page 12, as well as providing a number of general recommendations on pages 13 through 20. Included are recommendations for site preparation and foundation setbacks, soil bearing capacities for shallow foundations, retaining walls, seismic requirements, structural fills, groundwater, erosion control, cut and fill slopes, drainage, plan review and site observations, and limitations. The requirement to provide recommended setbacks, building techniques, and other mitigation is met.

    b. *A plan for preservation of vegetation and existing grade within the setback area, if appropriate.*

Finding: Page 18 of the Report states the following: "Vegetation should be removed only as necessary, and exposed areas should be replanted following construction. Disturbed ground surfaces exposed during the wet season (November 1 through April 30) should be temporarily planted with grasses, or protected with erosion control blankets or hydromulch. Temporary sediment fences should be installed downslope of any disturbed areas of the site until permanent vegetation cover can be established. Unless approved by HGSA, the oceanfront slope should remain undisturbed. Exposed sloping areas steeper than 3 horizontal to 1 vertical (3H:1V) should be protected with a straw erosion control blanket (North American Green S150 or equivalent) to provide erosion protection until permanent vegetation can be established. Erosion control blankets should be installed as per the manufacturer's recommendations." The requirement to provide a plan for preservation of vegetation and existing grade is met.

    c. *Consideration of a local variance process to reduce the building setback on the side of the property opposite the ocean, if this reduction helps to lessen the risk of erosion, bluff failure or other hazard.*

Finding: The request does not include consideration of a local variance process, nor does it request a variance.

    d. *Methods to control and direct water drainage away from the ocean (e.g., to an approved storm water system), or, if not possible, to direct water in such a way so as to not cause erosion or visual impacts.*

Finding: Page 19 of the Report states the following: "Surface water should be diverted from building foundations and walls to approved disposal points by grading the ground surface to slope away a minimum of 2 percent for 6 feet towards a suitable gravity outlet to prevent ponding near the structures. Permanent subsurface drainage of the building perimeter is recommended to prevent extreme seasonal variation in moisture content of subgrade materials and subjection of foundations and slabs to hydrostatic pressures. Footing drains should be installed adjacent to the perimeter footings and sloped a minimum of 2 percent to a gravity outlet. A suitable perimeter footing drain system would consist of 4-inch diameter, perforated PVC pipe (typical) embedded below and adjacent to the bottom of footings, and backfilled with approved drain rock. The type of pipe to be utilized may depend on building agency requirements and should be verified prior to construction. HGSA also recommends lining the drainage trench excavation with a geotextile filter such as Mirafi 140N or equivalent to increase the life of the drainage system. The perimeter drain excavation should be constructed in a manner that prevents undermining of foundation or slab components or any disturbance to supporting soils. In addition to the perimeter foundation drain system, drainage of any crawlspace areas is

required. Each crawlspace should be graded to a low point for installation of a drain that is tied into the perimeter footing drain and tightlined to an approved disposal point. All roof drains should be collected and tightlined in a separate system independent of the footing drains, or an approved backflow prevention device shall be used. All roof and footing drains should be discharged to an approved disposal point. If water will be discharged to the ground surface, we recommend that energy dissipaters, such as splash blocks or a rock apron, be utilized at all pipe outfall locations. Water collected on the site should not be concentrated and discharged to adjacent properties. Water should not be disposed of along the bluff slope unless piped to the toe of the slope." The requirement to provide methods to control and direct water drainage away from the ocean is met.

C. *Compliance. Permitted development shall comply with the recommendations in any required geotechnical report and any report required by the building code.*

Finding: As a condition of approval and pursuant to 17.47.020.C, all permitted development shall comply with the recommendations in any required geotechnical report, as well as any report required by the building code.

At the time of footing inspection, or, if no footing inspection is required, at the time of the first building inspection, the author of the geotechnical report must certify that the development was constructed in accordance with the report's recommendations.

