

## Tom Adams

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**Subject:** FW: INCOMPLETE PERMIT APPLICATION – 2601-034 -4332 86TH AVE SE, MERCER ISLAND

Tom,

As we discussed, we provide information and opinions for both seismic and erosion hazards which mainly indicate that there are no significant issues. I have included the Mercer Island definitions for both Erosion and Seismic Hazards followed by some language from our reports indicating why the site does not meet the classifications.

**Erosion hazard areas:** Those areas greater than 15 percent slope and subject to a severe risk of erosion due to wind, rain, water, slope and other natural agents including those soil types and/or areas identified by the U.S. Department of Agriculture's Natural Resources Conservation Service as having a "severe" or "very severe" rill and inter-rill erosion hazard.

- Our report indicates that the site soils are considered to have a slight erosion per the USDA maps. As such the site does not meet the definition of an erosion hazard area.

**Seismic hazard areas:** Seismic hazard areas are areas subject to severe risk of damage as a result of earthquake induced ground shaking, slope failure, settlement, soil liquefaction or surface faulting.

- 1<sup>st</sup> paragraph of Page 4 in our report: "Hazards associated with seismic activity include liquefaction potential and amplification of ground motion. Liquefaction is caused by a rise in pore pressures in a loose, fine sand deposit beneath the groundwater table. It is our opinion that the medium dense or better glacial till deposits interpreted to underlie the site and nearby vicinity have a low potential for liquefaction or amplification of ground motion, due to their high internal strength, grain size distribution, and lack of shallow groundwater conditions." As such the site does not meet the definition of a seismic hazard area.

Please let me know if you need anything else to get this resolved.

Thanks,



**Lee Bellah, LG | Senior Geologist**

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