Geologic Hazard Report Review
Staff Review, Decision, Conditions of Approval
Case File GEO 2023-02

Date:	June 8, 2023
Case File:	GEO 2023-02
Property Owners:	Picture Book Properties and Investments Inc
Situs Address:	unaddressed
Location:	South of the termination of SW Beach Ave and SW Coast Ave
Tax Map and Lot:	07-11-34-BA-01800-00 and 07-11-34-BA-01300-00
Comprehensive Plan Designation:	Single-Unit Residential District (R-5)
Zoning District:	Single-Unit Residential (R-1-5) Zone
Site Size:	Approximately 24,730 square feet measured to the statutory vegetation line
Proposal:	Request to review a geologic hazard report
Surrounding Land Uses and Zones:	North: Houses; R1-5 South: Houses; Beach, Siletz Bay East: Houses; R1-5 West: Houses; R1-5
Authority:	Table 17.76.020-1 of Lincoln City Municipal Code (LCMC) 17.76.020 lists a geologic hazard report review application as a Type II procedure with the Planning and Community Development Director (Director) listed as the review authority. LCMC 17.76.040.A states that Type II procedures apply to administrative permits and applications and that decisions on administrative applications are made by the Director, based on reasonably objective approval criteria that require only limited discretion.
Procedure:	The application was received on May 19, 2023. The application was deemed complete on May 22, 2023. On May 22, 2023, pursuant to LCMC 17.76.040.E, the Planning and Community Development Department mailed a notice of application to property owners within 250 feet of the subject property.
Applicable Substantive Criteria:	LCMC Chapter 17.16 Single-Unit Residential (R1-5) Zone LCMC Chapter 17.47 Natural Hazards, Beaches and Dunes LCMC Section 17.76.040 Type II Procedure LCMC Section 17.77.090 Geologic Hazard Report Review

BACKGROUND

The subject property (site) is unaddressed and comprises Assessor's Map and Tax Lots 07-11-34-BA-01300-00 and 07-11-34-BA-01800-00 in the R1-5 zone. The site's square footage is approximately 24,730 square feet, measured to the statutory vegetation line. The property owners seek approval for the geologic hazard report review. The application materials for the review did not include any building or structural permit plans.

Lincoln City's GIS mapping shows the site contains bluff erosion hazards. The site does not contain aesthetic resource, trails, floodway, or natural resource overlays. The southernmost portion of the site is in the VE Flood Hazard Area, , but the developable portion of the site that is north of the bluff does not contain any flood hazard areas.

COMMENTS

Comments were received from Sam Jamison, via email, on May 30, 2023. Mr. Jamison expressed concern with the existing slopes of the property, and the grading and tree removal that may have occurred in the past. Staff notes that the critera of approval for a geologic hazard report review do not include past grading or tree removal. Although not required, the report does address past grading and previous tree removal in section 8.3 of the report, including recommended setbacks and/or foundation requirements for development in certain areas of the site. Staff feel it's important to note that no structures are proposed as part of this review, nor any structures are required to be proposed for this review. The staff-level review of the report does not assume responsibility for the accuracy of the information contained within the report. The approval criteria for this review are found in LCMC 17.47. Staff cannot approve or deny a geologic hazard review based on any criteria other than those provided in LCMC 17.47. The staff report that follows lists the approval criteria with staff findings immediately following.

ANALYSIS

Chapter 17.16 Single-Unit Residential, Roads End (R1-5) Zone
17.16.020 Permitted uses

Finding: The property owners would like staff to review the submitted geologic hazard report with no specified development proposal. The site is in the R1-5 zone. LCMC Chapter 17.16 lists the permitted uses in the R1-5 zone. Allowed uses will be reviewed for compliance at the time of a building permit application submittal.

17.16.050 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 building permit application submittal.

17.16.060 Maximum building height
The maximum building height shall be 35 feet, except as provided in LCMC 17.52.190 and 17.52.200.

