

January 19, 2023

Gareth Reece
Senior Plans Examiner
City of Mercer Island Community Planning and Development

RE: Permit 2109-150 SUB4 Correction Comment Responses
Site Address: 9611 SE 72nd Street

Dear Mr. Reece,

We received your correction comments dated 01/09/23, responses are provided below. Please also reference the updated drawings and geotechnical letter that have been uploaded to the MlePlan FTP Site.

Geotechnical:

1. A statement of risk is required by MICC 19.07.160 (B)(3) for projects in mapped geologically hazardous areas. For this scope of work, recommendations should be appropriate to allow your geotechnical professional to provide statement (c). Please have your geotechnical professional review the project, confirm that it conforms to recommendations, and provide the appropriate statement.

Response: The statement of risk has been submitted.

2. Submit a letter from the geotechnical engineer that indicates that the final plans have been reviewed and that the plans are consistent with the recommendations of the geotechnical report.

Response: A letter indicating final review and confirmation that the plans are consistent with geotechnical recommendations has been submitted.

Structural: General

1. Page 9 of 116 of the revised calculations shows that the main floor Grid 5 shear walls should be Type W3 shear walls, but only W4 shear walls are called out on Sheet S2.2 (4 locations). Please revise to coordinate with your calculations.

Response: Please see updated Sheet S2.2.

2. Per page 6 of 116 of the revised calculations, holdowns are required at the upper floor Grid 2 shear walls. These shear walls are shown on Sheet S2.3 and the holdowns are shown on Sheet S2.2. With the slight redesign of Powder Room 206, and the updated lateral design, the HDU5 holdown shown on Sheet S2.2 needs to be realigned to the end of the shear wall. See below:

Response: Please see updated Sheet S2.2.

3. Page 9 of 116 of the revised calculations shows that the upper floor Grid 5 shear wall design considering adjustments due to aspect ratio considerations. While the floor height was reduced to 11'-6-1/2" the 3' long shear walls (4 segments) still appear to exceed the aspect ratio limitation in SDPWS 4.3.4. It appears force transfer shear walls will need to be considered. Please refer to the W2 shear walls on Sheet S2.3 and clarify your design.

Response: Shear wall height is measured from bottom plate to top plate therefore $H = 10'-2 \frac{1}{2}"$. 3'-0" length shear walls meet the maximum aspect ratio of 3.5:1.

4. At the shear walls along Grids A & C, page 9 of 116 of the revised calculations appears to assume that these shear walls at the main floor level, Sheet S2.2, transition directly into a concrete wall. It appears, however, per Building Section 1/A401 that there should be wood shear walls on top of the concrete retaining walls. Please see the update North & South Elevations, Sheets A300 & A301, and coordinate.

Response: Please see updated Sheets S2.2 and S3.2.

Sincerely,

Kate Miller, AIA
The Brandt Design Group