Finding: Pursuant to 17.47.020.C, permitted development shall comply with the recommendations in the Report and any report required by the building code. Additionally, at the time of the footing inspection, J. Douglas Gless shall certify that the development was constructed in accordance with the Report's recommendations.

D. *Bluff Setback. No bluff setback is required for public infrastructure, beach front protective structures, or natural means of beach protection. The footprint of any other new structure or any horizontal addition requiring at least one footing in ocean bluff areas must be set back from the bluff a distance of at least 60 times the maximum annual erosion rate (determined by the geotechnical analysis) plus five feet. The bluff, for this purpose, shall be determined by the city through inspection of aerial photos, the most recent LIDAR data, and the dividing line between the active and the high-risk erosion zones identified in the 2004 Priest maps referenced above. If the city cannot determine the location of a bluff, the geotechnical analysis, provided at the applicant's expense, shall determine an appropriate site for the structure, if one exists. The bluff setback must be measured from the unaltered bluff edge, as based upon a recent (conducted within the 12 months prior to the date of the geotechnical analysis) topographic survey performed by a land surveyor licensed in the state of Oregon. If damaged, an existing structure that does not conform to the setback may be rebuilt in conformance with Chapter 17.64 LCMC, Nonconforming Situations. Reconstruction shall comply with recommendations provided in a report from an engineering geologist licensed in the state of Oregon or a registered geotechnical engineer licensed in the state of Oregon, or both, as determined necessary by the building official.*

Finding: The submitted materials include map of a topographic survey performed on December 28, 2020, by Gregory Spurlock, who is a registered professional land surveyor in Oregon. The topographic survey map, however, does not identify or show the unaltered bluff edge. The Report uses an average annual erosion rate of 0.35 feet per year in the determination of oceanfront setbacks for the site. Using the annual erosion rate of 0.35 and multiplying by 60, then adding LCMC's required additional 5 feet gives a minimum setback of 26 feet from the unaltered bluff edge.

Staff notes that there is no such thing as a maximum annual erosion rate. To have a maximum annual erosion rate, the rate of erosion would have to be measured consistently every year with all the data recorded and preserved. Aerial photography and topographic maps could be used in lieu of physical measurements; however, aerial photographs and topographic maps are not available for every past year. Without having the erosion rate of every past year, it is not possible to state a maximum annual erosion rate. Accordingly, the industry standard for calculating erosion rate is based on an average. The average annual erosion rate is based on the time period between known measurements, sets of aerial photographs, and topographic maps. For example, if there has been one foot of erosion at a site in a ten-year period as determined by reviewing available past measurement data, aerial photographs, and topographic maps available for that specific ten-year period, then the one foot of erosion in 10 years equals an average erosion rate of 0.10 feet per year.

E. Other Policies That Apply. If structures to protect shorelands, beaches and dunes, or flood areas are proposed, comprehensive plan "Shorelands, Beaches, Dunes, Estuaries, and Ocean Resources" Policies 7, 8, 9, 21 and 22 also apply.

Finding: The other policies do not apply to this request because no structures to protect shorelands, beaches and dunes, or flood areas are proposed.

Chapter 17.76 Procedures
17.76.040 Type II procedure

A. General Description. Type II procedures apply to administrative permits and applications. Decisions on administrative applications are made by the director, based on reasonably objective approval criteria that require only limited discretion. Type II procedures require public notice and an opportunity for appeal, but do not require a public hearing or a public meeting.
B. When Applicable. Table 17.76.020-1 identifies Type II applications. Applications not listed in Table 17.76.020-1 may be identified as Type II by the director based on the general description in this section.
C. Pre-Application Conference. A pre-application conference is not required for Type II procedures.
D. Application Requirements. Type II applications shall:
1. Be submitted on application forms provided by the department and shall include all information, exhibits, plans, reports, and signatures requested on the application forms.
2. Be accompanied by the required fee as adopted by city council resolution.
3. Be subject to the completeness review procedure set forth in LCMC 17.76.110(D) and (E).

Finding: The required application forms and materials were submitted, along with the required fee. The application was deemed complete in accordance with LCMC 17.76.110.D and E.