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

17.16.070 Lot requirements

Finding: The geologic hazard report review does not include any building or structural permit applications or requests to review any building or structural plans. At the time a building or structural permit application is submitted, the accompanying site plan shall be reviewed for compliance with the minimum setbacks requirements and maximum coverage requirement. The lots are existing legal lots, so the minimum lot area, minimum lot width, and minimum lot depth are not applicable.

17.16.075 Landscaping
17.16.080 Signs
17.16.090 Off-street parking and loading
17.16.100 Other required conditions

Finding: This request for a geologic hazard report review does not include any permit applications or requests to review any building plans. At the time a building permit application is submitted, the accompanying plans shall be reviewed for compliance with LCMC Chapter 17.16.

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 owners have sought the professional advice of Adam Large, with H.G. Schlicker & Associates, Inc., a registered engineering geologist in the state of 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 public and private roads, streets, parking lots, driveways, and utility lines, provided work does not extend outside the previously disturbed area;*
6. *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 development activity. Future development activity is not exempt and must meet the requirements of LCMC Chapter 17.47.

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 LCMC 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 Adam Large, with H.G. Schlicker & Associates, Inc., a registered engineering geologist in the state of Oregon, to review the site. H.G. Schlicker & Associates, Inc. conducted a geologic hazards and geotechnical investigation of the site and prepared a written report. The written report submitted with this application is dated April 18, 2023, hereinafter referred to as the Report. The Report has been prepared and submitted prior to development, as required by LCMC 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 on page 2 stating: "An aerial photograph from April 2007 shows a house in the area of Tax Lot 1300. This house was removed, and subsequently, the site underwent grading. S.W. Coast Avenue and S.W. Beach Avenue are now connected. The subject property does not have an oceanfront protective structure, and lies in an area of high bluffs that generally lack oceanfront protective structures." This requirement has been met.

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

Finding: Page 2 of the Report states: "The lots are situated along a south-southwest facing bluff on the northern side of the mouth of Siletz Bay. Lidar derived elevations at the site range from approximately 10 to 18 feet along the beach to 108 feet (NAVD 88) in the upper portion northwest portion of the site (Figures 3 and 4). There is an approximately 40 to 70-foot-high bluff along the site's southern portion that slopes down at approximately 40 to 70 degrees. Generally, the site's northern portion slopes to the east from approximately 5 to 25 degrees. However, steep slopes, up to approximately 30 feet high with portions sloping near vertical, occupy the eastern portion of the site." 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 upper portions of the site are moderately vegetated with trees and low brush. Clearing and grading activities have affected most of the ground surface on the northern portions of the site. The southern bluff slope is densely vegetated with shore pine, salal, English ivy, and brush. The dunes on the beach are sparsely vegetated with European Beach grass." 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 4 of the Report states: "The site lies in an area which has been mapped as Quaternary marine terrace deposits underlain at depth by late Eocene siltstone and sandstone of the Nestucca Formation (Schlicker et al., 1973). The Quaternary marine terrace deposits consist of semi-consolidated, fine- to medium-grained, uplifted beach sand commonly overlain by unconsolidated, fine-grained stabilized dune deposits. The uplifted marine terrace sediments are typically high-energy near-shore marine deposits capped by beach sand (Kelsey et al., 1996). The Nestucca Formation consists of thin-bedded, tuffaceous siltstone and sandstone with ash and glauconitic sandstone interbeds (Schlicker et al., 1973). Locally, the Nestucca Formation is below the beach elevation." 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: Pages 4 of the Report states: "The southern portion of the site is located along an oceanfront/bayfront bluff slope consisting primarily of marine terrace sands that have undergone recession due to wave, wind, and rain erosion, sloughing, and shallow landsliding. 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 states: "At the time of our site visit, we observed a moderate to heavy accumulation of driftwood and flotsam in the beach area at the site. Satellite imagery indicates that the accumulation of drift logs or flotsam in the vicinity is generally consistent with slightly greater amounts of accumulation in late spring." Staff concludes this required information is provided.

