

Project Address:

Shannon Hernandez Macintyre
7520 Mercer Terrace Dr, Mercer Island WA, 98040

Date: April 19, 2024

Mercer Island Permit Number: 2402-026

Jacob,

We are the structural engineers of record for this project. This letter lists the comments related to the structural design and what was done to address each comment.

Add Kzt value used for new construction design to Design Data. Calculations show $Kzt=1.38$ on cover page and 1.0 in L1. Site appears to fall in $Kzt=1.6$ region on Mercer Island Map: Provide topography-specific calculation of Kzt for all directions to justify use of Kzt less than 1.6. Revise loads and lateral system design for any wind-governed components or detailing. Specify calculated or prescriptive kzt at all locations to match.

The Kzt value listed on the structural calculation cover page, sheet L1, and the structural notes of the drawing set has been updated to $Kzt=1.6$. Likewise, calculations on sheets L2-L6 have been revised to reflect the updated Kzt of 1.6, the shear wall schedule on sheet S-1 has been updated accordingly, and the lateral design on sheets S-5 and S-6 has been revised as needed to comply with the new Kzt value of 1.6.

F2? Please provide detail or correct

Detail F3 shows an exterior footing with slab, this is the correct condition for this foundation according to sheet A303 of the architectural plans.

Specify on plans post foundations for entrance awning.

Sheet F1 has been updated with footing calculations for the entrance awning posts and sheet S-4 of the structural drawing set has been revised to show the entrance awning post footings.

Unclear in calcs which beam calculations refers to these beams. Please direct me to the beam design in the calc packet.

Page R2 of the structural calculation page shows the calculation for this member. Sheet S-6 of the structural drawing set has been updated to include the calculation page number next to the member callout.

With this added information, the design is consistent with the relevant structural codes, and with the intent of our original design.

Sincerely,



Evan B. Apolis, P.E., S.E.
Principal Engineer, CSES inc.