E. Public Notice of Application and Comment Period. Type II applications require public notice of receipt of a complete application with an opportunity for area property owners and other interested parties to provide written comment prior to issuance of the decision.
1. After a Type II application has been accepted as completed under LCMC 17.76.110(E), the department shall mail a written public notice to the following:
a. The applicant and applicant's representative;
b. The owners of record of the subject property;
c. Property owners of record within 250 feet of the perimeter property line of the property or properties subject to the application, using the most recently provided property tax assessment roll of the Lincoln County assessor's office as provided to the city to determine property owners of record; and

d. Any neighborhood or community organization or association recognized by the governing body and whose boundaries include the site.

Finding: The Planning and Community Development Department mailed the public notice of receipt of a complete application to the parties noted in LCMC 17.76.040.E.1.a through d.

2. The written public notice shall include the following:
a. A brief description of the request;
b. The applicable criteria from the ordinance and the comprehensive plan that apply to the application at issue;
c. The street address or other easily understood geographical reference to the subject property;
d. Statement that failure of an issue to be raised in writing prior to the expiration of the public comment period, or failure to provide statements or evidence sufficient to afford the review authority an opportunity to respond to the issue precludes appeal to the Land Use Board of Appeals (LUBA);
e. The name of a department staff member to contact and the telephone number where additional information may be obtained; and
f. Statement that a copy of the application, all documents and evidence submitted by or on behalf of the applicant, and applicable criteria are available for inspection at no cost and will be provided at reasonable cost.
3. An affidavit of mailing of the public notice of receipt of a complete application shall be prepared with the mailing date noted and the list of parties to whom the notice was mailed attached to the affidavit, along with the notice itself.
4. Public notices for receipt of complete Type II applications shall include a written comment period of 14 days from the date the notice was mailed for the submission of written comments before the decision is issued.

Finding: The written public notice of receipt of a complete application was mailed on February 18, 2022, contained all the information required in LCMC 17.76.040.E.2 and 4. The required affidavit of mailing was prepared, pursuant to LCMC 17.76.040.E.3.

F. Review Authority. The review authority for Type II applications shall be the director.

Finding: The Director reviewed the submitted Type II application.

G. Decision.
1. Based on the criteria and facts contained within the record, the director shall approve, approve with conditions, or deny the request. The decision shall address all relevant approval criteria and consider written comments submitted before the close of the comment period.

Finding: The relevant approval criteria are addressed in detail throughout this staff report. No written comments were received during the 14-day comment period.

2. The decision is considered final for purposes of appeal on the date the notice of the decision is mailed. Within seven days after the director has issued the decision, a notice of the decision shall be sent by mail to the following:
a. The applicant and applicant's representative;
b. The owners of record of the subject property;
c. Any person, group, agency, association, or organization who submitted written comments during the comment period; and

d. Any person, group, agency, association, or organization who submitted a written request to receive notice of the decision.

Finding: Within seven days after the Director has issued the decision, the notice of that decision shall be mailed by the Planning and Community Development Department, pursuant to LCMC 17.76.040.G.2.

3. The notice of the decision shall include the following:
a. A brief description of the request;
b. A statement of the decision and the applicable approval criteria used in making the decision;
c. The street address or other easily understood geographical reference to the subject property;
d. A statement that the decision is final, unless appealed as provided in LCMC 17.76.180;
e. The requirements for filing an appeal of the decision, including a statement of the date and time by which an appeal must be filed;
f. A statement that the complete file is available for review; and
g. The name of a department staff member to contact and the telephone number where additional information may be obtained.

Finding: The Planning and Community Development Department will issue the notice of decision that shall contain all the information noted in subsection 17.76.040.G.3.a through g.

Chapter 17.77 Applications
17.77.090 Geologic hazard report and/or beach protective structure review – Natural resources development review

A. Procedure. Geologic hazard report, beach protective structure review, and natural resources development review are subject to the Type II procedure as described in LCMC 17.76.040.