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 states: "The nearest major stream is the Siletz River, immediately south of the site, which outlets to Siletz Bay. The beach elevations near the site are heavily influenced by the estuary and spit and the mouth of the bay. The river has the potential to erode the base of the bluffs, potentially increasing bluff recession rates." 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: Page 3 of the Report states: "Headlands are not present in this local section of the Oregon Coast and the Lincoln City oceanfront. The site lies within the Lincoln littoral cell. The sands within the Lincoln littoral cell are believed to have little or no transport beyond Cascade Head, approximately 8.2 miles north of the site, and Government Point, approximately 7 miles to the south (Komar, 1997)." 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 states: "The subject property does not have an oceanfront protective structure and lies in an area of bluffs that have generally not been protected by oceanfront protective structures. The nearest oceanfront protective structures are located approximately 0.35 miles north and 0.7 miles south of the site on Siletz spit." 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 states: "Presently there is no direct access to the beach from the subject site. Public beach access is present at Taft Park, approximately 300 feet east of the site." 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 states: "Based on our observations, direct human impacts are not contributing to the alteration of the resistance of the bluff to wave attack at the site." 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: Pages 4 of the Report states: "The beach at the site has a width of approximately 250 feet to more than 300 feet in this area during the winter and summer, respectively, depending upon sand transport in any given year. The beach here is dynamic and frequently changes, primarily due to the effects of the mouth of Siletz Bay, the Siletz River, and El Niño and La Niña ocean conditions. Typically, the beach is broad and dissipative in summer, becoming narrower and steeper in winter, particularly during prolonged storm cycles." The requirement to provide width information has been met.

    b. *Median grain size of beach sediment.*

Finding: Page 4 of the Report states: "Beach sediment is primarily fine-grained to lesser medium-grained sand." 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 states: "The beach fronting the site slopes south-southwest at approximately 7 degrees in the winter and a few degrees in the summer. Based on our review of beach morphology monitoring data available for a nearby (approximately 400 feet northwest) section of Oregon's coast from 1997 to 2002." 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: "Beach elevations varied by 3 to 14 feet from minimum to maximum, with minor changes at the beach-bluff junction and no substantial change of the dune (Allan and Hart, 2005). The beach elevation can change substantially associated with El Niño and La Niña events. Elevations derived from the lidar provided by NOAA for the site show the elevation above the mean sea level of the beach-bluff junction at the subject property as approximately 16 feet (NAVD 88), which agrees with data from Allan and Hart (2005)." 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 states: "Rip currents and rip current embayments have formed approximately 0.5 miles north and elsewhere within the last decade, as evidenced by our review of historical aerial imagery. The site does not appear to be prone to rip currents or their embayments." With the provided information, staff finds that this requirement has been met.

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

Finding: Page 5 of the report states: "Offshore rock outcrops or sea stacks are not present near the site. Mapping by Priest and Allan (2004) shows Tertiary Intrusive Basalt outcrops approximately 0.7 miles northwest of the site." The requirement to provide information on the presence of rock outcrops, etc. has been met.

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

Finding: Page 5 states: "We did not observe any exposed bedrock on the beach during our previous site visits. However, we estimate sand and cobble depths along the beach at this time to be about 6 feet thick. Beach sand depths here can reach 10 feet or more in some years." This requirement has been met.

