

October 17, 2017 PanGEO File No. 17-143.200

## The Mills Family

c/o Mr. Joseph Greif Greif Architects / Living Architecture 921 NE Boat Street Seattle, Washington 98105

**Subject:** Geotechnical Statement of Risk

Proposed Residence 5236 West Mercer Way

Mercer Island, Washington 98125

Reference: Geotechnical Engineering Report, Proposed Residence, 5236 West Mercer Way, Mercer Island, Washington, prepared by PanGEO Inc., dated October 5, 2017.

Dear Mr. Greif:

As requested, PanGEO prepared this letter to provide the geotechnical Statement of Risk, as required by the City of Mercer Island for the subject project. PanGEO previously prepared the referenced geotechnical report to support the design and construction of a proposed residence at the site. The information collected for our study, and the results of our analyses as presented in our report, were used to support the following Statement of Risk.

## STATEMENT OF RISK

The site is mapped as a geologic hazard area by the City of Mercer Island, as documented in our referenced report. Per Mercer Island City Code, development within geologic hazard areas and critical slopes may occur if the geotechnical engineer provides a statement of risk with supporting documentation indicating that one of the following conditions can be met:

- a. The geologic hazard area will be modified, or the development has been designed so that the risk to the lot and adjacent property is eliminated or mitigated such that the site is determined to be safe; or
- b. Development practices are proposed for the alteration that would render the development as safe as if it were not located in a geologic hazard area; or
- c. The alteration is so minor as not to pose a threat to the public health, safety, and welfare; or
- d. An evaluation of site specific subsurface conditions demonstrates that the proposed development is not located in a geologic hazard area.

It is our opinion that Criterion A and B can be met provided that the development is designed and constructed in accordance with the recommendations in our referenced report. The house design utilizes a soldier pile wall to support the temporary cuts into the slope for the proposed daylight basement. A permanent soldier pile wall will be utilized to support sloping soils adjacent to the proposed outdoor patio area south of the house. Permanent erosion control measures, including landscape and hardscape installations, will effectively mitigate the risk of erosion to disturbed areas of the site in the long term. As such, in our opinion, the development will not negatively affect the stability of the slope, or the surrounding properties.

In addition, in our opinion Criterion B can be met through best management practices during construction, including the proper use of a silt fence, minimize earthwork activities during periods heavy precipitation, minimize exposed areas in the wet season, and other appropriate temporary erosion control measures. Permanent erosion control measures, as described above, will effectively mitigate the risk of erosion in the long term.

We trust that the information outlined in this letter meets your need at this time. Please call if you have any questions.

Sincerely,

Jon C. Rehkopf, P.E.

Senior Project Geotechnical Engineer

Siew L. Tan, P.E.

Principal