

October 8, 2021
File No. 20-174.300

Mr. Mitch Mounger
4006 East Mercer Way
Mercer Island, WA 98040

**Subject: Geotechnical Plan Review, Statement of Minimum Risks, and Seasonal Development Limitation Waiver
Proposed SFR
4006 E Mercer Way, Mercer Island, WA**

Dear Mr. Mounger,

As requested, PanGEO prepared this letter to clarify foundation design recommendations, conduct a geotechnical plan review, prepare a statement of minimum risks, and provide supporting information to assist you to apply for a seasonal development limitation waiver.

FOUNDATION DESIGN

We understand that the project scope has been changed to a remodel from a new SFR. Based on the current plans, the new footings will be in the west portion of the house where competent soils will be present at the foundation level. As such, conventional footings may be used to support the new footings as part of the remodel project.

GEOTECHNICAL PLAN REVIEW

We reviewed the geotechnical engineering aspects of the current plans for the above-referenced project. Our review includes the following:

- Architectural plan Sheets T1.0, T1.1, A1.0 through A8.0, HS1.0, and HS2.0 dated October 5, 2021 by Sturman Architects,
- Civil Plan Sheets C-1 through C-3 last revised on July 14, 2021 by Nick Bossoff Engineering, Inc.; and
- Structural plan sheets S1.0 through S3.8 dated September 20 and October 5, 2021 by Bykonen, Carter, and Quinn.

In general, it is our opinion that the plans reviewed had incorporated all substantial geotechnical recommendations presented in our geotechnical report dated July 7, 2020.

STATEMENT OF MINIMUM RISKS

We understand that the site is mapped as a geologic hazard area. Per Mercer Island City Code Section 19.07.160.B.2, 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;
- b. Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologic hazard area;
- c. The alteration is so minor as not to pose a threat to the public health, safety, and welfare;
- d. An evaluation of site-specific subsurface conditions demonstrates that the proposed development is not located in a geologic hazard area.

Based on our additional analyses and our review of the current plans, it is our opinion that Criterion (b) can be met, provided that the project is properly constructed per the approved plans. We recommend that best management practices be implemented during construction, including the proper use of silt fence, minimize earthwork activities during periods heavy precipitations, minimized exposed areas in wet season, etc. Permanent erosion control measures including landscape and hardscape installations will effectively mitigate the risk of erosion in the long term.

CLOSURE

We trust that the information presented herein meets your need at this time. Please call if you have any questions.

Sincerely,



10/8/2021

Michael H. Xue, P.E.
Principal Geotechnical Engineer