

December 18, 2023

Jacob Halverson
City of Mercer Island
9611 SE 36th St
Mercer Island, WA 98040

Subject: **Hong/Kao Residence Remodel/Addition and new Detached Accessory Dwelling Unit
5425 W Mercer Way
Permit No. 2306-124**
Quantum Project #23127.01

Dear Jacob Halverson:

We have received the correction notice on the above-referenced project dated 12/23/2023. Below are our responses to the structural comments. All changes to the drawings due to a plan check comment have been clouded on the drawings.

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ENERGY & VENTILATION

DADU:

10. At the heated area on the lower floor, the exterior wall must have continuous insulation. The details are not showing the concrete stem wall insulated; for example, see Details 4 & 5/3.0.

Structural details have been revised to show exterior insulation. Please see sheet S3.0.

STRUCTURAL

1. Page 5 of 225 of the original calculations identifies the east low roof of the main house with 2" of gravel and a dead load of 33 psf. The Roof Plan, Sheet 3.3, now shows the location of this gravel roof. Please verify that new and existing framing members can support this dead load. See framing on page 62 of 138 of the new calculations that shows the framing (UJ1, P1, UB1, and existing members).

The 2" gravel roof area has been revised to only include the area over the garage. Please see revised roof plans and attached structural calculations for members UJ1, UB1, UB3, and P1.

2. Page 46 of 138 of the new calculations shows the new design of B7 at the main house with the reaction load at the existing footing. Page 4 of the new calculations shows the existing footing as F3 which is a 3' x 4' x 1' footing. Page 17 of the new calculations appears to assume this is an existing 4' x 4' x 1' footing. Please verify your design.

In order to provide adequate bearing capacity, the existing 3' x 4' x 1' footing at F3 has been modified to a 4' x 4' x 1' square footing. Please see sheet S.1 and detail 8/S3.1 for footing dimensions and reinforcing.

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Please feel free to call me at 206-957-3900 if you have any questions regarding our responses.

Sincerely,
Quantum Consulting Engineers, LLC

A handwritten signature in black ink that reads "Scott Tinker". The signature is written in a cursive, flowing style.

Scott Tinker, P.E., S.E., Principal
Project Manager