



June 28, 2022

Erin Jacobsen
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RE: Geotechnical Addendum – Response to Comments

Proposed Residence
6922 SE 33rd Street
Mercer Island, Washington

In accordance with your authorization, Cobalt Geosciences, LLC has prepared this letter to discuss responses to City comments. Paraphrased comments with our responses are as follows:

Comment: Review drawings and provide a comment about suitability with the geotechnical report recommendations. Include a statement of risk per the updated code.

Response: We have reviewed the provided plans for the project and have no specific comments at this time. The plans were accessed from the City permit link on June 28, 2022.

We understand that the City has requested some potential changes to the structural drawings to maintain consistency with our previous geotechnical report.

Per Section 19.07.060.B.3 of the Mercer Island City Code, development within geologic hazard areas require that a Geotechnical Engineer licensed within the State of Washington provide 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. An evaluation of site specific subsurface conditions demonstrates that the proposed development is not located in a geologic hazard area; or
- c. 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
- d. The alteration is so minor as not to pose a threat to the public health, safety and welfare.

The project meets the criteria of b from above. The site soil and topographic conditions are not consistent with the mapped geologic hazards. The risk of erosion and landslide activity is very low at this site and the site appears to be at least 50 feet from a potential landslide hazard area. This proposed development will not adversely affect geologic hazards near or within the site.

We recommend that temporary erosion control system be in place during construction and that all affected/graded areas are fully surfaced following construction.

Comment: Provide input regarding slope surcharges on the below grade wall.

Response: It appears that the eastern portion of the structure will be near existing site elevations with a shallow crawlspace, while the areas further west will have basement areas. It does not appear that there will be a slope surcharge on any walls at the site. If surcharges are anticipated

through slopes, the lateral earth pressures should be increased by 0.75 pcf per degree of backslope.

Comment: Discuss the excavation along the east side of the new home and whether it needs shoring or a construction easement with the adjacent property.

Response: We do not anticipate the need for deep excavations near the east margin of the home. It appears that foundation cuts will be 5 feet or less in this area. We recommend a maximum 4 foot vertical toe cut in medium dense to dense soils with a maximum 1H:1V temporary slope above the area. This appears suitable at this location.

Please contact us if you have any questions.

Sincerely,

Cobalt Geosciences, LLC



6/28/2022
Phil Haberman, PE, LG, LEG
Principal