



October 25, 2017

Mr. David Lugliani  
McIntosh Ridge Holdings, LLC  
16420 SE McGillivray Boulevard, #103-197  
Vancouver, Washington 98683

Via email: david.apc@me.com

Regarding: Updated Geotechnical Engineering Report – Addendum No. 2  
Dawson Ridge Development  
NW McIntosh Road  
Camas, Washington  
PBS Project 73197.000, Phase 0003

Dear Mr. Lugliani:

PBS previously provided geotechnical engineering services for the then-named McIntosh Ridge development and presented the results in a geotechnical engineering report (GER) dated September 29, 2015.<sup>1</sup> This report should be considered an addendum to and used only in conjunction with the full GER for the project.

The purpose of our geotechnical services was to comment on development activities that are allowed beyond the "geotech setback line" referenced on the project plans in the vicinity of lots 8, 9, 10, 31, 32, 33, and 34.

## PROJECT UNDERSTANDING

PBS was initially engaged by McIntosh Ridge Holdings, LLC to review plans for a relatively undeveloped, approximate 30-acre site located on the south side of NW McIntosh Road in Camas, Washington. Original development plans included single-family lots and condominium units.<sup>1</sup>

PBS subsequently reviewed plans for both a PRD and Subdivision on the site.<sup>2,3</sup> Current plans by McIntosh Ridge PRD, LLC, include development of 44 detached, single-family lots ranging in sizes between 10,500 and 18,000 sf. This also includes several private roads and open space areas. No development is currently planned for the south slope areas.

PBS also prepared a GER addendum dated September 8, 2017<sup>4</sup> to address design and construction of an underground stormwater treatment and detention facility north of the existing equestrian center.

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<sup>1</sup> PBS Engineering and Environmental (2015, September 29). *Geotechnical Engineering Report, McIntosh Ridge Development, NW McIntosh Road, Camas, Washington*. Prepared for McIntosh Ridge Holdings LLC. PBS Project No. 73197.000.

<sup>2</sup> PBS Engineering and Environmental (2017, April 7). *Geotechnical Engineering Report, Dawson's Ridge Planned Residential Development, NW McIntosh Road, Camas, Washington*. Prepared for McIntosh Ridge Holdings LLC. PBS Project No. 73197.000.

<sup>3</sup> PBS Engineering and Environmental (2017, April 7). *Geotechnical Engineering Report, Dawson's Ridge Density Transfer Subdivision, NW McIntosh Road, Camas, Washington*. Prepared for McIntosh Ridge Holdings LLC. PBS Project No. 73197.000.

<sup>4</sup> PBS Engineering and Environmental (2017, September 8). *Geotechnical Engineering Report-Addendum No.1, Dawson Ridge Development, Northern Site Reconnaissance and Exploration, NW McIntosh Road, Camas, Washington*. Prepared for McIntosh Ridge Holdings LLC. PBS Project No. 73197.000.

## **CONCLUSIONS AND RECOMMENDATIONS**

Based on our review of previously completed geologic mapping and site observations, our current opinion is that development beyond the "geotech setback line" indicated on the project plans should be limited to landscaping or uninhabited structures such as fences, patios, or similar. Fill should not be placed in these areas during site grading and ground surface disturbance should be limited. Surface water should be collected and routed away from the slopes in these areas.

## **LIMITATIONS**

This letter has been prepared for the exclusive use of the addressee, and their consultants and engineers, and is not to be relied upon by other parties. It is not to be photographed, photocopied, or similarly reproduced, in total or in part, without express written consent of the client and PBS. It is the addressee's responsibility to provide this report to the appropriate design professionals, building officials, and contractors to ensure correct implementation of the recommendations.

The opinions, comments, and conclusions presented in this report are based upon information derived from our literature review, field explorations, laboratory testing, and engineering analyses. It is possible that soil, rock, or groundwater conditions could vary between or beyond the points explored. If soil, rock, or groundwater conditions are observed that differ from those described herein, the client is responsible for ensuring that PBS is notified immediately so that we may reevaluate the recommendations of this report.

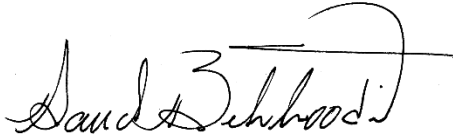
Unanticipated soil and rock conditions and seasonal soil moisture and groundwater variations are commonly encountered and cannot be fully determined by merely taking soil or rock samples from borings and test pits. Such variations may result in changes to our recommendations and may require additional funds for expenses to attain a properly constructed project. Therefore, we recommend a contingency fund to accommodate such potential extra costs.

Please feel free to contact Ryan White at 503.539.5028 or [ryan.white@pbsusa.com](mailto:ryan.white@pbsusa.com) with any questions or comments.

Sincerely,



Ryan White, PE, GE (OR)  
Geotechnical Discipline Lead



Saiid Behboodi, PE, GE  
Principal Geotechnical Engineer

RW:SB:rg