



Earth
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Exhibit 64
SUB17-02

November 14, 2017

City of Camas
616 Northeast 4th Avenue
Camas, Washington 98607
Attention: Sarah Fox, Senior Planner

Phone: 360-817-7269
E-mail: sfox@cityofcamas.us

**Subject: Geotechnical Peer Review
Proposed Dawson's Ridge Subdivision
Northwest McIntosh Road
Camas, Clark County, Washington
EEI Report No. 17-214-1**

Dear Ms. Fox:

Per your request, **Earth Engineers, Inc. (EEI)** has completed a geotechnical review of the project referenced above.

PROJECT BACKGROUND INFORMATION

Our understanding of the project is based on the following information that has been provided to us.

- **April 7, 2017 report by PBS Engineering and Environmental (PBS) titled "Geotechnical Engineering Report, Dawson's Ridge Density Transfer Subdivision, NW McIntosh Road, Camas, Washington."** The report was performed for McIntosh Ridge PRD, LLC of Vancouver, Washington.
- **September 8, 2017 report by PBS titled "Geotechnical Engineering Report – Addendum No. 1, Dawson Ridge Development, Northern Site Reconnaissance and Exploration, NW McIntosh Road, Camas, Washington, PBS Project 73197.000, Phase 0003."** The report was performed for McIntosh Ridge Holdings, LLC of Vancouver, Washington.
- **October 25, 2017 report by PBS titled "Updated Geotechnical Engineering Report – Addendum No. 2, Dawson Ridge Development, NW McIntosh Road, Camas, WA,**

PBS Project 73197.000, Phase 3.” The report was performed for McIntosh Ridge Holdings, LLC.

- **May 2017 drawing by Olson Engineering Inc. titled “Preliminary Plat and Phasing Plan for: Dawson’s Ridge Subdivision,” Sheet PL1.0.**
- **May 2017 drawing by Olson Engineering Inc. titled “Preliminary Plat and Phasing Plan for: Dawson’s Ridge Subdivision,” Sheet PL1.1.**
- **May 2017 drawing by Olson Engineering Inc. titled “Preliminary Grading Plan (South) for: Dawson’s Ridge Subdivision,” Sheet 4 of 4.**
- **June 2017 drawing by Olson Engineering Inc. titled “Preliminary Utility Plan (South) for: Dawson’s Ridge Subdivision,” Sheet 2 of 4.**

Briefly, we understand that the project will include the the development of 44 single family lots, private roads, and open space areas on the approximate 30-acre property.

PURPOSE AND SCOPE OF SERVICES

The purpose of our geotechnical review was to assess the documents provided to us and provide a professional opinion on whether the geotechnical reports by PBS meet the geotechnical standard of care. In particular, we understand the City is concerned that the proposal includes developing residential lots within mapped hazard areas. There are some allowed uses within residential lot development (i.e. accessory structures less than 120 square feet, decks lower than 30 inches, grading, retaining walls, etc.) that would not require additional permit review after plat approval. We were requested to provide an opinion as to whether any of these uses should be prohibited in the identified hazard areas and advise if there are any mitigation measures that should be included to lessen the site hazards.

In addition, we were requested to evaluate whether the PBS reports address the code requirements of Camas Municipal Code (CMC) Chapter 16.59—Geologically Hazardous Areas.

REPORT REVIEW COMMENTS

Our review of the documents provided to us indicates that PBS performed a detailed site investigation and literature review. They identified the hazards that are present on this property: potentially unstable, steep soil slopes and soil erosion. And they provided appropriate hazard mitigation recommendations that include:

- Implementing a buffer/setback line that ranges from 25 to 45 feet from areas of potential instability. That line is shown on Sheets PL1.0 and PL1.1 by Olson Engineering and affects proposed lots 7, 8, 9, 10, 31, 32, 33, and 34.

- Any development within the setback area requires additional geotechnical consulting. We interpret PBS's recommendation of additional geotechnical consulting to include uses within residential lot development (i.e. accessory structures less than 120 square feet, decks lower than 30 inches, grading, retaining walls, etc.) that would not typically require additional permit review after plat approval.
- Development within the setback areas should be limited to landscaping or uninhabited structures such as fences, patios, or similar.
- No fill shall be placed within the setback areas.
- Ground disturbance within the setback areas should be limited.
- Surface water should be collected and routed away from the slopes in the setback areas.
- Any structures constructed within the setback area should have their foundations supported directly on the underlying basalt bedrock unit for stability.

It is our professional opinion that the geotechnical reports provided to us meet the standard of care and we take no issue with their findings and recommendations.

With regard to the requirements of Camas Municipal Code (CMC) Chapter 16.59—Geologically Hazardous Areas, we find that PBS does address them sufficiently. They investigated the site, identified the hazards, and provided mitigation recommendations for those hazards. The only additional comment we would make is that we recommend the City require lot-specific geotechnical reports be performed by the Geotechnical Engineer of Record (PBS) for lots 7, 8, 9, 10, 31, 32, 33, and 34 prior to issuing a permit for the homes, since those lots are adjacent to the setback line.

LIMITATIONS

This report has been prepared for the exclusive use of the City of Camas for the specific application to the proposed Dawson's Ridge Subdivision, in Camas, Washington. EEl does not authorize the use of the advice herein nor the reliance upon the report by third parties without prior written authorization by EEl.

The Geotechnical Engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

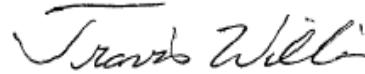
We appreciate the opportunity to perform this geotechnical engineering evaluation. If you have any questions pertaining to this report, or if we may be of further service, please contact Troy Hull at 360-567-1806 (office) or 360-903-2784 (cell).

Sincerely,
Earth Engineers, Inc.



Troy Hull, P.E.
Principal Geotechnical Engineer

Reviewed by:



Travis Willis, P.E.
Principal Geotechnical Engineer