

06/09/2025

Chris Luthi, Architect
4737 37th AVE SW
Seattle WA 98126

Tony Newton, Assistant Planner City of Mercer Island Community Planning & Development
9611 SE 36th Street
Mercer Island, WA 98040

This letter is a response to a public comment on the proposal at
5818 W Mercer Way
Permit #2502-028 and #CAO25-003

To:

Benjamin Vallis
8220 SE 59th St.
Mercer Island, WA 98040

Thank you for your letter. Please know that we are likewise committed to proceeding with the home building project in a sensible and safe manner.

Thanks to your input and feedback from others, we have updated the shoring wall system to include tie-backs. This change eliminates the need for up-slope excavation and restoration. The tie-back system is recognized as one of the most reliable, durable, and stable solutions available. In addition, the city maintains a robust process to ensure proper testing and oversight throughout the project.

To further support our approach, I have asked the Geotechnical, Civil, and Structural Engineers to provide comments on this system and other planned upgrades to the original proposal. Their letters are attached for your reference.

Thank you again for your engagement and attention to this project.

Best regards,

Chris



Cobalt Geosciences, LLC
P.O. Box 1792
North Bend, WA 98045

June 4, 2025

Artoush Fanaiyan
Artoush76@yahoo.com

RE: Geotechnical Letter
Proposed Residence
5818 West Mercer Way
Mercer Island, Washington

In accordance with your authorization, Cobalt Geosciences, LLC has prepared this letter to discuss specific methods and measures to prevent instability during construction of the new structure.

We have reviewed a neighbor's comment letter and have the following responses:

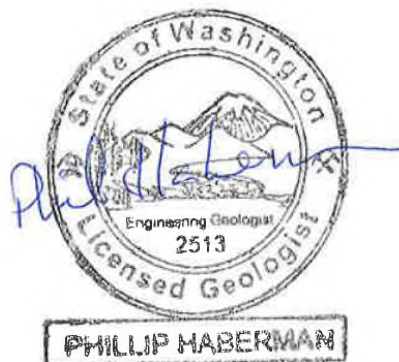
A properly designed and constructed soldier pile wall with timber lagging can effectively support temporary excavations until completion of the basement walls and backfill. The wall will be both temporary and permanent and will utilize tieback anchors for taller sections.

If work occurs during the dry season (which will likely be required by the City), the risk of sloughing and caving in the auger holes will be very low. If sloughing were to occur, we recommend ceasing drilling until casing can be installed and work can continue. It is customary that the geotechnical engineer be on site during pile placement until completed. Survey points can be installed and monitored by the project surveyor weekly until completion of the residential structure or supporting walls.

The civil and structural engineers can comment on relevant aspects of the pile and other wall design and detention vault/civil stormwater system functions.

Sincerely,

Cobalt Geosciences, LLC



6/4/2025
Phil Haberman, PE, LG, LEG
Principal

June 6, 2025

Artoush Fanaiyan
Artoush76@yahoo.com



RE Permit #2502-028 and #CAO25-003
Shoring Structural Summary
Proposed Single Family Residence
5818 West Mercer
Mercer Island, WA

Mr. Fanaiyan:

At your request, Atlas has prepared a summary of our shoring design for the proposed single-family residence located at 5818 West Mercer.

Shoring will consist of:

- Temporary cantilevered soldier pile wall at the south face of the proposed structure (13' from the southern property line), ranging in retained height from 5' at the west to 14'-9" at the east
- Angled permanent soldier pile wall at the east side of the proposed structure, located along contour 210' (set back from the east property line 77' at the south and 58' at the north), and utilizing two rows of tieback anchors
- Permanent cantilevered soldier pile wall at the north portion of the eastern face of the proposed structure (58' from the east property line), ranging in retained height from 11' at the south to 6' at the north
- Temporary ecology blocks to retain a maximum of 5' to accommodate a grade change at the southeast corner of the proposed structure (15 LF along the south property line and 10 LF wrapping towards the north)

Shoring has been designed for the active, at-rest, passive, and seismic surcharge soil pressures defined by Cobal GeoSciences in their November 8, 2024 report; and tieback anchors have been sized using the allowable unit shaft resistance prescribed in the aforementioned report. Cantilevered soldier piles have been designed to limit deflection to a maximum of 1".

Please let us know if you have any questions/concerns with the above or require any further clarification.

Thank you,

Atlas Consulting Engineers, Inc.



Javid Abdi, PE, SE

June 8, 2025

Artoush Fanaiyan
Artoush76@yahoo.com

RE: Proposed Residence
5818 West Mercer Way
Mercer Island, WA

I am the civil engineer of record for the project referenced above. I have reviewed the uphill neighbors' concerns as they relate to stormwater and erosion and provide the following responses that correlate to the April 5th 2025 letter to the City.

Stormwater

- a. The detention system proposed will store stormwater runoff and release at a controlled rate which reduces stress on downstream city storm system. There should be no concern the system will overflow given the tank has a built-in overflow riser in the event the tank fills up during exceptionally intense, multi-day rain events.
- b. Overflow concerns: this is discussed above.

Groundwater concerns: Regarding groundwater effects, the project will reduce groundwater effects due to fact all subsurface elements of substance including upper soldier pipe wall, basement of house; retaining walls, detention tank, etc will all have perforated drains that intercept any groundwater and connect to tightline pipes.

- c. Excess water concerns: See b above. Excess subsurface water should not be a concern given all the deeper footing drains installed when project is complete. In rereading the soils report by Cobalt, It should be noted the geotechnical engineer did not encounter groundwater per 16-foot deep boring B-1. Also slope stability Analysis was performed by Cobalt meeting the required factor of safety.

Erosion Control

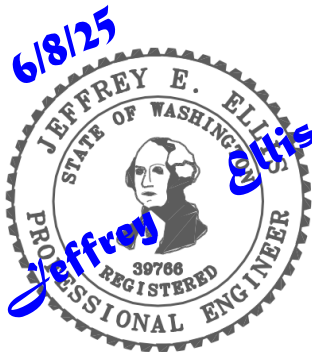
- a. -
- b. Per MICC, any land disturbance related activity during the rainy season (Oct 1-April 1) is not allowed without a waiver request. I put a note to this effect on sheet C1.0. Also, we recommend the detention tank be used as a temporary sediment tank and a temporary storm pipe be installed if rainy weather conditions warrant. If project requests a winter waiver, we'll include an enhanced, more robust TESC sheet required along with the geotechnical engineer prepared packet submittal for City review prior to October 1.

- c. Sediment concern: The primary goal of Erosion control is minimize sediment discharge off site as stated. The contractor will ultimately be responsible for implementing and maintaining erosion control measures during course of construction including maintaining silt fence, plastic covering, inlet socks, etc. It's relevant to point out the slope stability calculations by the Geotechnical engineer indicate the slope stability of site post development increases relative to the existing condition.

To summarize, I've added additional notes and callouts on the Erosion Control Plan prior to the June 2025 submittal. The plan is more robust and cross references the erosion control section of the geotechnical report.

We believe our erosion control plan meets the typical level of care and performance expected on a single family project by a competent professional engineer's preparation.

Sincerely,



Duffy Ellis, PE
Civil Engineering Solutions