

April 12, 2022

City of Puyallup – Permit Center
333 South Meridian
Puyallup, WA 98371

Attn: Ms. Nabila Comstock, Assistant Planner

Transmitted via email to: *NComstock@PuyallupWA.gov*

**Re: Geotechnical Review Services
Task 44 PLPSP20220016 – Tkach Wetlands and Geotech
Puyallup, Washington
Project No. 1174066.010.011**

Dear Ms. Comstock:

An applicant proposes to construct an apartment complex northwest of 7th Street Southwest and 43rd Avenue Southwest in Puyallup, Washington (Pierce County parcel no. 4320000160; site). At the City of Puyallup's (City) request, Landau Associates, Inc. (Landau) has completed a third-party review of a report prepared by the applicant's geotechnical consultant.

Landau reviewed the following document for compliance with Chapter 21.06 of the Puyallup Municipal Code (PMC):

- GeoResources, LLC. 2020. Geotechnical Engineering Report: Proposed Multi-Family Development, xxx – 7th Street Southwest, Puyallup, WA. April 15.

Project Background

The applicant proposes to construct a four-story apartment complex in the southeastern portion of the site. Other proposed site improvements include the addition of hardscaped areas (parking stalls and drive lanes), underground utilities, and an underground stormwater management facility to be installed beneath the parking area.

The site is forested with coniferous trees with an understory of vegetation common to the area. Topography in the center of the site slopes upward and then downward, forming a local depression, approximately 6 to 12 feet (ft) deep. Site grades are variable and include approximately 60 percent slopes. A downward slope along the northern property line extends off site and has a vertical relief of 14 to 32 ft (Pierce County; accessed April 8, 2022).

The City has required the applicant to complete a geologic hazards assessment in accordance with Chapter 21.06 of the PMC. GeoResources, LLC, the applicant's geotechnical consultant, prepared a report in which it concludes that a landslide hazard indicator is located on, or within 200 ft of,

the site. To support this conclusion, GeoResources cites the presence of inclinations greater than 40 percent and a vertical relief greater than 10 ft. GeoResources recommends establishing a 25-ft buffer between the proposed development and portions of the northern slope that are greater than 40 percent with a vertical relief greater than 10 ft. GeoResources stipulates that the buffer should consist of native vegetation. GeoResources also notes that grading will reduce hazards associated with slopes in the central portion of the site.

GeoResources concludes that there is a low risk of seismically induced slope instability, soil liquefaction, and lateral spreading. GeoResources also reports a low risk of inundation by lahar, mudflow, or lava flow. GeoResources did not comment on the presence of an erosion hazard area (EHA) but provided general erosion control recommendations to be implemented during construction.

Comments

Landau has reviewed the geotechnical document provided by the applicant and notes the following deficiencies:

- GeoResources' proposed 25-ft buffer does not satisfy the requirements in PMC 21.06.1240(1)(a)(ii). The landslide hazard area buffer "shall be equal to the height of the slope or 25 feet, whichever is greater." The standard buffer may be reduced by 25 percent if a qualified professional can demonstrate that the reduction will adequately protect the proposed development and minimize or eliminate life safety risks on and off site. In its report, GeoResources states that slopes in the northern portion of the site have a vertical relief of up to 32 ft. GeoResources should evaluate if the 25-ft minimum buffer is appropriate for these slopes and provide supporting data in accordance with PMC 21.06.1240(1)(a)(ii). If a buffer reduction is deemed inadequate, the buffer should be increased to equal the height of the slope, where applicable.
- Per PMC 21.06.1210(3)(a), sites with soil identified as having a "moderate to severe," "severe," or "very severe" erosion potential shall be considered EHAs. GeoResources should revise its report to state whether an EHA(s) is present at the site.
- The conceptual site plan prepared by Ross Deckman and Associates, Inc. (2022) shows a 6-ft buffer between the parking lot and the northern property line. This does not accord with GeoResources' recommended 25-ft buffer. GeoResources should review the site plan and address the buffer width shown.

GeoResources should be required to address the above comments and submit a revised geotechnical engineering report.

Closing

We trust that this letter provides you with the information necessary to respond to the applicant. If you have questions or require additional information, please contact the undersigned at 360.791.3178 or awarnell@landauinc.com.

LANDAU ASSOCIATES, INC.



Annabel Warnell, PE
Senior Project Engineer

AMW/LGL/mcs

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References

City of Puyallup. 2021. Puyallup Municipal Code, Title 21. Environment, Chapter 21.06 Critical Areas, Article XII. Geologically Hazardous Areas. Current through December 7.

Pierce County. Public GIS. Accessed April 8, 2022. Available online at:
<https://matterhornwab.co.pierce.wa.us/publicgis/>.

Ross Deckman & Associates. 2022. Conceptual Site Plan: 43rd Avenue Apartments. January 21.