

Criteria Compliance Narrative

Critical area shown on Mercer Island GIS map: Potential slide, seismic, erosion

Standard –

B. 3. Alteration of landslide hazard areas, seismic hazard areas and associated buffers may occur if the conditions listed in subsection (B)(2) of this section are satisfied and the geotechnical professional provides a statement of risk matching one of the following:

- a. An evaluation of site-specific subsurface conditions demonstrates that the proposed development is not located in a landslide hazard area or seismic hazard area;
- b. The landslide hazard area or seismic hazard area will be modified or the development has been designed so that the risk to the site and adjacent property is eliminated or mitigated such that the site is determined to be safe;
- c. Construction practices are proposed for the alteration that would render the development as safe as if it were not located in a geologically hazardous area and do not adversely impact adjacent properties; or
- d. The development is so minor as not to pose a threat to the public health, safety and welfare.

Applicant Response –

The Geotechnical Report prepared by Merit Engineering provides a statement of risk that matches statement (b) above on page 1.

Standard –

C. Development standards—Landslide hazard areas. Development is allowed within landslide hazard areas and associated buffers, when the following standards are met:

1. A critical area study shall be required for any alteration of a landslide hazard area or associated buffer;
2. Buffers shall be applied as follows. When more than one condition applies to a site, the largest buffer shall be applied:
 - a. Steep slopes. Buffer widths shall be equal to the height of a steep slope, but not more than 75 feet, and applied to the top and toe of slopes;
 - b. Shallow landslide hazard areas shall have minimum 25-foot buffers applied in all directions; and
 - c. Deep-seated landslide hazard areas shall have 75-foot buffers applied in all directions.

Applicant Response –

The Geotechnical Report prepared by Merit Engineering provides a statement of risk that the risk of damage as a result of soil instability will be minimal on the property being developed, and on adjacent properties

Standard –

D. Development standards—Seismic hazard areas. When development is proposed within a seismic hazard area:

1. A critical area study shall be required and shall include an evaluation by a qualified professional for seismic engineering and design, a determination of the magnitude of seismic settling that could occur during a seismic event, and a demonstration that the risk associated with the proposed alteration is within acceptable limits or that appropriate construction methods are provided to mitigate the risk of seismic settlement such that there will be no significant impact to life, health, safety, and property.

2. Identification of seismic hazard areas. Seismic hazard areas shall be identified by a qualified professional who references and interprets information in the U.S. Geological Survey Active Faults Database, performs on-site evaluations, or applies other techniques according to best available science.

3. When development is proposed on a site with an active fault, the follow provisions shall apply:

a. A 50-foot minimum buffer shall be applied from latest Quaternary, Holocene, or historical fault rupture traces as identified by the United States Geological Survey or Washington Geological Survey map databases or by site investigations by licensed geologic professionals with specialized knowledge of fault trenching studies; or

b. Mitigation sequencing shall be incorporated into the development proposal as recommended based on geotechnical analysis by a qualified professional to prevent increased risk of harm to life and/or property.

Applicant Response –

The Geotechnical Report prepared by Merit Engineering provides a statement of risk that the risk of damage as a result of soil instability will be minimal on the property being developed, and on adjacent properties

Standard –

E. Development standards—Erosion hazard areas.

1. All development proposals shall demonstrate compliance with [chapter 15.09](#), storm water management program.

2. No development or activity within an erosion hazard area may create a net increase in geological instability on or off site.

Applicant Response –

The Geotechnical Report prepared by Merit Engineering provides a statement of risk that the risk of damage as a result of soil instability will be minimal on the property being developed, and on adjacent properties