3. Analysis of Erosion and Flooding Potential.

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

Finding: Page 8 states: "As discussed in Section 3.2.3 above, beach monitoring data for a nearby 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: "Human activity has not significantly altered wave attack resistance of the bluff at this 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 9 of the Report states: "Weathering, landsliding, recession rates, and other erosional processes at this oceanfront 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: Page 9 of the Report states: "In the bluff-backed shoreline recession methodology applicable to the subject site, wave erosion at the bluff toe and associated parameters (rock composition, vegetative/protective cover, ballistics of debris, bluff slope angle of repose, etc.) are more critical to the erosion zone and rate estimates than calculating wave runup elevation which changes with many variables such as changing beach elevations, presence of transient dunes, etc. It is the chronic nature of the wave attack hazard that undercuts the toe of the bluff, creating bluff instability." The requirement to provide information on the calculation of wave runup beyond mean water elevation that might result in erosion has been 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: "Additionally, the site lies immediately north of the mouth of Siletz Bay and the Siletz River, which can migrate northward, eroding the lower bluff slope. Future changes in water currents near the bay mouth could result in increased riverine and ocean wave erosion along this section of coastline, resulting in landsliding along the bluff. Landsliding at the subject site would cause additional recession of the upper bluff. We anticipate that future landslides could fail back 5 to 10 feet at a time if not mitigated; however, these would be very infrequent and impossible to predict when they will occur." 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: Page 9 states: "As discussed in Section 4.0 above, the average annual erosion rate for the site is 0.05 ± 0.05 feet per year and, as also discussed in Section 4.1.3, is currently estimated at 0.10 feet per year, resulting in 6 feet of setback over a 60-year period for erosion plus a regulatory required 5-foot setback for a total of 11 feet of setback from the upper bluff edge based on erosion. However, as discussed in Section 8.2, oceanfront bluff setbacks will need to be greater than 11 feet to be protective of structures." This requirement 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 10 states: "Information from NOAA's Garibaldi and Newport/South Beach monitoring stations provides an average sea level rise of approximately 2.08 mm/year between 1967 and 2022 (NOAA Tides & Currents Sea Level Trends, http://tidesandcurrents.noaa.gov/sltrends). Global climate change can also influence rates of sea-level rise (refer to Section 7.0)." This requirement is met.

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

Finding: Page 10 of the Report notes: "Detailed discussion of recession and estimated erosion rates is in Section 4.0 above; Priest (1994) has determined the average annual erosion rate for the bluff at the site as 0.05 ± 0.05 feet per year." This requirement is met.

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 states: "As noted in Section 2.0 above, the subject site does not have an oceanfront protective structure. Lots in the Taft area were generally 'developed' before January 1, 1977; however, according to the Ocean Shores Viewer (http://www.coastalatlas.net/oceanshores/, accessed April 2023), the site does not appear 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 states: "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 coastal 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 states: "Priest (1994) has determined the average annual erosion rate for the oceanfront bluff segments in the site area as 0.10 feet per year. For further information please refer to Sections 4.0 and 4.1.8 above and Section 8.2 below." 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: Page 15 of the Report states: "To help mitigate future recession of the bluff caused by erosion and landsliding, we recommend that foundations and development be set back a minimum of 20 feet north of the upper bluff edge, as shown on Figures 3 and 4. This setback would allow room on the subject property to mitigate slope issues should a (less probable) larger landslide occur in the future. An approximately 10 feet area north of this geologic hazards setback, from 20 to 30 feet from the bluff edge, will require deep foundations. New structures more than 30 feet from the southern upper bluff edge can utilize standard continuous and/or isolated spread shallow foundations." 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 16 of the Report states: "Tree removal at the site should be done in accordance with City of Lincoln City and other local regulations. Based on our site observations, from a geological and geotechnical perspective, primarily considering slope stability, hazardous and dead trees, as identified by your certified arborist, can be cut to the ground, leaving the stumps and rootballs intact. Many trees on the steep slopes along the eastern portion of the site are currently leaning and appear susceptible to falling and/or being undermined; as directed by your certified arborist, these also can be cut to the ground, leaving the stumps and rootballs intact. The trees on the southern bluff slope should generally be left intact, with limbing, windowing, and skirting of trees conducted under the direct supervision of a certified arborist. A landscape architect may be able to assist you in the selection of suitable trees and vegetation for replanting." 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 24 of the Report states: "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. Water should not be concentrated and discharged on slopes steeper than 3H:1V. 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 southern 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 for the purposes of this application.

