



S T U R M A N
A R C H I T E C T S

Date: November 5, 2025
To: City of Mercer Island
Community Planning & Development

From: Brad Sturman – Sturman Architects

Re: RKK 73rd Residence
2434 73rd Ave SE
Mercer Island, WA 98040
Parcel ID: 531510-0408

Subj.: Critical Area 2 Review - Project Narrative

This application meets the requirements for a Critical Area Review 2 set forth by MICC 19.07.090, MICC 19.07.160, MICC 19.07.170, MICC 19.07.180, and MICC 19.07.190.

The parcel is a 16,170.7 gross square foot lot in a residential area of Mercer Island with an existing single family residence with detached garage, both of which will be removed and a new single family residence with attached garage will be built on the lot.

The site has a slope of approximately 13.3% and therefore is allowed 40% lot coverage. Site slopes from a high point at the NW corner down to a low point at the NE corner, sloping downhill away from 73rd Ave SE. It is vegetated with some grass and large areas of typical landscape plantings and contains two regulated trees.

The project consists of a proposed one story residence with daylight basement and attached garage totaling approximately 4,722 square feet of heated space plus an additional 579 square feet of attached garage and 959 square feet of covered outdoor decks.

According to the Mercer Island GIS the site lies substantially or entirely within designated Critical Areas for Erosion Hazard and Potential Landslide Hazard, plus there is a small portion of Seismic Hazard in the South-East corner. The geotechnical study identified a slope along the road of 40% for 6 vertical feet as a result of previous legal grading and a slope on the east side of the lot at about 12% for 6 vertical feet.

MICC19.07.090 – Critical Area Reviews

A Critical Area Study was conducted by a qualified geotechnical engineer on the site:

- A Geotechnical Engineering Study and Critical Area Study were prepared by Earth Solutions NW, LLC (ESNW), led by Kyle R. Campbell, P.E., and Stephen H. Avril.

- These reports include test pit observation and sampling, soil sampling tests, erosion and



seismic hazard evaluations, subsurface characterization, and engineering analyses and recommendations.

- These studies have not yet been submitted under a formal permit application but will support the forthcoming land use and building permit submittals.

MICC 19.07.160 - Geologically Hazardous Areas

The project site is located within areas designated as:

- Erosion Hazard Area (15–39% slopes)
- Landslide Hazard Area (15%+ slopes)
- Seismic Hazard Area

Key findings from ESNW's Critical Area Report (Jan. 31, 2025):

Potential Landslide Hazard:

- "slopes do not meet the standard by COMI for the above-mentioned hazards as they are not over ten feet in relief per classification "ix" where 40 percent or more, it is the opinion of ESNW that they do not pose a threat of soil mobilization due to the dense and homogenous nature of the subsurface coupled with the lack of vertical relief."

- "ESNW analyzed the erosion hazard and landslide hazard on the subject site. Based on the analysis, in our opinion there will be no adverse impacts to slope stability or erosion risks on the subject site and surrounding area due to the stable nature of the soil types on the site and the limited vertical extent of the slopes on the site Lacustrine deposits present a stable condition within sloped areas due to its cemented and dense nature."

- "new structure will be sited below the slope located within the western portion of the site, and will not place additional surcharging onto the subject slopes"

- "installation of retaining walls and filling of the sloped region in the western portion of the site adjacent to the road will in-essence provide slope integrity in accordance with item F of the City of Mercer Island code Chapter 19.07.100"

Erosion Hazard:

- "Where erosion control BMP are utilized during and after construction on the subject site, it is our opinion there will be minimal risk of erosion. Furthermore, due to the dense and stable nature of the site soils, there is a low risk of erosion and landslide on the subject site."

- "ESNW analyzed the erosion hazard and landslide hazard on the subject site. Based on the analysis, in our opinion there will be no adverse impacts to slope stability or erosion risks on the subject site and surrounding area due to the stable nature of the soil types on the site and



the limited vertical extent of the slopes on the site Lacustrine deposits present a stable condition within sloped areas due to its cemented and dense nature.”

- “Where erosion control BMP are utilized during and after construction on the subject site, it is our opinion there will be minimal risk of erosion. Furthermore, due to the dense and stable nature of the site soils, there is a low risk of erosion and landslide on the subject site.”

Seismic Hazard:

- Site soils are classified as Site Class D (Stiff Soil). Seismic design parameters were provided per 2021 IBC / ASCE 7-16.

- “liquefaction potential for the site should be considered negligible. The relative density of the soil underlying the site is the primary basis for this opinion.”

Conclusion:

-The geotechnical engineer has concluded that “The proposed development will not impact any critical areas buffers/conditions on adjacent properties...provided the recommendations in this report are adhered to”

-The geotechnical engineer has provided design recommendations which will be implemented, including but not limited to foundation design recommendations. Other considerations discussed include temporary excavation, control of surface water, and wet weather construction. Please see full geotechnical report submitted for all information.

MICC 19.07.170 – Fish and Wildlife Habitat Conservation Areas:

This is inapplicable to project as no fish and wildlife habitat conservation areas were located on or adjacent to the project site.

MICC 19.07.180 – Watercourses:

This is inapplicable to project as no watercourse exists on the project site or near enough to be impacted by required buffers.

MICC 19.07.190 - Wetlands:

This is inapplicable. No wetlands are located on the project site.



S T U R M A N
A R C H I T E C T S

Conclusion:

The proposed project will comply with all local, state and federal regulations regarding the Critical Areas discussed above.

The proposed project will strictly adhere to all Best Management Practices and Mitigation requirements set forth by the geotechnical engineer. We believe this project complies with Critical Area regulations set forth in MICC 19.07.090, 19.07.160, 19.07.170, 19.07.180, and 19.07.190.

Sincerely,

Brad Sturman. Sturman Architects