



**NELSON GEOTECHNICAL  
ASSOCIATES. INC.**

**17311-135<sup>th</sup> Ave. N.E. Suite A-500  
Woodinville, WA 98072  
(425) 486-1669  
www.nelsongeotech.com**

June 3, 2024

Mr. Shane Katsoolis  
Via Email: [shane@eightblox.com](mailto:shane@eightblox.com)

**Geotechnical Plan Review Letter (Revised)  
Katsoolis SE 22<sup>nd</sup> Street Residence Addition Development  
6202 SE 22<sup>nd</sup> Street  
Mercer Island, Washington  
NGA File No. 1482223**

Dear Mr. Katsoolis:

This letter presents the results of our geotechnical engineering review of plans for the proposed Katsoolis SE 22<sup>nd</sup> Street Residence Addition Development project located at **6202 SE 22<sup>nd</sup> Street on Mercer Island, Washington.**

## **INTRODUCTION**

We previously prepared a geotechnical engineering evaluation for the proposed development dated November 28, 2023. The site is currently occupied by a single-family residence with a daylight basement within the central portion of the property. The ground surface within the property is generally gently to moderately sloping down from the south to the north. We understand the proposed improvements within the property will consist of constructing a new upper-level addition to the eastern side of the residence along with new retaining walls along the southern portion of the residence. We have been requested to review the most recent set of plans. For our use in preparing this letter, we were provided with the following documents:

- ***Architectural Plan Set titled "Fabon Point Residence," dated May 24, 2024 and prepared by EightBlox.***
- ***Structural plan set titled "Fabon Point House," dated March 11, 2024, and prepared by NKH Engineering.***

## PLAN REVIEW AND CONCLUSIONS

We have reviewed the geotechnical aspects of the provided plans and found the plans to be in general compliance with our recommendations as presented in our previous geotechnical report. The proposed residence addition and retaining wall foundations are to be supported on 2-inch diameter, Schedule 80 pin piles with a capacity of 6 kips each. The piles are to be driven to a refusal-criteria of less than 1-inch of movement during 60 seconds of continuous driving with a 140-pound jackhammer. The two-inch pin piles should be driven to a maximum depth of 50 feet below the ground surface. Supporting the proposed addition and retaining wall foundations on pin piles will result in minimal excavations for the proposed foundations. We understand that roof and footing drains will be directed to flow into the existing stormwater system located within SE 22<sup>nd</sup> Street. In our previous report, we recommended that the ground surface surrounding the residence be graded to flow away from the residence a three percent gradient. We understand that the southern yard area will be graded to flow away from the residence at a one percent grade. In our opinion, grading the front yard at a one percent grade away from the residence foundation is adequate from a geotechnical standpoint.

We recommend that grading and the proposed excavations be performed in a manner that minimizes disturbance to the areas outside of the proposed residence addition and retaining wall areas. We also recommend that all disturbed areas be revegetated and vegetation maintained until it is established. All other recommendations provided in our previous report should be strictly followed.

## MINIMUM RISK STATEMENT

Based on our understanding of the proposed plans, and provided that the recommendations in our previous report and this letter are strictly followed during construction and the deep foundation elements are constructed under the supervision of NGA, the areas disturbed by construction should remain stable meeting the criteria stated in **Mercer Island City Code 19.07.160.B.2.a-d**. In addition, the development has been designed so that the risk to the lot and adjacent properties is eliminated or mitigated such that the site is determined to be safe, meeting the requirements stated in **Mercer Island City Code 19.07.160.B.3.b**.

## CLOSURE

We recommend that NGA be retained to provide monitoring and consultation services during construction to confirm that the conditions encountered are consistent with those indicated by the explorations, to provide recommendations for design changes should the conditions revealed during the work differ from those anticipated, and to evaluate whether or not earthwork activities comply with contract plans and specifications. o-o-o

We appreciate the opportunity to provide service to you on this project. Please contact us if you have any questions regarding this letter or require further information.

Sincerely,

**NELSON GEOTECHNICAL ASSOCIATES, INC.**



LEE S. BELLAH

Lee S. Bellah, LG  
**Senior Geologist**



Khaled M. Shawish, PE  
**Principal**

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