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 LCMC 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 LCMC 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 any required footing inspections, H.G. Schlicker & Associates, Inc. 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 average 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 included a survey map stamped by Darren S. Harr, a licensed land surveyor in the state of Oregon with Terra Calc Land Surveying. The topographical data clearly shows ground elevations for the southern and eastern slopes. The Report uses an average annual erosion rate of 0.10 feet per year in the determination of oceanfront setbacks for the site. Using the annual erosion rate of 0.10 and multiplying by 60, then adding LCMC's required additional 5 feet, the result is a minimum setback of 11 feet from the unaltered bluff edge. The geotechnical engineer did not feel this was stringent enough and is requiring foundations to be setback a minimum of 20 feet from the top of the bluff edge. The bluff edge is clearly marked on the topographic survey that was included with this application submittal, and will need to

be flagged on the site by a licensed surveyor at the time of the setback and footing inspection, or shown on a footing/foundation survey exhibit used for the setback inspection. The Report also includes a required geologic setback from the top of the steep eastern slope. Although this slope is not within the Bluff Erosion Overlay Zone, as stated above, all recommendations of the Report must be followed. Both geologic hazard areas and minimum setbacks must be shown on the submitted building permit plan set, and must be inspected by H.G. Schlicker & Associates, Inc. prior to the pouring of any footings or foundations. A survey from a licensed surveyor showing, or a letter from H.G. Schlicker & Associates, Inc. stating, that the development is outside of both of the required geologic setbacks must be provided. All analyses have been done in accordance with the above requirements, and the geotechnical engineer's required setbacks exceed the required minimum bluff setback in LCMC Chapter 17.47. This requirement has been met.

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.

Finding: A pre-application conference is not required, nor was one held.

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 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. The failure of a property owner to receive notice does not invalidate the land use action if the notice was sent.
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 contained all the information required in LCMC 17.76.040.E.2.a through f. The written public notice included the written comment period of 14 days.

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. Consideration of the written comments received from Sam Jamison is given at the beginning of this staff report.

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 LCMC 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: A geologic hazard report was submitted 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.

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

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

1. The developer, applicant, and/or property owner are responsible for compliance and conformance with all city, state, and federal requirements, rules, regulations, standards, and ordinances.
2. The 20-foot bluff setback line, the bluff edge, the geologic setback and steep slope edge of the eastern slope, and the footprint of the proposed construction must be clearly depicted on the site plan and submitted as part of the building permit application, prior to review, approval, or 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 north of the 20-foot bluff setback line, said 20-foot setback line as measured from the unaltered bluff edge. The site plan for any structural permit shall clearly depict the unaltered bluff edge, the 20-foot bluff setback line, and the footprint in compliance with the 20-foot bluff setback line.
4. Any horizontal addition requiring at least one footing in ocean bluff areas must be to the north of the 20-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 20-foot bluff setback line, with clear depiction of any horizontal addition in compliance with the 20-foot bluff setback.
5. The 20-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 20-foot bluff setback line.
6. A representative of H.G. Schlicker & Associates, Inc. shall observe and approve footing and slab excavations prior to placing fill, or forming or pouring concrete, as H.G. Schlicker & Associates, Inc indicated in the Report.
7. Before approval of the setback inspection, a survey from a licensed surveyor showing, or a letter from H.G. Schlicker & Associates, Inc stating, that the development is outside of the required geologic setbacks on both the south and east slopes of the property shall be provided.
8. Permitted development shall comply with the recommendations in this Report, any other required geotechnical report, and any report(s) required by the building code.
9. Pursuant to LCMC 17.47.020.B, H.G. Schlicker & Associates, Inc. or the applicant must submit to the city, through ePermitting as an attachment to the structural permit file number, an updated report to reflect current conditions if the first building inspection occurs after April 18, 2024.
10. In addition to city requirements for proper drainage and erosion control, plans shall incorporate proper drainage and erosion control, as discussed in the applicable sections of the Report.
11. Development of the site shall adhere to and comply with all recommendations noted in the entire Report and subsequent updates.
12. If there are any conflicts in the conditions, the strictest shall apply.

Prepared by: Weston Fritz, Associate Planner

Approved by: Digitally signed by Anne Marie Skinner Date: 2023.06.26 18:10:19-07'00'

Anne Marie Skinner, Director Date
Planning and Community Development