

August 30, 2023

JN 20086

F. Ross Murray
via email: f.rossmurray@gmail.com

Subject: **Review of Revised Plans**
Proposed Murray Residence
4803 Forest Avenue Southeast
Mercer Island, Washington

Dear Mr. Murray:

As required by the City of Mercer Island, we have completed a general review of the geotechnical aspects of the plans for your new home. For our review, we were provided with the architectural drawings (RF Architecture; April 28, 2023), civil plans (Apex Engineering; April 17, 2023), and structural plans (B & T Design & Engineering; 4/10/23).

Cantilever soldier piles will be used to retain the excavations for the garage, residence, and loggia. The perimeter soldier piles will also be used to vertically support building loads, in addition to driven, small-diameter pipe piles to carry interior loads.

The *Foundation* notes on S2.1 summarize the lateral design earth pressures that we have provided to B & T Design and Engineering. The 55 pcf active earth pressure for unrestrained walls is what we have recommended for sloping ground conditions, such as along the east side of the driveway and the garage.

In order to satisfy the City of Mercer Island's requirements, a statement of risk is needed. As such, we make the following statement:

It is our professional opinion that the recommendations presented in our Study and incorporated into the reviewed plans for the planned alteration will render the development as safe as if it were not located in a geologically hazardous area, and will not adversely impact critical areas on adjacent properties.

Please contact us if there are any questions regarding this letter, or for further assistance during the design and construction phases of this project.

Respectfully submitted,
GEOTECH CONSULTANTS, INC.

Marc R. McGinnis, P.E.
Principal



cc: **Richard Flake Architecture**
via email: richard@rfarchitecture.com

08/30/2023