Finding: The applicant submitted a geologic hazard report for review. Pursuant to LCMC 17.76.040, the request is subject to the Type II procedure and has been processed accordingly.

B. Submittal Requirements. Type II application submittal requirements are set forth in LCMC 17.76.040 and more specific submittal requirements are provided on application forms and checklists as authorized in LCMC 17.76.100, as well as Chapters 17.46 and 17.47 LCMC.

Finding: The required documents were submitted by the applicant.

C. Approval Criteria.
1. See Chapter 17.47 LCMC for approval criteria for geologic hazard report and beach protective structure review.

Finding: The submitted geologic hazard report has been analyzed against the applicable criteria in LCMC Chapter 17.47, as detailed earlier in this staff report.

2. See LCMC 17.46.050 for approval criteria for natural resources development review.

Finding: This standard is not applicable to this application for a geologic hazard report review.

D. Conditions of Approval. The review authority may impose conditions of approval to ensure compliance with the approval criteria.

Finding: Conditions of approval have been imposed to ensure compliance with applicable criteria.

DECISION AND CONDITIONS

Based upon an analysis of the submitted application and accompanying materials against applicable criteria, the Director concludes all criteria have been met, and thus **APPROVES WITH CONDITIONS** the geologic hazard report review request, subject to the following conditions:

1. The developer, applicant, and property owner are responsible for compliance and conformance with all city, state, and federal requirements, rules, regulations, standards, and ordinances.
2. The topographic survey map included in the application materials shall be revised to depict the unaltered bluff edge, the 26-foot bluff setback line from the unaltered bluff edge, and the proposed building footprint of the proposed construction. The map showing the required features shall be submitted as part of the building permit application, and prior to approval and issuance of the building permit.
3. The footprint (footprint is defined in LCMC Chapter 17.08 as the square footage of a building that rests, directly or indirectly, on the ground, including, for example, cantilevers, bay windows with floor space, and chimneys) of any new structure shall be placed to the east of the 26-foot bluff setback line, said 26-foot line as measured from the unaltered bluff edge. The site plan for any structural permit shall clearly depict the unaltered bluff edge, the 26-foot bluff setback line, and the footprint in compliance with the 26-foot bluff setback line.
4. Any horizontal addition requiring at least one footing in ocean bluff areas must be to the east of the 26-foot bluff setback line as measured from the unaltered bluff edge. Any site plan for any structural permit shall clearly show and label the unaltered bluff edge and the 26-foot bluff setback line, with clear depiction of any horizontal addition in compliance with the 26-foot bluff setback.
5. The 26-foot bluff setback line, measured from the unaltered bluff edge, shall be flagged on the site by a licensed land surveyor, and the flagging shall remain in place until development is complete to help ensure that no development takes place to the west of the 26-foot bluff setback line.
6. A representative of HGSA shall observe and approve footing and slab excavations prior to placing fill, or forming or pouring concrete, as indicated in HGSA's letter dated January 27, 2022.
7. Permitted development shall comply with the recommendations in any required geotechnical report and any report required by the building code.
8. Pursuant to LCMC 17.47.020.B, HGSA must submit to the city, through ePermitting as an attachment to the structural permit file number, an updated report to reflect current conditions. The updated report shall be uploaded prior to the city's approval of the building permit application and permit issuance and must have a date of no more than a year prior to the first building inspection.
9. In addition to city requirements for proper drainage and erosion control, plans shall incorporate proper drainage and erosion control, as discussed in Sections 8.4, 8.5, 8.8, 8.9, 8.10, and 8.11 of the HGSA report, dated October 23, 2020.
10. Development of the site shall adhere to and comply with all recommendations noted in Sections 8.0, 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, 8.7, 8.8, 8.9, 8.10, and 8.11 of the HGSA report, dated October 23, 2020.
11. If there are any conflicts in the conditions, the strictest shall apply.

Approved by:_____ March 10, 2022

Anne Marie Skinner, Director **Date**